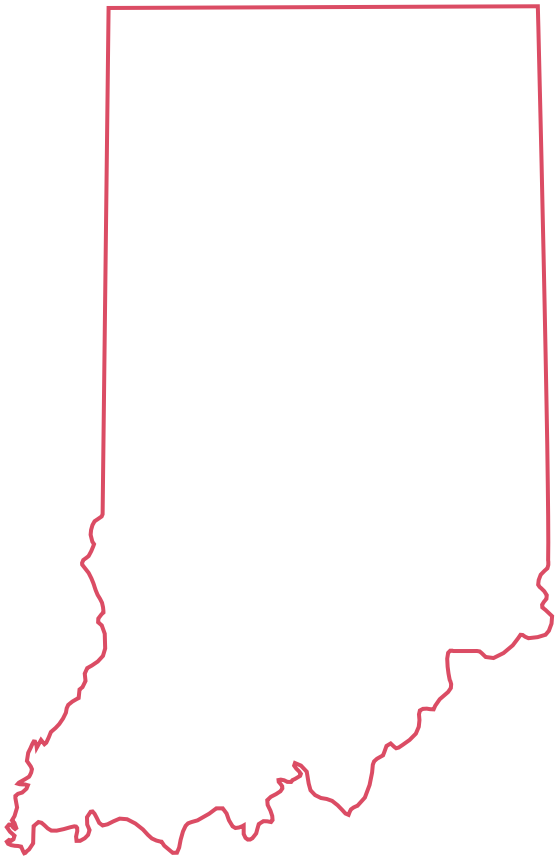
Water Resources Data
Indiana
Water Year 2002

Water-Data Report IN-02-1



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

Prepared in cooperation with the
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and with other agencies

U. S. DEPARTMENT OF THE INTERIOR

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2002

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:

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Water resources data for the 2002 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 167 stream-gaging stations, stage for 16 stream stations, stage and contents for 1 reservoir, water quality for 5 streams, water temperature at 11 sites, sediment analysis for 1 stream, water levels for 78 lakes and 87 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 Data System operated by the U.S. Geological Survey in Indiana in cooperation with State and Federal agencies.

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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, p-pesticide, s-sediment, t-temperature, v-contents)

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

(e - gage heights)

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Nyona Lake near Greenoak (e)	03331400	500
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Sawmill Lake near North Webster (e)	03330460	504
Sherburn Lake near Pierceton (e)	03331120	504
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Skinner Lake near Albion (e)	04100300	507
Smalley Lake near Washington Center (e)	03330140	508
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Sylvan Lake at Rome City (e)	04100180	509
Syracuse Lake at Syracuse (e)	04100460	509
Tippecanoe Lake at Oswego (e)	03330480	510
Upper Long Lake near Wolflake (e)	04100320	510

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

	Station Number	Page
Versailles Lake near Versailles (e)	03276800	511
Waldron Lake near Cosperville (e)	04100220	511
Wauhob Lake near Valparaiso (e)	05517600	512
Webster Lake at North Webster (e)	03330240	512
Wharton Lake near South Bend (e)	05514770	513
Winona Lake at Warsaw (e)	03331140	513
Records available on lakes		514
Other lake maps available		518

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

(e - gage heights, h-hydrographs)

	Local Number	Well Number	Page
Allen 5 (e, h)	AL 5	410426084495201	520
Allen 6 (e, h)	AL 6	410932084561101	521
Allen 8 (e, h)	AL 8	410335085190701	522
Bartholomew 4 (e, h)	BA 4	391627085534401	523
Bartholomew 8 (e, h)	BA 8	390950085553501	524
Bartholomew 9 (e, h)	BA 9	391035085560401	525
Bartholomew 10 (e, h)	BA 10	390317085523701	526
Bartholomew 13 (e, h)	BA 13	390658085572201	527
Benton 4 (e, h)	BE 4	402851087213501	528
Boone 17 (e, h)	BO 17	400532086183901	529
Cass 3 (e, h)	CS 3	403407086175701	530
Clay 6 (e, h)	CY 6	392653087120501	531
Clay 7 (e, h)	CY 7	391124087134701	532
Decatur 2 (e,h)	DC 2	392022085371801	533
Delaware 4 (e, h)	DW 4	400541085213701	534
Elkhart 4 (e,h)	EH 4	413121085481301	535
Elkhart 7 (e, h)	EH 7	414514085505001	536
Elkhart 9 (e, h)	EH 8	414419085595801	537
Fountain 3 (e, h)	FO 3	401200087121701	538
Franklin 5 (e, h)	FR 5	392416085004301	539
Fulton 7 (e, h)	FU 7	405829086175801	540
Grant 8 (e, h)	GT 8	402322085481901	541
Grant 10 (e, h)	GT 10	403836085374401	542
Harrison 8 (e, h)	HR 8	382323086044501	543
Hendricks 4 (e, h)	HD 4	394025086400801	544
Huntington 2 (e, h)	HU 2	404858085284301	545

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

	Local Number	Well Number	Page
Jasper 4 (e, h)	JP 4	410249087011201	546
Jasper 7 (e, h)	JP 7	410809087580801	547
Jasper 11 (e, h)	JP 11	410322087163101	548
Jasper 12 (e, h)	JP 12	410145087130401	549
Jasper 13 (e, h)	JP 13	405902087141501	550
Jasper 15 (e, h)	JP 15	405550087092301	551
Jefferson 5 (e, h)	JF 5	384949085251901	552
Jennings 3 (e, h)	JN 3	385601085365701	553
Knox 7 (e, h)	KN 7	383247087361001	554
Knox 8 (e, h)	KN 8	384951087202501	555
Kosciusko 9 (e, h)	KO 9	412556085513401	556
Lagrange 2 (e, h)	LG 2	414318085200601	557
Lagrange 3 (e, h)	LG 3	414158085253401	558
Lake 12 (e, h)	LK 12	411038087284701	559
Lake 13 (e, h)	LK 13	413559087270301	560
Lake 14 (e, h)	LK 14	411146087204101	561
LaPorte 9 (e, h)	LP 9	412350086512801	562
LaPorte 10 (e, h)	LP 10	413139086341401	563
LaPorte 11 (e, h)	LP 11	412839086533101	564
LaPorte 12 (e, h)	LP 12	413434086434701	565
Marion 34 (e, h)	MA 34	393855086120701	566
Marion 35 (e, h)	MA 35	394632086092701	567
Marion 37 (e, h)	MA 37	394732086115501	568
Marion 38 (e, h)	MA 38	393950086124701	569
Martin 5 (e, h)	MT 5	383659086545901	570
Montgomery 7 (e, h)	MY 7	400247086482101	571
Morgan 4 (e, h)	MG 4	393423086161001	572
Newton 6 (e, h)	NE 6	405105087173301	573
Newton 7 (e, h)	NE 7	405959087282901	574
Newton 8 (e. h)	NE 8	410428087231501	575
Newton 9 (e, h)	NE 9	405959087282902	576
Newton 10 (e, h)	NE 10	410428087235021	577
Newton 11 (e, h)	NE 11	410235087305901	578
Newton 14 (e, h)	NE 14	410917087285801	579
Noble 8 (e, h)	NO 8	411922085221801	580
Noble 9 (e, h)	NO 9	413106085232701	581
Noble 11 (e, h)	NO 11	412405085154501	582
Noble 14 (e, h)	NO 14	412405085154504	583
Parke 6 (e, h)	PA 6	393619087043001	584
Posey 3 (e, h)	PY 3	380758087551001	585
Posey 5 (e, h)	PY 5	380546087474301	586
Pulaski 6 (e, h)	PU 6	405916086530701	587
Pulaski 7 (e, h)	PU 7	410739086365201	588
Randolph 3 (e, h)	RA 3	401532085085301	589
St. Joseph 31 (e, h)	SJ 31	413120086055601	590
Shelby 2 (e, h)	SH 2	393943085490901	591

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

	Local Number	Well Number	Page
Starke 2 (e, h)	SK 2	411342086365601	592
Steuben 6 (e, h)	SB 6	414204085054002	593
Tippecanoe 17 (e, h)	TC 17	402734087033401	594
Tippecanoe 18 (e, h)	TC 18	402734087033402	595
Vanderburgh 6 (e, h)	VA 6	380608087395901	596
Vanderburgh 7 (e, h)	VA 7	380626087344401	597
Vigo 7 (e, h)	VI 7	392820087242601	598
Wabash 3 (e, h)	WB 3	404424085422801	599
Wabash 4 (e, h)	WB 4	403948085414601	600
Warrick 4 (e, h)	WK 4	380624087164801	601
Washington 2 (e, h)	WA 2	383012086124501	602
Wayne 6 (e, h)	WE 6	394426085080601	603
Wells 4 (e, h)	WL 4	404331085064701	604
White 4 (e, h)	WT 4	404914086403001	605
Whitley 3 (e, h)	WY 3	410337085264201	606

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

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

Station name	Station number	Drainage area (mi^2)	Period of record
OHIO RIVER BASIN			
Little Williams Creek at Connersville	03274950	9.16	1968-1991
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
Indian Creek near Corydon	03302500	129	1943-1993
Friday Branch tributary near Saint Meinrad (b)	03303276	.096	1981
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
Wabash River at Delphi	03329500	4,072	1940-1971
Tippecanoe River near Warsaw	03331000	126	1943-1949
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
Rattlesnake Creek near Patton	03329400	6.83	1968-1993
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
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
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
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
White River near Noblesville	03348500	828	1915-1926, 1929-1974 (b)
Cicero Creek near Arcadia (a)	03349500	131	1955-1976

Station name	Station number	Drainage area (mi^2)	Period of record
WABASH RIVER BASIN--Continued			
Little Cicero Creek near Arcadia (a)	03349700	40.4	1956-1976
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
Little Buck Creek near Southport	03353630	5.75	1989-2000
White River at Waverly	03353660	2,026	1986-1988
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
Muscatatuck River near Austin	03367000	359	1932-1943, 1944-1971 (f)
Stucker Creek near Austin	03367500	127	1932-1933
Vernon Fork near Crothersville	03370000	391	1932-1933
Muscatatuck River near Tampico	03370500	960	1939
Muscatatuck River near Vallonia	03371000	1,134	1932-1933
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 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			
Dunes Creek at Porter	04095050	3.40	1979-1982
Burns Ditch at Gary (g)	04093500	160	1943-1991
Salt Creek near McCool	04094500	74.6	1945-1991
Derby Ditch at Beverly Shores	04095100	4.64	1980
Trail Creek at Michigan City	04095300	54.1	1969-1994
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
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
Turkey Creek at Syracuse	04100465	43.8	1969-1987

Station name	Station number	Drainage area (mi^2)	Period of record
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
UPPER MISSISSIPPI RIVER BASIN			
Kingsbury Creek near LaPorte	05515400	7.08	1970-1986
Yellow River near Bremen (a)	05516000	135	1955-1973
Singleton Ditch near Hebron	05518500	34.2	1949-1951
West Creek near Schneider	05519500	54.7	1948-1952, 1954-1972
Singleton Ditch at Illinoi, IL	05520000	220	1945-1977
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.

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

Station name	Station number	Drainage area (mi^2)	Type of Record	Period of record
OHIO RIVER BASIN				
Whitewater River near Alpine	03275000	529	C,T,S	1987-94,
				1999-2000
				1968-79
East Fork Whitewater River at Abington	03275600	198	C	1969-76,
			T	1970-71,
			T	1973-76
East Fork Whitewater at Brookville	03276000	380	C,T	1974-75
Whitewater River at Brookville	03276500	1224	T	1974-81,
			C	1974-86
South Hogan Creek near Dillsboro	03276700	38.1	C,T,S	1961-93
Trib to Friday Branch at St. Meinard	03303276	.096	C,T,S	1980-81
WABASH RIVER BASIN				
Wabash River near New Corydon	03322500	262	C	1969-73
Wabash River at Huntington	03323500	710	T	1963-77
Salamonie Creek at Warren	03324288	402	T	1980-81
Mississinewa River at Marion	03326500	682	C,T	1975-76,79
Eel River near Logansport	03328500	789	S,T	1969-80
Wildcat Creek near Lafayette	03335000	794	C	1970-79,
			T	1970-74
Wabash River at Lafayette	03335500	7247	T	1954-64,
			T	1967-75,
			S	1978-80
Big Pine Creek at Williamsport	03335700	323	C	1970-76,
			T	1970-75,
			C,T,S	1980-81
Big Raccoon Creek near Fincastle	03340800	132	T	1965-77,
			C	1975-77
Honey Creek at Riley	03341570	5.79	C,T,S	1980-81
Wabash River near Sullivan	03341805	12,600	C,T	1963-64
Wabash River at Riverton	03342000	13,100	T	1954-61,
			T	1962-65,
			T	1967-78
South Fork Smalls Creek at Bruceville	03342800	4.94	C	1973-75
White River at Noblesville	03348500	814	T	1952-76
White River near Nora	03351000	1200	T	1954-60,
			T	1962-72
White River near Centerton	03354000	2,444	C,S	1986-95
			T	1953-56
				1966-67
				1970-72
				1977-80
				1982-85
			S	1965-77
Big Walnut Creek at Greencastle	03357420	216	C,T	1973-77
Mill Creek at Cataract	03358000	245	C,T	1978-82
Jordan Creek at Jordan	03359980	25.9	C,T	1980-81
Big Blue River at Carthage	03361000	184	T	1974-77,
			C,T	1979-82,
			S	1977-81,
			C	1973-77
Flatrock River at St. Paul	03363500	303	C,T	1976-79
Clifty Creek at Hartsville	03364500	91.4	C,T	1970-75
East Fork White River at Seymour	03365500	2333	S	1966-80,
			T	1954-79
North Fork Salt Creek near Nashville	03371650	761	C,T	1974-76
Salt Creek near Harrodsburg	03372500	441	T	1966-76
White River at Petersburg	03374000	11125	T	1964-77
White River near Hazelton	03374100	11305	T	1973-81,
			S	1973-83,
			C	1973-86
Patoka River near English	03374470	308	T	1970-76,
			C	1969-76
Little Flat Creek near Otwell	03376279	6.36	C,T,S	1980-81
Wabash River at New Harmony	03378500	29234	T	1974-80
			C	1974-86
			S	1974-83

Station name	Station number	Drainage area (mi^2)	Type of Record	Period of record
STREAM TRIBUTARY TO LAKE MICHIGAN				
Trail Creek near Michigan City	04095300	54.1	C,T S	1977-81 1990-94
STREAMS TRIBUTARY TO LAKE ERIE				
St. Joseph River near Newville	04178100	615	C	1996-99, 1969-73
St. Marys River at Wilshire	04181050	435	C	1969-73
St. Marys River near Ft Wayne	04182000	762	S T	1953-67, 1964-67
UPPER MISSISSIPPI RIVER BASIN				
Yellow Creek near Plymouth	05516500	29.4	S,T	1979-81

WATER RESOURCES DATA - INDIANA, 2002

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 2002 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 167 gaging stations, stage at 16 gaging stations, stage and contents at 1 reservoir, water quality at 5 stream sites, water temperature at 11 sites, sediment data at 1 site, water levels at 78 lakes, and 87 observation wells. Also included are streamflow records for discharge at miscellaneous sites, water quality data from special studies done in Montgomery county, and observation well water levels from special studies done in Hamilton and Lake counties. Locations of the streamflow and water-quality sites are shown on figures 6, 7, and 12. The number of lakes and ground-water observation wells by county having 2002 water-level records are shown on figures 8 and 9. A systematic collection of stages on selected lakes was begun in 1943 in cooperation with the State of Indiana, Department of Natural Resources. The data collected since the beginning of record have not been published previously in the annual water data reports for Indiana. They are available from the Indiana District office. A selected amount of lake data was published in Water-Supply Paper 1363, "Hydrology of Indiana Lakes," by J. I. Perrey and D. M. Corbett (1956). Additional lake data were published in Open-File Report 88-331, "Annual Maximum and Minimum Lake Levels for Indiana, Water Years 1942-85," by Kathleen K. Fowler (1988). These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Indiana.

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

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Indiana were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage; and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States." Stream discharge and stage data were published in four compilation reports (through the 1950, 1951-60, 1961-65, and 1966-70 water years). Data on water quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the

United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Branch of Information Services, Box 25286, Denver, CO 80225-0286.

Publications similar to this report are published annually by the U.S. Geological Survey for all States. These official U.S. Geological Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report IN-02-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

The U.S. Geological Survey has compiled and disseminated estimates of water use for the Nation at 5-year intervals since 1950. A large amount of the Indiana withdrawal data presented in the publication, "Estimated Use of Water in the United States in 1995" U.S. Geological Survey Circular 1200, were provided by the Indiana Department of Natural Resources, Division of Water. The data indicated that in 1995 over 9.1 billion gallons per day were withdrawn from the surface- and ground-water resources of Indiana to meet the needs of its citizens. Approximately 92 percent of this withdrawal was from surface-water sources. Nearly 5.7 billion gallons per day of surface water was used for thermoelectric power production, making it the largest category of use in Indiana. A small percentage of those withdrawals were consumed in the power-production process and the rest of the water was returned to the source, making it available for future use.

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

COOPERATION

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

State of Indiana, Department of Natural Resources, John Goss, Director, through the Bureau of Resource and Regulation, Paul Ehret, Deputy Director

State of Indiana, Department of Environmental Management, Lori F. Kaplan, Commissioner, Mary Beth Tuohy, Assistant Commissioner, Office of Water Management

State of Indiana, Department of Transportation, J. Bryan Nicol, Commissioner

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

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

SUMMARY OF HYDROLOGIC CONDITIONS

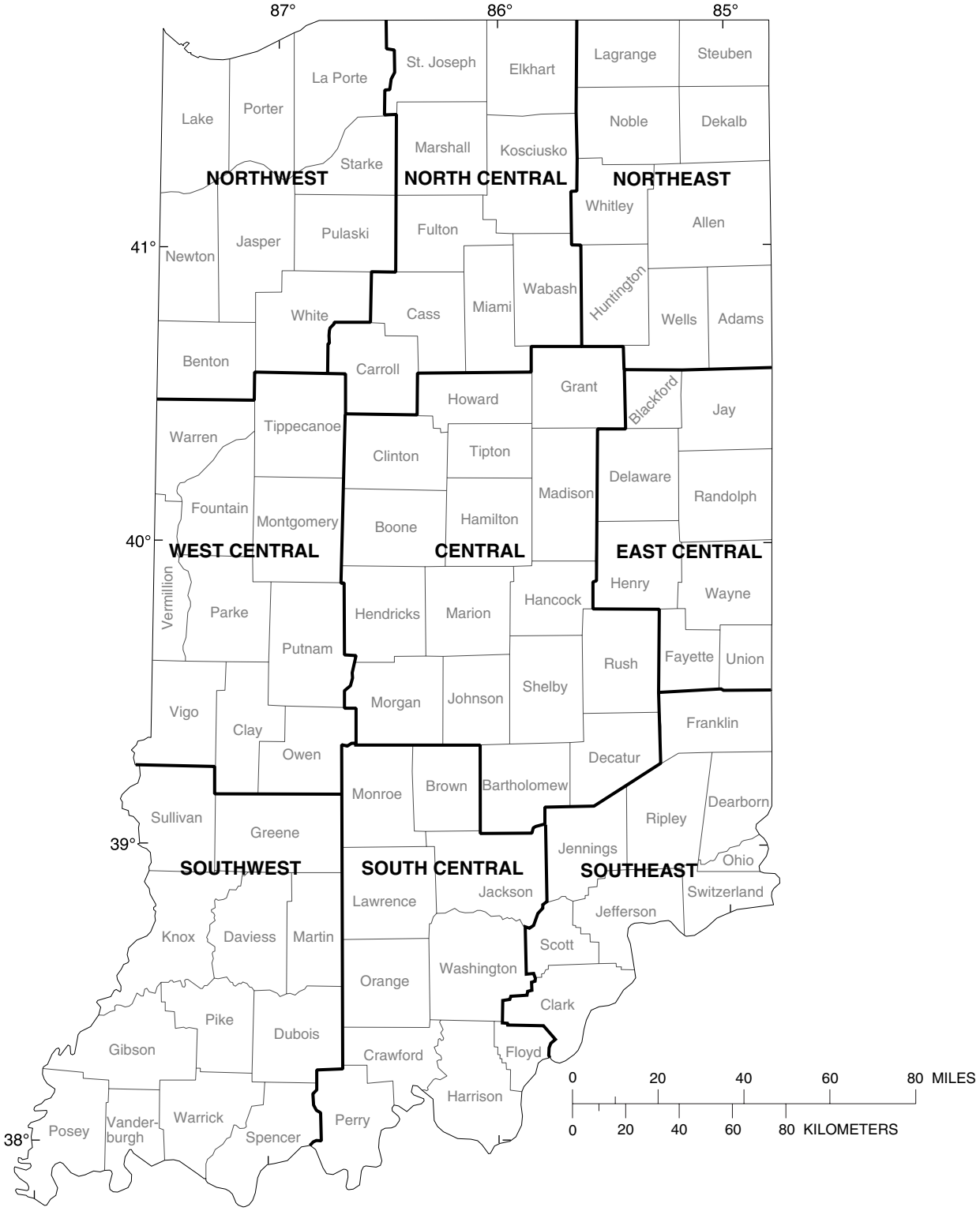
Descriptions of precipitation and flooding during the 2002 water year in the summary of hydrologic conditions are based on information from the National Weather Service, Monthly Reports of River Flood Conditions, October 2001 through September 2002, by the National Weather Service Indianapolis, Indiana, North Webster, Indiana, and Paducah, Kentucky offices.

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 for Indiana is 38 inches. The average annual precipitation ranges geographically from 36 inches in northern Indiana to 44 inches in southern Indiana. Snowfall accounts for 2 to 7 inches of the average annual precipitation, with the greatest snowfall in northern Indiana (Clark, 1980).

An “overall picture” of precipitation patterns in Indiana during the 2002 water year is presented in table 1. Table 1 shows monthly precipitation by Indiana climate division (fig. 1) during the 2002 water year, 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 of precipitation departures from normal by month and geographic area.

October 2001 was much wetter than normal across Indiana because of three heavy rainfalls during the month; record daily rainfall totals were recorded in many areas. November was drier than normal across northern and central Indiana and wetter than normal in southern Indiana. The wet weather in southern Indiana was in the first 5 days of the month; the remainder of November was dry.



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.)

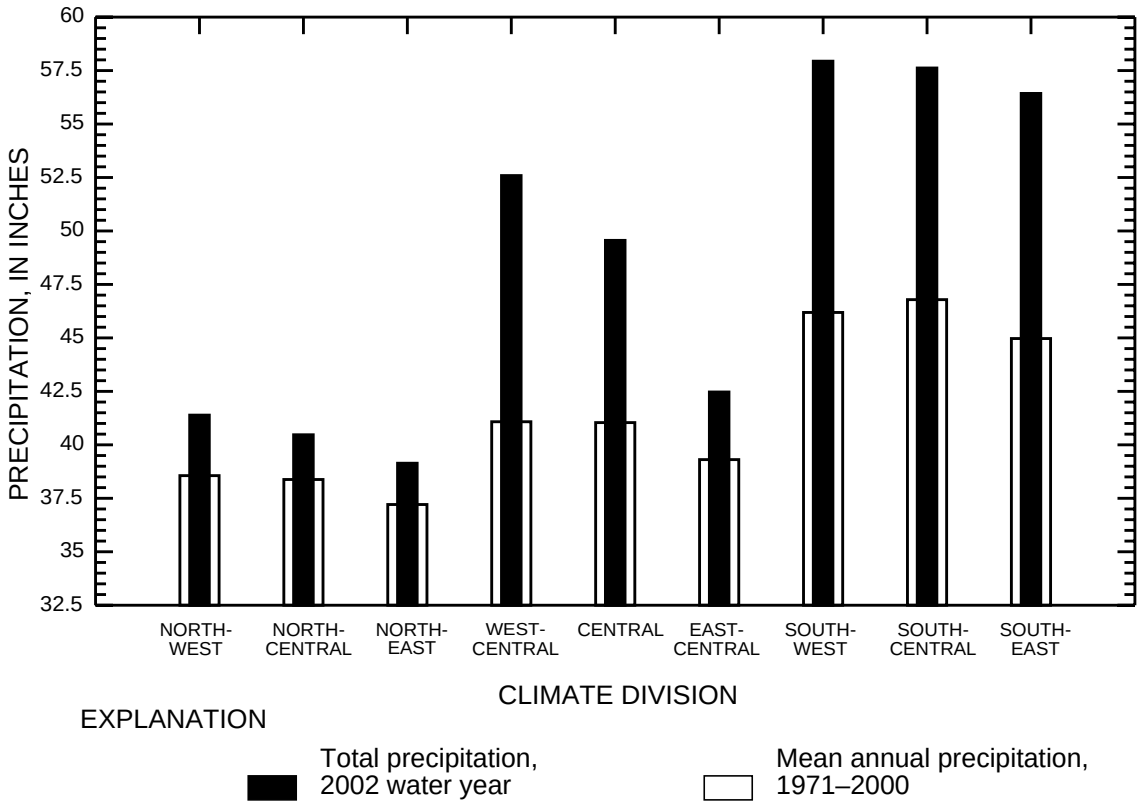


Figure 2.--Indiana precipitation during water-year 2002 and mean annual precipitation for 1971–2000.

Table 1.--Monthly precipitation during water-year 2002 as a percentage of mean monthly precipitation for 1971–2000.

Climate Division	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Northwest	279	73	65	135	130	105	116	133	52	91	92	62
North-central	253	80	78	128	125	114	129	132	57	93	70	45
Northeast	276	90	79	126	95	102	113	128	62	79	65	86
West-central	293	73	108	82	145	116	158	174	94	93	115	95
Central	250	83	112	73	119	137	166	159	95	55	91	123
East-central	241	80	106	63	120	124	176	141	60	40	72	113
Southwest	237	127	166	89	77	158	152	172	67	45	38	186
South-central	251	118	137	72	80	145	150	172	93	43	54	173
Southeast	226	121	135	71	64	117	173	175	115	50	50	218

December was drier than normal in northern Indiana, despite 19 inches of lake-effect snow in parts of northeastern Indiana during the last week of the month. December was slightly wetter than normal across central Indiana and wetter than normal in southern Indiana from several heavy rainfalls. January was drier than normal in central and southern Indiana. January was wetter than normal in northern Indiana because of a major storm during the last 3 days of the month. February precipitation was above normal in central Indiana and across most of northern Indiana because of several storms. February was drier than normal in southern Indiana.

Frequent rains resulted in a wetter-than-normal March across central Indiana; northern Indiana precipitation was near to slightly above normal. April was wetter than normal across Indiana. The wet weather continued in May when a persistent pattern produced several slow-moving storm systems that generated heavy rainfall across the State. June was drier across most of Indiana, except for the southeastern part of the State.

The dry pattern continued across Indiana during July and August, particularly across southern Indiana where precipitation was significantly below normal. While July and August precipitation was below normal, there was isolated heavy rainfall in many areas of Indiana. The 2002 water year ended with September precipitation significantly lower than normal in northern Indiana, near to above normal in central Indiana, and significantly higher than normal in southern Indiana. Heavy rainfall of 2 to 6 inches, May 19 and 20, contributed to the higher-than-normal precipitation in southern Indiana. In summary, annual precipitation for all climate divisions was above normal for the 2002 water year (fig. 2).

Surface Water

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

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. 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 of floods have occurred from drought or floods resulting from storms have occurred historically in every month. The variability of flows in Indiana streams and rivers was evident during the 2002 water year.

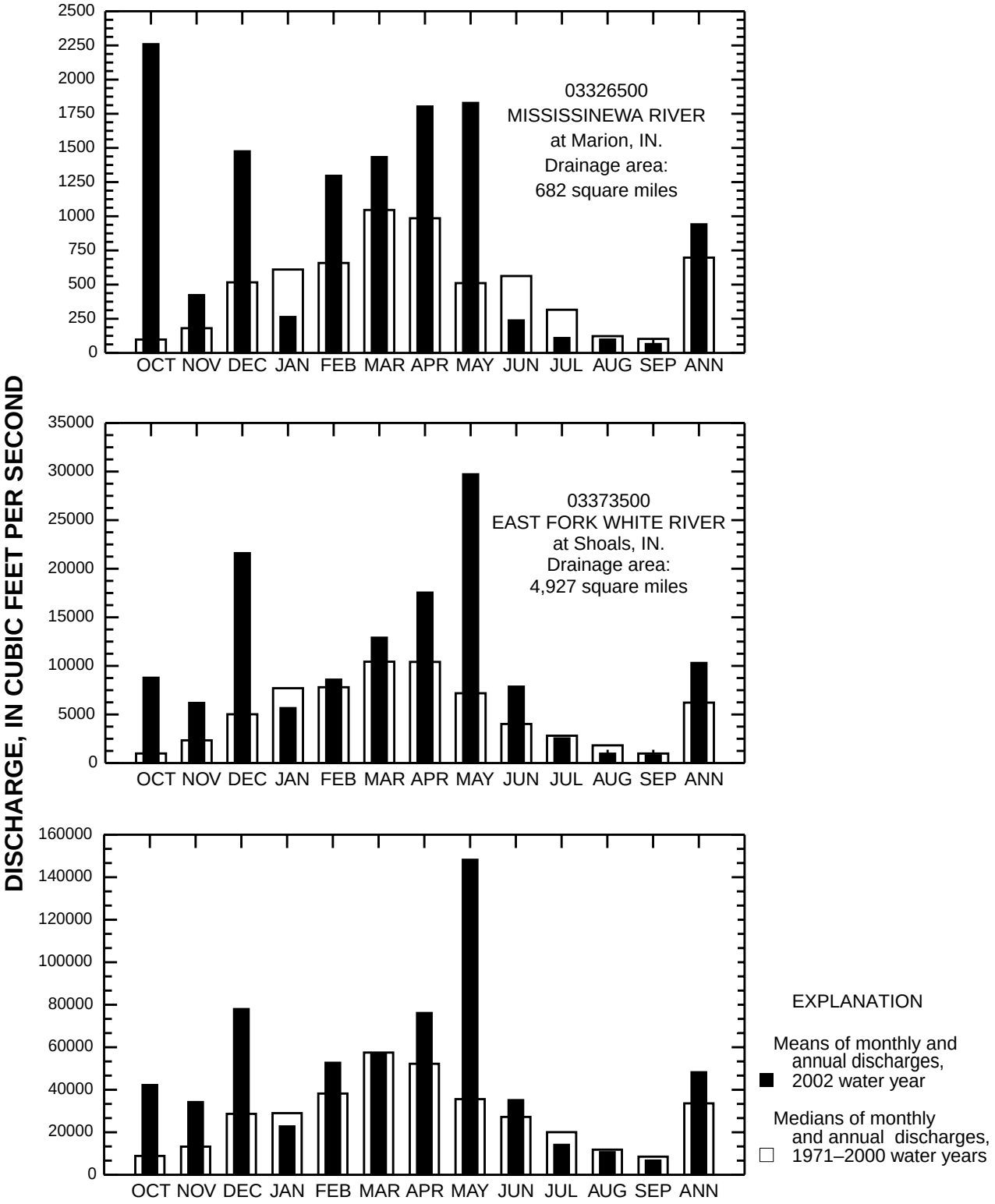


Figure 3. --Mean discharge at three Indiana streamflow-gaging stations during water-year 2002 and median discharges for period of 1971–2000.

Figure 3 illustrates discharge during the 2002 water year, as compared to medians of monthly and yearly discharges during 1971–2000 for three USGS Indiana discharge-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 2002 water year 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 the 2002 water year were above normal 8 months of the water year and were significantly above normal for May (fig. 3). For the remaining 4 months, streamflows were normal or slightly below normal (fig. 3). The mean annual streamflow for the 2002 water year was above normal (fig. 3), reflecting the wetter-than-normal year across Indiana.

The significantly higher-than-normal precipitation in October caused flooding across much of Indiana. The flooding was confined to lowland areas, and no significant damage was reported. The mean October streamflow for the Mississinewa River at Marion (fig. 3) was more than 20 times greater than normal. Streamflows typically are lowest during September and October but, during October 2001 mean daily streamflows for the lower Wabash River were highest since February 1999. Dry weather in November across central and northern Indiana allowed streamflow levels to return to near normal by the end of the month. Heavy rain in southern Indiana caused some minor flooding on the White and East Fork White Rivers in November.

In December, heavy rainfall in southern Indiana caused extensive flooding along the Muscatatuck, White, East Fork White, and Wabash Rivers. January was dry across central and southern Indiana, allowing streamflows to drop to near-normal or below-normal levels. In northern Indiana, heavy precipitation during the last 3 days of January caused flooding along the St. Mary's, Maumee, and upper Wabash Rivers. Flooding on these rivers and also on the Mississinewa and Kankakee Rivers occurred in early February. Flooding in January on the Wabash River from Lafayette downstream persisted through February.

In March, streamflows were higher than normal in most areas of Indiana; lowland flooding occurred along Wabash and White Rivers in central Indiana; along the Muscatatuck and East Fork White Rivers in southern Indiana; and along the Kankakee, Maumee, St. Mary's, Salamonie, and Wabash Rivers in northern Indiana. Persistent moderate and heavy rain in April and May caused higher-than-normal streamflows across Indiana. Widespread flooding occurred, particularly in May. The Wabash River reached a 52-year record level at Mt. Carmel, Illinois. The April and May floods caused $7.7 million dollars in property damage in Indiana and resulted in disaster declarations in 33 Indiana counties. June was drier than normal across most of Indiana, and streamflows decreased to near-normal levels by the end of the month.

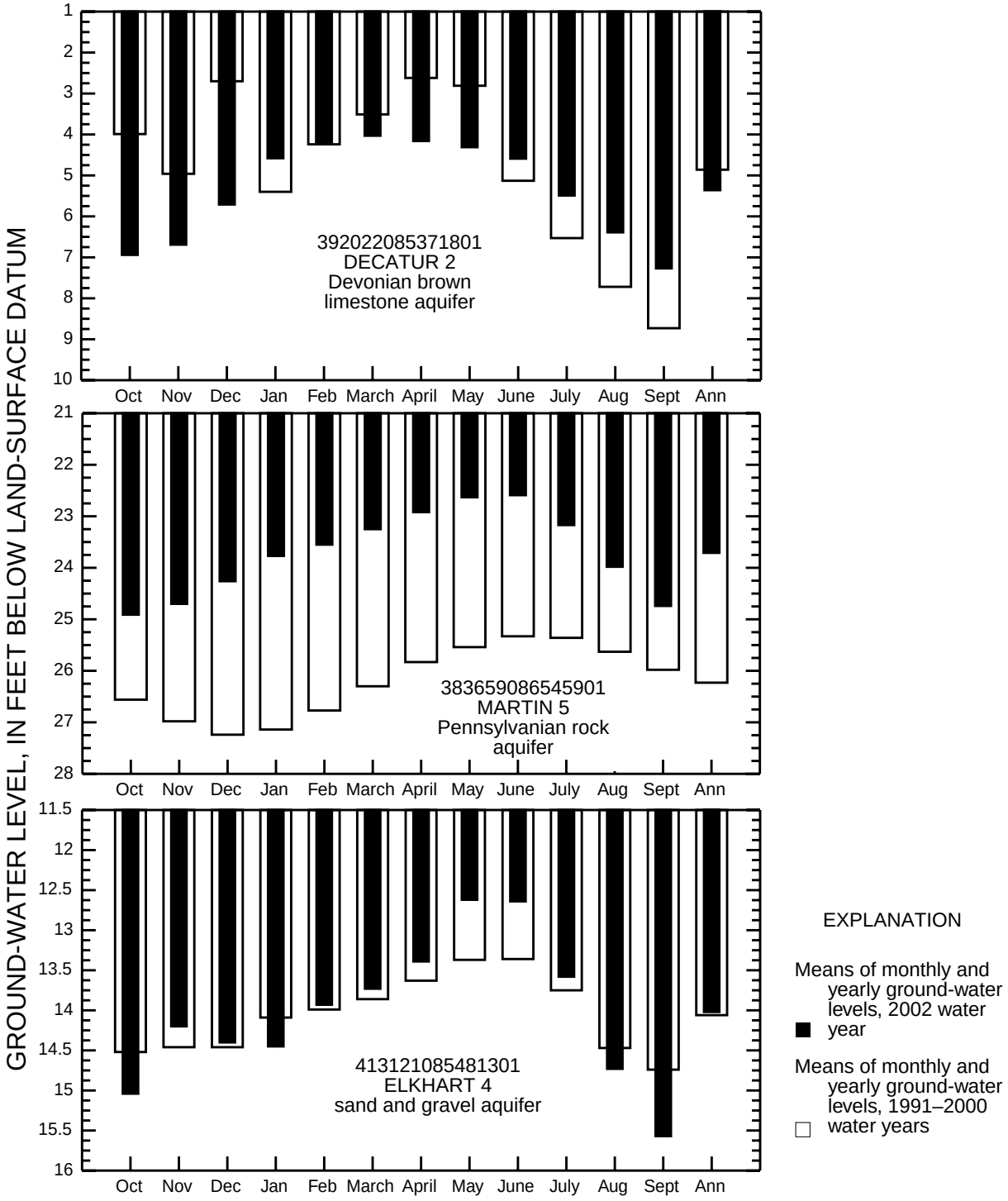


Figure 4. --Monthly and yearly mean of daily minimum ground-water levels at three Indiana ground-water-observation wells during water-year 2002 and mean of monthly and yearly minimum ground-water levels for period of 1991–2000.

July 2002 was the seventh wettest July on record in Indiana, with widespread heavy rain and some severe storms (National Weather Service). Flooding occurred on Big Raccoon Creek, Big Walnut Creek, and Eel River in west-central and south-central Indiana. Significant flash floods occurred in east-central Indiana, and heavy rainfall flooded all local roads in the town of Alfordsville in southern Indiana. There was little significant flooding in Indiana during August, and river streamflows were near-normal. In September, rains of nearly 4 inches in central Indiana brought the East Fork White and Muscatatuck Rivers to near bank-full condition (National Weather Service). No significant flooding was reported elsewhere in the State.

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 the 2002 water year 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 lower than normal for October, November, December, March, April, and May; normal for February; and above normal for January, June, July, August, and September (fig. 4).

Martin 5 is in a Pennsylvanian-rock aquifer in southwestern Indiana. Ground-water levels for Martin 5 were higher than normal for the 2002 water year (fig. 4).

The index observation well Elkhart 4 is in north-central Indiana in a sand and gravel aquifer. Ground-water levels were higher than normal for the 2002 water year, except for October, January, August, and September when levels were lower than normal (fig. 4).

Of 89 USGS ground-water-observation wells in Indiana, 12 wells had record-high water levels, one well matched a previous record-high water level, and 6 wells had record-low water levels at some time during the 2002 water year.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the streamflow representative of undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities. At 10 of these 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 can be found at http://water.usgs.gov/hbn/.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations were operated in the Mississippi, Columbia, Colorado, and Rio Grande basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia 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 Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program can be found at http://water.usgs.gov/nasqan/.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) 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 a network of 225 precipitation chemistry monitoring 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 all data from the individual sites, can be found at http://bqs.usgs.gov/acidrain/.

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved

understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 59 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report, are for the 2002 water year that began October 1, 2001 and ended September 30, 2002. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow and stage data, stage and content data for a reservoir, water-quality data for surface water, and ground water, lake-level data, peak-flow data, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite, lake, or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and for surface-water stations where only miscellaneous measurements are made; the "latitude-longitude" system is used for wells.

Downstream Order System

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

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

Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude as show n in figure 5 on the following page. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description.

In addition, each well in Indiana carries dual-identification numbers 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.

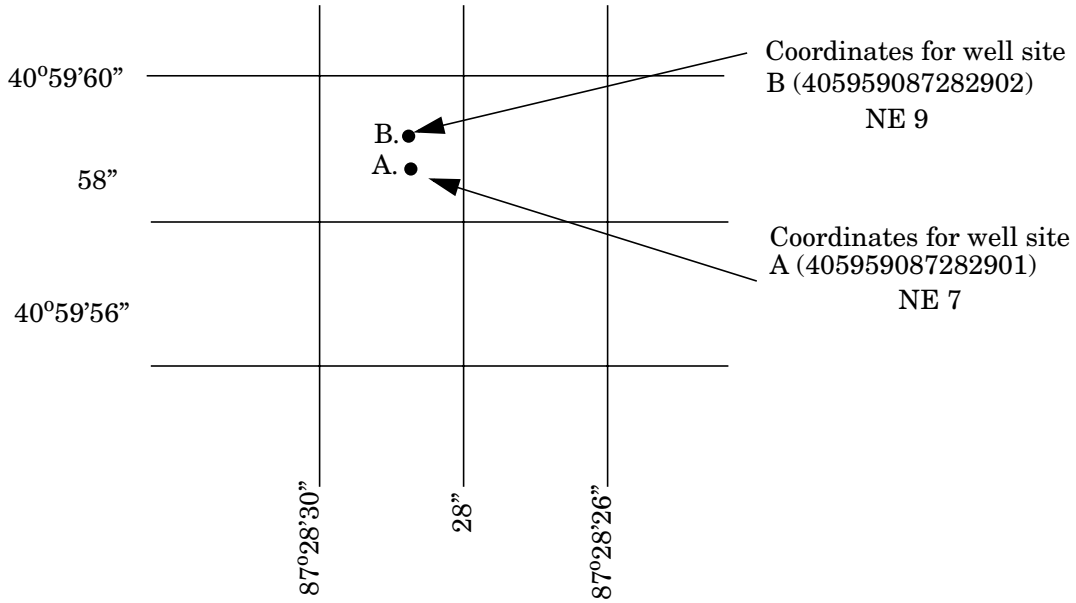


Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude).

Records of Surface-Water Stage and Discharge

Data Collection and Computation

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

Continuous records of stage are obtained with electronic recorders, or with data collection platforms that store stage data electronically. Measurements of discharge are made with current meters or acoustic flow meters using methods adopted by the U.S. Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, Water-Supply Paper 2175, and the U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI), Book 3,Chap. A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter

measurements, the curves are extended using: (1) Logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

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

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

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

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

Data Presentation

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

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

Station manuscript

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

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

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

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

REVISED RECORDS.--Because of new information, published records, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the

year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

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

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

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

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

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

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

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

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES

FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS ____ - ____," will consist of all of the station record within the specified water years, inclusive, including complete months of record for

partial water years, if any, and may coincide with the period of record for the station. The water year for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below.), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

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

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

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

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

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

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

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

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

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

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 325,851 gallons or 1,233 cubic meters.

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

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

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

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

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

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

Other Records Available

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

Records of Surface-Water Quality

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

Classification of Records

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

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

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

Arrangement of Records

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

On-site Measurements and Sample Collection

The major concern in obtaining water-quality data is assuring that the data represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, specific conductance, alkalinity, and dissolved oxygen, are made on-site when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations,"I Book 1, Chapter D2; Book 3, Chapter A1, A3, and A4; and Book 9, Chapters A1-A9. These references are listed in PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS section of this report. These methods are consistent with ASTM standards and generally follow ISO standards.

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

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

Laboratory Measurements

Specific conductance, pH, air and water temperatures, dissolved oxygen, barometric pressure, and alkalinity are measured on-site. Fecal coliform and fecal streptococci bacteria are analyzed in the Indiana District laboratory. Suspended sediment and particle-size distribution are analyzed in the U.S. Geological Survey laboratory in Louisville, Kentucky. All other samples are analyzed in the U.S. Geological Survey National Water-Quality Laboratory in Arvada, Colorado. Methods used to analyzing sediment samples and to compute sediment records are described in the TWRI Book 5, Chap. C1. Methods used by the U.S. Geological Survey laboratories are given in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

Data Presentation

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

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

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

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

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

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

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made in the U.S. Geological Survey’s distributed data system, NWIS, and subsequently to its web-based National data system, NWISWeb [http://water.usgs.gov/nwis/nwis]. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from NWIS OR NWISWeb to ensure the most recent updates. Updates to NWISWeb are currently made on an annual basis.

SURFACE-WATER-DISCHARGE AND SURFACE-WATER-QUALITY RECORDS

Remark Codes

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

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.
S	Most probable value.

Dissolved Trace-Element Concentrations

NOTE.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (µg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the µg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

Change in National Trends Network procedures

NOTE.--Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP Program Office, Illinois State Water Survey, 2204 Griffith Drive, Champaign, IL 61820-7495 (Telephone: 217-333-7873).

Records of Lake Levels

Water-level data from a network of lake gaging stations are given in this report. These data are intended to provide a historical record of water-level changes in lakes where established average legal levels have been designated by the State. Numbers of lakes by county having current water-level records are shown on figure 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 two parts, the station description, and the data table of water levels observed during the year. The description of the lake gage is presented first through use of descriptive headings preceding the tabular data. Comments that follow clarify information presented under the various headings.

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

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

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

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

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

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

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

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

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

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

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

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

Records of Ground-Water Levels

Water-level data from a representative network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the State's most important aquifers. Locations of the observation wells in this network in Indiana are shown on figure 9. Miscellaneous water-level data for Hamilton County from a cooperative agreement with the City of Carmel and for Lake County from a cooperative agreement with Indiana Department of Environmental Management are given in this report. Locations of the Hamilton County observation wells are shown on figure 10 and locations of the Lake County observation wells are shown on figure 11.

Data Collection and Computation

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

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

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

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

Data Presentation

Each well record consists of three parts, the station description, the data table of water levels observed during the correct water year, and a graph of the water levels for the last 5 years. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments that follow clarify information presented under the various headings of the well description.

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

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

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

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

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

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

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

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

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

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that they consist of only one set of measurements for the water year. Ground-water quality is sampled immediately after installation and development of a new observation well. As new observation wells are usually installed late in the water year, records of ground-water quality are typically published in the first water year with complete records for ground-water levels. Miscellaneous ground-water quality data for arsenic-concentrations from a cooperative agreement with the Montgomery County Commissioners are given in this report. Location of the Montgomery County observation wells are shown on figure 12.

Sample Collection and Analysis

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

Data Presentation

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

ACCESS TO USGS WATER DATA

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

http://water.usgs.gov

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

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Definitions of common terms such as algae, water level, and precipitation are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting inch/pound units to International System (SI) units on the inside of the back cover.

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.

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 poly-chlorinated 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 is purposely 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 the 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.

Bedload is material in transport that is supported primarily by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to an elevation equal to the top of the bedload sampler nozzle (ranging from 0.25 to 0.5 foot) that 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")

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

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 is also called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton")

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 lithology and porosity of the rock.

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 are generally reported as cells or units per milliliter (mL) or liter (L).

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used 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 over all species.

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 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 bound-aries. 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 are numerically 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 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 periodic sample or 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 land-line telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually 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 UTM coordinates. (See also "Gage datum," "Land-surface datum," "National Geodetic Vertical Datum of 1929," and "North American Vertical Datum of 1988")

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton")

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, etc., 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 0.4926 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:

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

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 are commonly 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 are generally 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) concentration value 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 qualitatively identified 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 (<).

Euglenoids (*Euglenophyta*) are a group of algae that are usually 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")

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 itself is not an actual physical object, the datum usually is 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 have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton")

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 are typically 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.co-ops.nos.noaa.gov/tideglos.html*

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.), 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 uniformly distributed on it. (See also "Annual runoff")

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

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) is generally 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. [Note: In several previous NWQL documents (NWQL Technical Memorandum 98.07, 1998), the LRL was called the nondetection value or NDV—a term that is no longer used.]

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.co-ops.nos.noaa.gov/tideglos.html

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.

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 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.

Methylene blue active substances (MBAS) are apparent detergents. 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 of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly 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.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

North American Vertical Datum of 1988 (NAVD 1988) 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 utilizes 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
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 are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and 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 photo-synthetic 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 from bed (bottom) material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion 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")

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 (<2mm, 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.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is defined operationally as the 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 suspended water-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of "suspended, recoverable" constituents are made either by directly analyzing the suspended mate-rial collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also "Suspended")

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (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, 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")

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.

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydro-logic 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:	Arthropoda
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 tons 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 the reduction in the transparency of a solution due to the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to U.S. EPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values.

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")

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 are often 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."

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

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

The USGS publishes a series of manuals titled the "Techniques of Water-Resources Investigations" that describe procedures for planning and conducting specialized work in water-resources investigations. The material in these manuals is grouped under major subject headings called books and is further divided into sections and chapters. For example, section A of book 3 (Applications of Hydraulics) pertains to surface water. Each chapter then is limited to a narrow field of the section subject matter. This publication format permits flexibility when revision or printing is required.

Manuals in the Techniques of Water-Resources Investigations series, which are listed below, are available online at http://water.usgs.gov/pubs/twri/. Printed copies are available for sale from the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (an authorized agent of the Superintendent of Documents, Government Printing Office). Please telephone "1-888-ASK-USGS" for current prices, and refer to the title, book number, section number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations." Other products can be viewed online at http://www.usgs.gov/sales.html, or ordered by telephone or by FAX to (303)236-4693. Order forms for FAX requests are available online at http://mac.usgs.gov/isb/pubs/forms/. Prepayment by major credit card or by a check or money order payable to the "U.S. Geological Survey" is required.

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

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

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

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

2-D1. *Application of surface geophysics to ground-water investigations,* by A.A. R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI book 2, chap. D1. 1974. 116 p.

2-D2. *Application of seismic-refraction techniques to hydrologic studies,* by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 p.

Section E. Subsurface Geophysical Methods

2-E1. *Application of borehole geophysics to water-resources investigations,* by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 p.

2-E2. *Borehole geophysics applied to ground-water investigations,* by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS–TWRI book 2, chap. F1. 1989. 97 p.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

3-A1. *General field and office procedures for indirect discharge measurements,* by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. A1. 1967. 30 p.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M.A. Benson: USGS–TWRI book 3, chap. A2. 1967. 12 p.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G.L. Bodhaine: USGS–TWRI book 3, chap. A3. 1968. 60 p.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H.F. Matthai: USGS-TWRI book 3, chap. A4. 1967. 44 p.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS–TWRI book 3. chap. A5. 1967. 29 p.

3-A6. *General procedure for gaging streams,* by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 13 p.

3-A7. *Stage measurement at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 p.

3-A8. *Discharge measurements at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A8. 1969. 65 p.

3-A9. *Measurement of time of travel in streams by dye tracing,* by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI book 3, chap. A9. 1989. 27 p.

3-Al0. *Discharge ratings at gaging stations,* by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 p.

3-A11. *Measurement of discharge by the moving-boat method,* by G.F. Smoot and C.E. Novak: USGS–TWRI book 3, chap. A11. 1969. 22 p.

3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI book 3, chap. A12. 1986. 34 p.

3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS–TWRI book 3, chap. A13. 1983. 53 p.

3-A14. *Use of flumes in measuring discharge,* by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI book 3, chap. A14. 1983. 46 p.

3-A15. *Computation of water-surface profiles in open channels,* by Jacob Davidian: USGS–TWRI book 3, chap. A15. 1984. 48 p.

3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI book 3, chap. A16. 1985. 52 p.

3-A17. *Acoustic velocity meter systems,* by Antonius Laenen: USGS–TWRI book 3, chap. A17. 1985. 38 p.

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3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A19. 1990. 31 p.

3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS–TWRI book 3, chap. A20. 1993. 38 p.

3-A21 *Stream-gaging cableways,* by C. Russell Wagner: USGS–TWRI book 3, chap. A21. 1995. 56 p.

Section B. Ground-Water Techniques

3-B1. *Aquifer-test design, observation, and data analysis,* by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 p.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G.D. Bennett: USGS–TWRI book 3, chap. B2. 1976. 172 p.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI book 3, chap. B3. 1980. 106 p.

3-B4. *Regression modeling of ground-water flow,* by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232 p.

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3-C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS–TWRI book 3, chap. C2. 1999. 89 p.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 p.

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Section A. Statistical Analysis

4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 p.

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4-A3. *Statistical methods in water resources,* by D.R. Helsel and R.M. Hirsch: USGS–TWRI book 4, chap. A3. 1991. Available only online at http://water.usgs.gov/pubs/twri/twri4a3/. (Accessed August 30, 2002.)

Section B. Surface Water

4-B1. *Low-flow investigations,* by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 p.

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4-B3. *Regional analyses of streamflow characteristics,* by H.C. Riggs: USGS–TWRI book 4, chap. B3. 1973. 15 p.

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4-D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS–TWRI book 4, chap. D1. 1970. 17 p.

Book 5. Laboratory Analysis

Section A. Water Analysis

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 p.

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI book 5, chap. A2. 1971. 31 p.

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5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L.C. Friedman and D.E. Erdmann: USGS–TWRI book 5, chap. A6. 1982. 181 p.

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5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS–TWRI book 5, chap. C1. 1969. 58 p.

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6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. A1. 1988. 586 p.

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 p.

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual,* by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 p.

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6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler: USGS–TWRI book 6, chap. A5,1996. 125 p.

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Book 7. Automated Data Processing and Computations

Section C. Computer Programs

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI book 7, chap. C1. 1976. 116 p.

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8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G.F. Smoot and C.E. Novak: USGS–TWRI book 8, chap. B2. 1968. 15 p.

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Section A. National Field Manual for the Collection of Water-Quality Data

9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.

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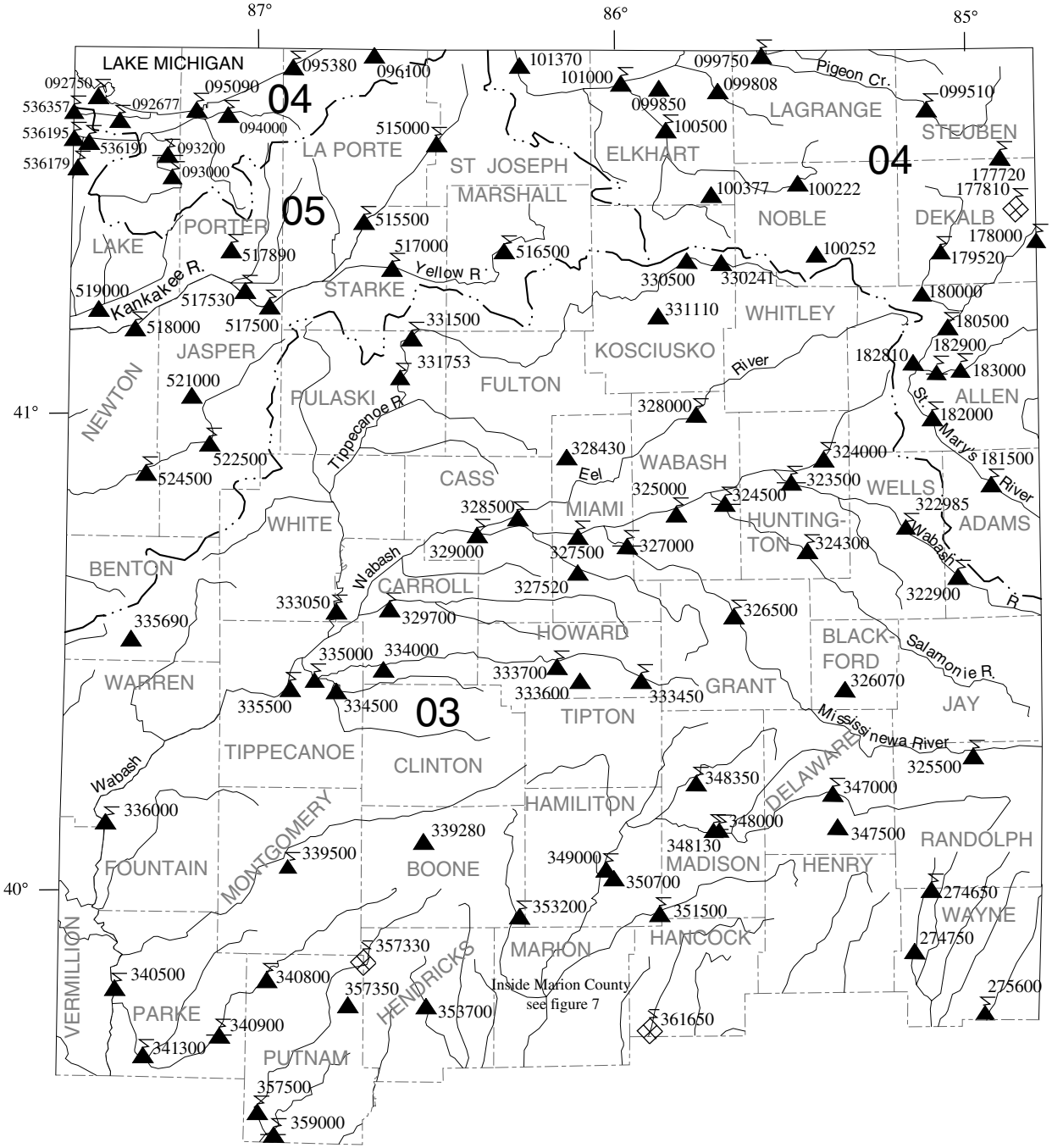
87°
86°
85°
41°
40°
LAKE MICHIGAN
04
05
03
04
LA PORTE
ST JOSEPH
ELKHART
LAGRANGE
STEUBEN
MARSHALL
NOBLE
DEKALB
PORTER
LAKE
STARKE
WHITLEY
JASPER
KOSCIUSKO
NEWTON
PULASKI
FULTON
ALLEN
CASS
WABASH
WELLS
WHITE
MIAMI
HUNTING-
TON
ADAMS
BENTON
CARROLL
HOWARD
BLACK-
FORD
WARREN
GRANT
JAY
TIPTON
TIPPECANOE
CLINTON
DELAWARE
HAMILITON
MONTGOMERY
FOUNTAIN
BOONE
MADISON
HENRY
RANDOLPH
WAYNE
HANCOCK
MARION
HENDRICKS
VERMILLION
PARKE
PUTNAM
Inside Marion County
see figure 7
Kankakee R.
Yellow R
Tippecanoe R
Wabash
Eel
Pigeon Cr.
St. Marys River
Wabash R
Salamonie R.
Mississinewa River
092750
536357
536195
536179
092677
095090
094000
536190
093200
093000
095380
096100
515000
515500
517890
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516500
519000
517530
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331500
331753
521000
522500
524500
101370
101000
099850
100500
099750
099808
099510
100377
100222
100252
330500
330241
331110
180000
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347500
339280
339500
348130
349000
350700
274650
353200
351500
274750
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361650
275600
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357500
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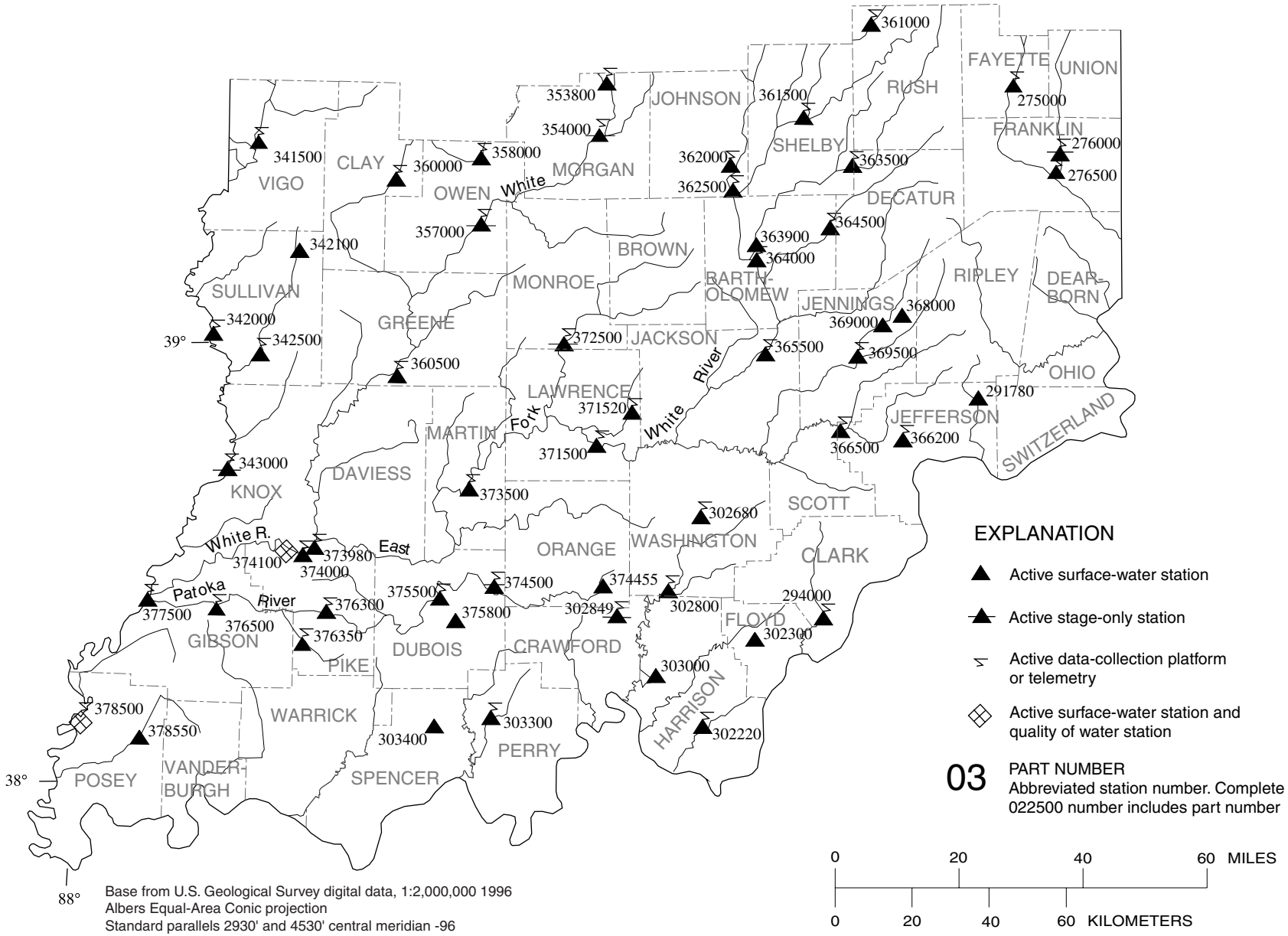
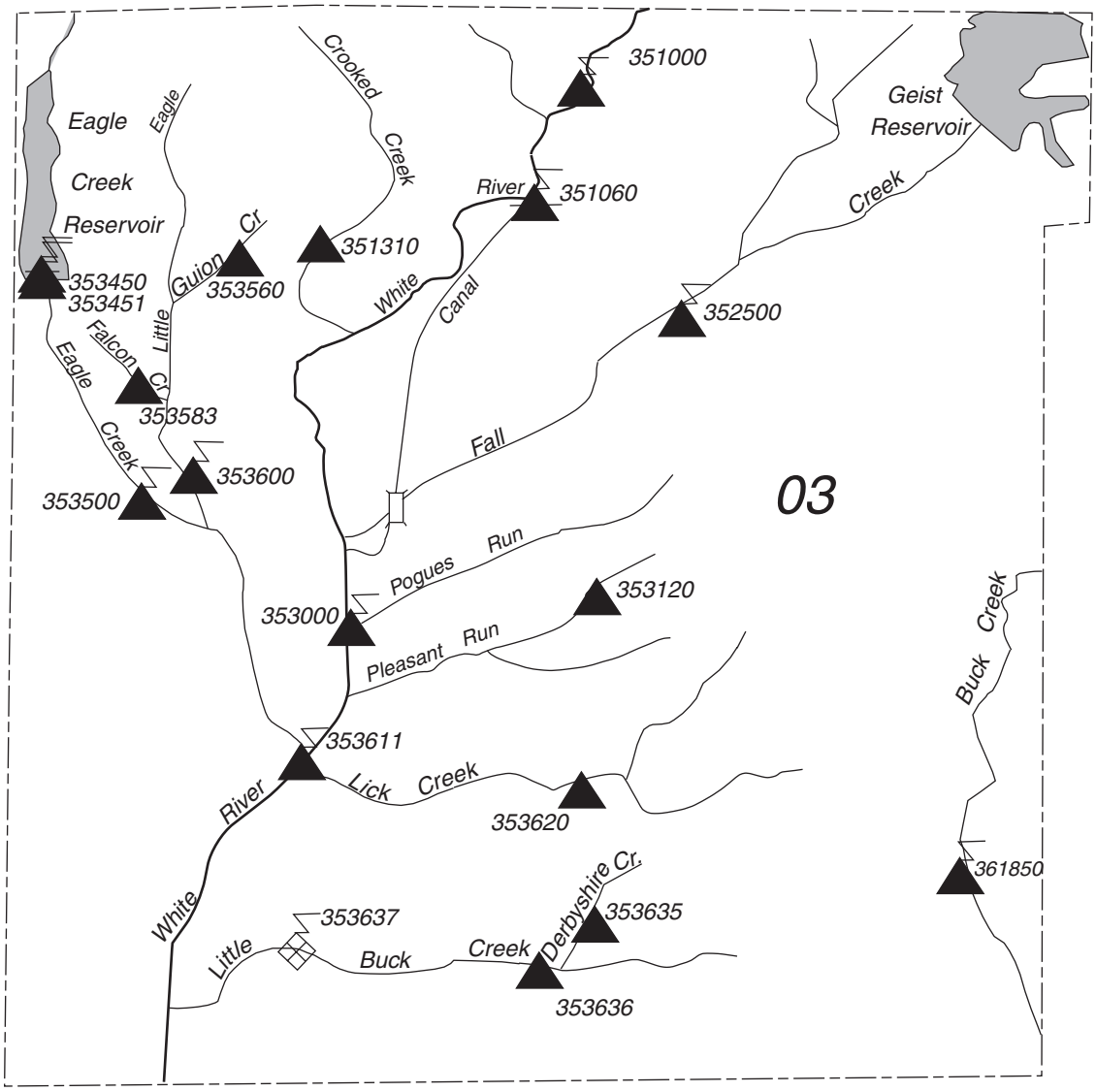


Figure 6.--Locations of streamflow and water-quality gaging stations in Indiana.



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°

0 1 2 3 4 5 MILES
0 1 2 3 4 5 KILOMETERS

EXPLANATION

Active stage-only station

Active surface-water station

Active data-collection platform or telemetry

03 PART NUMBER
Abbreviated station number: complete 302500 number includes part number

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

STATION RECORDS FOR

GAGING STATIONS

IN THE

STATE OF INDIANA

03274650 WHITEWATER RIVER NEAR ECONOMY, IN

LOCATION.--Lat 40°00'05", long 85°06'56", in NW$^1/_4$NE$^1/_4$ 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 daily discharges below 1.0 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

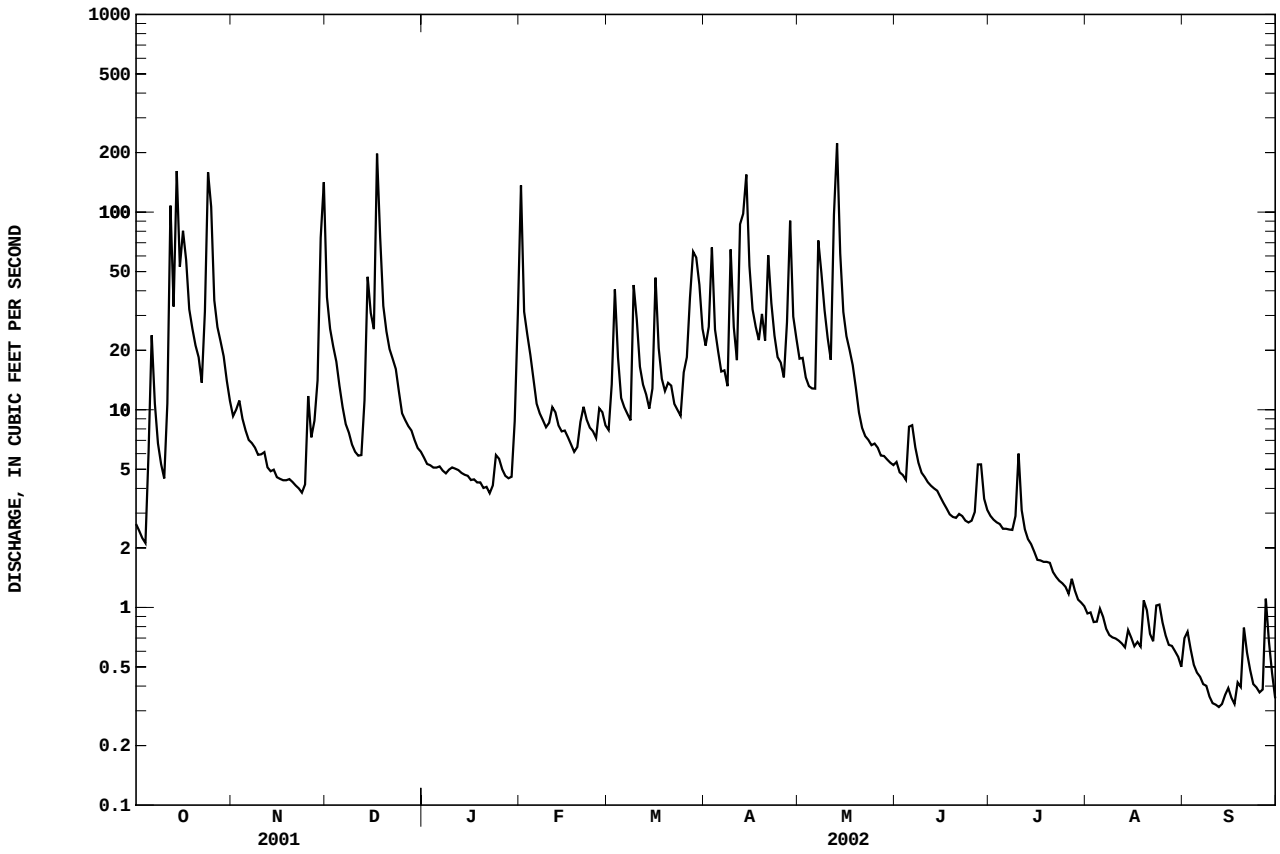
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	9.3	37	5.7	137	7.9	21	18	5.4	2.9	0.93	0.70
2	2.4	10	26	5.3	31	13	26	18	4.8	2.8	0.94	0.75
3	2.2	11	21	5.2	24	41	66	15	4.7	2.7	0.84	0.61
4	2.1	9.0	18	5.1	19	18	25	13	4.4	2.6	0.85	0.51
5	6.1	7.9	13	5.1	14	11	20	13	8.2	2.5	0.99	0.47
6	24	7.0	10	5.2	11	10	16	13	8.4	2.5	0.90	0.45
7	11	6.8	8.5	4.9	9.6	9.5	16	72	6.5	2.5	0.78	0.41
8	6.8	6.4	7.7	4.8	8.9	8.8	13	49	5.4	2.5	0.72	0.40
9	5.3	5.9	6.7	5.0	8.2	43	65	32	4.8	2.9	0.71	0.35
10	4.5	6.0	6.1	5.1	8.6	29	26	23	4.6	6.0	0.70	0.33
11	11	6.1	5.9	5.0	10	17	18	18	4.3	3.1	0.68	0.32
12	108	5.1	5.9	5.0	9.7	13	87	97	4.1	2.5	0.66	0.31
13	33	4.9	11	4.8	8.3	12	98	223	4.0	2.2	0.63	0.32
14	161	5.0	47	4.7	7.8	10	155	62	3.9	2.1	0.77	0.36
15	53	4.6	31	4.6	7.8	13	53	31	3.6	1.9	0.70	0.39
16	80	4.5	26	4.4	7.3	47	32	24	3.4	1.7	0.64	0.35
17	57	4.4	198	4.4	6.7	20	26	20	3.2	1.7	0.67	0.32
18	32	4.4	75	4.3	6.1	14	23	17	3.0	1.7	0.63	0.42
19	26	4.5	34	4.3	6.5	12	31	13	2.9	1.7	1.1	0.40
20	21	4.3	25	4.0	8.7	14	22	9.7	2.8	1.7	0.97	0.79
21	18	4.1	20	4.1	10	13	60	8.1	3.0	1.5	0.73	0.59
22	14	4.0	18	3.8	8.9	11	35	7.4	2.9	1.4	0.67	0.48
23	31	3.8	16	4.1	8.1	10	24	7.0	2.7	1.4	1.0	0.41
24	159	4.2	12	5.9	7.8	9.3	18	6.6	2.7	1.3	1.0	0.39
25	106	12	9.6	5.6	7.2	15	17	6.7	2.7	1.3	0.84	0.37
26	36	7.3	8.9	5.0	10	18	15	6.4	3.0	1.2	0.72	0.38
27	26	8.8	8.3	4.6	9.7	37	28	5.9	5.3	1.4	0.65	1.1
28	22	14	7.8	4.5	8.3	63	91	5.8	5.3	1.2	0.64	0.67
29	19	74	7.0	4.6	---	59	30	5.6	3.5	1.1	0.60	0.47
30	14	142	6.4	8.8	---	43	23	5.4	3.1	1.1	0.56	0.35
31	11	---	6.1	31	---	26	---	5.2	---	1.0	0.50	---
TOTAL	1105.0	401.3	732.9	178.9	420.2	667.5	1180	850.8	126.6	64.1	23.72	14.17
MEAN	35.65	13.38	23.64	5.771	15.01	21.53	39.33	27.45	4.220	2.068	0.765	0.472
MAX	161	142	198	31	137	63	155	223	8.4	6.0	1.1	1.1
MIN	2.1	3.8	5.9	3.8	6.1	7.9	13	5.2	2.7	1.0	0.50	0.31
CFSM	3.43	1.29	2.27	0.55	1.44	2.07	3.78	2.64	0.41	0.20	0.07	0.05
IN.	3.95	1.44	2.62	0.64	1.50	2.39	4.22	3.04	0.45	0.23	0.08	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

MEAN	4.510	10.59	12.54	12.96	17.78	19.44	19.22	14.19	9.313	7.014	4.227	3.018
MAX	39.9	67.0	39.7	37.7	56.0	41.6	46.0	58.4	24.8	27.5	61.5	32.2
(WY)	1987	1994	1978	1996	1985	1978	1996	1996	1998	1979	1979	1989
MIN	0.14	0.097	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1971 - 2002	
ANNUAL TOTAL	5653.8		5765.19			
ANNUAL MEAN	15.49		15.80		11.19	
HIGHEST ANNUAL MEAN					18.8	1979
LOWEST ANNUAL MEAN					3.26	1977
HIGHEST DAILY MEAN	278	Apr 11	223	May 13	647	Nov 14 1993
LOWEST DAILY MEAN	1.4	Sep 6	0.31	Sep 12	0.00	Feb 3 2000
ANNUAL SEVEN-DAY MINIMUM	1.7	Sep 2	0.34	Sep 11	0.00	Feb 3 2000
MAXIMUM PEAK FLOW			506	May 12	1120	Nov 14 1993
MAXIMUM PEAK STAGE			7.08	May 12	8.91	Nov 14 1993
ANNUAL RUNOFF (CFSM)	1.49		1.52		1.08	
ANNUAL RUNOFF (INCHES)	20.22		20.62		14.62	
10 PERCENT EXCEEDS	32		34		25	
50 PERCENT EXCEEDS	6.8		6.4		4.0	
90 PERCENT EXCEEDS	2.1		0.67		0.71	

03274650 WHITEWATER RIVER NEAR ECONOMY, IN--Continued



03274750 WHITEWATER RIVER NEAR HAGERSTOWN, IN

LOCATION.--Lat 39°52'25", long 85°09'47", in NE$^1/_4$NE$^1/_4$ sec.3, T.16 N., R.12 E., Wayne County, Hydrologic Unit 05080003, (CAMBRIDGE CITY, IN quadrangle), on right bank at upstream side of bridge on Jerry Meyers Road, 1.0 mi upstream from Pronghorn Run, 1.5 mi north of Interstate 70, 2.0 mi downstream from Nettle Creek, 2.6 mi south of Hagerstown, and at mile 84.9.

DRAINAGE AREA.--58.7 mi^2.

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

REVISED RECORDS.--WDR IN-01-1: 1997-2000 (P).

GAGE.--Water-stage recorder. Datum of gage is 950.00 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	e72	210	e55	612	50	111	e130	e74	42	e21	14
2	33	e75	137	e54	160	64	103	e270	e71	40	e21	14
3	33	e74	112	e52	114	234	276	e140	e68	38	e20	14
4	33	e64	96	e51	91	92	136	e110	e68	37	e20	14
5	38	e56	84	e50	76	74	111	e97	e100	36	e25	13
6	71	e54	e72	e49	68	68	98	e102	e85	35	e22	13
7	53	e56	e68	e48	64	63	90	e470	e74	34	e21	13
8	45	e50	e65	e47	59	58	88	e370	e68	33	e21	12
9	41	e45	e63	e47	56	222	362	e235	e65	37	e20	12
10	41	e47	e61	e48	59	169	e160	e160	e63	46	e20	11
11	50	e50	e59	48	62	e90	e120	e140	e60	37	e19	11
12	378	e48	e60	47	59	e78	e490	e490	e58	34	e18	11
13	128	e45	e76	46	55	e70	755	e2000	e56	33	e18	11
14	698	e44	e240	45	52	e66	976	e460	e54	32	e20	11
15	250	e46	e170	44	51	e70	362	e260	e53	31	19	14
16	309	45	e130	43	50	e250	e210	e210	e52	30	18	12
17	243	44	1190	43	48	e110	e170	e200	e51	30	18	12
18	e140	43	485	42	46	e86	e140	e160	e49	e29	18	12
19	e108	43	e200	42	47	e74	e146	e130	e48	e28	21	13
20	e92	43	e140	41	53	e82	e120	e120	e47	e27	19	17
21	e80	42	e110	40	60	e80	e250	e110	e49	e26	18	16
22	e75	41	e100	39	52	e70	e180	e100	e50	e25	17	14
23	e196	40	e96	40	51	e64	e130	e96	e48	e24	21	14
24	666	42	e90	44	49	e61	e120	e92	e47	e23	21	14
25	624	62	e84	44	46	170	121	e89	e47	e23	19	14
26	e195	51	e80	41	56	160	100	e85	e50	e22	18	14
27	e140	63	e75	41	56	275	188	e83	64	e28	16	28
28	e114	87	e70	40	51	292	653	e81	64	e25	16	19
29	e98	404	e64	40	---	245	e190	e78	49	e24	16	17
30	e90	740	e60	46	---	205	e150	e76	45	e23	16	16
31	e80	---	e56	101	---	134	---	e76	---	e22	15	---
TOTAL	5177	2616	4603	1458	2303	3826	7106	7220	1777	954	592	420
MEAN	167.0	87.20	148.5	47.03	82.25	123.4	236.9	232.9	59.23	30.77	19.10	14.00
MAX	698	740	1190	101	612	292	976	2000	100	46	25	28
MIN	33	40	56	39	46	50	88	76	45	22	15	11
CFSM	2.84	1.49	2.53	0.80	1.40	2.10	4.04	3.97	1.01	0.52	0.33	0.24
IN.	3.28	1.66	2.92	0.92	1.46	2.42	4.50	4.58	1.13	0.60	0.38	0.27

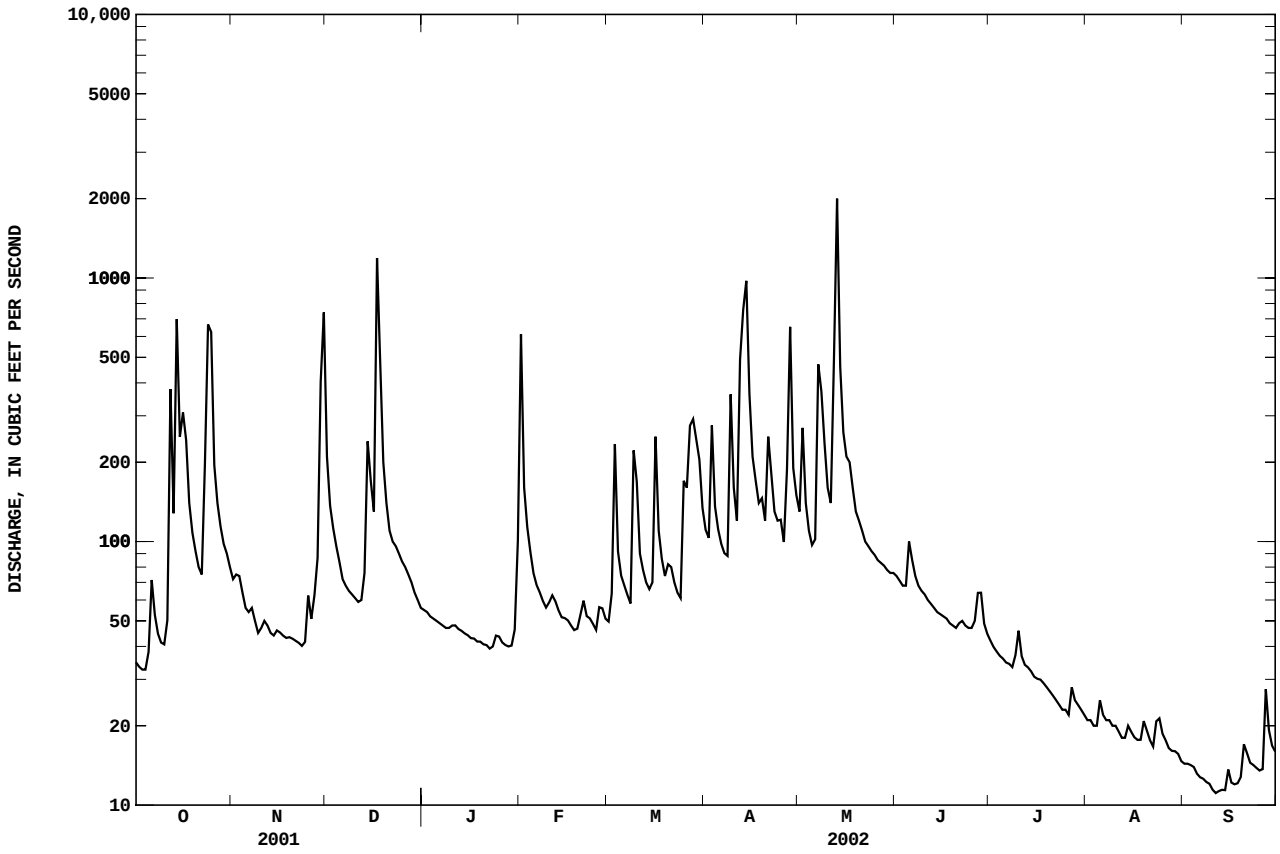
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

MEAN	32.31	54.09	72.07	75.40	97.16	109.5	118.0	95.96	67.80	51.42	34.54	23.86
MAX	188	235	205	208	233	224	286	420	212	219	312	121
(WY)	1987	1994	1978	1996	1975	1973	1996	1996	1996	1979	1979	1989
MIN	6.67	7.26	6.58	8.48	23.0	25.6	28.0	23.0	14.6	8.18	8.56	6.93
(WY)	2000	2000	2000	1977	1995	1981	1971	1988	1977	1977	1988	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1971 - 2002	
ANNUAL TOTAL	30764		38052			
ANNUAL MEAN	84.28		104.3		69.17	
HIGHEST ANNUAL MEAN					121	1996
LOWEST ANNUAL MEAN					25.4	1977
HIGHEST DAILY MEAN	1540	Apr 11	2000	May 13	2000	May 13 2002
LOWEST DAILY MEAN	19	Sep 5	11	Sep 10	3.9	Dec 11 1999
ANNUAL SEVEN-DAY MINIMUM	20	Sep 2	11	Sep 8	4.3	Nov 28 1999
MAXIMUM PEAK FLOW			2640	May 13	3210	Apr 11 2001
MAXIMUM PEAK STAGE			10.43	May 13	11.52	Nov 14 1993
ANNUAL RUNOFF (CFSM)	1.44		1.78		1.18	
ANNUAL RUNOFF (INCHES)	19.50		24.11		16.01	
10 PERCENT EXCEEDS	140		210		128	
50 PERCENT EXCEEDS	45		56		37	
90 PERCENT EXCEEDS	27		18		14	

e Estimated

03274750 WHITEWATER RIVER NEAR HAGERSTOWN, 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 SW$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	236	625	2860	601	4500	529	1280	1510	1200	463	198	135
2	226	604	1590	565	2610	552	1110	1930	815	440	194	134
3	218	594	1140	560	1550	1420	1990	1600	717	423	190	135
4	209	560	935	e540	1200	1080	1590	1250	674	411	184	131
5	219	522	788	511	964	829	1200	1110	787	384	182	127
6	317	492	721	518	853	733	1040	1090	1640	357	181	123
7	431	471	683	507	792	680	950	5520	1160	341	175	122
8	332	452	625	477	746	641	899	5500	853	326	172	119
9	286	434	578	468	695	749	3200	3300	752	323	167	118
10	263	418	531	480	672	2060	2610	1930	701	352	164	115
11	280	406	502	469	689	1110	1590	1450	663	357	163	116
12	1840	385	490	451	709	915	1520	2000	658	320	166	114
13	1770	371	700	440	670	824	9700	14300	685	307	188	114
14	3500	361	1300	432	620	761	9230	11900	1110	297	176	114
15	4040	355	2260	422	606	736	7760	3180	797	288	176	128
16	1920	345	1300	410	592	1510	2870	2170	704	281	167	126
17	2500	337	9220	398	564	1310	2050	1800	649	274	161	122
18	1450	329	10600	385	546	983	1660	1580	612	270	162	120
19	1040	333	3250	383	532	836	1460	1350	583	267	163	131
20	839	328	2080	372	561	862	1470	1210	557	271	163	132
21	691	315	1610	371	587	903	2480	1090	534	256	158	136
22	594	306	1360	359	577	815	2490	997	514	242	152	132
23	582	301	1300	359	546	757	1620	917	502	237	163	131
24	4800	306	1180	389	526	720	1370	863	487	232	195	129
25	6070	381	1030	400	515	1620	1610	944	474	222	176	128
26	2330	372	946	384	552	2890	1290	1040	545	216	164	130
27	1420	469	878	366	571	2280	1250	876	569	222	154	e230
28	1060	660	831	359	540	3000	7640	837	733	235	148	e180
29	866	3000	764	365	---	2520	3130	798	572	217	147	e170
30	753	5650	683	430	---	2410	1880	762	491	212	143	e160
31	679	---	645	696	---	1640	---	827	---	204	138	---
TOTAL	41761	20482	53380	13867	25085	38675	79939	75631	21738	9247	5230	4002
MEAN	1347	682.7	1722	447.3	895.9	1248	2665	2440	724.6	298.3	168.7	133.4
MAX	6070	5650	10600	696	4500	3000	9700	14300	1640	463	198	230
MIN	209	301	490	359	515	529	899	762	474	204	138	114
CFSM	2.58	1.31	3.30	0.86	1.72	2.39	5.10	4.67	1.39	0.57	0.32	0.26
IN.	2.98	1.46	3.80	0.99	1.79	2.76	5.70	5.39	1.55	0.66	0.37	0.29

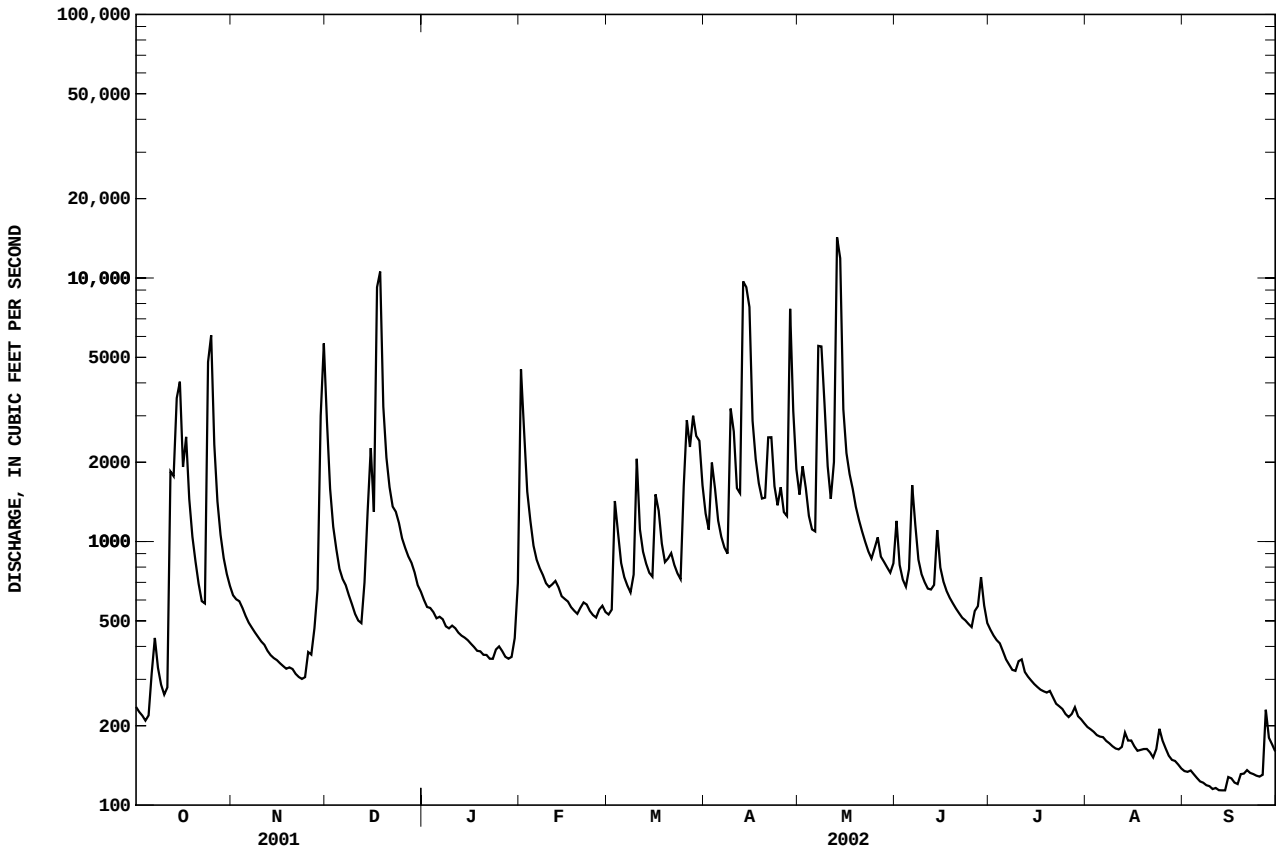
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

MEAN	203.2	351.4	558.6	813.3	863.5	994.9	1017	789.1	552.1	368.5	239.0	175.1
MAX	1685	1978	2531	4409	2639	2522	2665	3763	2609	1777	2342	920
(WY)	1987	1994	1991	1937	1950	1963	2002	1996	1998	1979	1979	1989
MIN	47.1	49.8	50.6	58.9	56.9	120	122	70.0	68.9	61.1	61.3	50.3
(WY)	1935	1935	1935	1935	1935	1935	1941	1941	1934	1934	1988	1934

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1929 - 2002	
ANNUAL TOTAL	271072		389037			
ANNUAL MEAN	742.7		1066		575.5	
HIGHEST ANNUAL MEAN					1066	2002
LOWEST ANNUAL MEAN					117	1941
HIGHEST DAILY MEAN	10600	Dec 18	14300	May 13	26300	Mar 5 1963
LOWEST DAILY MEAN	185	Sep 17	114	Sep 12	30	Aug 6 1934
ANNUAL SEVEN-DAY MINIMUM	207	Sep 12	116	Sep 8	33	Aug 2 1934
MAXIMUM PEAK FLOW			17900	May 13	37100	Jan 14 1937
MAXIMUM PEAK STAGE			18.69	May 13	19.70	Dec 31 1990
ANNUAL RUNOFF (CFSM)	1.42		2.04		1.10	
ANNUAL RUNOFF (INCHES)	19.32		27.72		14.98	
10 PERCENT EXCEEDS	1380		2210		1160	
50 PERCENT EXCEEDS	391		578		280	
90 PERCENT EXCEEDS	243		163		88	

e Estimated

03275000 WHITEWATER RIVER NEAR ALPINE, IN--Continued



03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IN

LOCATION.--Lat 39°43'59", long 84°57'35", in NE$^1/_4$SW$^1/_4$ sec.2, T.12 N., R.2 W., Wayne County, Hydrologic Unit 05080003, (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 good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	198	660	181	2150	117	421	444	515	129	44	22
2	97	197	335	173	788	162	361	1040	373	119	39	32
3	90	190	271	171	470	543	920	600	316	111	38	25
4	85	178	240	163	352	309	550	417	288	105	38	21
5	107	169	218	162	e262	235	409	345	491	98	38	21
6	223	159	214	167	e232	206	352	343	1460	88	38	19
7	182	155	210	165	218	184	311	1260	688	82	35	19
8	141	152	196	153	202	169	289	1240	444	77	32	18
9	122	148	183	155	184	323	954	837	349	77	30	17
10	112	144	171	165	189	490	692	523	299	91	29	17
11	129	142	166	164	201	293	439	405	267	75	27	15
12	814	136	163	154	189	253	1150	775	250	68	31	15
13	443	131	238	153	171	229	5430	6880	279	66	31	15
14	1620	129	621	145	154	206	5370	2710	551	66	33	14
15	1020	129	605	143	153	195	2400	1010	384	63	40	38
16	513	124	328	134	149	793	981	738	286	57	36	27
17	639	116	5070	130	142	448	720	622	236	54	33	21
18	339	113	3160	127	128	326	580	566	214	55	30	19
19	269	116	999	125	129	269	515	483	195	57	28	22
20	227	116	638	120	148	317	469	437	181	54	30	35
21	200	108	480	121	141	318	616	403	168	49	27	25
22	184	104	405	116	127	253	686	375	158	46	25	24
23	358	101	439	116	118	229	492	357	153	45	25	24
24	3110	106	379	145	116	213	441	366	143	45	102	21
25	2070	159	e315	146	114	699	511	432	140	41	41	19
26	580	132	e280	133	144	1330	402	443	162	39	33	20
27	337	183	e261	126	132	1200	487	355	197	102	29	247
28	275	266	e244	122	117	1230	3160	440	226	64	28	87
29	243	1070	e219	123	---	890	906	399	163	55	27	47
30	222	1760	204	164	---	897	558	388	138	61	26	38
31	208	---	198	427	---	537	---	358	---	49	23	---
TOTAL	15060	6931	18110	4789	7620	13863	31572	25991	9714	2188	1066	984
MEAN	485.8	231.0	584.2	154.5	272.1	447.2	1052	838.4	323.8	70.58	34.39	32.80
MAX	3110	1760	5070	427	2150	1330	5430	6880	1460	129	102	247
MIN	85	101	163	116	114	117	289	343	138	39	23	14
CFSM	2.43	1.16	2.92	0.77	1.36	2.24	5.26	4.19	1.62	0.35	0.17	0.16
IN.	2.80	1.29	3.37	0.89	1.42	2.58	5.87	4.83	1.81	0.41	0.20	0.18

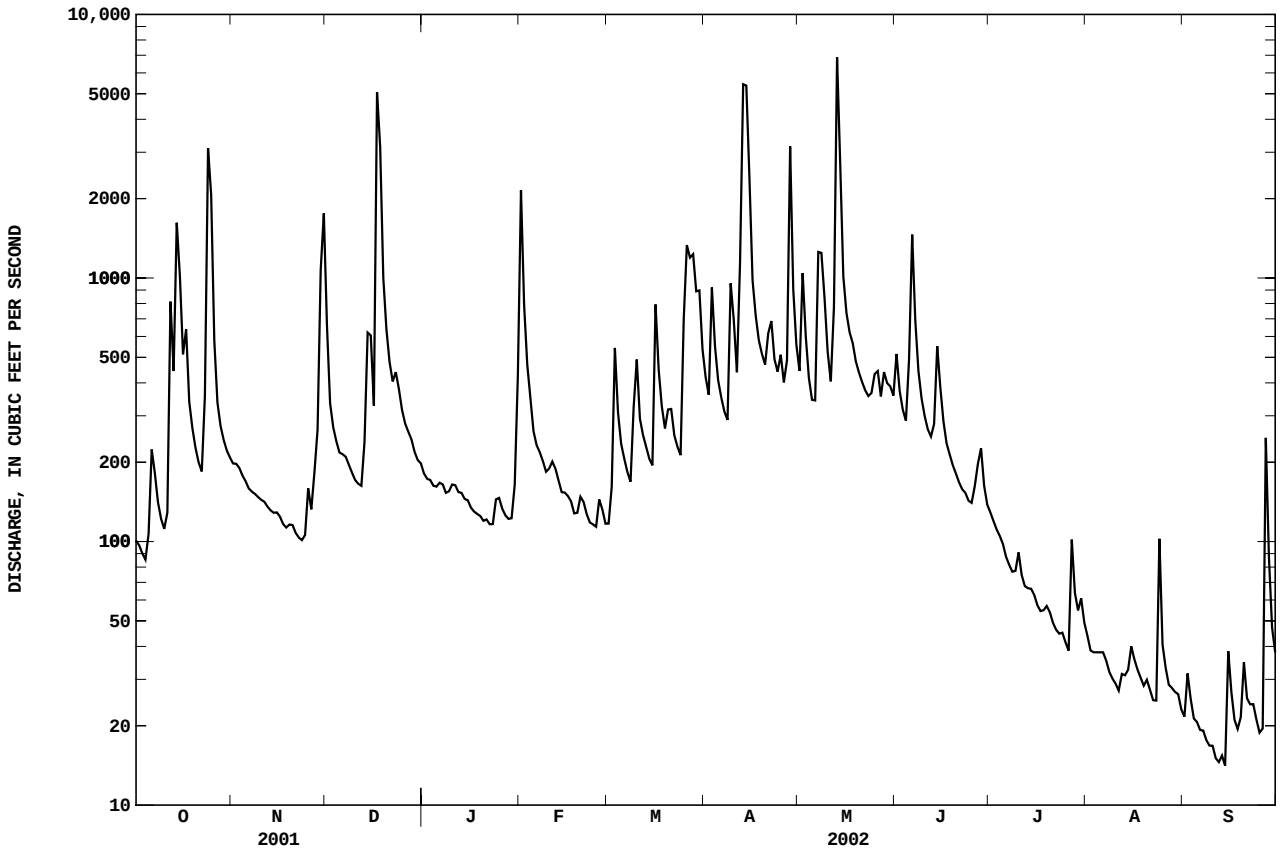
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

MEAN	86.99	165.4	277.4	269.5	313.9	363.7	402.5	347.5	203.3	158.0	103.0	56.58
MAX	615	732	929	708	901	884	1052	1049	789	773	773	242
(WY)	1987	1994	1991	1969	1975	1978	2002	1968	1998	1979	1979	1979
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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1966 - 2002	
ANNUAL TOTAL	95940		137888			
ANNUAL MEAN	262.8		377.8		228.6	
HIGHEST ANNUAL MEAN					388	1979
LOWEST ANNUAL MEAN					92.3	1977
HIGHEST DAILY MEAN	5070	Dec 17	6880	May 13	10100	Jan 22 1999
LOWEST DAILY MEAN	51	Aug 15	14	Sep 14	10	Sep 17 1999
ANNUAL SEVEN-DAY MINIMUM	53	Aug 12	16	Sep 8	11	Sep 22 1999
MAXIMUM PEAK FLOW			8600	May 13	20000	Jul 20 1969
MAXIMUM PEAK STAGE			13.02	May 13	16.18	Jul 20 1969
ANNUAL RUNOFF (CFSM)	1.31		1.89		1.14	
ANNUAL RUNOFF (INCHES)	17.84		25.65		15.53	
10 PERCENT EXCEEDS	400		753		450	
50 PERCENT EXCEEDS	143		181		113	
90 PERCENT EXCEEDS	72		30		33	

e Estimated

03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IN--Continued



03276000 EAST FORK WHITEWATER RIVER AT BROOKVILLE, IN

LOCATION.--Lat 39°26'02", long 85°00'12", in NE$^1/_4$NE$^1/_4$ sec.20, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, (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 2001 (discharge). October 2001 to September 2002 (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.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height 8.21 ft, May 19, 20, 2002, minimum gage height, 2.37 ft, May 7, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.21 ft, May 19, 20; minimum gage height, 2.37 ft, May 7.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.21	4.95	5.11	5.02	4.20	3.40	5.13	5.12	4.60	2.99	2.69	2.67
2	2.86	4.94	5.11	4.20	4.19	3.45	5.13	2.76	4.59	2.99	2.69	2.67
3	2.85	4.41	5.11	4.19	4.20	3.42	5.12	6.28	4.59	2.99	2.69	2.67
4	2.64	4.41	5.11	4.20	5.21	3.41	4.32	6.27	4.59	2.99	2.68	2.67
5	2.67	4.41	5.10	3.19	5.20	3.41	4.56	6.27	3.43	2.98	2.67	2.67
6	3.41	4.41	5.10	3.36	5.20	3.42	4.56	6.55	4.88	2.98	2.68	2.67
7	3.41	4.41	5.09	3.36	5.20	3.43	4.24	2.37	4.87	2.93	2.70	2.67
8	3.41	4.40	5.09	3.36	5.19	3.43	4.24	2.38	4.87	2.93	2.67	2.67
9	3.41	4.40	5.09	3.36	4.63	3.44	4.24	6.03	3.88	2.89	2.69	2.67
10	3.41	4.40	5.09	3.36	3.67	3.44	5.20	6.33	4.89	2.89	2.69	2.68
11	3.41	4.40	5.08	3.36	3.67	3.44	5.19	6.32	4.89	2.89	2.69	2.67
12	3.41	4.40	5.08	3.36	3.67	3.44	5.20	4.05	4.89	2.89	2.68	2.67
13	4.28	4.40	5.08	3.36	3.67	3.44	2.79	2.77	3.91	2.89	2.68	2.67
14	4.29	4.40	4.30	3.36	3.68	3.44	2.79	2.74	3.91	2.89	2.68	2.68
15	4.29	4.39	4.30	3.61	3.68	3.49	2.77	6.37	3.91	2.89	2.68	2.68
16	5.09	4.40	5.12	3.61	3.68	3.47	6.24	6.75	3.91	2.89	2.68	2.68
17	5.07	4.40	2.71	3.95	3.68	3.47	6.20	7.36	3.91	2.68	2.68	2.68
18	5.07	4.39	2.61	3.36	3.37	3.47	6.19	7.37	3.91	2.68	2.68	2.68
19	5.71	4.39	4.55	3.36	3.37	3.49	6.19	8.21	3.41	2.68	2.68	2.68
20	5.70	4.39	4.55	3.36	3.39	3.48	6.17	8.21	3.41	2.68	2.68	2.68
21	5.69	3.57	5.49	3.36	3.39	3.48	3.91	8.19	3.42	2.68	2.68	2.68
22	5.69	3.57	5.48	3.36	3.39	3.48	5.37	6.95	3.43	2.68	2.67	2.68
23	5.69	3.57	5.48	3.36	3.39	3.48	6.95	3.67	3.24	2.68	2.67	2.67
24	2.82	3.58	5.48	3.36	3.39	3.48	6.91	3.41	2.99	2.69	2.67	2.68
25	4.58	3.58	5.88	3.36	3.39	3.50	6.89	3.22	2.99	2.69	2.67	2.67
26	5.21	4.37	5.88	3.36	3.40	3.51	3.23	3.21	2.99	2.69	2.67	2.68
27	5.20	4.37	5.87	3.36	3.40	4.69	3.55	3.21	3.00	2.69	2.67	2.68
28	5.91	4.44	5.86	3.37	3.40	5.15	3.41	3.86	3.00	2.69	2.67	2.68
29	5.90	3.61	5.86	3.37	---	5.14	3.90	3.80	2.99	2.69	2.67	2.68
30	5.89	3.53	5.85	3.39	---	5.13	5.12	3.85	2.99	2.69	2.67	2.69
31	5.88	---	5.85	4.23	---	5.13	---	3.85	---	2.69	2.67	---
MEAN	4.39	4.24	5.08	3.55	3.92	3.71	4.86	5.09	3.88	2.81	2.68	2.68
MAX	5.91	4.95	5.88	5.02	5.21	5.15	6.95	8.21	4.89	2.99	2.70	2.69
MIN	2.64	3.53	2.61	3.19	3.37	3.40	2.77	2.37	2.99	2.68	2.67	2.67

WTR YR 2002 MEAN 3.91 MAX 8.21 MIN 2.37

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, 20.5°C, Sept. 27, minimum, 3.5°C, Jan. 23, 26, and 27.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.7	19.3	19.6	13.5	12.8	13.2	11.3	11.0	11.0	6.4	6.0	6.2
2	19.7	18.5	19.1	12.8	12.8	12.8	11.0	11.0	11.0	6.0	6.0	6.0
3	19.3	18.5	18.9	12.8	12.8	12.8	11.0	11.0	11.0	6.0	5.7	6.0
4	18.9	18.1	18.6	12.8	12.8	12.8	11.0	10.6	10.7	5.7	5.7	5.7
5	18.5	18.1	18.3	12.8	12.8	12.8	10.6	10.2	10.6	5.7	5.3	5.6
6	18.5	18.1	18.3	12.8	12.8	12.8	10.6	10.2	10.4	5.3	5.3	5.3
7	18.5	18.5	18.5	12.8	12.8	12.8	10.2	10.2	10.2	5.3	4.9	5.3
8	18.5	18.1	18.2	13.1	12.8	12.9	10.2	10.2	10.2	4.9	4.6	4.8
9	18.1	18.1	18.1	13.1	12.8	13.1	10.2	10.2	10.2	4.9	4.6	4.6
10	18.1	17.7	18.1	13.1	12.8	13.0	10.2	10.2	10.2	4.6	4.6	4.6
11	18.1	18.1	18.1	13.1	12.8	12.9	10.2	10.2	10.2	4.6	4.2	4.5
12	18.1	17.7	17.9	12.8	12.8	12.8	10.2	9.9	10.1	4.6	4.2	4.6
13	18.1	16.5	17.3	12.8	12.8	12.8	9.9	9.9	9.9	4.6	4.6	4.6
14	16.9	16.5	16.8	12.8	12.4	12.5	9.9	9.9	9.9	4.6	4.2	4.6
15	16.9	16.9	16.9	12.4	12.4	12.4	9.9	9.9	9.9	4.6	4.2	4.4
16	17.3	16.9	17.1	12.4	12.1	12.2	9.9	9.5	9.6	4.2	4.2	4.2
17	17.3	16.9	17.0	12.1	12.1	12.1	9.9	9.2	9.5	4.2	4.2	4.2
18	16.9	16.9	16.9	12.1	11.7	11.9	9.9	9.2	9.6	4.2	4.2	4.2
19	16.9	16.5	16.7	11.7	11.7	11.7	9.5	9.2	9.2	4.2	3.9	4.0
20	16.5	16.1	16.5	11.7	11.7	11.7	9.2	9.2	9.2	3.9	3.9	3.9
21	16.1	15.8	16.0	11.7	11.3	11.6	9.2	9.2	9.2	3.9	3.9	3.9
22	15.8	15.4	15.6	11.7	11.3	11.3	9.2	8.8	8.9	3.9	3.9	3.9
23	15.4	15.0	15.4	11.3	11.3	11.3	8.8	8.8	8.8	3.9	3.5	3.9
24	15.8	15.0	15.2	11.3	11.3	11.3	8.8	8.5	8.5	3.9	3.9	3.9
25	15.4	14.6	15.1	11.3	11.3	11.3	8.5	8.1	8.5	3.9	3.9	3.9
26	15.0	14.6	15.0	11.3	11.3	11.3	8.1	8.1	8.1	3.9	3.5	3.9
27	15.0	15.0	15.0	11.3	11.3	11.3	8.1	7.8	7.8	3.9	3.5	3.9
28	15.0	14.6	14.7	11.3	11.3	11.3	7.8	7.4	7.5	3.9	3.9	3.9
29	14.6	14.6	14.6	11.3	11.3	11.3	7.4	7.1	7.3	3.9	3.9	3.9
30	14.6	14.3	14.5	11.3	11.3	11.3	7.1	6.7	7.0	4.2	3.9	4.1
31	14.3	13.5	14.0	---	---	---	6.7	6.4	6.6	4.2	3.9	4.1
MONTH	19.7	13.5	16.8	13.5	11.3	12.2	11.3	6.4	9.4	6.4	3.5	4.5

03276000 EAST FORK WHITEWATER RIVER AT BROOKVILLE, IN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.2	3.9	3.9	4.2	3.9	4.2	5.7	5.3	5.5	8.5	7.8	8.1
2	4.2	3.9	4.1	4.2	3.9	4.1	5.7	5.3	5.5	12.8	8.1	10.5
3	3.9	3.9	3.9	4.2	3.9	4.2	6.0	5.7	5.8	12.8	8.1	9.8
4	4.2	3.9	3.9	3.9	3.9	3.9	6.0	5.7	5.8	9.2	8.8	8.9
5	3.9	3.9	3.9	3.9	3.9	3.9	6.0	5.7	5.8	9.5	8.8	9.2
6	3.9	3.9	3.9	3.9	3.9	3.9	6.4	6.0	6.2	10.2	9.2	9.6
7	3.9	3.9	3.9	4.2	3.9	4.0	6.4	6.0	6.1	14.3	9.9	11.5
8	3.9	3.9	3.9	4.2	3.9	4.1	6.4	5.7	6.0	14.6	11.7	13.2
9	3.9	3.9	3.9	4.2	4.2	4.2	6.4	6.0	6.3	12.8	9.2	10.9
10	3.9	3.9	3.9	4.6	4.2	4.3	6.7	6.4	6.5	11.3	9.5	10.5
11	3.9	3.9	3.9	4.2	4.2	4.2	6.7	6.4	6.7	11.3	10.6	11.0
12	4.2	3.9	4.0	4.6	4.2	4.4	7.1	6.4	6.7	11.7	9.5	10.8
13	4.2	3.9	4.0	4.6	4.6	4.6	8.1	7.1	7.6	14.6	9.9	12.6
14	4.2	3.9	4.1	4.6	4.2	4.6	9.2	7.8	8.1	14.6	13.9	14.4
15	4.2	3.9	4.1	4.6	4.2	4.6	8.5	7.8	7.9	14.6	10.6	12.5
16	4.2	3.9	4.2	4.9	4.6	4.8	8.5	6.4	7.5	13.1	12.1	12.6
17	4.2	4.2	4.2	5.3	4.9	5.1	7.4	7.1	7.2	13.9	12.8	13.3
18	4.2	4.2	4.2	5.3	4.9	5.1	7.4	7.1	7.3	13.9	13.9	13.9
19	4.2	4.2	4.2	6.0	5.3	5.8	7.8	7.1	7.4	14.6	13.9	14.2
20	4.2	4.2	4.2	6.0	5.3	5.6	7.8	7.4	7.5	14.6	14.3	14.5
21	4.2	4.2	4.2	5.7	4.9	5.4	7.8	7.1	7.3	14.6	14.6	14.6
22	4.2	4.2	4.2	5.3	4.9	5.0	7.4	7.1	7.2	14.6	14.3	14.5
23	4.2	4.2	4.2	5.3	4.9	4.9	9.5	7.4	7.8	15.0	13.5	14.6
24	4.2	4.2	4.2	5.7	4.9	5.3	8.5	7.8	7.9	15.0	14.6	15.0
25	4.6	4.2	4.2	5.3	5.3	5.3	8.8	8.1	8.4	15.0	14.6	14.8
26	4.6	4.2	4.2	5.3	5.3	5.3	11.0	7.8	8.4	16.1	15.0	15.3
27	4.2	4.2	4.2	5.3	4.9	5.2	11.0	9.9	10.4	15.0	14.6	14.9
28	4.2	4.2	4.2	5.3	4.9	5.1	12.4	9.5	10.7	15.0	14.6	14.8
29	---	---	---	4.9	4.9	4.9	12.4	11.3	11.7	15.0	14.6	14.9
30	---	---	---	5.3	4.9	5.3	11.3	7.8	9.4	15.0	14.6	14.9
31	---	---	---	5.7	5.3	5.3	---	---	---	15.4	14.6	15.0
MONTH	4.6	3.9	4.1	6.0	3.9	4.7	12.4	5.3	7.4	16.1	7.8	12.8

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.0	13.5	14.4	15.8	15.4	15.7	16.5	15.8	15.9	16.9	16.1	16.3
2	13.5	13.5	13.5	16.1	15.4	15.7	16.5	15.4	15.9	16.9	16.1	16.4
3	13.9	13.5	13.5	16.1	15.4	15.7	16.5	15.8	16.0	16.9	16.1	16.3
4	13.9	13.5	13.7	16.1	15.4	15.7	16.5	15.8	15.9	17.3	15.8	16.4
5	15.4	13.5	14.6	16.1	15.4	15.8	16.5	15.4	16.0	16.9	15.8	16.5
6	15.0	13.9	14.3	16.1	15.4	15.7	20.1	15.8	16.5	16.9	16.1	16.4
7	13.9	13.9	13.9	15.8	15.4	15.7	18.9	15.0	16.1	16.5	16.1	16.4
8	14.3	13.9	13.9	16.1	15.4	15.8	16.5	15.0	15.8	16.9	16.1	16.4
9	14.3	13.9	13.9	16.1	15.4	15.7	16.1	15.4	15.9	16.9	16.1	16.5
10	14.3	13.9	14.1	16.1	15.4	15.8	16.1	15.8	15.9	16.9	16.1	16.5
11	14.3	13.9	14.3	16.5	15.4	15.8	16.5	15.8	15.9	18.1	16.1	16.9
12	14.3	14.3	14.3	16.1	15.4	15.6	16.5	15.8	16.0	16.9	15.8	16.4
13	14.3	13.9	14.1	15.8	15.4	15.7	16.5	15.8	16.0	16.9	16.5	16.6
14	14.3	13.9	14.0	16.1	15.4	15.8	16.5	15.8	16.1	16.9	16.1	16.5
15	14.3	13.9	14.2	16.1	15.4	15.8	16.5	15.8	16.1	17.3	16.5	16.8
16	14.3	13.9	14.2	16.1	15.8	15.9	16.5	15.8	16.2	16.9	16.1	16.6
17	14.3	13.9	14.3	15.8	15.4	15.7	16.9	15.8	16.1	17.3	16.1	16.7
18	14.3	14.3	14.3	16.1	15.4	15.7	16.5	15.8	16.2	16.9	16.5	16.7
19	15.8	14.3	15.0	17.3	15.4	15.8	16.9	15.8	16.0	16.9	16.5	16.7
20	15.8	15.4	15.6	16.1	15.4	15.9	16.9	15.8	16.3	17.3	16.1	16.7
21	15.8	15.4	15.7	16.1	15.4	15.8	16.5	15.8	16.1	18.1	16.5	17.2
22	15.8	15.4	15.7	16.1	15.4	15.8	16.9	15.8	16.2	19.7	16.5	17.8
23	15.8	15.4	15.6	16.1	15.4	15.8	16.9	15.8	16.2	18.1	16.1	16.8
24	15.8	15.4	15.6	17.3	15.8	16.0	16.9	15.8	16.3	18.1	16.9	17.2
25	15.8	15.4	15.6	16.1	15.4	15.8	16.5	15.8	16.3	17.3	16.5	16.9
26	15.8	15.4	15.6	16.1	15.4	15.7	16.5	16.1	16.2	17.3	16.5	17.2
27	15.8	15.4	15.6	16.1	15.4	15.8	16.5	15.8	16.1	20.5	17.3	19.3
28	15.8	15.4	15.7	16.5	15.8	16.0	16.5	16.1	16.3	18.1	16.9	17.5
29	15.8	15.4	15.7	16.5	15.4	16.0	16.9	15.8	16.2	18.1	17.3	17.6
30	15.8	15.4	15.6	16.5	15.4	16.0	16.5	15.8	16.2	18.1	17.3	17.6
31	---	---	---	16.5	15.8	16.1	16.5	16.1	16.3	---	---	---
MONTH	15.8	13.5	14.7	17.3	15.4	15.8	20.1	15.0	16.1	20.5	15.8	16.9
YEAR	20.5	3.5	11.3									

03276500 WHITEWATER RIVER AT BROOKVILLE, IN

(Former National stream-quality accounting network station)

LOCATION.--Lat 39°24'24", long 85°00'46", in NE$^1/_4$NW$^1/_4$ 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 good. 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

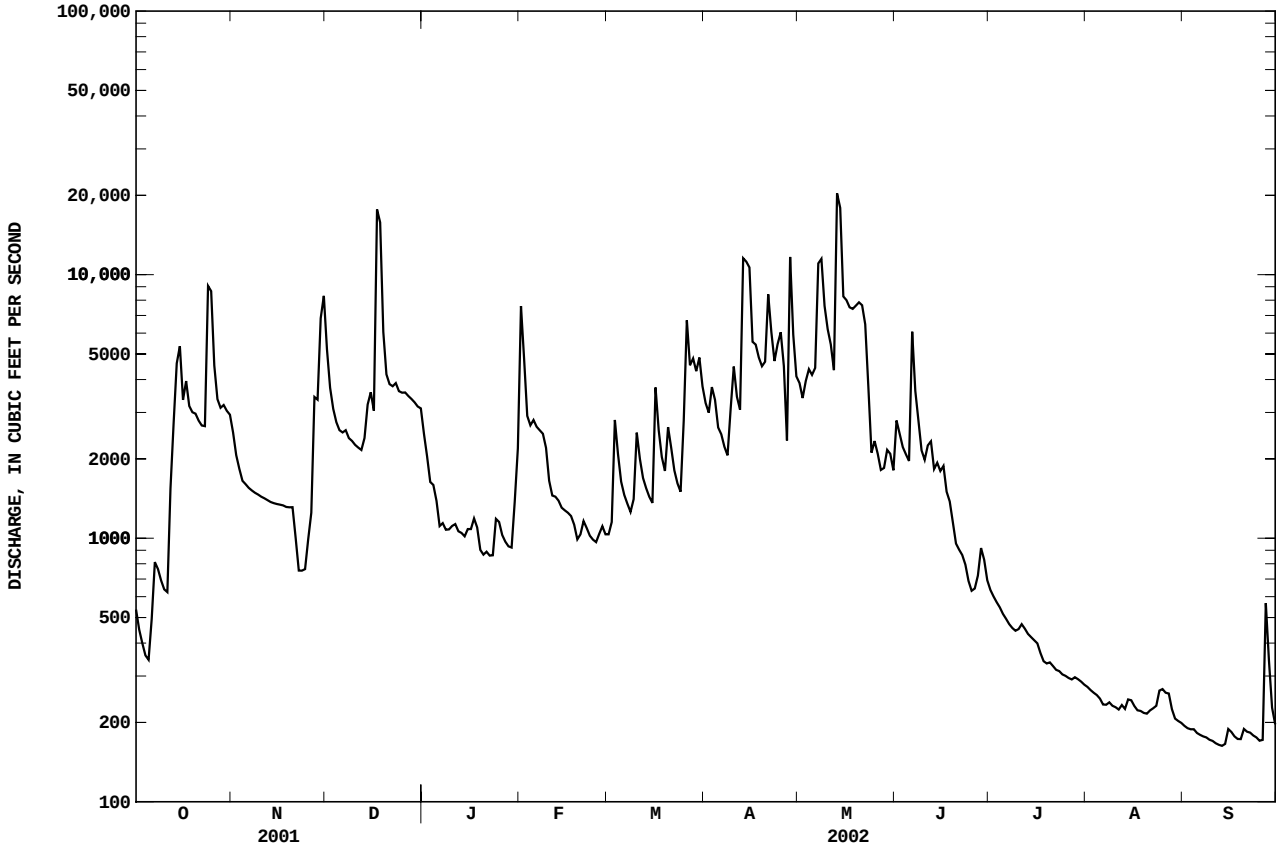
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	536	2520	5210	2490	7600	1030	3260	3880	2800	636	273	194
2	450	2070	3720	2040	4770	1150	3000	3400	2490	601	265	190
3	400	1830	3100	1630	2910	2810	3740	3950	2220	572	259	188
4	359	1650	2760	1590	2680	2080	3350	4380	2080	546	254	188
5	346	1600	2570	1390	2810	1640	2630	4170	1960	516	246	182
6	494	1550	2520	1110	2650	1460	2480	4430	6080	495	234	179
7	812	1520	2570	1140	2570	1350	2220	11000	3620	472	233	177
8	764	1490	2400	1080	2490	1260	2060	11500	2800	456	238	175
9	692	1460	2340	1080	2200	1410	3100	7610	2150	446	231	172
10	640	1440	2260	1110	1650	2510	4480	6210	1980	452	228	170
11	624	1420	2210	1130	1450	2000	3440	5430	2250	472	224	167
12	1540	1390	2160	1060	1440	1690	3070	4340	2330	454	233	164
13	2730	1370	2400	1050	1390	1550	11500	20300	1830	433	225	163
14	4610	1360	3210	1020	1310	1440	11200	17900	1930	421	244	166
15	5350	1350	3580	1080	1280	1360	10600	8270	1800	410	243	189
16	3350	1340	3050	1080	1250	3730	5560	8000	1880	399	231	184
17	3950	1330	17700	1190	1210	2570	5430	7520	1500	367	222	177
18	3170	1310	15800	1100	1130	2030	4850	7420	1380	341	221	173
19	3010	1310	6070	903	990	1800	4490	7630	1150	335	217	173
20	2970	1310	4180	866	1030	2640	4670	7850	954	338	216	189
21	2790	1000	3840	889	1160	2200	8420	7660	905	327	222	184
22	2680	754	3770	859	1090	1810	6060	6480	863	317	226	183
23	2660	753	3880	862	1020	1620	4700	3740	794	313	231	178
24	9070	763	3610	1180	988	1500	5450	2110	689	304	264	175
25	8660	990	3570	1150	966	2790	6040	2340	632	300	268	170
26	4520	1250	3570	1030	1040	6710	4490	2090	645	295	259	172
27	3370	3440	3460	970	1110	4530	2350	1820	721	291	257	567
28	3120	3360	3380	932	1030	4810	11700	1850	917	297	225	344
29	3200	6830	3280	922	---	4300	5920	2160	829	292	207	228
30	3040	8310	3160	1370	---	4850	4110	2090	692	286	203	197
31	2940	---	3110	2190	---	3770	---	1810	---	278	199	---
TOTAL	82847	58070	128440	37493	53214	76400	154370	189340	52871	12462	7298	5958
MEAN	2672	1936	4143	1209	1900	2465	5146	6108	1762	402.0	235.4	198.6
MAX	9070	8310	17700	2490	7600	6710	11700	20300	6080	636	273	567
MIN	346	753	2160	859	966	1030	2060	1810	632	278	199	163
CFSM	2.18	1.58	3.38	0.99	1.55	2.01	4.20	4.99	1.44	0.33	0.19	0.16
IN.	2.52	1.76	3.90	1.14	1.62	2.32	4.69	5.75	1.61	0.38	0.22	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2002, BY WATER YEAR (WY)

MEAN	502.9	919.8	1317	1929	1997	2246	2193	1790	1259	767.0	496.6	405.0
MAX	2796	4160	5468	9401	6290	5909	5146	8618	5273	3390	4271	4239
(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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1916 - 2002	
ANNUAL TOTAL	598904		858763			
ANNUAL MEAN	1641		2353		1315	
HIGHEST ANNUAL MEAN					2398	1996
LOWEST ANNUAL MEAN					271	1941
HIGHEST DAILY MEAN	17700	Dec 17	20300	May 13	55000	Jan 21 1959
LOWEST DAILY MEAN	297	Sep 17	163	Sep 13	60	Jul 27 1934
ANNUAL SEVEN-DAY MINIMUM	357	Aug 17	168	Sep 8	66	Sep 25 1941
MAXIMUM PEAK FLOW			27000	May 13	81800	Jan 21 1959
MAXIMUM PEAK STAGE			16.21	May 13	27.78	Jan 21 1959
ANNUAL RUNOFF (CFSM)	1.34		1.92		1.07	
ANNUAL RUNOFF (INCHES)	18.20		26.10		14.59	
10 PERCENT EXCEEDS	3360		5380		2880	
50 PERCENT EXCEEDS	990		1440		635	
90 PERCENT EXCEEDS	430		225		167	

03276500 WHITEWATER RIVER AT BROOKVILLE, IN--Continued



03291780 INDIAN-KENTUCK CREEK NEAR CANAAN, IN

LOCATION.--Lat 38°52'41", long 85°15'26", in SW$^1/_4$NW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	11	91	e11	563	12	16	33	15	3.2	0.00	0.00
2	3.1	8.9	45	e11	93	112	13	49	12	2.6	0.00	0.00
3	2.9	7.3	30	e9.4	54	186	11	24	8.8	2.0	0.00	0.00
4	2.5	6.0	22	e9.0	37	59	8.9	18	7.1	1.5	0.00	0.00
5	3.2	5.4	18	e8.0	27	39	7.7	13	17	1.1	0.00	0.00
6	33	4.6	123	e9.5	22	26	6.7	417	220	0.76	0.00	0.00
7	10	4.1	80	e8.1	20	21	5.8	399	49	0.49	0.00	0.00
8	5.8	3.8	63	e7.7	16	17	5.6	1210	22	0.26	0.00	0.00
9	4.3	3.2	41	e9.0	13	43	6.8	286	102	0.21	0.00	0.00
10	3.5	2.8	28	13	15	41	4.8	138	57	4.8	0.00	0.00
11	3.5	2.8	21	18	16	27	4.0	92	16	2.3	0.00	0.00
12	112	2.6	19	14	13	25	4.4	78	10	1.3	0.00	0.00
13	37	2.4	98	12	11	23	490	1210	24	0.79	0.00	0.00
14	716	2.2	259	9.5	8.9	18	454	181	16	0.56	0.00	0.00
15	121	2.1	87	8.4	9.5	43	111	81	8.9	0.30	0.00	0.01
16	137	1.8	396	6.7	8.3	552	45	52	8.3	0.09	0.00	0.00
17	71	1.8	1510	6.0	7.3	79	27	88	5.9	0.52	0.00	0.00
18	40	1.6	265	4.9	6.0	46	19	124	4.3	0.45	0.00	0.00
19	29	1.9	95	5.2	6.3	187	24	53	3.3	0.33	0.00	0.00
20	22	3.1	53	6.1	29	463	34	39	2.7	0.28	0.00	0.00
21	17	2.2	37	5.9	43	102	363	30	2.2	0.17	0.00	0.00
22	15	1.7	30	5.0	19	48	204	23	1.7	0.27	0.00	0.00
23	238	1.6	306	5.4	14	33	52	19	1.5	0.26	0.00	0.00
24	1140	2.5	77	389	13	25	170	15	1.3	0.07	0.00	0.00
25	257	6.9	43	77	12	36	248	13	69	0.00	0.00	0.00
26	76	3.5	36	40	16	412	50	17	46	0.00	0.00	0.0
27	40	150	30	29	15	86	206	10	13	0.00	0.00	961
28	27	619	21	23	14	46	750	324	10	0.00	0.00	35
29	20	518	e16	19	---	34	85	130	5.8	0.00	0.00	12
30	16	443	e14	194	---	26	46	43	4.1	0.00	0.00	6.8
31	13	---	e12	126	---	20	---	23	---	0.00	0.00	---
TOTAL	3219.3	1827.8	3966	1099.8	1121.3	2887	3472.7	5232	763.9	24.61	0.00	1014.81
MEAN	103.8	60.93	127.9	35.48	40.05	93.13	115.8	168.8	25.46	0.794	0.000	33.83
MAX	1140	619	1510	389	563	552	750	1210	220	4.8	0.00	961
MIN	2.5	1.6	12	4.9	6.0	12	4.0	10	1.3	0.00	0.00	0.00
CFSM	3.78	2.22	4.65	1.29	1.46	3.39	4.21	6.14	0.93	0.03	0.00	1.23
IN.	4.35	2.47	5.36	1.49	1.52	3.91	4.70	7.08	1.03	0.03	0.00	1.37

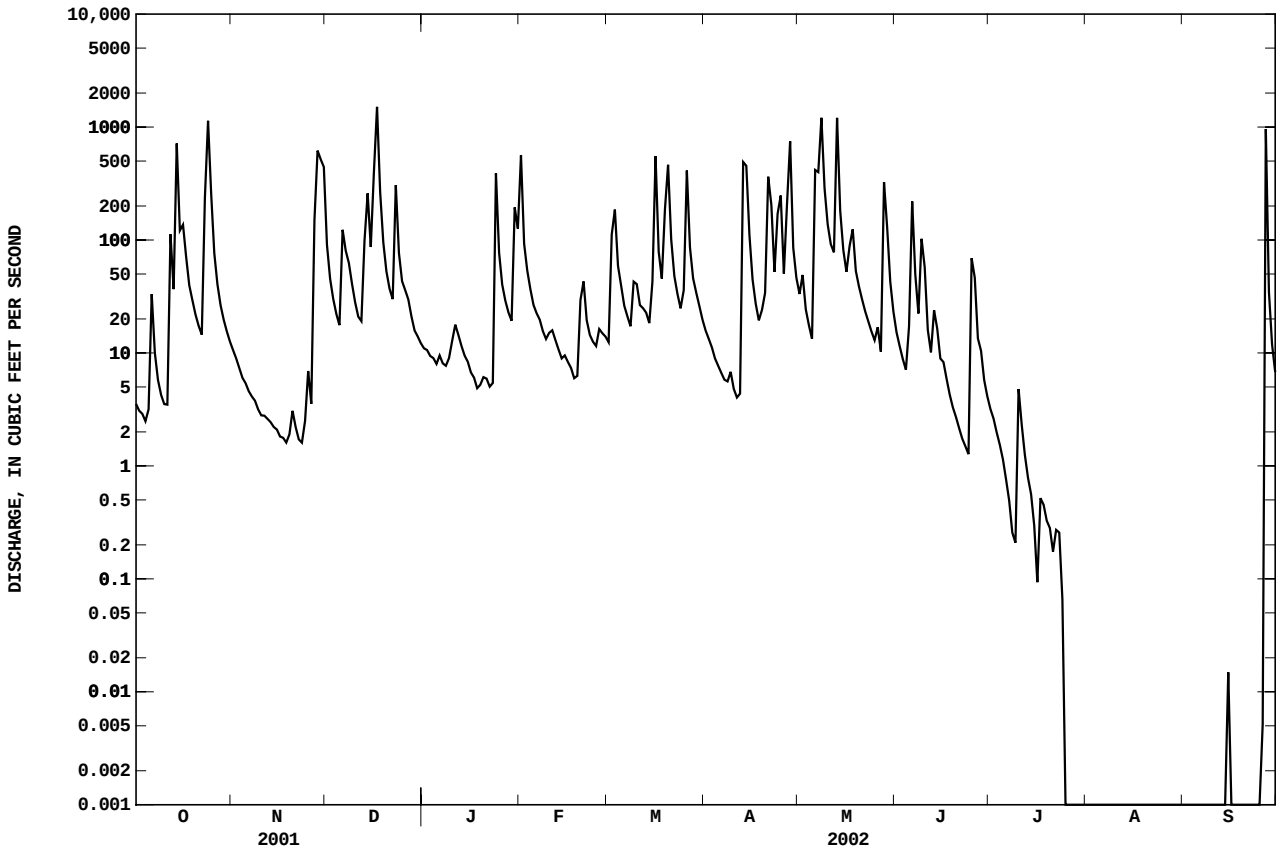
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	12.58	32.67	52.61	50.92	57.84	67.43	63.35	51.16	30.59	15.51	14.02	10.98
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	0.000	0.000	3.95	0.60	5.24	11.7	5.68	3.82	0.44	0.12	0.000	0.000
(WY)	1988	2000	1977	1977	1992	1983	2001	1992	1988	1975	1999	1987

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	20066.2		24629.22			
ANNUAL MEAN	54.98		67.48		38.20	
HIGHEST ANNUAL MEAN					77.2	1996
LOWEST ANNUAL MEAN					17.0	1988
HIGHEST DAILY MEAN	1510	Dec 17	1510	Dec 17	2370	Apr 29 1996
LOWEST DAILY MEAN	1.5	Jul 17	0.00	Jul 25	0.00	Oct 1 1969
ANNUAL SEVEN-DAY MINIMUM	2.0	Nov 13	0.00	Jul 25	0.00	Jun 27 1970
MAXIMUM PEAK FLOW			5040	May 8	7800	May 16 1990
MAXIMUM PEAK STAGE			9.76	May 8	11.34	May 16 1990
ANNUAL RUNOFF (CFSM)	2.00		2.45		1.39	
ANNUAL RUNOFF (INCHES)	27.14		33.32		18.87	
10 PERCENT EXCEEDS	122		174		80	
50 PERCENT EXCEEDS	13		12		8.9	
90 PERCENT EXCEEDS	3.0		0.00		0.09	

e Estimated

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



03294000 SILVER CREEK NEAR SELLERSBURG, IN

LOCATION.--Lat 38°22'15", long 85°43'35", in lot 68, Clark Military Grant, Clark County, Hydrologic Unit 05140101, (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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

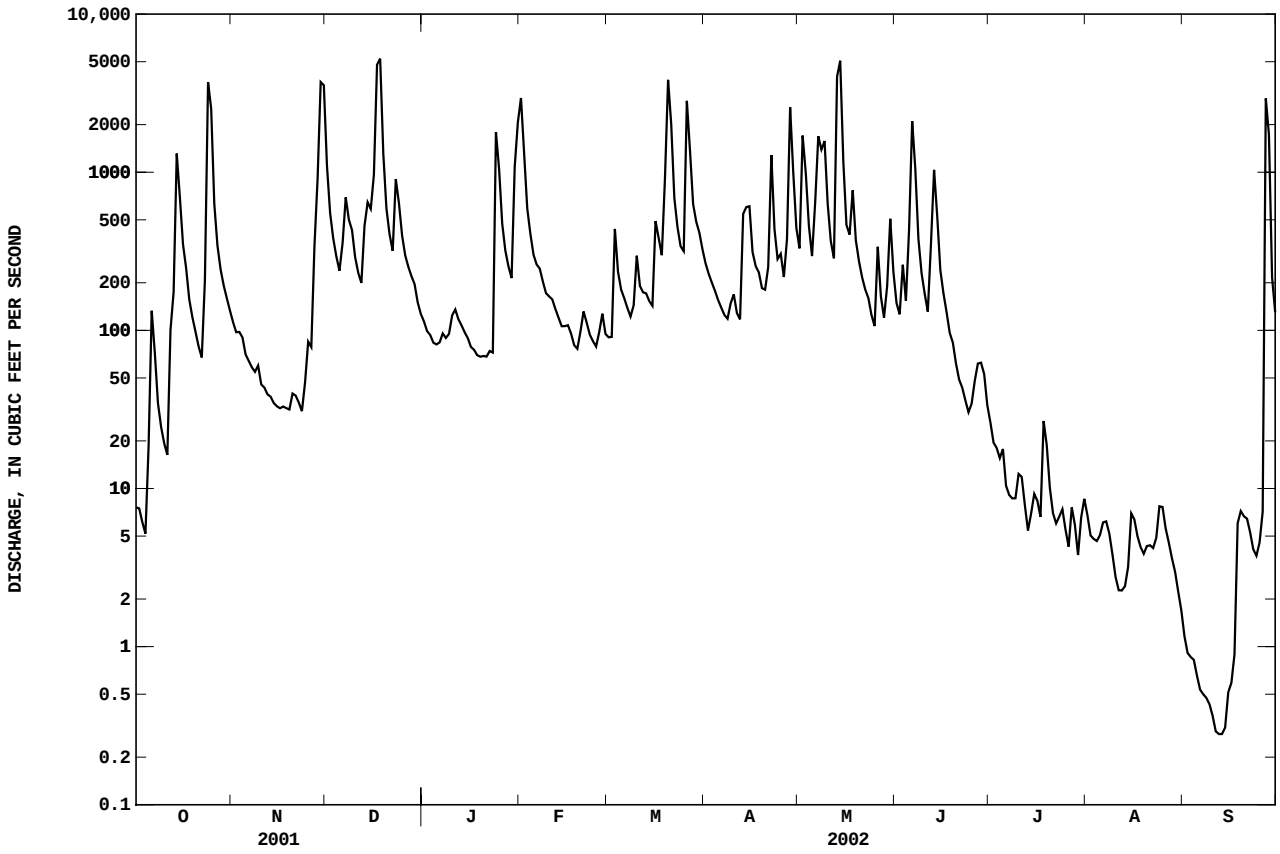
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	113	1100	114	2950	90	265	330	149	26	6.8	1.2
2	7.5	97	554	99	1320	91	227	1700	126	20	5.0	0.91
3	6.1	98	382	93	590	438	200	988	260	18	4.8	0.86
4	5.2	90	293	84	408	235	178	458	154	16	4.7	0.82
5	18	70	238	81	301	181	155	295	428	18	5.1	0.66
6	133	64	358	84	261	160	139	643	2110	10	6.1	0.53
7	72	58	693	96	246	139	125	1690	1050	9.1	6.2	0.50
8	35	55	501	89	203	122	118	1390	378	8.7	5.2	0.47
9	25	60	431	95	172	144	148	1570	230	8.7	3.8	0.43
10	19	46	291	124	164	296	169	633	171	12	2.8	0.37
11	16	43	231	136	157	191	129	366	132	12	2.3	0.29
12	100	39	200	118	136	174	117	286	352	7.9	2.3	0.28
13	175	38	459	108	120	171	545	4020	1040	5.4	2.4	0.28
14	1310	35	646	97	106	153	602	5070	528	6.9	3.2	0.31
15	695	33	586	89	106	143	609	1160	240	9.2	7.0	0.51
16	350	32	965	79	108	491	312	464	171	8.4	6.4	0.59
17	247	33	4780	75	95	383	255	403	130	6.6	5.0	0.89
18	157	32	5230	70	81	299	233	768	96	27	4.3	6.0
19	121	32	1310	68	76	914	185	371	84	19	3.9	7.2
20	98	40	591	69	98	3840	181	274	62	10	4.3	6.7
21	79	39	405	68	132	2020	252	217	49	7.0	4.4	6.4
22	67	35	318	74	112	687	1280	181	43	6.0	4.2	5.3
23	207	31	905	72	94	451	437	160	36	6.6	4.9	4.1
24	3720	47	639	1800	85	340	283	125	30	7.4	7.7	3.8
25	2520	85	399	1050	79	317	305	106	34	5.5	7.6	4.5
26	632	78	298	473	98	2830	217	338	48	4.3	5.6	7.1
27	345	341	252	320	127	1380	378	164	62	7.6	4.5	2930
28	244	902	220	253	95	629	2580	120	62	5.9	3.6	1730
29	193	3720	196	214	---	486	997	191	53	3.8	3.0	216
30	160	3550	150	1080	---	414	443	508	34	6.6	2.2	130
31	133	---	127	2070	---	325	---	234	---	8.6	1.7	---
TOTAL	11897.4	9936	23748	9342	8520	18534	12064	25223	8342	328.2	141.0	5067.00
MEAN	383.8	331.2	766.1	301.4	304.3	597.9	402.1	813.6	278.1	10.59	4.548	168.9
MAX	3720	3720	5230	2070	2950	3840	2580	5070	2110	27	7.7	2930
MIN	5.2	31	127	68	76	90	117	106	30	3.8	1.7	0.28
CFSM	2.03	1.75	4.05	1.59	1.61	3.16	2.13	4.31	1.47	0.06	0.02	0.89
IN.	2.34	1.96	4.67	1.84	1.68	3.65	2.37	4.96	1.64	0.06	0.03	1.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2002, BY WATER YEAR (WY)

MEAN	36.63	117.4	255.1	306.0	412.2	517.7	394.4	321.8	162.7	69.69	46.39	37.53
MAX	384	805	862	1150	1323	2252	1117	1369	1337	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1955 - 2002	
ANNUAL TOTAL	76645.5		133142.60			
ANNUAL MEAN	210.0		364.8		222.2	
HIGHEST ANNUAL MEAN					423	1997
LOWEST ANNUAL MEAN					92.8	1981
HIGHEST DAILY MEAN	5230	Dec 18	5230	Dec 18	15100	Mar 10 1964
LOWEST DAILY MEAN	2.5	Aug 18	0.28	Sep 12	0.00	Oct 1 1954
ANNUAL SEVEN-DAY MINIMUM	5.3	Aug 18	0.35	Sep 8	0.00	Oct 1 1954
MAXIMUM PEAK FLOW			6100	Dec 18	19600	Jan 22 1959
MAXIMUM PEAK STAGE			21.12	Dec 18	30.89	Jan 22 1959
ANNUAL RUNOFF (CFSM)	1.11		1.93		1.18	
ANNUAL RUNOFF (INCHES)	15.09		26.21		15.97	
10 PERCENT EXCEEDS	430		934		473	
50 PERCENT EXCEEDS	57		121		52	
90 PERCENT EXCEEDS	9.9		4.5		3.0	

03294000 SILVER CREEK NEAR SELLERSBURG, IN--Continued



03302220 BUCK CREEK NEAR NEW MIDDLETOWN, IN

LOCATION.--Lat 38°07'13", long 86°05'16", in SE$^1/_4$NE$^1/_4$ 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 fair except for estimated daily discharges and those below 10 ft^3/s, which are poor. Flow can be affected by regulation of Spring Hills Lake during periods of low flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	18	297	e27	905	44	179	159	38	7.9	2.3	e0.85
2	2.3	17	130	e23	370	47	130	343	35	7.4	2.2	e0.82
3	1.7	15	95	e20	190	66	107	276	31	6.8	e1.9	e0.80
4	1.2	12	76	e17	149	59	90	177	28	6.6	e1.6	e0.76
5	8.8	12	62	e16	116	57	80	131	35	6.0	e1.4	e0.72
6	30	9.8	73	19	101	55	73	206	760	5.4	e1.2	e0.68
7	8.2	8.9	93	17	92	53	67	241	265	5.1	e1.1	e0.66
8	4.7	8.4	101	14	78	50	64	165	135	4.9	e1.0	e0.64
9	5.2	8.1	95	14	70	54	67	130	92	5.2	e0.92	e0.60
10	5.5	8.0	79	16	67	54	58	102	70	11	e0.85	e0.58
11	6.0	8.2	64	16	60	51	55	87	57	6.9	e0.80	e0.57
12	35	7.5	65	15	57	55	53	82	53	5.7	e10	e0.56
13	26	7.4	185	15	53	53	286	2000	52	5.8	e5.0	e0.52
14	296	7.4	194	14	49	49	267	661	42	6.1	e5.4	e1.0
15	100	7.4	171	13	48	48	213	299	36	5.4	e6.6	e3.0
16	65	6.7	594	11	46	161	147	160	31	5.0	e4.9	e2.2
17	48	6.4	1480	11	43	145	122	211	27	4.8	e3.7	e1.6
18	34	5.9	653	9.9	40	127	128	336	23	4.8	e2.9	e1.2
19	26	7.3	291	12	39	733	107	224	20	4.9	e2.5	e0.90
20	20	8.1	172	11	52	1290	94	114	18	4.7	e2.1	e1.4
21	16	6.5	125	10	58	514	195	94	16	4.3	e1.8	e4.1
22	14	5.9	100	9.8	52	283	492	83	14	4.0	e1.6	e2.6
23	22	5.9	122	11	49	156	209	74	13	4.4	e1.4	e2.0
24	205	10	105	1870	47	125	151	66	12	4.2	e1.3	e1.6
25	228	22	87	546	46	111	245	58	16	3.7	e1.2	e1.3
26	89	13	75	255	51	1560	154	55	15	3.4	e1.2	e1.5
27	56	164	65	157	48	510	425	48	12	3.3	e1.1	878
28	39	280	56	119	45	299	1330	43	11	3.0	e1.1	116
29	31	926	48	100	---	360	437	55	9.7	2.7	e1.0	57
30	25	741	40	410	---	381	233	53	8.8	2.4	e0.95	39
31	21	---	e34	410	---	220	---	43	---	2.5	e0.90	---
TOTAL	1472.3	2363.8	5827	4208.7	3021	7770	6258	6776	1975.5	158.3	71.92	1123.16
MEAN	47.49	78.79	188.0	135.8	107.9	250.6	208.6	218.6	65.85	5.106	2.320	37.44
MAX	296	926	1480	1870	905	1560	1330	2000	760	11	10	878
MIN	1.2	5.9	34	9.8	39	44	53	43	8.8	2.4	0.80	0.52
CFSM	1.28	2.12	5.07	3.66	2.91	6.76	5.62	5.89	1.77	0.14	0.06	1.01
IN.	1.48	2.37	5.84	4.22	3.03	7.79	6.27	6.79	1.98	0.16	0.07	1.13

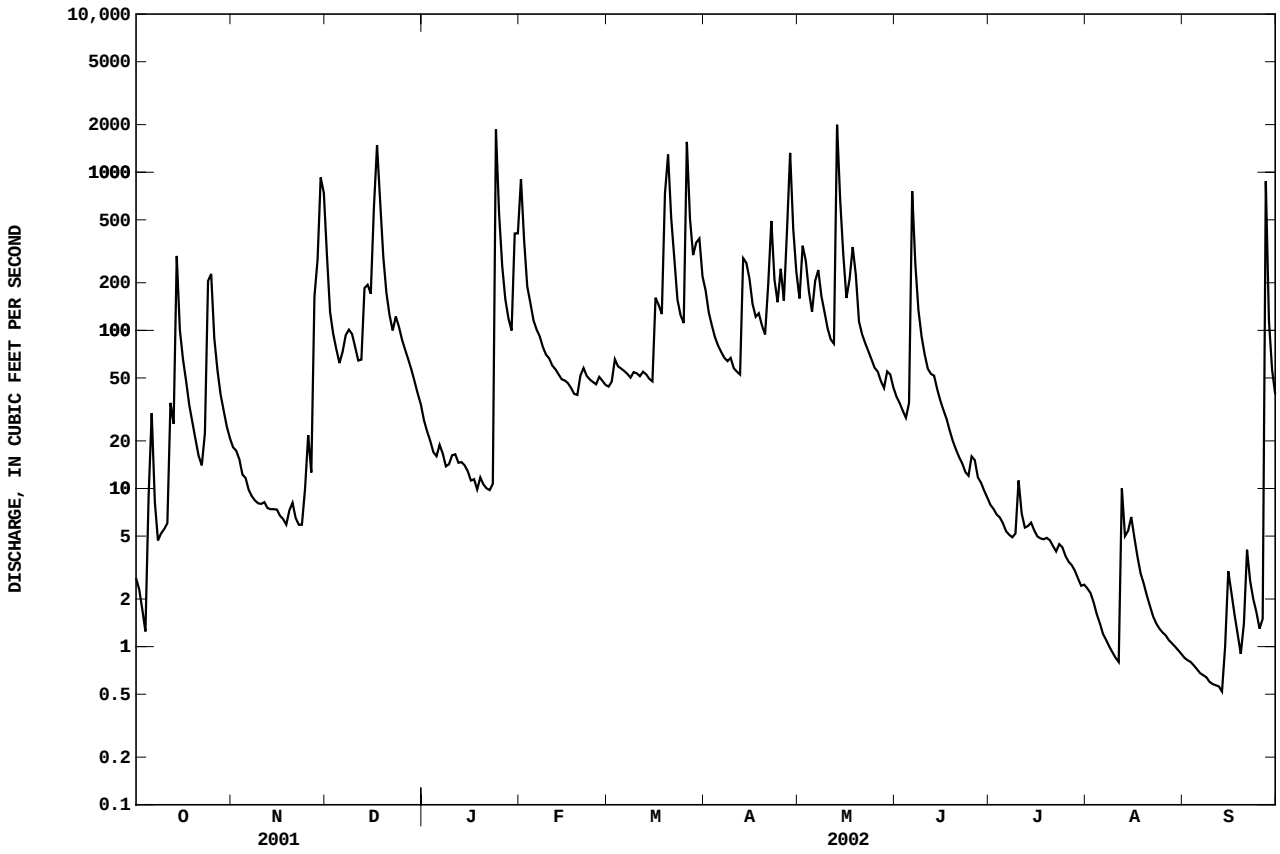
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	17.28	51.69	97.69	109.3	132.4	159.8	138.0	105.8	60.33	28.04	15.57	17.18
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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	18906.8		41025.68			
ANNUAL MEAN	51.80		112.4		77.46	
HIGHEST ANNUAL MEAN					150	1997
LOWEST ANNUAL MEAN					32.8	1981
HIGHEST DAILY MEAN	1480	Dec 17	2000	May 13	5610	Mar 2 1997
LOWEST DAILY MEAN	1.2	Oct 4	0.52	Sep 13	0.52	Jul 10 1988
ANNUAL SEVEN-DAY MINIMUM	2.7	Sep 28	0.59	Sep 7	0.57	Jul 4 1988
MAXIMUM PEAK FLOW			4480	Jan 24	20500	Mar 2 1997
MAXIMUM PEAK STAGE			9.31	Jan 24	17.26	Mar 2 1997
ANNUAL RUNOFF (CFSM)	1.40		3.03		2.09	
ANNUAL RUNOFF (INCHES)	18.96		41.14		28.37	
10 PERCENT EXCEEDS	103		278		174	
50 PERCENT EXCEEDS	16		39		26	
90 PERCENT EXCEEDS	5.9		1.6		3.3	

e Estimated

03302220 BUCK CREEK NEAR NEW MIDDLETOWN, IN--Continued



03302300 LITTLE INDIAN CREEK NEAR GALENA, IN

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

DRAINAGE AREA.--16.1 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 703.00 ft above 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.87	3.2	e150	e5.2	295	3.8	26	53	1.7	0.79	0.14	0.08
2	0.82	2.7	e75	e4.0	73	9.2	21	55	1.1	0.71	0.12	0.10
3	0.70	2.9	e38	e3.3	53	23	18	49	0.72	0.54	0.10	0.06
4	0.66	2.0	e20	e3.0	41	13	14	42	27	0.44	0.09	0.03
5	26	1.6	13	e2.8	29	10	12	32	203	0.34	0.07	0.01
6	27	1.4	41	e3.0	23	8.9	9.7	116	296	0.27	0.04	0.00
7	5.6	1.1	51	e2.8	18	7.4	8.4	112	98	0.22	0.02	0.00
8	3.3	0.87	60	e2.7	14	6.2	8.4	80	68	0.20	0.00	0.00
9	2.2	0.65	49	e3.6	11	22	16	66	55	0.31	0.00	0.00
10	1.7	0.64	34	7.1	12	17	10	54	47	4.4	0.00	0.00
11	1.9	0.58	20	7.2	9.8	13	9.0	45	38	0.97	0.00	0.00
12	43	0.47	24	5.9	8.1	14	8.7	62	36	0.45	0.00	0.00
13	18	0.41	60	5.3	6.8	12	47	681	69	0.47	0.00	0.00
14	181	0.39	81	4.7	5.6	9.6	66	117	53	1.0	0.02	0.00
15	59	0.38	59	3.8	5.1	8.8	70	68	39	0.65	0.11	1.5
16	50	0.36	352	3.1	4.3	79	46	51	27	0.55	0.08	6.0
17	25	0.33	751	2.9	3.5	53	67	69	19	0.51	0.07	0.36
18	11	0.31	161	2.0	2.6	43	55	76	12	1.7	0.12	0.18
19	6.4	0.38	83	3.0	2.6	222	46	52	8.6	0.58	0.18	0.13
20	3.8	0.59	58	2.3	7.7	359	54	42	6.5	0.45	0.08	0.36
21	2.4	0.42	45	2.8	5.7	88	284	29	4.7	0.31	0.03	1.2
22	1.6	0.36	32	3.3	4.1	56	144	20	3.5	0.31	0.04	0.45
23	58	0.33	64	3.5	3.5	45	71	14	2.6	4.6	0.02	0.18
24	239	4.1	49	290	3.2	34	59	10	2.4	0.55	0.01	0.12
25	112	3.4	38	74	2.9	35	54	8.4	2.6	0.28	0.0	0.11
26	52	1.3	27	51	6.7	417	46	15	2.2	0.24	0.0	7.9
27	28	60	21	39	4.7	81	128	6.3	1.7	0.21	0.00	541
28	14	136	16	28	4.0	57	409	4.4	3.4	0.16	0.00	41
29	11	357	13	21	---	49	88	11	1.8	0.13	0.00	9.1
30	6.7	e240	e9.0	168	---	43	64	4.9	1.1	0.35	0.00	4.5
31	4.3	---	e7.0	91	---	34	---	2.8	---	0.22	0.00	---
TOTAL	996.95	824.17	2501.0	849.3	659.9	1872.9	1959.2	2047.8	1131.62	22.91	1.34	614.37
MEAN	32.16	27.47	80.68	27.40	23.57	60.42	65.31	66.06	37.72	0.739	0.043	20.48
MAX	239	357	751	290	295	417	409	681	296	4.6	0.18	541
MIN	0.66	0.31	7.0	2.0	2.6	3.8	8.4	2.8	0.72	0.13	0.00	0.00
CFSM	2.00	1.71	5.01	1.70	1.46	3.75	4.06	4.10	2.34	0.05	0.00	1.27
IN.	2.30	1.90	5.78	1.96	1.52	4.33	4.53	4.73	2.61	0.05	0.00	1.42

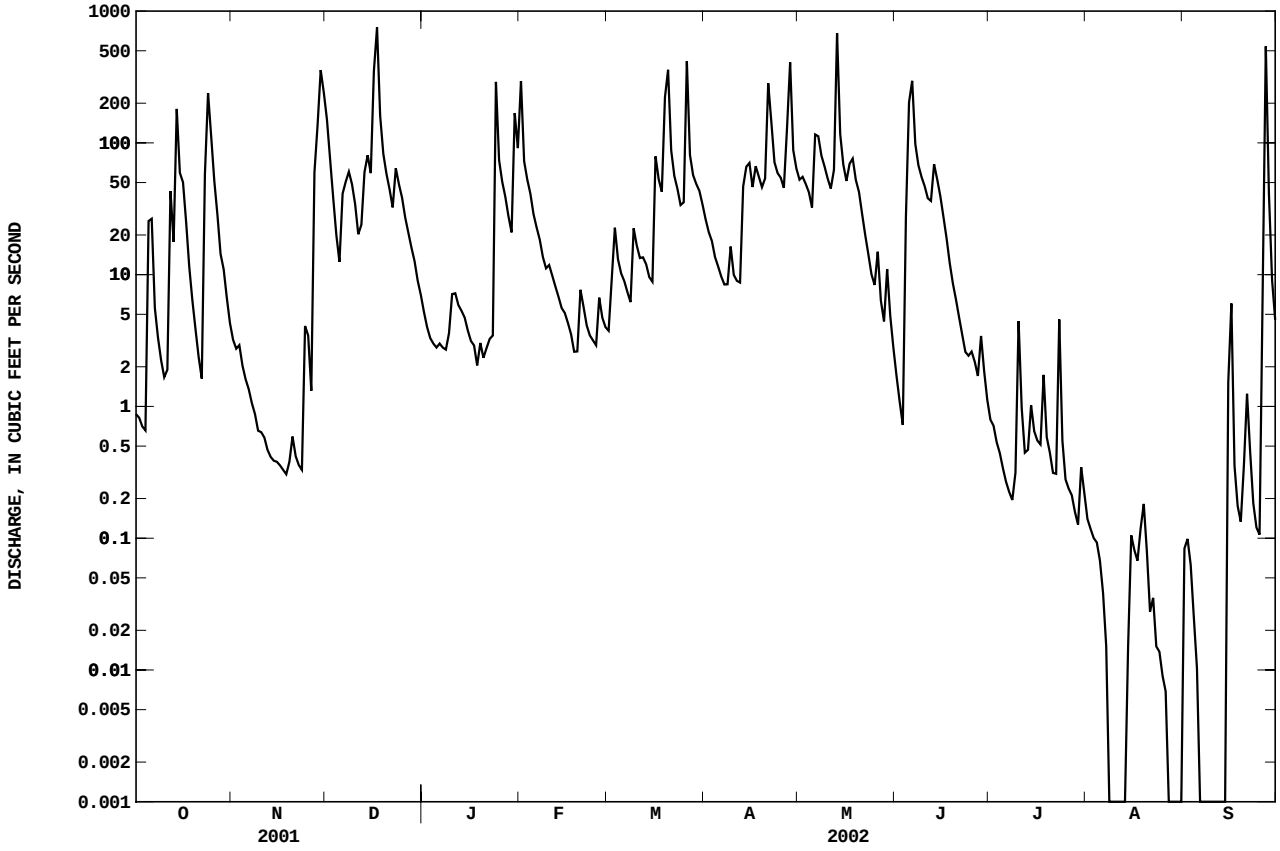
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	4.834	13.89	30.29	33.05	40.40	47.34	42.22	27.95	16.05	7.475	5.117	4.526
MAX	42.2	70.6	103	88.6	111	185	120	116	93.6	50.7	30.5	62.1
(WY)	1978	1980	1991	1999	1990	1997	1970	1983	1997	1979	1978	1979
MIN	0.000	0.25	1.80	0.46	2.91	10.9	6.41	1.48	0.002	0.088	0.027	0.000
(WY)	1988	1992	1981	1977	1992	1976	2001	1988	1988	1991	1999	1987

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	6784.57		13481.46			
ANNUAL MEAN	18.59		36.94		22.67	
HIGHEST ANNUAL MEAN					45.0	1979
LOWEST ANNUAL MEAN					8.23	1992
HIGHEST DAILY MEAN	751	Dec 17	751	Dec 17	2530	Mar 1 1997
LOWEST DAILY MEAN	0.08	Aug 25	0.00	Aug 8	0.00	Oct 4 1968
ANNUAL SEVEN-DAY MINIMUM	0.28	Aug 12	0.00	Aug 25	0.00	Sep 24 1969
MAXIMUM PEAK FLOW			2480	Apr 21	6110	Mar 1 1997
MAXIMUM PEAK STAGE			6.71	Apr 21	9.79	Mar 1 1997
ANNUAL RUNOFF (CFSM)	1.15		2.29		1.41	
ANNUAL RUNOFF (INCHES)	15.68		31.15		19.13	
10 PERCENT EXCEEDS	44		77		46	
50 PERCENT EXCEEDS	3.8		6.7		6.0	
90 PERCENT EXCEEDS	0.38		0.08		0.23	

e Estimated

03302300 LITTLE INDIAN CREEK NEAR GALENA, IN--Continued



03302680 WEST FORK BLUE RIVER AT SALEM, IN

LOCATION.--Lat 38°36'19", long 86°05'40", in SW$^1/_4$SE$^1/_4$ sec.17, T.2 N., R.4 E., Washington County, Hydrologic Unit 05140104, (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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.31	8.1	137	e8.0	344	13	35	115	6.2	1.6	0.32	e0.00
2	0.32	7.7	86	e7.0	135	45	30	143	17	1.4	0.30	e0.00
3	0.30	6.9	54	e6.6	93	118	25	89	18	1.3	0.30	e0.00
4	0.28	5.9	35	e5.6	61	62	20	62	10	1.1	0.27	e0.00
5	0.87	5.3	24	e5.4	38	41	18	42	34	1.0	0.20	e0.00
6	0.94	4.9	78	e5.6	30	30	17	198	141	0.93	0.17	e0.00
7	0.78	4.6	86	e5.2	25	23	15	157	70	0.83	0.10	e0.00
8	0.59	4.4	75	e4.8	20	19	16	913	29	0.77	0.06	e0.00
9	0.51	4.4	52	6.7	17	29	21	192	16	0.97	0.00	e0.00
10	0.49	4.1	37	7.7	16	24	15	119	11	1.2	0.00	0.00
11	0.90	4.1	26	7.7	13	22	14	84	9.2	0.94	0.00	0.00
12	2.4	3.8	27	7.0	12	22	13	125	9.0	0.80	0.18	0.00
13	2.0	3.6	69	7.0	11	19	188	867	44	0.71	0.06	0.00
14	119	3.5	122	6.7	9.7	17	222	220	19	0.71	3.0	e0.00
15	32	3.4	95	6.4	9.4	21	138	136	11	0.70	2.0	0.32
16	19	3.4	298	6.0	8.6	222	88	96	9.6	0.59	0.65	0.17
17	14	3.2	1080	5.9	8.0	113	60	81	6.6	0.54	0.44	0.12
18	9.7	e3.2	248	5.5	7.0	76	42	71	5.3	0.51	0.58	0.10
19	7.9	3.5	146	5.8	6.8	123	32	44	5.1	0.52	0.45	0.42
20	6.5	3.8	96	5.4	12	268	28	34	3.8	0.50	0.43	0.99
21	5.3	3.3	67	5.5	14	148	71	26	3.3	0.44	0.34	0.18
22	5.1	3.2	48	5.2	11	96	124	21	2.9	0.41	0.30	0.00
23	13	3.1	113	5.2	9.7	70	68	18	2.6	0.41	0.24	0.00
24	200	7.9	78	135	9.2	50	56	16	2.5	0.41	0.20	0.00
25	148	15	52	89	8.8	47	61	14	2.8	0.40	0.29	0.00
26	63	8.4	37	52	18	200	38	13	2.5	0.40	0.50	0.91
27	30	50	29	35	16	126	69	10	2.4	0.44	0.12	105
28	19	335	23	27	15	91	256	8.9	3.7	0.41	0.10	5.1
29	14	426	19	21	---	76	115	8.2	2.3	0.48	0.12	1.9
30	11	275	e13	75	---	54	75	7.8	1.9	0.43	e0.05	1.1
31	9.3	---	e10	118	---	42	---	6.7	---	0.40	e0.00	---
TOTAL	736.49	1218.7	3360	693.9	978.2	2307	1970	3937.6	501.7	22.25	11.77	116.31
MEAN	23.76	40.62	108.4	22.38	34.94	74.42	65.67	127.0	16.72	0.718	0.380	3.877
MAX	200	426	1080	135	344	268	256	913	141	1.6	3.0	105
MIN	0.28	3.1	10	4.8	6.8	13	13	6.7	1.9	0.40	0.00	0.00
CFSM	1.25	2.14	5.70	1.18	1.84	3.92	3.46	6.69	0.88	0.04	0.02	0.20
IN.	1.44	2.39	6.58	1.36	1.92	4.52	3.86	7.71	0.98	0.04	0.02	0.23

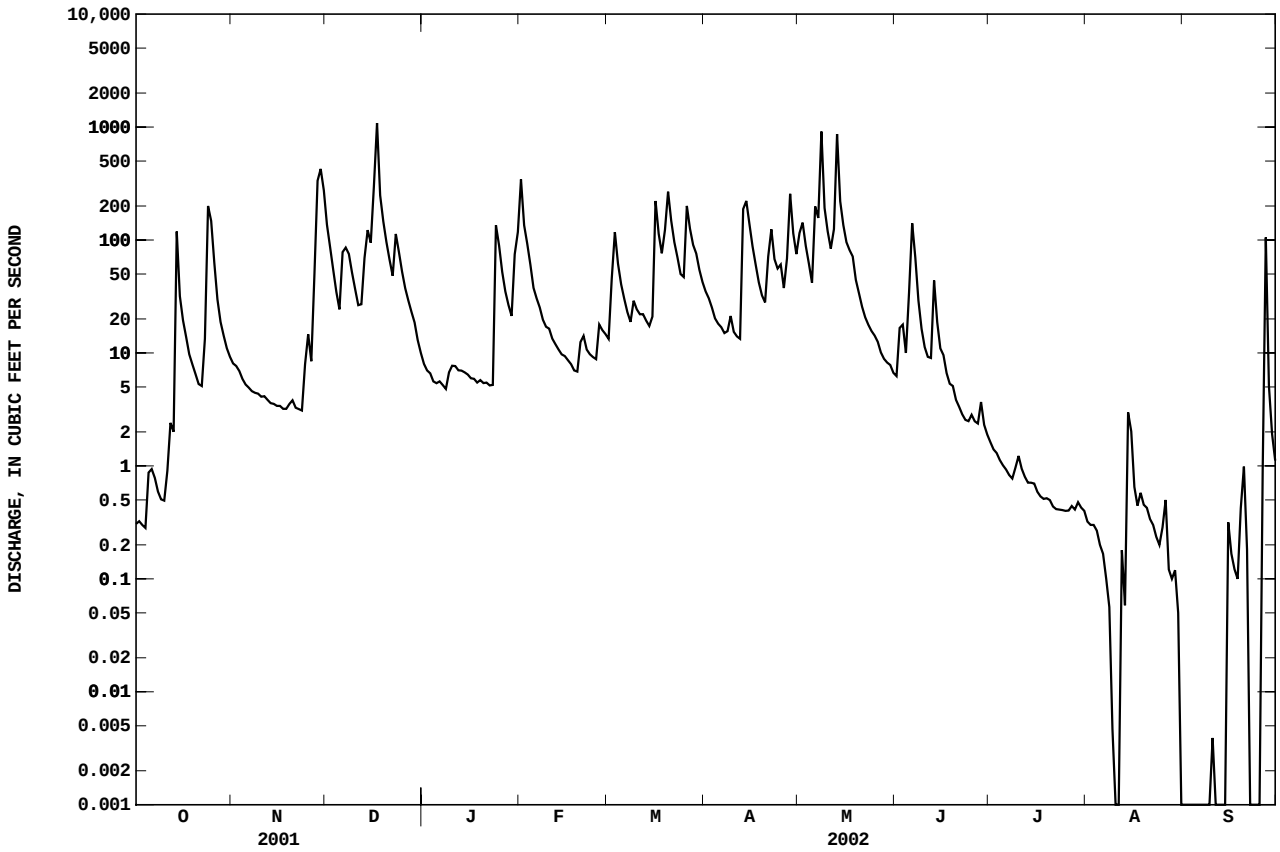
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	7.047	21.94	33.98	32.90	41.40	44.82	44.57	32.98	15.33	12.10	7.028	6.361
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	0.088	0.29	0.13	0.024
(WY)	1988	2000	1977	1977	1992	1976	2001	1988	1988	1991	1987	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002		
ANNUAL TOTAL	8590.35		15853.92				
ANNUAL MEAN	23.54		43.44		25.00		
HIGHEST ANNUAL MEAN					43.4		2002
LOWEST ANNUAL MEAN					10.7		1981
HIGHEST DAILY MEAN	1080	Dec 17	1080	Dec 17	2130	Apr 29	1996
LOWEST DAILY MEAN	0.28	Oct 4	0.00	Aug 9	0.00	Sep 3	1999
ANNUAL SEVEN-DAY MINIMUM	0.33	Sep 28	0.00	Aug 31	0.00	Sep 14	1999
MAXIMUM PEAK FLOW			4710	May 8	6930	May 17	1990
MAXIMUM PEAK STAGE			13.12	May 8	15.58	May 17	1990
ANNUAL RUNOFF (CFSM)	1.24		2.29		1.32		
ANNUAL RUNOFF (INCHES)	16.82		31.04		17.88		
10 PERCENT EXCEEDS	63		119		55		
50 PERCENT EXCEEDS	4.1		9.2		7.2		
90 PERCENT EXCEEDS	0.59		0.20		0.40		

e Estimated

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



03302800 BLUE RIVER AT FREDERICKSBURG, IN

LOCATION.--Lat 38°26'02", long 86°11'31", in NE$^1/_4$NW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	210	1640	e210	3970	219	497	655	238	53	24	8.2
2	15	181	970	e185	1670	237	435	1730	187	48	23	7.9
3	15	158	721	e170	1050	1280	378	1040	522	44	22	7.8
4	15	138	575	e150	770	748	315	685	282	40	21	7.1
5	18	120	474	e140	569	539	276	507	201	37	16	6.6
6	48	106	568	e150	482	428	250	717	958	35	13	6.4
7	52	95	1060	161	427	360	224	2080	771	33	11	6.4
8	37	87	762	139	360	310	216	4490	462	31	11	e6.2
9	32	79	669	130	296	330	283	4090	344	31	10	e6.2
10	29	71	541	140	269	568	281	1270	266	37	9.9	e6.2
11	33	66	455	161	252	423	236	849	208	42	11	e5.7
12	57	61	397	151	219	397	220	681	196	35	11	e5.6
13	161	57	616	141	196	371	1740	8310	577	33	11	e5.6
14	1460	53	849	132	172	326	3060	5320	596	32	11	9.9
15	903	50	967	125	163	296	1930	1520	323	28	28	13
16	512	49	1290	110	155	1190	1040	970	238	26	24	25
17	386	47	10500	104	140	961	730	749	190	24	16	28
18	298	43	6850	100	125	710	567	780	150	24	14	14
19	235	42	1890	98	120	1080	456	585	125	23	13	10
20	187	47	1180	99	141	4510	400	493	107	23	14	13
21	145	48	852	93	249	2220	446	421	91	22	13	24
22	118	43	677	92	198	1200	2320	366	80	22	12	20
23	520	38	1440	88	166	879	960	328	74	21	11	15
24	3500	46	1130	1440	152	691	661	293	69	20	11	11
25	2580	281	780	1240	145	590	609	258	69	20	11	8.7
26	962	208	624	729	212	2250	461	296	258	22	11	9.3
27	623	339	526	544	270	1630	441	225	94	25	9.7	1590
28	462	2140	452	440	224	1030	3090	188	77	24	8.5	457
29	372	6830	386	378	---	854	1480	348	78	e23	9.3	171
30	311	4220	317	685	---	713	891	759	63	24	8.7	99
31	254	---	e240	1520	---	578	---	335	---	26	8.3	---
TOTAL	14356	15953	40398	10045	13162	27918	24893	41338	7894	928	427.4	2603.8
MEAN	463.1	531.8	1303	324.0	470.1	900.6	829.8	1333	263.1	29.94	13.79	86.79
MAX	3500	6830	10500	1520	3970	4510	3090	8310	958	53	28	1590
MIN	15	38	240	88	120	219	216	188	63	20	8.3	5.6
CFSM	1.64	1.88	4.60	1.14	1.66	3.18	2.93	4.71	0.93	0.11	0.05	0.31
IN.	1.89	2.10	5.31	1.32	1.73	3.67	3.27	5.43	1.04	0.12	0.06	0.34

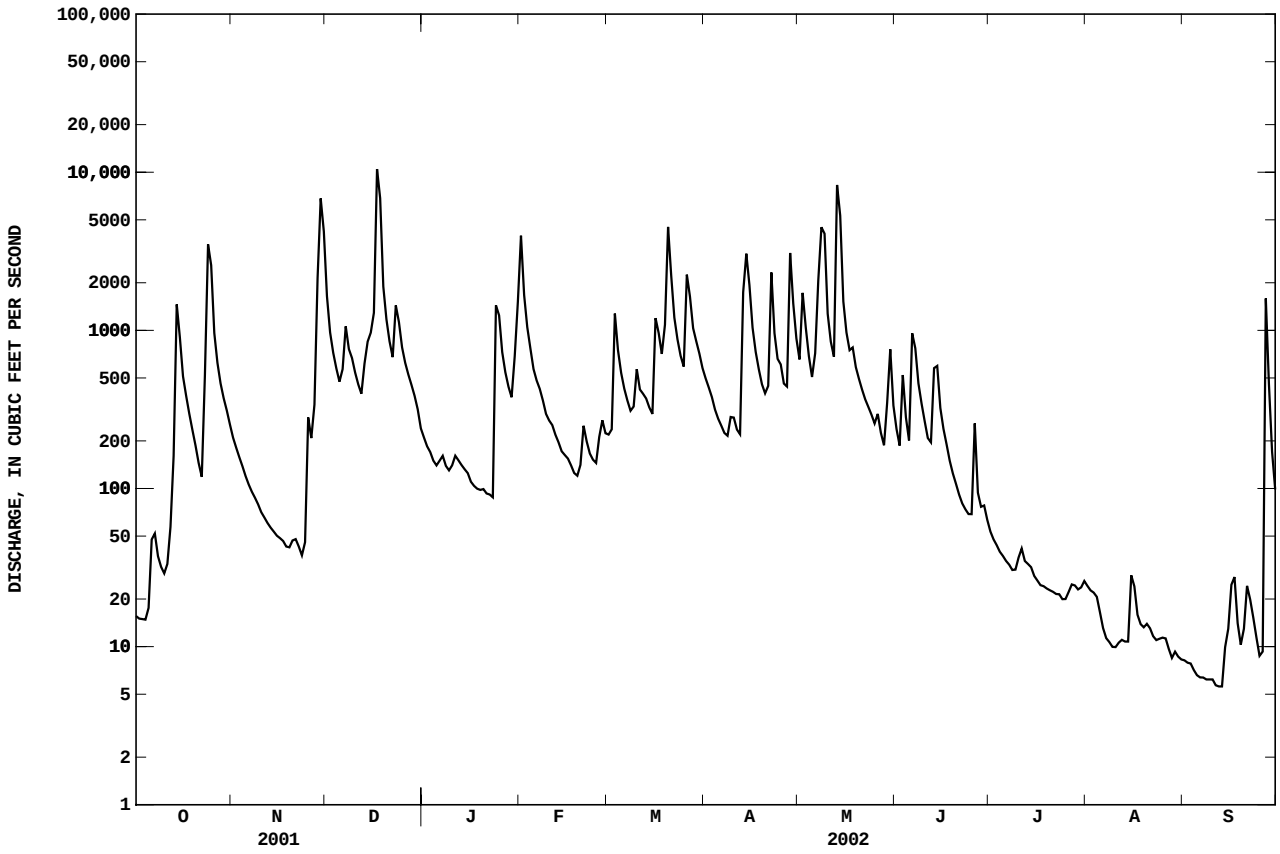
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	70.00	237.7	422.7	465.7	549.8	619.9	592.4	449.1	253.3	137.3	88.27	69.11
MAX	463	1135	1303	1341	1236	1372	1957	1808	1188	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	116574		199916.2			
ANNUAL MEAN	319.4		547.7		328.4	
HIGHEST ANNUAL MEAN					551	1996
LOWEST ANNUAL MEAN					129	1992
HIGHEST DAILY MEAN	10500	Dec 17	10500	Dec 17	22000	Apr 29 1996
LOWEST DAILY MEAN	11	Sep 6	e5.6	Sep 12	1.8	Nov 15 1999
ANNUAL SEVEN-DAY MINIMUM	14	Sep 1	e6.0	Sep 7	1.8	Nov 12 1999
MAXIMUM PEAK FLOW			13000	Dec 17	39000	Apr 29 1996
MAXIMUM PEAK STAGE			21.99	Dec 17	27.15	Apr 29 1996
ANNUAL RUNOFF (CFSM)	1.13		1.94		1.16	
ANNUAL RUNOFF (INCHES)	15.32		26.28		15.77	
10 PERCENT EXCEEDS	706		1250		746	
50 PERCENT EXCEEDS	84		210		113	
90 PERCENT EXCEEDS	26		13		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 SW$^1/_4$NW$^1/_4$ 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, 7.71 ft, May 12; minimum gage height, 0.96 ft, July 28.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.35	1.53	2.12	1.60	2.40	1.76	1.84	1.94	1.43	1.34	1.29	1.26
2	1.34	1.51	1.97	1.58	2.13	2.84	1.80	2.04	1.43	1.33	1.30	1.26
3	1.34	1.49	1.86	1.56	2.00	2.16	1.75	1.89	1.41	1.32	1.30	1.26
4	1.33	1.47	1.78	1.55	1.88	2.00	1.73	1.81	1.40	1.32	1.29	1.25
5	1.57	1.46	1.73	1.55	1.81	1.92	1.70	1.74	2.23	1.31	1.29	1.24
6	1.43	1.45	2.30	1.57	1.78	1.85	1.67	2.41	2.05	1.31	1.29	1.24
7	1.39	1.44	2.04	1.54	1.74	1.79	1.66	2.07	1.75	1.31	1.29	1.24
8	1.39	1.43	2.05	1.53	1.70	1.75	1.74	2.52	1.61	1.31	1.29	1.24
9	1.39	1.43	1.92	1.57	1.68	2.09	1.83	2.19	1.53	1.38	1.28	1.23
10	1.39	1.43	1.84	1.60	1.66	1.93	1.77	2.00	1.48	1.36	1.28	1.24
11	1.58	1.42	1.76	1.58	1.64	1.88	1.74	1.88	1.47	1.36	1.32	1.22
12	1.60	1.41	2.20	1.58	1.62	1.86	1.77	7.43	1.45	1.36	1.31	1.22
13	1.67	1.41	2.08	1.56	1.60	1.82	2.30	2.93	1.89	1.36	1.31	1.22
14	2.15	1.41	2.28	1.55	1.58	1.78	2.56	2.28	1.65	1.36	1.33	1.22
15	1.83	1.41	2.07	1.53	1.58	1.82	2.20	2.05	1.56	1.35	1.32	1.30
16	1.71	1.41	5.68	1.52	1.57	2.14	2.03	1.89	1.50	1.34	1.30	1.28
17	1.61	1.40	3.13	1.51	1.55	2.03	1.92	1.96	1.45	1.34	1.29	1.26
18	1.56	1.41	2.35	1.50	1.53	1.93	1.85	1.81	1.41	1.34	1.31	1.26
19	1.53	1.45	2.11	1.52	1.55	3.37	2.55	1.74	1.40	1.34	1.31	1.28
20	1.49	1.42	1.97	1.50	1.83	2.61	2.16	1.69	1.39	1.33	1.29	1.47
21	1.46	1.42	1.88	1.51	1.73	2.21	2.96	1.65	1.37	1.33	1.29	1.34
22	1.45	1.41	1.97	1.51	1.68	2.06	2.26	1.61	1.36	1.36	1.28	1.31
23	3.41	1.42	2.14	1.60	1.66	1.96	2.07	1.57	1.36	1.36	1.32	1.30
24	2.92	2.17	1.99	2.37	1.64	1.88	2.00	1.54	1.38	1.34	1.27	1.28
25	2.16	1.82	1.89	2.07	1.66	2.37	1.90	1.60	1.37	1.34	1.26	1.29
26	1.93	1.71	1.83	1.94	1.91	2.52	1.82	1.52	1.36	1.33	1.27	1.51
27	1.78	2.01	1.78	1.85	1.83	2.20	3.04	1.50	1.36	1.33	1.27	1.71
28	1.69	3.81	1.73	1.79	1.79	2.06	2.45	1.47	1.37	1.31	1.26	1.43
29	1.63	3.40	1.68	1.74	---	2.09	2.14	1.48	1.36	1.36	1.26	1.36
30	1.59	2.44	1.64	2.37	---	1.97	1.99	1.46	1.34	1.33	1.26	1.33
31	1.56	---	1.62	3.19	---	1.91	---	1.44	---	1.31	1.26	---
MEAN	1.68	1.68	2.11	1.71	1.74	2.08	2.04	2.04	1.50	1.34	1.29	1.30
MAX	3.41	3.81	5.68	3.19	2.40	3.37	3.04	7.43	2.23	1.38	1.33	1.71
MIN	1.33	1.40	1.62	1.50	1.53	1.75	1.66	1.44	1.34	1.31	1.26	1.22

CAL YR 2001 MEAN 1.59 MAX 5.68 MIN 1.26
WTR YR 2002 MEAN 1.71 MAX 7.43 MIN 1.22

03303000 BLUE RIVER NEAR WHITE CLOUD, IN

LOCATION.--Lat 38°14'15", long 86°13'42", in NW$^1/_4$SE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	504	4290	e600	5790	521	1140	1520	573	167	56	22
2	55	453	2350	e560	4520	544	1010	1960	481	148	55	22
3	52	410	1650	e515	2370	1940	912	1960	482	135	53	21
4	49	374	1290	e480	1720	1760	801	1360	712	125	49	20
5	65	344	1070	e460	1300	1180	718	1070	555	115	47	19
6	181	313	1020	462	1080	967	663	1120	1080	106	46	19
7	167	287	1880	446	969	838	615	3150	1730	97	41	18
8	194	265	1590	425	863	740	584	3390	1020	90	37	17
9	151	242	1420	400	757	785	645	8090	762	88	32	16
10	117	225	1180	397	685	1070	687	2830	623	110	29	16
11	104	207	1020	407	637	997	627	1810	530	103	42	16
12	156	194	890	416	592	891	580	1400	474	105	116	14
13	242	183	1110	402	543	848	1820	10900	502	106	62	14
14	2150	173	1490	384	499	781	3780	12400	992	102	40	15
15	2550	165	1990	366	468	712	5040	4000	744	103	36	19
16	1140	159	2380	347	451	1460	2410	2450	538	86	34	37
17	819	154	12000	331	429	2190	1650	1790	452	76	34	41
18	650	148	15100	320	402	1530	1290	1660	398	76	54	28
19	541	148	4790	317	381	2140	1230	1390	347	70	49	34
20	466	151	2820	310	391	7140	1290	1130	305	66	41	53
21	406	144	1960	308	462	5650	1640	985	267	62	35	76
22	352	148	1540	297	530	2830	4510	866	238	76	33	50
23	503	140	2330	297	461	1940	2590	780	214	81	32	39
24	5910	156	2610	1820	426	1530	1610	710	209	64	33	42
25	5250	484	1760	3110	408	1300	1300	646	213	57	32	38
26	2330	591	1400	1660	459	3340	1120	616	211	55	30	39
27	1330	656	1190	1220	579	4000	1200	613	381	51	27	2260
28	970	2390	1040	999	570	2330	4800	528	260	50	27	2420
29	773	10900	912	863	---	1800	4140	505	209	54	26	717
30	656	8910	793	1440	---	1610	2090	1010	188	75	25	420
31	573	---	695	2880	---	1310	---	808	---	63	23	---
TOTAL	28961	29618	77560	23239	28742	56674	52492	73447	15690	2762	1276	6562
MEAN	934.2	987.3	2502	749.6	1026	1828	1750	2369	523.0	89.10	41.16	218.7
MAX	5910	10900	15100	3110	5790	7140	5040	12400	1730	167	116	2420
MIN	49	140	695	297	381	521	580	505	188	50	23	14
CFSM	1.96	2.07	5.26	1.57	2.16	3.84	3.68	4.98	1.10	0.19	0.09	0.46
IN.	2.26	2.31	6.06	1.82	2.25	4.43	4.10	5.74	1.23	0.22	0.10	0.51

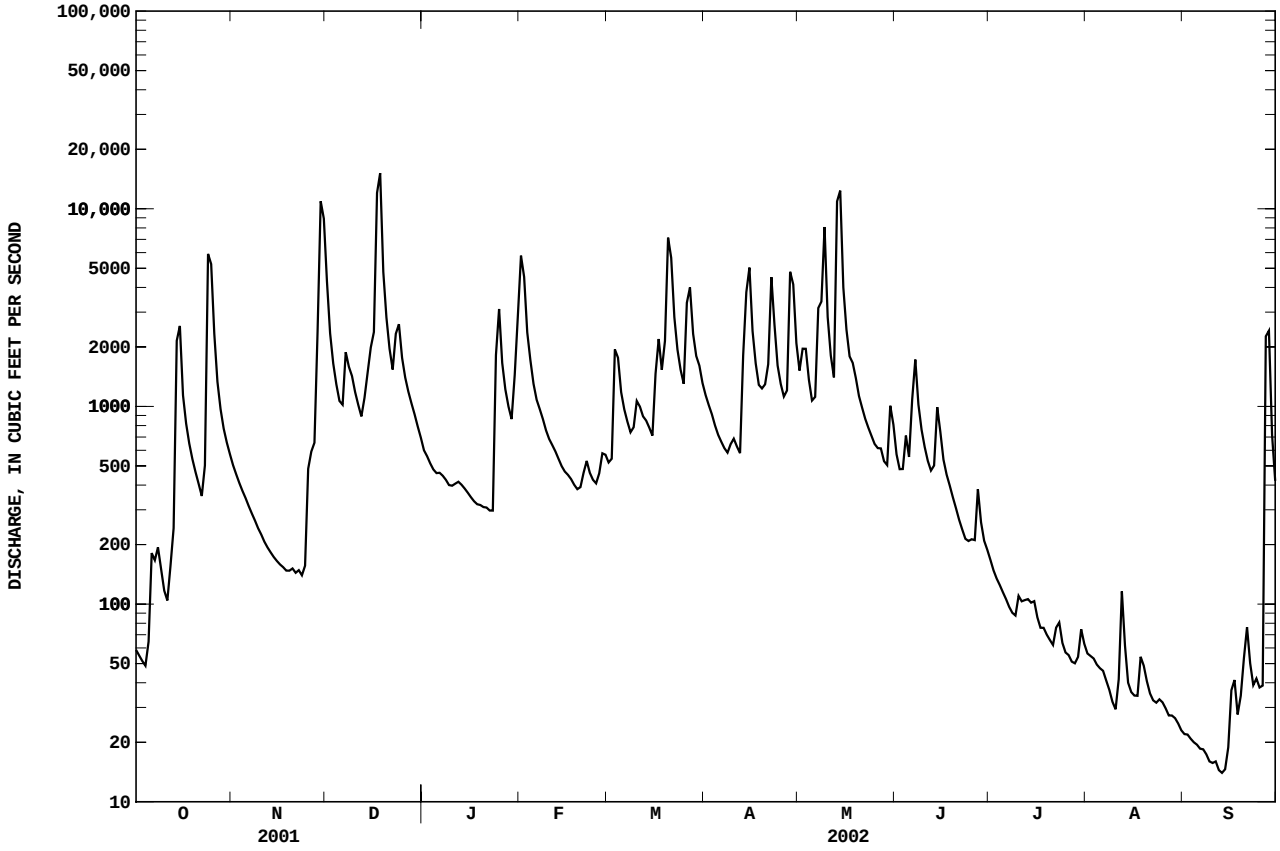
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2002, BY WATER YEAR (WY)

MEAN	136.4	370.2	683.8	1053	1139	1386	1165	878.7	505.9	282.0	176.3	140.9
MAX	934	2057	2502	6290	3404	4299	3243	4020	2785	1655	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1932 - 2002	
ANNUAL TOTAL	241659		397023			
ANNUAL MEAN	662.1		1088		657.4	
HIGHEST ANNUAL MEAN					1199	1950
LOWEST ANNUAL MEAN					140	1941
HIGHEST DAILY MEAN	15100	Dec 18	15100	Dec 18	27300	Apr 30 1996
LOWEST DAILY MEAN	38	Sep 7	14	Sep 12	9.6	Oct 17 1964
ANNUAL SEVEN-DAY MINIMUM	55	Jul 16	15	Sep 8	11	Oct 12 1964
MAXIMUM PEAK FLOW			16700	Dec 18	29400	Apr 30 1996
MAXIMUM PEAK STAGE			16.61	Dec 18	23.30	Apr 30 1996
ANNUAL RUNOFF (CFSM)	1.39		2.29		1.38	
ANNUAL RUNOFF (INCHES)	18.89		31.03		18.77	
10 PERCENT EXCEEDS	1450		2400		1480	
50 PERCENT EXCEEDS	242		515		257	
90 PERCENT EXCEEDS	77		39		37	

e Estimated

03303000 BLUE RIVER NEAR WHITE CLOUD, IN--Continued



03303300 MIDDLE FORK ANDERSON RIVER AT BRISTOW, IN

LOCATION.--Lat 38°08'19", long 86°43'16", in NW$^1/_4$SE$^1/_4$ sec.27, T.4 S., R.3 W., Perry County, Hydrologic Unit 05140201, (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 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

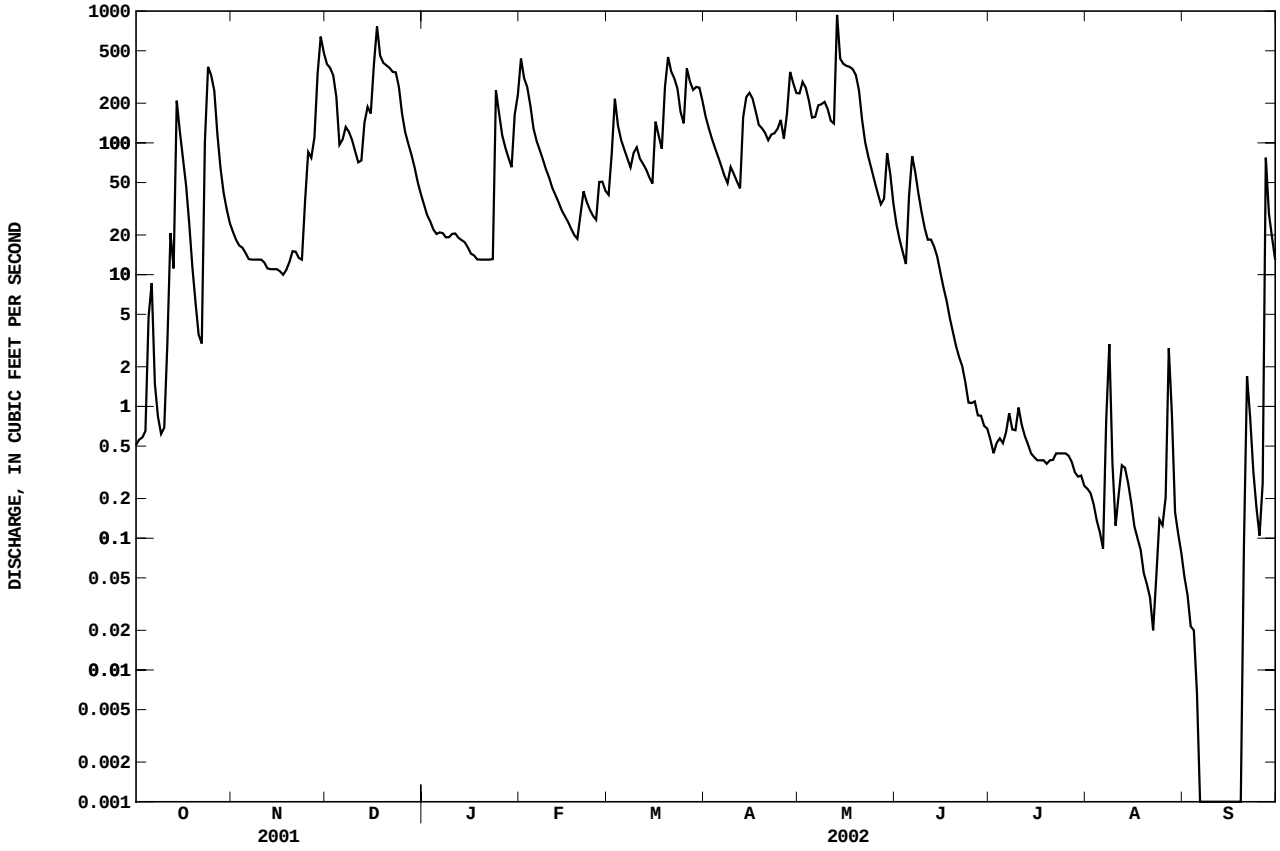
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.51	21	396	34	436	40	158	237	24	0.56	0.24	0.05
2	0.56	18	370	28	310	83	129	290	18	0.44	0.22	0.04
3	0.58	17	326	25	265	216	108	262	15	0.53	0.18	0.02
4	0.65	16	223	22	192	135	91	209	12	0.57	0.14	0.02
5	4.8	15	97	20	129	105	78	156	40	0.53	0.11	0.0
6	8.6	13	106	21	103	89	67	157	79	0.64	0.08	0.00
7	1.5	13	132	21	88	76	56	193	60	0.89	0.79	0.00
8	0.83	13	121	19	75	65	49	197	41	0.67	3.0	0.00
9	0.62	13	106	19	63	84	66	205	30	0.66	0.37	0.00
10	0.69	13	86	20	54	92	58	181	23	0.98	0.12	0.00
11	3.0	12	71	21	46	76	51	147	18	0.73	0.22	0.00
12	21	11	74	19	40	69	45	140	18	0.60	0.36	0.00
13	11	11	143	18	35	63	157	936	16	0.52	0.34	0.00
14	209	11	188	18	31	55	223	435	14	0.44	0.26	0.00
15	122	11	167	16	28	49	240	398	10	0.41	0.19	0.00
16	76	11	392	14	25	145	217	384	8.0	0.39	0.12	0.00
17	47	10	765	14	22	113	173	377	6.3	0.39	0.10	0.00
18	24	11	458	13	20	90	137	362	4.7	0.39	0.08	0.00
19	11	12	405	13	19	265	129	328	3.7	0.37	0.05	0.00
20	6.2	15	388	13	28	448	119	250	2.9	0.39	0.04	0.09
21	3.5	15	371	13	43	348	105	149	2.4	0.39	0.04	1.7
22	3.0	13	346	13	36	309	116	101	2.0	0.44	0.02	0.82
23	102	13	343	13	31	258	118	78	1.5	0.44	0.05	0.33
24	378	36	264	250	28	172	128	63	1.1	0.44	0.14	0.17
25	326	85	166	168	26	141	149	51	1.1	0.44	0.13	0.10
26	249	77	120	114	50	368	108	41	1.1	0.42	0.20	0.26
27	115	110	98	92	51	292	167	34	0.85	0.38	2.8	77
28	64	332	81	77	43	252	346	38	0.85	0.32	0.87	29
29	42	640	65	65	---	266	284	83	0.71	0.29	0.16	19
30	31	483	50	164	---	263	239	58	0.68	0.30	0.11	13
31	24	---	41	232	---	207	---	35	---	0.25	0.08	---
TOTAL	1887.04	2071	6959	1589	2317	5234	4111	6575	455.89	15.21	11.61	141.60
MEAN	60.87	69.03	224.5	51.26	82.75	168.8	137.0	212.1	15.20	0.491	0.375	4.720
MAX	378	640	765	250	436	448	346	936	79	0.98	3.0	77
MIN	0.51	10	41	13	19	40	45	34	0.68	0.25	0.02	0.00
CFSM	1.53	1.73	5.64	1.29	2.08	4.24	3.44	5.33	0.38	0.01	0.01	0.12
IN.	1.76	1.94	6.50	1.49	2.17	4.89	3.84	6.15	0.43	0.01	0.01	0.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

MEAN	9.779	37.33	75.16	80.05	97.61	124.1	110.5	77.16	31.80	16.82	11.40	10.53
MAX	63.7	194	225	223	245	393	312	405	190	141	162	78.8
(WY)	1978	1980	2002	1982	1989	1964	1972	1983	1979	1979	1979	1982
MIN	0.000	0.000	0.000	2.78	5.66	33.4	15.7	2.37	0.82	0.38	0.013	0.000
(WY)	1965	1964	1964	1964	1992	1990	2001	2001	1988	1968	1965	1964

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1962 - 2002	
ANNUAL TOTAL	16543.07		31367.35			
ANNUAL MEAN	45.32		85.94		56.65	
HIGHEST ANNUAL MEAN					122	1979
LOWEST ANNUAL MEAN					15.2	1992
HIGHEST DAILY MEAN	765	Dec 17	936	May 13	4870	Mar 9 1964
LOWEST DAILY MEAN	0.16	Sep 6	0.00	Sep 5	0.00	Oct 2 1961
ANNUAL SEVEN-DAY MINIMUM	0.27	Jul 13	0.00	Sep 5	0.00	Oct 9 1961
MAXIMUM PEAK FLOW			1320	May 13	6360	Mar 9 1964
MAXIMUM PEAK STAGE			15.13	May 13	19.33	Mar 4 1964
ANNUAL RUNOFF (CFSM)	1.14		2.16		1.42	
ANNUAL RUNOFF (INCHES)	15.46		29.32		19.34	
10 PERCENT EXCEEDS	120		264		148	
50 PERCENT EXCEEDS	10		26		15	
90 PERCENT EXCEEDS	0.52		0.14		0.18	

03303300 MIDDLE FORK ANDERSON RIVER AT BRISTOW, IN--Continued



03303400 CROOKED CREEK NEAR SANTA CLAUS, IN

LOCATION.--Lat 38°07'05", long 86°53'24", in SE$^1/_4$SE$^1/_4$ sec.31, T.4 S., R.4 W., Spencer County, Hydrologic Unit 05140201, (SANTA CLAUS, IN. quadrangle), on right bank at upstream side of bridge on county road, 1.1 mi east of State Highway 162, 1.3 mi east of Santa Claus Post Office, and 1.8 mi upstream from unnamed right-bank tributary.

DRAINAGE AREA.--7.86 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 403.00 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1995 datum of gage was 404.34 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges and those below 2 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	1.6	28	e2.0	222	3.6	13	59	e2.4	0.00	0.00	e0.0
2	0.00	1.4	14	e1.8	32	69	8.9	48	e1.9	0.00	0.00	e0.0
3	0.00	1.3	8.6	e1.7	17	49	6.2	22	e1.5	0.00	0.00	e0.0
4	0.00	1.2	6.2	e1.6	9.8	16	4.7	9.7	e1.1	0.00	0.00	e0.0
5	2.4	1.1	4.5	e1.6	6.8	8.5	3.8	5.3	e1.7	0.0	0.00	e0.0
6	1.4	0.93	46	e1.7	6.2	5.8	3.2	44	e4.0	0.09	0.00	e0.0
7	0.39	0.90	25	e1.5	5.8	4.7	2.8	40	e1.8	0.00	0.00	e0.0
8	0.05	0.97	24	e1.4	4.4	4.9	2.6	68	e1.5	0.00	0.00	e0.0
9	0.02	0.81	12	e2.0	3.7	34	3.5	39	e1.1	0.00	0.00	e0.0
10	0.01	0.89	7.3	2.6	3.7	16	2.5	17	e0.90	0.04	0.00	e0.0
11	3.9	0.94	5.1	2.7	3.1	9.2	2.3	7.9	e0.81	0.00	0.00	e0.0
12	4.1	0.85	28	2.5	2.9	7.5	2.7	39	1.4	0.00	0.00	e0.0
13	2.2	e0.86	40	2.4	2.3	5.9	90	919	6.0	0.00	0.00	e0.0
14	73	e0.85	52	2.4	2.2	4.7	248	56	1.4	0.00	0.00	e0.0
15	5.6	e0.80	22	1.9	2.2	3.8	41	28	0.81	0.00	0.00	e0.0
16	3.3	e0.74	442	1.8	2.1	53	17	17	0.65	0.00	0.00	e0.0
17	2.3	e0.70	504	1.8	1.9	17	9.0	21	0.50	0.00	0.00	e0.0
18	2.0	e0.66	62	1.6	1.8	10	5.8	17	0.34	0.00	0.00	e0.0
19	1.6	1.7	28	2.0	2.0	155	5.5	9.3	0.22	0.00	0.00	e0.03
20	1.4	1.5	16	1.7	9.2	148	6.5	6.9	0.12	0.00	0.00	2.7
21	1.8	1.1	10	2.1	6.0	36	12	5.6	0.09	0.00	0.00	0.85
22	2.0	e1.0	12	2.0	3.2	18	11	5.0	0.26	0.00	0.00	0.02
23	649	e0.90	54	2.5	2.7	11	4.2	4.6	0.09	0.00	0.00	0.00
24	217	16	17	91	2.5	7.8	71	4.4	0.04	0.00	0.00	0.00
25	53	6.7	9.4	23	2.4	34	42	3.9	0.01	0.00	0.00	0.00
26	15	3.2	e6.2	11	25	166	11	3.7	0.0	0.00	0.00	0.14
27	6.6	19	e5.1	7.4	7.1	34	137	3.3	0.00	0.00	e0.0	51
28	3.7	165	4.3	5.6	4.9	19	121	3.7	0.00	0.00	e0.0	1.7
29	2.6	254	3.4	4.3	---	169	26	e17	0.00	0.00	e0.0	0.71
30	2.1	101	e2.5	70	---	47	13	e17	0.00	0.00	e0.0	0.51
31	2.0	---	e2.3	76	---	23	---	e3.7	---	0.00	e0.0	---
TOTAL	1058.47	588.60	1500.9	333.6	394.9	1190.4	927.2	1545.0	30.64	0.13	0.00	57.66
MEAN	34.14	19.62	48.42	10.76	14.10	38.40	30.91	49.84	1.021	0.004	0.000	1.922
MAX	649	254	504	91	222	169	248	919	6.0	0.09	0.00	51
MIN	0.00	0.66	2.3	1.4	1.8	3.6	2.3	3.3	0.00	0.00	0.00	0.00
CFSM	4.34	2.50	6.16	1.37	1.79	4.89	3.93	6.34	0.13	0.00	0.00	0.24
IN.	5.01	2.79	7.10	1.58	1.87	5.63	4.39	7.31	0.15	0.00	0.00	0.27

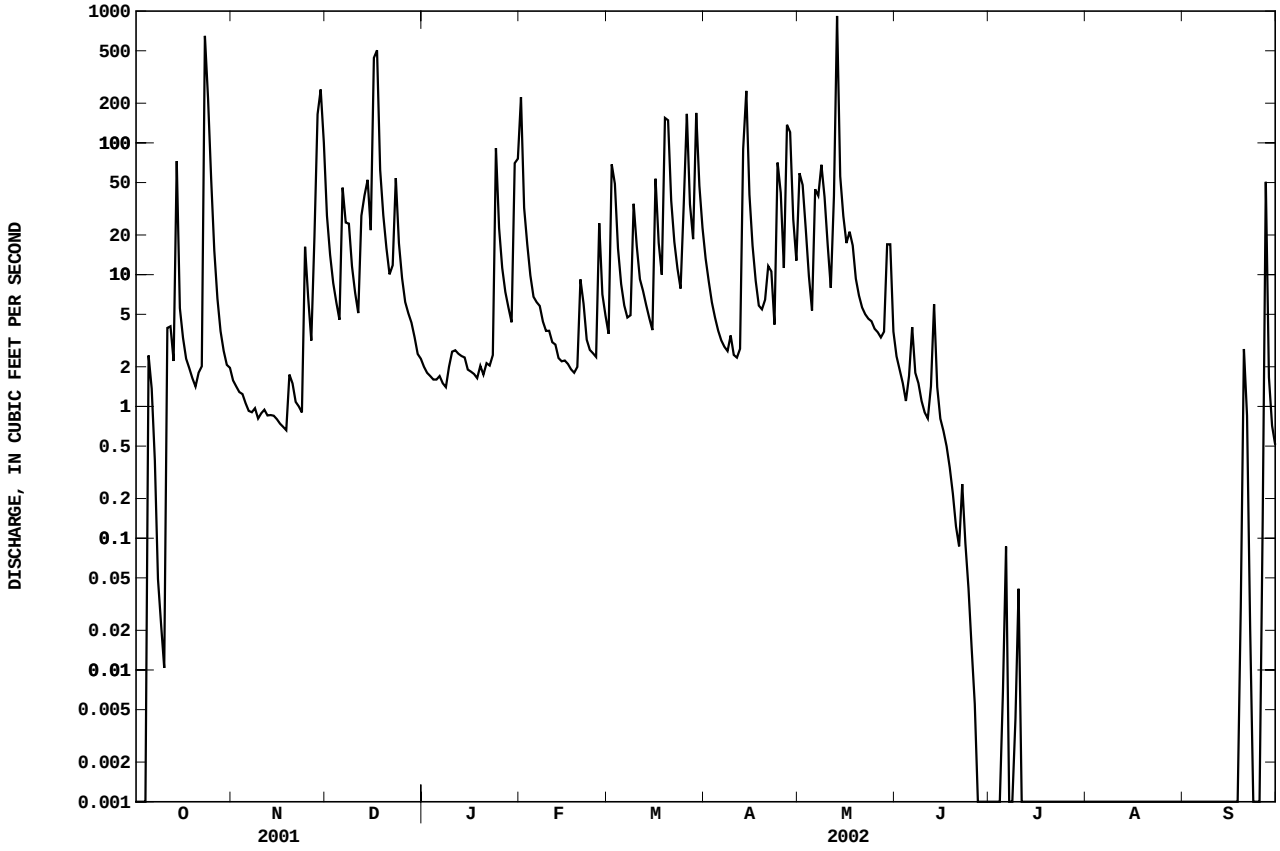
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	3.237	9.483	15.75	15.41	21.11	21.91	20.58	12.51	6.627	4.590	2.647	2.343
MAX	34.1	33.5	49.1	43.7	65.0	63.1	65.7	62.0	37.5	47.5	19.4	16.7
(WY)	2002	1994	1991	1982	2000	1997	1996	1995	1997	1979	1977	1996
MIN	0.000	0.067	0.51	0.058	1.12	5.35	2.27	0.17	0.000	0.001	0.000	0.000
(WY)	1988	2000	1977	1977	1992	1990	1976	1988	1988	1974	1983	1970

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	4253.74		7627.50			
ANNUAL MEAN	11.65		20.90		11.29	
HIGHEST ANNUAL MEAN					20.9	2002
LOWEST ANNUAL MEAN					3.97	1992
HIGHEST DAILY MEAN	649	Oct 23	919	May 13	1200	Apr 29 1996
LOWEST DAILY MEAN	0.00	May 16	0.00	Oct 1	0.00	Oct 1 1969
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 11	0.00	Jun 26	0.00	Jun 28 1970
MAXIMUM PEAK FLOW			3060	Oct 23	4100	Apr 28 1970
MAXIMUM PEAK STAGE			10.95	Oct 23	10.13	Apr 3 1989
ANNUAL RUNOFF (CFSM)	1.48		2.66		1.44	
ANNUAL RUNOFF (INCHES)	20.13		36.10		19.52	
10 PERCENT EXCEEDS	16		45		22	
50 PERCENT EXCEEDS	1.4		2.3		1.7	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated

03303400 CROOKED CREEK NEAR SANTA CLAUS, IN--Continued



03322900 WABASH RIVER AT LINN GROVE, IN

LOCATION.--Lat 40°39'22", long 85°01'58", in SE$^1/_4$SE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	196	1840	e186	2750	267	3950	1360	278	57	15	9.3
2	25	176	1710	e175	4250	400	2730	686	244	48	13	9.1
3	20	168	815	e170	4340	1430	1970	499	231	41	13	9.1
4	17	149	437	e164	3160	1420	1900	401	234	36	11	8.8
5	115	132	309	e160	1900	680	1830	350	197	31	11	9.1
6	1060	122	240	e160	1030	439	1240	292	186	31	12	8.8
7	756	116	209	e157	651	353	831	293	195	31	11	7.8
8	325	108	187	e153	474	304	682	629	170	27	14	6.1
9	163	101	173	e150	377	474	1140	1020	153	28	12	5.5
10	108	97	149	e152	341	1170	1620	801	144	112	10	7.1
11	136	92	138	e156	402	837	1720	450	136	63	7.9	6.5
12	1460	82	129	e152	479	481	1200	500	125	43	7.0	5.9
13	1700	80	142	145	387	402	926	1650	118	37	8.4	8.0
14	1680	75	e520	139	327	346	1540	3060	117	28	12	7.4
15	1900	73	e2040	141	298	310	2130	3970	113	24	8.6	5.4
16	2380	72	e2020	142	267	431	2210	3210	105	22	6.5	4.1
17	2340	66	e2900	134	238	436	1740	2190	98	28	6.2	4.6
18	2050	65	e3100	123	219	374	1030	1260	87	37	5.2	8.4
19	1200	67	3410	117	219	298	697	648	80	20	12	7.9
20	467	66	2970	119	278	284	575	447	76	22	26	13
21	270	58	1740	110	551	275	565	384	73	22	35	26
22	246	55	849	108	373	243	836	322	67	25	19	29
23	382	52	595	104	293	204	622	288	63	100	16	21
24	1450	52	442	111	256	195	436	248	59	45	49	14
25	2530	68	323	122	239	200	382	246	56	30	47	11
26	2910	111	e270	130	253	243	264	284	56	22	33	11
27	2690	82	e250	124	351	250	269	288	70	19	22	17
28	1530	88	e230	117	298	274	1520	407	63	16	15	42
29	590	301	e215	115	---	895	2340	651	96	19	14	57
30	301	1460	e204	257	---	2720	2380	477	72	22	13	29
31	232	---	e196	1290	---	4580	---	349	---	16	11	---
TOTAL	31059	4430	28752	5583	25001	21215	41275	27660	3762	1102	495.8	408.9
MEAN	1002	147.7	927.5	180.1	892.9	684.4	1376	892.3	125.4	35.55	15.99	13.63
MAX	2910	1460	3410	1290	4340	4580	3950	3970	278	112	49	57
MIN	17	52	129	104	219	195	264	246	56	16	5.2	4.1
CFSM	2.21	0.33	2.05	0.40	1.97	1.51	3.04	1.97	0.28	0.08	0.04	0.03
IN.	2.55	0.36	2.36	0.46	2.05	1.74	3.39	2.27	0.31	0.09	0.04	0.03

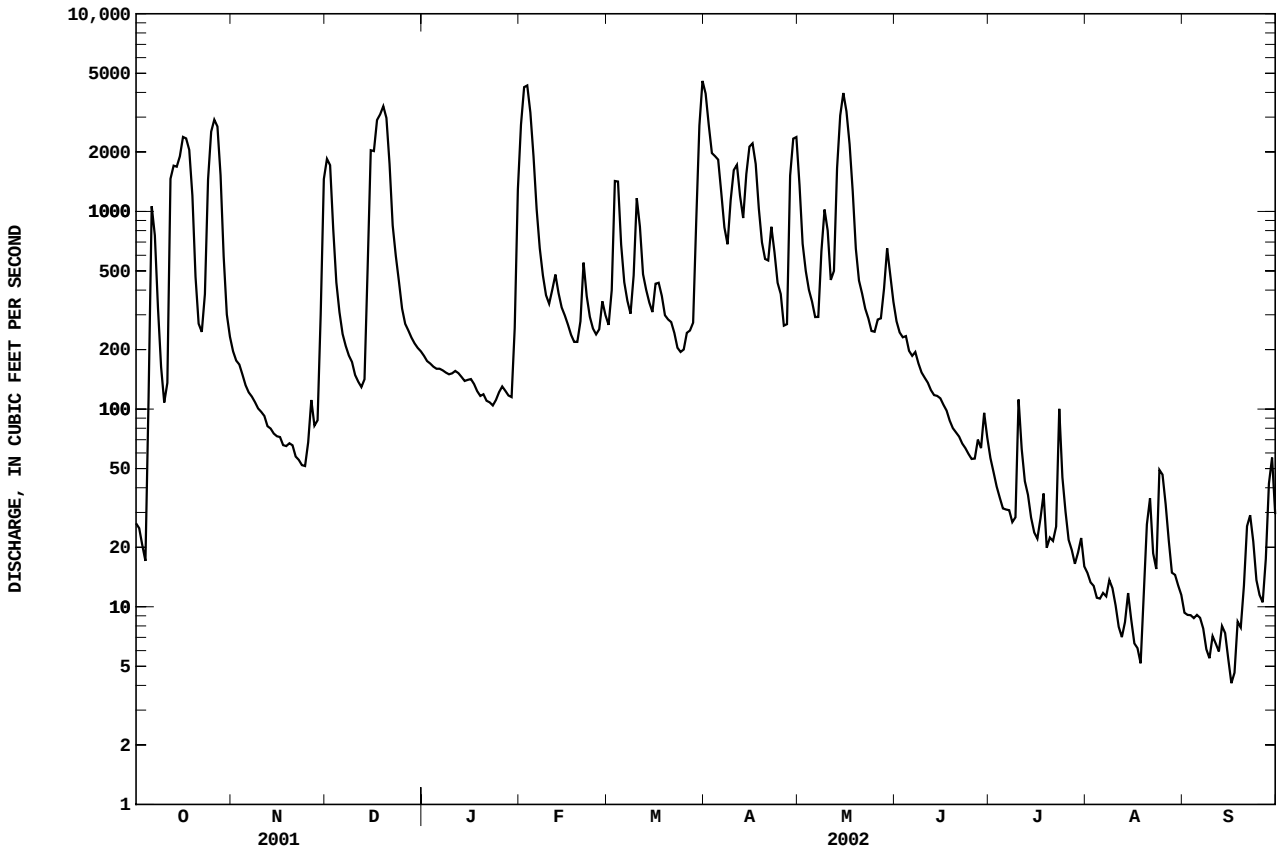
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2002, BY WATER YEAR (WY)

MEAN	110.2	271.9	489.1	493.0	673.7	769.0	667.3	376.7	362.3	280.7	167.9	94.09
MAX	1002	1853	1514	1563	1717	2397	2085	1584	1914	1877	1513	753
(WY)	2002	1973	1991	1974	1976	1978	1972	1996	1981	1993	1995	1972
MIN	6.84	7.52	9.25	6.19	86.0	80.5	68.2	25.9	8.92	11.7	8.20	7.64
(WY)	1965	1966	1977	1977	1978	1981	1971	1988	1988	1965	1966	1967

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1965 - 2002	
ANNUAL TOTAL	135752		190743.7			
ANNUAL MEAN	371.9		522.6		394.7	
HIGHEST ANNUAL MEAN					710	1973
LOWEST ANNUAL MEAN					76.8	1966
HIGHEST DAILY MEAN	3430	Apr 13	4580	Mar 31	8460	Jul 4 1993
LOWEST DAILY MEAN	15	Sep 6	4.1	Sep 16	4.0	Nov 1 1999
ANNUAL SEVEN-DAY MINIMUM	21	Sep 3	6.0	Sep 11	5.1	Oct 29 1999
MAXIMUM PEAK FLOW			4820	Mar 31	9560	Mar 17 1978
MAXIMUM PEAK STAGE			11.95	Mar 31	13.87	Mar 17 1978
ANNUAL RUNOFF (CFSM)	0.82		1.15		0.87	
ANNUAL RUNOFF (INCHES)	11.15		15.66		11.84	
10 PERCENT EXCEEDS	1270		1730		1160	
50 PERCENT EXCEEDS	119		176		113	
90 PERCENT EXCEEDS	29		12		12	

e Estimated

03322900 WABASH RIVER AT LINN GROVE, IN--Continued



03322985 WABASH RIVER NEAR BLUFFTON, IN

LOCATION.--Lat 40°43'41", long 85°08'12", in NE$^1/_4$NE$^1/_4$ 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 fair 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	239	1960	e194	3100	333	4410	1840	360	64	22	16
2	35	208	1860	e182	3520	501	3480	942	301	55	19	14
3	33	198	1100	e176	4300	1860	2480	667	266	46	18	13
4	27	177	570	e170	3750	1690	1980	523	256	41	18	13
5	81	150	403	e165	2440	952	1950	464	420	37	17	13
6	1130	132	302	e165	1280	586	1480	385	229	34	15	13
7	984	125	248	e163	809	472	999	372	212	34	16	14
8	482	116	215	e160	587	398	853	604	191	32	16	13
9	232	108	192	e156	463	547	1320	1090	164	41	18	12
10	138	99	164	e156	403	1290	1660	1010	148	102	17	10
11	208	99	145	e162	437	1090	1800	617	168	88	14	11
12	1870	86	134	e160	556	639	1470	658	167	52	13	11
13	1970	82	143	e152	480	515	1110	1860	126	43	12	10
14	1970	79	555	146	391	441	1510	2620	118	37	14	12
15	2080	76	1750	149	353	392	2050	3620	119	29	18	12
16	2690	74	1740	148	323	476	2240	3680	121	26	16	11
17	2920	69	2590	139	276	560	1980	2760	99	24	16	9.9
18	2320	65	2840	128	242	479	1280	1640	90	39	15	8.9
19	1570	67	3100	118	267	387	859	890	81	30	18	12
20	688	67	3210	113	446	354	691	582	76	27	27	17
21	378	62	2270	113	728	343	654	489	72	28	36	28
22	348	58	1100	110	537	308	882	417	66	26	33	27
23	589	56	735	106	392	253	795	364	62	97	28	33
24	1580	55	572	109	332	229	541	316	59	73	34	22
25	2770	76	414	118	297	230	467	323	58	43	58	16
26	2690	106	e300	131	319	e248	347	368	55	33	44	14
27	2750	96	e265	129	420	e290	322	362	65	26	33	18
28	2000	82	e245	120	402	325	1840	703	64	24	23	28
29	835	259	e228	120	---	958	2280	1040	80	24	19	56
30	408	1790	e216	298	---	3100	2530	690	84	28	18	43
31	293	---	e204	1660	---	4370	---	475	---	25	16	---
TOTAL	36107	4956	29770	6116	27850	24616	46260	32371	4377	1308	681	530.8
MEAN	1165	165.2	960.3	197.3	994.6	794.1	1542	1044	145.9	42.19	21.97	17.69
MAX	2920	1790	3210	1660	4300	4370	4410	3680	420	102	58	56
MIN	27	55	134	106	242	229	322	316	55	24	12	8.9
CFSM	2.29	0.33	1.89	0.39	1.96	1.56	3.04	2.06	0.29	0.08	0.04	0.03
IN.	2.64	0.36	2.18	0.45	2.04	1.80	3.39	2.37	0.32	0.10	0.05	0.04

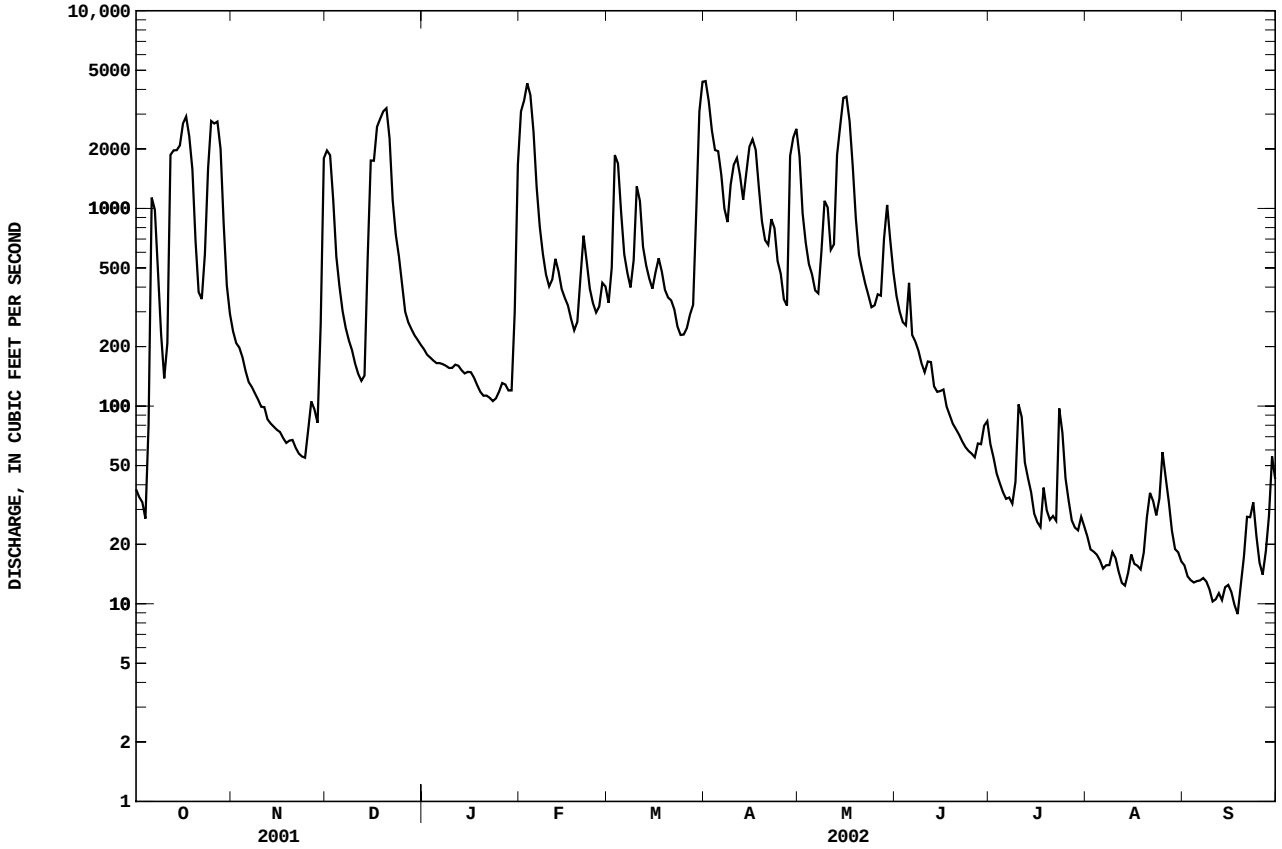
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

MEAN	1165	165.2	960.3	197.3	994.6	794.5	1542	1044	146.0	42.13	22.03	17.66
MAX	1165	165	960	197	995	794	1542	1044	146	42.1	22.0	17.7
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002
MIN	1165	165	960	197	995	794	1542	1044	146	42.1	22.0	17.7
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 1994 - 2002		
ANNUAL TOTAL	214942.8				
ANNUAL MEAN	588.9		588.9		
HIGHEST ANNUAL MEAN			589		2002
LOWEST ANNUAL MEAN			589		2002
HIGHEST DAILY MEAN	4410	Apr 1	4410	Apr 1	2002
LOWEST DAILY MEAN	8.9	Sep 18	2.9	Sep 6	2001
ANNUAL SEVEN-DAY MINIMUM	11	Sep 12	3.4	Sep 5	2001
MAXIMUM PEAK FLOW	4640	Apr 1	4640	Apr 1	2002
MAXIMUM PEAK STAGE	12.88	Apr 1	12.88	Apr 1	2002
ANNUAL RUNOFF (CFSM)	1.16		1.16		
ANNUAL RUNOFF (INCHES)	15.74		15.75		
10 PERCENT EXCEEDS	1950		1860		
50 PERCENT EXCEEDS	208		176		
90 PERCENT EXCEEDS	18		15		

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$^1/_4$NE$^1/_4$ 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 2001 (discharge). October 2001 to September 2002 (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.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 14.59 ft, April 2, 2002; minimum gage height 9.08 ft, Aug. 7-12, 31, and Sept. 1-2, 2002.

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, 14.59 ft, Apr. 2; minimum gage height 9.08 ft, Aug. 7-12, 31 and Sept, 1-2.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.18	10.96	11.60	9.75	10.21	10.16	14.57	12.29	10.62	9.40	9.37	9.08
2	9.17	10.91	13.02	9.85	12.18	10.08	14.57	11.65	10.40	9.39	9.30	9.09
3	9.77	10.58	12.75	9.74	13.77	11.61	14.43	10.69	9.74	9.38	9.20	9.11
4	9.70	10.54	10.87	9.67	14.19	12.82	13.45	10.36	9.91	9.21	9.13	9.11
5	9.60	10.51	10.76	9.66	14.09	11.54	12.11	9.91	10.07	9.26	9.13	9.11
6	10.83	10.16	9.44	9.68	13.86	10.28	12.05	10.07	11.07	9.25	9.13	9.11
7	10.83	9.86	9.86	9.65	13.51	10.28	11.57	9.95	11.86	9.25	9.08	9.11
8	10.35	9.57	9.88	9.53	11.80	10.18	10.57	10.07	10.40	9.25	9.08	9.11
9	9.72	9.62	9.83	9.68	11.12	10.21	10.83	10.60	10.08	9.26	9.08	9.30
10	9.83	9.71	9.70	9.68	10.34	10.79	11.80	10.70	9.71	9.48	9.08	9.30
11	10.07	9.75	9.70	9.68	10.32	11.06	11.78	10.71	9.71	9.57	9.08	9.11
12	9.91	9.74	9.63	9.56	10.30	10.98	11.76	9.54	9.71	9.59	9.13	9.11
13	9.95	9.68	9.67	9.66	10.29	10.19	11.70	---	9.76	9.59	9.13	9.11
14	10.00	9.57	9.79	9.66	10.00	10.10	11.31	---	9.74	9.49	9.20	9.12
15	11.09	9.56	11.34	9.65	10.00	10.06	11.29	12.52	9.50	9.14	9.20	9.31
16	10.47	9.56	11.87	9.56	9.87	9.98	11.70	13.01	9.65	9.14	9.13	9.31
17	10.48	9.56	10.18	9.64	9.88	10.24	11.95	13.01	9.69	9.17	9.13	9.31
18	12.30	9.56	12.81	9.52	9.74	10.23	11.28	12.91	9.58	9.20	9.14	9.31
19	13.36	9.55	13.83	9.53	9.86	9.96	10.36	12.74	9.50	9.20	9.14	9.31
20	13.56	9.55	14.24	9.55	10.57	9.95	10.23	11.75	9.49	9.20	9.25	9.32
21	13.69	9.55	14.05	9.65	10.86	9.86	10.23	10.47	9.48	9.20	9.25	9.35
22	12.75	9.54	13.10	9.51	10.84	9.87	9.42	9.99	9.39	9.20	9.26	9.46
23	10.92	9.50	10.72	9.51	10.54	9.80	10.51	10.00	9.39	9.26	9.26	9.46
24	10.63	9.50	10.97	9.53	10.32	9.79	10.50	9.98	9.38	9.30	9.37	9.44
25	10.62	9.53	10.80	9.55	10.20	9.79	10.25	9.80	9.38	9.38	9.36	9.46
26	12.37	9.72	10.26	9.55	9.96	9.79	10.10	10.80	9.42	9.38	9.36	9.39
27	13.48	9.75	9.98	9.55	10.01	9.81	9.91	10.09	9.41	9.36	9.35	9.39
28	13.86	9.83	9.91	9.55	10.16	9.89	11.07	10.10	9.41	9.34	9.30	9.38
29	13.69	9.74	9.89	9.63	---	10.48	11.89	10.86	9.41	9.34	9.25	9.39
30	13.46	10.55	9.52	9.83	---	10.63	12.30	10.86	9.40	9.39	9.19	9.38
31	12.12	---	9.74	10.95	---	12.92	---	10.64	---	9.44	9.08	---
MEAN	11.22	9.86	10.96	9.67	11.03	10.43	11.52	---	9.81	9.32	9.20	9.26
MAX	13.86	10.96	14.24	10.95	14.19	12.92	14.57	---	11.86	9.59	9.37	9.46
MIN	9.17	9.50	9.44	9.51	9.74	9.79	9.42	---	9.38	9.14	9.08	9.08

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, -0.0°C, Jan. 21, Feb. 19, 1988; Feb. 19, 1991; Jan. 30, 1993; Jan. 25, 27-30, and Feb. 1, 1996;

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 26.9°C, July 31 and Aug. 3-4, minimum, 0.4°C, Mar. 4.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.7	14.5	15.7	10.3	9.8	10	9.3	8.4	9.0	4.0	3.1	3.4
2	17.6	15.5	16.6	10.5	10.0	10.2	8.7	8.0	8.6	3.9	2.9	3.3
3	19.3	15.6	16.8	10.8	9.9	10.2	8.6	8.3	8.4	4.3	2.8	3.4
4	16.6	15.5	15.9	11.1	10.2	10.5	9.2	8.2	8.7	4.6	3.0	3.7
5	15.7	14.3	14.9	11.3	10.3	10.7	11.0	9.2	10.1	4.6	3.5	4.0
6	15.7	13.7	14.8	11.7	10.1	10.8	11.8	11.0	11.4	4.3	3.9	4.1
7	14.9	13.6	14.4	12.7	10.6	11.3	11.2	9.7	10.6	4.2	3.2	3.7
8	14.0	13.4	13.6	12.3	10.8	11.3	9.9	9.2	9.7	5.2	3.2	4.0
9	15.3	13.1	13.9	12.1	9.8	10.8	9.5	8.1	8.8	5.1	3.7	4.4
10	14.1	13.1	13.6	11.8	9.7	10.5	9.2	7.5	8.2	5.0	4.0	4.4
11	14.4	13.7	13.8	11.3	9.6	10.2	8.8	7.0	7.7	4.7	3.9	4.2
12	15.1	14.0	14.6	11.1	9.0	9.8	8.1	7.1	7.6	5.1	3.8	4.4
13	15.1	13.8	14.5	11.3	9.1	9.9	8.7	8.1	8.4	5.4	4.0	4.5
14	15.3	14.0	14.8	11.4	9.8	10.5	8.5	8.2	8.3	6.0	4.3	4.8
15	15.1	13.7	14.4	12.0	10.1	10.9	8.5	6.3	7.5	4.7	4.2	4.4
16	14.5	13.3	13.8	12.6	10.7	11.5	7.2	6.9	7.1	5.1	4.1	4.6
17	14.1	13.5	13.7	12.1	10.8	11.4	8.7	7.2	8.0	4.9	4.1	4.5
18	13.7	13.1	13.4	12.9	11.4	12.0	8.4	6.7	7.5	6.0	4.0	4.7
19	13.2	12.4	12.8	12.2	10.8	11.8	7.4	6.7	7.2	6.2	4.6	5.1
20	12.5	12.1	12.3	11.5	10.3	10.7	7.1	6.3	6.7	6.0	4.8	5.2
21	12.2	11.9	12.1	11.2	9.4	10.2	6.3	5.4	5.8	5.9	4.7	5.2
22	12.8	12.2	12.5	11.1	9.2	10.0	5.4	4.9	5.0	7.7	4.6	5.9
23	12.8	12.1	12.5	11.2	9.2	10.2	5.3	4.7	4.9	7.3	5.9	6.6
24	13.3	12.1	12.8	11.7	10.4	11.0	4.7	3.5	4.1	6.7	5.5	6.2
25	12.6	12.0	12.2	11.4	10.4	10.8	3.5	2.3	2.8	7.5	5.2	6.1
26	12.0	11.5	11.9	10.6	9.3	10.1	2.8	1.8	2.4	8.2	5.9	6.7
27	11.8	11.5	11.8	11.0	9.9	10.5	3.4	2.3	2.8	8.5	6.2	7.1
28	11.7	11.1	11.5	9.9	9.5	9.7	3.6	2.8	3.1	9.0	6.6	7.6
29	11.1	10.2	10.7	9.8	9.4	9.6	3.3	2.4	2.7	8.4	7.4	7.9
30	10.5	10.1	10.3	10.5	8.0	9.4	4.3	2.5	3.3	8.3	6.7	7.4
31	10.2	9.8	10.0	---	---	---	3.7	2.5	3.3	6.8	3.5	5.5
MONTH	19.3	9.8	13.4	12.9	8.0	10.6	11.8	1.8	6.8	9.0	2.8	5.1

03323500 WABASH RIVER AT HUNTINGTON, IN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.3	5.1	5.7	5.2	3.0	4.0	5.9	4.8	5.5	11.7	10.8	11.2
2	5.6	3.1	4.5	5.1	4.2	4.7	6.5	5.9	6.2	11.5	11.3	11.4
3	4.2	3.1	4.0	4.9	2.4	3.5	7.1	6.4	6.7	12.6	11.2	11.7
4	3.9	3.3	3.5	2.6	0.4	1.6	7.5	7.0	7.3	13.5	11.6	12.5
5	3.3	2.7	3.0	1.9	1.3	1.6	7.6	7.3	7.5	14.1	12.2	13.0
6	2.7	2.4	2.6	4.9	1.9	3.6	7.7	7.0	7.3	14.0	12.3	13.0
7	2.6	2.1	2.3	6.9	4.5	5.9	7.7	7.0	7.3	14.4	12.9	13.4
8	3.0	2.3	2.6	7.8	6.4	7.1	8.3	7.4	7.9	15.1	13.5	14.5
9	4.1	2.9	3.5	9.6	7.1	8.3	8.6	7.9	8.3	15.9	14.6	15.2
10	5.4	4.0	4.8	7.1	4.4	5.3	9.5	7.7	8.7	---	---	---
11	5.8	4.8	5.2	4.7	3.5	4.4	10.9	9.3	10.0	---	---	---
12	5.5	4.4	4.8	5.8	4.5	5.3	11.8	10.4	11.1	---	---	---
13	5.4	4.1	4.5	8.5	5.6	7.2	12.9	11.5	12.1	---	---	---
14	5.7	3.9	4.5	10.0	7.9	9.1	13.9	12.9	13.3	---	---	---
15	6.7	4.2	5.2	10.5	9.3	9.9	14.8	13.6	14.2	14.0	13.3	13.6
16	6.3	5.0	5.4	10.8	8.6	9.6	16.9	14.6	15.8	14.0	13.4	13.7
17	6.6	4.7	5.4	8.7	7.5	8.1	17.7	16.6	17.0	14.4	13.8	14.1
18	7.2	4.4	5.5	8.2	7.5	7.8	19.3	17.7	18.6	14.3	14.0	14.1
19	6.8	5.5	5.9	8.0	7.3	7.7	19.6	18.5	19.1	14.3	14.0	14.1
20	7.1	6.1	6.5	8.0	7.2	7.6	19.0	18.2	18.6	14.2	13.6	13.9
21	6.5	5.6	6.2	7.4	5.5	6.9	18.2	16.5	17.4	14.4	13.0	13.6
22	6.0	5.1	5.6	6.1	4.0	5.0	16.5	13.8	15.8	15.2	12.8	13.7
23	6.1	4.8	5.4	7.4	3.9	5.2	17.9	13.0	14.6	14.8	12.6	13.6
24	6.9	5.3	6.0	6.2	5.1	5.6	16.0	14.1	15.0	14.9	13.2	13.9
25	7.5	5.9	6.6	5.8	4.0	4.7	15.1	13.8	14.4	15.8	13.4	14.6
26	7.2	5.0	6.3	4.0	2.4	3.2	15.2	12.9	13.9	16.2	12.9	14.7
27	5.2	3.3	4.5	6.4	3.1	4.4	13.1	11.8	12.7	16.1	14.6	15.5
28	4.4	3.0	3.5	5.9	3.6	4.8	13.4	11.7	12.6	16.6	14.6	15.3
29	---	---	---	6.4	3.9	5.5	12.4	11.4	12.0	17.1	14.8	16.1
30	---	---	---	6.8	5.3	6.1	11.4	10.9	11.1	17.9	16.8	17.3
31	---	---	---	5.3	4.0	5.1	---	---	---	18.0	17.2	17.6
MONTH	7.5	2.1	4.8	10.8	0.4	5.8	19.6	4.8	12.1	---	---	---

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.3	17.9	18.6	23.5	19.6	21.5	26.6	22.8	24.5	24.1	20.8	22.4
2	20.3	18.6	19.3	23.8	19.6	21.5	25.1	22.4	23.8	24.1	21.3	22.6
3	19.4	18.5	19.0	24.3	19.8	21.9	26.9	22.1	24.2	23.4	21.3	22.3
4	21.2	17.9	19.3	24.0	20.1	22.0	26.9	22.8	24.5	22.6	19.5	21.0
5	20.0	18.2	19.4	23.7	19.7	21.7	25.7	23.9	24.7	22.7	19.5	21.0
6	21.3	19.2	20.2	24.2	18.7	21.3	24.4	22.1	23.0	22.8	19.4	21.0
7	21.0	19.9	20.5	25.0	19.2	21.9	23.7	20.2	21.6	23.4	19.9	21.6
8	22.5	18.2	19.8	24.8	19.7	22.4	23.8	20.0	21.6	23.3	20.7	22.0
9	19.4	17.6	18.4	24.0	21.0	22.7	24.1	19.8	21.7	24.4	21.1	22.6
10	19.9	17.3	18.3	25.8	20.9	22.7	24.3	20.3	22.1	24.1	20.9	22.4
11	19.4	17.0	18.1	25.2	20.9	22.7	24.5	21.2	22.6	22.4	19.7	21.0
12	18.7	17.5	18.1	25.3	21.7	23.2	25.1	22.0	23.4	21.4	18.4	19.8
13	18.7	17.3	18.0	25.4	21.6	23.2	24.2	22.2	23.1	20.9	18.2	19.6
14	20.1	18.0	18.8	25.3	21.8	23.3	22.3	21.1	21.5	21.4	19.0	20.1
15	21.3	18.4	19.5	25.7	21.4	23.1	23.7	20.6	22.1	22.2	20.3	21.1
16	21.3	18.2	19.5	24.4	21.2	22.9	23.4	21.4	22.3	23.2	20.0	21.3
17	21.8	18.7	19.9	24.0	21.6	22.8	24.0	21.6	22.7	22.4	18.8	20.7
18	22.1	18.9	20.2	25.0	21.5	23.1	23.5	21.9	22.7	22.7	19.9	21.2
19	22.4	18.6	20.2	24.8	21.7	23.1	22.5	20.9	21.4	23.1	20.4	21.7
20	22.2	18.5	20.1	25.3	20.9	23.1	23.4	19.4	21.3	21.5	20.0	20.6
21	21.3	18.5	19.8	25.9	21.6	23.7	24.8	19.9	22.4	22.8	19.5	20.9
22	22.3	18.6	20.2	25.8	22.6	24.2	23.8	21.5	22.8	20.8	19.1	19.7
23	22.8	18.5	20.5	24.2	21.6	22.7	23.3	21.5	22.6	21.9	18.4	19.7
24	23.3	18.1	20.4	24.9	20.3	22.5	24.3	21.3	22.7	22.3	17.7	19.1
25	21.8	18.4	20.0	25.7	20.5	22.8	24.2	21.0	22.5	20.3	17.7	18.8
26	21.3	18.5	19.9	24.8	21.6	23.1	24.3	21.3	22.7	20.2	17.9	18.9
27	20.6	19.2	19.8	24.2	22.1	23.1	25.3	20.7	22.6	20.6	18.0	19.1
28	22.9	18.7	20.5	25.5	22.4	23.7	25.0	20.9	22.7	20.1	17.7	18.8
29	23.2	18.7	20.7	24.7	21.9	23.1	24.7	20.8	22.6	21.3	17.7	19.1
30	22.9	19.1	20.8	25.9	21.8	23.5	23.9	20.4	22.3	21.6	18.1	19.5
31	---	---	---	26.9	21.9	24.0	23.8	20.2	21.9	---	---	---
MONTH	23.3	17.0	19.6	26.9	18.7	22.8	26.9	19.4	22.7	24.4	17.7	20.7

03324000 LITTLE RIVER NEAR HUNTINGTON, IN

LOCATION.--Lat 40°54'14", long 85°24'22", in NE$^1/_4$NW$^1/_4$ 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 4 mi downstream at datum 8.79 ft lower, and Oct. 1, 1948, to Sept. 5, 1950, nonrecording gage at present site and datum.

REMARKS.--Records good except those for Oct. 4 to Apr. 17 and 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	151	1720	e100	3230	154	1080	201	154	207	41	23
2	30	147	765	e96	2680	219	615	853	128	160	33	24
3	29	184	428	e94	1660	1710	903	514	100	130	27	23
4	28	149	306	e92	765	792	500	267	98	112	26	22
5	132	127	232	e92	440	370	349	184	709	92	23	21
6	772	112	189	e93	315	270	261	155	808	67	20	22
7	366	102	160	e90	242	295	209	154	321	55	21	20
8	174	96	137	e86	197	254	440	243	169	48	22	20
9	110	92	123	86	165	789	1570	623	122	113	20	20
10	93	85	109	77	154	1150	819	442	101	263	20	19
11	391	78	100	73	156	480	433	284	89	80	22	18
12	2850	71	94	70	150	344	314	2160	89	54	22	18
13	2390	67	160	69	132	277	1110	2370	83	42	22	18
14	2170	66	884	67	110	227	758	1590	75	38	29	19
15	1900	69	1870	69	109	190	433	679	76	34	37	20
16	2290	67	861	64	104	170	293	402	74	31	32	20
17	2480	62	2240	61	96	151	213	443	68	30	27	18
18	1730	60	2300	58	83	139	171	443	61	28	26	18
19	867	61	1250	56	108	121	148	317	64	28	39	18
20	513	60	610	54	922	119	209	227	52	26	72	27
21	359	58	404	55	947	113	183	178	47	26	40	88
22	1140	56	306	54	468	98	216	148	46	24	30	49
23	1540	54	282	54	303	93	152	131	45	32	226	30
24	1550	53	241	58	225	92	123	119	44	34	171	29
25	1820	259	186	60	188	99	112	394	41	30	81	24
26	885	192	160	57	191	e103	97	1210	46	26	49	21
27	477	122	149	56	216	e114	105	413	897	25	36	33
28	333	111	132	53	169	151	1060	433	1160	25	32	63
29	255	401	e120	77	---	724	566	853	575	32	27	36
30	200	2080	e110	1320	---	2510	291	407	314	102	25	25
31	169	---	e105	2670	---	2120	---	217	---	57	24	---
TOTAL	28076	5292	16733	6061	14525	14438	13733	17054	6656	2051	1322	806
MEAN	905.7	176.4	539.8	195.5	518.8	465.7	457.8	550.1	221.9	66.16	42.65	26.87
MAX	2850	2080	2300	2670	3230	2510	1570	2370	1160	263	226	88
MIN	28	53	94	53	83	92	97	119	41	24	20	18
CFSM	3.44	0.67	2.05	0.74	1.97	1.77	1.74	2.09	0.84	0.25	0.16	0.10
IN.	3.97	0.75	2.37	0.86	2.05	2.04	1.94	2.41	0.94	0.29	0.19	0.11

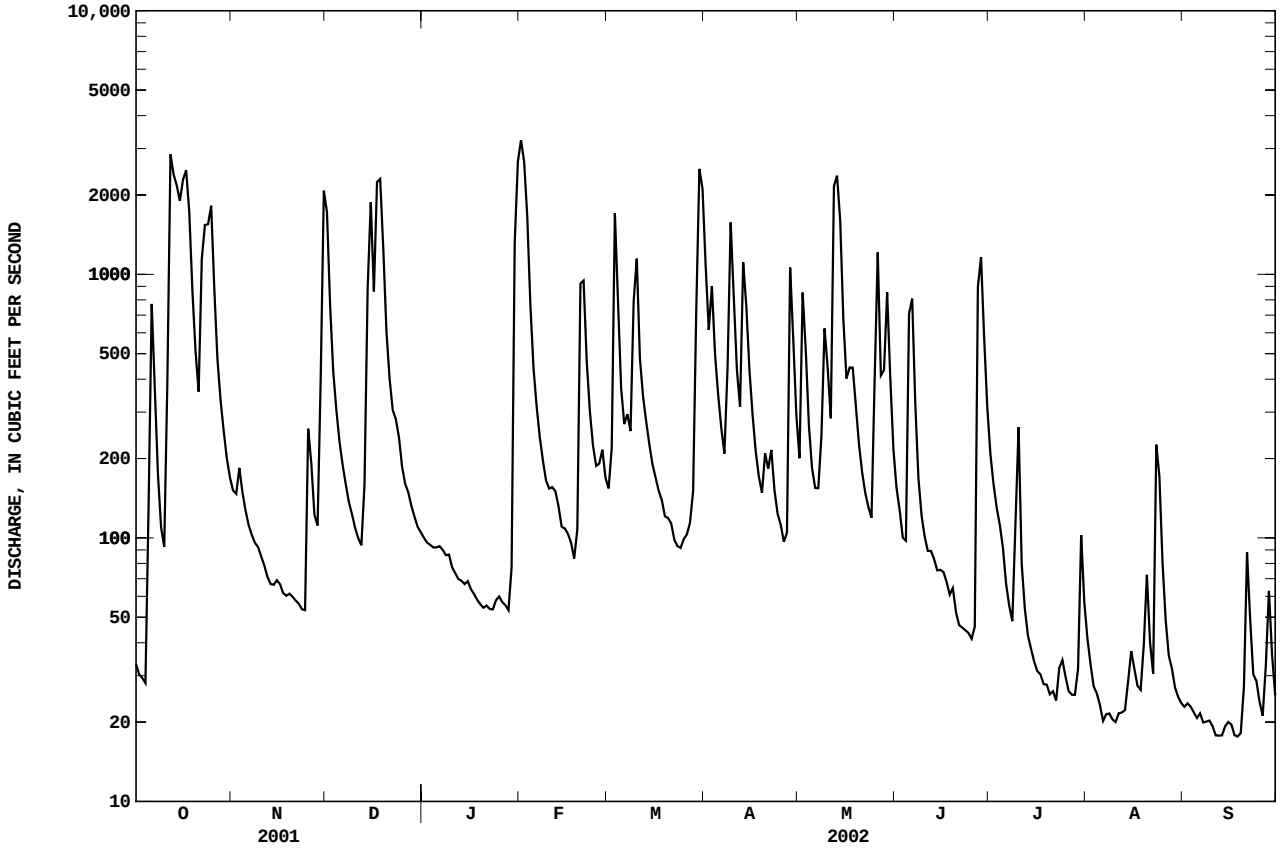
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2002, BY WATER YEAR (WY)

MEAN	96.56	158.5	275.0	323.6	400.1	475.3	420.2	244.0	241.7	117.0	64.67	58.49
MAX	906	1137	1010	1693	1164	1765	1396	748	968	661	501	414
(WY)	2002	1993	1967	1950	1959	1982	1957	1996	2000	1996	1958	1992
MIN	5.72	10.2	8.93	6.25	17.5	90.7	40.3	35.2	22.3	15.9	7.76	4.22
(WY)	1963	1965	1964	1977	1964	1981	1946	1963	1988	1962	1963	1962

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1945 - 2002	
ANNUAL TOTAL	111926		126747			
ANNUAL MEAN	306.6		347.3		238.6	
HIGHEST ANNUAL MEAN					450	1950
LOWEST ANNUAL MEAN					67.0	1954
HIGHEST DAILY MEAN	3040	Feb 10	3230	Feb 1	5610	Mar 14 1982
LOWEST DAILY MEAN	17	Aug 16	18	Sep 11	1.1	Oct 8 1946
ANNUAL SEVEN-DAY MINIMUM	20	Aug 12	19	Sep 11	1.8	Oct 7 1946
MAXIMUM PEAK FLOW			3290	Feb 1	5990	Jan 4 1950
MAXIMUM PEAK STAGE			14.53	Feb 1	19.50	Feb 25 1985
ANNUAL RUNOFF (CFSM)	1.17		1.32		0.91	
ANNUAL RUNOFF (INCHES)	15.83		17.93		12.33	
10 PERCENT EXCEEDS	817		932		597	
50 PERCENT EXCEEDS	103		119		69	
90 PERCENT EXCEEDS	33		26		15	

e Estimated

03324000 LITTLE RIVER NEAR HUNTINGTON, IN--Continued



03324300 SALAMONIE RIVER NEAR WARREN, IN

LOCATION.--Lat 40°42'45", long 85°27'13", in SE$^1/_4$SE$^1/_4$ 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 those for July 2 - Sept. 30 and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	205	3450	e95	5400	256	3910	609	258	41	20	21
2	44	188	1210	e90	4900	514	1150	471	174	36	19	20
3	41	191	529	e85	4160	3510	1830	391	125	34	20	22
4	44	171	353	e81	1140	1960	1490	265	99	32	19	21
5	133	152	267	e79	500	519	592	208	891	31	20	19
6	2000	138	222	e78	330	364	403	179	255	29	19	17
7	1140	131	190	e77	261	359	311	174	133	27	19	19
8	361	123	165	e77	226	301	441	558	95	26	22	22
9	195	117	149	77	197	628	1740	837	77	34	21	27
10	134	108	132	82	186	1800	1740	566	66	45	17	e22
11	527	105	121	82	239	690	634	278	63	84	16	e18
12	4260	97	112	82	371	375	408	439	119	40	18	e17
13	3800	90	129	82	261	320	974	3270	73	26	23	e16
14	2440	90	1070	81	193	273	949	4450	59	24	28	e18
15	3270	90	3390	79	167	240	1690	4560	56	22	27	e19
16	3450	87	1610	78	157	408	727	1410	53	21	23	e18
17	3950	86	3750	75	146	502	385	497	43	19	22	e19
18	1680	84	4550	72	127	314	273	356	38	19	22	e17
19	721	82	3520	70	226	240	226	265	36	20	40	34
20	456	82	1020	69	946	217	198	211	36	24	50	56
21	326	80	508	67	1160	214	235	174	36	29	50	67
22	515	79	351	67	598	196	610	151	36	24	37	74
23	1170	76	313	65	352	168	407	138	36	33	e90	34
24	3260	79	293	70	261	155	246	131	36	41	e140	21
25	4480	319	229	73	218	155	203	149	36	40	e150	15
26	4050	251	179	86	228	144	168	166	36	37	e100	15
27	2030	166	156	88	345	159	218	302	39	32	e60	23
28	604	130	e120	82	330	227	3650	2160	43	32	41	36
29	392	569	e110	86	---	1470	3930	3850	39	49	32	61
30	295	3600	e100	278	---	5300	1720	1130	51	35	26	25
31	241	---	e99	2890	---	6290	---	489	---	24	22	---
TOTAL	46056	7766	28397	5443	23625	28268	31458	28834	3137	1010	1213	813
MEAN	1486	258.9	916.0	175.6	843.8	911.9	1049	930.1	104.6	32.58	39.13	27.10
MAX	4480	3600	4550	2890	5400	6290	3930	4560	891	84	150	74
MIN	41	76	99	65	127	144	168	131	36	19	16	15
CFSM	3.50	0.61	2.16	0.41	1.99	2.15	2.47	2.19	0.25	0.08	0.09	0.06
IN.	4.03	0.68	2.49	0.48	2.07	2.47	2.75	2.52	0.27	0.09	0.11	0.07

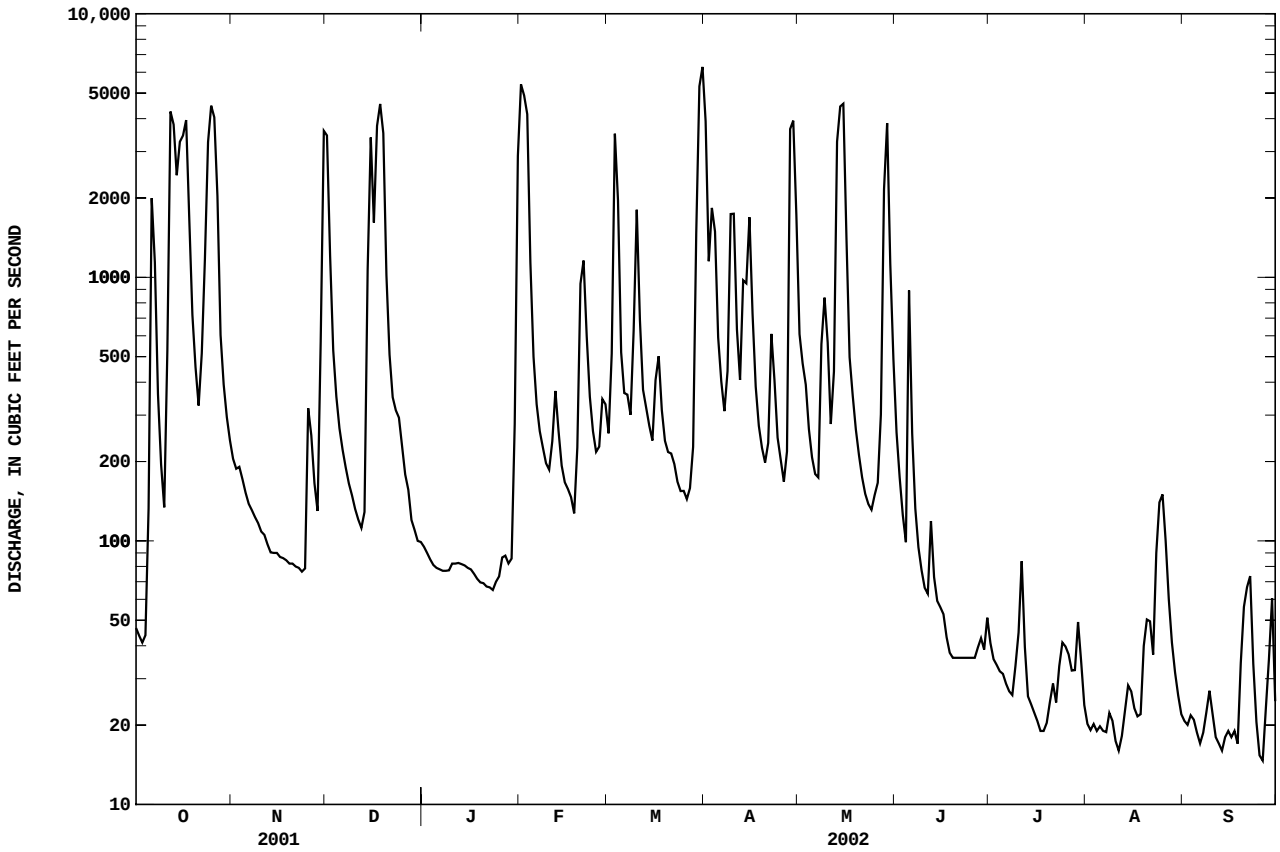
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)

MEAN	114.0	299.9	475.6	486.6	637.2	835.7	709.6	382.1	366.3	236.0	140.4	92.28
MAX	1486	1794	1685	1724	1906	2616	2214	1371	2312	1477	1363	894
(WY)	2002	1993	1991	1974	1976	1978	1964	1996	1958	1998	1998	1972
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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1958 - 2002	
ANNUAL TOTAL	188257		206020			
ANNUAL MEAN	515.8		564.4		396.5	
HIGHEST ANNUAL MEAN					665	1993
LOWEST ANNUAL MEAN					109	1966
HIGHEST DAILY MEAN	5920	Apr 12	6290	Mar 31	10900	Jan 23 1999
LOWEST DAILY MEAN	22	Aug 7	15	Sep 25	5.1	Jan 2 1977
ANNUAL SEVEN-DAY MINIMUM	25	Aug 3	e18	Sep 12	5.9	Dec 29 1976
MAXIMUM PEAK FLOW			6550	Mar 31	13500	Aug 5 1998
MAXIMUM PEAK STAGE			12.35	Mar 31	17.05	Feb 10 1959
ANNUAL RUNOFF (CFSM)	1.21		1.33		0.93	
ANNUAL RUNOFF (INCHES)	16.48		18.03		12.68	
10 PERCENT EXCEEDS	1470		1740		974	
50 PERCENT EXCEEDS	131		140		92	
90 PERCENT EXCEEDS	40		22		17	

e Estimated

03324300 SALAMONIE RIVER NEAR WARREN, IN--Continued



03324500 SALAMONIE RIVER AT DORA, IN

LOCATION.--Lat 40°48'42", long 85°41'02", in NE$^1/_4$NE$^1/_4$ 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 2001 (discharge). October 2001 to September 2002 (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.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 8.87 ft, Nov. 10, 2001; minimum gage height, 2.14 ft, Sept. 3, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.87 ft, Nov. 10; minimum gage height, 2.14 Sept. 3.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.19	7.44	6.11	2.84	2.85	3.41	3.93	5.71	4.23	2.58	2.76	2.76
2	2.20	7.39	6.10	3.48	2.87	3.76	3.95	3.98	3.62	2.58	2.68	2.76
3	4.44	7.55	6.72	3.09	3.88	3.79	3.95	5.71	3.42	2.58	2.68	2.57
4	4.42	7.88	6.62	2.60	5.10	5.64	3.96	6.91	2.97	2.50	2.50	2.57
5	4.41	7.90	5.09	3.09	6.43	7.00	3.04	5.19	5.61	2.50	2.50	2.49
6	4.41	8.20	3.56	3.09	7.08	5.58	3.04	3.72	4.48	2.49	2.51	2.49
7	5.68	8.36	3.56	3.09	7.36	4.75	3.04	3.72	3.42	2.49	2.51	2.49
8	6.11	8.53	3.24	3.09	7.68	4.21	2.90	4.40	3.44	2.49	2.51	2.49
9	6.09	8.72	3.32	2.60	7.80	4.24	5.14	4.85	3.28	2.49	2.51	2.49
10	6.08	8.78	3.32	2.84	7.65	5.19	6.04	3.72	2.97	2.49	2.51	2.49
11	3.88	8.68	3.32	3.12	6.92	5.17	5.14	3.73	2.97	2.49	2.51	2.49
12	2.41	4.44	3.15	3.13	4.18	5.14	3.72	2.61	3.32	2.49	2.51	2.49
13	2.43	4.42	3.24	3.13	4.17	4.01	3.70	2.60	3.10	2.49	2.51	2.49
14	2.46	4.41	3.42	3.02	3.48	3.62	5.08	3.36	3.10	2.49	2.51	2.50
15	2.45	4.41	5.36	3.02	3.47	3.62	6.40	4.24	2.58	2.49	2.50	2.50
16	2.49	4.40	6.89	2.86	3.22	3.61	4.51	4.24	2.83	2.49	2.50	2.50
17	2.47	4.40	2.71	2.86	3.28	3.63	3.47	4.24	2.83	2.49	2.50	2.50
18	2.46	4.40	2.71	2.86	3.26	4.21	3.47	4.24	2.83	2.49	2.50	2.50
19	2.46	5.94	3.72	2.86	3.19	3.57	3.31	4.56	2.76	2.49	2.50	2.51
20	2.46	5.95	6.01	2.86	4.16	3.38	3.13	5.78	2.76	2.50	2.50	2.52
21	2.46	5.91	6.73	2.86	5.92	3.01	3.45	7.02	2.76	2.50	2.50	2.51
22	2.48	5.87	6.64	2.86	5.88	3.01	2.58	8.01	2.58	2.50	2.51	2.51
23	2.49	5.83	7.24	2.86	4.67	3.39	3.88	7.27	2.50	2.50	2.51	3.54
24	2.54	5.79	7.74	2.87	3.73	3.46	3.88	3.80	2.50	2.50	2.78	3.54
25	2.49	5.76	7.59	2.86	3.39	3.45	3.46	3.60	2.50	2.50	2.92	3.59
26	2.49	5.70	6.85	2.87	3.13	3.17	3.32	4.49	2.58	2.50	3.07	3.59
27	2.49	5.65	4.09	3.00	3.99	3.44	3.07	4.49	2.58	2.50	2.99	3.68
28	2.49	4.64	3.48	3.00	3.88	3.40	3.06	4.50	2.58	2.50	2.59	3.68
29	3.79	4.63	3.47	2.88	---	3.77	5.23	6.12	2.58	2.52	2.59	3.68
30	4.06	4.74	3.40	3.69	---	3.84	5.73	6.92	2.58	3.36	2.59	3.68
31	5.97	---	2.60	3.81	---	3.87	---	6.89	---	3.14	2.76	---
MEAN	3.41	6.22	4.77	3.00	4.74	4.04	3.95	4.86	3.08	2.55	2.60	2.82
MAX	6.11	8.78	7.74	3.81	7.80	7.00	6.40	8.01	5.61	3.36	3.07	3.68
MIN	2.19	4.40	2.60	2.60	2.85	3.01	2.58	2.60	2.50	2.49	2.50	2.49

WTR YR 2002 MEAN 3.83 MAX 8.78 MIN 2.19

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, 22.9°C, Aug. 28, minimum, 0.8°C, Jan. 1.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	15.2	17.6	11.9	11.8	11.8	8.9	8.4	8.6	1.3	0.8	1.0
2	21.0	16.0	18.3	11.9	11.7	11.9	8.4	8.2	8.3	1.2	1.0	1.1
3	20.3	16.2	17.5	11.8	11.7	11.7	8.3	8.2	8.2	1.3	1.1	1.2
4	17.4	17.2	17.3	11.7	11.6	11.7	8.4	8.2	8.3	1.6	1.1	1.3
5	17.3	17.1	17.2	11.6	11.5	11.5	8.9	8.4	8.6	1.6	1.2	1.4
6	17.1	16.9	17.0	11.5	11.4	11.4	8.9	8.7	8.8	1.6	1.4	1.5
7	16.9	16.5	16.7	11.4	11.3	11.4	8.8	8.7	8.8	1.7	1.5	1.6
8	16.8	16.4	16.6	11.4	11.0	11.2	8.7	8.6	8.7	1.8	1.5	1.7
9	16.6	16.3	16.4	11.0	10.9	11.0	8.6	8.3	8.5	2.2	1.7	1.8
10	16.4	16.0	16.1	10.9	10.6	10.7	8.3	8.1	8.2	2.0	1.7	1.8
11	16.0	15.2	15.5	10.6	10.4	10.5	8.2	7.9	8.0	1.8	1.7	1.8
12	16.5	15.2	15.8	10.5	10.3	10.4	8.1	8.0	8.1	1.9	1.7	1.8
13	16.6	15.1	15.9	10.5	10.3	10.4	8.1	7.9	8.0	1.9	1.7	1.8
14	16.3	14.6	15.6	10.4	10.3	10.4	7.9	7.4	7.6	2.0	1.8	1.8
15	16.3	14.2	14.8	10.4	10.3	10.3	7.5	7.3	7.5	1.8	1.8	1.8
16	14.4	12.6	13.8	10.4	10.2	10.3	7.3	6.7	7.0	2.0	1.8	1.9
17	15.0	13.4	14.0	10.4	10.2	10.3	6.7	6.5	6.6	2.0	1.7	1.9
18	15.3	13.2	13.9	10.4	10.3	10.4	6.7	6.4	6.5	2.1	1.8	1.9
19	15.0	13.5	14.0	10.5	10.1	10.3	6.4	6.3	6.4	2.3	1.9	2.0
20	15.2	13.0	13.8	10.3	10.1	10.2	6.4	5.9	6.1	2.3	2.0	2.1
21	14.1	12.9	13.4	10.1	9.8	10.0	5.9	5.7	5.8	2.3	2.1	2.2
22	13.9	12.6	13.0	9.8	9.6	9.7	5.8	5.7	5.7	2.6	2.1	2.3
23	13.5	12.6	12.9	9.6	9.5	9.6	5.8	5.5	5.7	2.7	2.4	2.5
24	13.8	12.2	12.9	9.9	9.6	9.7	5.5	4.7	5.1	2.5	2.3	2.4
25	12.2	10.8	11.5	9.9	9.6	9.8	4.7	3.9	4.3	2.7	2.3	2.4
26	11.7	10.7	11.0	9.6	9.5	9.5	3.9	2.9	3.3	2.9	2.4	2.6
27	11.5	11.0	11.2	9.5	9.4	9.5	2.9	2.4	2.6	2.9	2.6	2.7
28	12.4	10.7	11.3	9.4	9.2	9.3	2.4	2.0	2.2	3.1	2.7	2.9
29	11.9	11.0	11.6	9.2	9.1	9.1	2.0	1.5	1.8	3.2	3.0	3.1
30	11.9	11.7	11.8	9.1	8.9	9.0	1.5	1.2	1.3	3.1	2.8	2.9
31	11.9	11.8	11.8	---	---	---	1.3	0.9	1.1	3.3	3.0	3.2
MONTH	21.0	10.7	14.5	11.9	8.9	10.4	8.9	0.9	6.3	3.3	0.8	2.0

03324500 SALAMONIE RIVER AT DORA, IN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	3.1	3.3	3.8	3.5	3.7	6.9	4.5	4.9	12.8	12.3	12.5
2	3.6	3.1	3.3	3.7	3.6	3.7	5.0	4.7	4.9	12.6	12.0	12.3
3	3.3	3.1	3.2	3.7	3.1	3.5	4.9	4.8	4.9	12.3	12.0	12.1
4	3.2	3.0	3.1	3.1	2.0	2.6	5.1	4.9	5.0	12.7	12.2	12.5
5	3.0	2.7	2.9	2.0	1.5	1.7	5.3	4.9	5.1	12.6	12.2	12.4
6	2.7	2.6	2.7	1.8	1.4	1.6	5.5	4.8	5.1	12.7	12.2	12.4
7	2.8	2.6	2.7	2.1	1.8	1.9	5.9	5.0	5.6	12.2	12.0	12.1
8	2.7	2.6	2.7	2.8	2.1	2.4	6.4	5.8	6.0	12.6	12.0	12.3
9	2.9	2.6	2.7	3.4	2.8	3.2	6.5	6.1	6.2	12.6	12.4	12.5
10	2.9	2.7	2.8	3.5	3.1	3.2	7.2	6.2	6.7	12.7	12.4	12.6
11	2.9	2.7	2.8	4.1	3.5	3.7	7.4	7.0	7.2	13.4	12.6	12.8
12	2.9	2.7	2.8	4.8	4.1	4.5	7.4	7.1	7.2	13.8	12.9	13.4
13	3.0	2.8	2.9	5.0	4.6	4.8	7.1	6.8	7.0	13.1	12.6	12.8
14	3.1	2.7	2.9	5.8	4.8	5.3	7.5	6.8	7.2	13.4	12.7	13.1
15	3.0	2.7	2.9	6.0	5.8	5.9	8.3	7.4	7.8	13.8	13.1	13.5
16	3.4	3.0	3.1	6.2	5.8	6.0	8.6	7.8	8.3	13.7	13.5	13.6
17	3.5	3.1	3.2	6.2	5.9	6.1	8.4	7.7	8.0	13.8	13.5	13.6
18	3.5	3.1	3.3	6.3	6.1	6.2	8.4	7.7	8.1	13.7	13.6	13.6
19	3.4	3.3	3.3	6.6	6.3	6.4	8.2	7.9	8.1	13.8	13.6	13.7
20	3.9	3.4	3.7	6.9	6.5	6.7	8.3	7.9	8.1	13.8	13.7	13.8
21	4.0	3.9	3.9	6.9	6.3	6.7	9.6	7.8	8.7	13.9	13.7	13.8
22	4.4	4.0	4.1	6.5	5.9	6.2	9.4	8.4	8.6	14.6	13.9	14.2
23	4.8	4.4	4.6	6.0	5.7	5.9	10.2	8.4	9.1	14.7	14.4	14.5
24	4.9	4.6	4.7	5.9	5.7	5.8	10.6	9.2	9.9	14.6	14.0	14.3
25	5.0	4.7	4.8	5.7	5.0	5.3	10.3	9.6	10.0	14.3	14.0	14.1
26	4.8	4.4	4.7	5.0	4.5	4.7	11.1	10.3	10.6	14.4	13.9	14.2
27	4.4	4.0	4.3	4.6	4.2	4.4	12.5	10.5	11.5	14.5	14.2	14.3
28	4.0	3.7	3.8	4.7	4.1	4.4	12.5	11.6	11.9	14.6	14.3	14.4
29	---	---	---	4.8	4.2	4.6	12.2	11.7	12.0	14.6	14.3	14.5
30	---	---	---	4.4	4.2	4.3	12.3	12.2	12.3	15.0	14.6	14.8
31	---	---	---	4.8	4.3	4.5	---	---	---	15.2	14.9	15.1
MONTH	5.0	2.6	3.4	6.9	1.4	4.5	12.5	4.5	7.9	15.2	12.0	13.4

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.5	14.9	15.2	18.7	16.7	17.4	18.6	16.6	17.4	19.2	17.9	18.4
2	15.0	14.8	14.9	18.7	16.9	17.5	19.0	17.5	18.0	19.3	18.2	18.6
3	15.3	14.7	15.0	18.7	17.0	17.5	19.1	17.6	18.2	21.3	18.3	19.2
4	15.9	14.9	15.2	19.0	16.9	17.6	19.9	17.6	18.4	19.7	18.2	18.7
5	15.7	15.2	15.5	19.3	16.7	17.7	19.5	17.8	18.4	20.1	18.1	18.8
6	16.0	15.6	15.8	19.1	16.6	17.5	19.5	17.5	18.3	19.9	17.8	18.7
7	16.1	15.7	15.8	19.1	16.7	17.6	19.7	17.0	18.1	20.2	17.8	18.8
8	16.5	15.5	15.8	19.3	16.7	17.7	19.8	17.1	18.1	19.9	18.1	18.8
9	16.2	15.6	15.8	19.0	17.1	17.7	19.8	17.2	18.2	20.0	18.3	18.9
10	16.8	15.7	16.2	19.2	16.9	17.8	19.9	17.2	18.2	20.1	18.2	18.9
11	16.7	15.9	16.3	19.0	16.7	17.6	19.7	17.5	18.3	19.8	17.9	18.7
12	16.2	15.6	15.9	19.0	16.2	17.4	19.7	17.7	18.4	19.7	18.0	18.6
13	16.1	15.6	15.9	19.1	16.5	17.6	19.4	17.8	18.3	19.5	17.8	18.5
14	16.5	15.7	16.0	19.2	16.7	17.7	18.4	17.7	17.9	19.6	18.1	18.8
15	18.0	15.8	16.5	19.3	16.8	17.7	19.2	17.6	18.2	19.5	18.4	18.7
16	17.5	16.1	16.6	18.9	17.0	17.7	19.2	17.7	18.2	19.8	18.3	18.8
17	17.8	16.4	16.9	18.4	17.1	17.7	19.6	17.8	18.5	19.4	17.9	18.6
18	18.0	16.4	17.1	19.0	16.9	17.7	19.3	17.6	18.3	19.8	18.4	18.9
19	17.9	16.5	17.0	18.9	17.1	17.8	18.8	17.4	18.0	19.9	18.4	19.0
20	18.1	16.4	17.1	19.5	17.1	17.9	19.3	17.3	18.1	19.0	18.4	18.6
21	17.7	16.6	17.0	19.2	17.0	18.0	19.8	17.3	18.3	19.9	18.3	18.8
22	18.3	16.5	17.3	19.5	17.2	18.2	19.2	17.7	18.3	18.5	18.1	18.3
23	18.7	16.7	17.4	18.8	17.2	17.8	19.1	17.9	18.4	18.2	17.9	18.1
24	19.0	16.6	17.5	19.2	16.9	17.8	18.5	17.8	18.1	18.4	18.1	18.3
25	18.6	16.7	17.4	19.4	16.8	17.8	18.7	17.8	18.1	19.0	18.4	18.7
26	18.2	16.6	17.2	19.0	17.1	17.9	18.4	17.9	18.1	19.3	18.9	19.1
27	17.5	16.7	17.1	19.0	17.4	18.0	19.2	17.9	18.4	19.5	19.2	19.4
28	18.7	16.5	17.3	19.6	17.2	18.2	22.9	18.0	19.4	19.9	19.4	19.7
29	18.4	16.6	17.3	19.2	17.2	17.9	19.5	18.0	18.6	20.2	19.7	20.0
30	18.6	16.6	17.4	17.5	16.5	16.9	19.5	17.8	18.6	20.5	20.1	20.4
31	---	---	---	17.4	16.5	16.8	19.3	17.7	18.5	---	---	---
MONTH	19.0	14.7	16.4	19.6	16.2	17.7	22.9	16.6	18.3	21.3	17.8	18.9
YEAR	22.9	0.8	11.2									

03325000 WABASH RIVER AT WABASH, IN

LOCATION.--Lat 40°47'25", long 85°49'13", in SE$^1/_4$NW$^1/_4$ 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 good except for estimated daily discharges, which are poor. Flow regulated by Salamonie Lake beginning April 1967 and by Huntington Lake beginning October 1976.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	5020	5750	553	7400	1370	6110	4990	3560	e440	355	157
2	200	4920	5820	706	5490	1400	6360	5050	1920	e360	243	140
3	187	4970	6130	820	5900	4220	6660	4060	1370	e320	199	122
4	1040	4910	5640	592	6280	5150	5980	3950	825	311	163	e96
5	1130	5010	3950	507	6690	5710	4530	3500	2360	249	118	e99
6	2110	5010	2300	612	7010	4380	3230	1960	3640	216	101	e89
7	3200	4990	894	618	7040	2720	2990	1320	3040	198	94	e87
8	3360	4970	1040	e560	6700	2140	2660	1340	2380	184	91	e88
9	2820	4970	931	e450	5930	2840	4740	2420	1370	186	86	e87
10	2350	5110	886	e460	5380	4280	5170	2760	978	681	84	e108
11	1940	5130	801	e500	4460	e3830	4900	2160	e660	434	86	e132
12	5890	3700	762	e560	3080	3560	3770	5090	e700	383	85	120
13	4320	1290	802	e520	1760	2800	4750	4620	e720	357	91	91
14	4720	1230	1890	e540	1500	1650	4580	3940	e680	e330	99	92
15	4150	1170	4990	e520	1100	1420	4650	4250	e580	e290	109	100
16	5560	1170	5700	512	1020	1300	4550	4640	e460	e200	125	118
17	5290	1150	7270	437	868	1240	3380	4980	e500	e160	118	149
18	4210	1140	5640	482	854	1550	2930	4990	e520	e155	102	149
19	4620	1620	6060	407	884	1450	2190	4780	e440	e150	124	150
20	4640	2130	6350	416	2780	1090	1400	4680	e400	e154	134	185
21	4560	2120	7020	435	4460	947	1330	4430	e390	e152	172	211
22	5440	2090	6950	477	4220	e773	1370	4400	e350	e143	161	235
23	5330	2050	6190	394	3340	831	766	4440	e310	146	185	332
24	4600	2010	5200	397	2130	861	1750	2760	e280	146	382	500
25	5050	2100	e5440	410	1530	906	1630	1760	e270	163	334	478
26	3390	2230	e4880	418	1300	861	1250	3270	267	179	318	515
27	4030	2160	e2870	427	1280	847	1080	3220	509	190	306	541
28	4590	1950	1320	452	1450	1000	3080	2080	1500	182	244	550
29	4880	1800	980	473	---	2360	3650	3440	978	186	175	564
30	4930	5360	875	2330	---	6080	4720	4580	601	328	154	547
31	4800	---	590	6530	---	6040	---	4560	---	464	151	---
TOTAL	113688	93480	115921	23515	101836	75606	106156	114420	32558	8037	5189	6832
MEAN	3667	3116	3739	758.5	3637	2439	3539	3691	1085	259.3	167.4	227.7
MAX	5890	5360	7270	6530	7400	6080	6660	5090	3640	681	382	564
MIN	187	1140	590	394	854	773	766	1320	267	143	84	87
CFSM	2.07	1.76	2.12	0.43	2.06	1.38	2.00	2.09	0.61	0.15	0.09	0.13
IN.	2.39	1.97	2.44	0.49	2.14	1.59	2.23	2.41	0.69	0.17	0.11	0.14

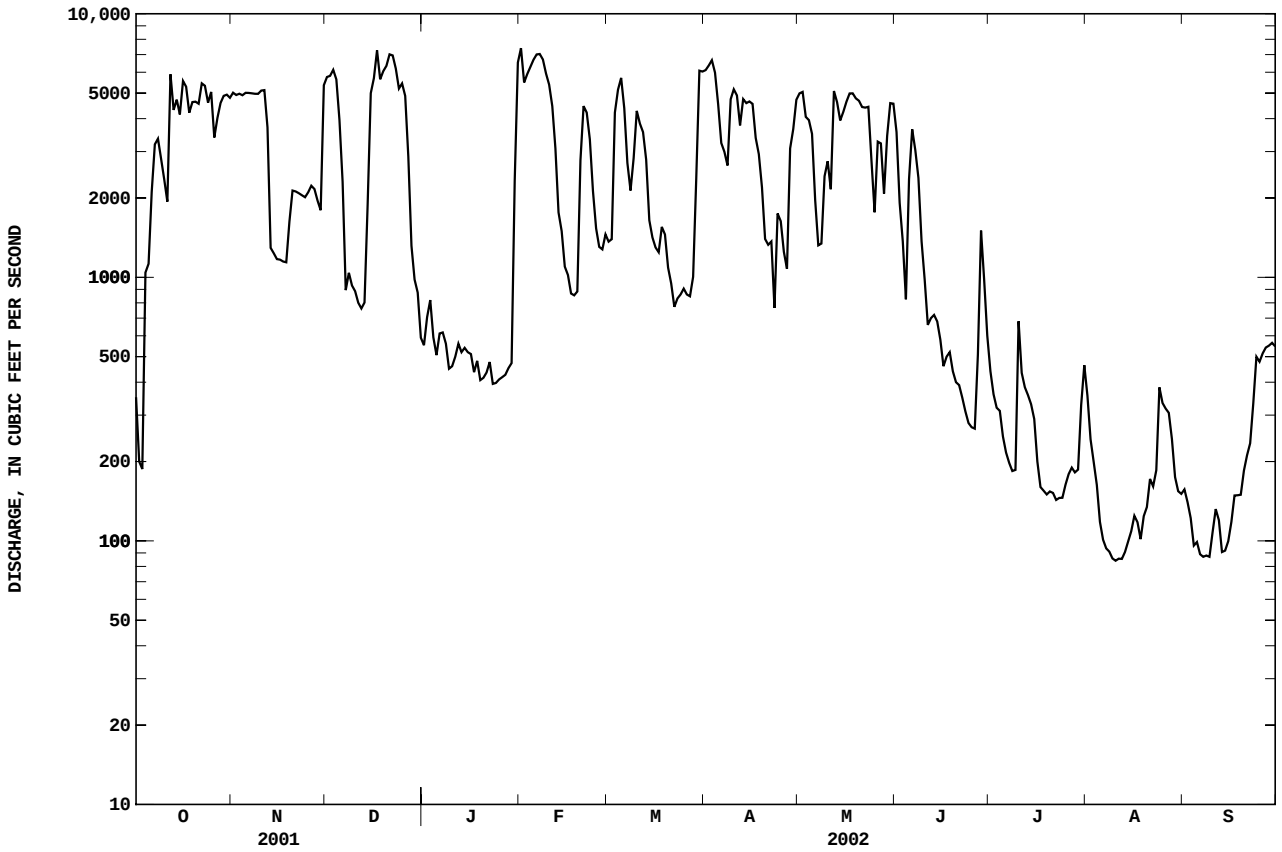
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2002, BY WATER YEAR (WY)

MEAN	632.8	980.8	1738	2186	2452	3044	2672	1620	1410	836.0	519.2	501.7
MAX	3667	5044	5829	13260	7764	8144	11060	10410	8260	4776	4887	5676
(WY)	2002	1993	1968	1950	1959	1982	1957	1943	1958	1993	1998	1926
MIN	32.3	61.7	56.0	72.8	114	177	264	135	78.3	55.4	43.4	29.9
(WY)	1964	1965	1964	1977	1964	1941	1971	1941	1988	1934	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1924 - 2002	
ANNUAL TOTAL	705410		797238			
ANNUAL MEAN	1933		2184		1546	
HIGHEST ANNUAL MEAN					2994	1950
LOWEST ANNUAL MEAN					276	1931
HIGHEST DAILY MEAN	7360	Feb 15	7400	Feb 1	47800	May 18 1943
LOWEST DAILY MEAN	100	Aug 15	84	Aug 10	17	Aug 3 1934
ANNUAL SEVEN-DAY MINIMUM	108	Aug 12	88	Aug 7	18	Aug 3 1934
MAXIMUM PEAK FLOW			8310	Feb 1	49600	May 18 1943
MAXIMUM PEAK STAGE			13.13	Feb 1	24.44	Feb 11 1959
ANNUAL RUNOFF (CFSM)	1.09		1.24		0.87	
ANNUAL RUNOFF (INCHES)	14.84		16.77		11.88	
10 PERCENT EXCEEDS	5100		5310		4600	
50 PERCENT EXCEEDS	1040		1300		530	
90 PERCENT EXCEEDS	258		150		88	

e Estimated

03325000 WABASH RIVER AT WABASH, IN--Continued



03325500 MISSISSINEWA RIVER NEAR RIDGEVILLE, IN

LOCATION.--Lat 40°16'48", long 84°59'33", in NW1/4NW1/4 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 fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	61	432	e28	3230	56	330	143	47	15	e6.0	2.1
2	5.0	54	197	e25	809	98	432	212	42	14	e5.2	2.0
3	5.5	52	129	e22	356	604	1380	120	36	12	e4.8	1.9
4	5.8	45	95	e21	212	160	367	89	35	11	e4.5	1.6
5	19	41	77	e21	123	94	206	76	44	9.9	e6.0	1.4
6	154	37	68	e22	96	78	146	75	78	9.1	21	1.4
7	60	36	60	e23	82	72	116	938	50	8.2	5.9	1.4
8	26	33	52	e22	71	67	104	610	39	8.1	3.6	1.3
9	17	31	45	e22	64	435	1140	389	34	8.1	2.7	1.3
10	15	30	40	e21	70	468	470	182	31	9.1	2.4	1.7
11	32	29	37	e21	197	160	222	117	30	8.4	2.3	e1.5
12	560	24	36	20	134	124	157	1010	30	7.3	2.3	e1.4
13	227	23	69	21	e100	110	1190	3750	29	6.9	4.1	e1.3
14	967	24	653	20	e77	89	1370	1930	28	6.8	3.1	e1.3
15	582	24	605	21	e66	79	811	441	26	6.7	3.2	e1.3
16	684	22	265	18	e52	178	311	233	26	6.4	2.9	e1.4
17	500	21	2180	19	e41	132	177	158	22	6.2	2.6	e1.4
18	195	20	1850	17	e33	98	126	116	19	6.4	2.7	e1.3
19	122	22	518	17	e37	80	112	89	17	6.6	3.8	e2.0
20	84	22	256	17	e50	89	98	74	15	6.9	7.2	e5.0
21	63	20	156	18	64	96	260	64	15	6.5	4.3	14
22	50	20	116	16	50	74	271	57	15	6.1	3.1	7.2
23	170	19	106	17	43	67	161	55	15	6.1	4.1	4.8
24	2200	20	86	26	41	60	119	51	14	6.2	24	4.5
25	1900	41	68	39	41	61	93	68	13	5.8	9.1	4.1
26	469	28	61	30	70	66	73	68	27	6.8	4.6	4.1
27	227	31	55	27	91	82	166	50	29	11	3.2	19
28	142	47	e49	26	66	229	2290	105	33	11	2.8	13
29	102	632	e42	28	---	1530	501	103	21	9.3	2.6	4.5
30	82	1310	e36	140	---	2820	227	65	16	10	2.4	2.3
31	69	---	e31	917	---	644	---	55	---	e8.0	2.2	---
TOTAL	9739.4	2819	8470	1702	6366	9000	13426	11493	876	259.9	158.7	111.5
MEAN	314.2	93.97	273.2	54.90	227.4	290.3	447.5	370.7	29.20	8.384	5.119	3.717
MAX	2200	1310	2180	917	3230	2820	2290	3750	78	15	24	19
MIN	5.0	19	31	16	33	56	73	50	13	5.8	2.2	1.3
CFSM	2.36	0.71	2.05	0.41	1.71	2.18	3.36	2.79	0.22	0.06	0.04	0.03
IN.	2.72	0.79	2.37	0.48	1.78	2.52	3.76	3.21	0.25	0.07	0.04	0.03

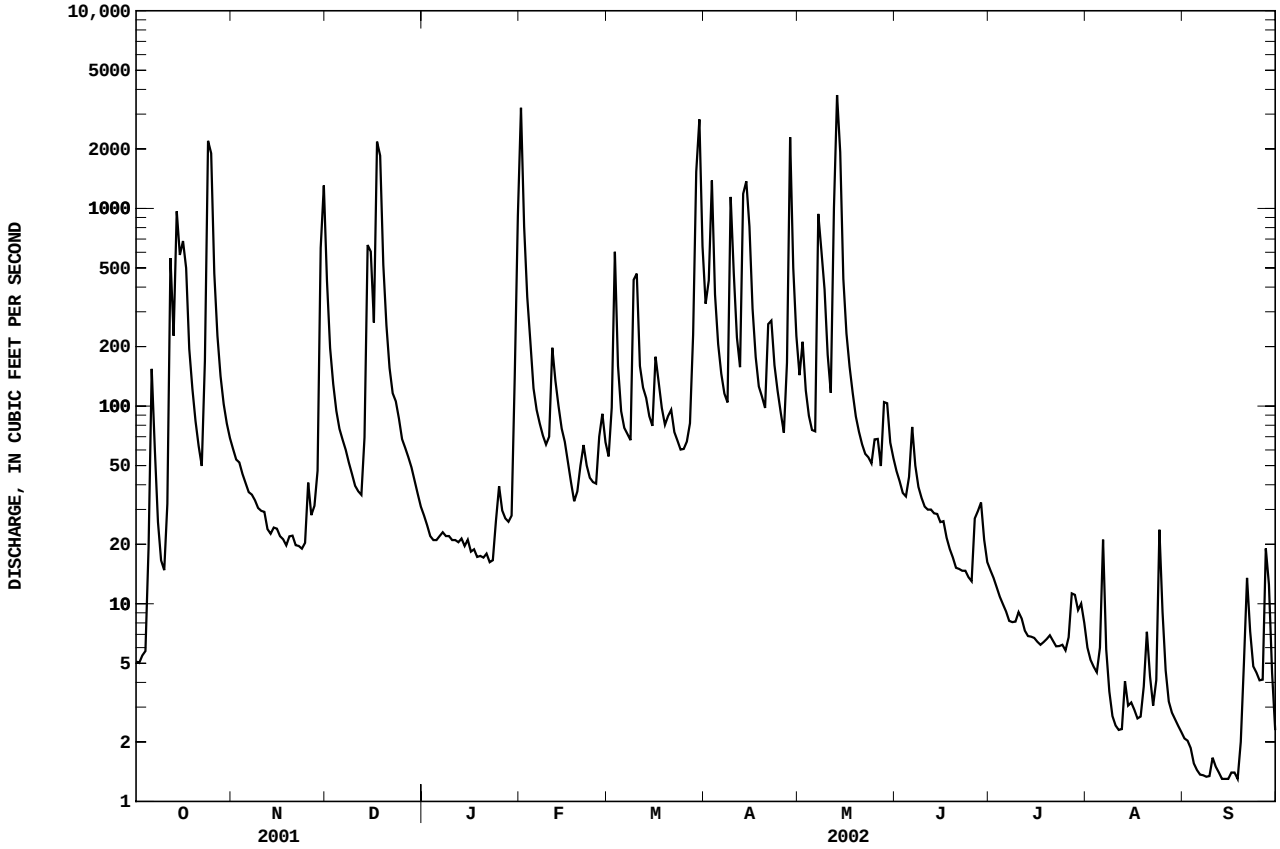
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2002, BY WATER YEAR (WY)

MEAN	34.74	91.82	146.6	178.6	205.5	244.9	224.3	127.5	145.1	94.82	37.14	29.65
MAX	314	729	872	865	548	714	810	371	1417	709	454	337
(WY)	2002	1994	1991	1950	1950	1978	1964	2002	1958	1979	1979	1972
MIN	1.25	1.82	2.62	3.25	5.00	46.1	25.8	15.3	6.52	2.37	2.13	0.99
(WY)	1947	1954	1964	1977	1964	1957	1976	1988	1988	1952	1983	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1947 - 2002	
ANNUAL TOTAL	45471.7		64421.5			
ANNUAL MEAN	124.6		176.5		129.6	
HIGHEST ANNUAL MEAN					223	1958
LOWEST ANNUAL MEAN					29.8	1954
HIGHEST DAILY MEAN	2200	Oct 24	3750	May 13	11300	Jun 10 1958
LOWEST DAILY MEAN	2.7	Sep 7	1.3	Sep 8	0.10	Oct 24 1946
ANNUAL SEVEN-DAY MINIMUM	3.5	Aug 4	1.3	Sep 12	0.23	Oct 5 1946
MAXIMUM PEAK FLOW			4030	May 13	13900	Jun 10 1958
MAXIMUM PEAK STAGE			13.95	May 13	16.25	Jun 10 1958
ANNUAL RUNOFF (CFSM)	0.94		1.33		0.97	
ANNUAL RUNOFF (INCHES)	12.72		18.02		13.24	
10 PERCENT EXCEEDS	270		452		273	
50 PERCENT EXCEEDS	31		40		28	
90 PERCENT EXCEEDS	5.6		3.7		3.9	

e Estimated

03325500 MISSISSINEWA RIVER NEAR RIDGEVILLE, IN--Continued



03326070 BIG LICK CREEK NEAR HARTFORD CITY, IN

LOCATION.--Lat 40°25'20", long 85°21'04", in SE$^1/_4$SE$^1/_4$ sec.23, T.23 N., R.10 E., Blackford County, Hydrologic Unit 05120103, (HARTFORD CITY EAST, IN quadrangle), on right bank 6 ft downstream from bridge on County Road 100 East, 0.10 mi north of intersection of County Road 100 South and County Road 100 East, 1.0 mi east of intersection of State Road 3 and County Road 200 South, and 2.0 mi southeast of Hartford City.

DRAINAGE AREA.--29.2 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 865.00 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	9.5	e210	e6.8	521	15	59	23	16	2.6	1.4	0.78
2	3.0	8.9	e60	e6.5	83	89	66	20	13	2.4	1.2	0.72
3	2.9	9.3	e34	e6.3	42	231	132	15	11	2.2	1.2	0.66
4	2.7	8.1	e25	e6.1	28	34	37	13	10	2.1	1.1	0.61
5	119	7.2	e19	e6.0	18	18	25	12	12	2.1	1.7	0.56
6	153	6.7	e15	e6.3	16	19	20	12	10	1.9	4.9	0.55
7	31	6.3	e12	e6.2	14	18	18	37	8.5	1.8	1.9	0.55
8	13	6.1	e10	e5.8	13	15	40	39	7.2	1.8	1.3	0.51
9	8.8	5.9	e9.0	e5.5	12	110	120	50	6.3	2.8	1.1	0.51
10	8.1	5.8	e8.0	e5.2	13	66	37	21	5.9	13	1.0	0.55
11	44	5.6	e7.4	e5.0	27	23	22	14	5.5	4.4	0.93	0.59
12	367	5.2	e7.0	e4.9	17	19	18	199	5.4	2.3	0.95	0.51
13	79	5.1	e7.8	e4.7	13	17	20	789	5.3	2.0	1.2	0.52
14	289	5.1	e30	e4.5	11	14	112	154	5.5	1.8	1.2	0.57
15	118	4.9	e280	e4.6	11	13	66	55	5.7	1.6	1.2	0.58
16	363	4.9	e64	3.9	11	78	25	35	5.7	1.5	1.1	0.68
17	128	4.7	e500	4.0	9.5	26	18	32	4.8	1.6	1.2	0.70
18	45	4.5	e340	3.8	8.8	17	15	26	4.1	1.6	1.0	0.83
19	25	4.6	e130	3.7	9.1	14	13	22	3.7	2.0	5.8	1.1
20	16	4.7	e50	3.6	38	14	15	20	3.5	3.7	4.5	9.3
21	13	4.5	e33	3.7	55	14	54	18	3.4	1.8	1.9	16
22	19	4.5	e28	3.5	23	11	33	17	3.4	1.5	1.7	3.6
23	85	4.3	e25	3.9	16	10	19	14	3.4	2.3	31	2.0
24	546	4.9	e20	5.1	13	9.7	15	12	3.3	2.2	53	1.5
25	383	14	e17	5.0	12	9.9	14	14	3.2	1.5	20	1.2
26	73	e13	e14	4.6	17	e10	12	21	3.4	16	5.6	1.1
27	32	e7.8	e12	4.5	19	e11	79	13	3.9	16	2.7	13
28	19	e7.2	e10	4.5	15	18	467	193	3.6	4.4	1.8	11
29	14	e20	e9.0	5.2	---	237	75	109	3.0	2.6	1.4	3.0
30	12	e290	e8.0	32	---	554	34	33	2.7	1.9	1.2	1.8
31	10	---	e7.4	229	---	130	---	21	---	1.6	0.92	---
TOTAL	3024.5	493.3	2001.6	404.4	1085.4	1864.6	1680	2053	182.4	107.0	157.10	75.58
MEAN	97.56	16.44	64.57	13.05	38.76	60.15	56.00	66.23	6.080	3.452	5.068	2.519
MAX	546	290	500	229	521	554	467	789	16	16	53	16
MIN	2.7	4.3	7.0	3.5	8.8	9.7	12	12	2.7	1.5	0.92	0.51
CFSM	3.34	0.56	2.21	0.45	1.33	2.06	1.92	2.27	0.21	0.12	0.17	0.09
IN.	3.85	0.63	2.55	0.52	1.38	2.38	2.14	2.62	0.23	0.14	0.20	0.10

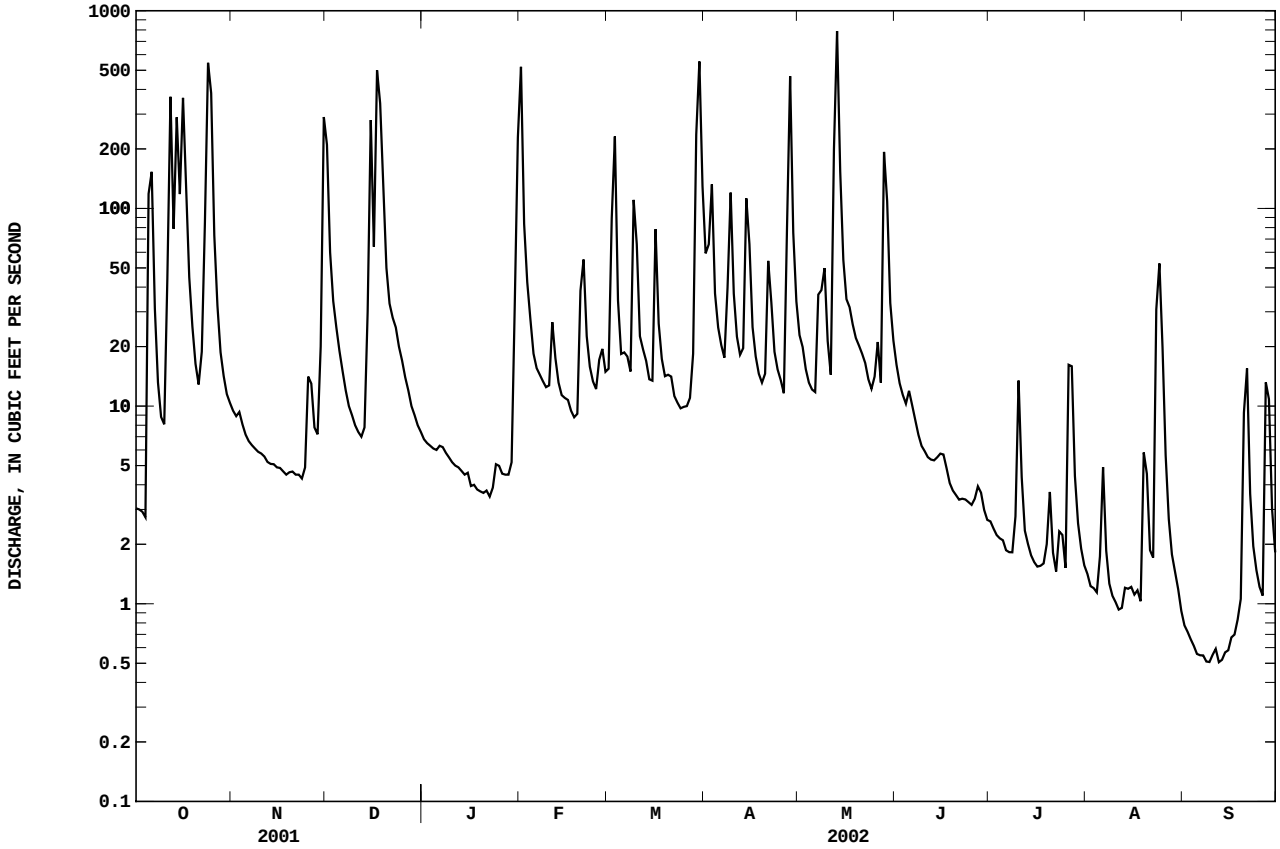
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2002, BY WATER YEAR (WY)

MEAN	9.780	24.96	35.93	33.74	44.65	54.74	42.96	28.11	28.38	20.05	9.902	7.055
MAX	97.5	135	157	114	124	152	112	114	148	99.4	84.3	55.0
(WY)	2002	1986	1991	1999	1990	1978	1972	1981	1981	1992	1998	1972
MIN	0.50	0.82	1.13	0.76	3.41	9.25	4.85	2.37	1.21	1.11	0.95	0.61
(WY)	1998	1998	1996	1977	1978	2001	1976	1988	1988	1977	1988	1983

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1972 - 2002	
ANNUAL TOTAL	11687.6		13128.88			
ANNUAL MEAN	32.02		35.97		28.26	
HIGHEST ANNUAL MEAN					43.3	1993
LOWEST ANNUAL MEAN					9.21	1977
HIGHEST DAILY MEAN	570	Apr 11	789	May 13	1580	Jun 6 1981
LOWEST DAILY MEAN	1.5	Jul 28	0.51	Sep 8	0.19	Oct 4 1983
ANNUAL SEVEN-DAY MINIMUM	1.6	Aug 2	0.53	Sep 7	0.32	Sep 28 1983
MAXIMUM PEAK FLOW			1070	May 13	1940	Jun 6 1981
MAXIMUM PEAK STAGE			12.32	May 13	16.14	Jun 6 1981
ANNUAL RUNOFF (CFSM)	1.10		1.23		0.97	
ANNUAL RUNOFF (INCHES)	14.89		16.73		13.15	
10 PERCENT EXCEEDS	65		78		65	
50 PERCENT EXCEEDS	8.3		10		5.7	
90 PERCENT EXCEEDS	2.5		1.3		1.1	

e Estimated

03326070 BIG LICK CREEK NEAR HARTFORD CITY, IN--Continued



03326500 MISSISSINEWA RIVER AT MARION, IN

LOCATION.--Lat 40°34'34", long 85°39'34", in SE$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	158	494	4300	e220	8130	475	3720	1230	447	160	67	42
2	144	464	2130	e214	8680	680	1660	966	376	135	64	41
3	132	431	1020	e209	4870	4070	2670	921	323	118	61	38
4	116	382	730	e204	1550	2480	3170	671	296	110	55	37
5	246	348	584	e202	978	1020	1440	538	442	105	56	33
6	1930	319	501	e196	695	711	924	483	352	97	56	39
7	1620	296	447	e200	567	654	724	524	301	92	72	44
8	771	285	400	e190	496	577	779	1980	306	87	69	46
9	495	270	355	203	449	899	1660	2300	268	95	63	74
10	376	252	314	203	422	2150	2540	1350	235	127	64	48
11	776	240	287	203	489	1580	1630	788	225	230	57	41
12	5830	224	271	195	661	822	948	1180	218	154	70	38
13	4450	213	296	192	580	675	1310	10200	208	110	66	37
14	3550	205	1250	185	464	593	2200	12200	214	95	80	35
15	5020	198	4080	186	405	537	3170	7360	216	87	57	35
16	5740	193	2550	176	375	746	2370	2140	202	81	51	38
17	5570	188	5260	170	345	823	1050	1240	185	75	51	38
18	2870	183	7170	163	305	683	729	940	177	72	51	36
19	1460	182	5490	155	358	548	597	730	166	92	133	35
20	997	179	2270	154	718	497	528	603	157	149	92	205
21	753	172	1160	151	1060	475	557	520	150	87	76	150
22	671	169	830	152	778	455	950	462	148	76	72	135
23	1180	164	718	148	559	417	889	423	144	85	128	92
24	4090	169	652	156	462	376	630	394	139	76	384	67
25	7990	415	551	159	410	375	549	398	136	74	485	59
26	7000	402	475	168	445	374	470	604	174	120	213	53
27	2840	308	424	187	511	390	652	638	177	183	100	117
28	1190	275	396	179	513	440	6460	1600	249	148	76	92
29	840	541	352	188	---	1760	6250	1910	305	106	61	124
30	662	4530	e230	297	---	8440	2870	824	209	88	51	85
31	556	---	e225	2550	---	9710	---	575	---	74	45	---
TOTAL	70023	12691	45718	8155	36275	44432	54096	56692	7145	3388	3026	1954
MEAN	2259	423.0	1475	263.1	1296	1433	1803	1829	238.2	109.3	97.61	65.13
MAX	7990	4530	7170	2550	8680	9710	6460	12200	447	230	485	205
MIN	116	164	225	148	305	374	470	394	136	72	45	33
CFSM	3.31	0.62	2.16	0.39	1.90	2.10	2.64	2.68	0.35	0.16	0.14	0.10
IN.	3.82	0.69	2.49	0.44	1.98	2.42	2.95	3.09	0.39	0.18	0.17	0.11

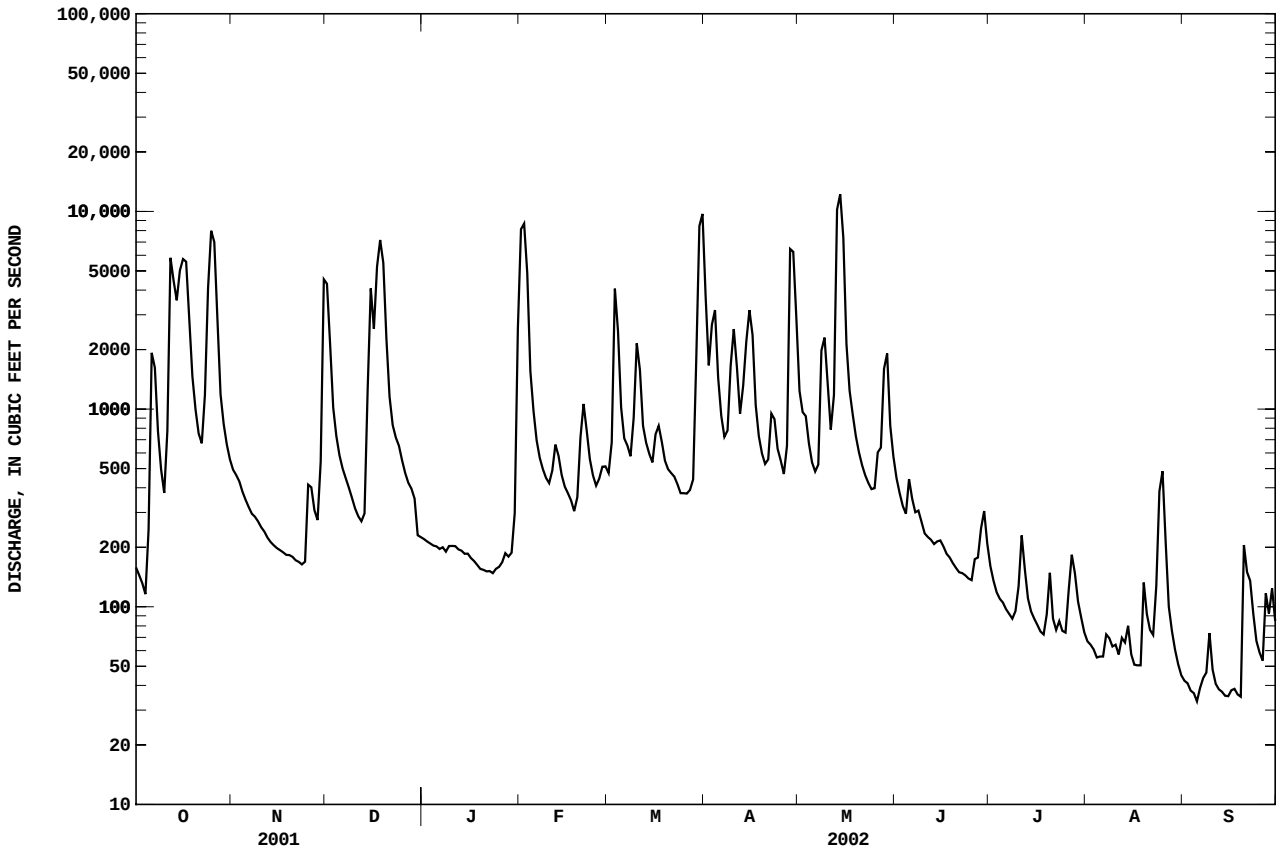
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2002, BY WATER YEAR (WY)

MEAN	197.3	403.3	689.9	893.0	953.5	1235	1141	728.1	636.2	397.0	203.5	224.6
MAX	2259	2626	2947	5129	2707	3181	3699	3776	4765	2831	1522	4223
(WY)	2002	1993	1991	1930	1990	1982	1964	1933	1958	1992	1998	1926
MIN	22.8	28.0	36.9	36.1	52.5	65.3	123	40.5	49.3	32.6	25.4	24.1
(WY)	1929	1929	1964	1945	1964	1941	1941	1941	1988	1936	1940	1940

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1924 - 2002	
ANNUAL TOTAL	295275		343595			
ANNUAL MEAN	809.0		941.4		632.5	
HIGHEST ANNUAL MEAN					1167	1927
LOWEST ANNUAL MEAN					106	1941
HIGHEST DAILY MEAN	7990	Oct 25	12200	May 14	23400	Jun 11 1958
LOWEST DAILY MEAN	64	Aug 8	33	Sep 5	3.4	Oct 25 1968
ANNUAL SEVEN-DAY MINIMUM	84	Aug 2	36	Sep 13	8.4	Oct 17 1940
MAXIMUM PEAK FLOW			12800	May 14	25000	Mar 21 1927
MAXIMUM PEAK STAGE			11.78	May 14	17.40	Mar 21 1927
ANNUAL RUNOFF (CFSM)	1.19		1.38		0.93	
ANNUAL RUNOFF (INCHES)	16.11		18.74		12.60	
10 PERCENT EXCEEDS	2000		2500		1500	
50 PERCENT EXCEEDS	327		352		201	
90 PERCENT EXCEEDS	116		67		48	

e Estimated

03326500 MISSISSINEWA RIVER AT MARION, IN--Continued



03327000 MISSISSINEWA RIVER AT PEORIA, IN

LOCATION.--Lat 40°43'24", long 85°57'27", in SW$^1/_4$SW$^1/_4$ 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 2001 (discharge). October 2001 to September 2002 (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 a 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.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 8.28 ft, Dec. 19, 2001; minimum gage height, 0.09 ft, Jan. 9, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.28 ft, Dec. 19; minimum gage height, 0.09 ft, Jan. 9.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.52	2.10	7.70	1.78	6.74	2.43	7.86	5.80	2.50	1.88	1.34	0.87
2	0.99	2.08	8.07	1.78	7.78	2.16	7.70	3.54	1.42	1.28	1.02	0.87
3	1.40	2.11	6.19	1.78	8.10	7.02	7.07	3.05	1.80	1.02	0.56	0.87
4	1.02	1.97	0.15	1.76	7.99	6.43	7.00	2.50	1.80	1.03	0.56	0.87
5	1.36	1.94	0.13	1.76	7.75	2.98	4.50	2.50	2.48	1.03	1.97	0.87
6	4.40	1.93	3.50	1.76	3.46	2.98	2.44	2.50	2.78	1.03	0.56	0.72
7	4.40	1.92	3.76	1.76	3.42	2.72	2.76	2.50	2.76	1.03	0.56	0.72
8	3.54	1.92	1.90	0.11	2.44	2.72	3.03	2.52	1.97	1.03	0.91	0.72
9	3.52	1.66	2.01	1.76	2.26	2.73	5.36	5.80	1.97	1.03	0.71	0.72
10	3.74	1.66	2.01	1.76	1.79	4.65	5.35	4.40	1.97	1.03	0.71	0.73
11	3.47	1.66	2.38	1.76	2.23	4.64	4.33	3.04	1.71	1.03	0.71	0.73
12	5.80	1.66	2.80	1.75	2.43	3.48	2.78	3.05	1.71	1.26	0.71	0.72
13	6.51	1.23	2.14	1.75	2.59	3.46	4.33	7.70	1.71	1.36	0.72	0.72
14	7.07	1.50	2.97	1.58	2.58	2.44	4.34	8.00	1.71	1.34	0.88	0.73
15	7.11	1.66	7.08	1.38	2.37	2.45	6.30	8.12	1.28	1.11	0.88	0.73
16	6.87	1.35	7.00	1.38	1.80	2.45	5.69	8.03	1.28	0.58	0.88	0.73
17	8.13	1.35	5.70	1.38	2.11	2.96	3.51	7.87	1.54	0.58	0.88	0.73
18	8.02	1.66	7.98	1.38	1.79	2.96	2.45	7.70	1.54	0.58	0.88	2.34
19	7.80	1.66	8.25	1.38	1.81	2.45	2.77	5.79	1.54	0.58	0.88	1.69
20	5.30	1.44	8.09	1.38	2.72	2.44	2.18	2.50	1.28	0.62	1.33	2.33
21	2.97	1.42	4.30	1.38	3.86	2.15	2.75	2.50	1.28	1.02	1.32	2.32
22	2.97	1.42	4.26	1.38	3.85	2.15	2.75	2.31	1.28	1.02	1.34	2.30
23	2.98	1.42	2.98	1.38	2.97	2.15	3.28	1.78	1.28	1.02	1.34	1.91
24	6.28	1.42	2.98	1.38	2.43	1.75	3.02	1.78	1.28	1.07	1.55	1.66
25	7.12	1.42	2.39	1.38	2.15	1.75	1.78	2.19	0.78	1.08	2.42	1.66
26	8.10	2.42	2.39	1.38	2.15	1.76	1.78	2.19	1.05	1.08	2.42	1.18
27	8.00	0.13	1.78	1.38	2.43	2.14	2.20	3.04	1.11	1.08	1.15	1.18
28	6.70	0.14	1.78	1.38	2.43	2.14	7.63	3.97	1.10	1.14	1.15	2.20
29	6.50	0.19	2.12	1.39	---	2.98	8.02	5.80	1.66	1.12	0.87	1.20
30	2.43	2.48	1.27	1.78	---	7.76	7.92	3.05	1.93	1.12	0.87	0.69
31	2.74	---	1.27	6.50	---	8.02	---	2.50	---	1.12	0.87	---
MEAN	4.80	1.56	3.78	1.67	3.44	3.27	4.43	4.13	1.65	1.04	1.06	1.19
MAX	8.13	2.48	8.25	6.50	8.10	8.02	8.02	8.12	2.78	1.88	2.42	2.34
MIN	0.99	0.13	0.13	0.11	1.79	1.75	1.78	1.78	0.78	0.58	0.56	0.69

WTR YR 2002 MEAN 2.67 MAX 8.25 MIN 0.11

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, 29.1°C, Aug. 4, minimum, 0.6°C, Jan. 1.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.9	15.4	15.6	10.6	9.3	9.8	8.2	7.9	8.1	3.8	0.6	1.6
2	15.9	14.9	15.4	10.3	9.4	9.9	7.9	7.7	7.8	1.3	1.0	1.1
3	15.6	14.7	15.2	10.4	9.1	9.7	8.6	7.8	7.9	1.3	1.0	1.1
4	15.8	15.1	15.6	9.9	9.4	9.6	9.7	8.6	9.2	4.1	0.9	2.2
5	15.7	15.1	15.4	10.0	9.5	9.7	10.8	9.7	10.2	1.3	1.1	1.2
6	15.2	14.7	14.9	9.8	9.4	9.6	10.8	8.7	9.8	1.4	1.1	1.2
7	14.8	14.5	14.6	9.8	9.3	9.5	9.2	8.4	8.6	4.3	1.1	2.3
8	14.5	14.1	14.3	9.7	9.5	9.6	9.1	8.2	8.5	4.0	1.1	2.4
9	14.3	14.1	14.2	10.2	9.4	9.6	8.3	7.8	8.1	3.6	1.6	2.6
10	14.2	13.8	14.0	9.8	9.3	9.5	8.9	7.7	8.3	1.6	1.3	1.4
11	14.1	13.7	13.9	9.7	9.2	9.4	8.7	7.5	8.1	1.4	1.2	1.3
12	14.1	13.5	13.7	9.7	9.1	9.3	8.5	7.4	7.9	1.4	1.1	1.2
13	14.2	13.4	13.7	10.0	9.1	9.5	8.6	7.4	8.0	1.5	1.1	1.2
14	14.2	14.0	14.1	9.5	9.1	9.4	8.5	6.9	7.3	3.2	1.2	1.5
15	14.1	14.0	14.0	9.3	8.9	9.1	7.0	6.8	6.9	3.4	1.2	1.5
16	14.1	13.5	13.8	10.0	8.8	9.1	6.8	6.4	6.6	1.4	1.2	1.3
17	13.5	12.2	12.9	9.2	8.7	9.0	7.5	6.3	6.7	1.6	1.1	1.3
18	12.2	11.8	11.9	9.4	9.0	9.2	7.0	6.4	6.6	1.8	1.1	1.4
19	11.8	10.7	11.1	9.3	8.6	9.0	6.6	6.4	6.5	2.1	1.4	1.6
20	11.3	10.5	10.8	9.5	8.5	8.8	6.4	6.0	6.2	1.9	1.5	1.6
21	11.6	10.5	10.8	9.5	8.3	8.8	7.5	5.8	6.5	2.4	1.6	1.9
22	11.3	10.6	10.9	8.8	8.2	8.5	6.8	6.2	6.5	2.6	1.7	2.0
23	11.6	11.1	11.3	8.8	8.2	8.5	7.0	4.9	5.8	2.6	2.0	2.2
24	12.2	11.6	11.8	9.3	8.7	9.0	4.9	4.0	4.4	2.4	1.9	2.2
25	12.3	11.9	12.2	9.2	8.8	8.9	5.4	3.4	3.8	2.7	1.8	2.1
26	12.1	11.2	11.7	8.8	8.4	8.7	3.4	2.8	3.1	2.9	1.9	2.2
27	11.2	10.3	10.7	9.8	8.7	9.3	4.8	2.5	3.0	3.0	2.1	2.4
28	10.7	9.8	10.1	9.1	7.8	8.4	2.9	2.5	2.7	3.3	2.2	2.6
29	9.8	9.1	9.4	8.1	7.7	7.9	2.5	1.8	2.1	3.0	2.7	2.9
30	10.9	9.0	10.2	8.6	8.1	8.4	4.4	1.8	2.3	3.0	2.8	2.9
31	10.6	9.1	10.0	---	---	---	1.9	1.5	1.6	2.9	2.7	2.8
MONTH	15.9	9.0	12.8	10.6	7.7	9.2	10.8	1.5	6.4	4.3	0.6	1.8

03327000 MISSISSINEWA RIVER AT PEORIA, IN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.6	2.9	3.3	4.3	3.7	4.0	6.1	5.7	5.8	13.3	12.5	12.9
2	3.8	3.3	3.6	5.0	3.9	4.0	6.7	6.1	6.4	13.0	12.3	12.6
3	3.8	3.6	3.7	4.0	3.4	3.8	7.0	6.7	6.8	12.8	12.4	12.6
4	4.0	3.5	3.7	3.5	2.6	2.9	7.5	7.0	7.2	12.9	12.5	12.6
5	3.5	3.1	3.3	4.2	2.5	3.3	7.8	7.5	7.7	13.1	12.6	12.8
6	4.7	3.0	3.8	3.0	2.5	2.7	8.3	7.7	7.9	13.8	13.1	13.4
7	4.0	3.2	3.7	3.9	2.7	2.9	8.5	8.0	8.3	13.8	13.4	13.6
8	4.5	2.9	3.3	3.8	3.0	3.4	8.8	8.3	8.5	14.6	13.5	14.1
9	3.9	2.7	3.1	4.5	3.8	4.1	8.8	8.4	8.6	15.3	14.3	14.8
10	4.6	3.0	3.3	3.8	3.4	3.6	9.4	8.6	8.9	15.6	14.5	15.2
11	3.3	3.0	3.1	4.0	3.5	3.7	9.9	9.3	9.5	15.7	15.1	15.6
12	4.0	3.0	3.2	5.8	4.0	4.8	10.6	9.8	10.2	15.9	15.6	15.8
13	5.4	3.0	3.8	5.7	5.1	5.4	10.9	10.6	10.7	16.0	15.5	15.9
14	3.6	3.2	3.4	7.0	5.6	6.3	11.7	10.8	11.3	16.0	15.5	15.7
15	4.7	3.3	3.5	6.7	6.6	6.7	13.7	11.6	12.6	15.7	15.4	15.5
16	4.9	3.4	3.8	7.2	6.5	6.8	14.7	13.5	14.2	15.8	15.3	15.5
17	4.2	3.5	3.8	7.0	6.6	6.8	14.5	12.7	14.0	15.4	15.2	15.3
18	4.7	3.3	3.7	7.2	6.8	7.0	14.6	13.0	13.6	15.3	15.1	15.2
19	4.0	3.6	3.8	7.4	6.9	7.1	14.0	13.2	13.7	15.1	14.1	14.7
20	4.3	3.9	4.2	7.5	7.3	7.4	14.4	13.7	14.0	14.6	13.8	14.2
21	4.2	4.0	4.1	7.4	6.8	7.2	15.6	13.7	14.7	14.3	14.0	14.2
22	4.5	4.1	4.2	7.2	6.4	6.7	15.4	14.8	15.1	14.6	14.2	14.4
23	5.2	4.3	4.5	7.1	6.2	6.5	15.6	14.7	15.0	15.4	13.9	14.8
24	5.4	4.2	4.7	6.9	6.3	6.5	15.8	14.7	15.3	15.1	14.6	14.8
25	5.7	4.7	4.8	6.3	5.6	5.8	15.6	13.9	14.8	15.9	14.7	15.3
26	4.9	4.6	4.7	5.6	4.6	5.1	15.8	14.8	15.2	16.0	14.9	15.4
27	4.6	4.0	4.3	6.0	5.1	5.4	15.0	14.6	14.9	16.4	15.5	15.9
28	4.2	3.7	3.9	6.0	5.2	5.6	14.9	14.6	14.8	17.4	16.1	16.7
29	---	---	---	5.9	5.5	5.7	14.6	13.1	13.9	18.0	17.1	17.6
30	---	---	---	5.6	5.4	5.5	13.1	12.5	12.7	18.6	16.6	17.7
31	---	---	---	5.9	5.6	5.7	---	---	---	18.0	16.5	17.5
MONTH	5.7	2.7	3.8	7.5	2.5	5.2	15.8	5.7	11.5	18.6	12.3	14.9

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.2	17.2	17.7	23.8	21.9	23.3	27.2	26.2	26.8	26.2	25.3	25.7
2	18.0	16.1	17.6	23.4	20.3	22.8	27.0	22.8	26.1	25.9	25.3	25.6
3	18.7	17.1	17.9	23.3	20.8	22.6	28.4	23.2	26.9	25.6	24.9	25.3
4	19.0	18.0	18.4	23.4	22.0	22.6	29.1	27.2	28.0	25.5	24.3	24.9
5	19.4	18.5	19.0	23.5	22.1	22.6	27.9	22.9	26.2	25.5	24.1	24.7
6	20.3	19.4	20.0	23.5	21.8	22.4	26.8	21.6	25.2	25.7	22.8	24.8
7	20.9	20.1	20.5	23.4	21.9	22.5	27.8	25.1	26.3	25.8	24.6	25.1
8	21.0	17.8	20.2	23.4	21.9	22.6	27.3	22.4	25.7	25.8	24.6	25.1
9	20.8	20.0	20.3	23.4	22.4	22.7	27.5	23.7	26.4	25.7	24.6	25.1
10	21.0	20.2	20.5	23.9	22.3	22.9	27.5	25.9	26.6	25.3	24.4	24.9
11	21.0	17.2	20.2	24.2	22.2	23.0	27.1	25.8	26.3	24.7	23.2	24.0
12	21.1	20.6	20.8	24.0	22.3	23.2	27.0	25.8	26.3	24.6	23.1	23.8
13	21.0	20.5	20.8	25.1	22.9	23.9	26.5	25.9	26.2	24.6	23.2	23.9
14	21.3	20.7	20.9	25.9	24.5	25.1	26.1	25.7	25.9	24.5	23.5	23.9
15	21.5	18.6	20.8	25.6	22.8	24.8	26.1	25.5	25.8	24.1	23.6	23.8
16	21.8	20.7	21.2	26.8	22.5	25.5	26.0	25.4	25.7	24.1	23.2	23.6
17	22.0	20.9	21.4	27.6	25.3	26.3	26.0	25.4	25.7	23.7	22.7	23.2
18	22.5	21.3	21.9	28.2	26.2	26.9	25.9	25.4	25.6	23.3	20.0	21.5
19	22.7	21.6	22.1	28.3	25.6	26.5	25.5	25.0	25.2	23.0	19.2	21.4
20	22.6	20.3	22.0	26.0	20.7	24.1	25.0	24.5	24.8	23.3	21.4	22.6
21	22.7	21.7	22.1	27.9	25.9	27.1	25.0	24.3	24.6	21.4	20.8	21.0
22	22.7	21.8	22.2	28.2	26.9	27.5	25.2	24.3	24.7	21.1	20.6	20.9
23	23.0	21.8	22.3	27.7	26.2	27.0	25.0	24.6	24.8	21.9	19.6	21.2
24	22.9	21.8	22.3	28.1	26.9	27.5	25.0	24.6	24.8	21.7	19.8	21.4
25	23.9	21.8	22.6	28.1	27.0	27.4	24.8	20.1	22.4	21.5	21.0	21.2
26	25.9	23.3	24.7	27.3	26.8	27.1	21.4	20.8	21.1	21.1	18.4	20.6
27	25.1	24.0	24.4	27.7	26.7	27.0	25.7	21.2	23.7	21.2	20.5	20.8
28	26.0	24.1	24.9	27.1	26.5	26.8	26.1	25.4	25.7	20.5	19.6	20.0
29	26.3	24.0	24.9	27.4	26.5	26.7	25.7	22.7	25.2	20.3	17.5	19.6
30	24.2	22.2	23.7	27.4	26.4	26.8	26.3	25.3	25.7	20.7	18.4	20.1
31	---	---	---	27.6	26.5	27.0	26.2	25.2	25.7	---	---	---
MONTH	26.3	16.1	21.3	28.3	20.3	25.0	29.1	20.1	25.5	26.2	17.5	23.0
YEAR	29.1	0.6	13.4									

03327500 WABASH RIVER AT PERU, IN

LOCATION.--Lat 40°44'35", long 86°05'45", in SE$^1/_4$NE$^1/_4$ 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 fair. 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

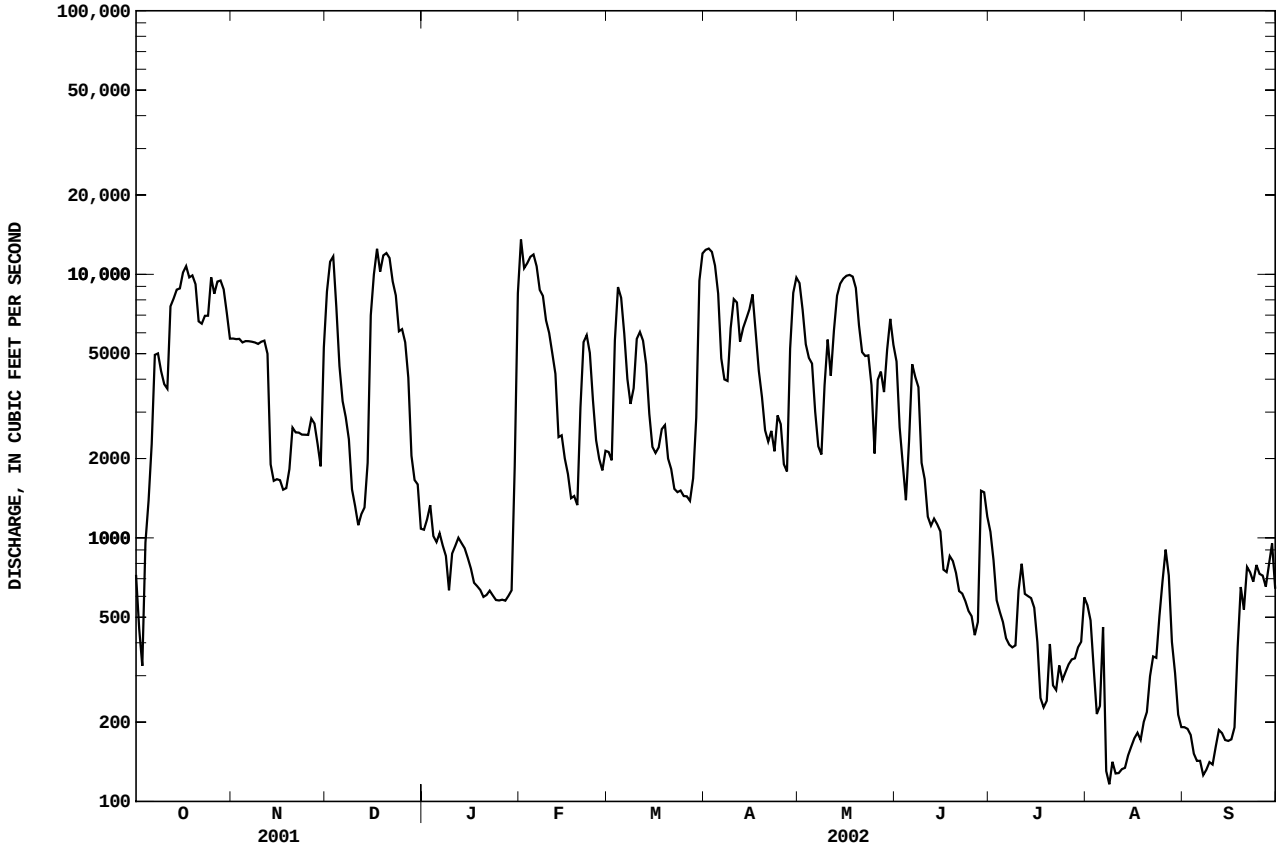
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	724	5710	8610	1070	13500	2120	12400	9260	4670	1050	555	191
2	452	5680	11200	1180	10600	1970	12500	7320	2630	821	486	188
3	327	5690	11700	1330	11000	5620	12200	5430	1900	580	321	179
4	960	5510	7500	1020	11700	8950	10800	4820	1390	524	215	152
5	1390	5580	4490	964	11900	8150	8450	4590	2320	479	230	142
6	2270	5570	3300	1040	10700	5950	4800	3010	4560	416	459	143
7	4950	5550	2870	936	8730	4010	3990	2230	4080	393	130	126
8	5010	5510	2370	854	8280	3220	3940	2070	3730	384	116	132
9	4300	5440	1530	633	6690	3700	6240	3790	1930	391	141	141
10	3830	5550	1320	872	5990	5690	8050	5650	1670	633	128	138
11	3680	5600	1120	932	5020	6040	7820	4120	1200	798	128	161
12	7560	4990	1230	1000	4190	5600	5550	6130	1110	613	133	187
13	8100	1900	1300	956	2410	4550	6270	8300	1180	601	134	182
14	8750	1650	1930	913	2450	2950	6790	9220	1130	591	150	171
15	8840	1670	6990	839	2000	2210	7370	9630	1060	543	161	170
16	10200	1650	9990	764	1750	2100	8390	9870	758	403	174	172
17	10700	1520	12500	676	1410	2200	6010	9950	742	247	182	191
18	9740	1540	10200	656	1440	2590	4300	9800	853	227	171	384
19	9900	1820	11800	634	1330	2680	3420	8880	817	241	200	651
20	9170	2620	12000	597	3120	2000	2560	6400	736	396	218	534
21	6630	2510	11500	607	5530	1820	2320	5070	628	276	299	776
22	6500	2510	9400	630	5880	1530	2550	4900	615	265	355	740
23	6960	2470	8320	605	5030	1490	2130	4930	575	328	351	682
24	6970	2460	6080	581	3330	1510	2920	3800	528	289	504	789
25	9740	2460	6190	579	2350	1440	2700	2090	504	310	685	730
26	8440	2840	5520	583	1990	1440	1900	3980	427	331	902	719
27	9390	2720	4050	578	1800	1380	1790	4270	480	346	720	653
28	9470	2270	2050	603	2140	1680	5230	3570	1510	349	403	790
29	8770	1870	1660	632	---	2860	8500	5180	1490	384	307	952
30	7120	5280	1600	1860	---	9460	9720	6780	1210	403	213	641
31	5700	---	1080	8480	---	12000	---	5400	---	595	191	---
TOTAL	196543	108140	181400	33604	152260	118910	181610	180440	46433	14207	9362	11807
MEAN	6340	3605	5852	1084	5438	3836	6054	5821	1548	458.3	302.0	393.6
MAX	10700	5710	12500	8480	13500	12000	12500	9950	4670	1050	902	952
MIN	327	1520	1080	578	1330	1380	1790	2070	427	227	116	126
CFSM	2.36	1.34	2.18	0.40	2.02	1.43	2.25	2.17	0.58	0.17	0.11	0.15
IN.	2.72	1.50	2.51	0.47	2.11	1.65	2.52	2.50	0.64	0.20	0.13	0.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

MEAN	1165	1726	2715	3308	3747	4607	4110	2456	2434	1561	867.0	814.9
MAX	6340	7653	8314	18500	10740	10890	14840	6882	14260	7036	7049	3936
(WY)	2002	1973	1958	1950	1959	1982	1957	1996	1958	1993	1998	1992
MIN	110	150	142	141	247	830	412	345	194	175	163	119
(WY)	1954	1954	1964	1945	1964	1983	1971	1976	1988	1944	1966	1963

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	1080003		1234716			
ANNUAL MEAN	2959		3383		2452	
HIGHEST ANNUAL MEAN					4425	1950
LOWEST ANNUAL MEAN					691	1954
HIGHEST DAILY MEAN	12500	Dec 17	13500	Feb 1	50900	Jun 12 1958
LOWEST DAILY MEAN	172	Aug 16	116	Aug 8	72	Oct 5 1946
ANNUAL SEVEN-DAY MINIMUM	246	Aug 13	130	Aug 7	85	Oct 29 1944
MAXIMUM PEAK FLOW			14500	Feb 1	68000	May 18 1943
MAXIMUM PEAK STAGE			11.83	Feb 1	24.46	May 18 1943
ANNUAL RUNOFF (CFSM)	1.10		1.26		0.91	
ANNUAL RUNOFF (INCHES)	14.96		17.10		12.40	
10 PERCENT EXCEEDS	8440		9040		6970	
50 PERCENT EXCEEDS	1540		1930		1020	
90 PERCENT EXCEEDS	382		237		221	

03327500 WABASH RIVER AT PERU, IN--Continued



03327520 PIPE CREEK NEAR BUNKER HILL, IN

LOCATION.--Lat 40°40'06", long 86°05'44", in NE$^1/_4$SE$^1/_4$ sec.29, T.26 N., R.4 E., Miami County, Hydrologic Unit 05120101, (BUNKER HILL, IN. quadrangle), on right bank 150 ft downstream from bridge on County Road 125 West, 0.5 mi northeast of Bunker Hill, and at mile 11.4.

DRAINAGE AREA.--159 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 736.00 ft above 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	135	544	e58	1760	117	623	339	109	34	16	7.8
2	29	121	289	e55	1130	145	424	285	93	32	14	7.3
3	28	115	201	e53	574	716	437	213	81	30	14	7.3
4	26	103	156	e51	387	439	312	167	75	27	12	7.9
5	31	94	130	e50	250	244	237	143	1020	26	11	7.1
6	192	87	114	e49	185	194	193	131	717	24	10	6.8
7	207	80	101	e48	153	185	167	127	302	22	9.1	7.0
8	122	76	90	47	128	165	225	154	201	20	8.9	7.9
9	86	70	80	49	111	401	630	180	146	22	8.9	8.3
10	70	66	70	49	106	599	464	171	116	24	8.9	7.7
11	73	63	64	45	105	298	297	140	110	23	8.9	7.5
12	1020	57	62	43	112	226	252	211	114	20	8.9	7.1
13	1170	53	73	43	101	197	1070	782	110	20	9.3	7.4
14	1060	53	251	42	87	171	718	816	105	19	13	8.4
15	1110	53	743	39	86	154	419	427	93	17	14	9.5
16	1110	51	441	35	80	158	284	278	80	16	14	11
17	1380	47	1280	35	71	177	219	232	66	14	12	9.5
18	790	46	1420	34	61	154	179	207	60	14	10	9.5
19	443	46	719	33	128	129	157	168	55	15	18	10
20	313	45	415	33	744	124	136	142	51	15	25	18
21	236	42	280	33	681	110	131	121	48	14	14	24
22	226	43	213	34	383	94	150	108	46	13	14	14
23	404	41	187	34	253	90	124	103	45	18	23	9.3
24	983	41	158	36	197	87	111	97	43	16	25	8.3
25	1680	48	129	35	167	86	111	247	41	14	22	7.0
26	955	43	112	32	156	77	96	215	48	13	18	6.7
27	444	40	106	30	140	82	125	126	52	20	14	12
28	292	39	98	29	120	92	1200	232	49	19	11	15
29	222	53	83	35	---	396	952	339	41	20	10	9.8
30	176	554	70	119	---	1600	495	184	37	32	9.6	7.0
31	152	---	e63	960	---	1200	---	136	---	21	8.9	---
TOTAL	15061	2405	8742	2268	8456	8907	10938	7221	4154	634	415.4	286.1
MEAN	485.8	80.17	282.0	73.16	302.0	287.3	364.6	232.9	138.5	20.45	13.40	9.537
MAX	1680	554	1420	960	1760	1600	1200	816	1020	34	25	24
MIN	26	39	62	29	61	77	96	97	37	13	8.9	6.7
CFSM	3.06	0.50	1.77	0.46	1.90	1.81	2.29	1.47	0.87	0.13	0.08	0.06
IN.	3.52	0.56	2.05	0.53	1.98	2.08	2.56	1.69	0.97	0.15	0.10	0.07

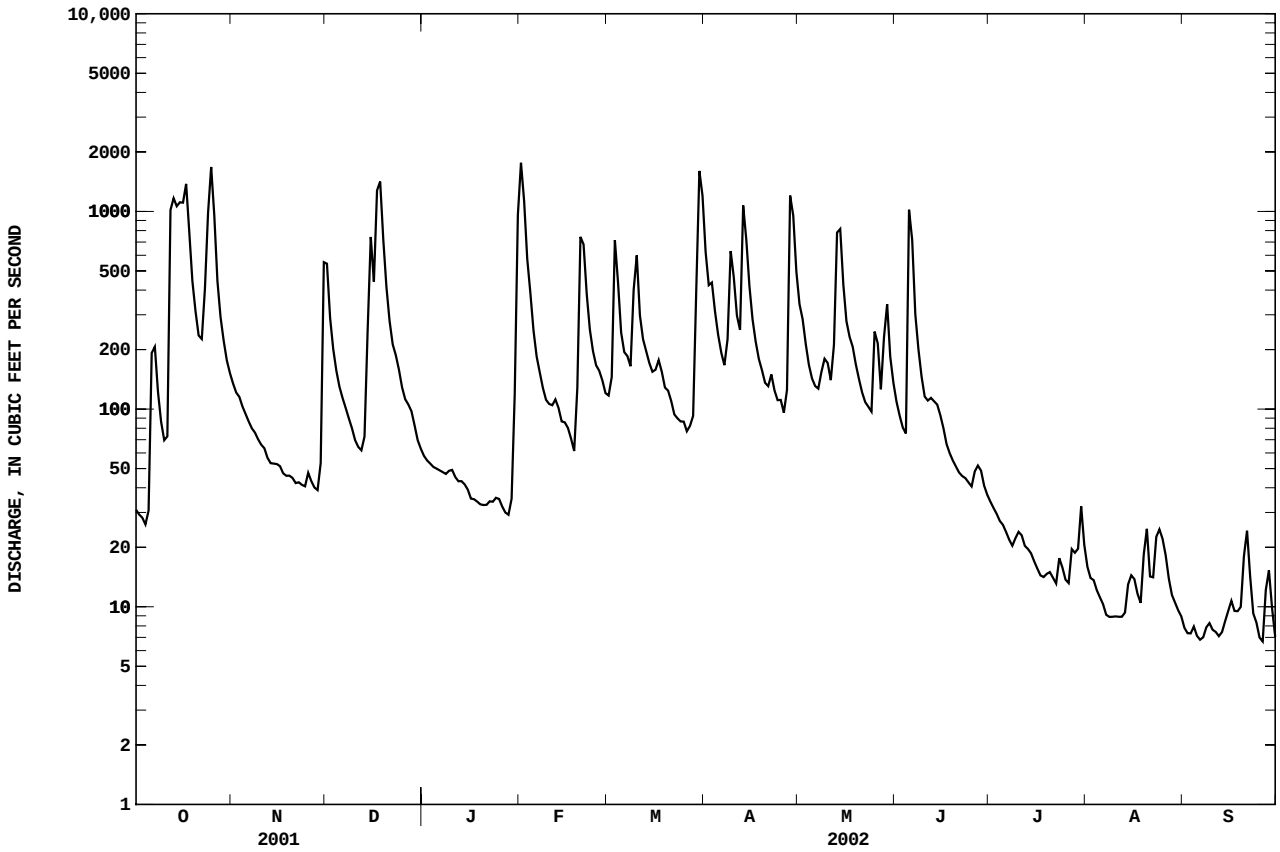
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

MEAN	61.90	128.7	168.1	169.5	226.1	285.7	243.9	174.7	153.0	103.5	52.21	40.08
MAX	486	797	563	731	648	902	637	525	429	726	321	226
(WY)	2002	1993	1991	1974	1990	1982	1972	1996	1980	1998	1998	1972
MIN	6.66	6.67	6.57	3.70	25.1	49.7	44.1	28.5	12.4	8.17	7.63	5.16
(WY)	1989	2000	1977	1977	1978	1981	2000	1976	1988	1988	1971	1991

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1968 - 2002	
ANNUAL TOTAL	67445		69487.5			
ANNUAL MEAN	184.8		190.4		150.7	
HIGHEST ANNUAL MEAN					266	1993
LOWEST ANNUAL MEAN					67.6	1977
HIGHEST DAILY MEAN	1910	Apr 11	1760	Feb 1	4780	Jan 23 1999
LOWEST DAILY MEAN	15	Jul 23	6.7	Sep 26	2.9	Sep 27 1999
ANNUAL SEVEN-DAY MINIMUM	16	Jul 22	7.3	Sep 1	3.4	Sep 22 1999
MAXIMUM PEAK FLOW			1810	Feb 1	5440	Jan 23 1999
MAXIMUM PEAK STAGE			9.74	Feb 1	18.50	Jan 23 1999
ANNUAL RUNOFF (CFSM)	1.16		1.20		0.95	
ANNUAL RUNOFF (INCHES)	15.78		16.26		12.88	
10 PERCENT EXCEEDS	502		515		367	
50 PERCENT EXCEEDS	74		86		55	
90 PERCENT EXCEEDS	25		11		10	

e Estimated

03327520 PIPE CREEK NEAR BUNKER HILL, IN--Continued



03328000 EEL RIVER AT NORTH MANCHESTER, IN

LOCATION.--Lat 40°59'38", long 85°46'53", in NE$^1/_4$SE$^1/_4$ 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 fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum instantaneous gage height occurred Dec. 30, 1990 during period of no gage height record, at datum 738.00 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	528	2200	e250	3820	332	1660	482	284	205	114	69
2	99	504	1410	e230	3020	359	1290	1420	266	176	110	69
3	98	510	894	e220	2040	1430	1850	1050	251	153	100	69
4	98	450	680	e215	1280	985	1280	653	277	141	92	68
5	145	409	559	212	875	625	877	509	339	132	90	67
6	537	376	484	209	687	507	689	448	325	123	87	67
7	372	350	431	205	578	550	588	439	281	121	83	66
8	253	328	384	197	510	534	806	464	252	117	81	64
9	200	310	353	195	462	1370	2210	977	235	123	78	65
10	175	295	322	199	435	2180	1680	978	228	122	76	63
11	216	282	299	197	414	1350	1060	726	227	112	73	62
12	2500	262	289	193	389	873	1050	3200	220	106	74	62
13	2760	251	370	192	360	715	3060	3580	206	102	76	62
14	2790	246	786	189	328	609	1850	2500	202	98	85	61
15	2670	248	1860	198	319	538	1190	1490	201	95	91	63
16	2460	242	1220	205	309	485	842	1010	198	96	89	65
17	2650	232	2090	201	298	437	669	871	187	97	93	64
18	2030	228	2500	196	279	411	573	909	190	105	85	73
19	1420	226	1750	191	293	381	508	714	180	103	106	86
20	1030	225	1070	187	600	370	489	596	170	98	115	95
21	837	216	778	186	891	350	516	522	163	92	94	117
22	2160	211	629	185	627	320	619	466	165	98	87	92
23	2830	202	571	188	483	306	513	425	174	102	142	79
24	2620	197	510	205	421	300	450	394	179	94	124	74
25	2880	465	439	201	391	314	415	375	186	88	102	72
26	2190	423	388	195	386	311	378	372	171	89	91	71
27	1400	330	360	195	380	318	372	345	377	95	84	88
28	1000	296	337	196	342	361	1070	339	e480	98	79	100
29	806	670	308	209	---	640	822	330	e330	127	76	82
30	676	2250	288	840	---	2440	573	316	253	222	74	74
31	588	---	e270	2500	---	2500	---	309	---	145	71	---
TOTAL	40591	11762	24829	9181	21217	23201	29949	27209	7197	3675	2822	2209
MEAN	1309	392.1	800.9	296.2	757.8	748.4	998.3	877.7	239.9	118.5	91.03	73.63
MAX	2880	2250	2500	2500	3820	2500	3060	3580	480	222	142	117
MIN	98	197	270	185	279	300	372	309	163	88	71	61
CFSM	3.14	0.94	1.92	0.71	1.82	1.79	2.39	2.10	0.58	0.28	0.22	0.18
IN.	3.62	1.05	2.21	0.82	1.89	2.07	2.67	2.43	0.64	0.33	0.25	0.20

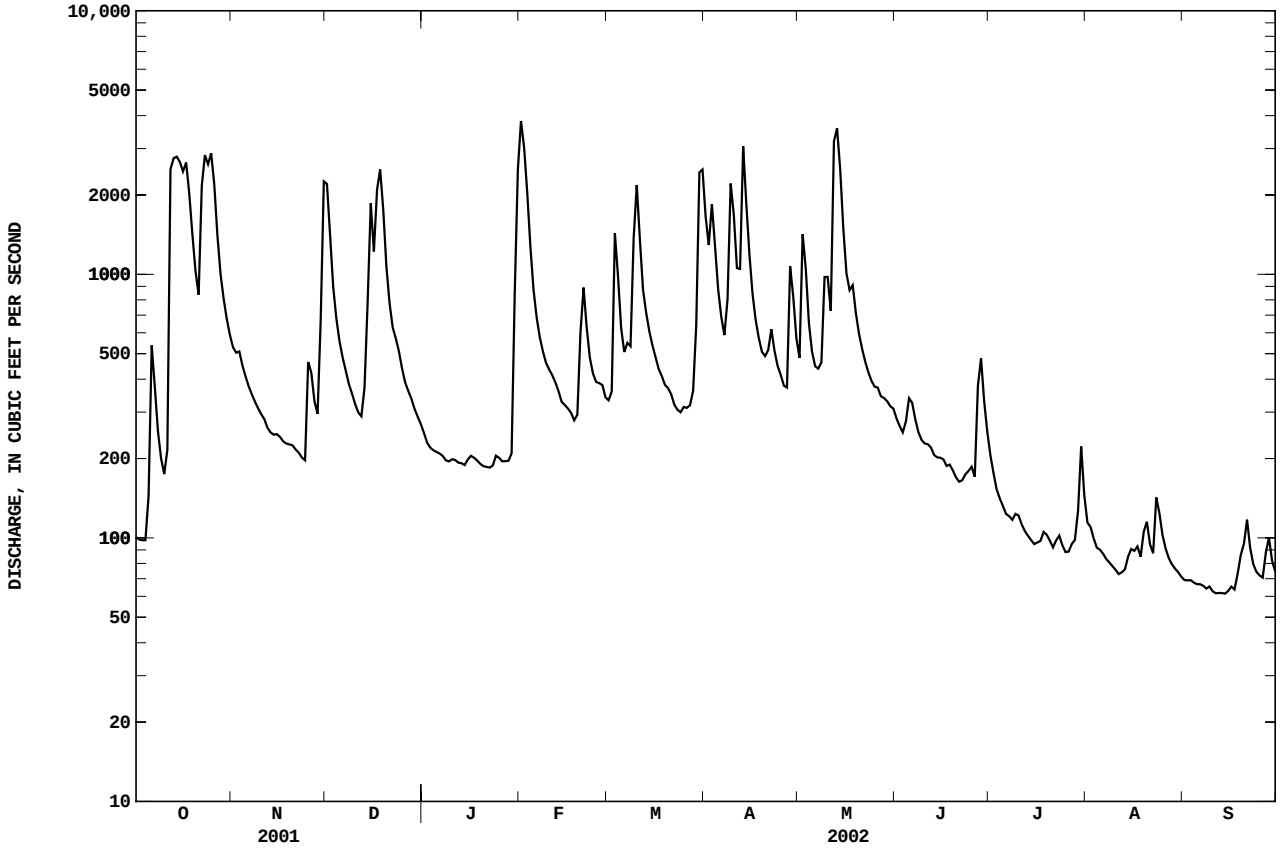
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2002, BY WATER YEAR (WY)

MEAN	181.2	272.1	399.0	479.7	583.3	711.0	679.2	431.8	347.0	217.1	157.2	131.7
MAX	1309	1416	1717	2258	1772	2425	1768	2021	1376	767	1031	566
(WY)	2002	1993	1967	1950	1959	1982	1957	1943	1981	1951	1990	1992
MIN	46.2	53.4	49.4	43.2	62.0	200	141	86.1	68.1	44.2	30.7	27.6
(WY)	1947	1940	1964	1977	1964	1941	1946	1931	1934	1941	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1930 - 2002	
ANNUAL TOTAL	191343		203842			
ANNUAL MEAN	524.2		558.5		382.5	
HIGHEST ANNUAL MEAN					783	1950
LOWEST ANNUAL MEAN					103	1931
HIGHEST DAILY MEAN	4550	Feb 10	3820	Feb 1	7770	Dec 31 1990
LOWEST DAILY MEAN	71	Aug 15	61	Sep 14	16	Oct 19 1956
ANNUAL SEVEN-DAY MINIMUM	77	Aug 10	63	Sep 9	23	Sep 13 1941
MAXIMUM PEAK FLOW			4150	May 12	8740	Dec 30 1990
MAXIMUM PEAK STAGE			10.05	May 12	14.81	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.26		1.34		0.92	
ANNUAL RUNOFF (INCHES)	17.07		18.18		12.46	
10 PERCENT EXCEEDS	1400		1420		900	
50 PERCENT EXCEEDS	256		309		176	
90 PERCENT EXCEEDS	108		85		66	

e Estimated

03328000 EEL RIVER AT NORTH MANCHESTER, IN--Continued



03328430 WEESAU CREEK NEAR DEEDSVILLE, IN

LOCATION.--Lat 40°54'34", long 86°07'36", in NW1/4NW1/4 sec.6, T.28 N., R.4 E., Miami County, Hydrologic Unit 05120104, (MACY, IN quadrangle), on left bank 100 ft downstream from bridge on County Road 1000 North, and 1.5 mi west of Deedsville.

DRAINAGE AREA.--8.87 mi^2.

PERIOD OF RECORD.--October 1970 to December 2001 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 785.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

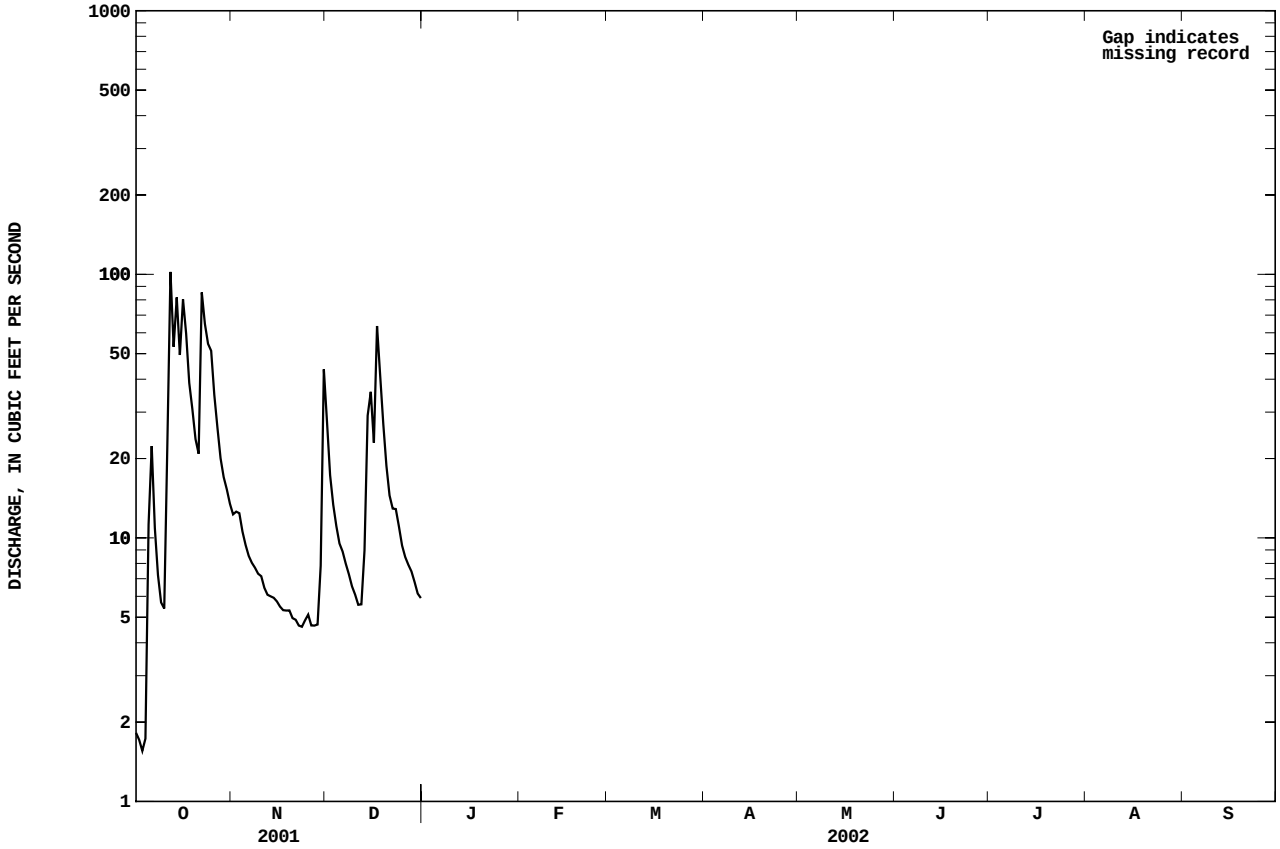
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	12	28	---	---	---	---	---	---	---	---	---
2	1.7	13	17	---	---	---	---	---	---	---	---	---
3	1.6	12	13	---	---	---	---	---	---	---	---	---
4	1.7	11	11	---	---	---	---	---	---	---	---	---
5	11	9.4	9.5	---	---	---	---	---	---	---	---	---
6	22	8.5	8.9	---	---	---	---	---	---	---	---	---
7	11	8.0	8.0	---	---	---	---	---	---	---	---	---
8	7.2	7.7	7.3	---	---	---	---	---	---	---	---	---
9	5.7	7.3	6.5	---	---	---	---	---	---	---	---	---
10	5.4	7.2	6.1	---	---	---	---	---	---	---	---	---
11	23	6.5	5.6	---	---	---	---	---	---	---	---	---
12	102	6.1	5.6	---	---	---	---	---	---	---	---	---
13	53	6.0	9.0	---	---	---	---	---	---	---	---	---
14	82	5.9	29	---	---	---	---	---	---	---	---	---
15	49	5.7	36	---	---	---	---	---	---	---	---	---
16	80	5.5	23	---	---	---	---	---	---	---	---	---
17	60	5.3	64	---	---	---	---	---	---	---	---	---
18	39	5.3	41	---	---	---	---	---	---	---	---	---
19	31	5.3	27	---	---	---	---	---	---	---	---	---
20	24	5.0	19	---	---	---	---	---	---	---	---	---
21	21	4.9	14	---	---	---	---	---	---	---	---	---
22	85	4.6	13	---	---	---	---	---	---	---	---	---
23	65	4.6	13	---	---	---	---	---	---	---	---	---
24	54	4.9	11	---	---	---	---	---	---	---	---	---
25	51	5.1	9.4	---	---	---	---	---	---	---	---	---
26	35	4.7	8.5	---	---	---	---	---	---	---	---	---
27	26	4.6	7.9	---	---	---	---	---	---	---	---	---
28	20	4.7	7.5	---	---	---	---	---	---	---	---	---
29	17	7.8	6.8	---	---	---	---	---	---	---	---	---
30	15	44	6.1	---	---	---	---	---	---	---	---	---
31	13	---	5.9	---	---	---	---	---	---	---	---	---
TOTAL	1014.1	242.6	477.6	---	---	---	---	---	---	---	---	---
MEAN	32.71	8.087	15.41	---	---	---	---	---	---	---	---	---
MAX	102	44	64	---	---	---	---	---	---	---	---	---
MIN	1.6	4.6	5.6	---	---	---	---	---	---	---	---	---
CFSM	3.69	0.91	1.74	---	---	---	---	---	---	---	---	---
IN.	4.25	1.02	2.00	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

MEAN	5.346	8.793	12.49	12.30	16.29	19.84	15.81	10.55	9.322	7.291	4.670	4.061
MAX	32.7	34.5	35.9	55.6	47.6	53.7	34.5	24.6	31.6	31.8	47.0	21.6
(WY)	2002	1993	1991	1993	1985	1982	1983	1983	1986	1998	1990	1989
MIN	0.79	0.94	0.61	0.30	2.50	3.50	3.74	3.30	1.17	0.80	0.66	0.45
(WY)	1975	2000	1977	1977	1996	1981	1996	1977	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1971 - 2002	
ANNUAL TOTAL	4361.4		1734.3			
ANNUAL MEAN	11.95		18.85		10.52	
HIGHEST ANNUAL MEAN					19.1	1993
LOWEST ANNUAL MEAN					4.22	2000
HIGHEST DAILY MEAN	118	Aug 23	102	Oct 12	436	Aug 18 1990
LOWEST DAILY MEAN	1.0	Aug 14	1.6	Oct 3	0.20	Oct 2 1999
ANNUAL SEVEN-DAY MINIMUM	1.1	Aug 9	4.7	Nov 22	0.27	Jan 29 1977
MAXIMUM PEAK FLOW			138	Oct 12	518	Aug 18 1990
MAXIMUM PEAK STAGE			5.24	Oct 12	7.39	Apr 12 1994
ANNUAL RUNOFF (CFSM)	1.35		2.13		1.19	
ANNUAL RUNOFF (INCHES)	18.29		7.27		16.11	
10 PERCENT EXCEEDS	29		52		25	
50 PERCENT EXCEEDS	5.6		9.4		4.3	
90 PERCENT EXCEEDS	1.8		4.8		1.0	

03328430 WEESAU CREEK NEAR DEEDSVILLE, IN--Continued



03328500 EEL RIVER NEAR LOGANSPORT, IN

LOCATION.--Lat 40°46'55", long 86°15'50", in NE$^1/_4$SE$^1/_4$ 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 fair 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	1070	4310	e480	6780	649	3480	1110	652	395	284	158
2	220	1000	3060	e470	6250	659	2280	1490	595	344	246	155
3	215	1010	1950	e460	4270	1800	2580	2300	564	315	228	153
4	209	954	1410	e450	2730	2180	2500	1470	548	292	218	152
5	239	858	1140	e440	1810	1380	1740	1110	627	277	201	147
6	611	787	984	e450	1370	1040	1370	947	774	264	193	146
7	960	737	878	e445	1140	996	1160	901	682	253	189	144
8	646	698	792	e440	1000	1000	1310	893	592	245	182	146
9	479	662	720	438	899	1580	3640	1360	539	260	182	146
10	403	629	662	435	831	3930	3620	2040	506	266	175	145
11	403	605	618	435	791	2850	2320	1530	490	254	171	141
12	2920	571	587	429	744	1800	1690	4430	529	236	169	138
13	5560	546	624	422	697	1390	3970	7060	494	227	170	138
14	5320	531	973	414	644	1200	4220	5570	468	221	177	139
15	5580	529	3250	412	612	1050	2530	3450	451	213	190	139
16	5010	527	2860	408	590	955	1770	2200	434	208	200	140
17	5680	507	4000	395	566	861	1390	1800	416	202	195	140
18	4270	490	5840	386	539	796	1170	1750	396	204	e195	148
19	3020	484	4190	374	589	743	1040	1630	387	225	e190	158
20	2190	481	2600	368	1170	711	954	1310	372	238	e236	193
21	1690	463	1760	361	1880	686	949	1140	358	222	229	210
22	2590	452	1370	359	1450	636	1020	1020	345	214	207	214
23	5120	441	1200	358	1080	603	1020	925	338	242	199	188
24	5560	440	1090	371	893	590	893	851	329	234	227	167
25	5300	473	951	413	796	617	824	803	322	214	232	157
26	4420	816	824	438	760	628	755	785	327	203	e210	154
27	3060	675	765	432	736	627	761	750	323	199	189	164
28	2090	587	703	432	686	668	1860	718	495	202	178	170
29	1630	622	650	456	---	1010	2120	715	576	219	170	181
30	1370	2960	e540	954	---	3740	1410	687	473	281	167	170
31	1190	---	e500	3760	---	4630	---	674	---	374	162	---
TOTAL	78180	21605	51801	16885	42303	42005	56346	53419	14402	7743	6161	4741
MEAN	2522	720.2	1671	544.7	1511	1355	1878	1723	480.1	249.8	198.7	158.0
MAX	5680	2960	5840	3760	6780	4630	4220	7060	774	395	284	214
MIN	209	440	500	358	539	590	755	674	322	199	162	138
CFSM	3.20	0.91	2.12	0.69	1.91	1.72	2.38	2.18	0.61	0.32	0.25	0.20
IN.	3.69	1.02	2.44	0.80	1.99	1.98	2.66	2.52	0.68	0.37	0.29	0.22

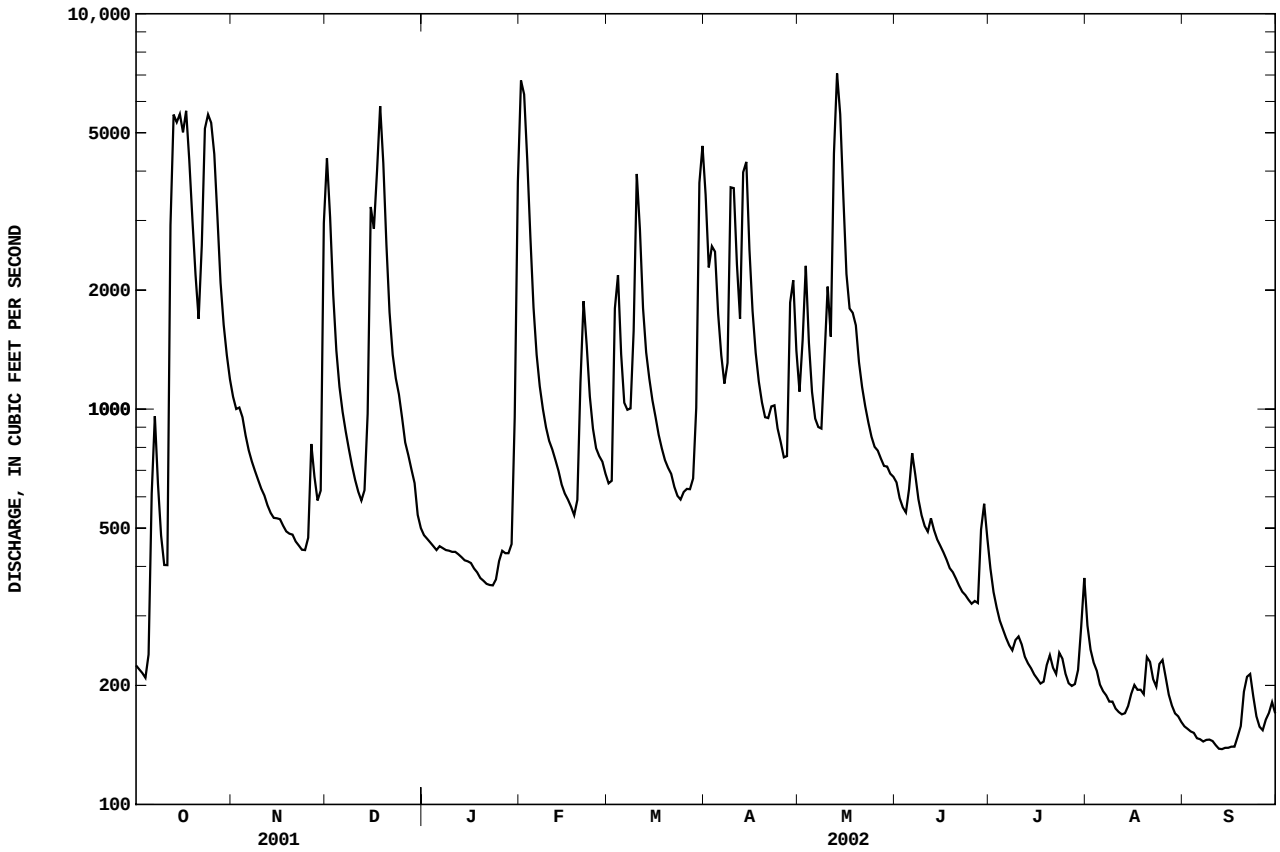
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

MEAN	384.4	521.2	824.2	955.7	1140	1355	1317	879.9	790.7	502.6	365.2	304.4
MAX	2522	2384	2898	4507	3090	4612	3285	1827	2208	2072	2115	1052
(WY)	2002	1993	1967	1950	1959	1982	1950	1983	1975	1998	1990	1972
MIN	95.1	110	98.2	101	184	353	366	245	176	140	128	101
(WY)	1964	1964	1964	1977	1964	1966	1966	1958	1988	1988	1966	1963

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	381358		395591			
ANNUAL MEAN	1045		1084		776.1	
HIGHEST ANNUAL MEAN					1573	1950
LOWEST ANNUAL MEAN					324	1954
HIGHEST DAILY MEAN	7000	Feb 10	7060	May 13	16600	Feb 24 1985
LOWEST DAILY MEAN	169	Aug 15	138	Sep 12	70	Mar 15 1960
ANNUAL SEVEN-DAY MINIMUM	180	Aug 11	139	Sep 11	76	Dec 17 1963
MAXIMUM PEAK FLOW			7260	May 13	17700	Feb 24 1985
MAXIMUM PEAK STAGE			8.80	May 13	12.68	Feb 24 1985
ANNUAL RUNOFF (CFSM)	1.32		1.37		0.98	
ANNUAL RUNOFF (INCHES)	17.98		18.65		13.36	
10 PERCENT EXCEEDS	2740		2880		1760	
50 PERCENT EXCEEDS	586		617		405	
90 PERCENT EXCEEDS	261		182		156	

e Estimated

03328500 EEL RIVER NEAR LOGANSPORT, IN--Continued



03329000 WABASH RIVER AT LOGANSPORT, IN

LOCATION.--Lat 40°44'47", long 86°22'39", in SW$^1/_4$NE$^1/_4$ 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. 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

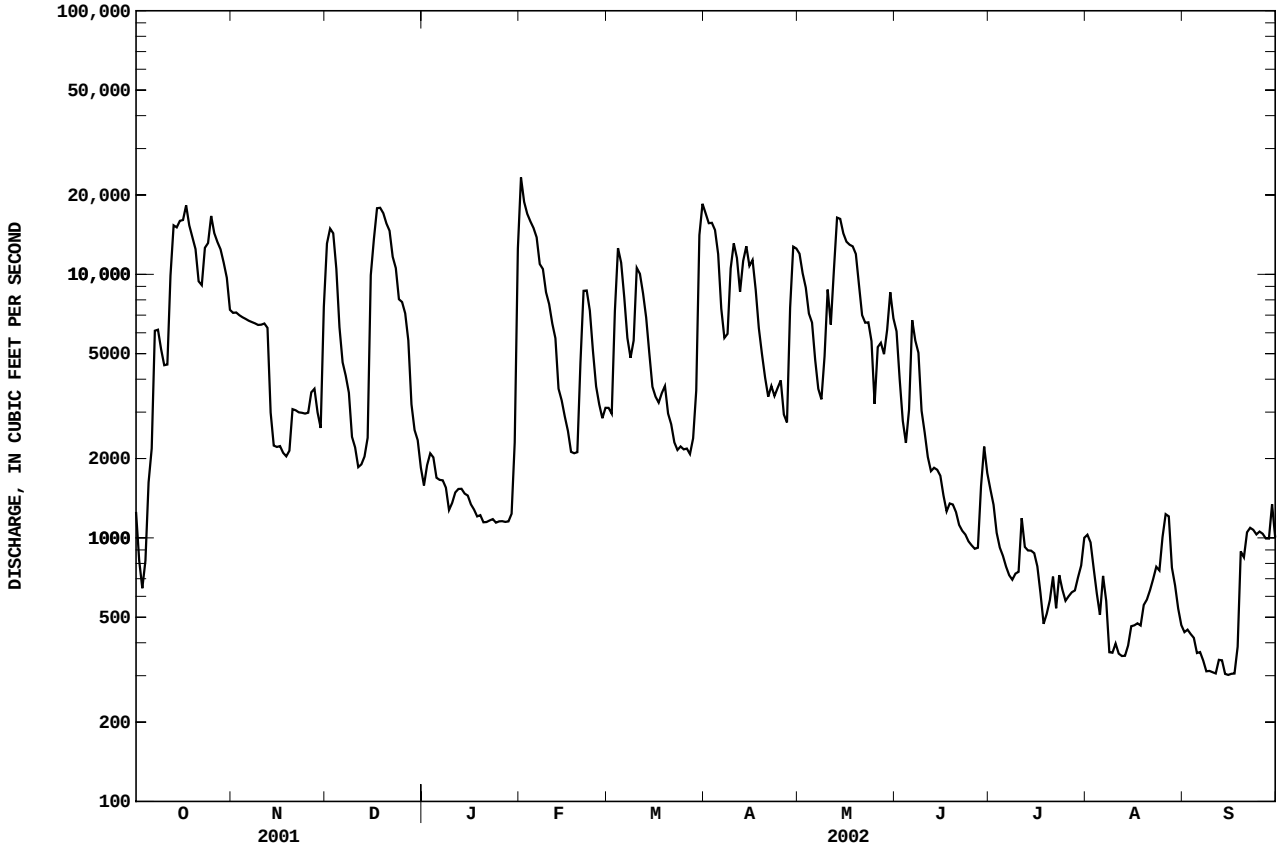
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	7140	13100	1580	23300	3110	17000	12000	6080	1530	1030	439
2	821	7160	14900	1890	18800	2960	15600	10100	4010	1340	961	448
3	644	7000	14300	2090	17000	7250	15700	8900	2780	1050	766	432
4	820	6870	10500	2020	15900	12600	14700	7100	2290	919	615	417
5	1620	6770	6300	1690	15000	11100	11900	6560	3060	855	510	366
6	2180	6670	4640	1660	13800	8170	7410	4740	6700	778	718	369
7	6110	6590	4120	1650	10900	5740	5740	3680	5610	722	576	342
8	6160	6520	3550	1550	10500	4820	5950	3360	5040	694	368	312
9	5200	6430	2420	1280	8550	5610	10500	4880	3040	732	367	313
10	4520	6440	2200	1360	7710	10600	13100	8750	2510	744	397	309
11	4550	6510	1860	1490	6510	10000	11500	6450	2030	1190	364	306
12	9890	6260	1900	1530	5720	8470	8590	10500	1790	924	356	344
13	15300	2990	2040	1540	3680	6860	11200	16400	1840	896	357	343
14	15100	2240	2400	1470	3320	5020	12800	16200	1810	894	390	305
15	16000	2210	9920	1450	2890	3740	10800	14300	1720	875	462	302
16	16100	2230	13600	1340	2540	3430	11300	13300	1450	779	466	305
17	18300	2100	17800	1280	2120	3260	8730	13000	1260	617	474	306
18	15400	2040	17900	1210	2090	3540	6250	12800	1350	472	465	386
19	13800	2140	17100	1220	2110	3770	4980	11900	1340	515	556	889
20	12500	3080	15600	1150	4620	2960	4060	9110	1250	580	583	844
21	9410	3050	14600	1150	8660	2700	3430	7000	1120	713	633	1050
22	9090	2990	11700	1160	8680	2300	3770	6550	1060	541	698	1090
23	12600	2980	10600	1180	7280	2160	3460	6570	1030	722	777	1070
24	13100	2960	8040	1140	5110	2220	3700	5580	970	636	752	1030
25	16700	2980	7850	1160	3760	2170	3960	3220	937	577	1010	1060
26	14300	3570	7110	1160	3210	2180	2940	5290	909	600	1230	1040
27	13300	3680	5610	1150	2840	2080	2740	5500	918	622	1210	995
28	12400	2990	3210	1150	3120	2390	7480	4980	1570	632	771	994
29	11100	2610	2560	1230	---	3620	12700	6160	2220	709	661	1340
30	9700	7530	2350	2300	---	14100	12500	8550	1760	786	540	1000
31	7340	---	1850	12500	---	18500	---	6810	---	1000	467	---
TOTAL	295305	134730	251630	55730	219720	177430	264490	260240	69454	24644	19530	18746
MEAN	9526	4491	8117	1798	7847	5724	8816	8395	2315	795.0	630.0	624.9
MAX	18300	7530	17900	12500	23300	18500	17000	16400	6700	1530	1230	1340
MIN	644	2040	1850	1140	2090	2080	2740	3220	909	472	356	302
CFSM	2.52	1.19	2.15	0.48	2.08	1.51	2.33	2.22	0.61	0.21	0.17	0.17
IN.	2.91	1.33	2.48	0.55	2.16	1.75	2.60	2.56	0.68	0.24	0.19	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2002, BY WATER YEAR (WY)

MEAN	1513	2224	3691	4608	5249	6416	5880	3835	3250	2056	1330	1222
MAX	9526	10940	12340	25590	15880	18180	17520	21310	16440	10720	9044	10710
(WY)	2002	1973	1968	1950	1959	1982	1957	1943	1958	1998	1998	1926
MIN	197	296	252	290	417	638	929	600	388	269	203	176
(WY)	1964	1964	1964	1945	1964	1941	1971	1941	1988	1936	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1924 - 2002	
ANNUAL TOTAL	1618181		1791649			
ANNUAL MEAN	4433		4909		3429	
HIGHEST ANNUAL MEAN					6614	1950
LOWEST ANNUAL MEAN					796	1941
HIGHEST DAILY MEAN	21200	Feb 10	23300	Feb 1	84700	May 19 1943
LOWEST DAILY MEAN	389	Aug 17	302	Sep 15	135	Sep 26 1941
ANNUAL SEVEN-DAY MINIMUM	528	Aug 13	316	Sep 11	142	Sep 24 1941
MAXIMUM PEAK FLOW			24000	Feb 1	89800	May 18 1943
MAXIMUM PEAK STAGE			10.84	Feb 1	21.32	May 18 1943
ANNUAL RUNOFF (CFSM)	1.17		1.30		0.91	
ANNUAL RUNOFF (INCHES)	15.93		17.64		12.33	
10 PERCENT EXCEEDS	12400		13100		9300	
50 PERCENT EXCEEDS	2280		2940		1470	
90 PERCENT EXCEEDS	844		568		424	

03329000 WABASH RIVER AT LOGANSPORT, IN--Continued



03329700 DEER CREEK NEAR DELPHI, IN

LOCATION.--Lat 40°35'25", long 86°37'l7", in NE$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	271	727	e150	2620	e250	932	596	335	113	65	31
2	43	255	448	e140	1780	e300	679	528	274	106	64	29
3	41	233	339	e130	993	e660	627	417	240	100	53	29
4	39	218	285	e120	690	e540	519	346	230	95	50	28
5	52	203	247	e120	481	e460	421	307	1620	89	49	27
6	90	189	224	e130	383	e380	368	290	2230	83	47	26
7	126	180	205	e120	331	e320	325	326	1190	78	44	26
8	118	173	187	e120	e280	288	416	345	637	75	41	25
9	e94	165	172	e120	e250	445	965	429	448	105	40	24
10	e83	155	157	121	e240	886	838	407	359	105	39	24
11	e90	150	147	115	e240	543	585	346	328	80	38	26
12	e850	138	142	109	220	421	489	665	437	72	37	24
13	e1300	130	152	108	209	367	1430	1080	693	68	35	22
14	e2100	129	220	107	190	325	1380	874	904	65	39	22
15	e1800	125	677	106	184	301	821	605	517	61	46	22
16	e1700	123	545	99	181	272	582	457	362	57	43	23
17	e1800	117	1430	96	171	248	451	398	284	55	40	23
18	e1100	113	1980	91	157	243	375	367	242	54	37	23
19	e800	114	1130	91	210	226	334	326	211	57	71	23
20	e600	112	725	92	e840	222	346	294	190	53	70	33
21	e500	107	521	92	e1100	213	349	266	175	50	56	37
22	e450	105	419	90	e700	190	360	249	165	47	49	34
23	610	102	379	89	e500	185	298	238	158	197	94	35
24	1050	106	330	92	e380	185	274	229	149	148	107	32
25	1870	114	280	88	e330	195	281	276	141	81	70	29
26	1270	104	251	84	e300	189	252	523	162	67	53	28
27	713	101	234	83	e280	186	334	326	180	75	46	30
28	498	103	219	84	e260	200	1690	318	157	75	41	29
29	395	119	197	90	---	463	1360	1520	134	69	37	37
30	335	471	e170	197	---	1810	810	813	122	77	34	29
31	298	---	e160	1280	---	1550	---	454	---	82	32	---
TOTAL	20859	4725	13299	4554	14500	13063	18891	14615	13274	2539	1567	830
MEAN	672.9	157.5	429.0	146.9	517.9	421.4	629.7	471.5	442.5	81.90	50.55	27.67
MAX	2100	471	1980	1280	2620	1810	1690	1520	2230	197	107	37
MIN	39	101	142	83	157	185	252	229	122	47	32	22
CFSM	2.46	0.57	1.57	0.54	1.89	1.54	2.30	1.72	1.61	0.30	0.18	0.10
IN.	2.83	0.64	1.81	0.62	1.97	1.77	2.56	1.98	1.80	0.34	0.21	0.11

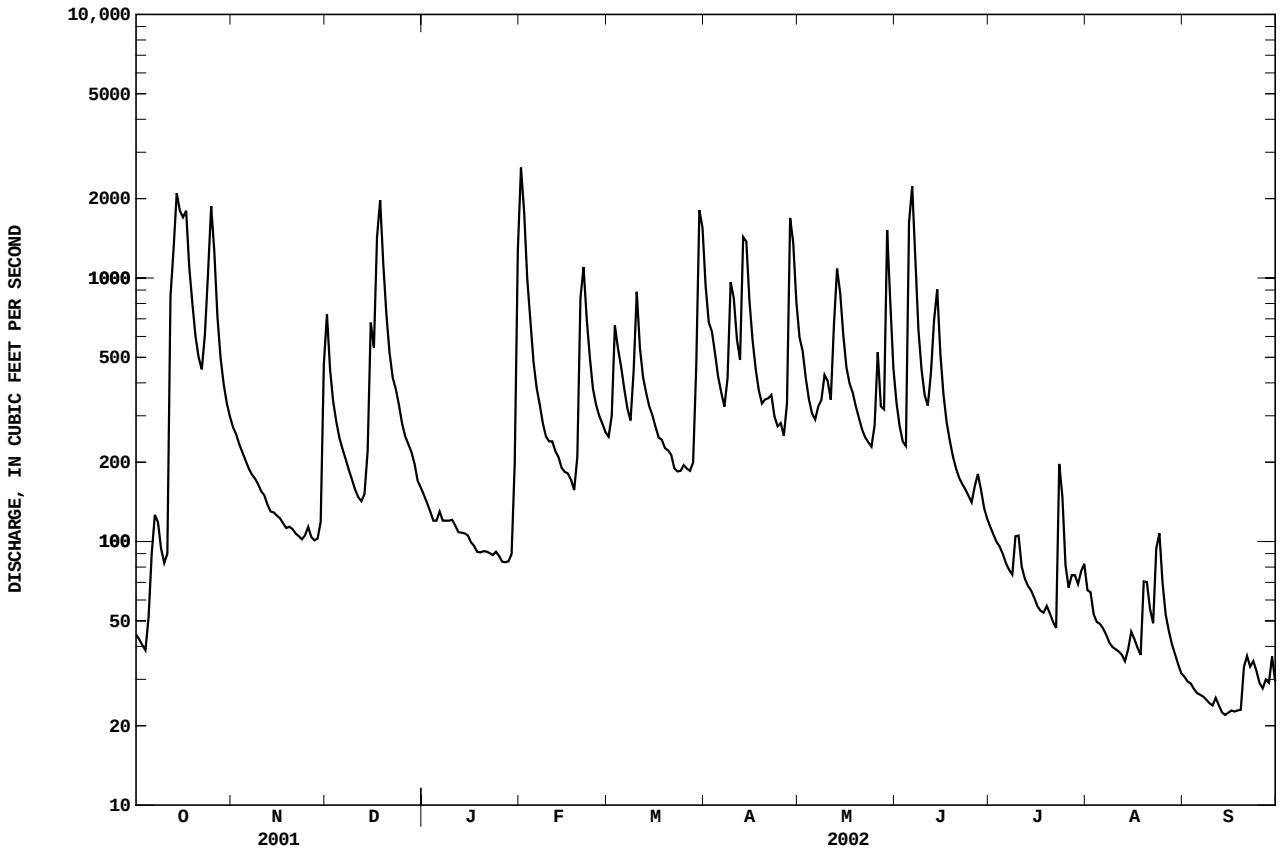
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

MEAN	101.8	160.1	246.1	311.0	370.7	439.0	422.1	300.7	276.2	180.9	98.32	78.50
MAX	673	1249	983	1882	1039	1311	1109	793	1799	1080	537	568
(WY)	2002	1993	1991	1950	1959	1982	1959	1983	1958	1998	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	96148		122716			
ANNUAL MEAN	263.4		336.2		248.0	
HIGHEST ANNUAL MEAN					510	1950
LOWEST ANNUAL MEAN					62.7	1966
HIGHEST DAILY MEAN	2100	Oct 14	2620	Feb 1	12600	Jun 10 1958
LOWEST DAILY MEAN	32	Jan 14	22	Sep 13	6.2	Sep 25 1954
ANNUAL SEVEN-DAY MINIMUM	35	Jan 8	23	Sep 13	6.3	Sep 22 1954
MAXIMUM PEAK FLOW			2790	Feb 1	14400	Jun 10 1958
MAXIMUM PEAK STAGE			7.25	Feb 1	18.26	Jun 10 1958
ANNUAL RUNOFF (CFSM)	0.96		1.23		0.91	
ANNUAL RUNOFF (INCHES)	13.05		16.66		12.30	
10 PERCENT EXCEEDS	677		828		557	
50 PERCENT EXCEEDS	137		190		104	
90 PERCENT EXCEEDS	46		38		27	

e Estimated

03329700 DEER CREEK NEAR DELPHI, IN--Continued



03330241 TIPPECANOE RIVER AT NORTH WEBSTER, IN

LOCATION.--Lat 41°18'58", long 85°41'32", in SE$^1/_4$NE$^1/_4$ 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 except estimated daily discharges, which are poor. Flow regulated by dams at Webster Lake, 0.25 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	91	e78	40	57	50	79	102	86	5.6	12	7.4
2	14	93	87	39	87	56	122	75	80	5.6	12	4.0
3	18	91	107	30	128	57	192	12	58	5.3	11	5.3
4	23	90	142	22	145	57	185	11	17	3.9	11	6.0
5	20	71	152	22	150	56	178	16	73	4.3	11	5.2
6	18	21	134	22	150	57	169	22	99	7.6	8.9	4.5
7	20	39	122	18	e147	58	159	29	65	3.8	7.6	3.9
8	21	57	91	16	e142	59	156	115	15	3.8	8.8	3.4
9	22	62	70	29	e136	50	160	196	16	3.9	9.4	3.0
10	23	65	53	32	e130	39	160	139	17	4.6	9.6	3.4
11	29	60	40	28	e124	45	157	114	18	4.1	9.3	2.9
12	115	54	45	23	e118	54	157	170	19	3.2	9.1	1.7
13	207	53	53	18	e113	66	158	226	36	2.6	9.2	1.3
14	252	52	66	21	e106	91	159	267	42	2.1	8.8	1.3
15	295	52	90	23	e97	105	161	326	44	2.1	9.1	1.7
16	298	51	89	23	89	102	159	317	34	2.8	10	3.2
17	298	51	101	23	69	98	156	273	8.6	2.7	11	4.2
18	293	25	117	23	43	82	150	227	9.2	2.9	11	4.5
19	283	5.1	124	22	44	66	142	189	9.2	3.1	13	5.8
20	268	10	129	22	50	62	144	102	11	3.5	14	7.4
21	254	23	133	27	56	61	145	103	12	4.8	14	7.4
22	237	31	148	32	49	52	132	103	11	6.0	16	6.5
23	197	29	182	32	42	42	117	100	11	7.3	18	6.0
24	169	27	160	32	47	39	121	98	10	7.5	15	6.2
25	200	27	139	28	47	37	116	96	59	7.7	14	7.0
26	165	35	122	21	48	38	100	75	152	8.7	14	7.1
27	166	e56	93	21	49	45	83	28	22	10	14	7.3
28	166	e60	91	21	48	56	85	30	5.5	10	13	6.8
29	166	e65	89	21	---	60	84	28	5.3	12	12	6.6
30	161	e70	80	22	---	59	84	27	5.4	12	12	5.8
31	135	---	48	35	---	66	---	66	---	12	11	---
TOTAL	4545	1516.1	3175	788	2511	1865	4170	3682	1050.2	175.5	358.8	146.8
MEAN	146.6	50.54	102.4	25.42	89.68	60.16	139.0	118.8	35.01	5.661	11.57	4.893
MAX	298	93	182	40	150	105	192	326	152	12	18	7.4
MIN	12	5.1	40	16	42	37	79	11	5.3	2.1	7.6	1.3
CFSM	2.97	1.03	2.08	0.52	1.82	1.22	2.82	2.41	0.71	0.11	0.23	0.10
IN.	3.43	1.14	2.40	0.59	1.89	1.41	3.15	2.78	0.79	0.13	0.27	0.11

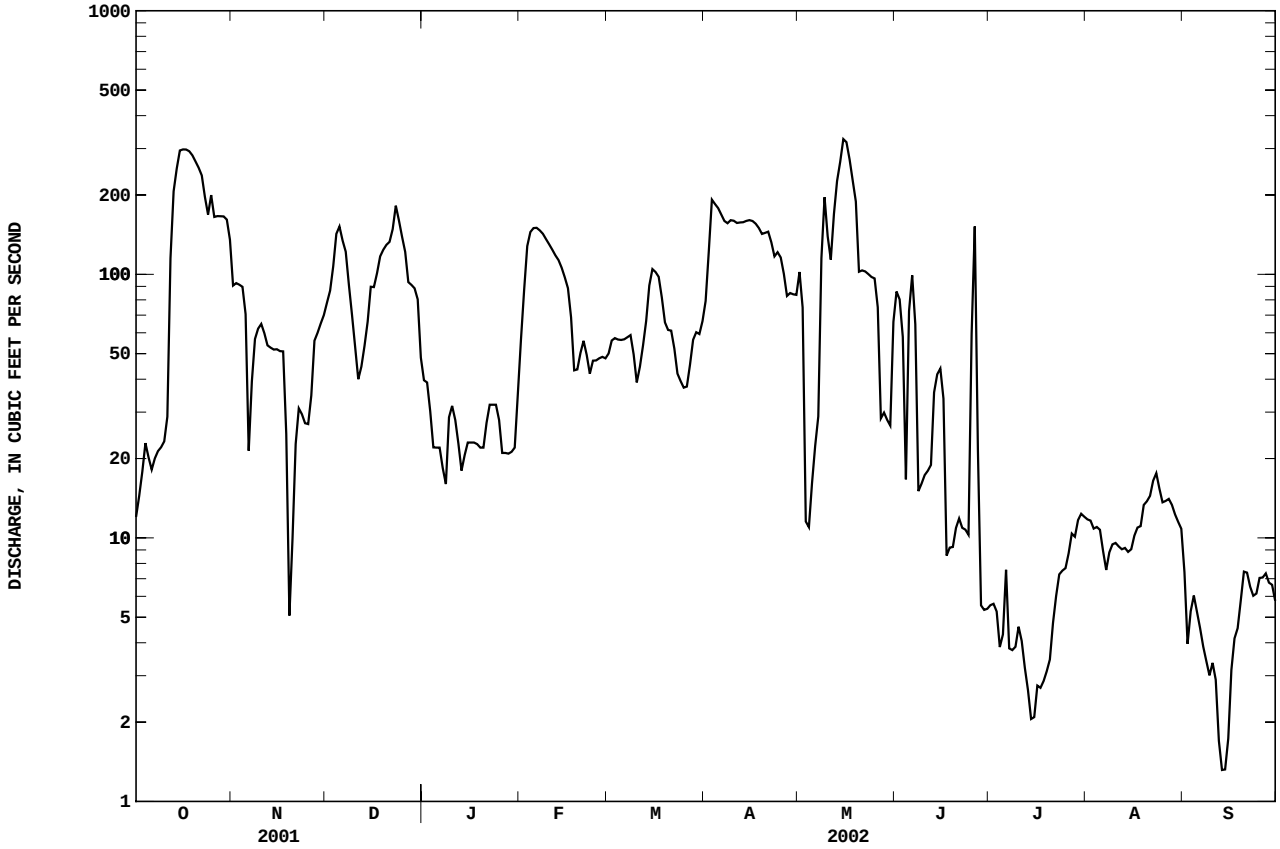
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

MEAN	39.26	41.28	49.98	71.16	63.90	65.74	82.93	52.88	49.65	23.88	23.74	16.76
MAX	147	133	102	209	153	137	139	119	138	72.0	80.1	87.7
(WY)	2002	1993	2002	1993	2001	1997	2002	2002	1996	1996	1990	1990
MIN	2.68	6.61	12.3	13.6	6.05	15.0	29.6	15.4	3.08	4.36	2.00	1.67
(WY)	1995	1995	1996	2000	2000	2000	2000	1988	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1987 - 2002	
ANNUAL TOTAL	24358.9		23983.4			
ANNUAL MEAN	66.74		65.71		48.32	
HIGHEST ANNUAL MEAN					70.5	1991
LOWEST ANNUAL MEAN					23.0	2000
HIGHEST DAILY MEAN	396	Aug 23	326	May 15	420	Jan 8 1993
LOWEST DAILY MEAN	4.9	Sep 2	1.3	Sep 13	0.06	Aug 18 1988
ANNUAL SEVEN-DAY MINIMUM	7.8	Sep 2	2.2	Sep 9	0.36	Aug 14 1988
MAXIMUM PEAK FLOW			330	May 14	446	Aug 22 2001
MAXIMUM PEAK STAGE			5.76	May 14	6.49	Jan 2 1991
ANNUAL RUNOFF (CFSM)	1.35		1.33		0.98	
ANNUAL RUNOFF (INCHES)	18.38		18.10		13.32	
10 PERCENT EXCEEDS	167		159		118	
50 PERCENT EXCEEDS	38		43		30	
90 PERCENT EXCEEDS	11		5.4		5.3	

e Estimated

03330241 TIPPECANOE RIVER AT NORTH WEBSTER, IN--Continued



03330500 TIPPECANOE RIVER AT OSWEGO, IN

LOCATION.--Lat 41°19'14", long 85°47'21", in NE$^1/_4$NE$^1/_4$ 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. Regulation by gates at lake outlet.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

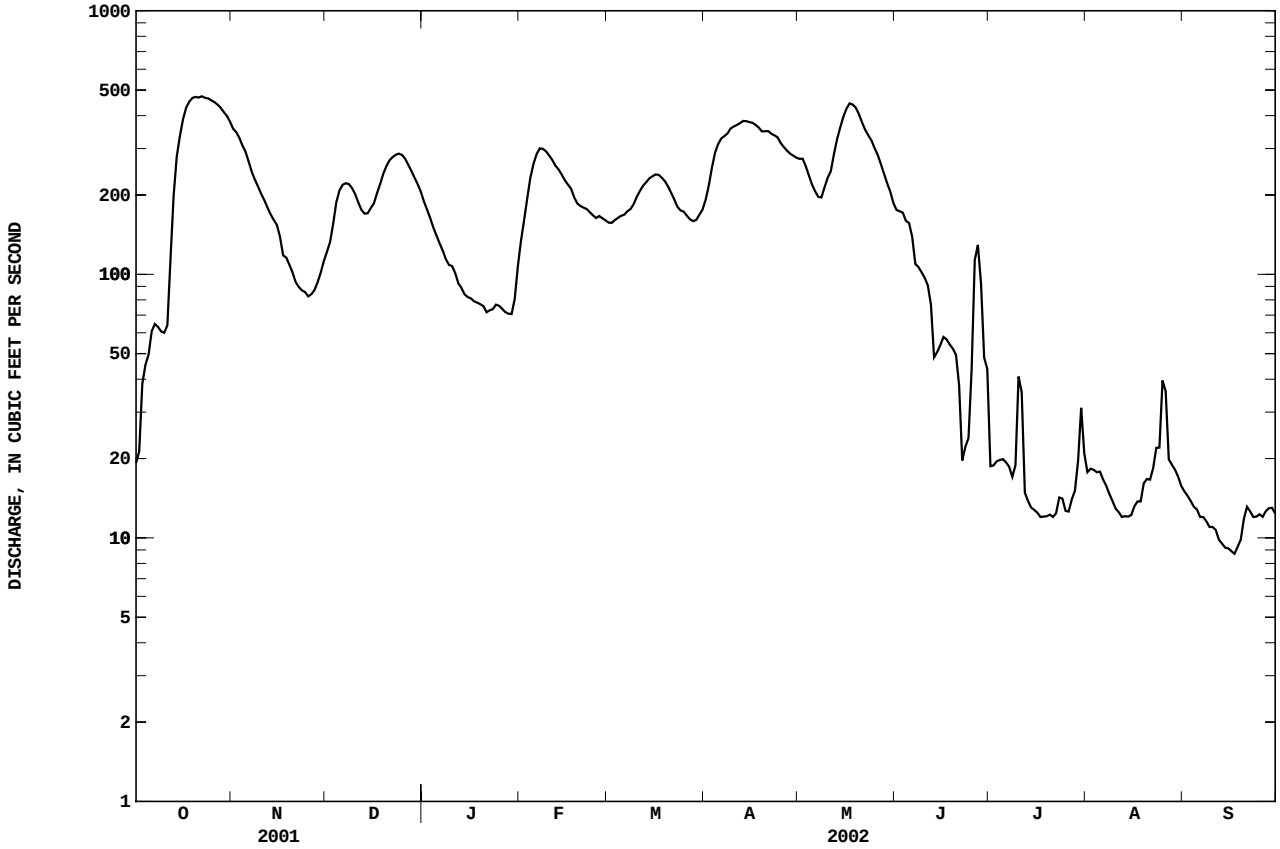
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	357	122	189	134	157	192	274	175	19	18	15
2	21	346	133	176	161	157	217	275	174	19	18	14
3	38	330	156	163	194	161	254	257	171	20	18	14
4	45	308	188	150	233	164	289	237	160	20	18	13
5	50	291	208	140	263	167	312	219	157	20	18	13
6	61	267	219	131	286	168	328	206	139	19	17	12
7	65	244	222	123	301	174	335	197	110	19	16	12
8	63	228	220	114	299	177	343	196	107	17	15	12
9	61	215	213	109	293	185	358	214	102	19	14	11
10	60	202	202	107	283	197	364	232	97	41	13	11
11	64	191	187	101	271	207	369	246	91	36	13	11
12	114	179	176	92	258	217	375	286	77	15	12	9.8
13	199	169	170	89	250	223	382	326	48	14	12	9.5
14	280	161	170	84	239	231	381	361	51	13	12	9.2
15	334	154	178	82	228	236	378	396	54	13	12	9.1
16	388	139	186	81	219	239	376	425	58	12	13	8.9
17	429	118	203	79	211	238	369	445	57	12	14	8.7
18	452	116	220	78	196	233	360	441	54	12	14	9.2
19	467	109	241	77	186	225	348	429	52	12	16	9.8
20	471	102	257	76	182	215	349	405	49	12	17	12
21	468	93	271	72	179	204	350	377	38	12	17	13
22	474	90	279	73	177	192	341	353	20	12	18	13
23	467	87	284	74	172	180	337	336	22	14	22	12
24	465	86	287	77	167	175	331	322	24	14	22	12
25	458	82	284	76	164	173	315	301	44	13	40	12
26	450	84	274	74	166	167	304	284	113	13	36	12
27	441	87	260	72	163	162	295	262	129	14	20	13
28	429	93	246	71	160	159	287	241	92	15	19	13
29	413	101	232	71	---	161	282	222	48	20	18	13
30	399	112	220	81	---	168	277	206	44	31	17	12
31	380	---	206	107	---	176	---	186	---	21	16	---
TOTAL	8525	5141	6714	3089	6035	5888	9798	9157	2557	543	545	349.2
MEAN	275.0	171.4	216.6	99.65	215.5	189.9	326.6	295.4	85.23	17.52	17.58	11.64
MAX	474	357	287	189	301	239	382	445	175	41	40	15
MIN	19	82	122	71	134	157	192	186	20	12	12	8.7
CFSM	2.43	1.52	1.92	0.88	1.91	1.68	2.89	2.61	0.75	0.16	0.16	0.10
IN.	2.81	1.69	2.21	1.02	1.99	1.94	3.23	3.01	0.84	0.18	0.18	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)

MEAN	61.88	76.85	110.2	129.2	144.3	183.5	195.3	133.1	103.2	63.92	46.64	43.76
MAX	369	230	298	443	373	498	493	340	363	198	188	237
(WY)	1955	1993	1967	1950	1950	1982	1950	1956	1981	1968	1990	1958
MIN	4.73	7.25	16.0	7.51	11.0	44.0	58.6	30.8	18.6	11.4	1.13	0.40
(WY)	1954	1954	1963	1963	1963	1964	1966	1958	1988	1988	1967	1967

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1950 - 2002	
ANNUAL TOTAL	56021		58341.2			
ANNUAL MEAN	153.5		159.8		107.4	
HIGHEST ANNUAL MEAN					196	1950
LOWEST ANNUAL MEAN					30.8	1964
HIGHEST DAILY MEAN	474	Oct 22	474	Oct 22	944	Mar 21 1982
LOWEST DAILY MEAN	13	Sep 27	8.7	Sep 17	0.08	Aug 4 1967
ANNUAL SEVEN-DAY MINIMUM	19	Jul 10	9.2	Sep 12	0.28	Aug 22 1967
MAXIMUM PEAK FLOW			479	Oct 22	950	Mar 21 1982
MAXIMUM PEAK STAGE			7.96	Oct 22	9.25	Mar 21 1982
ANNUAL RUNOFF (CFSM)	1.36		1.41		0.95	
ANNUAL RUNOFF (INCHES)	18.44		19.21		12.91	
10 PERCENT EXCEEDS	345		351		243	
50 PERCENT EXCEEDS	102		160		76	
90 PERCENT EXCEEDS	34		13		15	

03330500 TIPPECANOE RIVER AT OSWEGO, IN--Continued



03331110 WALNUT CREEK NEAR WARSAW, IN

LOCATION.--Lat 41°12'17", long 85°52'11", in NW$^1/_4$NE$^1/_4$ sec.30, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106, (WARSAW, IN quadrangle), on left bank 10 ft upstream from bridge on County Road 200 South, 0.3 mi downstream from small right-bank tributary, 1.1 mi west of intersection of County Road 200 South and Country Farm Road, and 2.5 mi south of court house in Warsaw.

DRAINAGE AREA.--19.6 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 823.00 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	26	36	e10	107	16	62	31	25	7.5	5.9	1.3
2	0.89	26	32	e9.8	92	17	63	42	21	6.8	4.9	1.4
3	0.81	26	28	e9.7	70	32	67	43	19	6.0	4.4	1.8
4	0.97	23	24	e9.6	53	e34	55	39	18	6.0	3.9	1.7
5	2.3	22	21	10	41	29	45	32	21	6.6	3.6	1.4
6	2.7	20	20	10	34	27	37	28	23	6.7	2.7	1.3
7	5.5	18	18	10	28	29	30	27	22	5.6	2.5	1.2
8	5.8	17	17	11	25	29	39	26	20	5.5	2.6	1.2
9	5.4	17	16	11	23	47	78	41	20	5.4	2.5	1.1
10	5.6	16	15	11	22	63	76	44	20	5.5	2.3	1.1
11	12	16	14	11	21	57	59	48	17	5.0	2.1	1.1
12	50	15	14	11	20	46	49	120	15	4.6	1.9	1.0
13	55	14	17	11	18	38	68	113	14	4.4	2.0	1.0
14	78	14	25	11	16	31	71	92	15	4.3	1.9	0.91
15	73	14	39	11	16	27	60	70	15	4.1	2.1	0.94
16	79	14	39	11	15	24	46	57	13	3.9	4.9	0.98
17	86	13	60	11	15	22	36	52	11	3.6	5.2	1.0
18	72	13	70	10	14	20	30	49	11	3.6	5.9	1.1
19	56	13	60	10	16	19	25	44	11	3.9	7.7	1.4
20	42	13	48	9.9	23	18	28	38	10	4.9	6.2	2.1
21	34	12	37	9.7	28	17	31	32	9.8	3.4	4.8	2.7
22	56	12	30	9.6	27	16	32	28	9.6	4.3	4.0	2.2
23	85	11	28	9.5	24	15	28	24	8.5	4.5	3.3	1.9
24	92	11	25	10	21	15	25	22	8.1	4.1	2.8	1.6
25	86	12	22	10	20	16	23	21	8.2	3.3	2.4	1.3
26	73	12	20	9.9	20	18	22	21	8.1	3.2	2.0	1.2
27	60	12	18	9.8	19	18	22	20	9.0	3.3	1.7	1.4
28	48	12	e16	9.8	17	18	37	21	8.7	9.3	1.6	1.4
29	40	14	e15	10	---	26	39	28	8.5	12	1.5	1.3
30	34	30	e13	16	---	56	36	32	7.9	10	1.4	1.1
31	29	---	e11	59	---	74	---	29	---	7.7	1.3	---
TOTAL	1270.97	488	848	372.3	845	914	1319	1314	427.4	169.0	102.0	41.13
MEAN	41.00	16.27	27.35	12.01	30.18	29.48	43.97	42.39	14.25	5.452	3.290	1.371
MAX	92	30	70	59	107	74	78	120	25	12	7.7	2.7
MIN	0.81	11	11	9.5	14	15	22	20	7.9	3.2	1.3	0.91
CFSM	2.09	0.83	1.40	0.61	1.54	1.50	2.24	2.16	0.73	0.28	0.17	0.07
IN.	2.41	0.93	1.61	0.71	1.60	1.73	2.50	2.49	0.81	0.32	0.19	0.08

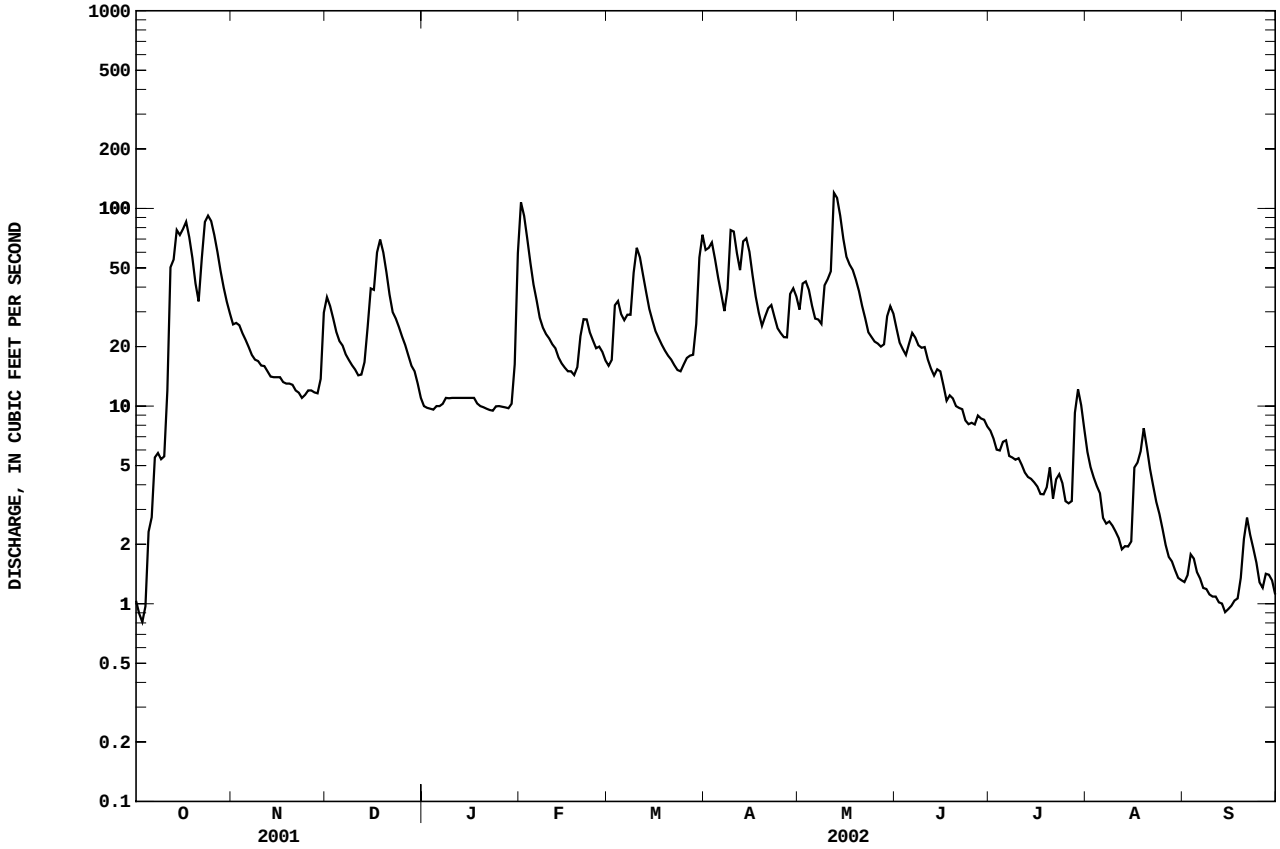
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	8.740	14.23	19.85	19.26	24.46	33.13	34.63	21.56	19.33	10.33	6.723	6.556
MAX	54.6	44.9	48.3	77.7	60.6	110	66.5	60.8	80.3	49.3	53.7	27.0
(WY)	1991	1993	1991	1993	1985	1982	1981	1981	1981	1997	1990	1980
MIN	1.04	2.18	1.43	0.91	2.87	7.99	14.2	6.35	2.34	1.73	1.07	0.80
(WY)	1977	1979	1977	1977	1979	2000	2000	1988	1988	1988	1971	1976

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	6845.87		8110.80			
ANNUAL MEAN	18.76		22.22		18.18	
HIGHEST ANNUAL MEAN					31.9	1997
LOWEST ANNUAL MEAN					9.36	2000
HIGHEST DAILY MEAN	134	Feb 10	120	May 12	389	Jun 14 1981
LOWEST DAILY MEAN	0.81	Oct 3	0.81	Oct 3	0.40	Oct 15 1988
ANNUAL SEVEN-DAY MINIMUM	1.1	Sep 28	0.99	Sep 11	0.46	Sep 12 1983
MAXIMUM PEAK FLOW			153	May 12	561	Jun 13 1981
MAXIMUM PEAK STAGE			3.29	May 12	5.38	Jun 13 1981
ANNUAL RUNOFF (CFSM)	0.96		1.13		0.93	
ANNUAL RUNOFF (INCHES)	12.99		15.39		12.60	
10 PERCENT EXCEEDS	43		56		42	
50 PERCENT EXCEEDS	13		16		11	
90 PERCENT EXCEEDS	2.5		1.9		1.9	

e Estimated

03331110 WALNUT CREEK NEAR WARSAW, IN--Continued



03331500 TIPPECANOE RIVER NEAR ORA, IN

LOCATION.--Lat 41°09'26", long 86°33'49", in SE$^1/_4$SE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	263	2180	1370	e840	2060	1090	2310	1850	1270	517	385	209
2	256	2020	1440	e830	2820	1060	2240	1820	1200	477	389	205
3	259	1930	1330	e820	3010	1270	2400	2020	1150	448	380	202
4	275	1880	1260	e805	2810	1670	2550	1980	1110	420	329	199
5	280	1780	1190	e792	2550	1600	2550	1770	1160	399	305	190
6	340	1650	1130	e780	2300	1470	2410	1600	1260	378	290	186
7	444	1550	1080	e768	2040	1550	2220	1500	1240	361	273	183
8	462	1470	1030	e752	1810	1690	2060	1410	1160	346	256	180
9	453	1410	980	757	1640	1790	2240	1420	1080	359	242	180
10	430	1320	940	743	1520	2160	2650	1640	1010	356	234	178
11	410	1250	912	731	1430	2520	2790	1680	951	339	226	177
12	642	1180	889	719	1360	2450	2620	2120	939	330	219	171
13	1440	1120	895	709	1290	2220	2510	3110	896	324	217	173
14	1780	1070	956	694	1210	2040	2700	4030	853	321	218	174
15	2220	1040	1250	684	1150	1900	2740	4120	821	297	217	173
16	2610	1000	1520	676	1110	1760	2550	3680	771	281	225	174
17	2740	960	1520	664	1060	1620	2340	3380	736	273	256	173
18	2940	923	1860	649	1020	1500	2150	3130	715	274	251	171
19	2980	907	2180	631	1000	1400	1990	2920	692	283	301	175
20	2800	880	2130	612	1250	1320	1860	2680	663	284	340	200
21	2590	833	1970	598	1610	1260	1810	2440	629	278	311	220
22	2460	799	1830	589	1580	1190	1800	2240	596	284	303	205
23	2670	769	1740	580	1450	1140	1780	2070	571	287	283	199
24	3120	748	1650	584	1350	1090	1730	1920	546	276	268	191
25	3400	760	1520	608	1280	1090	1680	1790	540	271	261	175
26	3440	768	1400	614	1230	1100	1610	1700	640	277	258	162
27	3310	750	1280	602	1200	1100	1540	1610	593	269	246	160
28	3090	735	1210	592	1150	1090	1720	1520	553	266	236	161
29	2850	733	1180	589	---	1150	1970	1490	548	287	240	160
30	2610	886	1090	636	---	1610	1970	1440	541	414	226	160
31	2380	---	e850	1030	---	2160	---	1340	---	413	213	---
TOTAL	55944	35301	41582	21678	45290	48060	65490	67420	25434	10389	8398	5466
MEAN	1805	1177	1341	699.3	1618	1550	2183	2175	847.8	335.1	270.9	182.2
MAX	3440	2180	2180	1030	3010	2520	2790	4120	1270	517	389	220
MIN	256	733	850	580	1000	1060	1540	1340	540	266	213	160
CFSM	2.11	1.37	1.57	0.82	1.89	1.81	2.55	2.54	0.99	0.39	0.32	0.21
IN.	2.43	1.53	1.81	0.94	1.97	2.09	2.85	2.93	1.11	0.45	0.36	0.24

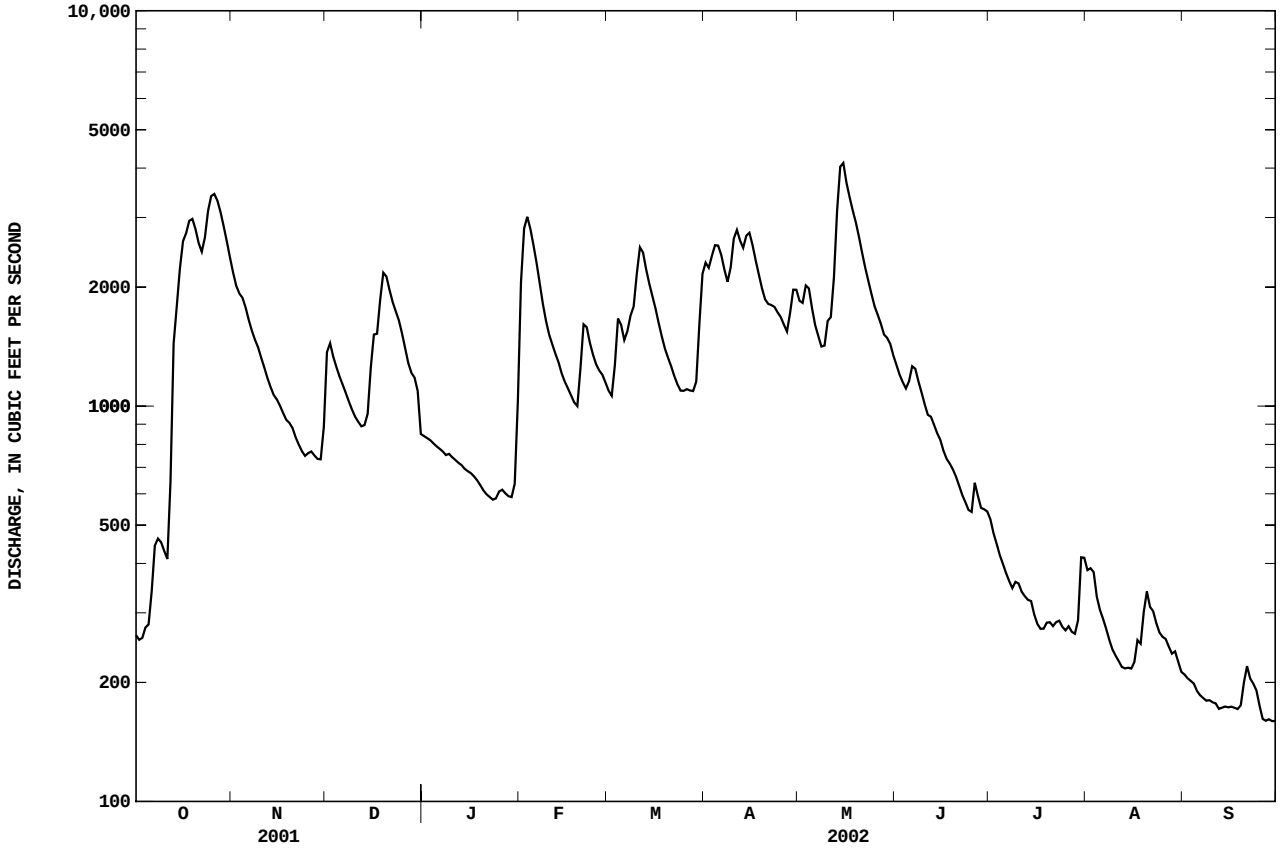
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

MEAN	481.7	606.3	808.0	999.1	1190	1462	1567	1150	923.9	620.7	438.0	364.1
MAX	2112	1933	2478	3552	3020	4239	4116	2869	3468	1943	2699	1224
(WY)	1991	1973	1967	1950	1959	1982	1950	1981	1981	1996	1990	1958
MIN	134	155	177	183	192	451	525	337	243	180	155	107
(WY)	1954	1954	1964	1963	1963	1957	1958	1958	1988	1988	1988	1966

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	391768		430452			
ANNUAL MEAN	1073		1179		882.1	
HIGHEST ANNUAL MEAN					1580	1950
LOWEST ANNUAL MEAN					354	1964
HIGHEST DAILY MEAN	3440	Oct 26	4120	May 15	8450	Jun 15 1981
LOWEST DAILY MEAN	256	Oct 2	160	Sep 27	87	Sep 13 1966
ANNUAL SEVEN-DAY MINIMUM	272	Sep 29	167	Sep 24	93	Sep 8 1966
MAXIMUM PEAK FLOW			4270	May 14	8660	Jun 15 1981
MAXIMUM PEAK STAGE			13.51	May 14	15.22	Aug 20 1990
ANNUAL RUNOFF (CFSM)	1.25		1.38		1.03	
ANNUAL RUNOFF (INCHES)	17.03		18.71		14.00	
10 PERCENT EXCEEDS	2150		2480		1870	
50 PERCENT EXCEEDS	811		1060		618	
90 PERCENT EXCEEDS	378		226		218	

e Estimated

03331500 TIPPECANOE RIVER NEAR ORA, IN--Continued



03331753 TIPPECANOE RIVER AT WINAMAC, IN

LOCATION.--Lat 41°02'59", long 86°35'58", in SW$^1/_4$NW$^1/_4$ 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 for Oct. 1 - July 30 and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	323	2260	1280	e950	1890	1210	2290	1990	1370	588	432	234
2	312	2090	1480	e931	2460	1190	2430	1910	1310	548	439	231
3	312	1940	1410	e914	2920	1350	2520	1960	1240	509	442	228
4	342	1870	1330	e899	3030	1640	2570	2060	1220	480	390	225
5	365	1790	1270	e885	2780	1710	2640	1950	1250	451	353	218
6	407	1690	1220	e870	2490	1600	2600	1760	1330	426	329	213
7	536	1600	1170	e855	2210	1610	2430	1640	1340	404	309	209
8	558	1520	1120	e846	1990	1740	2280	1550	1280	384	288	206
9	530	1450	1080	e850	1780	1900	2340	1500	1200	399	271	204
10	490	1390	1040	842	1620	2110	2470	1580	1140	403	260	202
11	470	1310	1010	824	1510	2390	2810	1750	1100	384	253	200
12	634	1240	989	812	1410	2560	2840	2140	1060	364	246	194
13	1220	1190	991	798	1330	2410	2690	2850	1030	354	242	191
14	1770	1150	1050	785	1270	2170	2630	3610	979	348	250	193
15	2020	1120	1220	770	1220	2010	2810	4260	944	333	252	195
16	2410	1080	1500	762	1180	1870	2750	4280	905	306	258	195
17	2700	1050	1580	747	1130	1730	2550	4030	859	291	284	194
18	2800	1020	1760	729	1100	1610	2300	3690	828	293	292	195
19	2930	987	2060	708	1110	1500	2140	3340	805	311	334	197
20	2930	974	2160	686	1300	1430	1980	3060	776	312	393	228
21	2780	936	2040	672	1590	1360	1890	2750	742	304	377	247
22	2740	903	1900	660	1680	1290	1860	2480	699	311	354	238
23	2680	880	1800	654	1570	1240	1820	2290	663	323	342	226
24	2910	864	1690	658	1460	1200	1790	2100	634	313	318	223
25	3360	842	1590	681	1370	1190	1740	1960	604	296	304	210
26	3580	864	1470	692	1330	1200	1670	1840	716	301	298	196
27	3550	857	1360	680	1300	1200	1640	1740	702	295	287	191
28	3380	838	1300	667	1270	1200	1760	1670	643	292	269	190
29	3100	837	1250	667	---	1240	1920	1590	620	330	264	188
30	2790	963	e1200	730	---	1530	2030	1550	615	412	261	187
31	2500	---	e970	1130	---	1980	---	1470	---	486	243	---
TOTAL	57429	37505	43290	24354	47300	50370	68190	72350	28604	11551	9634	6248
MEAN	1853	1250	1396	785.6	1689	1625	2273	2334	953.5	372.6	310.8	208.3
MAX	3580	2260	2160	1130	3030	2560	2840	4280	1370	588	442	247
MIN	312	837	970	654	1100	1190	1640	1470	604	291	242	187
CFSM	1.97	1.33	1.48	0.83	1.79	1.72	2.41	2.48	1.01	0.40	0.33	0.22
IN.	2.27	1.48	1.71	0.96	1.87	1.99	2.69	2.86	1.13	0.46	0.38	0.25

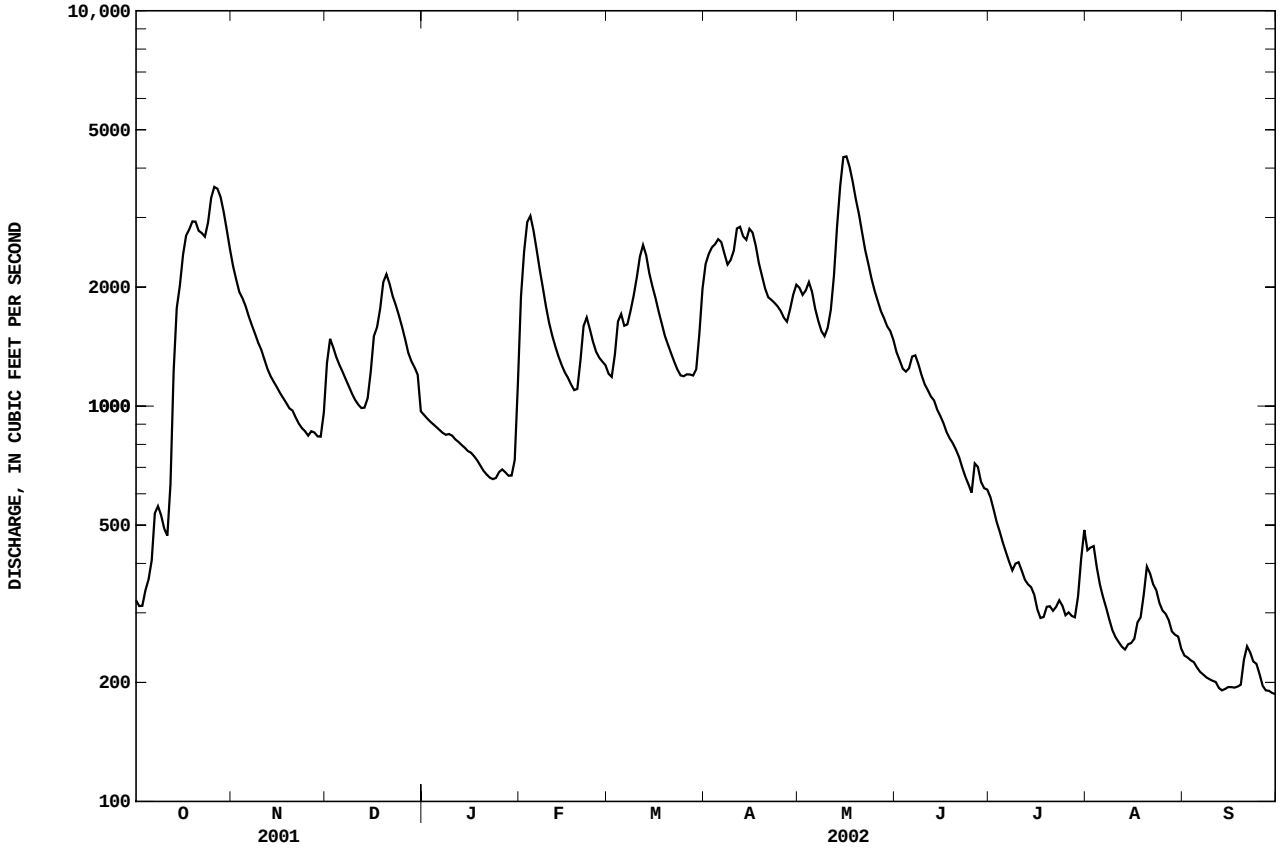
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	1853	1250	1396	785.6	1689	1625	2273	2334	953.5	372.6	310.8	208.3
MAX	1853	1250	1396	786	1689	1625	2273	2334	953	373	311	208
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002
MIN	1853	1250	1396	786	1689	1625	2273	2334	953	373	311	208
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL TOTAL	456825			
ANNUAL MEAN	1252		1252	
HIGHEST ANNUAL MEAN			1252	2002
LOWEST ANNUAL MEAN			1252	2002
HIGHEST DAILY MEAN	4280	May 16	4280	May 16 2002
LOWEST DAILY MEAN	187	Sep 30	4.8	Sep 3 2001
ANNUAL SEVEN-DAY MINIMUM	194	Sep 12	5.1	Aug 28 2001
MAXIMUM PEAK FLOW	4600	May 16	4600	May 16 2002
MAXIMUM PEAK STAGE	11.48	May 16	11.48	May 16 2002
ANNUAL RUNOFF (CFSM)	1.33		1.33	
ANNUAL RUNOFF (INCHES)	18.04		18.05	
10 PERCENT EXCEEDS	2550		2550	
50 PERCENT EXCEEDS	1140		1140	
90 PERCENT EXCEEDS	256		256	

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 SW$^1/_4$SW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

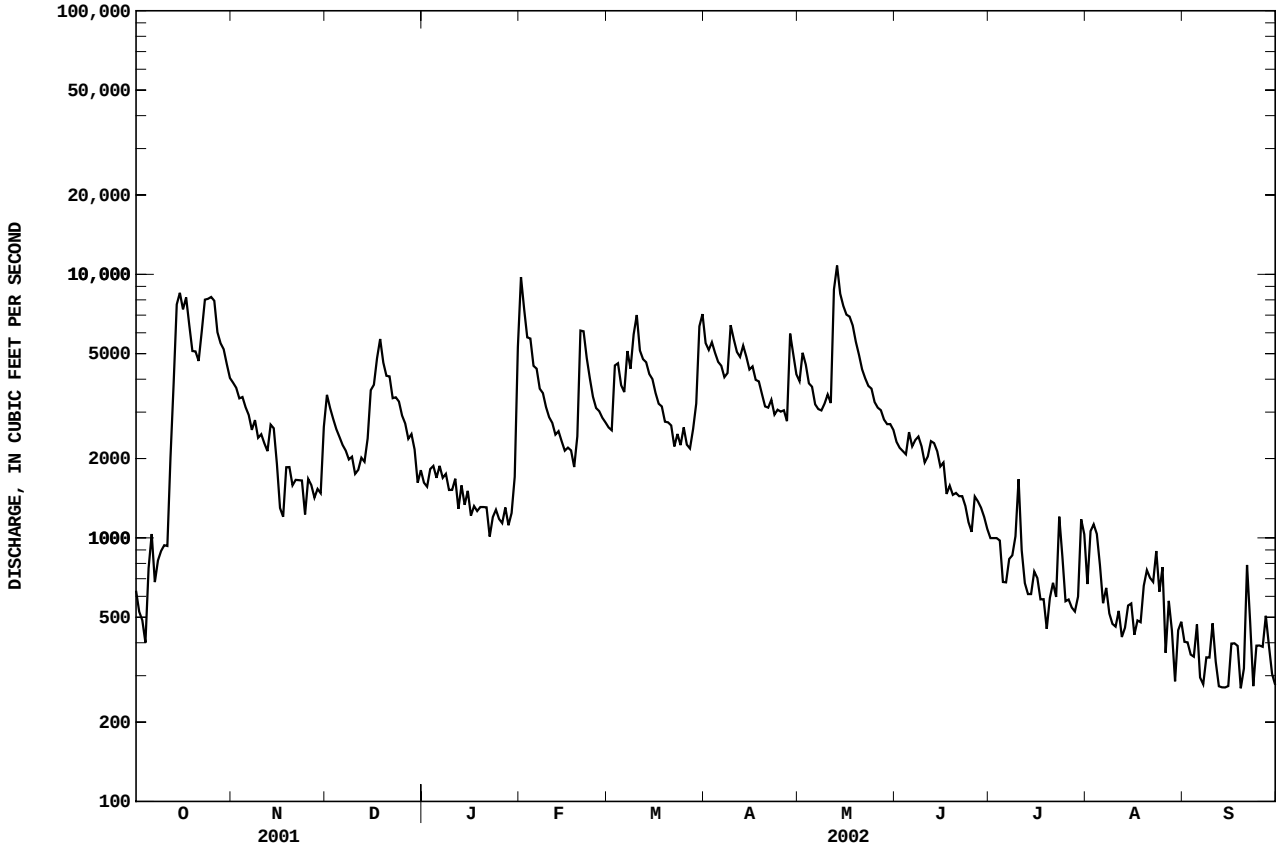
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	630	3880	3490	1620	9760	2620	5480	3930	2310	998	668	403
2	525	3710	3110	1560	7390	2560	5160	5040	2200	998	1060	401
3	487	3380	2820	1830	5760	4510	5530	4540	2130	998	1130	361
4	400	3420	2580	1880	5710	4600	5040	3860	2070	977	1030	354
5	767	3130	2420	1690	4490	3800	4650	3750	2520	680	788	469
6	1030	2930	2250	1880	4390	3570	4500	3210	2220	678	565	295
7	679	2570	2140	1690	3680	5120	4070	3080	2350	832	646	278
8	822	2800	1980	1750	3540	4380	4220	3040	2420	859	517	352
9	892	2400	2030	1520	3140	5920	6410	3230	2220	1010	472	351
10	938	2470	1750	1520	2870	7010	5670	3500	1930	1670	461	474
11	932	2280	1810	1680	2730	5140	5070	3250	2040	897	528	339
12	2010	2130	2010	1290	2470	4770	4860	8760	2330	673	421	274
13	3840	2690	1940	1580	2540	4640	5360	10800	2290	612	456	271
14	7690	2600	2380	1330	2320	4180	4870	8440	2130	612	554	271
15	8510	1910	3640	1510	2140	4000	4350	7580	1870	745	564	274
16	7360	1300	3810	1210	2200	3550	4470	7030	1930	704	429	397
17	8170	1200	4810	1320	2150	3230	3980	6910	1470	584	486	398
18	6430	1850	5680	1260	1860	3150	3920	6400	1580	585	479	389
19	5120	1860	4630	1310	2430	2760	3510	5550	1460	452	658	269
20	5100	1580	4120	1310	6120	2740	3150	4950	1480	592	754	320
21	4690	1660	4100	1310	6080	2670	3120	4360	1440	675	705	789
22	6090	1660	3390	1010	4820	2220	3340	4030	1440	597	681	479
23	8010	1650	3410	1200	4030	2480	2940	3770	1320	1200	892	274
24	8080	1230	3290	1280	3430	2250	3060	3680	1150	848	625	390
25	8210	1670	2910	1180	3110	2620	3010	3270	1050	575	774	390
26	7940	1590	2720	1140	3020	2260	3050	3120	1440	584	366	386
27	6030	1420	2380	1300	2860	2180	2770	3050	1380	544	577	506
28	5480	1530	2480	1120	2740	2590	5960	2810	1300	526	445	390
29	5200	1480	2170	1240	---	3230	4980	2700	1200	599	286	305
30	4560	2640	1620	1700	---	6350	4180	2700	1080	1180	446	277
31	4040	---	1810	5290	---	7060	---	2570	---	1030	481	---
TOTAL	130662	66620	89680	48510	107780	118160	130680	142910	53750	24514	18944	11126
MEAN	4215	2221	2893	1565	3849	3812	4356	4610	1792	790.8	611.1	370.9
MAX	8510	3880	5680	5290	9760	7060	6410	10800	2520	1670	1130	789
MIN	400	1200	1620	1010	1860	2180	2770	2570	1050	452	286	269
CFSM	2.26	1.19	1.55	0.84	2.06	2.04	2.33	2.47	0.96	0.42	0.33	0.20
IN.	2.60	1.33	1.78	0.97	2.15	2.35	2.60	2.84	1.07	0.49	0.38	0.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY)

MEAN	1343	1569	1901	2551	2600	3038	3152	2479	2287	1678	1158	999.1
MAX	4215	4120	3819	6854	4774	5184	4958	4610	4324	3901	4849	3092
(WY)	2002	1993	1991	1993	1997	1998	1994	2002	1997	1998	1990	1993
MIN	369	453	572	540	762	811	1216	983	493	360	308	325
(WY)	1996	2000	1996	2000	1996	1996	2000	1988	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1988 - 2002	
ANNUAL TOTAL	806153		943336			
ANNUAL MEAN	2209		2584		2060	
HIGHEST ANNUAL MEAN					3046	1993
LOWEST ANNUAL MEAN					954	2000
HIGHEST DAILY MEAN	9090	Feb 25	10800	May 13	18400	Dec 30 1990
LOWEST DAILY MEAN	352	Aug 10	269	Sep 19	131	Aug 5 1988
ANNUAL SEVEN-DAY MINIMUM	475	Aug 10	318	Sep 11	255	Aug 2 1988
MAXIMUM PEAK FLOW			12600	May 12	20600	Apr 12 1994
MAXIMUM PEAK STAGE			10.08	May 12	13.72	Apr 12 1994
ANNUAL RUNOFF (CFSM)	1.18		1.38		1.10	
ANNUAL RUNOFF (INCHES)	16.05		18.78		14.97	
10 PERCENT EXCEEDS	4650		5410		4340	
50 PERCENT EXCEEDS	1730		2150		1500	
90 PERCENT EXCEEDS	697		471		470	

03333050 TIPPECANOE RIVER NEAR DELPHI, IN--Continued



03333450 WILDCAT CREEK NEAR JEROME, IN

LOCATION.--Lat 40°26'29", long 85°55'08", in NE$^1/_4$SE$^1/_4$ sec.14, T.23 N., R.5 E., Howard County, Hydrologic Unit 05120107, (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 good except for estimated daily discharges, which are poor.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	130	465	e50	1640	100	644	385	131	21	7.6	3.5
2	19	117	256	e47	1010	158	445	301	114	20	6.8	3.4
3	18	101	178	e44	568	735	367	212	106	19	6.4	3.2
4	17	91	138	e42	383	393	275	164	101	18	5.9	3.1
5	47	83	116	e40	237	229	216	139	110	17	5.6	2.9
6	262	77	103	e41	177	184	176	131	106	15	5.2	2.8
7	173	71	92	e40	147	166	153	173	87	14	5.2	2.9
8	103	70	82	e39	121	143	179	283	76	13	4.9	2.8
9	72	61	71	40	107	360	397	290	69	15	4.8	2.7
10	59	59	62	39	105	609	313	206	65	19	4.5	2.8
11	150	55	57	34	111	311	232	164	63	17	4.5	2.5
12	1410	46	54	32	115	234	205	526	62	13	4.7	2.7
13	1030	44	68	33	97	193	562	3560	60	12	5.0	2.5
14	1240	44	306	32	83	163	436	2060	70	11	6.4	2.8
15	1180	42	772	31	84	151	312	1010	64	9.9	6.6	3.2
16	1240	41	469	27	79	241	230	614	54	9.2	5.6	3.5
17	1300	37	1340	26	69	229	184	444	47	8.8	4.9	3.5
18	712	36	1440	24	57	183	153	335	42	9.2	4.8	3.5
19	479	38	747	25	67	148	138	252	38	11	10	4.2
20	339	37	459	25	223	145	121	199	34	13	11	10
21	253	34	309	26	410	122	132	165	32	11	7.8	15
22	204	34	238	25	252	105	170	144	32	9.0	6.6	9.7
23	285	31	211	24	179	102	126	134	32	8.7	34	6.5
24	980	32	169	26	146	96	116	124	31	8.2	29	4.5
25	1330	38	133	24	129	94	118	122	31	7.6	22	3.7
26	732	32	118	21	126	88	105	264	33	8.8	12	3.5
27	427	30	108	21	113	83	173	172	33	13	7.6	6.5
28	290	29	98	22	105	90	1650	415	31	10	5.6	9.3
29	218	42	81	24	---	373	1070	355	26	9.3	4.7	7.3
30	168	500	e62	37	---	1610	576	209	23	11	4.0	6.1
31	143	---	e54	543	---	1150	---	158	---	8.7	3.6	---
TOTAL	14899	2082	8856	1504	6940	8988	9974	13710	1803	390.4	257.3	140.6
MEAN	480.6	69.40	285.7	48.52	247.9	289.9	332.5	442.3	60.10	12.59	8.300	4.687
MAX	1410	500	1440	543	1640	1610	1650	3560	131	21	34	15
MIN	17	29	54	21	57	83	105	122	23	7.6	3.6	2.5
CFSM	3.29	0.48	1.96	0.33	1.70	1.99	2.28	3.03	0.41	0.09	0.06	0.03
IN.	3.80	0.53	2.26	0.38	1.77	2.29	2.54	3.49	0.46	0.10	0.07	0.04

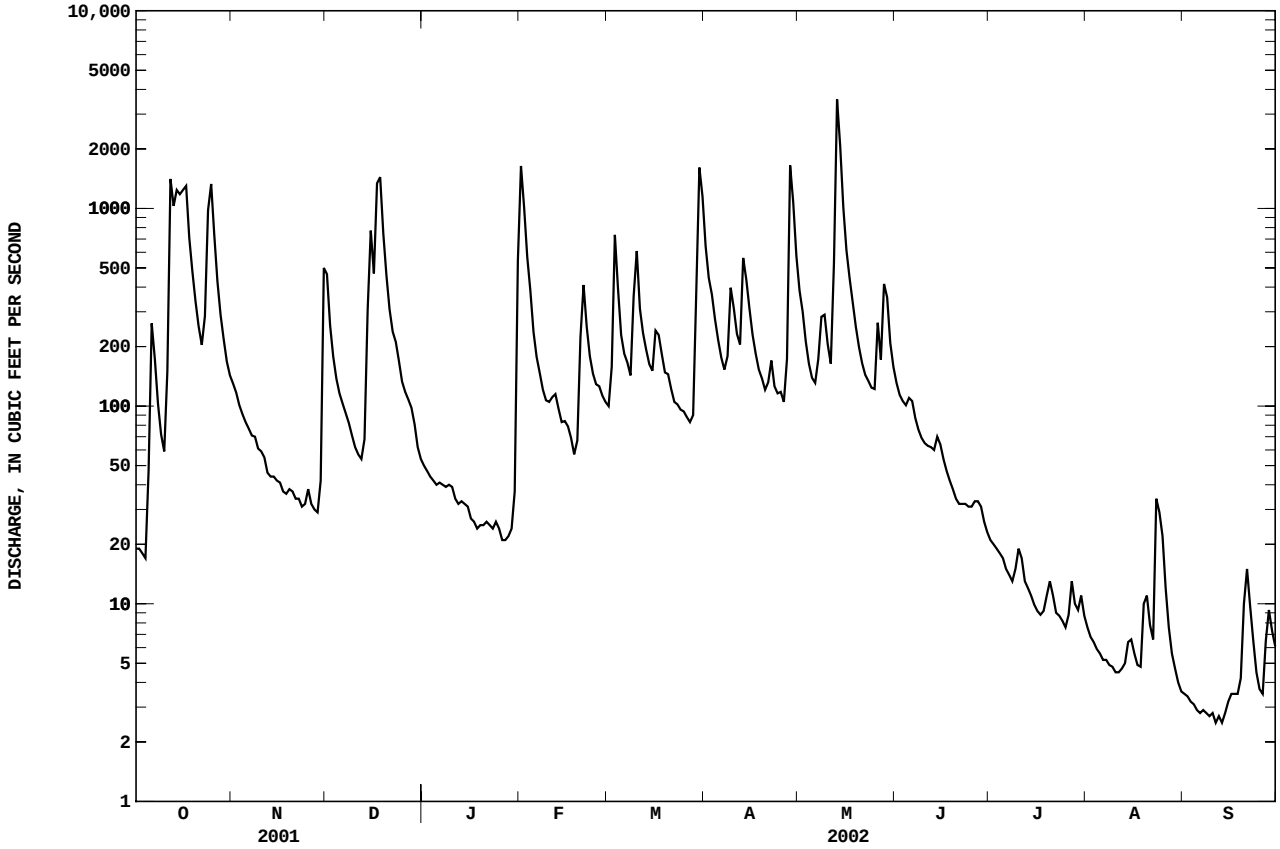
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

MEAN	51.44	109.9	157.7	156.5	208.3	274.5	226.1	160.9	138.8	97.69	41.85	43.18
MAX	481	834	622	687	649	793	689	460	720	692	401	589
(WY)	2002	1993	1991	1974	1976	1982	1964	1996	1998	1992	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1962 - 2002	
ANNUAL TOTAL	69312.3		69544.3			
ANNUAL MEAN	189.9		190.5		138.5	
HIGHEST ANNUAL MEAN					253	1993
LOWEST ANNUAL MEAN					37.7	2000
HIGHEST DAILY MEAN	2350	Feb 10	3560	May 13	6300	Jun 12 1998
LOWEST DAILY MEAN	6.6	Sep 6	2.5	Sep 11	0.47	Sep 27 1999
ANNUAL SEVEN-DAY MINIMUM	9.5	Aug 31	2.7	Sep 8	0.52	Sep 22 1999
MAXIMUM PEAK FLOW			3980	May 13	7120	Jul 14 1992
MAXIMUM PEAK STAGE			11.20	May 13	13.71	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.30		1.31		0.95	
ANNUAL RUNOFF (INCHES)	17.66		17.72		12.89	
10 PERCENT EXCEEDS	503		461		338	
50 PERCENT EXCEEDS	74		71		45	
90 PERCENT EXCEEDS	22		5.6		4.8	

e Estimated

03333450 WILDCAT CREEK NEAR JEROME, IN--Continued



03333600 KOKOMO CREEK NEAR KOKOMO, IN

LOCATION.--Lat 40°26'28", long 86°05'20", in NW1/4SW1/4 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 fair except for estimated daily discharges and those below 1 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	30	104	e9.0	288	19	126	76	21	5.2	0.72	0.13
2	2.1	26	54	e8.7	166	36	91	54	18	4.2	0.56	0.10
3	2.6	21	36	e8.4	117	129	62	36	16	3.9	0.47	0.08
4	4.0	19	26	e8.2	76	63	44	28	16	3.5	0.35	0.08
5	8.6	17	21	e8.0	41	37	35	24	16	3.1	0.30	0.07
6	15	16	19	e8.1	31	30	29	23	17	2.6	0.34	0.06
7	9.8	16	17	e8.0	26	26	26	32	15	2.1	0.21	0.04
8	6.2	16	15	e7.6	22	23	34	47	14	1.8	0.18	0.04
9	4.9	13	13	8.2	20	81	72	59	13	2.4	0.15	0.07
10	4.8	13	11	7.9	20	104	52	50	12	2.0	0.11	0.04
11	14	11	11	7.3	21	51	40	41	12	1.3	0.09	0.02
12	258	9.8	10	7.1	21	42	45	121	13	0.85	0.08	0.03
13	182	9.4	13	7.2	18	34	179	447	13	0.68	0.41	0.02
14	249	9.3	71	7.0	15	27	119	299	14	0.57	1.0	0.02
15	210	9.1	142	6.8	16	25	74	178	13	0.47	0.67	0.01
16	277	8.7	107	6.0	14	30	47	134	11	0.41	0.37	0.02
17	239	8.5	288	6.0	13	29	35	121	8.6	0.49	0.29	0.02
18	160	8.3	234	5.7	11	25	28	105	7.7	0.72	0.25	0.02
19	125	8.4	151	5.7	22	21	25	83	6.7	0.61	4.2	0.04
20	92	7.9	106	5.8	100	21	21	69	6.0	1.1	1.1	2.9
21	61	7.6	66	6.0	103	18	24	57	5.7	0.77	0.44	1.00
22	52	7.4	47	5.6	54	16	25	47	5.5	0.52	0.73	0.08
23	68	7.2	41	5.6	37	16	20	42	6.0	1.2	2.4	0.05
24	204	7.7	31	5.9	30	15	19	36	5.9	0.75	2.3	0.04
25	296	8.4	24	5.4	26	14	19	36	6.5	0.47	2.8	0.02
26	170	7.2	21	5.1	25	e13	17	32	11	1.4	1.2	0.02
27	122	7.1	19	5.3	21	e12	50	26	11	1.6	0.70	0.74
28	87	7.0	17	5.3	20	17	322	25	9.8	1.7	0.39	0.16
29	57	11	14	5.8	---	108	180	23	7.5	3.0	0.32	0.10
30	40	121	e11	9.0	---	298	117	21	5.9	2.0	0.23	0.09
31	34	---	e9.8	143	---	191	---	22	---	1.0	0.18	---
TOTAL	3057.0	469.0	1749.8	348.7	1374	1571	1977	2394	337.8	52.41	23.54	6.11
MEAN	98.61	15.63	56.45	11.25	49.07	50.68	65.90	77.23	11.26	1.691	0.759	0.204
MAX	296	121	288	143	288	298	322	447	21	5.2	4.2	2.9
MIN	2.0	7.0	9.8	5.1	11	12	17	21	5.5	0.41	0.08	0.01
CFSM	3.99	0.63	2.29	0.46	1.99	2.05	2.67	3.13	0.46	0.07	0.03	0.01
IN.	4.60	0.71	2.64	0.53	2.07	2.37	2.98	3.61	0.51	0.08	0.04	0.01

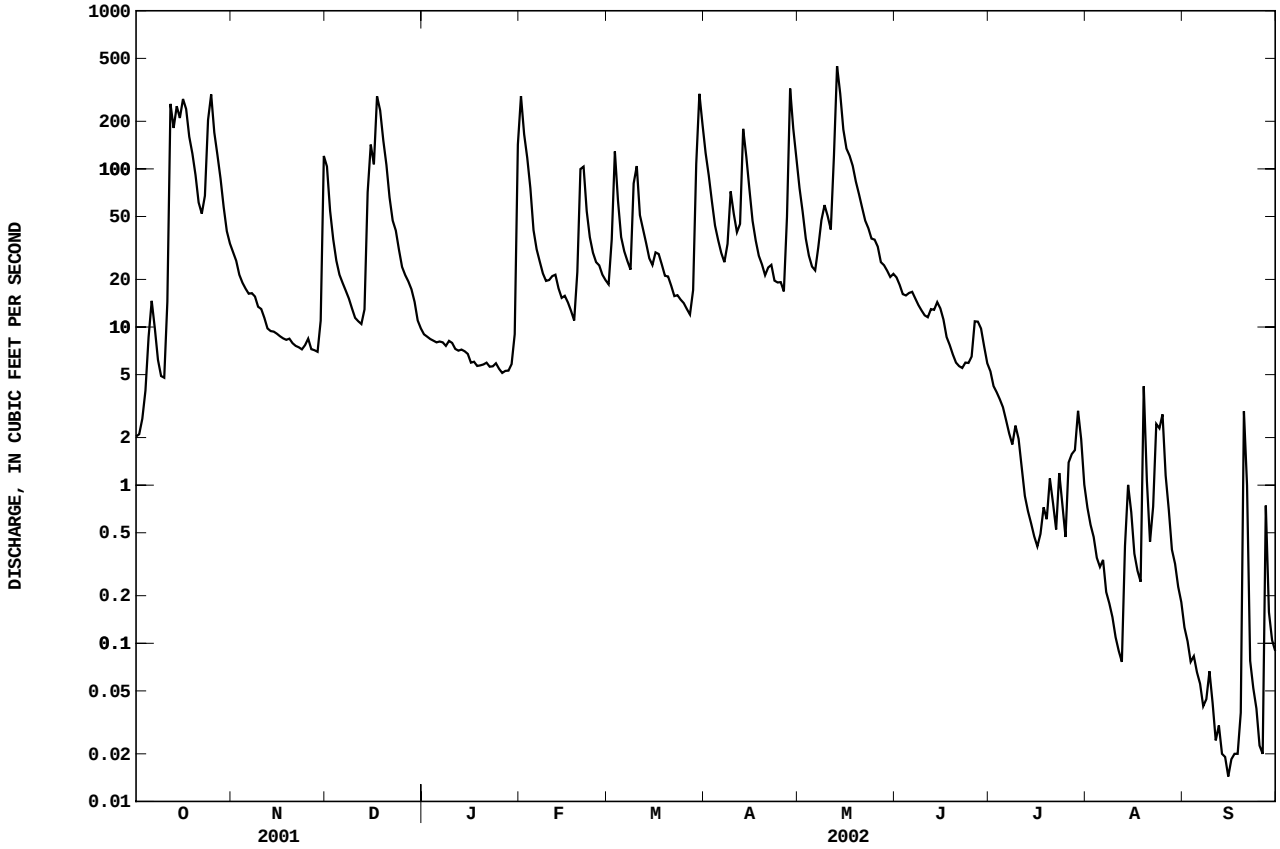
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

MEAN	10.97	18.95	25.12	24.89	35.07	47.32	41.04	26.96	19.72	14.62	7.202	6.090
MAX	98.6	144	102	114	129	150	117	87.2	99.7	90.2	58.5	66.7
(WY)	2002	1993	1991	1974	1990	1982	1964	1996	1980	1992	1998	1989
MIN	0.55	0.55	0.44	0.33	1.98	4.21	2.02	2.52	1.20	1.07	0.50	0.16
(WY)	1965	2000	1977	1977	1964	2000	2000	1976	1988	1988	1988	1991

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1960 - 2002	
ANNUAL TOTAL	12405.6		13360.36			
ANNUAL MEAN	33.99		36.60		23.09	
HIGHEST ANNUAL MEAN					45.2	1993
LOWEST ANNUAL MEAN					6.51	2000
HIGHEST DAILY MEAN	346	Feb 10	447	May 13	757	Dec 30 1990
LOWEST DAILY MEAN	1.3	Sep 5	0.01	Sep 15	0.01	Sep 15 2002
ANNUAL SEVEN-DAY MINIMUM	1.5	Sep 1	0.02	Sep 11	0.02	Sep 11 2002
MAXIMUM PEAK FLOW			483	May 13	1040	Apr 20 1964
MAXIMUM PEAK STAGE			6.76	May 13	9.88	Apr 20 1964
ANNUAL RUNOFF (CFSM)	1.38		1.48		0.93	
ANNUAL RUNOFF (INCHES)	18.68		20.12		12.70	
10 PERCENT EXCEEDS	106		112		54	
50 PERCENT EXCEEDS	11		13		7.5	
90 PERCENT EXCEEDS	2.8		0.27		0.86	

e Estimated

03333600 KOKOMO CREEK NEAR KOKOMO, IN--Continued



03333700 WILDCAT CREEK AT KOKOMO, IN

LOCATION.--Lat 40°28'15", long 86°09'11", in SW$^1/_4$NE$^1/_4$ 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 fair except for estimated daily discharges, which are poor. 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	240	873	115	2030	196	1170	722	193	44	36	34
2	101	245	526	107	1890	246	817	528	167	43	40	34
3	98	198	348	105	1070	867	640	399	175	40	34	35
4	84	169	270	100	727	827	485	299	148	39	33	34
5	125	158	220	e98	467	459	378	249	779	37	37	29
6	82	149	193	e96	340	334	314	234	343	35	34	29
7	64	144	166	e93	273	294	266	268	211	34	32	26
8	77	147	147	93	234	258	357	377	164	32	33	23
9	131	138	130	91	204	505	671	426	141	51	32	23
10	144	137	114	90	198	982	617	361	123	33	31	22
11	259	132	106	87	202	654	431	286	117	32	31	22
12	1630	130	108	83	194	433	584	560	115	29	31	20
13	1760	133	120	81	194	353	1270	2880	132	26	37	22
14	1690	158	361	81	160	302	969	3390	115	24	46	22
15	1820	112	1100	80	146	277	660	1670	110	25	37	23
16	1800	135	926	75	147	315	471	1030	101	24	33	22
17	1970	117	1670	71	139	365	361	759	84	24	31	25
18	1290	70	2190	68	122	318	298	552	76	24	30	24
19	859	71	1430	66	275	270	257	421	70	24	133	38
20	605	68	887	65	517	246	229	328	63	25	57	165
21	450	59	594	66	755	224	278	272	59	22	50	44
22	417	61	439	66	570	189	262	230	58	21	99	26
23	487	64	366	65	382	157	241	207	55	52	84	21
24	1370	81	316	66	300	80	221	195	54	37	92	19
25	2090	70	262	64	256	79	204	197	54	34	61	18
26	1420	70	222	61	267	77	195	264	68	53	51	18
27	836	65	201	59	228	94	455	269	64	41	47	74
28	548	65	185	59	209	114	1950	326	58	37	46	25
29	400	119	161	81	---	571	1950	543	54	104	44	18
30	323	586	133	110	---	1990	1080	318	48	54	38	16
31	269	---	124	712	---	1920	---	232	---	39	34	---
TOTAL	23301	4091	14888	3154	12496	13996	18081	18792	3999	1139	1454	951
MEAN	751.6	136.4	480.3	101.7	446.3	451.5	602.7	606.2	133.3	36.74	46.90	31.70
MAX	2090	586	2190	712	2030	1990	1950	3390	779	104	133	165
MIN	64	59	106	59	122	77	195	195	48	21	30	16
CFSM	3.11	0.56	1.98	0.42	1.84	1.87	2.49	2.50	0.55	0.15	0.19	0.13
IN.	3.58	0.63	2.29	0.48	1.92	2.15	2.78	2.89	0.61	0.18	0.22	0.15

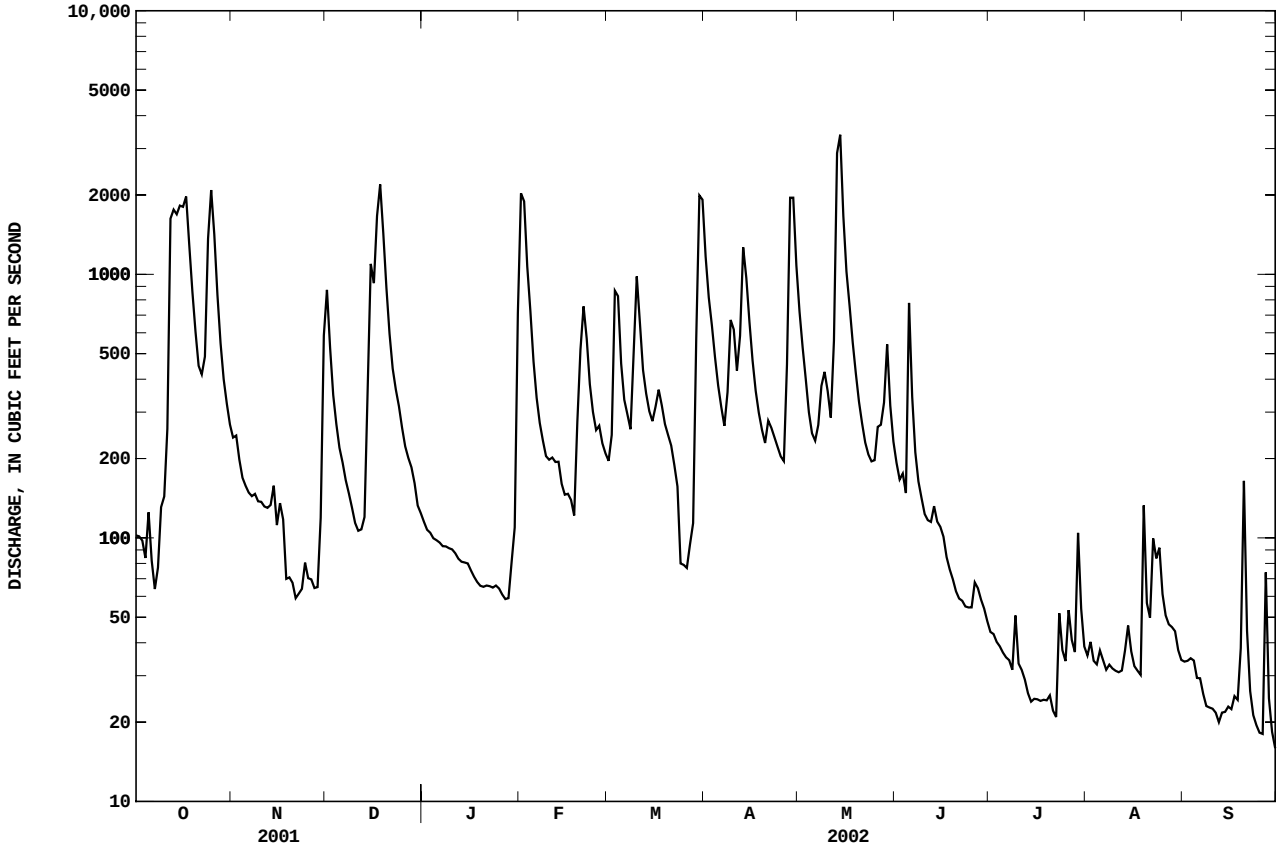
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2002, BY WATER YEAR (WY)

MEAN	96.77	189.5	256.6	256.9	348.0	435.0	418.8	278.5	256.0	180.5	93.21	82.45
MAX	752	1387	968	1375	1097	1376	1117	835	1432	1018	602	879
(WY)	2002	1993	1991	1974	1990	1982	1957	1996	1958	1998	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1956 - 2002	
ANNUAL TOTAL	114744		116342			
ANNUAL MEAN	314.4		318.7		240.3	
HIGHEST ANNUAL MEAN					444	1993
LOWEST ANNUAL MEAN					84.8	2000
HIGHEST DAILY MEAN	3080	Feb 10	3390	May 14	7660	Jan 23 1999
LOWEST DAILY MEAN	29	Sep 6	16	Sep 30	7.2	Sep 30 1956
ANNUAL SEVEN-DAY MINIMUM	37	Aug 15	22	Sep 10	8.3	Dec 28 1963
MAXIMUM PEAK FLOW			4220	May 14	8100	Feb 10 1959
MAXIMUM PEAK STAGE			11.72	May 14	16.95	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.30		1.32		0.99	
ANNUAL RUNOFF (INCHES)	17.64		17.88		13.49	
10 PERCENT EXCEEDS	879		831		570	
50 PERCENT EXCEEDS	141		137		88	
90 PERCENT EXCEEDS	51		31		24	

e Estimated

03333700 WILDCAT CREEK AT KOKOMO, IN--Continued



03334000 WILDCAT CREEK AT OWASCO, IN

LOCATION.--Lat 40°27'50", long 86°38'15", in SE$^1/_4$SE$^1/_4$ 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 good except those for Feb. 21 - Apr. 24 and estimated daily discharges, which are poor. Some regulation at low stages for municipal water supply by Kokomo Water Company since 1955.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	454	1030	e239	2030	390	2220	1320	369	118	83	62
2	135	422	908	e227	2620	394	1350	958	329	108	93	57
3	133	420	627	e217	2140	620	1030	737	301	104	93	58
4	129	368	496	e210	1270	1110	820	588	327	99	76	57
5	136	342	427	e203	882	880	669	497	1650	92	65	54
6	206	316	382	e197	641	617	569	450	1270	90	64	54
7	174	297	351	e191	523	516	502	455	657	85	69	53
8	130	286	317	e189	450	474	520	514	475	75	63	50
9	123	287	290	187	403	515	913	627	392	84	59	46
10	180	269	260	183	376	1130	1060	650	343	101	60	42
11	207	259	238	175	373	1140	812	531	299	95	57	39
12	1050	249	226	171	370	766	715	677	311	79	54	37
13	2010	242	243	166	353	626	1900	1730	725	75	53	36
14	2400	242	304	159	339	552	1860	3010	650	67	66	36
15	2280	260	951	160	307	498	1300	3870	415	61	75	37
16	2330	218	1250	153	282	475	924	1990	336	58	76	37
17	2530	237	1650	149	277	506	708	1270	274	59	66	37
18	2290	216	2580	140	259	524	588	984	233	57	59	36
19	1430	170	2610	135	284	473	514	764	207	58	125	37
20	991	168	1560	135	900	437	463	631	187	61	172	44
21	746	161	1040	130	1180	413	446	532	169	58	112	191
22	676	148	767	132	1060	372	502	467	156	55	96	118
23	695	145	642	133	780	346	458	423	150	114	170	72
24	1130	154	553	132	601	307	422	393	143	86	175	57
25	2260	178	491	130	511	237	422	373	148	81	132	49
26	2550	162	428	130	477	231	387	379	177	71	115	47
27	1530	156	394	123	462	223	469	430	174	77	89	49
28	953	153	368	119	412	252	2020	458	151	88	81	104
29	712	167	339	126	---	435	2820	571	137	80	77	74
30	584	532	286	194	---	1670	2320	585	131	138	73	53
31	506	---	e259	633	---	2660	---	433	---	121	72	---
TOTAL	31342	7678	22267	5568	20562	19789	29703	27297	11286	2595	2720	1723
MEAN	1011	255.9	718.3	179.6	734.4	638.4	990.1	880.5	376.2	83.71	87.74	57.43
MAX	2550	532	2610	633	2620	2660	2820	3870	1650	138	175	191
MIN	123	145	226	119	259	223	387	373	131	55	53	36
CFSM	2.55	0.65	1.81	0.45	1.85	1.61	2.50	2.22	0.95	0.21	0.22	0.15
IN.	2.94	0.72	2.09	0.52	1.93	1.86	2.79	2.56	1.06	0.24	0.26	0.16

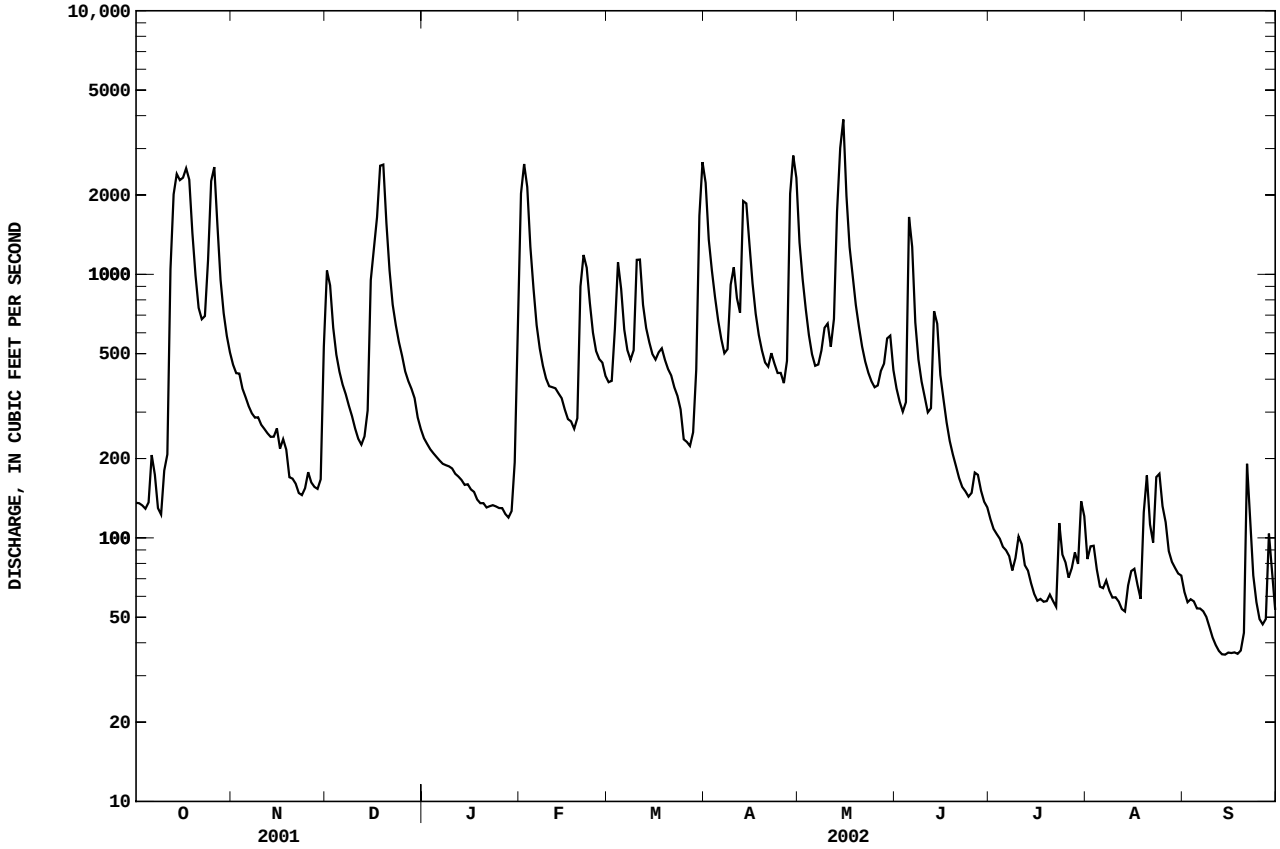
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2002, BY WATER YEAR (WY)

MEAN	163.5	257.6	332.9	527.1	524.7	620.9	684.5	459.9	406.2	299.5	142.3	133.1
MAX	1011	2024	1325	3083	1725	1301	1857	1108	2536	1589	707	1339
(WY)	2002	1993	1958	1950	1959	1997	1957	1996	1958	1992	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1945 - 2002	
ANNUAL TOTAL	158503		182530			
ANNUAL MEAN	434.3		500.1		378.5	
HIGHEST ANNUAL MEAN					733	1950
LOWEST ANNUAL MEAN					104	1954
HIGHEST DAILY MEAN	2960	Feb 11	3870	May 15	9850	Jan 5 1950
LOWEST DAILY MEAN	55	Aug 22	36	Sep 13	12	Oct 23 1944
ANNUAL SEVEN-DAY MINIMUM	62	Aug 16	37	Sep 12	15	Sep 23 1954
MAXIMUM PEAK FLOW			4100	May 15	10800	Jan 4 1980
MAXIMUM PEAK STAGE			8.00	May 15	13.30	Jan 5 1950
ANNUAL RUNOFF (CFSM)	1.10		1.26		0.96	
ANNUAL RUNOFF (INCHES)	14.89		17.15		12.99	
10 PERCENT EXCEEDS	1040		1260		895	
50 PERCENT EXCEEDS	242		287		164	
90 PERCENT EXCEEDS	91		61		41	

e Estimated

03334000 WILDCAT CREEK AT OWASCO, IN--Continued



03334500 SOUTH FORK WILDCAT CREEK NEAR LAFAYETTE, IN

LOCATION.--Lat 40°25'04", long 86°46'05", in SW$^1/_4$SW$^1/_4$ 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 good 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	238	814	e139	2120	228	892	643	198	133	58	54
2	36	219	516	e136	1510	264	643	511	189	119	57	52
3	35	203	376	e132	878	612	498	403	181	110	100	49
4	33	174	302	e127	610	506	393	330	180	102	73	48
5	39	161	252	e123	436	360	333	289	354	94	60	46
6	65	151	222	e120	343	299	289	267	237	88	54	44
7	78	143	199	e117	287	272	254	324	188	82	51	43
8	69	137	179	e112	242	247	290	437	167	77	49	42
9	60	132	164	114	208	416	707	509	179	87	47	41
10	54	123	150	115	191	909	672	447	196	114	45	40
11	61	119	140	110	192	550	470	325	155	92	44	39
12	760	112	134	104	200	411	440	969	158	78	43	39
13	1130	105	145	103	193	347	2890	3320	196	74	43	39
14	1850	103	213	102	168	308	1530	2560	360	69	52	38
15	1590	101	765	101	161	278	913	1390	270	65	54	40
16	1510	100	612	96	158	277	675	909	212	63	54	39
17	1580	96	1700	93	147	302	533	727	177	62	47	39
18	1060	92	1970	90	134	283	399	634	157	68	45	39
19	733	91	1220	88	176	248	324	524	143	63	125	39
20	556	92	765	88	838	238	285	439	133	60	144	46
21	438	89	549	87	1050	223	292	374	125	57	74	82
22	361	87	445	87	659	199	323	325	120	54	64	64
23	334	85	394	87	460	188	278	295	117	112	575	52
24	495	88	332	88	368	186	252	272	112	89	291	46
25	1480	105	274	86	314	193	285	254	126	70	202	43
26	1080	97	237	83	299	188	265	278	629	64	145	41
27	663	90	218	81	276	181	362	273	369	62	105	44
28	475	89	203	80	240	196	2660	276	241	59	84	56
29	378	107	183	84	---	463	1540	249	181	59	71	47
30	313	532	153	117	---	1900	914	225	152	79	62	45
31	265	---	e144	563	---	1430	---	210	---	65	57	---
TOTAL	17618	4061	13970	3653	12858	12702	20601	18988	6202	2470	2975	1376
MEAN	568.3	135.4	450.6	117.8	459.2	409.7	686.7	612.5	206.7	79.68	95.97	45.87
MAX	1850	532	1970	563	2120	1900	2890	3320	629	133	575	82
MIN	33	85	134	80	134	181	252	210	112	54	43	38
CFSM	2.34	0.56	1.85	0.48	1.89	1.69	2.83	2.52	0.85	0.33	0.39	0.19
IN.	2.70	0.62	2.14	0.56	1.97	1.94	3.15	2.91	0.95	0.38	0.46	0.21

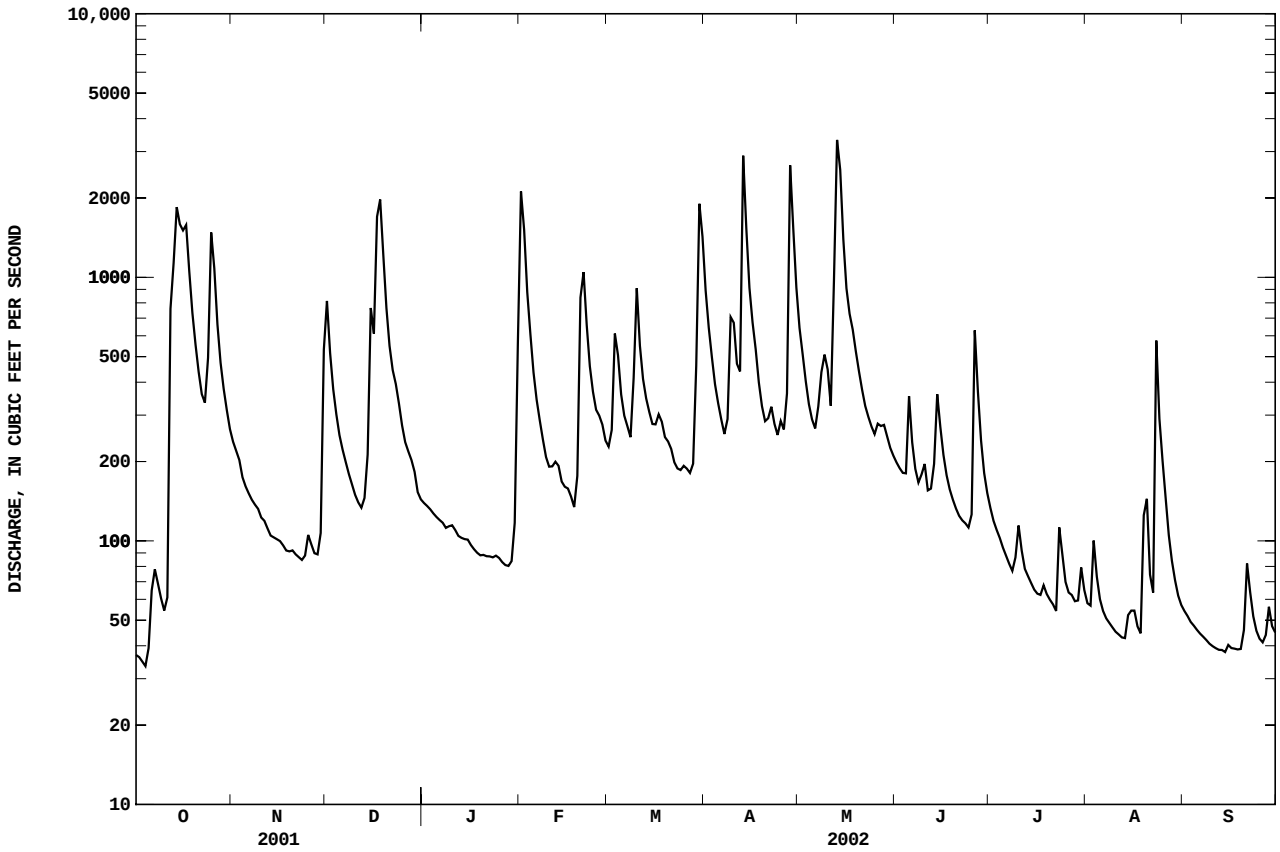
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

MEAN	101.8	170.8	239.1	291.5	340.2	408.9	402.6	305.8	284.2	167.5	97.98	94.86
MAX	568	1304	954	1808	929	1143	1172	881	1674	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	80705		117474			
ANNUAL MEAN	221.1		321.8		241.2	
HIGHEST ANNUAL MEAN					473	1950
LOWEST ANNUAL MEAN					79.2	1954
HIGHEST DAILY MEAN	1970	Dec 18	3320	May 13	11000	May 2 1983
LOWEST DAILY MEAN	33	Sep 5	33	Oct 4	15	Sep 19 1944
ANNUAL SEVEN-DAY MINIMUM	36	Sep 1	39	Sep 11	16	Sep 17 1944
MAXIMUM PEAK FLOW			3660	May 13	15100	May 2 1983
MAXIMUM PEAK STAGE			9.10	May 13	15.68	May 2 1983
ANNUAL RUNOFF (CFSM)	0.91		1.32		0.99	
ANNUAL RUNOFF (INCHES)	12.35		17.98		13.49	
10 PERCENT EXCEEDS	525		729		525	
50 PERCENT EXCEEDS	105		179		109	
90 PERCENT EXCEEDS	44		49		34	

e Estimated

03334500 SOUTH FORK WILDCAT CREEK NEAR LAFAYETTE, IN--Continued



03335000 WILDCAT CREEK NEAR LAFAYETTE, IN

LOCATION.--Lat 40°26'26", long 86°49'45", in SW$^1/_4$NW$^1/_4$ 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 those for July 1 - Sept. 17 and 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e287	820	e1720	e440	4930	729	3550	2530	681	396	230	179
2	e286	756	e1390	e420	4710	777	2350	1930	602	348	265	164
3	e275	718	e839	e410	3610	1430	1790	1510	567	329	291	147
4	e268	633	e709	e400	2270	1740	1440	1220	572	315	242	140
5	e279	576	e640	e390	1620	1440	1200	1020	2610	291	188	135
6	e356	535	e596	e380	1230	1080	1030	923	2380	280	165	124
7	e291	e509	e562	e370	1010	926	907	1070	1300	269	161	123
8	e253	e496	e527	e360	861	842	977	1250	926	258	156	129
9	e240	e500	e500	e370	743	1070	1850	1550	744	294	151	110
10	e230	e482	e476	361	676	2150	2030	1500	692	314	143	108
11	270	e473	e451	350	659	1860	1570	1190	579	295	142	100
12	1330	e464	e438	331	654	1400	1400	2060	555	247	130	96
13	3140	e455	e502	328	633	1140	5770	5700	1060	232	134	94
14	4680	e455	581	318	581	995	4390	6250	1850	220	153	97
15	4390	e478	1670	314	545	894	2830	5830	1150	210	205	102
16	4250	e429	2000	305	516	832	2040	3940	809	204	176	91
17	4570	e451	3760	292	493	874	1550	2480	641	194	165	92
18	3800	e431	5380	283	463	890	1240	2040	544	192	150	93
19	2620	e384	4380	270	560	792	1060	1660	477	221	425	92
20	1850	e382	2930	271	2100	745	941	1380	446	195	431	131
21	1430	e373	1960	261	2710	693	936	1160	411	182	292	210
22	1200	e362	1490	260	2070	633	1050	1000	385	171	223	288
23	1220	e360	1250	258	1530	575	901	904	386	425	950	179
24	1730	e364	1060	261	1200	562	848	827	373	291	700	145
25	4340	e391	913	255	1010	511	894	769	394	248	485	127
26	4130	e380	803	249	927	487	845	764	1500	208	396	120
27	2750	e371	717	241	887	471	1030	795	965	203	296	126
28	1760	e369	669	234	775	491	5790	898	645	216	248	149
29	1330	e382	607	253	---	983	5160	935	516	215	225	184
30	1080	e1400	e500	347	---	3970	4040	1000	457	270	203	142
31	932	---	e460	1430	---	4280	---	805	---	300	186	---
TOTAL	55567	15179	40480	11012	39973	36262	61409	56890	25217	8033	8307	4017
MEAN	1792	506.0	1306	355.2	1428	1170	2047	1835	840.6	259.1	268.0	133.9
MAX	4680	1400	5380	1430	4930	4280	5790	6250	2610	425	950	288
MIN	230	360	438	234	463	471	845	764	373	171	130	91
CFSM	2.26	0.64	1.64	0.45	1.80	1.47	2.58	2.31	1.06	0.33	0.34	0.17
IN.	2.60	0.71	1.90	0.52	1.87	1.70	2.88	2.67	1.18	0.38	0.39	0.19

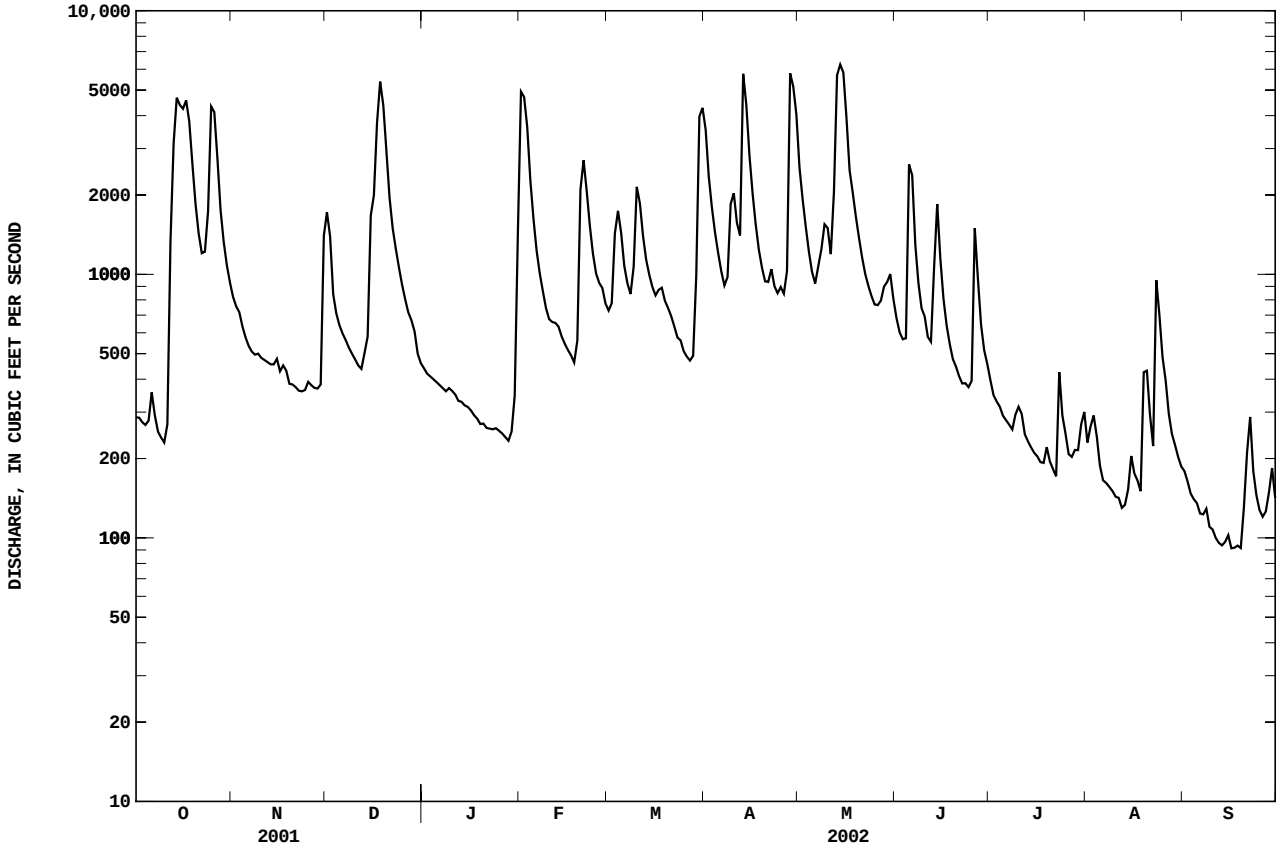
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2002, BY WATER YEAR (WY)

MEAN	325.0	567.9	800.9	812.0	1081	1367	1294	949.8	881.0	595.9	338.5	289.7
MAX	1792	3963	2474	3711	3227	3991	3657	2614	5210	2968	1511	2546
(WY)	2002	1993	1991	1974	1976	1982	1964	1983	1958	1992	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1955 - 2002	
ANNUAL TOTAL	279923		362346			
ANNUAL MEAN	766.9		992.7		773.2	
HIGHEST ANNUAL MEAN					1460	1993
LOWEST ANNUAL MEAN					264	2000
HIGHEST DAILY MEAN	5380	Dec 18	6250	May 14	22100	Jun 10 1958
LOWEST DAILY MEAN	121	Jan 15	91	Sep 16	47	Sep 6 1964
ANNUAL SEVEN-DAY MINIMUM	134	Jan 9	94	Sep 13	51	Dec 20 1963
MAXIMUM PEAK FLOW			6780	May 14	25000	Jun 10 1958
MAXIMUM PEAK STAGE			11.56	May 14	21.52	Jun 10 1958
ANNUAL RUNOFF (CFSM)	0.97		1.25		0.97	
ANNUAL RUNOFF (INCHES)	13.11		16.98		13.23	
10 PERCENT EXCEEDS	1860		2300		1750	
50 PERCENT EXCEEDS	443		560		358	
90 PERCENT EXCEEDS	183		169		112	

e Estimated

03335000 WILDCAT CREEK NEAR LAFAYETTE, IN--Continued



03335500 WABASH RIVER AT LAFAYETTE, IN

LOCATION.--Lat 40°25'19", long 86°53'49", in NE$^1/_4$SW$^1/_4$ 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 fair except for estimated daily discharges, which are poor. Flow partially regulated by upstream reservoirs and power development.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2670	12700	16800	e4250	32000	7120	31100	21500	10400	3670	2290	1290
2	2250	12300	19600	e4000	39600	6980	27700	19200	8890	3400	2480	1230
3	1750	11600	19100	e4200	34200	9960	25100	17800	6940	3150	2670	1210
4	1430	11600	17500	e4400	28900	18200	25000	14200	6240	2850	2440	1090
5	2050	10800	11700	e4300	24800	18500	27700	12500	9040	2510	2100	1230
6	3130	10500	9030	e4200	22100	14900	e26200	10900	12500	2290	1630	1100
7	4390	10000	7600	e4200	18500	13400	e21000	9740	12200	2260	1690	998
8	6770	10200	7000	e4100	16100	11600	e11800	9050	9910	2270	1760	1040
9	6580	9570	6280	4030	14300	11800	17400	9790	8400	2400	1340	989
10	5790	9370	5130	3760	12100	19700	23100	13500	6430	3220	1270	1140
11	5400	9350	4950	3860	11200	20200	21400	13500	5980	2660	1400	1050
12	8170	9170	4500	3820	9760	16900	e21200	17100	5740	2620	1310	924
13	21200	8260	4870	3880	8670	14500	e25200	32400	6230	2210	1270	921
14	27600	6390	5300	3700	6980	12500	e27400	36600	7690	2150	1390	944
15	33000	5280	10600	3810	6420	10200	e24000	34000	6620	2180	1450	926
16	32800	4960	18400	3420	6140	8820	e19600	30000	5290	2190	1510	960
17	35100	4110	23200	3540	5640	8110	e16900	26000	4720	1980	1430	1020
18	34400	4780	32200	3340	5090	7860	e13100	24100	4260	1820	1410	1040
19	28400	4780	31700	3220	5540	7930	11300	22000	4170	1830	1980	1030
20	23300	4840	28000	3280	11600	7460	9840	19200	4070	1680	2390	1500
21	19500	5380	24100	3220	19300	6800	8780	15000	3770	1860	2080	1910
22	16100	5290	20000	3030	18600	6150	8860	12900	3600	1860	1700	2220
23	21200	5250	17100	3120	15200	5800	8580	12100	3500	2390	2970	1740
24	25000	5110	14800	3160	12300	5470	7910	11600	3150	2810	2500	1730
25	29600	5240	12300	3080	9450	5890	8740	9700	3160	1980	2490	1710
26	32800	5150	11600	3090	8570	5570	8140	8980	4310	1800	2260	1730
27	28500	5760	10100	3100	7560	5390	7310	10100	4090	1780	2420	1750
28	23400	5340	8400	3060	7120	5680	17500	9920	3700	1820	2150	1810
29	20200	5070	6410	3160	---	6790	25100	9920	4080	1810	1530	1650
30	17900	6650	e5200	3680	---	18500	24200	12600	4220	2470	1420	1940
31	14400	---	e4600	11300	---	30000	---	11800	---	2630	1470	---
TOTAL	534780	224800	418070	120310	417740	348680	551160	517700	183300	72550	58200	39822
MEAN	17250	7493	13490	3881	14920	11250	18370	16700	6110	2340	1877	1327
MAX	35100	12700	32200	11300	39600	30000	31100	36600	12500	3670	2970	2220
MIN	1430	4110	4500	3030	5090	5390	7310	8980	3150	1680	1270	921
CFSM	2.37	1.03	1.86	0.53	2.05	1.55	2.53	2.30	0.84	0.32	0.26	0.18
IN.	2.74	1.15	2.14	0.62	2.14	1.78	2.82	2.65	0.94	0.37	0.30	0.20

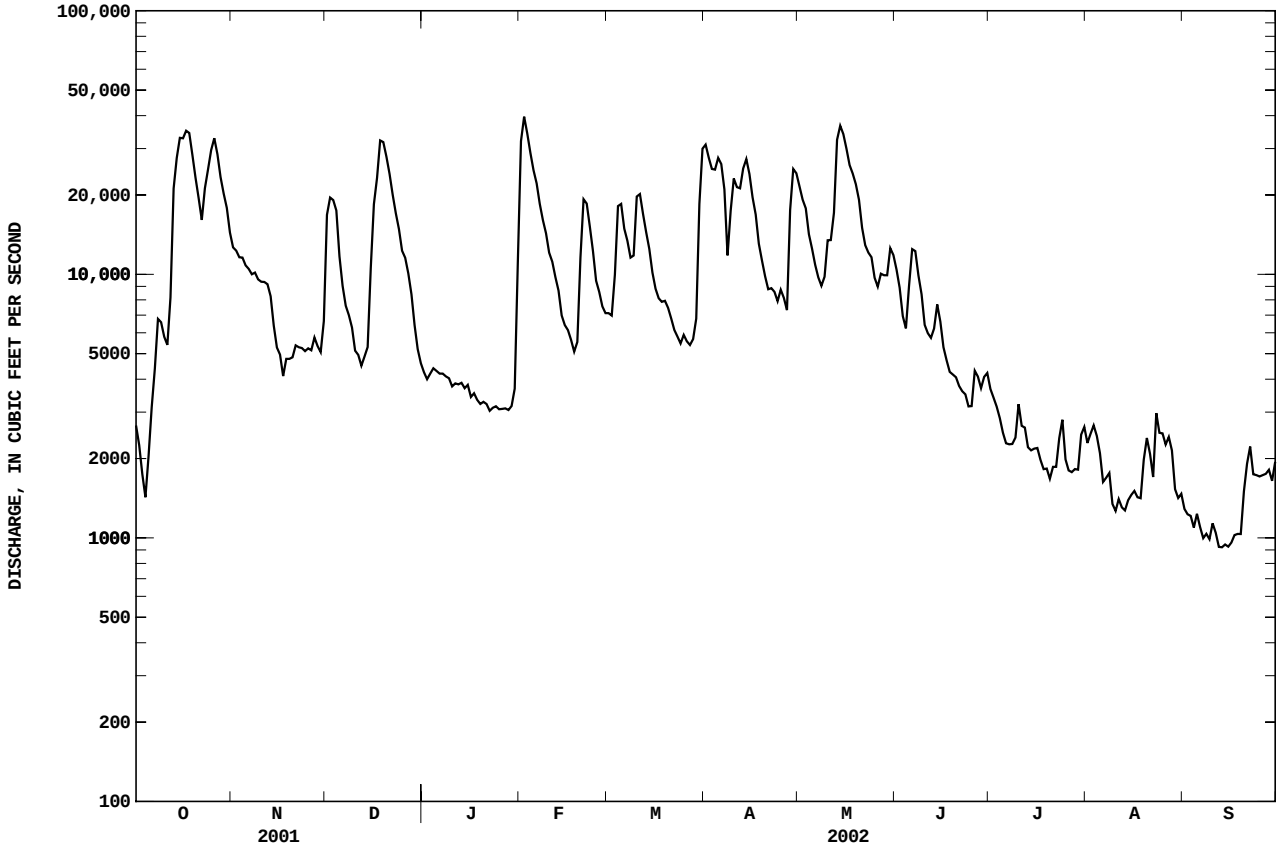
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2002, BY WATER YEAR (WY)

MEAN	3142	4305	6712	8393	9671	11750	11600	8324	6708	4319	2815	2638
MAX	17250	19910	25250	42040	28000	33560	28000	37290	31830	19180	12890	20120
(WY)	2002	1993	1928	1950	1959	1982	1957	1943	1958	1998	1998	1926
MIN	652	828	747	735	1232	1663	3135	1460	1029	655	484	435
(WY)	1964	1965	1964	1977	1964	1941	1941	1934	1934	1936	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1924 - 2002	
ANNUAL TOTAL	2976450		3487112			
ANNUAL MEAN	8155		9554		6680	
HIGHEST ANNUAL MEAN					12340	1950
LOWEST ANNUAL MEAN					1631	1941
HIGHEST DAILY MEAN	35100	Oct 17	39600	Feb 2	129000	May 19 1943
LOWEST DAILY MEAN	1320	Aug 15	921	Sep 13	399	Sep 26 1941
ANNUAL SEVEN-DAY MINIMUM	1480	Aug 14	962	Sep 12	404	Sep 21 1941
MAXIMUM PEAK FLOW			40700	Feb 2	131000	May 19 1943
MAXIMUM PEAK STAGE			18.43	Feb 2	28.47	May 19 1943
ANNUAL RUNOFF (CFSM)	1.12		1.31		0.92	
ANNUAL RUNOFF (INCHES)	15.24		17.85		12.49	
10 PERCENT EXCEEDS	19800		24000		16000	
50 PERCENT EXCEEDS	5150		6240		3650	
90 PERCENT EXCEEDS	2320		1670		1170	

e Estimated

03335500 WABASH RIVER AT LAFAYETTE, IN--Continued



03335690 MUD PINE CREEK NEAR OXFORD, IN

LOCATION.--Lat 40°31'24", long 87°20'30", in NE$^1/_4$SE$^1/_4$ sec.17, T.24 N., R.8 W., Benton County, Hydrologic Unit 05120108, (FOWLER, IN quadrangle), on right bank 5 ft downstream from county road bridge, 0.3 mi north of Chase, 2.0 mi east of Boswell, and 5.0 mi west of Oxford.

DRAINAGE AREA.--39.4 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 718.00 ft above 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	72	101	e22	524	31	179	91	33	27	8.1	10
2	4.9	72	68	e19	202	62	137	79	30	23	250	8.9
3	4.4	70	54	e19	131	167	105	59	28	21	155	8.0
4	4.5	64	46	e18	93	84	83	51	26	18	73	6.7
5	22	57	40	e18	67	56	68	44	43	15	48	5.8
6	70	53	36	e17	54	114	56	45	40	13	34	5.4
7	34	50	33	15	45	156	52	78	32	12	26	4.8
8	23	46	30	e16	35	114	99	101	29	11	19	4.4
9	19	39	25	16	29	354	148	191	27	42	15	4.0
10	18	40	24	13	28	214	95	126	35	69	12	3.7
11	19	33	21	11	24	120	75	177	87	25	9.2	3.5
12	382	31	22	13	24	98	62	613	60	18	7.5	3.1
13	336	32	43	12	17	91	57	360	60	15	6.2	2.8
14	1480	31	104	12	16	76	53	177	59	12	5.7	2.7
15	511	29	137	9.5	17	64	47	129	47	9.7	6.4	2.7
16	468	25	96	8.8	15	56	41	110	38	8.4	6.8	2.7
17	307	23	266	9.1	11	53	37	115	33	7.7	5.9	2.5
18	206	24	211	e8.2	10	46	35	103	29	7.2	4.7	2.8
19	161	24	133	8.6	178	43	34	89	26	52	289	4.4
20	128	20	98	8.1	490	41	33	78	23	27	147	5.8
21	109	21	76	8.9	228	36	80	68	22	17	62	5.9
22	143	19	68	6.5	132	e32	80	60	21	27	95	3.4
23	190	18	70	8.4	96	32	56	55	21	220	399	2.8
24	510	20	60	8.0	74	30	51	50	19	84	172	2.6
25	544	17	50	6.1	57	e28	60	48	52	44	96	2.6
26	213	13	45	6.3	49	e31	48	43	247	30	63	2.6
27	145	15	42	6.5	45	29	142	41	114	24	41	3.1
28	115	12	37	6.9	37	33	386	39	69	19	27	2.9
29	97	18	30	10	---	116	168	38	44	16	20	2.5
30	84	153	e27	67	---	335	117	44	34	12	15	2.3
31	78	---	e24	527	---	343	---	38	---	9.4	12	---
TOTAL	6430.3	1141	2117	934.9	2728	3085	2684	3340	1428	935.4	2130.5	125.4
MEAN	207.4	38.03	68.29	30.16	97.43	99.52	89.47	107.7	47.60	30.17	68.73	4.180
MAX	1480	153	266	527	524	354	386	613	247	220	399	10
MIN	4.4	12	21	6.1	10	28	33	38	19	7.2	4.7	2.3
CFSM	5.26	0.97	1.73	0.77	2.47	2.53	2.27	2.73	1.21	0.77	1.74	0.11
IN.	6.07	1.08	2.00	0.88	2.58	2.91	2.53	3.15	1.35	0.88	2.01	0.12

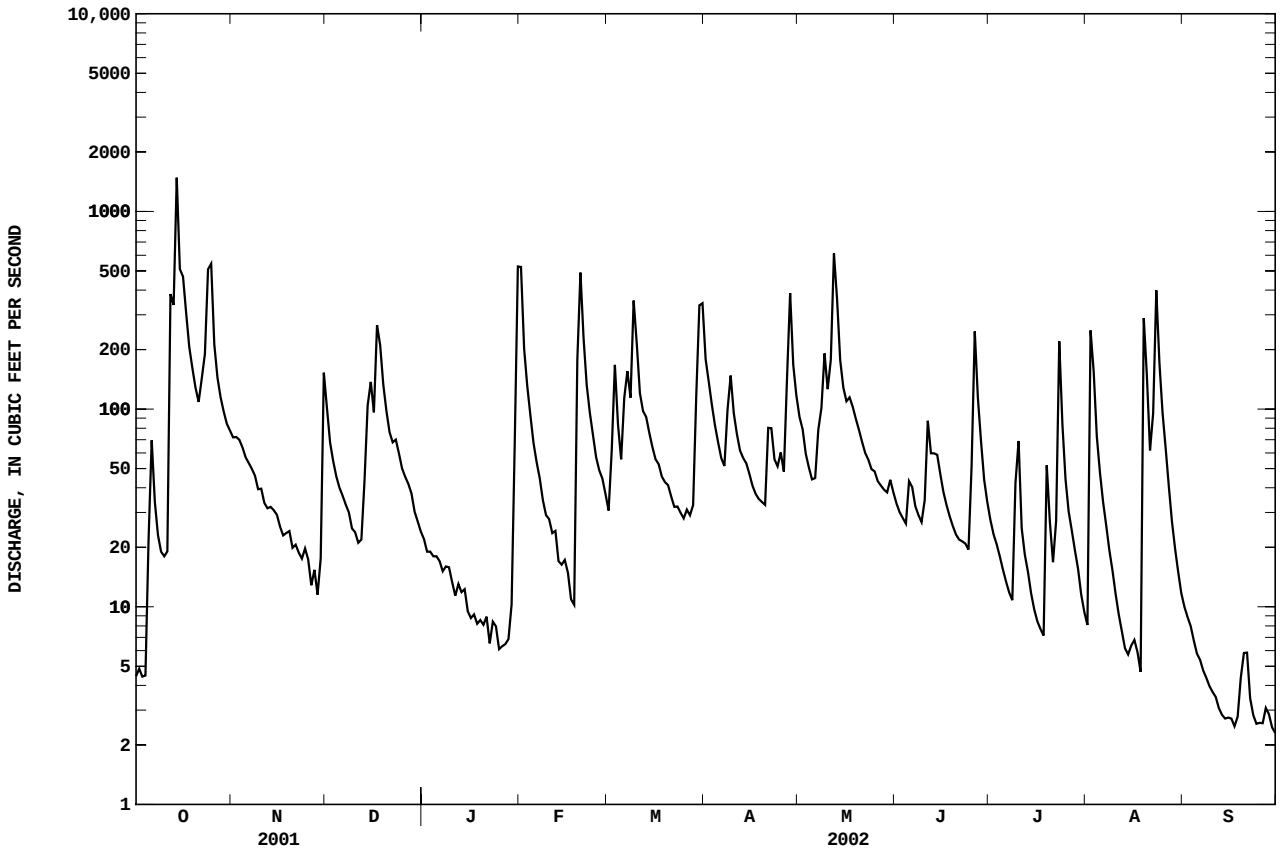
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2002, BY WATER YEAR (WY)

MEAN	20.92	28.45	42.94	40.33	59.09	74.73	70.83	61.56	61.08	26.50	15.73	15.22
MAX	207	169	154	164	158	237	267	159	240	147	122	134
(WY)	2002	1986	1991	1993	1990	1979	1994	1981	1998	1993	1981	1993
MIN	0.38	0.33	0.71	0.46	3.41	6.54	7.99	8.49	2.85	0.65	0.79	0.40
(WY)	2000	2000	2000	2000	1977	1981	2000	1976	1988	1988	1988	1983

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1972 - 2002	
ANNUAL TOTAL	19866.35		27079.5			
ANNUAL MEAN	54.43		74.19		42.99	
HIGHEST ANNUAL MEAN					93.0	1993
LOWEST ANNUAL MEAN					16.2	1977
HIGHEST DAILY MEAN	1480	Oct 14	1480	Oct 14	4550	Apr 12 1994
LOWEST DAILY MEAN	0.60	Aug 22	2.3	Sep 30	0.00	Sep 11 1999
ANNUAL SEVEN-DAY MINIMUM	1.4	Aug 12	2.7	Sep 24	0.04	Sep 11 1999
MAXIMUM PEAK FLOW			2040	Oct 14	12100	Apr 12 1994
MAXIMUM PEAK STAGE			12.15	Oct 14	16.98	Apr 12 1994
ANNUAL RUNOFF (CFSM)	1.38		1.88		1.09	
ANNUAL RUNOFF (INCHES)	18.76		25.57		14.82	
10 PERCENT EXCEEDS	126		170		99	
50 PERCENT EXCEEDS	24		37		16	
90 PERCENT EXCEEDS	4.4		6.4		0.89	

e Estimated

03335690 MUD PINE CREEK NEAR OXFORD, IN--Continued



03336000 WABASH RIVER AT COVINGTON, IN

LOCATION.--Lat 40°08'24", long 87°24'24", in NE$^1/_4$NW$^1/_4$ sec.35, T.20 N., R.9 W., Warren County, Hydrologic Unit 05120108, (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 fair except for estimated daily discharges, which are poor. Flow partially regulated by upstream reservoirs.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2670	15000	11100	e5200	21900	8170	28000	26600	12100	4670	2850	2000
2	2700	13400	18000	e4850	28800	8230	30400	24800	10800	4180	2820	1820
3	2370	12800	19500	e4700	34600	10600	29700	22200	9110	3900	3580	1720
4	1990	12000	19000	e4900	35200	15300	27900	19100	7580	3630	3250	1680
5	1780	11700	16000	e5040	31900	19700	26200	15300	7680	3340	2850	1570
6	2330	11100	11300	e4980	28600	18900	23500	13500	11700	3000	2470	1640
7	3280	10600	8960	4920	25200	16400	18000	13100	13800	2780	2080	1540
8	5040	10300	7820	4820	20600	15000	14000	14000	12000	2740	2090	1420
9	6540	10200	7160	4660	17100	14200	16700	14400	10300	2770	2090	1420
10	6200	9690	6310	4490	14400	18900	21400	15900	8540	3260	1780	1390
11	5690	9580	5490	4270	12700	22300	23600	17300	7150	3840	1690	1460
12	6630	9420	5280	4370	11300	21700	23400	19200	6920	3200	1770	1410
13	13600	9120	5110	4260	10200	18600	24500	26800	6970	3000	1710	1310
14	24700	7810	5570	4350	8750	15700	25600	32600	8440	2660	1670	1290
15	29000	6280	7820	4170	7480	13100	26900	36500	8650	2550	1800	1320
16	32500	5500	14300	4210	7030	11100	25400	35900	7160	2560	1850	1320
17	34500	5040	20800	3910	6640	9810	22600	33100	6110	2530	1850	1310
18	35400	4640	25100	3930	6190	9110	18900	30300	5320	2350	1780	1370
19	35300	5020	29000	3770	6200	8960	14700	27800	4970	2270	10100	1380
20	32600	5020	30800	3740	11500	8730	12100	25500	4780	2420	11000	1450
21	28700	5200	29900	3730	19900	8160	10900	21800	4620	2170	6670	1840
22	23500	5540	27300	3690	22500	7460	10500	16900	4370	2240	3700	2130
23	20200	5460	23200	3520	21000	6780	10400	14300	4210	2800	8280	2300
24	22800	5480	18800	3540	17000	6540	9580	13400	4050	3310	8300	1980
25	26300	5310	15000	3570	13000	6480	9550	12300	3790	3130	5180	1930
26	29200	5430	12800	3510	10600	6710	9890	10400	4820	2450	3820	1930
27	31300	5530	11700	3490	9430	6400	9670	10500	5970	2280	3180	1940
28	31000	5900	10100	3510	8500	6340	18100	11200	5140	2300	3060	1960
29	28000	5580	8250	3450	---	7430	23800	11100	4530	2310	2740	1990
30	23900	6040	e6460	3790	---	14000	26500	11900	4880	2280	2220	1900
31	19500	---	e5600	7050	---	23500	---	13600	---	2760	2020	---
TOTAL	569220	239690	443530	132390	468220	384310	592390	611300	216460	89680	110250	49720
MEAN	18360	7990	14310	4271	16720	12400	19750	19720	7215	2893	3556	1657
MAX	35400	15000	30800	7050	35200	23500	30400	36500	13800	4670	11000	2300
MIN	1780	4640	5110	3450	6190	6340	9550	10400	3790	2170	1670	1290
CFSM	2.23	0.97	1.74	0.52	2.03	1.51	2.40	2.40	0.88	0.35	0.43	0.20
IN.	2.58	1.08	2.01	0.60	2.12	1.74	2.68	2.77	0.98	0.41	0.50	0.23

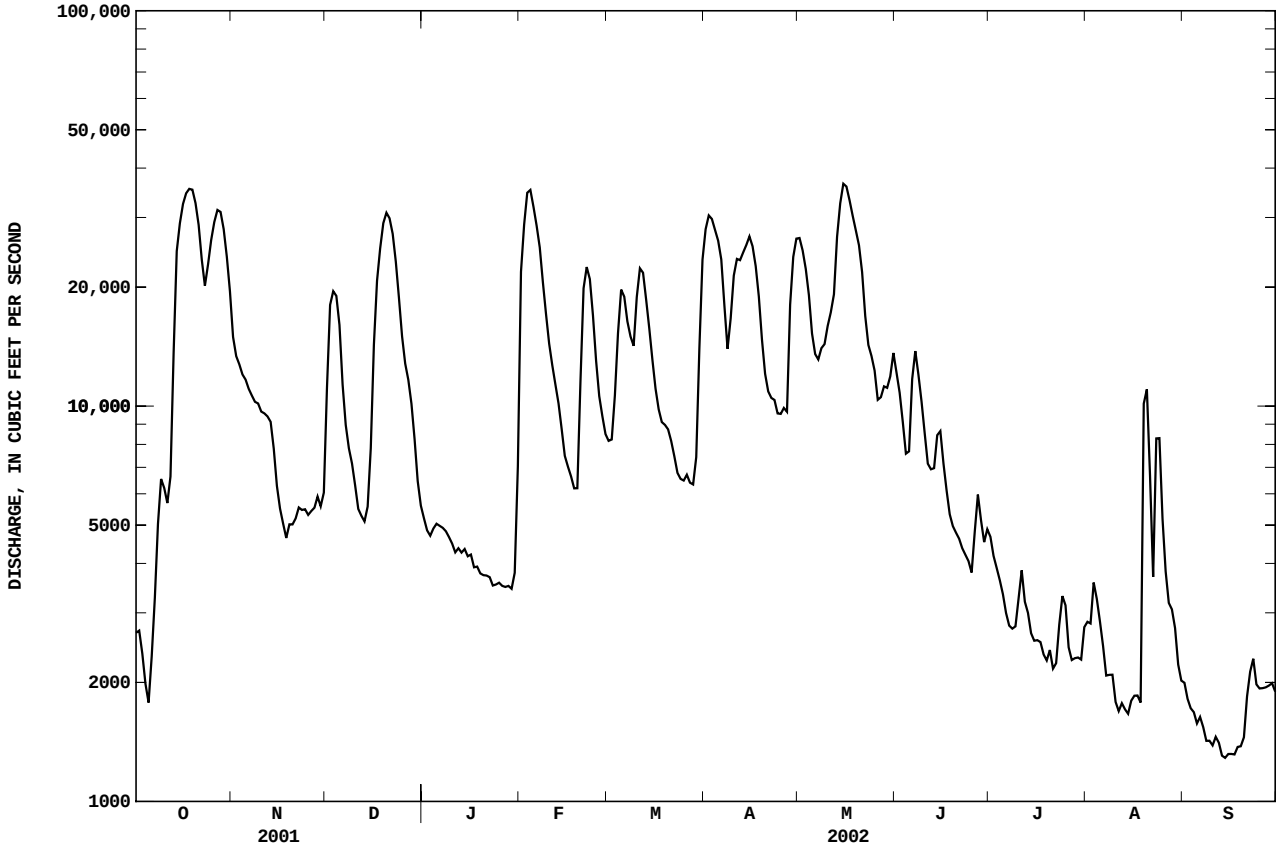
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	3585	4875	7233	8979	10960	13160	13140	9978	8417	5418	3505	2912
MAX	18360	23930	22080	49700	34450	34840	28470	43540	36010	19840	13470	11960
(WY)	2002	1993	1968	1950	1959	1982	1957	1943	1958	1998	1998	1989
MIN	738	919	810	896	1357	1915	3536	1814	1542	1212	640	545
(WY)	1965	1965	1964	1977	1963	1941	1941	1941	1988	1988	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	3161550		3907160			
ANNUAL MEAN	8662		10700		7658	
HIGHEST ANNUAL MEAN					14980	1950
LOWEST ANNUAL MEAN					1862	1941
HIGHEST DAILY MEAN	35400	Oct 18	36500	May 15	143000	May 20 1943
LOWEST DAILY MEAN	1600	Aug 16	1290	Sep 14	487	Sep 29 1941
ANNUAL SEVEN-DAY MINIMUM	1770	Aug 15	1330	Sep 13	497	Sep 24 1941
MAXIMUM PEAK FLOW			37100	May 15	147000	May 20 1943
MAXIMUM PEAK STAGE			22.22	May 15	32.44	May 20 1943
ANNUAL RUNOFF (CFSM)	1.05		1.30		0.93	
ANNUAL RUNOFF (INCHES)	14.31		17.69		12.66	
10 PERCENT EXCEEDS	22600		25800		18600	
50 PERCENT EXCEEDS	5520		7160		4440	
90 PERCENT EXCEEDS	2500		1990		1470	

e Estimated

03336000 WABASH RIVER AT COVINGTON, IN--Continued



03339280 PRAIRIE CREEK NEAR LEBANON, IN

LOCATION.--Lat 40°06'16", long 86°31'32", in NW1/4SW1/4 sec.10, T.19 N., R.1 W., Boone County, Hydrologic Unit 05120110, (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 good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	28	96	e19	589	46	88	82	25	43	8.3	7.3
2	4.1	29	61	e18	192	80	96	244	22	32	64	7.2
3	4.1	23	46	e17	114	125	132	116	20	25	21	7.3
4	8.1	21	38	e16	78	70	81	76	18	21	13	6.5
5	45	20	31	e15	56	53	65	59	191	16	10	5.8
6	38	18	28	e16	47	49	55	61	79	14	7.1	5.5
7	18	18	25	e15	41	44	48	314	49	13	5.7	6.5
8	14	18	23	e15	35	40	59	266	34	12	5.2	6.4
9	10	17	20	14	31	194	76	166	25	26	5.1	5.9
10	11	16	18	13	35	137	61	98	21	22	4.7	5.6
11	57	15	17	13	43	79	53	72	20	15	4.6	6.4
12	328	14	19	13	41	66	61	875	55	11	5.3	5.7
13	126	14	27	13	32	57	93	1560	149	10	19	6.4
14	382	14	147	12	29	49	84	400	175	8.9	15	6.5
15	165	13	146	12	29	50	76	180	77	8.5	9.2	8.2
16	273	13	117	11	27	126	58	112	52	8.6	7.9	8.1
17	157	13	563	11	23	79	48	94	37	22	7.0	8.1
18	90	13	279	12	22	60	43	73	28	21	6.7	7.5
19	64	13	132	11	41	51	39	59	22	12	451	14
20	44	13	82	11	147	49	33	50	19	10	121	108
21	33	12	61	11	134	43	75	43	16	9.5	47	48
22	27	13	51	11	80	37	71	39	14	7.5	27	16
23	67	12	49	11	62	35	49	34	13	9.0	49	10
24	297	26	41	11	51	32	52	30	13	8.3	27	8.0
25	315	27	33	10	45	84	77	65	44	7.8	21	7.1
26	116	17	30	9.7	59	81	53	79	459	14	14	6.8
27	70	18	27	9.7	55	75	158	51	339	18	12	48
28	51	17	25	9.9	48	142	610	40	302	12	10	22
29	41	33	22	12	---	327	200	51	98	21	9.1	13
30	34	200	e21	32	---	304	109	35	61	19	8.3	11
31	30	---	e20	220	---	134	---	30	---	11	7.8	---
TOTAL	2922.5	718	2295	624.3	2186	2798	2803	5454	2477	488.1	1023.0	432.8
MEAN	94.27	23.93	74.03	20.14	78.07	90.26	93.43	175.9	82.57	15.75	33.00	14.43
MAX	382	200	563	220	589	327	610	1560	459	43	451	108
MIN	3.2	12	17	9.7	22	32	33	30	13	7.5	4.6	5.5
CFSM	2.84	0.72	2.23	0.61	2.35	2.72	2.81	5.30	2.49	0.47	0.99	0.43
IN.	3.27	0.80	2.57	0.70	2.45	3.14	3.14	6.11	2.78	0.55	1.15	0.48

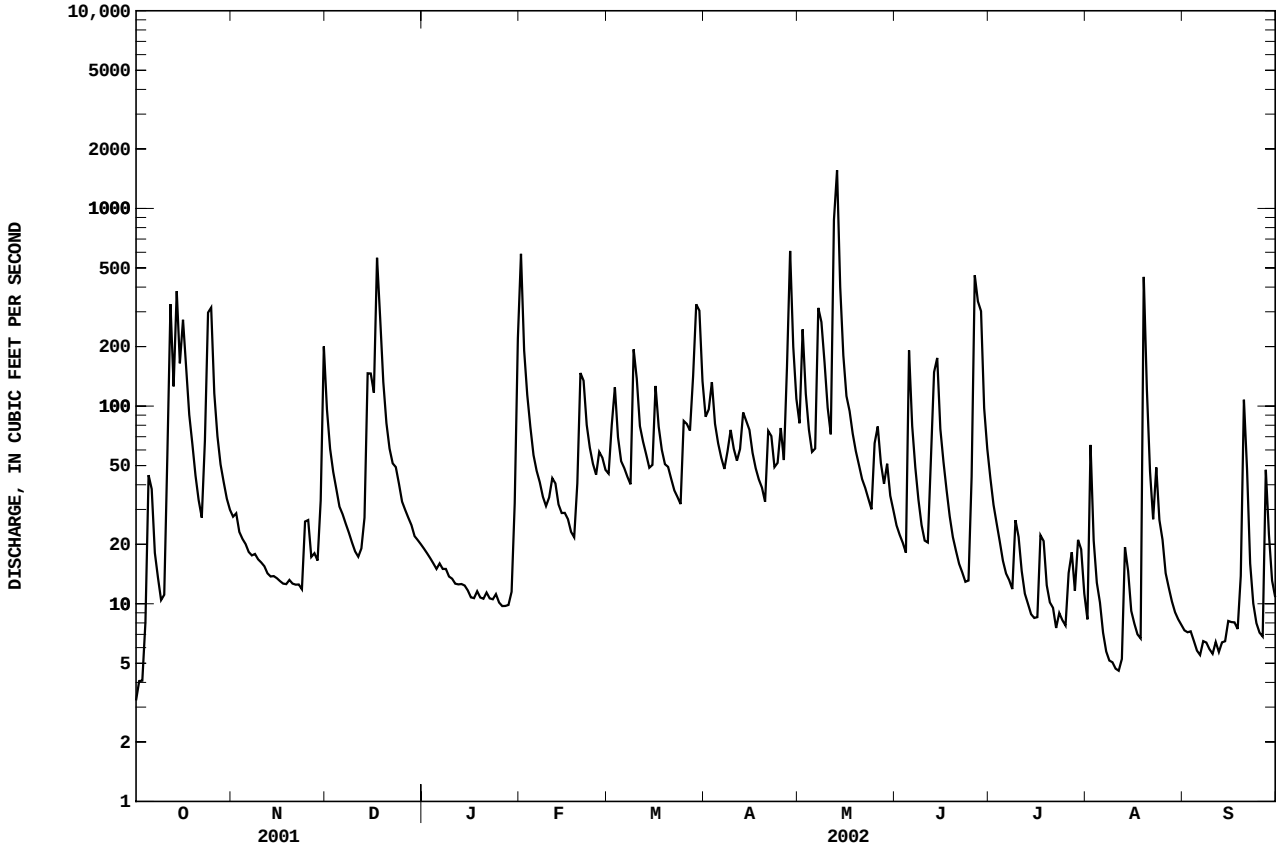
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY)

MEAN	15.64	35.58	29.92	40.63	48.62	54.72	55.40	67.03	42.78	27.59	10.36	19.15
MAX	94.3	205	158	129	139	109	96.7	248	158	95.6	34.8	139
(WY)	2002	1993	1991	1993	1990	1990	1989	1996	1998	1989	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1988 - 2002	
ANNUAL TOTAL	13380.0		24221.7			
ANNUAL MEAN	36.66		66.36		37.19	
HIGHEST ANNUAL MEAN					66.4	2002
LOWEST ANNUAL MEAN					10.0	2000
HIGHEST DAILY MEAN	563	Dec 17	1560	May 13	1900	Dec 30 1990
LOWEST DAILY MEAN	2.2	Sep 4	3.2	Oct 1	0.20	Sep 11 1999
ANNUAL SEVEN-DAY MINIMUM	3.4	Aug 31	5.4	Aug 6	0.24	Sep 21 1999
MAXIMUM PEAK FLOW			2100	May 12	2710	Mar 11 1990
MAXIMUM PEAK STAGE			12.30	May 12	13.99	Mar 11 1990
ANNUAL RUNOFF (CFSM)	1.10		2.00		1.12	
ANNUAL RUNOFF (INCHES)	14.99		27.14		15.22	
10 PERCENT EXCEEDS	84		146		75	
50 PERCENT EXCEEDS	17		30		13	
90 PERCENT EXCEEDS	5.6		8.1		2.8	

e Estimated

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 good 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	413	1610	e200	5080	535	1650	1360	392	456	70	100
2	42	378	1020	e195	3240	728	1270	1560	354	348	71	89
3	40	340	756	e190	1780	1490	1400	1320	326	284	294	82
4	36	286	601	e185	1290	1070	1150	956	301	243	128	76
5	50	262	495	e185	919	781	920	774	388	208	77	72
6	116	245	437	e190	719	641	773	695	483	174	57	66
7	151	231	387	e185	601	593	679	1840	357	150	45	63
8	119	225	350	e180	510	540	788	2600	292	134	36	60
9	87	214	313	e208	446	1280	1500	2090	260	176	31	58
10	70	198	274	202	430	2140	1240	1500	239	272	26	55
11	92	192	256	185	526	1220	958	1090	228	197	24	53
12	1810	178	243	172	585	955	941	5190	260	131	22	50
13	1910	166	292	171	503	827	2700	16800	365	104	23	49
14	3970	165	628	171	413	712	2180	11700	1020	87	36	63
15	2860	162	1870	165	393	637	1580	3730	743	75	66	107
16	3050	156	1370	152	372	1050	1160	2120	513	65	41	69
17	2830	152	4360	146	332	1100	916	1710	379	62	32	59
18	1670	141	4490	137	283	863	746	1410	299	336	28	56
19	1190	145	2300	140	355	690	647	1150	249	174	3350	56
20	915	144	1500	139	1660	637	561	991	215	102	2180	99
21	714	138	1110	139	2010	564	684	837	191	76	805	501
22	568	133	901	138	1310	480	980	719	177	66	411	272
23	580	133	807	136	966	452	746	639	168	78	2100	151
24	1380	149	681	141	785	429	642	574	159	65	1460	109
25	2780	212	557	135	664	633	1010	549	335	58	757	87
26	1760	198	484	126	632	918	848	852	2020	51	450	78
27	1120	174	443	124	607	710	1040	672	1870	53	282	102
28	824	165	405	124	543	888	5410	549	1710	59	196	223
29	648	201	344	133	---	2580	3480	538	1030	162	154	178
30	525	1360	e220	186	---	4770	1880	518	640	121	127	130
31	453	---	e210	1390	---	2660	---	439	---	105	110	---
TOTAL	32403	7256	29714	6270	27954	33573	40479	67472	15963	4672	13489	3213
MEAN	1045	241.9	958.5	202.3	998.4	1083	1349	2177	532.1	150.7	435.1	107.1
MAX	3970	1360	4490	1390	5080	4770	5410	16800	2020	456	3350	501
MIN	36	133	210	124	283	429	561	439	159	51	22	49
CFSM	2.05	0.48	1.88	0.40	1.96	2.13	2.65	4.28	1.05	0.30	0.85	0.21
IN.	2.37	0.53	2.17	0.46	2.04	2.45	2.96	4.93	1.17	0.34	0.99	0.23

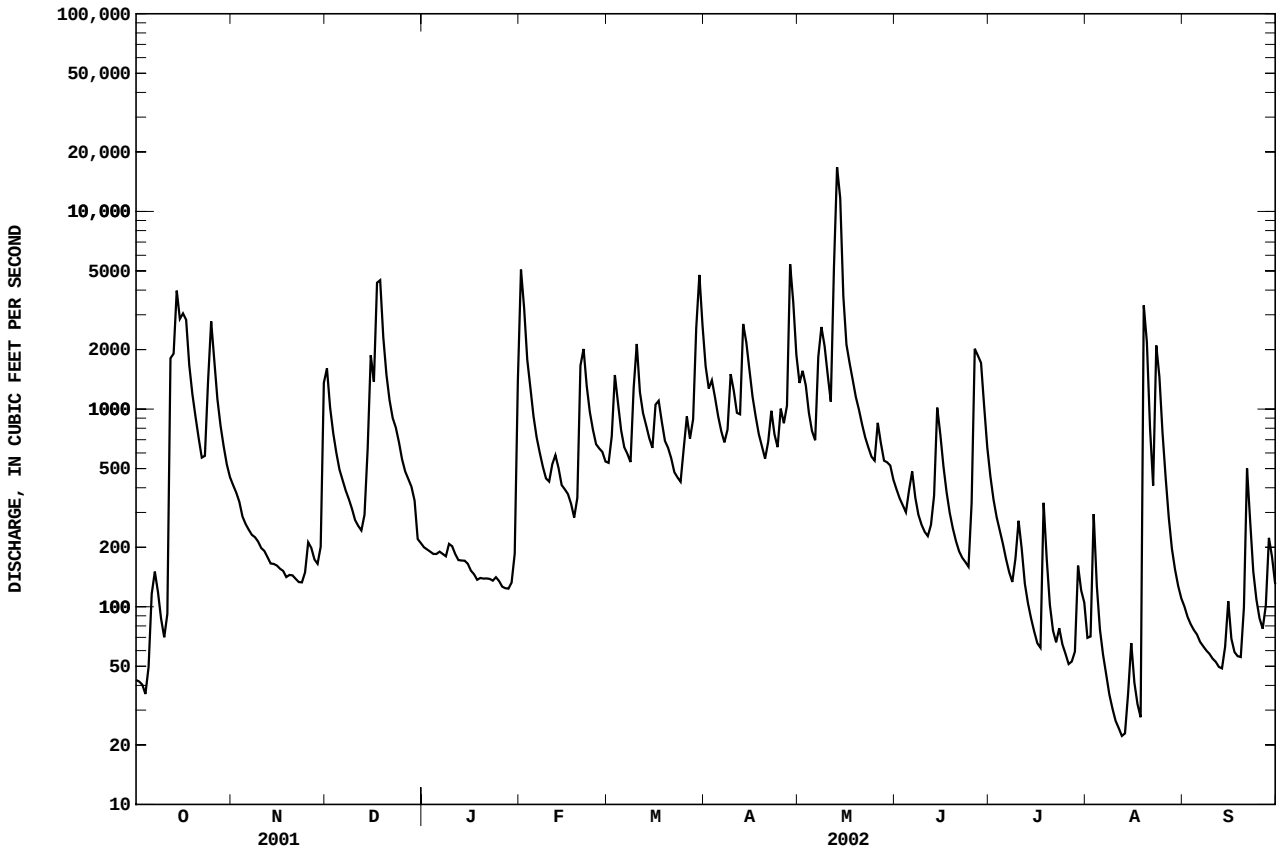
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2002, BY WATER YEAR (WY)

MEAN	159.3	338.3	479.9	609.9	721.4	876.5	853.4	688.6	580.6	308.5	168.0	154.6
MAX	1098	3060	2084	4163	2229	2390	2592	3297	2648	1325	1801	1991
(WY)	1978	1993	1991	1950	1985	1978	1964	1943	1957	1993	1958	1989
MIN	13.1	23.5	17.0	17.1	68.4	79.2	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1939 - 2002	
ANNUAL TOTAL	163324		282458			
ANNUAL MEAN	447.5		773.9		493.3	
HIGHEST ANNUAL MEAN					1086	1950
LOWEST ANNUAL MEAN					65.0	1941
HIGHEST DAILY MEAN	4910	Feb 10	16800	May 13	20100	Jun 29 1957
LOWEST DAILY MEAN	31	Aug 8	22	Aug 12	2.4	Sep 24 1941
ANNUAL SEVEN-DAY MINIMUM	34	Aug 7	28	Aug 8	2.7	Sep 21 1941
MAXIMUM PEAK FLOW			18500	May 13	26300	Jun 28 1957
MAXIMUM PEAK STAGE			12.32	May 13	14.48	Jun 28 1957
ANNUAL RUNOFF (CFSM)	0.88		1.52		0.97	
ANNUAL RUNOFF (INCHES)	11.94		20.64		13.17	
10 PERCENT EXCEEDS	1130		1790		1160	
50 PERCENT EXCEEDS	201		379		177	
90 PERCENT EXCEEDS	47		66		28	

e Estimated

03339500 SUGAR CREEK AT CRAWFORDSVILLE, IN--Continued



03340500 WABASH RIVER AT MONTEZUMA, IN

LOCATION.--Lat 39°47'33", long 87°22'26", in SE$^1/_4$NE$^1/_4$ 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. 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

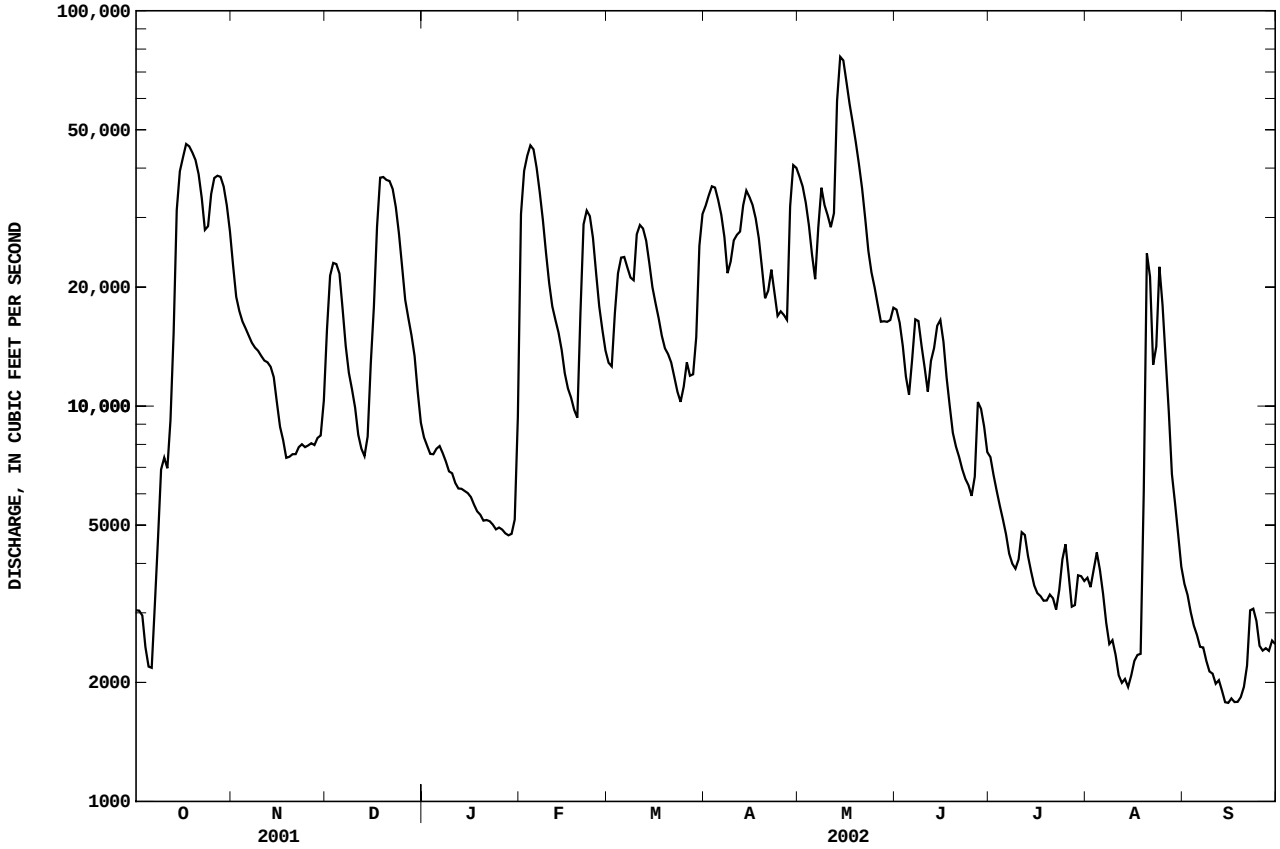
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3040	22700	15600	8340	30600	12900	32100	38000	17500	7430	3680	3550
2	3040	18900	21400	7940	39400	12600	34100	36000	16300	6690	3480	3330
3	2950	17400	23000	7570	43000	17200	36000	32700	14200	6110	3860	3020
4	2460	16400	22900	7560	45700	21700	35700	28700	11900	5600	4260	2780
5	2190	15700	21600	7800	44600	23700	33200	24200	10700	5170	3850	2640
6	2180	15100	17600	7920	40000	23800	30500	20900	13200	4740	3350	2460
7	3150	14500	14200	7600	34700	22400	26800	28300	16600	4230	2830	2450
8	4600	14100	12100	7240	29500	21100	21700	35700	16400	3990	2500	2270
9	6910	13800	11000	6840	24400	20800	23200	32200	14200	3880	2560	2130
10	7410	13400	9910	6760	20500	27200	26300	30400	12500	4090	2350	2100
11	6960	13000	8460	6390	17900	28700	27100	28300	10900	4800	2080	1980
12	9210	12900	7800	6190	16500	28100	27600	30800	13000	4720	2000	2030
13	15300	12600	7480	6180	15300	26200	32200	59200	14000	4180	2040	1910
14	31300	11800	8370	6100	13900	23000	35100	76500	16000	3820	1950	1780
15	39300	10200	12800	6020	12100	20000	33800	74900	16500	3520	2080	1780
16	42600	8870	17800	5890	11100	18200	32300	66100	14500	3360	2270	1820
17	46000	8200	28400	5630	10500	16700	29800	58100	11800	3310	2350	1780
18	45400	7400	37800	5420	9780	15100	26600	52100	10000	3220	2360	1790
19	43800	7440	38000	5310	9350	14000	22400	46400	8560	3220	6070	1840
20	41900	7560	37300	5130	17200	13500	18700	40800	7890	3340	24400	1950
21	38600	7560	37100	5150	28800	12900	19600	35500	7440	3260	21200	2210
22	33600	7870	35400	5110	31200	11800	22100	29800	6920	3060	12700	3040
23	27900	8010	31900	5010	30200	10900	19400	24700	6540	3430	14200	3070
24	28500	7870	27300	4880	26600	10300	16900	21800	6300	4100	22500	2860
25	34400	7950	22600	4930	21700	11200	17400	20000	5930	4470	18000	2480
26	37800	8050	18600	4870	17900	12900	17000	18000	6630	3750	13200	2410
27	38300	7970	16700	4770	15600	11900	16500	16300	10200	3110	9670	2440
28	38000	8310	15100	4710	13800	12000	32000	16400	9840	3140	6720	2400
29	35900	8430	13400	4750	---	14900	40700	16300	8870	3730	5670	2550
30	32200	10300	10900	5160	---	25400	40000	16500	7650	3710	4730	2500
31	27700	---	9080	9400	---	30600	---	17700	---	3610	3920	---
TOTAL	732600	344290	611600	192570	671830	571700	826800	1073300	342970	128790	212830	71350
MEAN	23630	11480	19730	6212	23990	18440	27560	34620	11430	4155	6865	2378
MAX	46000	22700	38000	9400	45700	30600	40700	76500	17500	7430	24400	3550
MIN	2180	7400	7480	4710	9350	10300	16500	16300	5930	3060	1950	1780
CFSM	2.13	1.03	1.77	0.56	2.16	1.66	2.48	3.11	1.03	0.37	0.62	0.21
IN.	2.45	1.15	2.05	0.64	2.25	1.91	2.77	3.59	1.15	0.43	0.71	0.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2002, BY WATER YEAR (WY)

MEAN	4391	6186	9392	12420	14370	17200	17480	14020	10850	7299	4470	3579
MAX	23630	36840	40350	66690	40610	49690	37650	58400	42730	25110	18840	17800
(WY)	2002	1993	1928	1950	1959	1982	1938	1943	1958	1993	1958	1989
MIN	973	1202	1041	1107	1789	2370	4781	2082	1357	1210	815	710
(WY)	1964	1965	1964	1977	1931	1941	2000	1934	1934	1934	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1928 - 2002	
ANNUAL TOTAL	4168490		5780630			
ANNUAL MEAN	11420		15840		10110	
HIGHEST ANNUAL MEAN					20290	1950
LOWEST ANNUAL MEAN					2506	1931
HIGHEST DAILY MEAN	46000	Oct 17	76500	May 14	182000	May 20 1943
LOWEST DAILY MEAN	1520	Aug 17	1780	Sep 14	571	Sep 24 1941
ANNUAL SEVEN-DAY MINIMUM	1740	Aug 13	1810	Sep 13	600	Sep 23 1941
MAXIMUM PEAK FLOW			79400	May 14	184000	May 20 1943
MAXIMUM PEAK STAGE			27.15	May 14	32.83	May 20 1943
ANNUAL RUNOFF (CFSM)	1.03		1.42		0.91	
ANNUAL RUNOFF (INCHES)	13.95		19.34		12.36	
10 PERCENT EXCEEDS	28400		35400		25000	
50 PERCENT EXCEEDS	7850		12500		5680	
90 PERCENT EXCEEDS	3060		2610		1730	

03340500 WABASH RIVER AT MONTEZUMA, IN--Continued



03340800 BIG RACCOON CREEK NEAR FINCASTLE, IN

LOCATION.--Lat 39°48'45", long 86°57'14", in NW1/4SW1/4 sec.22, T.16 N., R.5 W., Putnam County, Hydrologic Unit 05120108, (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 good except those for Apr. 22 - May 6, May 8 - June 14 and 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	113	487	e68	2420	149	373	350	146	84	14	11
2	2.6	105	285	e64	804	217	299	743	139	70	14	9.6
3	2.2	95	208	e60	467	379	459	472	130	61	14	8.6
4	2.0	82	164	e58	320	240	326	308	122	54	15	8.4
5	6.0	77	135	e54	217	181	249	239	172	48	14	7.4
6	9.8	71	120	e54	173	154	205	251	204	41	13	6.9
7	20	67	108	e53	151	139	177	e3550	158	37	12	6.6
8	17	64	96	e52	130	128	205	2000	136	33	11	6.5
9	12	61	87	50	116	524	375	827	124	36	11	6.5
10	11	56	76	50	112	639	299	544	117	236	9.6	6.6
11	25	55	71	46	120	325	233	378	115	111	9.5	6.2
12	901	51	68	44	130	249	206	972	441	61	9.0	6.4
13	681	47	83	44	116	209	331	5680	412	45	9.1	5.6
14	2440	46	269	44	99	178	370	2390	939	37	9.6	5.7
15	908	46	612	43	98	167	380	747	e468	31	10	6.6
16	1070	44	405	39	93	517	257	517	e286	27	11	6.9
17	865	43	2040	38	85	371	199	413	e200	24	9.7	6.9
18	460	42	1230	37	75	257	167	336	148	25	9.0	5.9
19	318	41	575	36	85	200	149	276	117	26	144	5.8
20	231	40	368	36	630	187	133	245	98	22	442	12
21	177	38	265	36	728	165	507	218	84	21	94	188
22	143	38	215	35	398	140	599	200	76	19	46	70
23	257	37	199	34	273	132	320	188	69	18	57	34
24	1510	47	168	37	212	124	296	179	63	17	73	20
25	1030	93	140	35	177	536	586	189	236	16	44	15
26	507	71	123	33	173	562	330	343	812	16	28	12
27	312	59	114	32	174	340	505	236	368	16	21	14
28	221	54	104	32	157	621	3030	196	275	15	16	28
29	174	65	92	33	---	1270	889	177	153	15	14	31
30	143	655	e76	51	---	1280	490	166	105	16	13	21
31	125	---	e72	512	---	569	---	155	---	14	12	---
TOTAL	12583.5	2403	9055	1840	8733	11149	12944	23485	6913	1292	1208.5	579.1
MEAN	405.9	80.10	292.1	59.35	311.9	359.6	431.5	757.6	230.4	41.68	38.98	19.30
MAX	2440	655	2040	512	2420	1280	3030	5680	939	236	442	188
MIN	2.0	37	68	32	75	124	133	155	63	14	9.0	5.6
CFSM	2.92	0.58	2.10	0.43	2.24	2.59	3.10	5.45	1.66	0.30	0.28	0.14
IN.	3.37	0.64	2.42	0.49	2.34	2.98	3.46	6.29	1.85	0.35	0.32	0.15

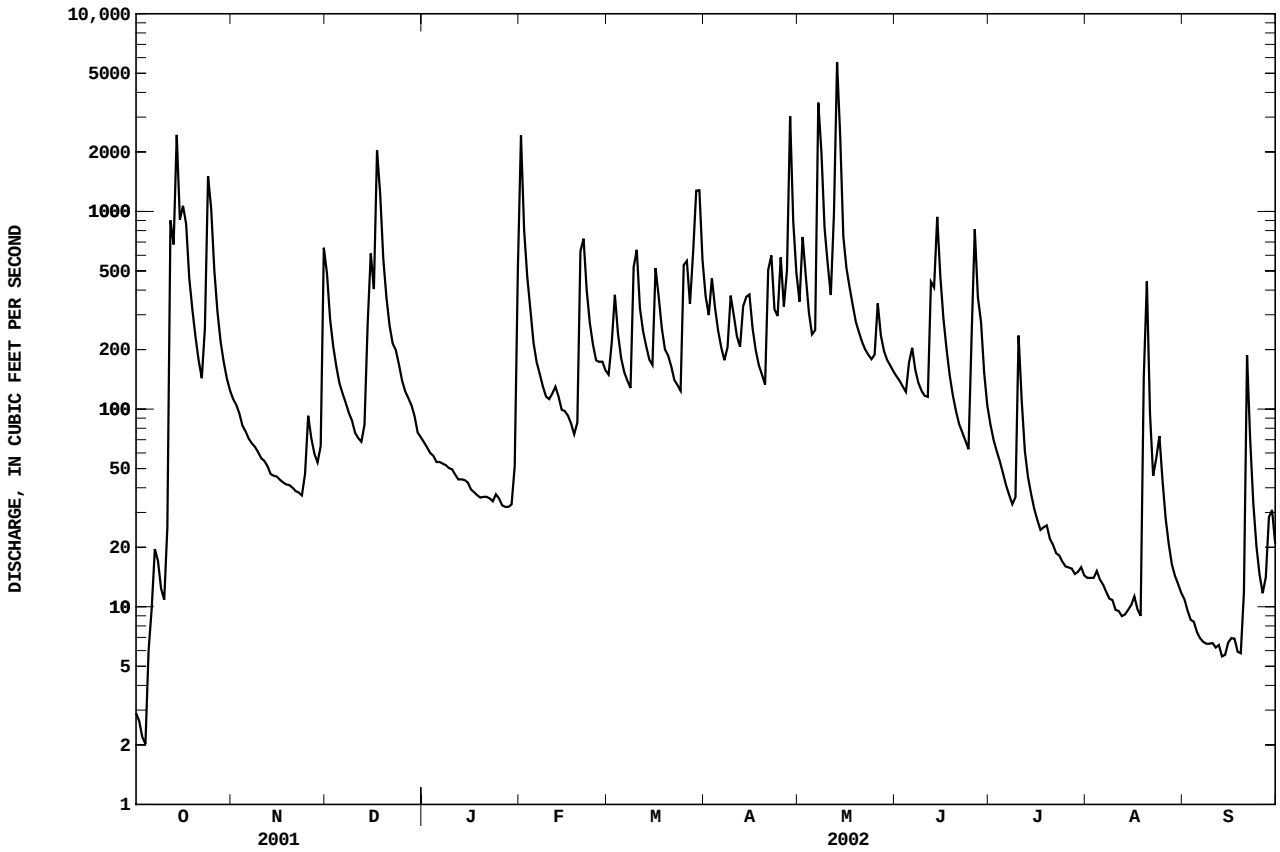
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)

MEAN	56.44	125.2	181.3	164.7	204.5	254.3	221.5	189.7	129.8	90.05	47.35	40.16
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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1958 - 2002	
ANNUAL TOTAL	51585.7		92185.1			
ANNUAL MEAN	141.3		252.6		141.8	
HIGHEST ANNUAL MEAN					292	1974
LOWEST ANNUAL MEAN					38.5	1966
HIGHEST DAILY MEAN	2440	Oct 14	5680	May 13	12200	Dec 30 1990
LOWEST DAILY MEAN	2.0	Oct 4	2.0	Oct 4	1.0	Oct 11 1988
ANNUAL SEVEN-DAY MINIMUM	2.6	Sep 28	6.2	Sep 13	1.1	Oct 6 1988
MAXIMUM PEAK FLOW			7090	May 13	16000	Dec 30 1990
MAXIMUM PEAK STAGE			14.46	May 13	16.10	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.02		1.82		1.02	
ANNUAL RUNOFF (INCHES)	13.81		24.67		13.86	
10 PERCENT EXCEEDS	310		565		298	
50 PERCENT EXCEEDS	64		114		52	
90 PERCENT EXCEEDS	4.7		11		6.2	

e Estimated

03340800 BIG RACCOON CREEK NEAR FINCASTLE, IN--Continued



03340900 BIG RACCOON CREEK AT FERNDALE, IN

LOCATION.--Lat 39°42'40", long 87°04'15", in SE$^1/_4$SE$^1/_4$ 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 2001 (discharges), October 2001 to September 2002 (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.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 9.92 ft, May 16, 2002, minimum gage height 5.05 ft, Aug. 21, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 9.92 ft, May 16; minimum gage height, 5.05 Aug. 21.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.54	6.82	8.48	8.60	6.06	6.27	6.51	6.17	9.11	8.35	5.40	5.19
2	5.54	8.08	8.47	8.57	6.05	6.36	6.52	6.17	9.05	8.34	5.40	5.20
3	5.55	8.69	8.45	8.54	6.05	6.29	6.52	6.17	8.62	7.31	5.41	5.20
4	5.55	8.68	8.44	8.52	6.05	6.29	6.52	6.17	8.63	7.31	5.42	5.21
5	5.59	9.09	8.42	8.49	6.04	6.29	6.52	6.17	8.61	7.13	5.43	5.52
6	5.56	9.07	8.40	8.46	6.04	6.29	6.52	6.19	8.61	5.36	5.43	5.52
7	5.55	9.39	8.37	7.56	6.04	6.29	6.60	6.41	8.60	5.36	5.40	5.52
8	5.55	8.91	8.36	6.29	6.04	6.29	6.94	6.36	8.60	5.35	5.40	5.52
9	5.55	9.35	7.67	6.29	6.04	6.39	7.24	6.34	8.59	5.36	5.20	5.53
10	5.56	9.32	5.39	6.28	7.23	6.36	8.04	8.44	8.58	6.52	5.20	5.55
11	7.31	9.29	6.08	6.28	8.12	6.44	8.04	8.89	8.60	6.52	5.20	5.33
12	5.59	9.27	6.48	6.28	8.51	6.44	6.73	6.21	8.11	6.52	5.20	5.34
13	7.32	9.24	7.15	6.28	8.49	6.44	6.63	7.97	8.12	6.52	5.21	5.35
14	6.29	9.23	7.20	5.86	8.47	6.44	6.65	9.73	8.64	6.00	5.21	5.27
15	6.23	9.40	7.68	5.85	8.45	6.56	6.63	9.87	8.65	6.00	5.20	5.27
16	6.25	9.37	7.76	5.85	8.44	6.48	6.61	9.91	8.64	6.00	5.20	5.55
17	6.24	9.35	5.60	5.85	8.41	6.48	6.61	9.89	8.40	5.40	5.20	5.54
18	6.23	9.32	5.49	5.85	8.39	6.48	7.37	9.62	8.40	5.39	5.20	5.55
19	6.21	9.29	5.46	5.85	8.37	6.48	7.84	9.61	8.39	5.39	5.20	5.55
20	7.83	9.25	5.45	5.85	8.38	6.43	7.84	9.60	8.39	5.39	6.03	5.55
21	6.28	9.23	5.45	6.11	8.38	6.41	5.55	9.59	8.38	5.39	6.03	5.54
22	6.27	9.20	5.44	6.04	8.37	6.41	5.36	9.57	8.38	5.39	6.03	5.54
23	6.42	8.57	5.44	6.04	7.40	6.41	5.32	9.55	8.37	5.39	6.44	5.54
24	6.53	8.57	5.44	6.04	7.39	6.43	7.56	9.13	8.36	5.39	6.99	5.54
25	6.40	8.93	6.84	6.04	7.39	6.49	7.49	9.57	8.36	5.39	6.99	5.54
26	6.35	8.91	7.88	6.04	7.39	6.47	8.19	9.17	8.37	5.39	6.02	5.55
27	6.34	8.88	7.87	5.89	7.37	6.56	6.37	9.16	8.37	5.39	5.56	5.55
28	6.33	8.45	8.30	5.89	6.28	6.59	5.74	9.16	8.36	5.40	5.56	5.55
29	6.33	8.51	8.28	5.91	---	6.57	6.18	9.15	8.36	5.41	5.20	5.55
30	5.13	7.87	8.28	5.96	---	6.52	6.17	9.14	8.36	5.40	5.20	5.55
31	6.82	---	8.25	6.92	---	6.52	---	9.55	---	5.40	5.19	---
MEAN	6.14	8.92	7.17	6.59	7.34	6.42	6.76	8.34	8.50	5.96	5.54	5.46
MAX	7.83	9.40	8.48	8.60	8.51	6.59	8.19	9.91	9.11	8.35	6.99	5.55
MIN	5.13	6.82	5.39	5.85	6.04	6.27	5.32	6.17	8.11	5.35	5.19	5.19

WTR YR 2002 MEAN 6.92 MAX 9.91 MIN 5.13

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, 24.2°C, Sept. 21, minimum, 1.9°C, Jan. 18, 19.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.9	13.9	15.3	13.2	12.9	13.0	10.1	9.7	9.9	3.0	2.6	2.8
2	17.1	14.6	15.7	13.2	13.0	13.1	9.7	9.3	9.5	2.8	2.6	2.8
3	17.3	14.8	15.8	13.2	12.9	13.0	9.3	9.1	9.2	2.7	2.4	2.6
4	17.2	14.8	15.9	13.2	12.9	13.1	9.2	9.0	9.1	2.7	2.5	2.6
5	15.5	14.4	14.8	13.1	12.9	13.0	9.4	9.0	9.2	2.8	2.5	2.6
6	16.7	13.7	15.0	12.9	12.8	12.8	10.0	9.4	9.7	2.8	2.5	2.7
7	16.7	13.6	14.9	12.9	12.6	12.7	10.2	9.7	9.9	2.9	2.4	2.5
8	16.9	14.2	15.4	12.8	12.7	12.7	9.9	9.6	9.7	3.2	2.4	2.7
9	17.2	14.8	15.9	12.7	12.4	12.5	9.6	9.1	9.4	3.3	2.6	2.8
10	16.3	15.4	15.8	12.5	12.3	12.4	9.9	7.7	9.1	3.0	2.6	2.8
11	16.3	15.4	16.1	12.5	12.3	12.3	9.3	6.9	8.1	3.1	2.4	2.6
12	16.7	15.4	16.2	12.3	12.1	12.2	8.8	8.5	8.7	3.1	2.4	2.7
13	17.1	15.6	16.6	12.1	12.0	12.0	8.6	8.5	8.6	3.3	2.5	2.8
14	17.1	16.5	16.8	12.0	11.9	11.9	8.5	8.2	8.4	3.6	2.7	3.0
15	17.0	16.1	16.5	12.0	11.8	11.9	8.2	8.0	8.1	3.9	2.2	2.8
16	16.1	15.6	16.0	12.1	11.9	12.0	8.1	8.0	8.0	3.2	2.2	2.7
17	16.7	15.3	15.8	12.2	12.0	12.1	8.7	8.0	8.3	2.9	2.0	2.4
18	16.3	15.1	15.4	12.1	11.8	11.9	9.1	7.2	8.1	3.5	1.9	2.4
19	15.9	14.2	15.1	11.9	11.7	11.8	7.7	6.1	7.1	3.0	1.9	2.3
20	15.0	13.8	14.6	11.8	11.5	11.7	7.7	5.7	6.5	2.8	2.0	2.5
21	14.7	13.9	14.4	11.5	11.2	11.4	7.9	5.4	6.4	3.5	2.3	2.7
22	14.5	13.7	14.0	11.2	11.0	11.1	7.6	5.8	6.8	3.8	2.3	2.8
23	14.0	13.6	13.8	11.1	11.0	11.0	7.4	5.4	6.6	3.6	2.8	3.1
24	14.2	13.4	13.8	11.1	11.0	11.1	5.4	4.3	4.7	3.3	2.6	3.0
25	14.0	13.0	13.4	11.1	10.9	11.0	5.9	4.0	4.8	4.1	2.5	3.0
26	13.7	13.2	13.5	10.9	10.8	10.9	5.3	5.0	5.2	4.4	2.8	3.3
27	14.1	13.1	13.5	10.9	10.7	10.9	5.1	4.7	4.9	4.7	2.8	3.5
28	14.1	12.9	13.3	10.7	10.4	10.6	4.7	4.5	4.6	5.2	3.0	3.9
29	13.9	12.9	13.2	10.4	10.3	10.3	4.5	3.8	4.1	4.7	3.9	4.2
30	13.6	12.2	13.1	10.4	10.1	10.2	3.8	3.4	3.7	4.4	4.0	4.2
31	13.5	11.0	12.5	---	---	---	3.4	3.0	3.2	4.5	4.0	4.3
MONTH	17.3	11.0	14.9	13.2	10.1	11.9	10.2	3.0	7.4	5.2	1.9	2.9

03340900 BIG RACCOON CREEK AT FERNDALE, IN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.7	3.8	4.2	5.2	3.7	4.2	6.8	5.4	5.9	9.3	8.1	8.6
2	5.2	3.5	4.1	4.2	3.9	4.1	6.2	5.4	5.7	8.8	8.1	8.4
3	5.6	3.9	4.4	3.9	3.0	3.6	6.6	5.9	6.2	10.2	8.1	8.8
4	5.0	3.4	4.0	3.8	2.5	2.9	7.4	6.0	6.6	10.3	8.1	8.9
5	4.9	3.4	3.9	4.3	2.6	3.2	7.6	6.3	6.7	10.5	8.1	9.0
6	4.8	3.7	4.0	4.8	3.0	3.6	7.8	6.3	6.8	9.6	8.4	8.8
7	5.4	3.5	4.2	5.2	3.4	4.0	7.2	6.2	6.5	13.6	8.5	9.8
8	5.7	3.5	4.3	5.0	3.8	4.3	7.0	6.4	6.7	9.5	8.6	9.1
9	5.9	3.7	4.5	4.9	4.2	4.5	7.8	6.4	7.2	10.3	8.5	9.2
10	4.4	4.1	4.3	5.5	4.0	4.5	7.6	7.2	7.4	11.1	8.6	10.2
11	4.3	4.0	4.1	5.4	4.2	4.7	7.8	7.3	7.5	11.6	10.8	11.3
12	4.3	4.0	4.2	5.2	4.6	4.9	8.0	7.2	7.5	11.6	10.2	11.1
13	4.3	4.0	4.2	6.1	4.8	5.2	8.0	7.1	7.5	10.5	9.2	9.6
14	4.2	4.0	4.2	5.9	4.8	5.3	8.5	7.2	7.7	12.5	10.5	12.0
15	4.4	4.0	4.2	6.1	5.5	5.8	8.7	7.4	7.8	12.8	12.3	12.5
16	4.4	4.1	4.2	6.6	5.8	6.2	8.7	7.3	8.0	13.0	12.7	12.8
17	4.4	4.0	4.2	6.3	6.0	6.2	8.6	7.6	8.0	13.7	12.9	13.3
18	4.3	4.1	4.2	7.2	6.1	6.5	8.5	7.6	8.0	13.9	13.2	13.5
19	4.4	4.3	4.4	6.8	6.4	6.6	8.7	7.8	8.2	13.6	13.3	13.4
20	4.8	4.4	4.7	7.3	6.8	7.0	8.8	8.1	8.5	13.8	13.5	13.6
21	4.8	4.6	4.7	6.8	5.9	6.5	10.7	8.4	9.5	13.7	13.5	13.6
22	4.9	4.5	4.7	6.9	5.6	6.1	9.7	8.0	8.9	13.8	13.6	13.7
23	5.2	4.6	4.9	7.1	5.7	6.2	11.6	6.9	9.3	13.8	13.4	13.6
24	5.5	4.9	5.2	6.2	5.9	6.1	9.5	8.0	8.4	13.9	13.5	13.7
25	5.3	5.1	5.2	6.0	5.5	5.8	8.7	8.0	8.4	14.2	13.5	13.8
26	5.1	4.6	4.9	5.7	4.6	5.3	9.8	8.2	9.0	14.0	13.8	13.9
27	4.6	3.9	4.3	6.7	4.9	5.7	9.5	8.3	8.9	14.0	13.8	13.9
28	5.0	3.7	4.1	5.8	5.2	5.4	9.2	7.9	8.6	14.0	13.8	14.0
29	---	---	---	6.2	5.3	5.6	9.9	7.8	8.5	14.1	13.8	14.0
30	---	---	---	6.2	5.3	5.7	9.7	7.9	8.6	14.2	14.0	14.1
31	---	---	---	6.4	5.3	5.8	---	---	---	14.7	14.1	14.3
MONTH	5.9	3.4	4.4	7.3	2.5	5.2	11.6	5.4	7.8	14.7	8.1	11.8

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.6	14.3	14.4	20.0	19.7	19.9	23.6	20.1	21.4	23.6	19.5	21.3
2	14.5	14.2	14.4	20.3	20.0	20.2	23.0	20.1	21.1	23.1	19.9	21.3
3	14.5	14.3	14.4	20.5	19.0	19.9	23.6	20.1	21.4	23.1	20.2	21.4
4	14.6	14.2	14.4	19.6	19.1	19.4	22.9	20.3	21.2	23.7	18.8	20.9
5	14.6	14.2	14.5	19.9	19.1	19.4	22.8	20.3	21.1	23.5	18.6	20.7
6	14.6	14.4	14.5	19.5	16.4	18.7	23.4	19.7	21.2	24.0	20.4	21.8
7	14.7	14.5	14.6	19.0	15.9	17.1	23.4	19.0	20.7	23.8	20.5	21.9
8	14.8	14.5	14.7	18.7	16.0	17.1	23.5	19.0	20.7	23.3	21.2	22.0
9	15.0	14.6	14.8	18.7	16.2	17.1	23.4	19.1	21.0	23.9	21.2	22.2
10	15.1	14.7	14.9	18.8	16.4	17.4	22.7	18.4	20.5	23.5	21.2	22.1
11	15.2	14.6	15.0	19.4	18.6	18.9	20.7	19.2	19.9	23.9	20.2	21.8
12	15.2	14.8	15.0	19.3	18.6	18.9	22.1	19.1	20.5	22.9	19.3	20.9
13	15.1	14.8	14.9	19.6	18.7	19.1	21.2	19.4	20.2	22.7	19.2	20.9
14	15.4	14.9	15.2	21.1	18.9	19.8	20.8	19.4	20.1	22.7	20.1	21.4
15	15.7	15.2	15.5	22.1	20.4	21.0	21.3	19.4	20.3	22.5	20.5	21.3
16	15.9	15.5	15.7	22.0	20.5	21.1	22.7	19.4	20.9	23.6	19.6	21.3
17	16.1	15.7	15.9	22.2	20.2	21.1	21.5	19.8	20.6	22.9	20.5	21.6
18	16.1	15.8	16.0	23.2	19.9	21.0	20.8	19.4	20.1	23.4	21.5	22.2
19	16.4	15.9	16.2	23.3	20.0	21.1	21.1	19.3	20.0	23.4	21.8	22.3
20	16.6	16.2	16.4	23.6	20.1	21.3	21.9	19.0	20.3	22.0	21.4	21.7
21	16.9	16.4	16.7	23.8	20.1	21.4	23.9	21.0	21.8	24.2	21.4	22.2
22	17.1	16.7	17.0	23.6	20.3	21.4	22.3	21.3	21.6	23.6	20.6	21.7
23	17.5	17.0	17.2	21.9	20.2	20.8	21.6	20.2	20.8	23.8	20.4	21.5
24	17.7	17.3	17.6	22.7	19.8	21.0	20.7	20.0	20.4	23.7	20.5	21.4
25	18.1	17.7	17.9	22.9	19.4	20.9	20.9	20.5	20.7	23.4	20.3	21.4
26	18.5	17.8	18.2	21.7	19.9	20.6	22.4	20.6	21.4	22.8	20.4	21.4
27	18.8	18.3	18.5	22.6	20.3	21.1	23.7	21.2	22.2	23.1	20.8	21.6
28	19.1	18.5	18.9	23.7	20.3	21.4	23.7	21.1	22.0	23.1	20.5	21.4
29	19.4	19.0	19.2	22.6	20.2	21.0	23.5	20.8	22.0	23.2	20.5	21.4
30	19.8	19.4	19.6	23.8	20.1	21.3	23.0	19.5	21.1	23.1	20.5	21.4
31	---	---	---	23.8	19.8	21.3	22.6	19.4	21.0	---	---	---
MONTH	19.8	14.2	16.1	23.8	15.9	20.1	23.9	18.4	20.9	24.2	18.6	21.5
YEAR	24.2	1.9	12.1									

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. Flow regulated by Cecil M. Harden Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

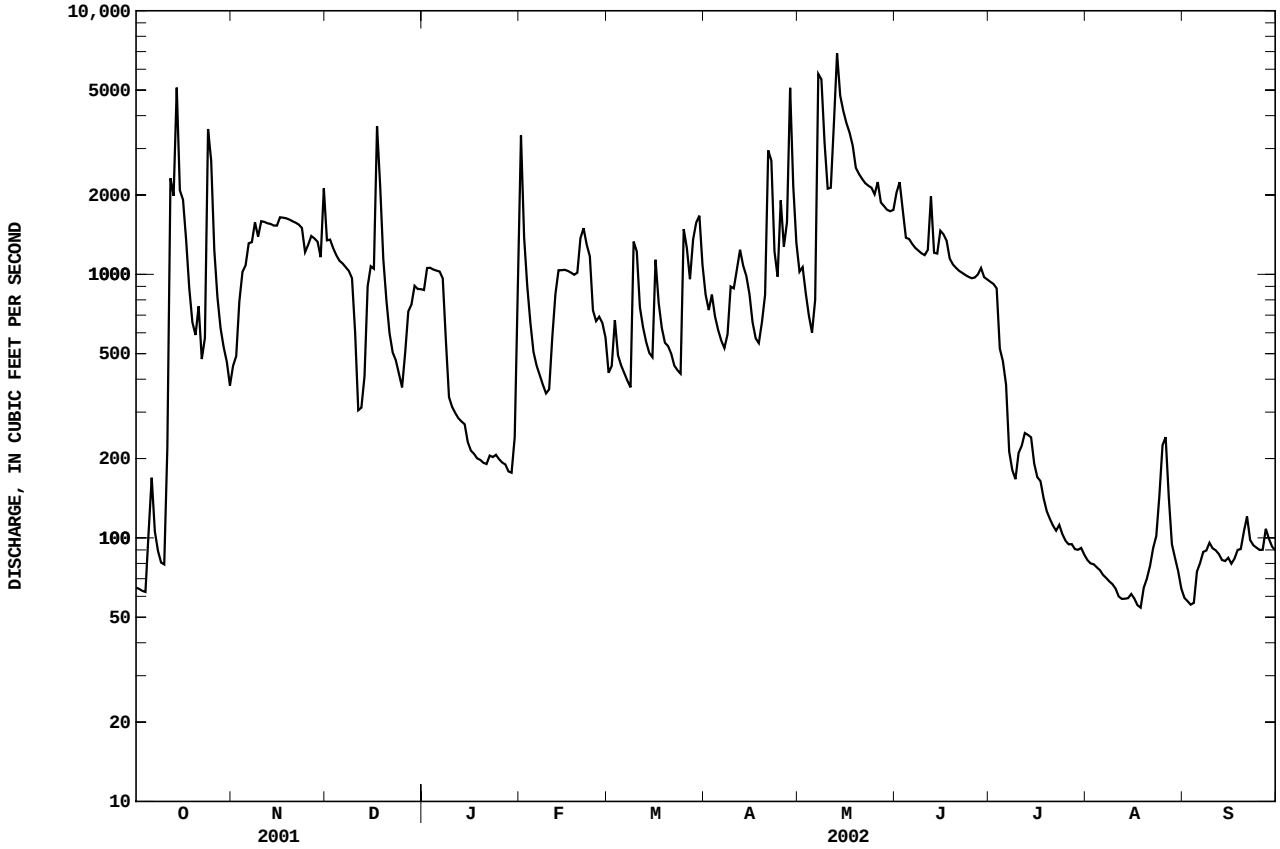
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	449	1350	872	3360	423	837	1020	2040	936	82	59
2	64	490	1350	1060	1380	449	732	1060	2240	919	80	58
3	63	788	1260	1060	903	670	837	846	1750	884	79	56
4	62	1020	1180	1040	656	493	692	696	1380	523	77	57
5	105	1080	1130	1030	507	451	615	601	1360	467	75	75
6	169	1310	1100	1020	450	422	560	800	1300	382	72	80
7	106	1320	1060	965	414	395	525	5760	1260	213	70	88
8	89	1570	1030	560	381	373	592	5490	1230	181	68	90
9	81	1390	967	342	353	1330	899	3160	1200	167	67	96
10	79	1590	603	314	366	1220	885	2110	1180	210	64	91
11	221	1580	305	298	577	749	1050	2130	1240	224	60	90
12	2310	1560	312	284	840	630	1240	3760	1970	250	59	87
13	1980	1550	410	276	1040	554	1080	6890	1210	246	59	82
14	5110	1530	901	270	1040	503	986	4760	1200	241	59	82
15	2080	1530	1070	231	1040	485	843	4160	1460	191	61	84
16	1920	1650	1050	214	1030	1140	658	3750	1420	170	59	80
17	1350	1640	3640	208	1010	778	571	3450	1340	164	56	83
18	887	1630	2170	200	996	626	548	3080	1150	141	54	90
19	658	1610	1140	198	1010	550	660	2540	1090	126	65	91
20	589	1590	796	193	1370	534	836	2400	1060	118	70	106
21	756	1570	598	191	1500	500	2950	2300	1030	111	78	121
22	477	1540	505	205	1300	450	2700	2220	1010	106	91	98
23	573	1500	472	203	1170	433	1220	2170	994	112	102	94
24	3560	1210	420	207	730	420	980	2130	978	103	145	92
25	2700	1290	372	199	664	1480	1910	2010	967	98	225	90
26	1240	1400	505	193	691	1260	1270	2240	973	95	241	90
27	819	1370	724	190	654	958	1580	1870	999	95	143	108
28	625	1330	768	179	576	1360	5100	1810	1060	91	94	99
29	529	1160	905	177	---	1570	2160	1760	976	90	84	93
30	465	2120	880	241	---	1670	1320	1740	956	92	75	90
31	378	---	878	913	---	1080	---	1760	---	86	64	---
TOTAL	30110	41367	29851	13533	26008	23956	36836	80473	38023	7832	2678	2600
MEAN	971.3	1379	962.9	436.5	928.9	772.8	1228	2596	1267	252.6	86.39	86.67
MAX	5110	2120	3640	1060	3360	1670	5100	6890	2240	936	241	121
MIN	62	449	305	177	353	373	525	601	956	86	54	56
CFSM	2.17	3.08	2.15	0.97	2.07	1.72	2.74	5.79	2.83	0.56	0.19	0.19
IN.	2.50	3.43	2.48	1.12	2.16	1.99	3.06	6.68	3.16	0.65	0.22	0.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

MEAN	338.1	577.4	630.1	555.0	634.2	652.7	654.3	625.1	542.6	347.3	226.4	210.0
MAX	994	1684	2070	1572	1648	1493	1648	2596	3613	1001	1062	1542
(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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1957 - 2002	
ANNUAL TOTAL	201564		333267			
ANNUAL MEAN	552.2		913.1		496.8	
HIGHEST ANNUAL MEAN					914	1974
LOWEST ANNUAL MEAN					160	1966
HIGHEST DAILY MEAN	5110	Oct 14	6890	May 13	51400	Jun 28 1957
LOWEST DAILY MEAN	62	Oct 4	54	Aug 18	6.5	Oct 10 1956
ANNUAL SEVEN-DAY MINIMUM	65	Sep 28	58	Aug 12	8.8	Oct 7 1956
MAXIMUM PEAK FLOW			9300	May 7	108000	Jun 28 1957
MAXIMUM PEAK STAGE			15.29	May 7	21.23	Jun 28 1957
ANNUAL RUNOFF (CFSM)	1.23		2.04		1.11	
ANNUAL RUNOFF (INCHES)	16.74		27.67		15.07	
10 PERCENT EXCEEDS	1380		1970		1180	
50 PERCENT EXCEEDS	285		691		263	
90 PERCENT EXCEEDS	84		82		67	

03341300 BIG RACCOON CREEK AT COXVILLE, IN--Continued



03341500 WABASH RIVER AT TERRE HAUTE, IN

LOCATION.--Lat 39°28'33", long 87°25'07", in NE$^1/_4$NW$^1/_4$ sec.21, T.12 N., R.9 W., Vigo County, Hydrologic Unit 05120111,(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 except for estimated daily discharges, which are poor. Flow partially regulated by upstream reservoirs.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3460	28600	16000	10400	26100	14900	30900	e42500	20500	9150	4160	4270
2	3310	23600	20800	9850	33300	14400	32400	e41000	19500	8620	4110	3990
3	3330	20600	23800	9440	38400	17100	34400	e38000	17700	7890	4030	3700
4	3020	19000	24200	9190	42600	22100	35800	e34000	15300	7270	4690	3380
5	2690	17900	23500	9290	44500	24200	35400	e30000	13500	6530	4600	3160
6	2590	17200	20800	9510	43500	25100	33400	e27800	13900	6110	4110	2980
7	2920	16400	17100	9310	39700	24300	31000	e31000	17400	5450	3550	2890
8	4050	15900	14500	8850	34900	22900	27000	e43200	18600	4950	3050	2820
9	5970	15500	13000	8360	30200	23300	25200	44200	17000	4720	2890	2620
10	7450	15100	11900	8050	25200	27500	27400	38700	15100	4730	2890	2510
11	7500	14700	10500	7780	21300	29300	28300	34300	13500	5250	2590	2400
12	10700	14500	9360	7430	19200	29500	28800	34000	16000	5760	2400	2360
13	15100	14200	9100	7340	17800	28900	30900	51100	17200	5230	2390	2340
14	29400	13700	10100	7230	16300	26500	33800	72200	18000	4840	2350	2200
15	35100	12500	14400	7210	14500	23200	35300	77500	19100	4400	2340	2190
16	39800	11000	18000	6970	13200	21800	34300	72500	17900	4100	2440	2140
17	44200	10100	27700	6820	12400	20000	32800	65200	15300	3990	2510	2190
18	46000	9420	34800	6470	11700	18000	30700	58400	13000	3930	2520	2140
19	45600	8970	38600	6360	11100	16500	27200	52700	11200	3890	2730	2190
20	44400	9110	39000	6180	14500	15700	23400	47500	10200	3830	18500	2320
21	42400	9090	38400	6110	26600	15100	e22300	42500	9580	4000	23100	2490
22	39000	9200	37800	6080	29900	14100	e26800	37300	9080	3660	17000	3030
23	34200	9430	35800	6030	30700	13000	e26000	31800	8560	4010	12000	3450
24	34000	9410	32500	5860	30000	12200	e24800	27900	8220	4390	21500	3430
25	37800	9640	28200	5840	26300	14200	e23200	25300	7870	4980	20900	3060
26	39300	9470	23100	5800	21700	17200	e22300	23100	7670	4840	16000	2860
27	39800	9520	19900	5680	18600	15600	e22600	20800	10400	3980	12300	2910
28	39800	9540	18000	5590	16400	16000	e31000	20000	12000	3670	8720	2880
29	39100	9960	16100	5590	---	17300	e40400	19600	10900	3800	6900	2870
30	36900	12100	13900	5910	---	23800	e43000	19300	9720	4440	5900	2980
31	33000	---	11600	8860	---	29300	---	19900	---	4190	4920	---
TOTAL	771890	405360	672460	229390	710600	633000	900800	1223300	413900	156600	228090	84750
MEAN	24900	13510	21690	7400	25380	20420	30030	39460	13800	5052	7358	2825
MAX	46000	28600	39000	10400	44500	29500	43000	77500	20500	9150	23100	4270
MIN	2590	8970	9100	5590	11100	12200	22300	19300	7670	3660	2340	2140
CFSM	2.03	1.10	1.77	0.60	2.07	1.67	2.45	3.22	1.13	0.41	0.60	0.23
IN.	2.34	1.23	2.04	0.70	2.16	1.92	2.73	3.71	1.26	0.48	0.69	0.26

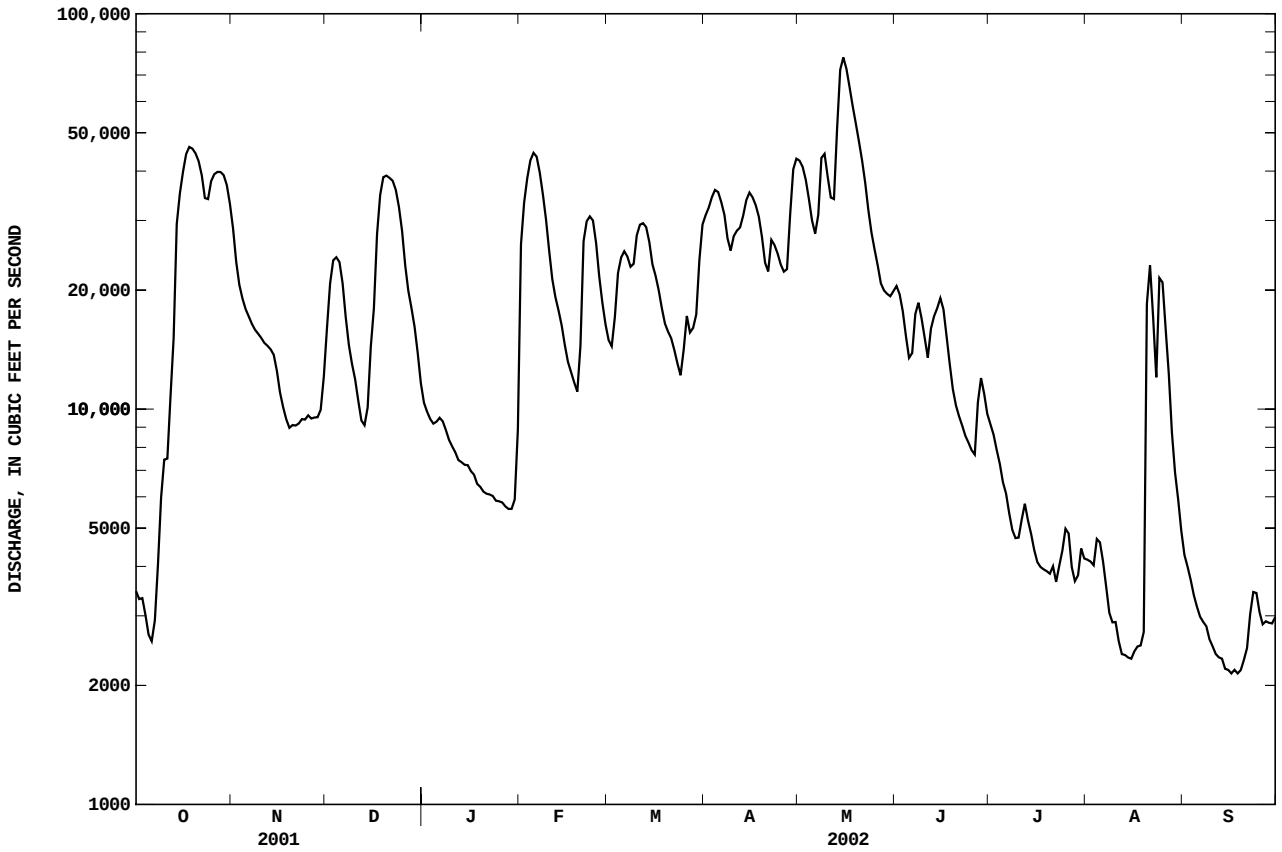
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2002, BY WATER YEAR (WY)

MEAN	4871	6780	10280	13650	15750	18710	19140	15710	12080	8147	5038	4009
MAX	24900	40220	44490	77540	47990	51250	41940	64810	44130	27840	21330	21440
(WY)	2002	1993	1928	1950	1950	1982	1938	1943	1958	1957	1958	1989
MIN	1103	1405	1145	1216	1998	2645	5250	2405	1492	1292	1002	966
(WY)	1957	1954	1964	1977	1963	1941	1931	1934	1934	1936	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1928 - 2002	
ANNUAL TOTAL	4588150		6430140			
ANNUAL MEAN	12570		17620		11150	
HIGHEST ANNUAL MEAN					22800	1950
LOWEST ANNUAL MEAN					2864	1931
HIGHEST DAILY MEAN	46000	Oct 18	77500	May 15	186000	May 20 1943
LOWEST DAILY MEAN	1830	Aug 17	2140	Sep 16	701	Aug 3 1934
ANNUAL SEVEN-DAY MINIMUM	2020	Aug 12	2200	Sep 14	732	Sep 24 1941
MAXIMUM PEAK FLOW			78500	May 15	189000	May 20 1943
MAXIMUM PEAK STAGE			23.26	May 15	30.50	May 20 1943
ANNUAL RUNOFF (CFSM)	1.03		1.44		0.91	
ANNUAL RUNOFF (INCHES)	13.92		19.51		12.36	
10 PERCENT EXCEEDS	31700		37900		27600	
50 PERCENT EXCEEDS	9100		14500		6450	
90 PERCENT EXCEEDS	3560		3030		2000	

e Estimated

03341500 WABASH RIVER AT TERRE HAUTE, IN--Continued



03342000 WABASH RIVER AT RIVERTON, IN

LOCATION.--Lat 39°01'13", long 87°34'07", in NE$^1/_4$SW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3810	44100	15700	12200	20200	17700	28400	40400	23700	9960	4340	5250
2	3590	41300	18300	10900	28500	16100	30000	45400	23100	9510	4320	4670
3	3470	34200	22200	10200	30700	16800	31900	47100	21800	8950	4510	4350
4	3450	27000	24100	9740	33300	20000	33800	46900	19600	8350	4470	4060
5	3290	23000	24600	9490	36300	23100	35500	45400	17100	7770	4810	3770
6	3090	20500	23900	9600	39700	24800	36900	44700	15400	7130	4660	3570
7	2920	18800	21000	9660	42900	25500	37600	45800	16400	6660	4220	3390
8	3140	17500	17400	9330	44700	25000	37500	48900	19000	6080	3750	3280
9	4110	16600	14800	8880	44400	26000	35400	52000	19300	e5580	3320	3200
10	5960	16000	13200	8460	42200	28800	32000	53900	17800	e5230	3140	3040
11	7230	15500	11900	8230	36800	29200	30700	53700	16100	5250	3080	2860
12	9600	15000	10500	7900	29000	30200	30400	51800	15700	5710	2880	2780
13	13700	14600	10300	7610	24100	30800	31300	61600	18100	5960	2730	2700
14	25400	14300	12100	7480	20500	30800	32600	68700	18600	5500	2670	2660
15	30100	13600	16300	7350	17700	29300	34100	72700	19500	5110	2630	2610
16	31700	12200	17600	7270	15400	27800	35700	80300	19900	4730	2600	2520
17	33900	10900	26500	7050	13800	25700	37000	85600	18500	4480	2700	2470
18	36700	10100	32500	6840	12800	22700	37500	84500	16000	4540	2830	2500
19	39900	9330	34800	6600	12000	20000	37000	79100	13900	4340	2970	2470
20	42900	9000	36800	6450	12900	18800	34400	72300	12200	4280	5370	2540
21	45300	9000	38900	6270	20000	17800	30400	65500	11200	4190	19100	2630
22	46700	8940	40500	6210	26500	16400	31500	59000	10600	4250	20200	2710
23	47100	9070	41800	6170	28500	15000	31900	53300	9970	4250	14900	2960
24	48100	9370	42100	6160	29700	13800	29700	48300	9500	4670	13800	3460
25	49100	9680	41400	6030	30500	16500	28100	43000	9220	4740	20200	3440
26	48600	9700	38800	5960	29100	21300	27000	37300	8870	5160	18700	3180
27	47400	9570	32100	5890	25000	20500	25400	31300	8940	4920	14800	3100
28	46700	9540	25800	5790	20700	19600	30100	27900	11400	4220	11500	3020
29	46300	9970	21600	5720	---	19900	33900	26600	11900	3940	8570	2970
30	46100	13300	18000	5820	---	22200	36800	24300	11000	4110	7030	2950
31	45500	---	14700	7130	---	26200	---	23100	---	4490	6090	---
TOTAL	824860	481670	760200	238390	767900	698300	984500	1620400	464300	174060	226890	95110
MEAN	26610	16060	24520	7690	27420	22530	32820	52270	15480	5615	7319	3170
MAX	49100	44100	42100	12200	44700	30800	37600	85600	23700	9960	20200	5250
MIN	2920	8940	10300	5720	12000	13800	25400	23100	8870	3940	2600	2470
CFSM	2.02	1.22	1.86	0.58	2.08	1.71	2.49	3.97	1.18	0.43	0.56	0.24
IN.	2.33	1.36	2.15	0.67	2.17	1.97	2.78	4.58	1.31	0.49	0.64	0.27

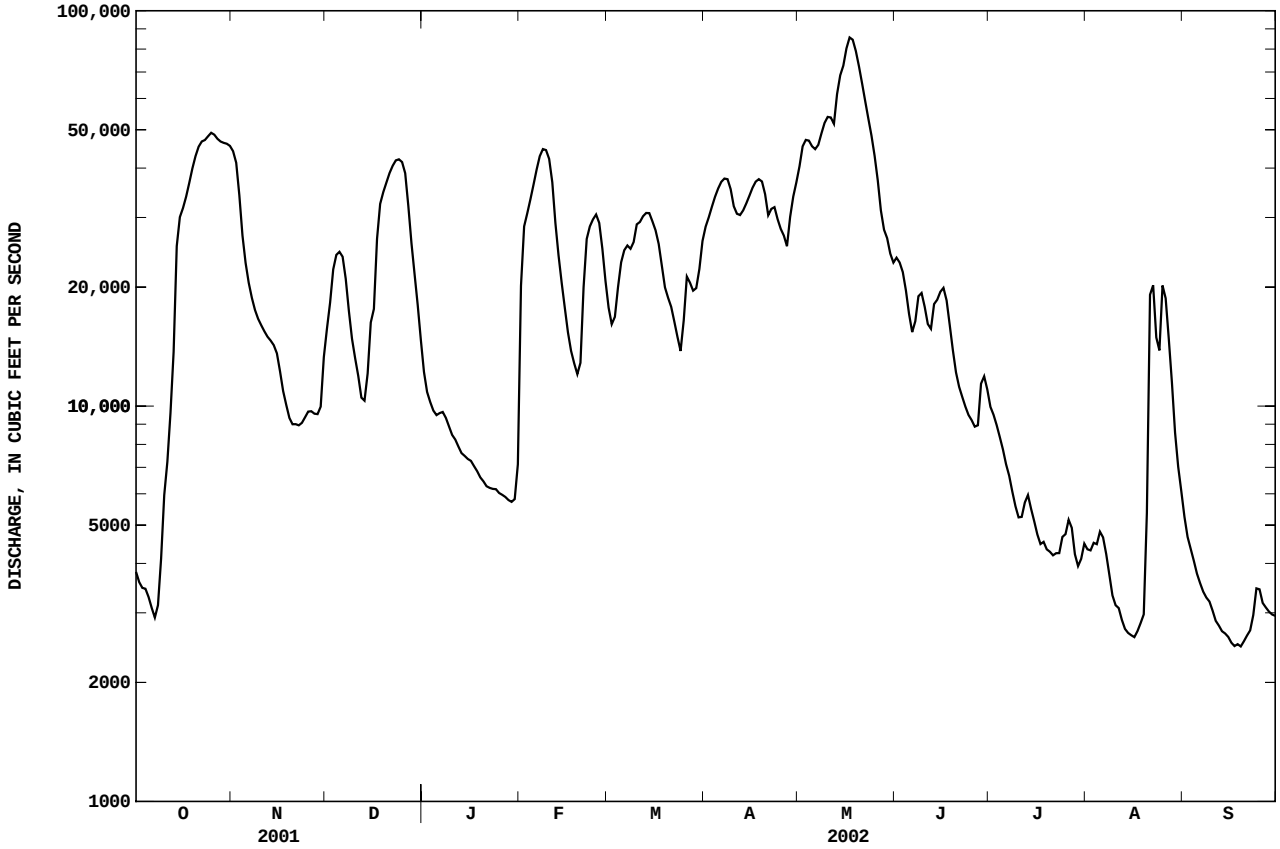
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	5234	7403	10910	13690	17310	20830	21160	17680	14040	9195	5825	4547
MAX	26560	39340	39250	80210	54530	60520	41840	68010	45640	36240	23680	25370
(WY)	2002	1993	1986	1950	1950	1982	1957	1943	1958	1957	1958	1989
MIN	1382	1437	1213	1318	2058	2763	5623	3435	2601	1968	1215	1261
(WY)	1957	1954	1964	1977	1963	1941	2000	1941	1977	1988	1941	1940

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	5042140		7336580			
ANNUAL MEAN	13810		20100		12290	
HIGHEST ANNUAL MEAN					24340	1950
LOWEST ANNUAL MEAN					3206	1941
HIGHEST DAILY MEAN	49100	Oct 25	85600	May 17	200000	May 21 1943
LOWEST DAILY MEAN	2430	Aug 18	2470	Sep 17	858	Sep 27 1941
ANNUAL SEVEN-DAY MINIMUM	2560	Aug 13	2530	Sep 15	870	Sep 25 1941
MAXIMUM PEAK FLOW			86400	May 17	201000	May 21 1943
MAXIMUM PEAK STAGE			22.81	May 17	29.36	May 21 1943
ANNUAL RUNOFF (CFSM)	1.05		1.53		0.93	
ANNUAL RUNOFF (INCHES)	14.25		20.74		12.68	
10 PERCENT EXCEEDS	33900		44200		30000	
50 PERCENT EXCEEDS	9570		16000		7220	
90 PERCENT EXCEEDS	3860		3360		2260	

e Estimated

03342000 WABASH RIVER AT RIVERTON, IN--Continued



03342100 BUSSERON CREEK NEAR HYMERA, IN

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

DRAINAGE AREA.--16.7 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 480.00 ft above National Geodetic Vertical Datum of 1929 (U.S. Soil Conservation Service bench mark).

REMARKS.--Records poor. Flow affected by U.S. Soil Conservation Service floodwater-retarding structures.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0	2.7	45	e4.7	219	14	e20	64	e9.5	0.24	0.33	e0.0
2	1.3	2.2	30	e4.5	75	25	e18	67	e8.4	0.14	0.33	e0.0
3	8.7	1.7	19	e4.2	59	51	e17	38	e6.3	0.10	0.47	e0.0
4	5.6	1.7	12	e4.0	48	26	e16	26	e4.5	0.08	0.33	e0.0
5	1.8	1.7	9.3	e3.8	38	18	e15	20	e1.9	0.05	0.30	e0.0
6	1.0	1.7	7.7	e3.6	30	15	e14	91	e2.4	0.00	0.19	e0.0
7	0.40	1.7	9.0	e3.5	25	11	e13	504	e1.9	0.00	0.10	e0.0
8	0.20	2.0	13	e3.3	19	9.5	e25	245	e1.7	0.00	0.01	e0.0
9	0.01	1.9	10	e3.2	16	136	e18	121	e1.4	0.11	0.00	e0.0
10	0.03	1.7	8.0	e3.1	15	69	e14	70	e1.1	0.22	0.00	e0.0
11	1.7	1.4	12	e3.0	14	49	e11	55	e0.96	0.02	0.00	e0.0
12	23	1.1	12	e2.9	13	41	e97	401	1.2	0.00	0.00	e0.0
13	20	1.0	34	e2.9	12	33	e62	1230	1.5	0.00	0.82	e0.0
14	115	2.8	e113	e2.9	11	27	e47	365	1.2	0.00	0.62	e0.0
15	26	1.5	e200	e2.9	10	31	e33	114	1.7	0.00	0.31	e0.0
16	29	0.61	e60	e2.9	9.8	76	e25	72	1.9	0.00	0.12	e0.0
17	15	0.49	e203	e2.8	9.2	37	e19	48	0.99	0.00	0.00	e0.0
18	9.4	0.44	e150	e2.8	8.7	28	e16	40	0.73	0.00	0.01	e0.0
19	6.7	0.46	e100	e2.7	8.4	25	e14	31	0.59	0.06	0.13	e0.0
20	5.0	0.40	e47	e2.6	e42	57	e13	24	0.44	0.08	0.30	e0.90
21	3.6	0.40	34	e2.6	e30	35	e97	19	0.36	0.15	0.22	e0.70
22	2.6	0.40	25	e2.7	20	25	e51	15	0.33	0.29	0.11	e0.30
23	2.8	0.58	19	e5.1	15	20	e41	13	0.29	8.7	0.02	e0.10
24	83	10	15	e4.5	12	17	e32	12	0.30	4.7	0.00	e0.0
25	48	8.4	e11	e4.1	9.9	e140	e26	11	0.31	3.0	0.00	e0.0
26	13	4.3	e8.3	e3.7	23	e92	18	11	0.43	2.0	e0.0	e0.0
27	7.8	4.5	e7.2	e3.3	18	e55	122	9.9	0.35	1.6	e0.0	e0.0
28	5.3	4.8	e6.6	e3.1	16	e40	149	20	0.36	1.1	e0.0	e0.0
29	4.0	32	e5.9	e3.1	---	e100	65	22	0.25	0.84	e0.0	e0.0
30	3.2	201	e5.5	e3.1	---	e48	49	14	0.22	0.71	e0.0	e0.0
31	2.8	---	e5.0	76	---	e30	---	11	---	0.43	e0.0	---
TOTAL	445.94	295.58	1236.5	177.6	826.0	1380.5	1157	3783.9	53.51	24.62	4.72	2.00
MEAN	14.39	9.853	39.89	5.729	29.50	44.53	38.57	122.1	1.784	0.794	0.152	0.067
MAX	115	201	203	76	219	140	149	1230	9.5	8.7	0.82	0.90
MIN	0.00	0.40	5.0	2.6	8.4	9.5	11	9.9	0.22	0.00	0.00	0.00
CFSM	0.86	0.59	2.39	0.34	1.77	2.67	2.31	7.31	0.11	0.05	0.01	0.00
IN.	0.99	0.66	2.75	0.40	1.84	3.08	2.58	8.43	0.12	0.05	0.01	0.00

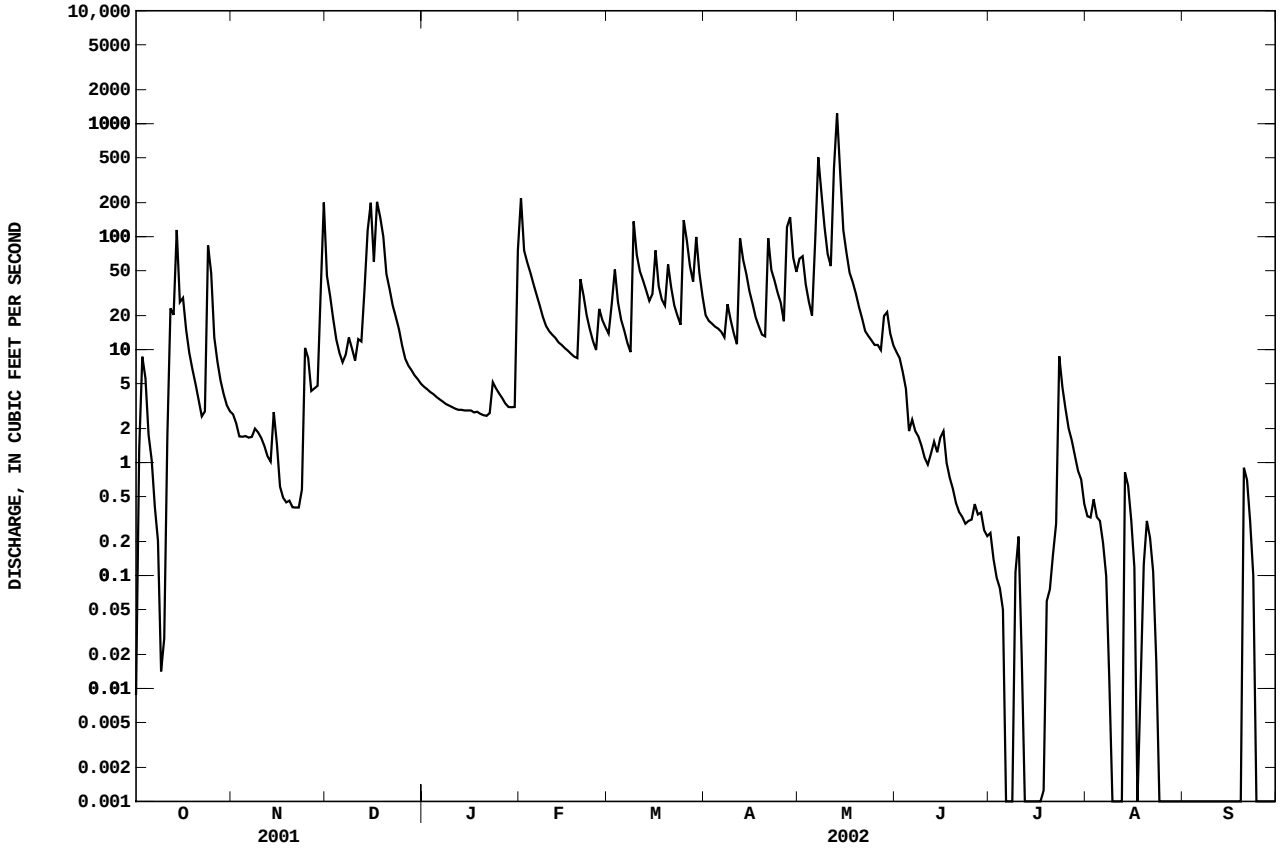
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2002, BY WATER YEAR (WY)

MEAN	4.914	15.27	23.03	23.89	26.58	32.85	32.91	25.20	12.94	11.99	4.818	7.267
MAX	62.3	79.0	96.8	105	67.4	112	74.9	122	58.5	79.3	25.4	60.9
(WY)	2001	1994	1983	1969	1971	1973	1992	2002	2001	1973	1979	1989
MIN	0.020	0.058	0.026	0.006	1.63	3.52	1.48	1.23	0.22	0.17	0.065	0.000
(WY)	1988	1972	1977	1977	1978	2000	1971	1976	1977	1972	1983	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1967 - 2002		
ANNUAL TOTAL	5833.56		9387.87				
ANNUAL MEAN	15.98		25.72		18.43		
HIGHEST ANNUAL MEAN					36.1		1973
LOWEST ANNUAL MEAN					6.93		1977
HIGHEST DAILY MEAN	459	Jun 4	1230	May 13	1250	Oct 5	2000
LOWEST DAILY MEAN	0.00	Oct 1	0.00	Oct 1	0.00	Oct 12	1966
ANNUAL SEVEN-DAY MINIMUM	0.06	Sep 25	0.00	Jul 12	0.00	Oct 23	1966
MAXIMUM PEAK FLOW			2430	May 12	2430	May 12	2002
MAXIMUM PEAK STAGE			19.51	May 12	19.51	May 12	2002
ANNUAL RUNOFF (CFSM)	0.96		1.54		1.10		
ANNUAL RUNOFF (INCHES)	12.99		20.91		14.99		
10 PERCENT EXCEEDS	32		59		44		
50 PERCENT EXCEEDS	4.1		4.5		3.7		
90 PERCENT EXCEEDS	0.47		0.00		0.10		

e Estimated

03342100 BUSSERON CREEK NEAR HYMERA, IN--Continued



03342500 BUSSERON CREEK NEAR CARLISLE, IN

LOCATION.--Lat 38°58'27", long 87°25'33", in NW1/4 survey 17, Vincennes Tract, Sullivan County, Hydrologic Unit 05120111, (CARLISLE, IN quadrangle), on left bank 10 ft downstream from bridge on State Highway 58, 1.5 mi northwest of Carlisle, and 6.7 mi upstream from mouth, and 7.5 mi south of Sullivan.

DRAINAGE AREA.--228 mi^2.

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

REVISED RECORDS.--WSP 1335: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 425.36 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark). Prior to Nov. 8, 1950, nonrecording gage at same site and datum. Nov. 8, 1950, to Oct. 31, 1969, at site 200 ft upstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow affected by U.S. Soil Conservation Service floodwater-retarding structures and surface-mined areas. Gage can be in backwater at times from the Wabash River.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	129	1270	e83	2090	197	585	801	285	20	12	7.5
2	10	116	904	e78	1740	221	450	1260	252	26	11	7.4
3	9.8	102	461	e74	1590	657	399	1270	259	21	11	7.3
4	10	78	339	71	1030	379	334	900	206	16	10	7.3
5	18	64	278	69	556	263	281	544	169	15	9.7	7.0
6	17	65	266	68	437	221	244	1380	147	16	9.0	7.1
7	16	58	285	66	360	188	202	2560	128	14	9.1	7.5
8	14	55	239	59	314	175	203	2920	109	13	8.8	8.0
9	11	50	188	64	269	749	284	3030	95	19	9.0	7.7
10	11	45	145	68	218	1170	243	2770	85	33	8.1	7.7
11	41	43	130	78	177	843	196	2160	75	27	6.9	7.6
12	423	39	159	69	145	541	304	1690	71	25	7.2	7.0
13	304	37	419	64	120	427	1070	3190	221	18	7.8	6.2
14	1270	37	1060	60	107	335	851	3300	133	16	10	6.5
15	861	39	1310	58	99	276	555	3860	79	15	13	7.5
16	515	36	1180	54	91	799	352	3370	63	16	12	8.3
17	408	38	1890	52	82	673	269	2550	57	15	12	6.8
18	264	36	1960	49	72	419	219	1910	50	15	11	6.7
19	195	35	1810	54	77	375	191	1390	43	15	11	7.9
20	163	33	1510	51	506	853	184	965	42	14	15	66
21	151	30	926	49	574	770	609	777	37	15	15	54
22	147	28	526	50	324	444	1040	609	35	13	15	22
23	139	28	434	54	233	338	560	463	31	15	12	15
24	790	95	355	116	184	281	419	347	28	36	11	11
25	1040	240	285	105	156	1080	647	308	25	21	9.8	9.5
26	596	130	233	82	277	1520	384	238	24	16	9.0	9.2
27	362	229	183	74	287	1460	738	179	24	14	8.6	16
28	280	250	153	69	206	1180	1600	152	22	14	8.5	20
29	228	738	139	68	---	897	1430	255	20	14	8.5	14
30	187	1440	104	80	---	1110	1210	219	21	14	8.4	12
31	156	---	e89	660	---	903	---	181	---	15	7.8	---
TOTAL	8646.8	4343	19230	2696	12321	19744	16053	45548	2836	556	317.2	387.7
MEAN	278.9	144.8	620.3	86.97	440.0	636.9	535.1	1469	94.53	17.94	10.23	12.92
MAX	1270	1440	1960	660	2090	1520	1600	3860	285	36	15	66
MIN	9.8	28	89	49	72	175	184	152	20	13	6.9	6.2
CFSM	1.22	0.63	2.72	0.38	1.93	2.79	2.35	6.44	0.41	0.08	0.04	0.06
IN.	1.41	0.71	3.14	0.44	2.01	3.22	2.62	7.43	0.46	0.09	0.05	0.06

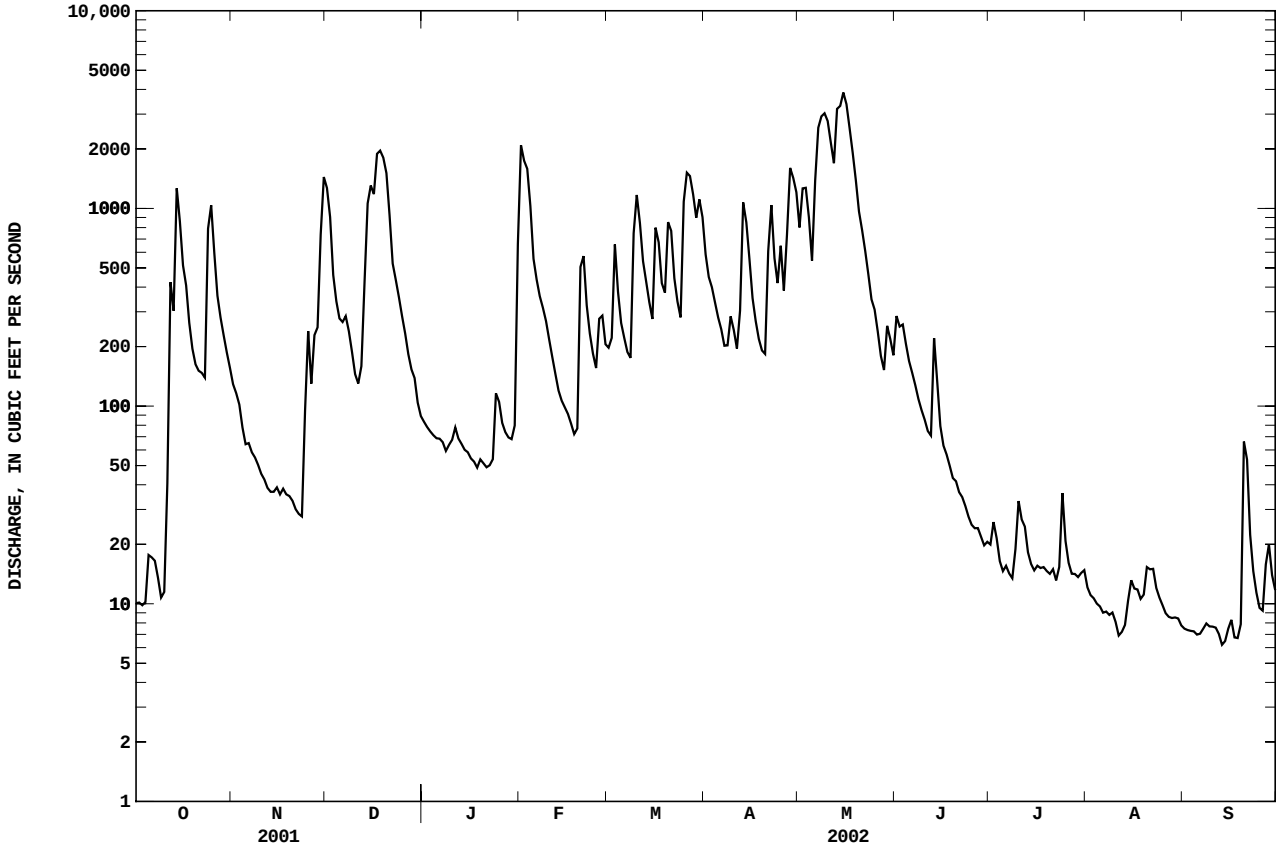
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

MEAN	62.67	168.0	255.3	319.7	363.4	442.4	427.3	344.3	185.6	111.3	59.03	74.43
MAX	827	1250	1421	2380	1317	1284	1102	1469	988	1101	633	701
(WY)	2001	1994	1983	1950	1950	1978	1945	2002	1945	1979	1979	1989
MIN	1.39	0.94	2.87	3.64	11.3	12.8	35.6	31.6	8.88	0.035	1.89	0.88
(WY)	1944	1955	1954	1977	1954	1954	1954	1954	1954	1954	1953	1953

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	78616.8		132678.7			
ANNUAL MEAN	215.4		363.5		233.7	
HIGHEST ANNUAL MEAN					548	1950
LOWEST ANNUAL MEAN					10.8	1954
HIGHEST DAILY MEAN	3600	Jun 7	3860	May 15	8500	Jan 5 1950
LOWEST DAILY MEAN	8.9	Sep 17	6.2	Sep 13	0.00	Jul 12 1954
ANNUAL SEVEN-DAY MINIMUM	10	Sep 28	7.0	Sep 12	0.00	Jul 12 1954
MAXIMUM PEAK FLOW			3950	May 15	8800	Jan 5 1950
MAXIMUM PEAK STAGE			16.07	May 15	20.30	May 9 1961
ANNUAL RUNOFF (CFSM)	0.94		1.59		1.03	
ANNUAL RUNOFF (INCHES)	12.83		21.65		13.93	
10 PERCENT EXCEEDS	518		1090		644	
50 PERCENT EXCEEDS	82		109		57	
90 PERCENT EXCEEDS	13		9.8		5.8	

e Estimated

03342500 BUSSERON CREEK NEAR CARLISLE, IN--Continued



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, 26.60 ft, May 17; minimum gage height, 4.47 ft, Sept. 17, 18.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.26	17.96	11.32	9.37	13.70	11.50	15.39	18.28	13.61	7.98	5.50	5.87
2	5.16	17.67	11.86	8.73	15.38	10.90	15.61	19.12	13.31	7.78	5.47	5.56
3	5.08	16.98	12.82	8.41	16.10	11.31	15.81	19.71	12.81	7.53	5.55	5.39
4	5.06	15.49	13.37	8.17	16.52	12.29	16.01	19.89	12.00	7.24	5.54	5.23
5	5.02	13.66	13.53	8.05	16.91	13.05	16.21	19.79	11.06	6.96	5.70	5.09
6	4.92	12.52	13.46	8.08	17.22	13.54	16.39	20.47	10.38	6.65	5.65	4.98
7	4.82	11.85	12.61	8.07	17.43	13.76	16.57	20.80	10.70	6.45	5.45	4.90
8	4.86	11.34	11.34	7.92	17.71	13.69	16.77	21.34	11.52	6.18	5.23	4.84
9	5.26	10.98	10.46	7.73	17.89	14.54	16.73	21.50	11.63	5.97	5.04	4.80
10	6.14	10.71	9.73	7.54	17.75	15.54	16.40	21.99	11.11	5.87	4.93	4.73
11	6.98	10.46	9.17	7.44	17.20	15.91	15.97	22.46	10.51	5.83	4.92	4.65
12	8.04	10.27	8.69	7.27	15.95	16.14	15.84	22.97	10.33	6.03	4.84	4.62
13	9.90	10.13	8.85	7.12	14.04	16.26	16.22	24.20	11.54	6.23	4.77	4.57
14	14.17	9.98	11.12	7.07	12.61	15.93	16.65	24.99	11.68	6.00	4.74	4.57
15	15.45	9.73	12.14	6.97	11.52	15.54	16.66	25.66	11.99	5.83	4.71	4.57
16	15.98	9.22	12.59	6.94	10.55	15.39	16.64	26.29	12.06	5.66	4.68	4.49
17	16.39	8.68	16.05	6.82	9.81	15.00	16.71	26.59	11.53	5.59	4.69	4.47
18	16.73	8.33	17.01	6.71	9.37	13.91	16.81	26.23	10.57	5.61	4.75	---
19	17.09	8.02	17.37	6.59	9.09	12.79	16.82	25.45	9.70	5.53	4.83	---
20	17.36	7.86	17.68	6.52	9.75	12.85	16.69	24.46	9.03	5.48	4.89	---
21	17.61	7.85	18.01	6.42	12.27	12.13	16.56	23.39	8.60	5.38	11.21	---
22	17.87	7.80	18.31	6.39	13.99	11.15	16.63	22.37	8.32	5.46	11.65	---
23	18.01	7.84	18.50	6.40	14.51	10.46	16.68	21.28	8.06	5.38	9.85	---
24	18.58	8.15	18.31	6.50	14.80	9.92	16.55	20.26	7.84	5.63	9.54	---
25	18.89	8.24	17.90	6.36	15.05	12.10	16.16	19.33	7.68	5.64	11.75	---
26	18.95	8.23	17.52	6.30	15.07	14.15	15.73	18.36	7.51	5.85	11.26	4.95
27	18.92	8.31	16.76	6.25	14.06	13.78	15.68	17.18	7.57	5.79	9.87	4.89
28	18.74	8.45	15.10	6.18	12.44	13.44	16.71	15.97	8.64	5.46	8.62	4.83
29	18.53	9.32	13.29	6.15	---	13.28	17.22	15.20	8.81	5.32	7.42	4.80
30	18.34	11.02	11.86	6.21	---	13.89	17.73	14.26	8.45	5.33	6.73	4.78
31	18.16	---	10.47	8.17	---	14.85	---	13.52	---	5.56	6.28	---
MEAN	12.65	10.57	13.78	7.19	14.24	13.52	16.42	21.07	10.29	6.04	6.65	---
MAX	18.95	17.96	18.50	9.37	17.89	16.26	17.73	26.59	13.61	7.98	11.75	---
MIN	4.82	7.80	8.69	6.15	9.09	9.92	15.39	13.52	7.51	5.32	4.68	---

CAL YR 2001 MEAN 9.41 MAX 18.95 MIN 4.82

03347000 WHITE RIVER AT MUNCIE, IN

LOCATION.--Lat 40°12'15", long 85°23'14", in NE$^1/_4$NE$^1/_4$, 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 fair 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	275	1420	e150	3450	179	740	479	184	83	28	28
2	43	250	651	e137	2450	244	629	477	166	67	27	26
3	42	267	439	e127	904	908	1640	376	148	60	26	21
4	38	246	347	e119	590	525	988	316	137	56	26	20
5	97	220	289	e116	416	318	586	286	160	50	49	20
6	413	201	257	e116	329	258	455	281	353	44	43	18
7	323	187	233	e118	281	228	392	877	272	39	38	19
8	208	176	211	e108	252	215	359	1590	209	36	34	19
9	148	163	196	e114	224	386	951	1070	172	62	29	18
10	120	147	175	114	217	978	1020	609	149	180	29	18
11	215	138	159	112	274	485	576	430	132	120	31	17
12	1160	125	153	107	278	345	437	1260	119	66	29	19
13	928	117	203	106	235	300	1300	4390	110	52	29	17
14	1550	112	585	105	203	270	1530	4380	108	45	30	19
15	2040	106	1160	100	193	248	2110	1660	102	38	28	21
16	1420	104	613	95	181	380	929	801	96	33	28	20
17	1680	99	1860	90	162	438	563	601	83	31	29	19
18	854	96	3140	86	145	312	433	481	75	37	26	20
19	557	95	1510	82	136	253	419	397	69	36	53	24
20	420	92	727	84	190	243	438	337	63	37	40	83
21	339	90	505	82	224	266	651	299	58	36	39	46
22	288	88	407	81	205	235	1060	269	54	31	38	37
23	351	85	367	80	178	210	591	252	52	30	45	27
24	2930	101	322	93	164	197	439	237	48	29	45	18
25	4210	222	271	125	152	211	375	249	51	34	51	16
26	2120	198	241	120	178	271	320	246	56	40	36	16
27	813	166	226	107	207	336	375	221	183	59	30	40
28	561	186	211	97	181	641	2300	211	236	54	28	34
29	432	899	199	103	---	1720	1310	238	147	43	26	25
30	353	1950	e178	211	---	3150	655	215	103	35	25	15
31	305	---	e160	743	---	1420	---	194	---	31	26	---
TOTAL	25005	7201	17415	4028	12599	16170	24571	23729	3895	1594	1041	740
MEAN	806.6	240.0	561.8	129.9	450.0	521.6	819.0	765.5	129.8	51.42	33.58	24.67
MAX	4210	1950	3140	743	3450	3150	2300	4390	353	180	53	83
MIN	38	85	153	80	136	179	320	194	48	29	25	15
CFSM	3.35	1.00	2.33	0.54	1.87	2.16	3.40	3.18	0.54	0.21	0.14	0.10
IN.	3.86	1.11	2.69	0.62	1.94	2.50	3.79	3.66	0.60	0.25	0.16	0.11

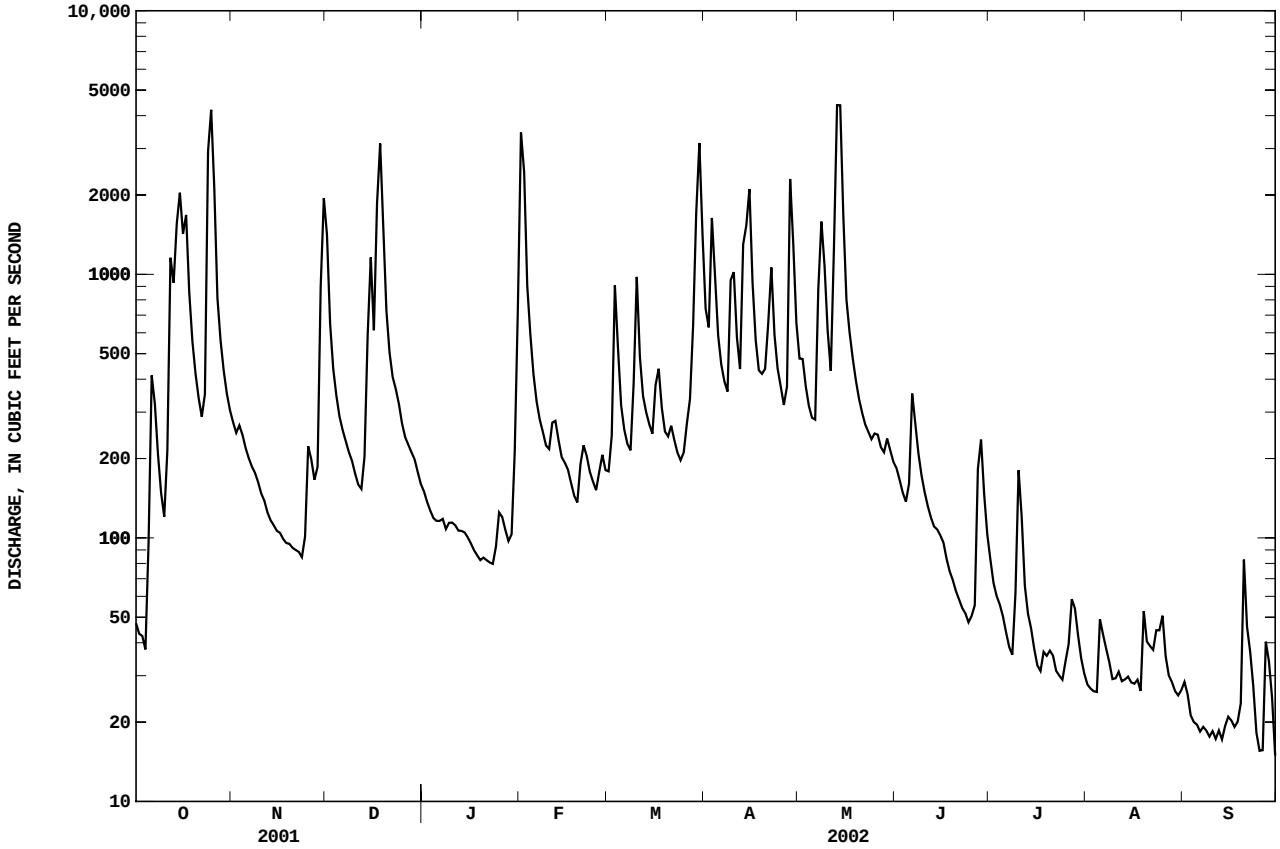
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2002, BY WATER YEAR (WY)

MEAN	67.50	145.0	224.1	295.6	339.9	408.1	405.5	269.6	219.2	120.4	69.09	58.39
MAX	807	1068	1119	1654	1122	963	1476	1239	1492	750	816	825
(WY)	2002	1994	1991	1950	1950	1978	1964	1933	1958	1992	1979	1989
MIN	2.30	7.33	6.57	6.38	21.2	39.0	46.4	16.4	13.6	9.55	4.80	1.96
(WY)	1957	1957	1961	1977	1935	1941	1941	1941	1988	1944	1940	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1932 - 2002	
ANNUAL TOTAL	110594		137988			
ANNUAL MEAN	303.0		378.0		217.7	
HIGHEST ANNUAL MEAN					421	1950
LOWEST ANNUAL MEAN					42.1	1941
HIGHEST DAILY MEAN	4210	Oct 25	4390	May 13	11600	Apr 21 1964
LOWEST DAILY MEAN	21	Aug 15	15	Sep 30	1.1	Sep 16 1954
ANNUAL SEVEN-DAY MINIMUM	25	Aug 9	18	Sep 7	1.2	Sep 21 1954
MAXIMUM PEAK FLOW			4970	May 14	14300	Apr 21 1964
MAXIMUM PEAK STAGE			9.61	May 14	21.07	Jan 15 1937
ANNUAL RUNOFF (CFSM)	1.26		1.57		0.90	
ANNUAL RUNOFF (INCHES)	17.07		21.30		12.28	
10 PERCENT EXCEEDS	709		938		485	
50 PERCENT EXCEEDS	155		180		76	
90 PERCENT EXCEEDS	57		29		12	

e Estimated

03347000 WHITE RIVER AT MUNCIE, IN--Continued



03347500 BUCK CREEK NEAR MUNCIE, IN

LOCATION.--Lat 40°08'05", long 85°22'25", in SW$^1/_4$SE$^1/_4$ sec.34, T.20 N., R.10 E., Delaware County, Hydrologic Unit 05120201, (MUNCIE EAST, IN quadrangle), on left bank at downstream side of bridge on County Road 400 South, 1.0 mi upstream from Muncie Water Works Co. pumping station, 4.2 mi southeast of court house in Muncie, and at mile 10.6.

DRAINAGE AREA.--35.5 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 944.67 ft above National Geodetic Vertical Datum of 1929. Prior to May 5, 1955, nonrecording gage at same site and datum.

REMARKS.--Records good.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

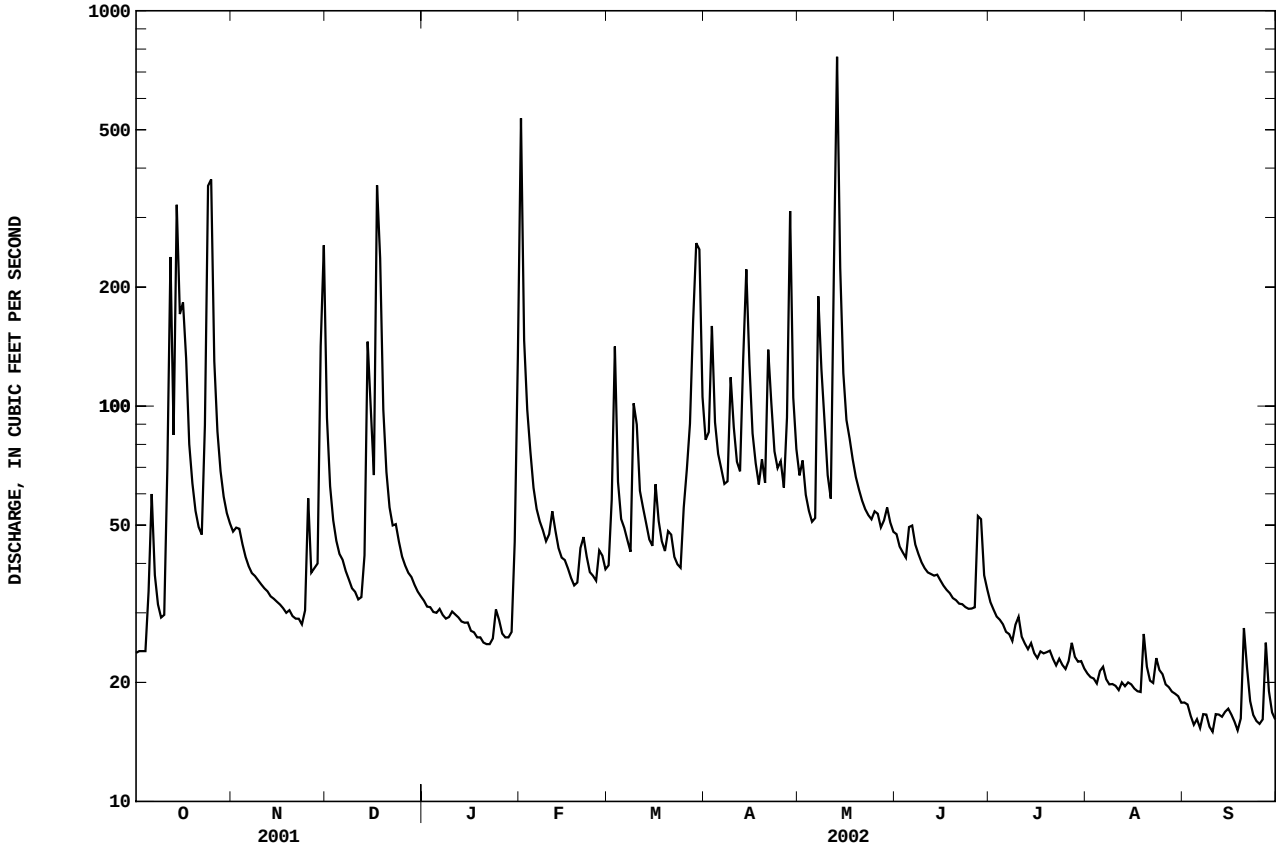
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	48	93	32	535	40	82	67	47	32	21	18
2	24	49	63	31	147	58	86	73	44	31	21	18
3	24	49	51	31	98	142	159	60	43	29	20	16
4	24	45	46	30	77	64	91	54	41	29	20	16
5	34	42	42	30	62	52	76	51	49	28	21	16
6	60	39	41	31	55	49	69	52	50	27	22	15
7	37	38	38	30	51	46	64	190	45	26	20	17
8	32	37	36	29	48	43	65	124	42	25	20	17
9	29	36	35	29	46	102	118	91	40	28	20	15
10	30	35	34	30	47	90	88	67	39	29	20	15
11	70	35	32	30	54	61	72	58	38	26	19	17
12	238	34	33	29	48	55	68	226	38	25	20	17
13	85	33	42	29	44	51	131	765	37	24	20	16
14	323	33	146	28	41	46	222	224	37	25	20	17
15	171	32	99	28	41	44	127	121	36	24	20	17
16	183	31	67	27	39	63	85	92	35	23	19	17
17	132	31	362	27	37	51	72	83	34	24	19	16
18	80	30	236	26	35	46	63	73	34	24	19	15
19	64	30	98	26	36	43	73	66	33	24	27	16
20	54	29	68	25	44	48	64	61	32	24	22	27
21	49	29	55	25	47	47	139	58	32	23	20	22
22	47	29	50	25	42	42	102	55	32	22	20	18
23	89	28	50	26	38	40	77	53	31	23	23	17
24	361	30	45	31	37	39	70	52	31	22	22	16
25	374	58	42	29	36	55	73	54	31	22	21	16
26	130	38	40	27	43	69	62	53	31	23	20	16
27	86	39	38	26	42	90	94	49	53	25	19	25
28	68	40	37	26	39	164	312	51	52	23	19	19
29	59	142	35	27	---	258	105	55	37	23	19	17
30	54	255	34	45	---	249	78	51	34	23	18	16
31	51	---	33	133	---	106	---	48	---	22	18	---
TOTAL	3086	1424	2121	998	1909	2353	2987	3177	1158	778	629	520
MEAN	99.55	47.47	68.42	32.19	68.18	75.90	99.57	102.5	38.60	25.10	20.29	17.33
MAX	374	255	362	133	535	258	312	765	53	32	27	27
MIN	24	28	32	25	35	39	62	48	31	22	18	15
CFSM	2.80	1.34	1.93	0.91	1.92	2.14	2.80	2.89	1.09	0.71	0.57	0.49
IN.	3.23	1.49	2.22	1.05	2.00	2.47	3.13	3.33	1.21	0.82	0.66	0.54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2002, BY WATER YEAR (WY)

MEAN	22.46	31.88	37.92	41.14	50.53	56.47	57.14	45.40	42.68	30.28	23.12	18.83
MAX	99.5	146	109	96.2	123	117	166	102	153	97.9	108	76.4
(WY)	2002	1994	1991	1959	1971	1982	1964	2002	1958	1992	1979	1989
MIN	8.73	9.30	8.77	6.36	11.2	16.4	16.7	17.2	11.3	8.64	9.00	8.13
(WY)	1964	1964	1965	1977	1964	1966	1966	1988	1988	1966	1965	1963

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1955 - 2002	
ANNUAL TOTAL	17725		21140			
ANNUAL MEAN	48.56		57.92		38.07	
HIGHEST ANNUAL MEAN					57.9	2002
LOWEST ANNUAL MEAN					15.4	1966
HIGHEST DAILY MEAN	469	Apr 11	765	May 13	1260	Apr 21 1964
LOWEST DAILY MEAN	16	Jan 12	15	Sep 6	4.7	Jan 17 1977
ANNUAL SEVEN-DAY MINIMUM	17	Jan 7	16	Sep 4	5.5	Jan 15 1977
MAXIMUM PEAK FLOW			886	May 13	1780	Apr 21 1964
MAXIMUM PEAK STAGE			10.14	May 13	13.96	Apr 21 1964
ANNUAL RUNOFF (CFSM)	1.37		1.63		1.07	
ANNUAL RUNOFF (INCHES)	18.57		22.15		14.57	
10 PERCENT EXCEEDS	88		102		67	
50 PERCENT EXCEEDS	33		38		25	
90 PERCENT EXCEEDS	22		20		12	

03347500 BUCK CREEK NEAR MUNCIE, IN--Continued



03348000 WHITE RIVER AT ANDERSON, IN

LOCATION.--Lat 40°06'20", long 85°40'16", in NW$^1/_4$NW$^1/_4$ 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. Sept. 18, 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.

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, 14.94 ft, May 14; minimum gage height, 4.13 ft, Sept. 12.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.41	5.34	6.73	5.16	11.90	5.06	6.23	5.88	5.12	4.71	4.31	4.21
2	4.38	5.32	5.96	4.93	7.91	5.52	6.53	5.91	5.09	4.63	4.29	4.21
3	4.35	5.34	5.64	4.88	6.48	6.72	7.93	5.62	5.04	4.61	4.28	4.21
4	4.33	5.23	5.46	4.90	5.98	5.71	6.47	5.46	5.12	4.57	4.27	4.19
5	5.37	5.14	5.32	4.85	5.66	5.44	6.02	5.37	5.11	4.51	4.46	4.18
6	5.71	5.08	5.24	4.85	5.51	5.33	5.78	5.46	5.54	4.49	4.40	4.16
7	5.24	5.02	5.18	4.85	5.38	5.25	5.64	7.68	5.27	4.47	4.34	4.17
8	4.92	5.01	5.10	4.80	5.30	5.20	5.69	7.35	5.13	4.45	4.30	4.18
9	4.76	4.95	5.03	4.83	5.23	6.20	7.26	6.59	5.01	4.53	4.26	4.17
10	4.73	4.92	4.97	4.81	5.24	6.31	6.42	5.97	4.97	4.93	4.25	4.16
11	5.45	4.89	4.94	4.80	5.37	5.71	5.90	5.72	4.97	4.71	4.26	4.14
12	7.59	4.85	4.96	4.80	5.33	5.53	5.73	10.08	4.90	4.53	4.27	4.16
13	6.29	4.83	5.11	4.76	5.21	5.42	7.55	14.94	4.94	4.47	4.30	4.17
14	9.01	4.79	6.97	4.78	5.11	5.33	8.11	12.49	4.88	4.46	4.28	4.31
15	7.71	4.79	6.57	4.75	5.10	5.44	7.64	7.46	4.82	4.40	4.27	4.31
16	8.25	4.77	6.03	4.74	5.05	5.74	6.31	6.55	4.82	4.37	4.25	4.30
17	7.47	4.75	9.59	4.71	4.98	5.62	5.89	6.21	4.73	4.39	4.25	4.29
18	6.30	4.75	10.15	4.71	4.96	5.41	5.69	5.95	4.73	4.39	4.24	4.33
19	5.86	4.72	7.05	4.69	5.00	5.30	5.75	5.74	4.72	4.42	4.86	4.41
20	5.63	4.73	6.18	4.68	5.35	5.33	5.67	5.61	4.68	4.43	4.39	5.51
21	5.45	4.71	5.83	4.66	5.29	5.31	6.61	5.50	4.66	4.36	4.34	4.64
22	5.32	4.70	5.66	4.66	5.17	5.21	6.49	5.43	4.59	4.35	4.54	4.52
23	5.81	4.67	5.60	4.70	5.08	5.13	5.93	5.35	4.59	4.33	4.48	4.47
24	10.21	4.97	5.46	4.76	5.03	5.12	5.75	5.30	4.57	4.32	4.48	4.44
25	12.93	5.18	5.34	4.81	5.03	5.28	5.55	5.43	4.78	4.31	4.44	4.43
26	7.78	5.04	5.25	4.78	5.13	5.40	5.41	5.32	4.64	4.37	4.34	4.44
27	6.43	5.00	5.19	4.74	5.13	5.70	6.28	5.24	6.05	4.62	4.29	4.95
28	6.00	5.14	5.15	4.73	5.06	6.41	9.83	5.26	5.31	4.44	4.26	4.61
29	5.72	7.16	5.07	4.78	---	8.85	6.86	5.31	4.94	4.42	4.24	4.29
30	5.54	8.46	5.12	5.31	---	10.50	6.13	5.21	4.79	4.37	4.23	4.21
31	5.43	---	5.15	7.03	---	6.91	---	5.21	---	4.33	4.21	---
MEAN	6.27	5.14	5.84	4.88	5.61	5.85	6.43	6.47	4.95	4.47	4.33	4.36
MAX	12.93	8.46	10.15	7.03	11.90	10.50	9.83	14.94	6.05	4.93	4.86	5.51
MIN	4.33	4.67	4.94	4.66	4.96	5.06	5.41	5.21	4.57	4.31	4.21	4.14

CAL YR 2001 MEAN 5.18 MAX 12.93 MIN 4.26
WTR YR 2002 MEAN 5.38 MAX 14.94 MIN 4.14

03348130 WHITE RIVER AT RAIBLE AVENUE AT ANDERSON, IN

LOCATION.--Lat 40°06'38", long 85°42'39", in NW$^1/_4$SW$^1/_4$ 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 fair except for estimated daily discharges, which are poor. Flow maybe affected at times by upstream regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	720	3280	e355	5170	416	1880	1220	564	320	142	111
2	155	672	1570	e344	6460	543	1450	1260	516	284	134	112
3	151	646	1060	e327	2320	1940	3020	1030	476	259	131	107
4	143	621	837	e315	1460	1570	2380	826	457	241	125	101
5	270	559	706	e310	1030	851	1430	729	528	226	125	97
6	907	507	627	e305	819	683	1120	710	626	211	211	96
7	825	472	570	e300	701	609	950	1390	651	198	156	92
8	509	451	510	e292	621	546	888	3130	532	190	141	93
9	361	434	466	297	554	725	1430	2390	463	200	131	91
10	306	406	425	305	528	1870	2060	1560	425	416	125	88
11	425	386	395	303	608	1180	1300	1060	397	428	129	84
12	2220	362	383	292	637	836	1010	1860	405	260	130	83
13	2440	341	446	285	564	721	1580	9780	383	216	145	84
14	2400	333	955	280	476	639	2440	10300	371	197	140	91
15	4290	322	2720	276	444	620	3590	5750	348	186	134	89
16	2960	312	1590	266	422	814	2010	2250	343	172	127	88
17	3730	304	3000	260	391	951	1240	1690	313	168	122	86
18	2210	294	5930	253	355	755	974	1350	290	167	120	83
19	1350	291	4090	248	351	618	864	1120	278	226	334	87
20	1010	284	1810	242	453	587	887	978	267	174	244	238
21	808	277	1240	239	672	599	1020	866	256	170	168	324
22	682	270	992	237	580	548	1880	784	247	157	154	166
23	770	264	921	235	476	486	1260	725	241	152	272	130
24	3480	319	819	252	422	453	951	681	233	152	211	113
25	7440	582	699	277	399	520	846	754	228	144	193	100
26	6590	598	615	278	457	625	734	893	279	151	172	94
27	2210	472	566	264	482	719	815	721	434	215	147	199
28	1440	462	523	253	452	1150	4060	689	1030	203	134	194
29	1120	1190	479	274	---	2490	4030	717	572	170	125	148
30	923	3250	e407	419	---	5740	1720	656	385	161	119	121
31	798	---	e380	1230	---	4410	---	589	---	149	115	---
TOTAL	53084	16401	39011	9813	28304	35214	49819	58458	12538	6563	4856	3590
MEAN	1712	546.7	1258	316.5	1011	1136	1661	1886	417.9	211.7	156.6	119.7
MAX	7440	3250	5930	1230	6460	5740	4060	10300	1030	428	334	324
MIN	143	264	380	235	351	416	734	589	228	144	115	83

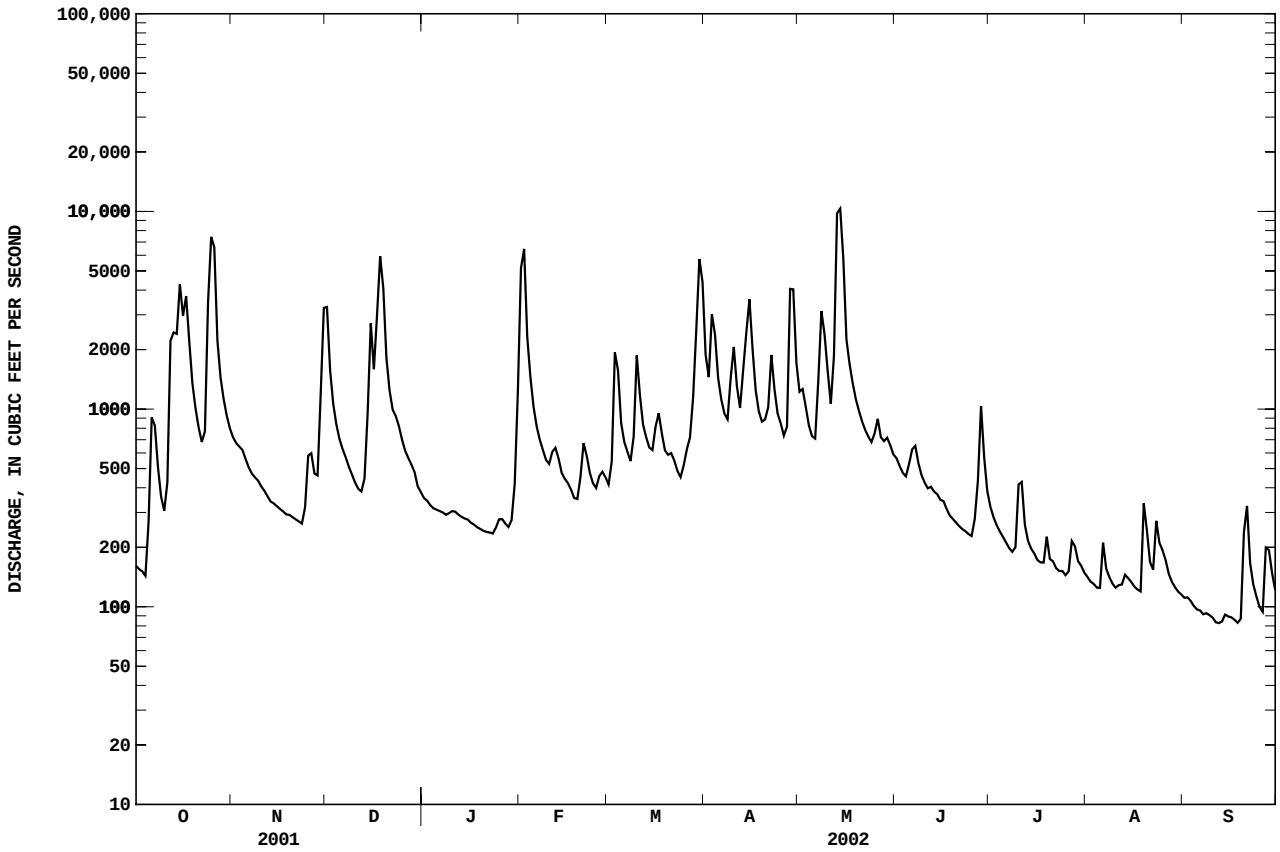
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	736.0	317.3	631.8	260.3	758.2	608.0	991.5	1048	487.4	348.8	229.5	249.6
MAX	1712	547	1258	354	1011	1136	1661	1886	577	493	286	330
(WY)	2002	2002	2002	2001	2002	2002	2002	2002	2000	2001	2000	2000
MIN	90.9	93.4	126	110	384	325	656	421	418	212	157	120
(WY)	2000	2000	2000	2000	2000	2000	2001	2000	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2002	
ANNUAL TOTAL	247257		317651			
ANNUAL MEAN	677.4		870.3		554.5	
HIGHEST ANNUAL MEAN					870	2002
LOWEST ANNUAL MEAN					310	2000
HIGHEST DAILY MEAN	7440	Oct 25	10300	May 14	10300	May 14 2002
LOWEST DAILY MEAN	125	Aug 16	83	Sep 12	74	Jan 22 2000
ANNUAL SEVEN-DAY MINIMUM	146	Aug 11	86	Sep 12	77	Oct 26 1999
MAXIMUM PEAK FLOW			12000	May 13	12000	May 13 2002
MAXIMUM PEAK STAGE			14.47	May 13	14.47	May 13 2002
10 PERCENT EXCEEDS	1450		2030		1120	
50 PERCENT EXCEEDS	374		453		292	
90 PERCENT EXCEEDS	186		131		100	

e Estimated

03348130 WHITE RIVER AT RAIBLE AVENUE AT ANDERSON, IN--Continued



03348350 PIPE CREEK AT FRANKTON, IN

LOCATION.--Lat 40°13'38", long 85°45'58", in SE$^1/_4$NE$^1/_4$ sec.31, T.21 N., R.7 E., Madison County, Hydrologic Unit 05120201, (FRANKTON, IN quadrangle), on right bank 20 ft downstream from bridge on County Road 500 West, at northeast edge of Frankton, 1.88 mi downstream of Plummer Brook mouth, and at mile 10.35.

DRAINAGE AREA.--113 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 810.00 ft above National Geodetic Vertical Datum of 1929.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	100	663	e46	1440	82	713	260	72	22	12	11
2	37	92	281	e43	952	145	420	199	62	20	12	11
3	34	87	178	e40	445	815	660	150	55	19	11	11
4	31	79	132	e38	269	390	373	122	51	18	11	10
5	101	73	106	e37	173	177	244	109	79	17	13	9.6
6	500	68	91	e37	132	146	191	102	74	16	15	9.4
7	312	64	81	e38	110	138	158	219	57	15	11	9.4
8	162	61	72	e37	97	119	149	297	49	14	10	9.3
9	107	56	65	38	88	201	270	269	45	16	9.8	8.9
10	86	54	58	39	84	301	227	193	43	27	9.7	8.7
11	188	52	54	38	98	160	166	138	40	25	9.4	8.3
12	1160	48	51	37	101	129	143	513	40	19	9.1	7.7
13	1110	45	61	37	86	116	219	2680	38	17	11	8.3
14	840	45	248	36	76	103	476	1600	39	16	13	9.0
15	901	44	807	36	74	97	757	855	37	15	11	8.9
16	771	43	376	34	70	183	305	425	34	14	11	8.9
17	1050	41	978	33	65	160	195	281	31	16	10	8.1
18	545	40	1310	32	58	123	150	202	29	16	9.7	8.3
19	302	41	680	31	59	102	125	154	28	16	23	10
20	211	40	335	31	82	97	107	124	26	16	19	35
21	164	38	212	31	151	88	139	101	25	14	14	32
22	139	38	162	30	114	77	168	87	24	12	12	17
23	153	36	150	30	93	74	126	78	24	12	26	13
24	712	37	123	32	82	71	109	72	24	12	29	11
25	1270	74	98	31	75	72	105	85	23	11	22	10
26	768	85	85	30	86	e68	91	106	24	16	17	9.6
27	392	64	77	30	99	e64	140	81	27	20	14	16
28	225	56	71	30	89	83	1410	112	33	16	12	15
29	167	146	63	31	---	272	966	233	28	14	12	13
30	133	699	e54	57	---	1320	442	125	24	15	12	11
31	113	---	e50	328	---	1270	---	88	---	12	11	---
TOTAL	12724	2446	7772	1398	5348	7243	9744	10060	1185	508	421.7	358.4
MEAN	410.5	81.53	250.7	45.10	191.0	233.6	324.8	324.5	39.50	16.39	13.60	11.95
MAX	1270	699	1310	328	1440	1320	1410	2680	79	27	29	35
MIN	31	36	50	30	58	64	91	72	23	11	9.1	7.7
CFSM	3.63	0.72	2.22	0.40	1.69	2.07	2.87	2.87	0.35	0.15	0.12	0.11
IN.	4.19	0.81	2.56	0.46	1.76	2.38	3.21	3.31	0.39	0.17	0.14	0.12

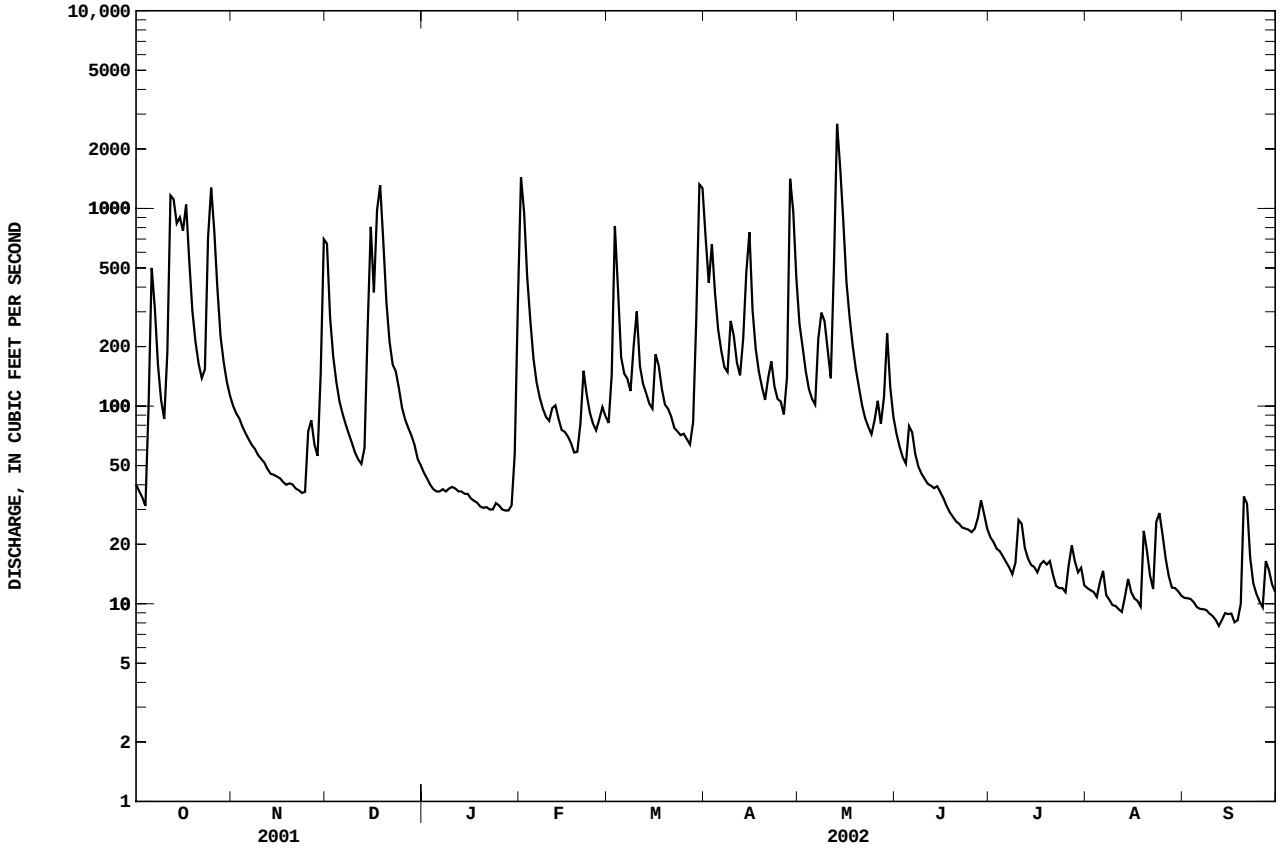
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	41.10	89.35	126.8	125.4	160.6	194.1	170.0	108.1	122.9	70.17	45.50	41.82
MAX	410	519	482	409	416	544	467	324	409	526	250	529
(WY)	2002	1993	1991	1974	1990	1982	1972	2002	1980	1992	1998	1989
MIN	3.66	6.71	7.31	5.29	16.5	42.4	33.3	19.1	10.3	7.94	4.97	3.23
(WY)	2000	1998	1977	1977	1995	1981	1971	1976	1988	1977	1988	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	52315		59208.1			
ANNUAL MEAN	143.3		162.2		107.6	
HIGHEST ANNUAL MEAN					180	1973
LOWEST ANNUAL MEAN					32.7	1977
HIGHEST DAILY MEAN	1310	Dec 18	2680	May 13	3840	Jul 14 1992
LOWEST DAILY MEAN	17	Aug 17	7.7	Sep 12	2.0	Sep 27 1999
ANNUAL SEVEN-DAY MINIMUM	19	Aug 12	8.5	Sep 11	2.2	Sep 22 1999
MAXIMUM PEAK FLOW			3020	May 13	5630	Jul 13 1992
MAXIMUM PEAK STAGE			12.11	May 13	15.00	Jul 13 1992
ANNUAL RUNOFF (CFSM)	1.27		1.44		0.95	
ANNUAL RUNOFF (INCHES)	17.22		19.49		12.94	
10 PERCENT EXCEEDS	374		403		248	
50 PERCENT EXCEEDS	61		64		40	
90 PERCENT EXCEEDS	27		11		9.0	

e Estimated

03348350 PIPE CREEK AT FRANKTON, IN--Continued



03349000 WHITE RIVER AT NOBLESVILLE, IN

LOCATION.--Lat 40°02'50", long 86°01'00", in SE$^1/_4$SE$^1/_4$ 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 fair except for estimated daily discharges, which are poor. Flow partially regulated by powerplant above station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	1240	4860	e560	5830	799	5040	2630	860	441	e160	111
2	333	1130	3020	e540	8780	913	3080	2340	785	378	e140	103
3	315	1050	1880	e520	6310	2790	4050	1970	723	332	e144	103
4	296	999	1420	e510	2980	3410	e4390	1510	683	299	e145	97
5	453	913	1170	e500	2040	1800	e2680	1260	832	265	e140	89
6	1780	836	1020	e505	1550	1330	e1830	1170	867	242	e130	81
7	1990	775	915	e500	1300	1170	e1510	1890	925	220	e220	80
8	1280	735	822	e495	1140	1060	e1370	4180	786	203	e150	75
9	890	703	747	489	1020	1210	1720	4080	681	205	e135	74
10	711	662	681	491	942	2670	2820	3020	620	265	e140	73
11	865	633	635	486	979	2280	2200	1980	580	535	e150	66
12	4060	599	606	473	1070	1520	1650	2920	560	378	e165	59
13	5470	572	652	465	995	1270	1790	12800	597	265	e170	61
14	4780	557	1110	452	e940	1130	3380	16900	615	221	e180	66
15	6000	544	3840	444	e900	1050	4660	13500	548	197	e177	77
16	5740	527	3470	436	e870	1350	3890	6070	502	189	e160	72
17	5980	510	4350	432	e820	1600	2220	3310	464	189	e150	69
18	4840	495	7810	416	e750	1400	1640	2500	425	194	e140	68
19	2830	488	7700	404	e730	e1120	1360	1970	396	188	e650	77
20	2050	480	3920	398	746	e1020	1280	1630	375	284	e490	204
21	1600	467	2430	392	1240	e962	1340	1380	356	217	236	598
22	1330	456	1850	390	e1430	882	2200	1220	338	182	179	358
23	1270	442	1620	384	e1150	809	2030	1110	321	162	311	231
24	3240	443	1450	391	e1000	757	1470	1030	310	150	349	186
25	7500	608	1220	413	e890	794	1310	1090	307	147	315	160
26	8980	861	1070	426	e830	877	1150	1340	366	162	243	142
27	5660	713	959	415	872	934	1130	1180	466	229	195	198
28	2630	637	888	400	856	1260	5330	1060	1200	263	155	329
29	1990	867	818	e405	---	2830	8030	1200	1040	228	135	252
30	1610	3360	e700	e586	---	6960	4500	1120	572	196	125	208
31	1380	---	e600	e1290	---	8640	---	941	---	178	119	---
TOTAL	88204	23302	64233	15008	48960	56597	81050	100301	18100	7604	6298	4367
MEAN	2845	776.7	2072	484.1	1749	1826	2702	3236	603.3	245.3	203.2	145.6
MAX	8980	3360	7810	1290	8780	8640	8030	16900	1200	535	650	598
MIN	296	442	600	384	730	757	1130	941	307	147	119	59
CFSM	3.32	0.91	2.41	0.56	2.04	2.13	3.15	3.77	0.70	0.29	0.24	0.17
IN.	3.82	1.01	2.78	0.65	2.12	2.45	3.51	4.35	0.78	0.33	0.27	0.19

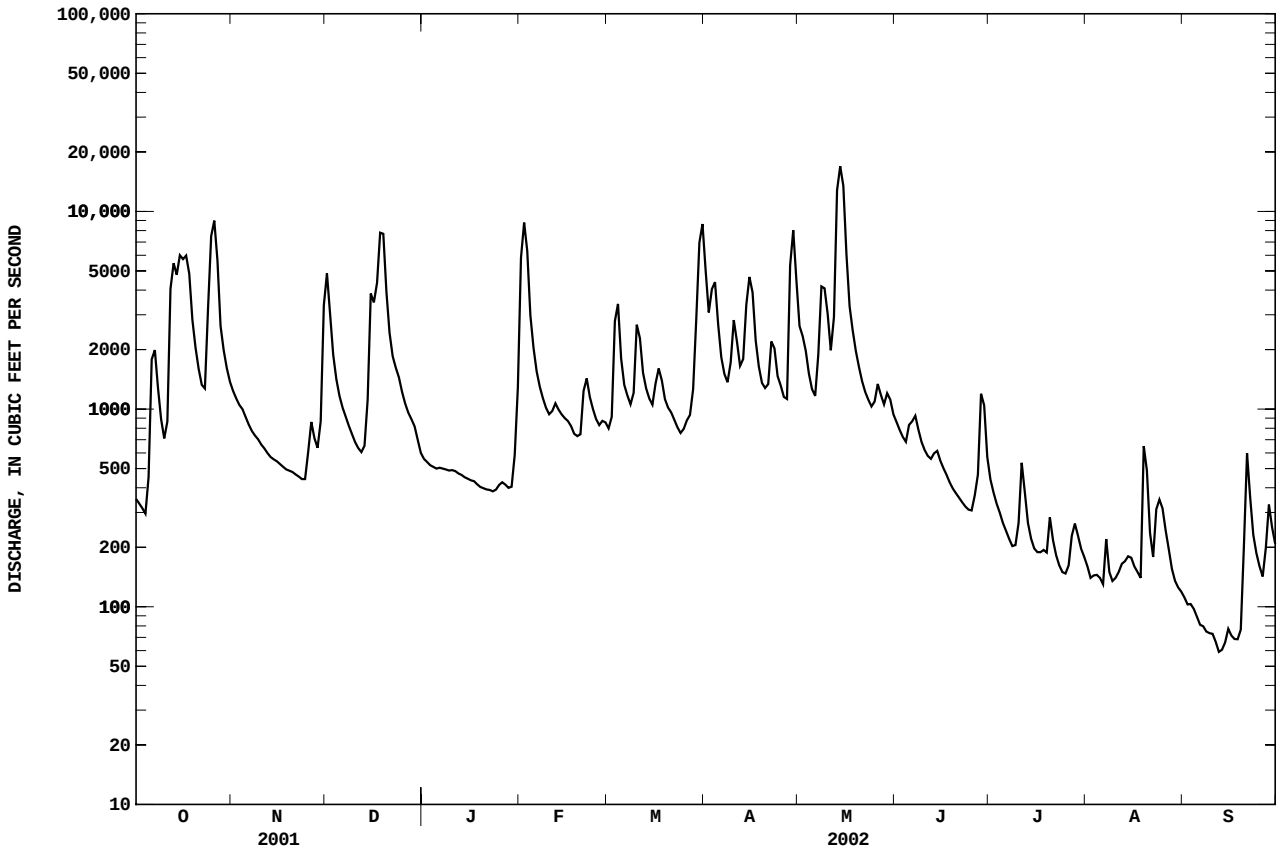
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2002, BY WATER YEAR (WY)

MEAN	323.8	594.7	874.1	1136	1276	1544	1498	1002	907.3	572.7	361.7	301.7
MAX	2845	3359	3472	6494	3485	3732	4281	3236	4432	2778	2264	3143
(WY)	2002	1994	1991	1950	1950	1978	1964	2002	1958	1992	1979	1989
MIN	88.4	109	107	102	141	368	322	249	143	138	93.8	69.3
(WY)	1964	1964	1964	1977	1964	1981	1971	1988	1988	1966	1988	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1947 - 2002	
ANNUAL TOTAL	401873		514024			
ANNUAL MEAN	1101		1408		863.4	
HIGHEST ANNUAL MEAN					1455	1950
LOWEST ANNUAL MEAN					266	1954
HIGHEST DAILY MEAN	8980	Oct 26	16900	May 14	25400	Dec 31 1990
LOWEST DAILY MEAN	218	Aug 17	59	Sep 12	44	Sep 28 1954
ANNUAL SEVEN-DAY MINIMUM	235	Aug 12	67	Sep 11	58	Sep 23 1954
MAXIMUM PEAK FLOW			17300	May 14	27000	Dec 31 1990
MAXIMUM PEAK STAGE			20.65	May 14	21.31	Apr 22 1964
ANNUAL RUNOFF (CFSM)	1.28		1.64		1.01	
ANNUAL RUNOFF (INCHES)	17.42		22.29		13.67	
10 PERCENT EXCEEDS	2500		3430		1940	
50 PERCENT EXCEEDS	638		785		407	
90 PERCENT EXCEEDS	310		153		138	

e Estimated

03349000 WHITE RIVER AT NOBLESVILLE, IN--Continued



03350700 STONY CREEK NEAR NOBLESVILLE, IN

LOCATION.--Lat 40°01'44", long 85°59'44", in NE$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	73	163	e28	537	46	165	142	43	22	8.8	7.4
2	19	67	113	e27	256	84	150	149	40	20	8.7	7.3
3	17	61	86	e26	164	204	239	122	38	18	8.5	7.1
4	15	56	69	e25	129	116	159	95	36	17	8.0	6.8
5	77	51	60	e24	94	76	128	79	39	17	8.3	6.3
6	208	48	54	e24	75	71	106	75	38	15	8.2	6.5
7	119	46	48	e25	63	66	86	209	34	14	7.5	6.5
8	81	44	42	e25	56	55	84	276	32	14	7.4	6.4
9	59	41	37	27	50	92	111	231	31	15	8.2	6.3
10	50	40	36	26	48	118	98	176	29	16	8.3	6.1
11	121	37	35	25	54	79	81	130	29	14	7.6	5.7
12	485	35	34	25	51	65	71	321	29	13	7.0	5.6
13	280	34	45	25	42	58	96	1300	34	12	6.9	5.6
14	375	34	138	25	40	53	133	805	42	12	6.8	5.5
15	318	36	218	24	41	52	140	352	34	11	6.9	5.8
16	316	36	146	22	33	136	102	187	30	11	6.5	5.9
17	328	33	381	23	31	101	79	153	26	13	6.5	5.5
18	190	28	376	22	28	76	65	122	24	13	6.7	5.3
19	151	33	199	22	30	62	59	99	22	12	40	6.4
20	125	33	151	22	55	59	52	84	22	13	20	33
21	103	30	117	22	94	53	86	71	21	12	11	41
22	87	28	96	25	62	47	109	63	20	11	10	13
23	125	28	91	25	49	45	75	58	19	11	39	8.7
24	410	28	76	24	44	42	69	54	19	10	16	8.8
25	664	45	62	24	43	79	77	79	20	9.5	13	9.2
26	260	38	56	22	52	89	62	100	25	11	12	8.5
27	172	37	51	22	54	79	101	66	63	12	9.6	16
28	138	35	46	26	49	150	596	63	57	11	8.6	14
29	116	92	40	26	---	321	285	58	32	10	8.4	10
30	96	228	e33	53	---	585	178	52	25	9.4	8.0	9.3
31	83	---	e30	179	---	226	---	47	---	9.4	7.7	---
TOTAL	5609	1455	3129	940	2324	3385	3842	5818	953	408.3	340.1	289.5
MEAN	180.9	48.50	100.9	30.32	83.00	109.2	128.1	187.7	31.77	13.17	10.97	9.650
MAX	664	228	381	179	537	585	596	1300	63	22	40	41
MIN	15	28	30	22	28	42	52	47	19	9.4	6.5	5.3
CFSM	3.56	0.95	1.99	0.60	1.63	2.15	2.52	3.69	0.63	0.26	0.22	0.19
IN.	4.11	1.07	2.29	0.69	1.70	2.48	2.81	4.26	0.70	0.30	0.25	0.21

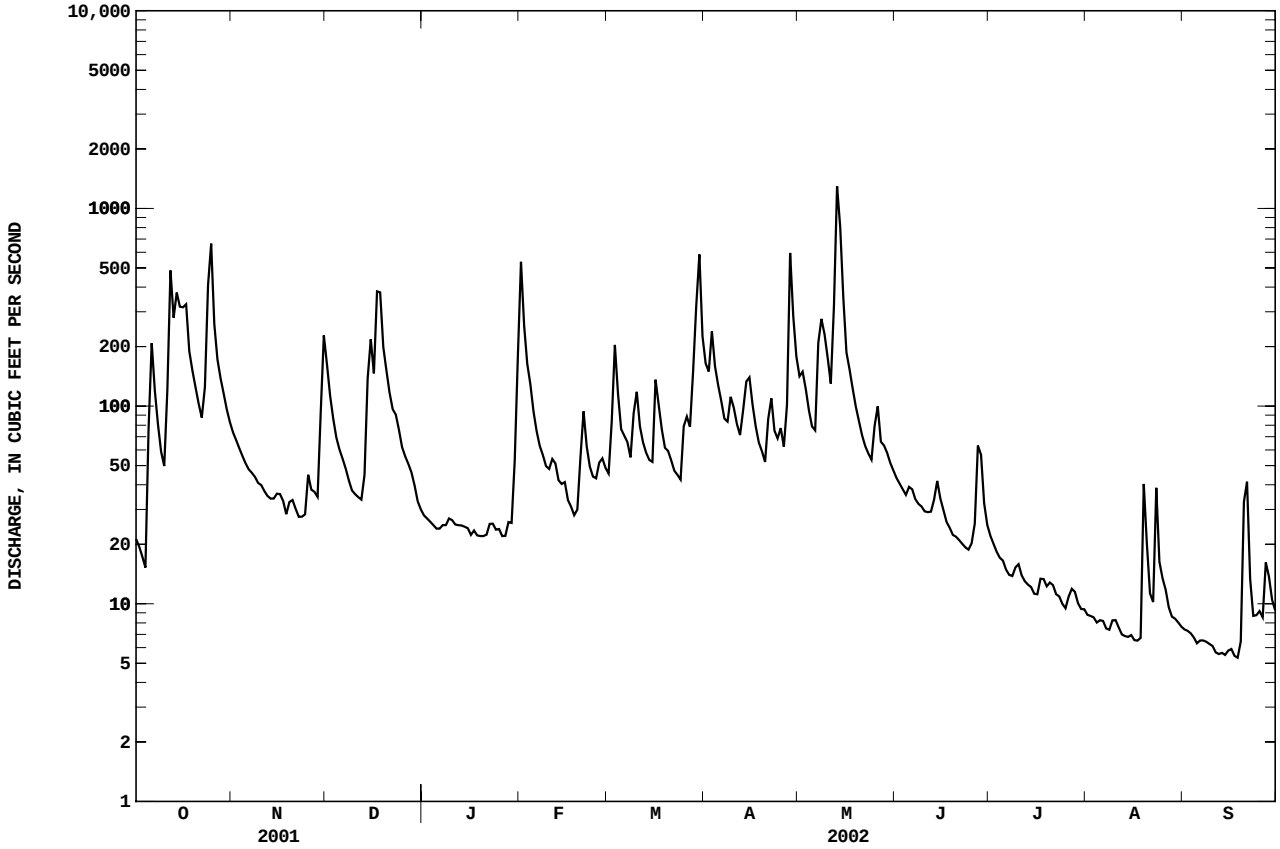
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

MEAN	20.59	45.49	56.58	56.36	77.10	84.01	80.05	64.57	49.85	30.38	20.54	17.30
MAX	181	287	235	145	190	203	160	229	241	128	80.5	210
(WY)	2002	1993	1991	1974	1990	1978	1972	1996	1998	1979	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1968 - 2002	
ANNUAL TOTAL	20972.2		28492.9			
ANNUAL MEAN	57.46		78.06		50.05	
HIGHEST ANNUAL MEAN					83.0	1993
LOWEST ANNUAL MEAN					15.4	2000
HIGHEST DAILY MEAN	664	Oct 25	1300	May 13	1760	Dec 30 1990
LOWEST DAILY MEAN	5.7	Sep 5	5.3	Sep 18	0.88	Oct 9 1995
ANNUAL SEVEN-DAY MINIMUM	6.5	Sep 1	5.6	Sep 12	0.96	Oct 8 1995
MAXIMUM PEAK FLOW			1480	May 13	2090	Dec 30 1990
MAXIMUM PEAK STAGE			7.47	May 13	9.21	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.13		1.54		0.99	
ANNUAL RUNOFF (INCHES)	15.36		20.86		13.39	
10 PERCENT EXCEEDS	120		174		113	
50 PERCENT EXCEEDS	34		41		23	
90 PERCENT EXCEEDS	11		8.4		5.6	

e Estimated

03350700 STONY CREEK NEAR NOBLESVILLE, IN--Continued



03351000 WHITE RIVER NEAR NORA, IN

LOCATION.--Lat 39°54'35", long 86°06'20", in NW1/4NW1/4 sec.20, T.17 N., R.4 E., Marion County, Hydrologic Unit 05120201, (FISHERS, IN quadrangle), on downstream side of center bridge pier on 82nd Street, 2 mi east of Nora, 14 mi upstream from Fall Creek, and at mile 247.9.

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

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

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

GAGE.--Water-stage recorder. Datum of gage is 710.94 ft above 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	452	1680	5390	e800	6770	1270	7970	3800	1300	881	274	226
2	419	1540	4210	e760	10200	1370	4360	3330	1180	728	259	240
3	392	1430	2510	e730	9370	3150	4790	2820	1080	632	266	242
4	367	1320	1920	e710	4360	4540	5620	2170	1010	572	265	241
5	740	1240	1590	e700	2910	2770	3790	1820	1240	520	255	230
6	2050	1130	1400	e710	2210	1980	2750	1670	1320	458	246	217
7	2590	1060	1260	e700	1860	1740	2250	2560	1270	423	301	212
8	1840	1000	1140	e690	1640	1560	2030	5010	1170	388	275	210
9	1270	981	1050	702	1470	1800	2220	5570	1020	433	247	204
10	992	911	952	710	1360	3300	3190	4290	915	474	279	207
11	1250	875	891	706	1390	3430	2960	2860	846	604	282	199
12	4970	822	849	684	1430	2340	2290	3430	830	598	283	196
13	7090	788	925	668	1400	1920	2310	14000	1040	453	297	194
14	7050	760	1510	656	1250	1700	3630	20800	1150	394	325	198
15	7670	744	4070	644	1140	1570	5200	19900	1050	361	314	205
16	7960	722	4730	625	1100	2020	5240	11500	915	332	279	208
17	7870	700	5250	607	1050	2230	3090	5100	797	375	267	200
18	7150	677	9030	587	959	2060	2230	3710	710	354	259	208
19	4340	660	9830	577	927	1720	1850	2910	648	326	884	221
20	3040	668	6240	569	1190	1570	1680	2430	611	374	644	670
21	2370	633	3450	560	1820	1480	1850	2100	575	362	394	800
22	1970	615	2580	561	1960	1360	2460	1840	548	328	276	525
23	1940	610	2240	559	1580	1250	2630	1670	526	298	432	311
24	3880	621	2010	565	1360	1180	1990	1540	503	278	504	243
25	8690	728	1740	571	1230	1510	1900	1660	509	266	382	212
26	10400	982	1520	578	1380	1560	1620	1970	757	267	328	190
27	8980	978	1360	573	1400	1590	1650	1810	1500	339	277	335
28	3840	852	1270	560	1340	1920	6190	1610	2350	372	235	333
29	2720	1020	1170	567	---	3330	9880	1720	2030	358	212	331
30	2220	3160	1030	804	---	7940	7230	1720	1220	341	250	257
31	1890	---	906	1790	---	10400	---	1450	---	305	242	---
TOTAL	118402	29907	84023	21223	66056	77560	106850	138770	30620	13194	10033	8265
MEAN	3819	996.9	2710	684.6	2359	2502	3562	4476	1021	425.6	323.6	275.5
MAX	10400	3160	9830	1790	10200	10400	9880	20800	2350	881	884	800
MIN	367	610	849	559	927	1180	1620	1450	503	266	212	190
CFSM	3.13	0.82	2.22	0.56	1.94	2.05	2.92	3.67	0.84	0.35	0.27	0.23
IN.	3.61	0.91	2.56	0.65	2.02	2.37	3.26	4.23	0.93	0.40	0.31	0.25

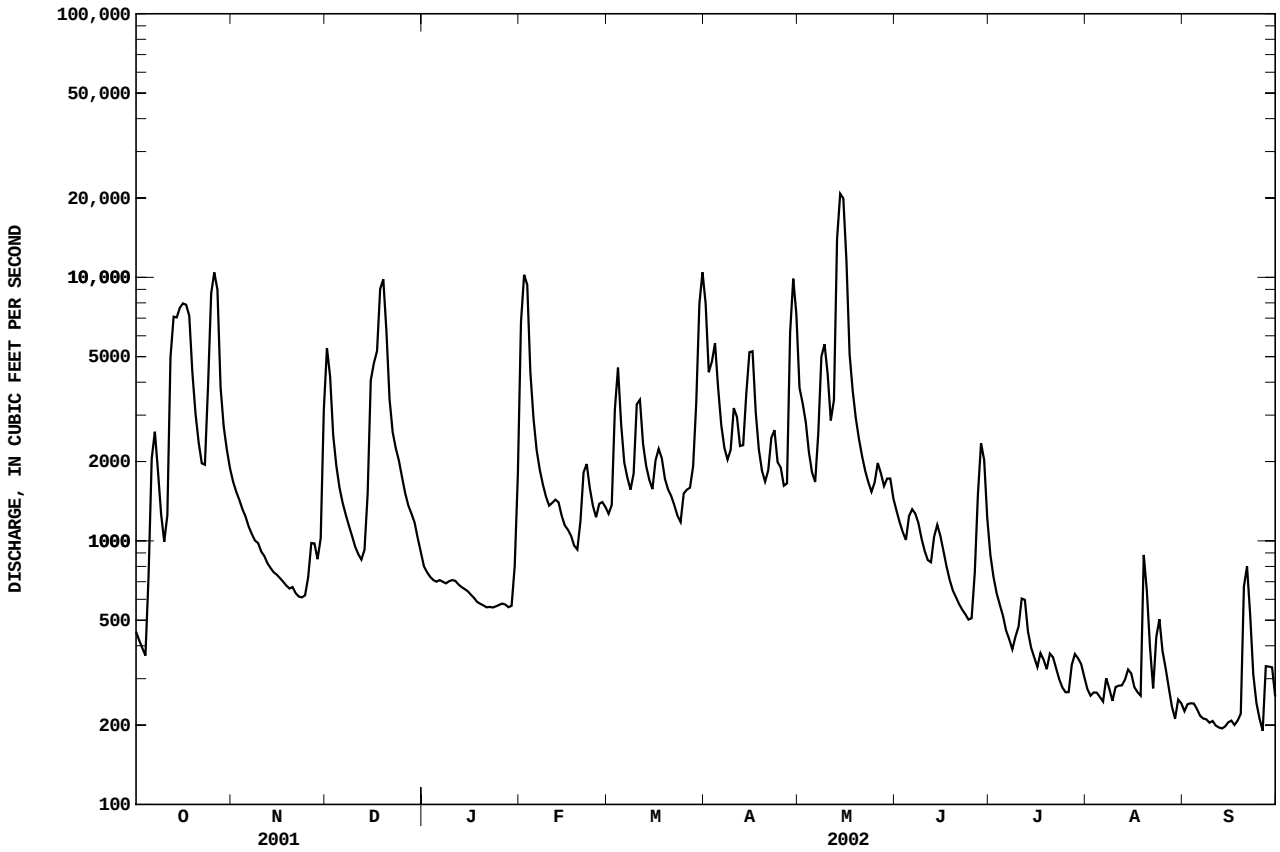
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2002, BY WATER YEAR (WY)

MEAN	408.1	735.4	1100	1567	1674	2067	2051	1452	1170	722.5	453.9	378.1
MAX	3819	5115	4366	9015	4805	5113	5878	6815	6093	3672	2612	4397
(WY)	2002	1993	1991	1950	1950	1978	1964	1943	1958	1992	1979	1989
MIN	108	110	119	119	182	194	280	141	200	102	82.5	72.3
(WY)	1941	1935	1935	1945	1964	1941	1941	1941	1931	1936	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1930 - 2002	
ANNUAL TOTAL	524347		704903			
ANNUAL MEAN	1437		1931		1145	
HIGHEST ANNUAL MEAN					2052	1950
LOWEST ANNUAL MEAN					235	1941
HIGHEST DAILY MEAN	10400	Oct 26	20800	May 14	31500	May 19 1943
LOWEST DAILY MEAN	240	Aug 15	190	Sep 26	49	Sep 17 1941
ANNUAL SEVEN-DAY MINIMUM	266	Aug 11	200	Sep 11	53	Sep 17 1941
MAXIMUM PEAK FLOW			21900	May 14	32400	May 19 1943
MAXIMUM PEAK STAGE			16.58	May 14	19.19	Jan 1 1991
ANNUAL RUNOFF (CFSM)	1.18		1.58		0.94	
ANNUAL RUNOFF (INCHES)	16.00		21.51		12.76	
10 PERCENT EXCEEDS	3310		4620		2590	
50 PERCENT EXCEEDS	852		1140		525	
90 PERCENT EXCEEDS	374		267		162	

e Estimated

03351000 WHITE RIVER NEAR NORA, IN--Continued



03351060 WHITE RIVER AT BROAD RIPPLE, IN

LOCATION.--Lat 39°52'17", long 86°08'16", in SW 1/4 sec.36, T.17 N., R.3 E., Marion County, Hydrologic Unit 05120201, (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, 8.30 ft, May 15; minimum 2.78 ft, Sept. 8-14.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.06	3.71	5.06	3.28	5.92	3.52	5.21	4.45	3.54	3.22	2.81	2.81
2	3.03	3.61	4.34	3.25	6.35	3.74	4.78	4.40	3.48	3.14	2.82	2.82
3	2.98	3.56	3.96	3.26	5.39	4.75	5.14	4.13	3.41	3.09	2.82	2.83
4	2.98	3.52	3.76	3.23	4.55	4.67	5.06	3.91	3.39	3.05	2.81	2.83
5	3.66	3.46	3.63	3.24	4.15	4.06	4.46	3.79	3.55	3.00	2.81	2.81
6	4.29	3.41	3.57	3.25	3.93	3.85	4.18	3.77	3.48	2.96	2.81	2.80
7	4.18	3.38	3.49	3.25	3.78	3.74	4.02	4.59	3.51	2.93	2.88	2.79
8	3.78	3.35	3.45	3.21	3.67	3.67	3.98	5.22	3.42	2.91	2.83	2.79
9	3.54	3.33	3.39	3.21	3.59	4.02	4.14	---	---	---	2.79	2.78
10	3.49	3.30	3.33	3.22	3.55	4.67	4.58	4.55	---	---	---	2.78
11	3.96	3.30	3.31	3.21	3.55	4.30	4.24	4.14	---	---	---	2.78
12	5.69	3.26	3.29	3.20	3.59	3.99	4.17	5.51	---	---	---	2.78
13	5.94	3.24	3.35	3.18	3.55	3.84	4.22	7.59	3.48	---	---	2.78
14	5.88	3.24	4.02	3.18	3.47	3.74	5.00	8.30	3.41	---	2.93	2.79
15	6.11	3.22	4.98	3.17	3.42	3.75	5.38	7.46	3.38	---	---	2.80
16	5.98	3.21	4.65	3.16	3.41	3.99	4.83	5.34	3.28	---	---	2.80
17	6.06	3.19	5.42	3.15	3.37	4.04	4.21	4.67	3.20	---	2.84	2.80
18	5.48	3.18	6.12	3.14	3.32	3.90	3.89	4.35	3.16	---	2.84	2.81
19	4.70	3.17	5.98	3.13	3.33	3.74	3.75	4.13	3.13	2.93	3.34	2.86
20	4.36	3.17	4.75	3.12	3.57	3.70	3.72	3.98	3.10	2.98	3.09	3.53
21	4.12	3.14	4.31	3.11	3.90	3.66	3.88	3.84	3.07	---	2.91	3.20
22	3.98	3.14	4.04	3.11	3.81	3.56	4.23	3.74	3.04	---	2.85	3.01
23	4.21	3.14	3.95	3.11	3.63	3.53	4.00	3.66	3.03	---	3.02	2.90
24	5.70	3.16	3.84	3.13	3.54	3.51	3.86	3.62	3.00	2.84	3.02	---
25	6.57	3.29	3.71	3.12	3.50	3.80	3.77	3.90	3.08	2.82	2.97	---
26	6.57	3.40	3.62	3.13	3.61	3.74	3.66	3.85	3.22	2.85	2.90	---
27	5.31	3.33	3.54	3.13	3.60	3.83	4.04	3.72	4.22	2.92	2.86	---
28	4.50	3.31	3.50	3.12	3.54	4.04	5.80	3.68	3.95	2.90	2.81	---
29	4.22	3.50	3.46	3.16	---	5.04	6.16	3.80	3.63	2.91	2.80	---
30	3.98	4.76	3.35	3.38	---	6.26	4.95	3.68	3.35	2.87	2.84	---
31	3.84	---	3.28	4.36	---	6.42	---	3.58	---	2.86	2.83	---
MEAN	4.59	3.37	4.01	3.22	3.88	4.10	4.44	---	---	---	---	---
MAX	6.57	4.76	6.12	4.36	6.35	6.42	6.16	---	---	---	---	---
MIN	2.98	3.14	3.28	3.11	3.32	3.51	3.66	---	---	---	---	---

CAL YR 2001 MEAN 3.57 MAX 6.57 MIN 2.80

03351310 CROOKED CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°49'47", long 86°12'22", in NW$^1/_4$SE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	11	25	e7.1	264	e19	29	36	17	12	4.3	2.5
2	2.6	11	17	e6.7	47	36	53	78	13	9.6	3.2	2.4
3	2.6	12	14	e6.4	33	60	71	35	11	7.8	3.7	2.4
4	2.9	9.8	12	e6.1	27	e30	36	26	10	6.9	2.7	2.4
5	89	8.9	11	e6.0	22	24	28	21	33	5.9	2.3	5.3
6	42	8.3	10	e6.3	18	22	23	29	22	5.8	2.0	2.2
7	17	8.0	9.6	e6.2	17	19	20	134	15	4.6	1.7	1.5
8	11	7.9	8.5	e6.1	16	17	25	101	12	4.2	1.3	1.4
9	10	8.3	7.8	6.4	14	85	32	77	10	40	1.4	1.4
10	17	7.8	7.1	7.0	15	44	24	42	10	30	1.2	1.4
11	94	7.1	6.7	6.7	20	29	20	29	11	12	1.1	1.3
12	247	6.5	7.5	6.8	17	26	27	240	17	8.7	1.1	1.3
13	35	6.3	19	5.9	14	22	30	647	36	6.3	1.2	1.3
14	126	6.1	124	5.7	12	19	34	80	36	5.2	1.8	1.3
15	35	5.9	42	6.1	12	23	28	44	26	4.6	2.1	1.4
16	56	6.4	32	5.1	11	68	23	32	27	4.1	1.6	1.4
17	31	6.8	208	4.9	10	30	19	32	14	5.5	1.6	1.4
18	21	5.6	62	4.7	10	25	18	25	11	6.6	1.5	1.6
19	17	5.4	31	7.0	14	24	16	21	9.3	7.2	104	1.8
20	14	5.4	22	6.9	57	25	15	19	7.9	22	25	103
21	11	5.3	18	6.1	39	22	59	18	7.0	8.1	11	32
22	10	5.2	16	5.7	27	17	34	15	6.4	5.5	7.2	11
23	48	5.0	18	4.9	20	15	23	14	5.9	5.2	5.2	5.3
24	197	11	14	5.9	17	15	28	14	5.4	5.0	12	3.1
25	83	17	12	5.6	16	93	47	28	43	3.7	16	2.8
26	29	8.5	11	4.9	43	48	25	29	115	3.2	7.6	2.0
27	20	11	10	4.3	30	64	131	17	123	6.3	5.5	28
28	16	12	10	4.8	e22	71	298	24	62	4.8	4.2	11
29	14	31	9.3	5.4	---	89	55	26	22	4.8	3.4	6.7
30	13	83	e8.1	27	---	75	38	20	15	10	3.2	4.0
31	11	---	e7.6	121	---	37	---	15	---	5.2	2.8	---
TOTAL	1324.8	343.5	810.2	319.7	864	1193	1309	1968	752.9	270.8	242.9	244.6
MEAN	42.74	11.45	26.14	10.31	30.86	38.48	43.63	63.48	25.10	8.735	7.835	8.153
MAX	247	83	208	121	264	93	298	647	123	40	104	103
MIN	2.6	5.0	6.7	4.3	10	15	15	14	5.4	3.2	1.1	1.3
CFSM	2.39	0.64	1.46	0.58	1.72	2.15	2.44	3.55	1.40	0.49	0.44	0.46
IN.	2.75	0.71	1.68	0.66	1.80	2.48	2.72	4.09	1.56	0.56	0.50	0.51

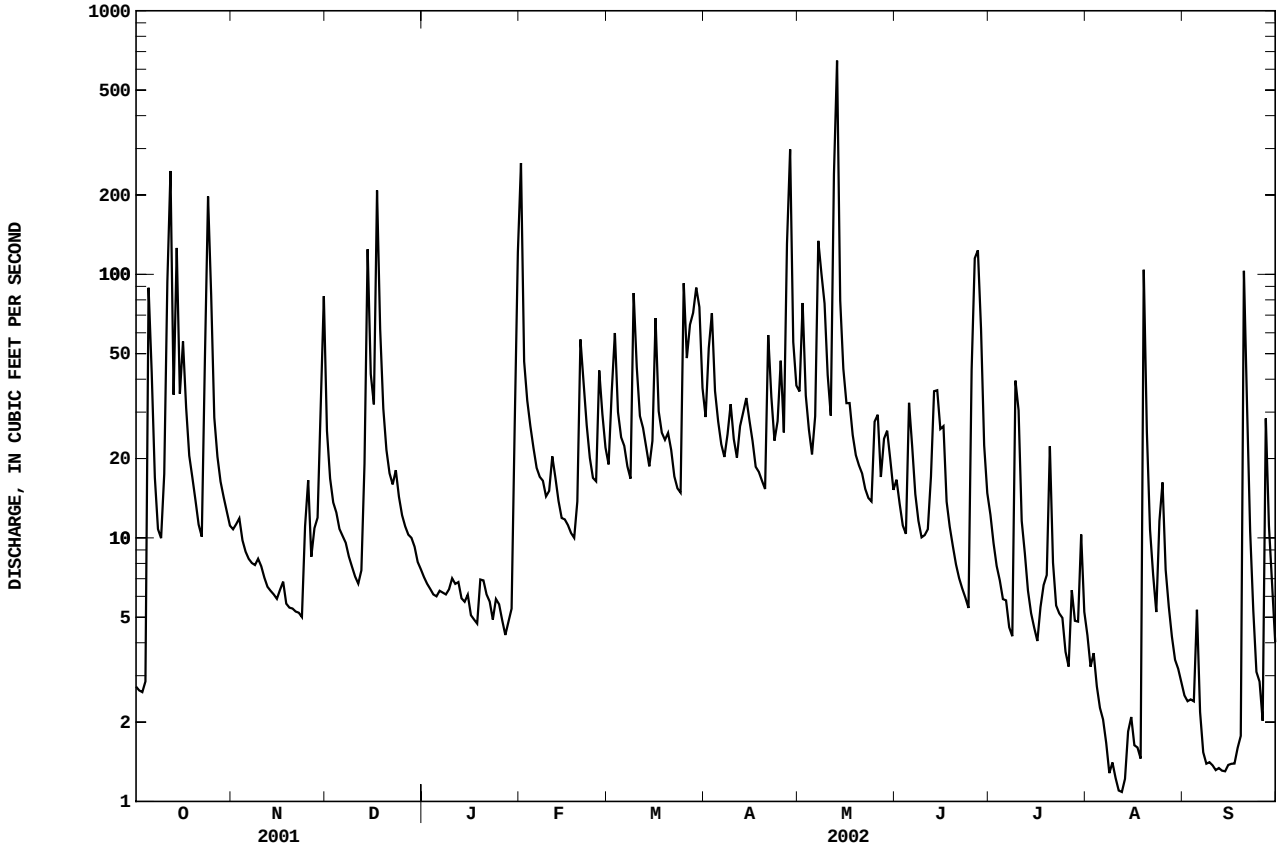
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	9.518	19.92	21.01	18.67	24.81	30.34	29.64	27.70	18.46	12.33	7.855	8.570
MAX	60.9	88.2	95.4	54.8	79.4	63.7	58.2	110	90.8	57.7	30.8	69.9
(WY)	1987	1994	1991	1974	1975	1991	1972	1996	1998	1979	1978	1989
MIN	1.06	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	5943.7		9643.4			
ANNUAL MEAN	16.28		26.42		19.02	
HIGHEST ANNUAL MEAN					29.6	1974
LOWEST ANNUAL MEAN					8.30	1977
HIGHEST DAILY MEAN	247	Oct 12	647	May 13	1570	Jun 26 1978
LOWEST DAILY MEAN	1.0	Aug 15	1.1	Aug 11	0.00	Oct 7 1991
ANNUAL SEVEN-DAY MINIMUM	1.2	Aug 11	1.3	Aug 7	0.00	Oct 12 1991
MAXIMUM PEAK FLOW			1430	May 13	5500	Jun 26 1978
MAXIMUM PEAK STAGE			8.28	May 13	13.31	Jun 26 1978
ANNUAL RUNOFF (CFSM)	0.91		1.48		1.06	
ANNUAL RUNOFF (INCHES)	12.35		20.04		14.44	
10 PERCENT EXCEEDS	29		58		37	
50 PERCENT EXCEEDS	9.4		13		7.5	
90 PERCENT EXCEEDS	3.2		2.7		1.6	

e Estimated

03351310 CROOKED CREEK AT INDIANAPOLIS, IN--Continued



03351500 FALL CREEK NEAR FORTVILLE, IN

LOCATION.--Lat 39°57'15", long 85°52'05", in NW¼NE¼ sec.5, T.17 N., R.6 E., Hamilton County, Hydrologic Unit 05120201, (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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	254	718	e154	1850	181	534	465	206	119	52	37
2	70	242	446	e145	1910	237	471	569	192	108	50	36
3	67	242	349	e138	683	670	859	494	179	101	50	34
4	63	223	292	e135	485	439	599	393	171	96	49	32
5	87	206	255	143	364	309	466	343	177	92	48	30
6	243	192	234	147	308	272	405	325	187	86	45	29
7	198	182	218	146	275	249	362	635	169	83	43	30
8	144	174	201	137	248	227	345	979	159	79	40	29
9	118	168	187	138	226	307	514	760	152	79	39	29
10	106	163	173	142	218	562	525	541	146	90	38	26
11	201	158	164	142	242	362	413	428	140	81	38	24
12	1080	147	159	136	233	304	374	729	142	73	39	23
13	811	141	195	136	209	271	625	3910	198	70	38	24
14	914	139	390	133	189	244	791	4440	268	68	47	25
15	1310	136	773	132	185	232	879	1480	202	67	42	30
16	980	133	479	125	178	342	545	706	168	63	39	30
17	1090	128	1050	124	169	308	426	564	149	61	36	26
18	600	129	1850	120	156	263	365	466	136	62	37	26
19	436	129	937	119	158	231	338	396	128	74	115	28
20	350	124	547	118	206	235	308	355	121	142	107	52
21	297	120	417	116	284	243	389	323	116	89	59	102
22	260	119	355	113	233	217	509	297	113	75	51	54
23	325	117	355	114	201	205	382	279	110	67	96	43
24	1040	127	318	128	187	196	334	263	106	64	79	37
25	2050	274	272	134	178	313	381	268	106	59	72	35
26	1770	218	246	124	198	443	330	295	110	58	60	34
27	618	198	229	121	201	437	353	247	123	71	50	56
28	441	203	215	119	184	767	1430	320	247	72	45	70
29	362	452	199	120	---	970	1100	276	160	62	42	52
30	313	972	e173	206	---	1290	589	242	130	59	41	45
31	279	---	e162	475	---	750	---	221	---	55	39	---
TOTAL	16699	6210	12558	4480	10158	12076	15941	22009	4711	2425	1626	1128
MEAN	538.7	207.0	405.1	144.5	362.8	389.5	531.4	710.0	157.0	78.23	52.45	37.60
MAX	2050	972	1850	475	1910	1290	1430	4440	268	142	115	102
MIN	63	117	159	113	156	181	308	221	106	55	36	23
CFSM	3.19	1.22	2.40	0.86	2.15	2.31	3.14	4.20	0.93	0.46	0.31	0.22
IN.	3.68	1.37	2.76	0.99	2.24	2.66	3.51	4.84	1.04	0.53	0.36	0.25

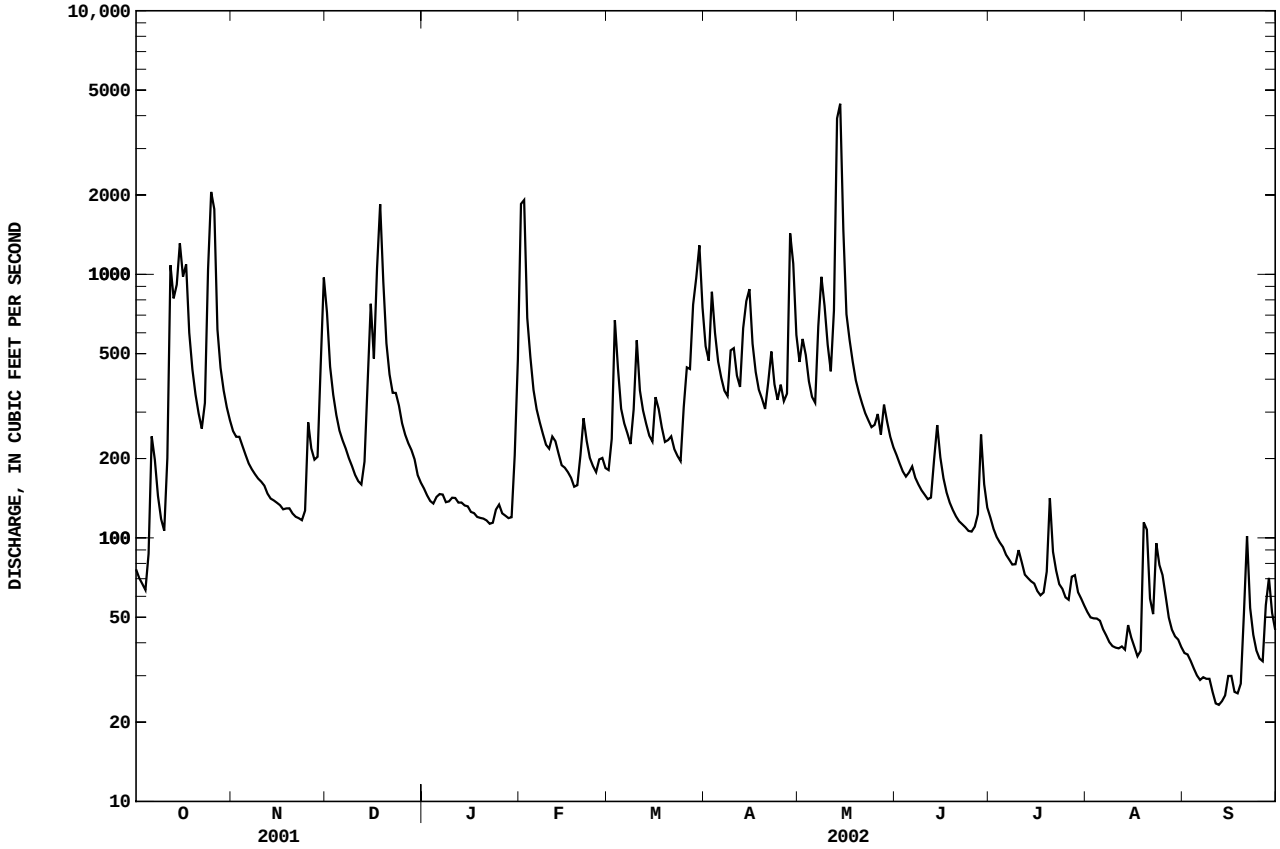
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2002, BY WATER YEAR (WY)

MEAN	72.26	120.2	170.4	209.9	251.1	296.3	293.4	231.5	187.7	116.2	75.70	57.58
MAX	539	788	727	1210	720	674	829	753	888	416	467	498
(WY)	2002	1994	1991	1950	1950	1978	1964	1996	1958	1992	1979	1989
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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1942 - 2002	
ANNUAL TOTAL	83014		110021			
ANNUAL MEAN	227.4		301.4		173.0	
HIGHEST ANNUAL MEAN					301	2002
LOWEST ANNUAL MEAN					61.4	1966
HIGHEST DAILY MEAN	2050	Oct 25	4440	May 14	6950	Apr 21 1964
LOWEST DAILY MEAN	58	Aug 16	23	Sep 12	7.0	Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	63	Aug 12	26	Sep 8	9.7	Aug 21 1988
MAXIMUM PEAK FLOW			5460	May 13	8750	Apr 21 1964
MAXIMUM PEAK STAGE			8.95	May 13	9.88	Apr 21 1964
ANNUAL RUNOFF (CFSM)	1.35		1.78		1.02	
ANNUAL RUNOFF (INCHES)	18.27		24.22		13.91	
10 PERCENT EXCEEDS	441		629		352	
50 PERCENT EXCEEDS	147		185		91	
90 PERCENT EXCEEDS	80		43		31	

e Estimated

03351500 FALL CREEK NEAR FORTVILLE, IN--Continued



03352500 FALL CREEK AT MILLERSVILLE, IN

LOCATION.--Lat 39°51'07", long 86°05'15", in NE$^1/_4$NE$^1/_4$ 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.

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 peaks for water years 1991 and 1994 have been revised to 12,000 ft^3/s, Dec. 31, 1990, gage height, 13.36 ft, and 8,970 ft^3/s, Nov. 15, 1993, gage height, 12.40 ft, superseding figures published in reports for 1991 and 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	410	1480	e225	2600	299	1010	838	297	190	79	72
2	83	405	947	e215	3150	363	767	931	275	156	84	84
3	80	386	659	e210	1860	945	1220	824	237	139	84	81
4	73	353	519	e204	981	885	1130	631	219	134	84	80
5	134	325	433	e200	677	599	783	513	278	133	81	79
6	360	287	385	210	535	467	626	480	273	129	82	79
7	378	271	350	213	454	416	523	851	240	108	81	81
8	277	257	319	202	396	360	490	1670	213	95	79	92
9	195	248	287	197	355	479	624	1640	205	135	83	81
10	173	227	264	198	327	769	738	1160	186	198	95	80
11	421	236	242	196	350	672	610	766	182	118	96	79
12	1780	215	231	193	327	524	541	1020	193	78	95	80
13	1960	196	291	188	322	445	735	5300	211	84	92	78
14	2030	195	640	185	282	392	989	7740	333	82	79	103
15	2390	198	1240	180	258	368	1270	4280	327	75	80	90
16	2150	193	1030	175	253	565	951	1730	322	66	77	85
17	2160	189	1760	169	252	528	663	1100	238	73	76	82
18	1470	186	2770	165	226	448	527	801	195	108	82	82
19	922	183	2250	165	226	389	457	646	169	153	231	86
20	683	178	1190	163	348	375	423	554	155	76	160	338
21	537	161	802	161	493	360	568	476	150	103	101	276
22	446	162	625	158	430	321	698	416	145	93	91	81
23	461	166	578	156	348	302	595	378	143	83	94	54
24	1350	184	526	168	301	306	492	362	134	86	100	43
25	2730	305	463	172	275	721	651	365	148	76	92	45
26	2830	376	406	166	356	882	546	442	181	70	87	48
27	1700	339	360	162	350	823	584	375	388	83	83	106
28	905	338	336	160	316	1150	2220	380	645	89	76	90
29	652	571	307	164	---	1530	2420	400	349	83	75	67
30	534	1410	e260	287	---	2170	1310	348	244	82	74	59
31	462	---	e245	703	---	1720	---	305	---	66	72	---
TOTAL	30416	9150	22195	6310	17048	20573	25161	37722	7275	3244	2845	2781
MEAN	981.2	305.0	716.0	203.5	608.9	663.6	838.7	1217	242.5	104.6	91.77	92.70
MAX	2830	1410	2770	703	3150	2170	2420	7740	645	198	231	338
MIN	73	161	231	156	226	299	423	305	134	66	72	43
CFSM	3.29	1.02	2.40	0.68	2.04	2.23	2.81	4.08	0.81	0.35	0.31	0.31
IN.	3.80	1.14	2.77	0.79	2.13	2.57	3.14	4.71	0.91	0.40	0.36	0.35

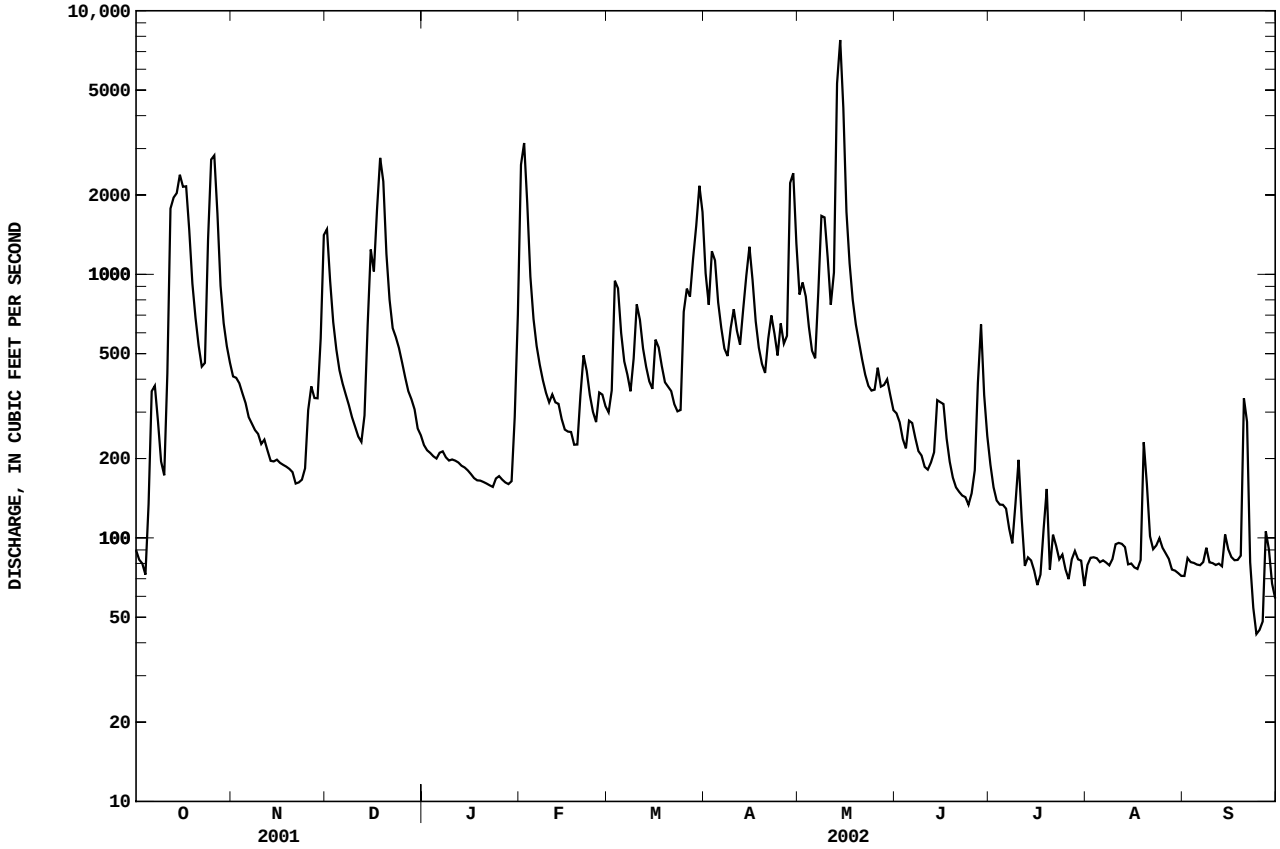
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2002, BY WATER YEAR (WY)

MEAN	109.7	188.0	280.4	394.3	424.7	511.5	512.2	398.0	297.2	189.2	117.1	95.50
MAX	997	1283	1059	2390	1278	1399	1503	1524	1638	796	739	966
(WY)	2002	1994	1991	1950	1950	1963	1964	1943	1998	1979	1979	1989
MIN	23.4	32.1	38.2	37.1	50.4	47.5	59.7	33.6	42.2	29.1	15.5	11.5
(WY)	1941	1935	1935	1945	1935	1941	1941	1941	1934	1936	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1930 - 2002	
ANNUAL TOTAL	134372		184720			
ANNUAL MEAN	368.1		506.1		292.4	
HIGHEST ANNUAL MEAN					539	1950
LOWEST ANNUAL MEAN					44.0	1941
HIGHEST DAILY MEAN	2830	Oct 26	7740	May 14	10600	May 18 1943
LOWEST DAILY MEAN	58	Aug 16	43	Sep 24	7.8	Sep 28 1941
ANNUAL SEVEN-DAY MINIMUM	69	Aug 12	65	Sep 23	9.0	Sep 24 1941
MAXIMUM PEAK FLOW			8260	May 14	12900	May 28 1956
MAXIMUM PEAK STAGE			12.14	May 14	13.53	May 28 1956
ANNUAL RUNOFF (CFSM)	1.24		1.70		0.98	
ANNUAL RUNOFF (INCHES)	16.77		23.06		13.33	
10 PERCENT EXCEEDS	734		1150		655	
50 PERCENT EXCEEDS	231		287		129	
90 PERCENT EXCEEDS	100		81		47	

e Estimated

03352500 FALL CREEK AT MILLERSVILLE, IN--Continued



03353000 WHITE RIVER AT INDIANAPOLIS, IN

LOCATION.--Lat 39°44'14", long 86°10'08", in NW$^1/_4$NW$^1/_4$ 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 (erroneously published as 660.00 ft from October 1, 1940 to September 30, 1960). 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e385	2140	6800	1040	9710	1680	9320	5420	1450	1020	204	132
2	e345	2050	5840	1030	12100	1970	5630	4850	1290	753	168	123
3	e325	1900	3790	1040	11600	4150	6200	4250	1100	626	150	135
4	e315	1700	2710	1070	6250	5730	6810	3110	973	535	154	135
5	978	1510	2220	996	3960	4130	5160	2540	1560	491	145	133
6	2280	1370	1970	1000	2950	2680	3770	2430	1710	437	125	123
7	3080	1270	1680	1010	2430	2240	3030	4880	1310	369	123	105
8	2560	1220	1510	948	2100	2020	2720	7870	1220	314	160	113
9	1800	1230	1380	923	1860	2940	3100	8180	1080	509	128	109
10	1470	1100	1220	967	1710	4470	3830	6300	897	865	107	99
11	2350	1070	1130	962	1760	4660	3930	4440	815	568	132	104
12	6980	984	1160	890	1730	3210	3140	5110	849	582	154	101
13	8480	922	1280	872	1730	2570	3310	20700	1410	430	178	107
14	9580	904	2720	858	1540	2240	4430	25600	1740	352	203	156
15	9170	919	5510	832	1330	2070	6240	23300	1530	280	231	197
16	9610	855	6470	802	1310	3000	6350	14200	1300	228	194	174
17	9290	829	7980	778	1250	3090	4300	6670	936	355	144	166
18	8380	855	11200	755	1170	2870	3050	4750	771	390	130	250
19	5760	787	11400	775	1070	2350	2410	3690	693	379	1030	316
20	4110	775	8300	884	1740	2020	2240	3020	613	416	981	1800
21	3190	748	4940	757	2420	1890	3180	2520	533	392	492	1600
22	2610	705	3670	734	2740	1740	3450	2120	488	334	301	716
23	2400	703	3210	742	2080	1550	3620	1930	466	277	272	423
24	5600	864	2750	781	1720	1470	3060	1860	488	243	499	273
25	10500	1050	2380	788	1610	3110	3380	1820	1220	206	451	193
26	11600	1180	2060	777	2170	3300	2530	2290	1810	162	348	158
27	10700	1410	1830	788	1960	3000	2920	2100	2610	193	245	637
28	5530	1280	1620	794	1810	3630	9350	2000	4240	287	179	507
29	3780	1770	1570	794	---	5340	11600	2150	2660	336	127	408
30	2890	4720	1410	1240	---	9330	9270	2070	1650	358	116	317
31	2480	---	1190	2990	---	11300	---	1620	---	267	150	---
TOTAL	148528	38820	112900	29617	85810	105750	141330	183790	39412	12954	8021	9810
MEAN	4791	1294	3642	955.4	3065	3411	4711	5929	1314	417.9	258.7	327.0
MAX	11600	4720	11400	2990	12100	11300	11600	25600	4240	1020	1030	1800
MIN	315	703	1130	734	1070	1470	2240	1620	466	162	107	99
CFSM	2.93	0.79	2.23	0.58	1.87	2.09	2.88	3.63	0.80	0.26	0.16	0.20
IN.	3.38	0.88	2.57	0.67	1.95	2.41	3.22	4.18	0.90	0.29	0.18	0.22

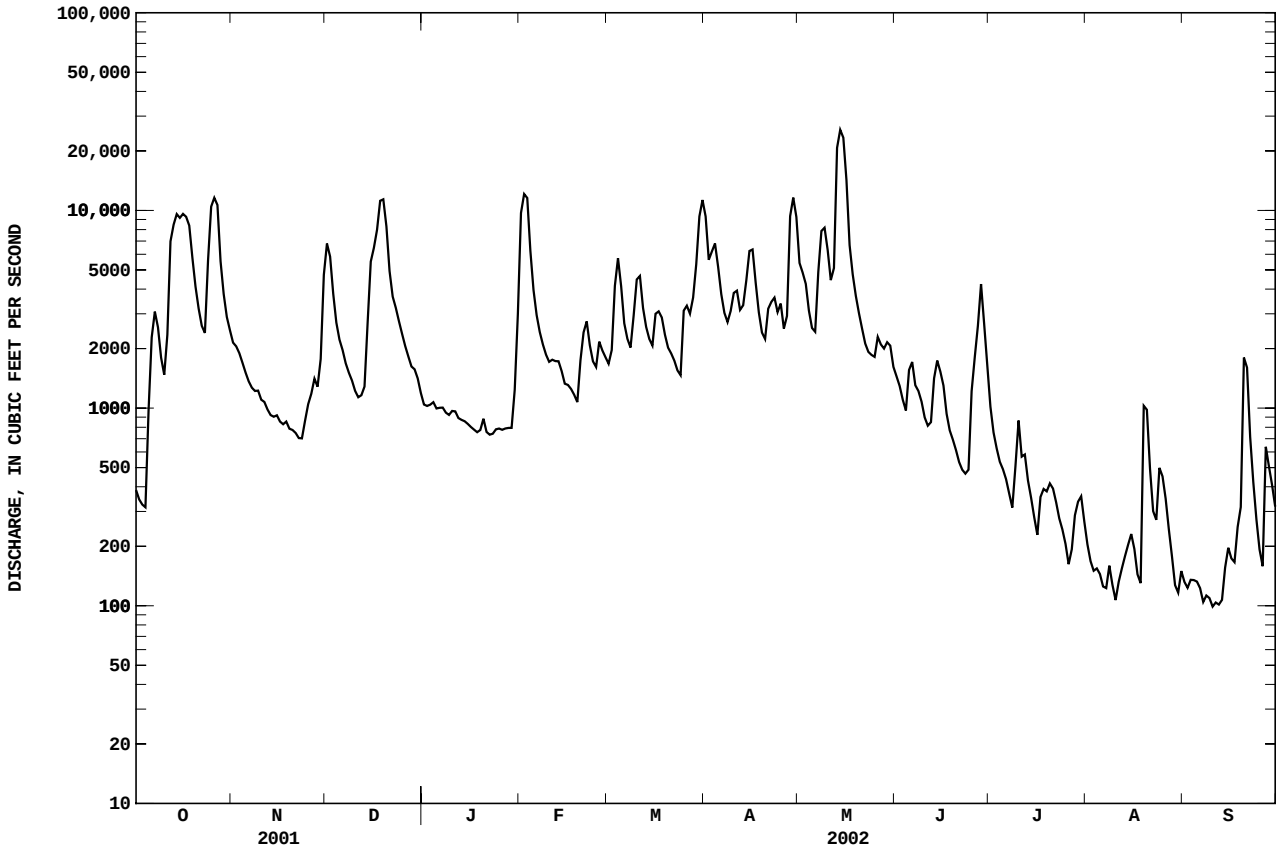
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

MEAN	481.4	912.5	1385	1902	2133	2677	2675	1946	1475	889.1	530.1	422.7
MAX	4791	6425	5826	12120	6452	6610	7777	8594	7910	4259	3399	5063
(WY)	2002	1994	1991	1950	1950	1963	1964	1943	1958	1992	1979	1989
MIN	70.1	110	77.3	78.4	178	207	274	113	126	90.3	42.5	31.5
(WY)	1941	1935	1964	1977	1964	1941	1941	1941	1988	1936	1941	1941

03353000 WHITE RIVER AT INDIANAPOLIS, IN--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1931 - 2002	
ANNUAL TOTAL	634252		916742			
ANNUAL MEAN	1738		2512		1448	
HIGHEST ANNUAL MEAN					2698	1950
LOWEST ANNUAL MEAN					233	1941
HIGHEST DAILY MEAN	11600	Oct 26	25600	May 14	36800	Dec 31 1990
LOWEST DAILY MEAN	184	Aug 16	99	Sep 10	8.0	Sep 29 1941
ANNUAL SEVEN-DAY MINIMUM	216	Aug 12	105	Sep 7	12	Sep 24 1941
MAXIMUM PEAK FLOW			26200	May 14	38000	Dec 31 1990
MAXIMUM PEAK STAGE			16.63	May 14	21.57	Jan 16 1937
ANNUAL RUNOFF (CFSM)	1.06		1.54		0.89	
ANNUAL RUNOFF (INCHES)	14.43		20.86		12.03	
10 PERCENT EXCEEDS	3790		6240		3350	
50 PERCENT EXCEEDS	1070		1470		654	
90 PERCENT EXCEEDS	375		187		147	

e Estimated



03353120 PLEASANT RUN AT ARLINGTON AVENUE AT INDIANAPOLIS, IN

LOCATION.--Lat 39°46'33", long 86°03'50", in SW$^1/_4$NW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.84	2.5	12	e1.3	90	e4.8	6.2	14	4.5	2.1	0.92	0.80
2	0.91	15	6.7	e1.3	14	36	17	9.8	2.0	1.8	0.95	e0.80
3	1.2	4.1	5.0	e1.2	8.8	23	14	5.0	1.6	1.6	0.87	e0.80
4	1.5	2.7	4.1	e1.2	6.2	e9.0	6.3	3.8	4.7	1.5	0.84	e0.79
5	28	2.4	3.5	e1.2	4.9	5.6	4.7	3.2	21	1.3	0.90	e0.79
6	8.8	2.1	5.6	e1.7	4.0	5.3	3.9	12	5.5	1.2	0.94	e0.78
7	2.2	2.0	3.7	e1.6	3.2	4.3	3.6	64	2.7	1.1	0.92	e0.78
8	1.4	2.2	3.0	e1.5	2.6	3.8	8.8	52	1.9	1.1	1.0	e0.77
9	1.1	2.4	2.6	e2.2	2.4	47	21	25	1.7	14	0.81	e0.77
10	26	2.0	2.3	2.2	5.6	12	6.0	8.9	1.5	4.8	0.88	e0.77
11	79	1.9	2.1	1.7	4.5	7.0	4.4	5.7	2.7	1.8	0.90	e0.76
12	64	1.8	9.0	1.5	2.7	5.8	17	114	2.0	1.4	0.90	e0.76
13	14	1.8	13	1.4	2.2	5.0	16	238	39	1.2	0.98	e0.76
14	84	1.9	64	1.3	1.9	4.2	23	20	6.3	1.2	1.6	e0.78
15	16	1.8	15	1.3	1.8	16	9.5	9.5	15	1.1	1.2	e1.8
16	43	1.8	21	1.3	1.7	16	5.4	8.0	6.0	1.1	1.2	1.3
17	12	1.8	130	1.2	1.6	6.5	4.2	8.5	2.5	22	1.0	1.7
18	6.6	1.7	27	1.2	1.4	5.0	3.5	4.9	1.9	2.8	1.0	10
19	4.7	1.8	11	1.4	5.5	4.4	3.6	3.9	1.7	1.6	26	6.4
20	3.7	1.9	6.4	1.4	46	13	3.0	3.6	1.4	1.2	2.1	108
21	3.3	1.8	4.6	1.3	13	5.7	47	3.0	1.3	1.1	1.3	11
22	3.2	1.7	8.2	1.3	5.9	4.1	9.3	2.8	1.8	1.1	1.2	2.7
23	9.3	1.6	9.3	1.4	4.1	3.7	4.9	2.5	1.1	1.5	4.1	1.6
24	127	21	4.4	5.2	3.3	3.6	64	8.4	1.1	1.1	4.3	1.3
25	33	9.5	3.4	2.2	5.1	78	32	4.4	51	1.0	3.1	1.2
26	9.8	3.7	2.9	1.9	25	32	8.5	2.8	10	1.0	1.4	1.2
27	5.7	16	2.6	1.7	7.5	31	90	2.2	87	1.0	1.0	35
28	4.2	16	2.4	1.7	e5.8	22	63	2.0	14	0.97	1.0	3.6
29	3.5	41	2.0	8.3	---	29	12	2.9	4.2	5.8	0.97	2.0
30	3.0	67	1.7	20	---	17	7.2	2.0	2.7	2.1	0.89	1.6
31	2.8	---	e1.5	120	---	8.7	---	2.7	---	1.1	0.83	---
TOTAL	603.75	234.9	390.0	194.1	280.7	468.5	519.0	649.5	299.8	83.67	66.00	201.31
MEAN	19.48	7.830	12.58	6.261	10.03	15.11	17.30	20.95	9.993	2.699	2.129	6.710
MAX	127	67	130	120	90	78	90	238	87	22	26	108
MIN	0.84	1.6	1.5	1.2	1.4	3.6	3.0	2.0	1.1	0.97	0.81	0.76
CFSM	2.57	1.03	1.66	0.83	1.32	1.99	2.28	2.76	1.32	0.36	0.28	0.89
IN.	2.96	1.15	1.91	0.95	1.38	2.30	2.55	3.19	1.47	0.41	0.32	0.99

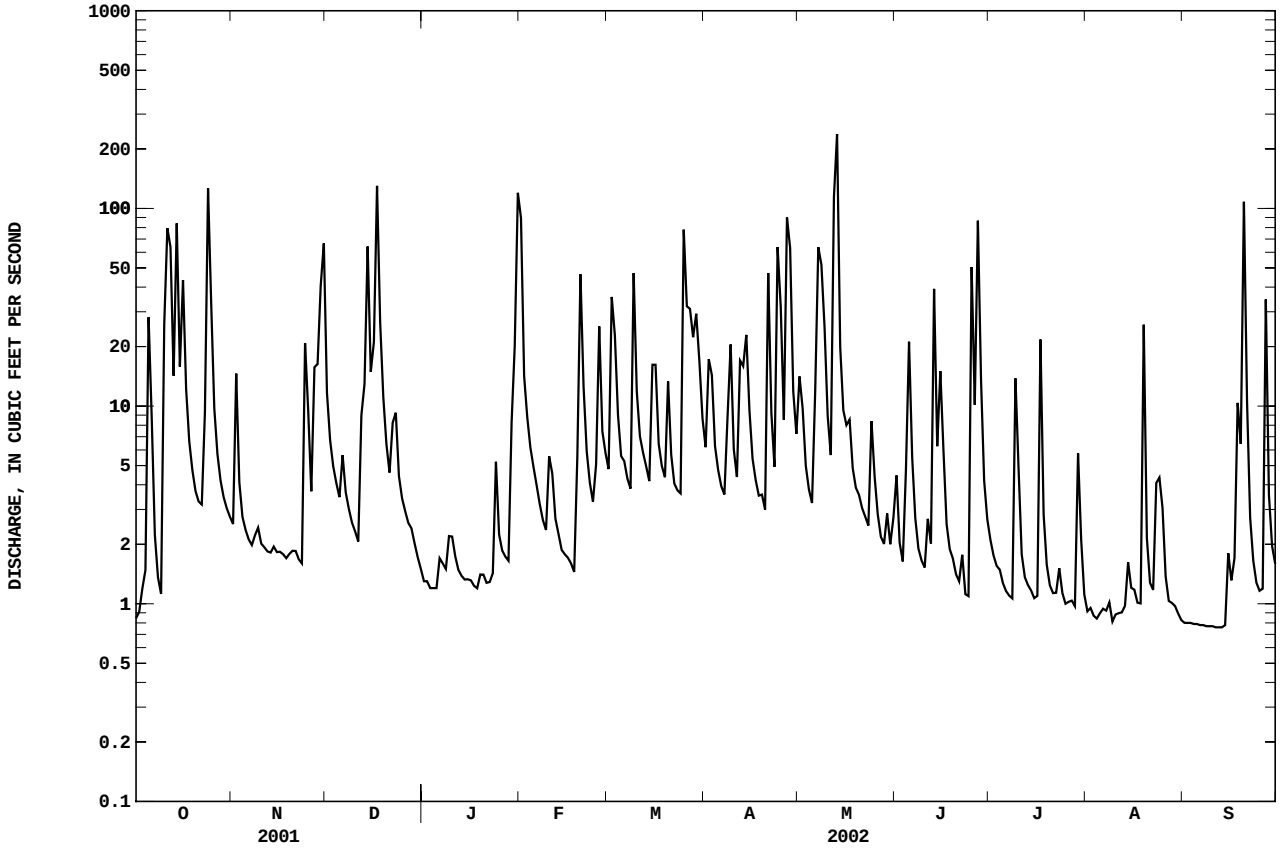
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

MEAN	4.668	8.646	8.523	7.775	8.730	12.71	11.32	10.42	7.787	8.304	4.908	4.380
MAX	27.5	36.9	33.3	25.0	25.7	42.3	28.5	37.8	49.2	33.8	21.3	23.2
(WY)	1987	1994	1991	1969	1971	1963	1961	1996	1998	1979	1979	1989
MIN	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1960 - 2002	
ANNUAL TOTAL	3054.42		3991.23			
ANNUAL MEAN	8.368		10.93		8.195	
HIGHEST ANNUAL MEAN					11.6	1978
LOWEST ANNUAL MEAN					3.25	1966
HIGHEST DAILY MEAN	130	Dec 17	238	May 13	574	Mar 4 1963
LOWEST DAILY MEAN	0.35	Aug 12	e0.76	Sep 11	0.00	Sep 11 1960
ANNUAL SEVEN-DAY MINIMUM	0.45	Aug 10	e0.77	Sep 7	0.00	Oct 5 1960
MAXIMUM PEAK FLOW			819	Jun 27	2600	Jun 25 1978
MAXIMUM PEAK STAGE			7.47	Jun 27	13.86	Jun 25 1978
ANNUAL RUNOFF (CFSM)	1.10		1.44		1.08	
ANNUAL RUNOFF (INCHES)	14.99		19.59		14.69	
10 PERCENT EXCEEDS	18		26		17	
50 PERCENT EXCEEDS	1.9		3.2		1.9	
90 PERCENT EXCEEDS	0.65		1.0		0.50	

e Estimated

03353120 PLEASANT RUN AT ARLINGTON AVENUE AT INDIANAPOLIS, IN--Continued



03353200 EAGLE CREEK AT ZIONSVILLE, IN

LOCATION.--Lat 39°56'47", long 86°15'37", in NE$^1/_4$SE$^1/_4$ 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 for 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	78	312	e43	1680	122	246	211	61	110	7.3	5.8
2	5.5	74	177	e38	596	236	239	514	50	84	6.8	5.3
3	5.3	72	132	e35	348	509	481	265	44	65	6.0	4.8
4	5.1	58	106	e33	223	e210	238	168	55	52	5.4	4.5
5	120	51	89	e32	152	138	173	129	383	42	5.4	4.5
6	248	47	79	e33	124	127	142	137	133	33	4.8	4.0
7	110	43	70	e34	109	116	120	926	86	28	4.1	3.7
8	57	41	63	e36	95	104	137	785	66	26	3.7	3.6
9	35	38	51	37	86	585	201	598	54	44	3.5	3.2
10	28	36	45	38	87	490	157	315	47	61	3.3	2.9
11	221	34	41	35	105	232	129	189	47	32	3.0	2.4
12	1430	29	41	32	104	179	127	1370	49	25	3.3	2.5
13	588	27	73	34	84	153	199	4010	220	21	3.5	2.1
14	1250	27	509	33	72	129	249	930	296	19	4.0	2.2
15	645	27	566	32	71	129	217	438	141	17	4.0	2.0
16	936	26	365	29	64	405	147	240	106	14	3.5	2.2
17	604	24	1500	29	57	217	118	192	75	13	3.2	2.1
18	330	23	811	28	49	156	101	142	59	12	3.1	2.3
19	226	24	438	27	59	127	90	111	49	13	191	4.0
20	167	24	259	27	344	125	78	94	41	12	77	104
21	132	22	187	28	417	111	187	80	36	9.6	23	88
22	109	22	156	27	216	94	185	72	32	8.7	13	24
23	210	21	150	27	154	87	122	65	29	8.9	70	12
24	950	27	126	29	124	81	114	58	27	8.4	69	8.9
25	783	51	104	27	109	252	183	150	36	7.7	35	7.1
26	356	37	93	26	153	219	126	169	1150	11	18	6.4
27	208	35	85	26	150	212	352	102	932	10	12	23
28	151	32	78	25	130	490	1790	225	738	10	9.4	21
29	122	72	66	31	---	958	581	212	254	13	7.9	14
30	100	564	e55	111	---	967	310	97	149	11	7.1	9.9
31	88	---	e48	595	---	422	---	73	---	9.0	6.4	---
TOTAL	10226.5	1686	6875	1617	5962	8382	7539	13067	5445	830.3	616.7	382.4
MEAN	329.9	56.20	221.8	52.16	212.9	270.4	251.3	421.5	181.5	26.78	19.89	12.75
MAX	1430	564	1500	595	1680	967	1790	4010	1150	110	191	104
MIN	5.1	21	41	25	49	81	78	58	27	7.7	3.0	2.0
CFSM	3.11	0.53	2.09	0.49	2.01	2.55	2.37	3.98	1.71	0.25	0.19	0.12
IN.	3.59	0.59	2.41	0.57	2.09	2.94	2.65	4.59	1.91	0.29	0.22	0.13

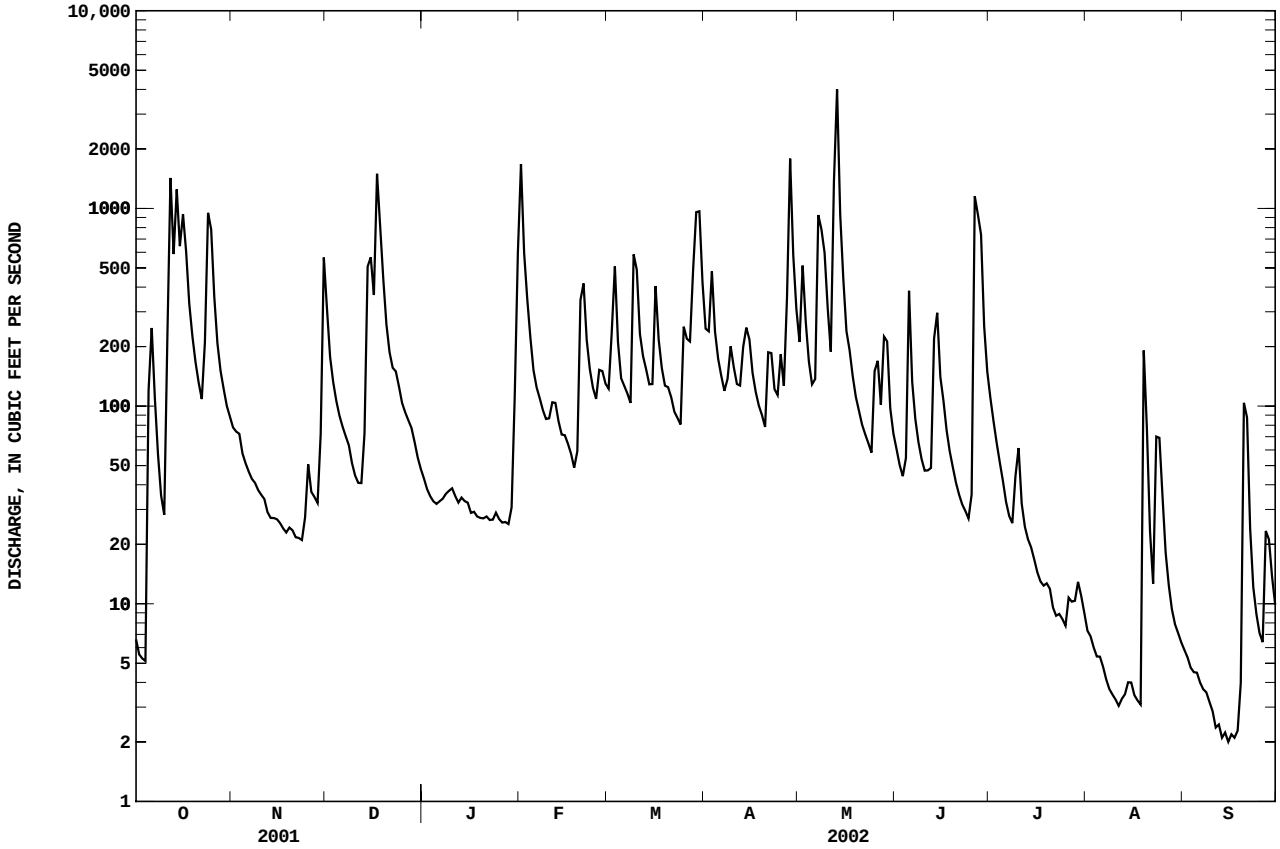
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)

MEAN	27.55	82.79	121.9	115.4	149.3	191.7	172.9	112.0	94.30	58.76	34.37	20.67
MAX	330	542	530	452	423	459	532	456	523	520	444	332
(WY)	2002	1993	1991	1974	1976	1963	1964	1996	1958	1979	1958	1989
MIN	0.000	0.80	1.65	1.23	9.05	23.9	24.6	12.0	1.55	1.52	0.000	0.000
(WY)	1967	2000	1977	1977	1964	2000	2000	1988	1988	1966	1966	1966

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1958 - 2002	
ANNUAL TOTAL	39311.0		62628.9			
ANNUAL MEAN	107.7		171.6		98.15	
HIGHEST ANNUAL MEAN					188	1974
LOWEST ANNUAL MEAN					15.9	2000
HIGHEST DAILY MEAN	1500	Dec 17	4010	May 13	6840	Dec 30 1990
LOWEST DAILY MEAN	2.1	Sep 6	2.0	Sep 15	0.00	Sep 9 1959
ANNUAL SEVEN-DAY MINIMUM	3.1	Aug 31	2.2	Sep 12	0.00	Sep 15 1959
MAXIMUM PEAK FLOW			5550	May 13	12400	Apr 20 1964
MAXIMUM PEAK STAGE			11.25	May 13	14.64	Apr 20 1964
ANNUAL RUNOFF (CFSM)	1.02		1.62		0.93	
ANNUAL RUNOFF (INCHES)	13.80		21.98		12.58	
10 PERCENT EXCEEDS	251		438		213	
50 PERCENT EXCEEDS	45		72		30	
90 PERCENT EXCEEDS	7.4		5.7		1.3	

e Estimated

03353200 EAGLE CREEK AT ZIONSVILLE, IN--Continued



03353450 EAGLE CREEK RESERVOIR NEAR INDIANAPOLIS, IN

LOCATION.--Lat 39°49'20", long 86°18'11", in NW$^1/_4$NW$^1/_4$ 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, 30,580 acre-ft Dec. 30, 1990, elevation, 794.61 ft; minimum, 11,390 acre-ft Nov. 17-18, 1991, elevation, 778.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 27,530 acre-ft May 13, elevation, 792.52 ft; minimum, 22,340 acre-ft Sept. 19, elevation, 788.72 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	789.51	23,360	
Oct. 31	789.10	22,830	-530
Nov. 30	789.38	23,190	+360
Dec. 31	788.99	22,690	-500
CAL YR 2001	--	--	+1380
Jan. 31	789.51	23,360	+670
Feb. 28	789.49	23,340	-20
Mar. 31	790.07	24,100	+760
Apr. 30	790.96	25,340	+1240
May 31	790.91	25,270	-70
June 30	791.04	25,460	+190
July 31	790.74	25,040	-420
Aug. 31	790.06	24,080	-960
Sept. 30	789.39	23,210	-870
WTR YR 2002	--	--	-150

03353451 EAGLE CREEK BELOW RESERVOIR AT INDIANAPOLIS, IN

LOCATION.--Lat 39°49'20", long 86°18'11", in NW$^1/_4$NW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

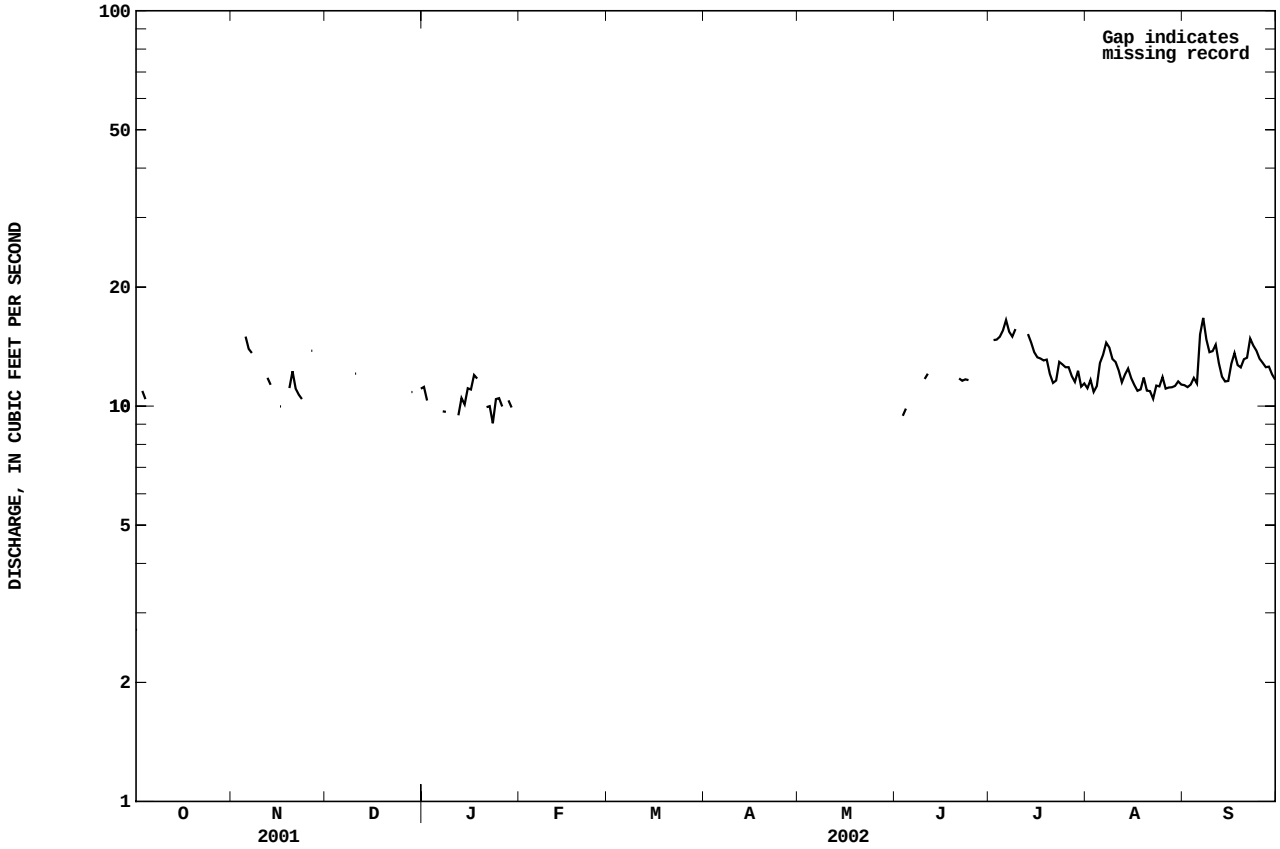
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	11	---	---	---	---	---	---	11	11
2	---	---	---	10	---	---	---	---	---	15	12	11
3	11	---	---	---	---	---	---	---	9.4	15	11	11
4	10	---	---	---	---	---	---	---	9.9	15	11	12
5	---	15	---	---	---	---	---	---	---	16	13	11
6	---	14	---	---	---	---	---	---	---	17	13	15
7	---	14	---	9.7	---	---	---	---	---	15	14	17
8	---	---	---	9.7	---	---	---	---	---	15	14	15
9	---	---	---	---	---	---	---	---	---	16	13	14
10	---	---	12	---	---	---	---	---	12	---	13	14
11	---	---	---	---	---	---	---	---	12	---	12	14
12	---	12	---	9.5	---	---	---	---	---	---	11	13
13	---	11	---	10	---	---	---	---	---	15	12	12
14	---	---	---	10	---	---	---	---	---	14	12	12
15	---	---	---	11	---	---	---	---	---	14	12	12
16	---	10	---	11	---	---	---	---	---	13	11	13
17	---	---	---	12	---	---	---	---	---	13	11	14
18	---	---	---	12	---	---	---	---	---	13	11	13
19	---	11	---	---	---	---	---	---	---	13	12	13
20	---	12	---	---	---	---	---	---	---	12	11	13
21	---	11	---	9.9	---	---	---	---	12	11	11	13
22	---	11	---	10	---	---	---	---	12	12	10	15
23	---	10	---	9.0	---	---	---	---	12	13	11	14
24	---	---	---	10	---	---	---	---	12	13	11	14
25	---	---	---	10	---	---	---	---	---	13	12	13
26	---	14	---	10	---	---	---	---	---	13	11	13
27	---	---	---	---	---	---	---	---	---	12	11	13
28	---	---	11	10	---	---	---	---	---	12	11	13
29	---	---	---	9.9	---	---	---	---	---	12	11	12
30	---	---	---	---	---	---	---	---	---	11	12	12
31	---	---	11	---	---	---	---	---	---	11	11	---
TOTAL	21	145	34	194.7	---	---	---	---	91.3	364	362	392
MEAN	10.50	12.08	11.33	10.25	---	---	---	---	11.41	13.48	11.68	13.07
MAX	11	15	12	12	---	---	---	---	12	17	14	17
MIN	10	10	11	9.0	---	---	---	---	9.4	11	10	11
CFSM	0.06	0.07	0.07	0.06	---	---	---	---	0.07	0.08	0.07	0.08
IN.	0.00	0.03	0.01	0.04	---	---	---	---	0.02	0.08	0.08	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	8.549	8.787	8.746	9.198	9.369	10.86	14.50	12.35	10.94	10.47	8.850	8.926
MAX	11.8	12.6	12.0	13.3	12.0	16.0	24.2	23.0	14.4	13.5	13.0	13.1
(WY)	2001	2001	1997	1997	1997	1997	1996	1996	1997	2002	1999	2002
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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	1950.0		1604.0			
ANNUAL MEAN	11.75		12.15		9.754	
HIGHEST ANNUAL MEAN					13.1	1997
LOWEST ANNUAL MEAN					4.34	1993
HIGHEST DAILY MEAN	18	May 24	17	Jul 6	34	Apr 5 1996
LOWEST DAILY MEAN	9.6	Mar 28	9.0	Jan 23	2.0	Sep 14 1994
ANNUAL SEVEN-DAY MINIMUM	10	Mar 31	11	Jan 12	2.3	Sep 8 1994
ANNUAL RUNOFF (CFSM)	0.073		0.075		0.060	
ANNUAL RUNOFF (INCHES)	0.45		0.37		0.82	
10 PERCENT EXCEEDS	14		15		14	
50 PERCENT EXCEEDS	11		12		11	
90 PERCENT EXCEEDS	10		10		4.0	

03353451 EAGLE CREEK BELOW RESERVOIR AT INDIANAPOLIS, IN--Continued



03353500 EAGLE CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°46'33", long 86°15'01", in NW1/4NW1/4 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	332	e247	e397	20	2130	254	119	514	165	143	13	10
2	249	e248	e308	19	1200	530	210	685	158	35	13	10
3	23	e253	e305	80	1050	496	803	461	32	31	12	9.9
4	20	e154	e118	106	391	556	446	187	28	31	11	11
5	154	e32	217	62	116	416	239	241	574	28	14	11
6	164	e29	233	60	171	106	306	315	517	29	15	12
7	262	e29	114	19	171	104	199	1310	195	25	17	21
8	486	e202	115	18	169	182	294	1760	193	21	16	16
9	358	e244	109	84	167	700	358	1100	200	65	15	15
10	155	e130	22	140	164	1060	309	450	43	200	15	14
11	491	e41	95	72	165	429	170	531	35	120	14	15
12	1650	e25	127	16	161	229	269	880	117	71	12	e14
13	1570	e24	65	17	162	226	250	7290	477	24	14	e13
14	1790	e192	459	16	89	224	419	2440	721	22	13	e12
15	1310	e175	1410	17	36	239	496	916	615	20	13	e14
16	1210	e21	750	17	114	516	151	490	247	19	12	e15
17	1210	e52	1670	17	88	593	248	439	141	19	11	e16
18	576	e147	1630	17	98	572	139	369	142	18	12	e14
19	251	e23	628	120	47	302	80	294	141	20	e13	e16
20	326	e26	520	154	147	110	282	244	88	21	e12	e30
21	320	e25	465	17	452	110	403	124	34	16	e12	e50
22	269	e23	405	16	488	110	459	59	32	15	12	e19
23	260	e23	390	15	138	106	188	136	31	22	12	e15
24	e980	e168	207	16	136	106	197	315	40	17	14	e15
25	e1450	e150	149	16	354	443	443	237	350	16	14	e14
26	e736	e38	183	15	497	639	270	177	1460	15	15	e15
27	461	e201	94	56	268	438	488	237	1220	14	18	e24
28	218	e141	24	17	260	550	2490	325	1380	12	16	e14
29	205	e198	215	17	---	1220	1520	507	566	15	13	e13
30	e72	e472	98	182	---	1510	621	256	396	15	9.9	e13
31	e246	---	21	755	---	980	---	109	---	14	9.7	---
TOTAL	17804	3733	11543	2193	9429	14056	12866	23398	10338	1133	412.6	480.9
MEAN	574.3	124.4	372.4	70.74	336.8	453.4	428.9	754.8	344.6	36.55	13.31	16.03
MAX	1790	472	1670	755	2130	1510	2490	7290	1460	200	18	50
MIN	20	21	21	15	36	104	80	59	28	12	9.7	9.9
CFSM	3.30	0.72	2.14	0.41	1.94	2.61	2.46	4.34	1.98	0.21	0.08	0.09
IN.	3.81	0.80	2.47	0.47	2.02	3.01	2.75	5.00	2.21	0.24	0.09	0.10

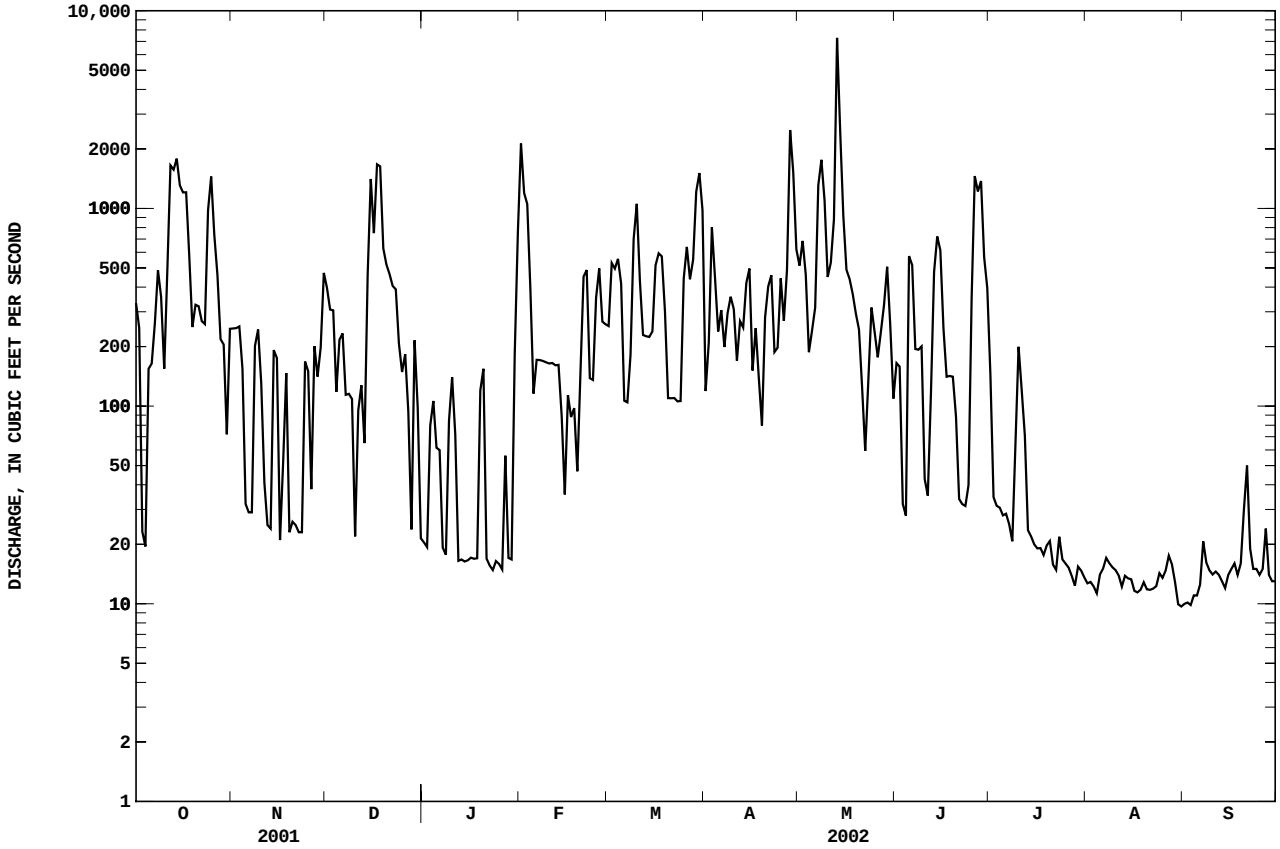
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2002, BY WATER YEAR (WY)

MEAN	40.66	111.1	163.9	201.1	241.0	301.2	298.4	216.8	150.5	84.24	38.30	38.77
MAX	574	851	906	1485	765	900	906	1127	904	800	490	625
(WY)	2002	1993	1991	1950	1976	1978	1964	1943	1957	1979	1958	1989
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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1939 - 2002	
ANNUAL TOTAL	66035		107386.5			
ANNUAL MEAN	180.9		294.2		156.8	
HIGHEST ANNUAL MEAN					316	1974
LOWEST ANNUAL MEAN					18.8	1941
HIGHEST DAILY MEAN	1790	Oct 14	7290	May 13	9890	Dec 30 1990
LOWEST DAILY MEAN	10	Jun 29	9.7	Aug 31	0.00	Aug 7 1941
ANNUAL SEVEN-DAY MINIMUM	11	Aug 11	10	Aug 30	0.01	Aug 22 1941
MAXIMUM PEAK FLOW			9560	May 13	28800	Jun 28 1957
MAXIMUM PEAK STAGE			12.98	May 13	23.59	Jun 28 1957
ANNUAL RUNOFF (CFSM)	1.04		1.69		0.90	
ANNUAL RUNOFF (INCHES)	14.12		22.96		12.24	
10 PERCENT EXCEEDS	442		691		354	
50 PERCENT EXCEEDS	70		141		38	
90 PERCENT EXCEEDS	13		14		6.0	

e Estimated

03353500 EAGLE CREEK AT INDIANAPOLIS, IN--Continued



03353560 GUION CREEK ABOVE 52ND STREET AT INDIANAPOLIS, IN

LOCATION.--Lat 39°50'45", long 86°13'57", in NW$^1/_4$SW$^1/_4$ sec.08., T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, (INDIANAPOLIS WEST, IN quadrangle), on right bank 25 ft upstream from private bridge at Indianapolis, 0.2 mi north of West 52nd Street along Guion Road, 0.25 mi south of 56th Street on Guion Road, and 1.25 mi upstream of the confluence with Little Eagle Creek.

DRAINAGE AREA.--4.10 mi^2.

PERIOD OF RECORD.--October 1989 to December 2001 (discontinued).

REVISED RECORDS.--WDR IN-95-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 760.11 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.65	2.7	14	---	---	---	---	---	---	---	---	---
2	0.66	3.4	7.6	---	---	---	---	---	---	---	---	---
3	0.68	2.8	4.7	---	---	---	---	---	---	---	---	---
4	0.70	2.3	3.4	---	---	---	---	---	---	---	---	---
5	16	2.0	2.7	---	---	---	---	---	---	---	---	---
6	9.0	1.8	2.5	---	---	---	---	---	---	---	---	---
7	5.3	1.7	2.2	---	---	---	---	---	---	---	---	---
8	3.3	1.7	1.9	---	---	---	---	---	---	---	---	---
9	2.3	1.7	1.7	---	---	---	---	---	---	---	---	---
10	7.5	1.5	1.5	---	---	---	---	---	---	---	---	---
11	31	1.3	1.4	---	---	---	---	---	---	---	---	---
12	69	1.2	2.2	---	---	---	---	---	---	---	---	---
13	22	1.1	4.0	---	---	---	---	---	---	---	---	---
14	48	1.1	28	---	---	---	---	---	---	---	---	---
15	20	0.99	16	---	---	---	---	---	---	---	---	---
16	23	0.97	13	---	---	---	---	---	---	---	---	---
17	13	0.95	50	---	---	---	---	---	---	---	---	---
18	8.9	1.0	24	---	---	---	---	---	---	---	---	---
19	6.6	1.00	13	---	---	---	---	---	---	---	---	---
20	4.8	1.1	6.3	---	---	---	---	---	---	---	---	---
21	3.5	0.89	3.8	---	---	---	---	---	---	---	---	---
22	2.9	0.79	3.0	---	---	---	---	---	---	---	---	---
23	6.2	0.75	3.0	---	---	---	---	---	---	---	---	---
24	57	3.7	2.0	---	---	---	---	---	---	---	---	---
25	45	2.3	1.6	---	---	---	---	---	---	---	---	---
26	16	1.5	1.3	---	---	---	---	---	---	---	---	---
27	10	2.3	1.00	---	---	---	---	---	---	---	---	---
28	6.9	2.8	0.87	---	---	---	---	---	---	---	---	---
29	4.8	10	0.74	---	---	---	---	---	---	---	---	---
30	3.5	31	e0.64	---	---	---	---	---	---	---	---	---
31	3.0	---	e0.54	---	---	---	---	---	---	---	---	---
TOTAL	451.19	88.34	218.59	---	---	---	---	---	---	---	---	---
MEAN	14.55	2.945	7.051	---	---	---	---	---	---	---	---	---
MAX	69	31	50	---	---	---	---	---	---	---	---	---
MIN	0.65	0.75	0.54	---	---	---	---	---	---	---	---	---
CFSM	3.55	0.72	1.72	---	---	---	---	---	---	---	---	---
IN.	4.09	0.80	1.98	---	---	---	---	---	---	---	---	---

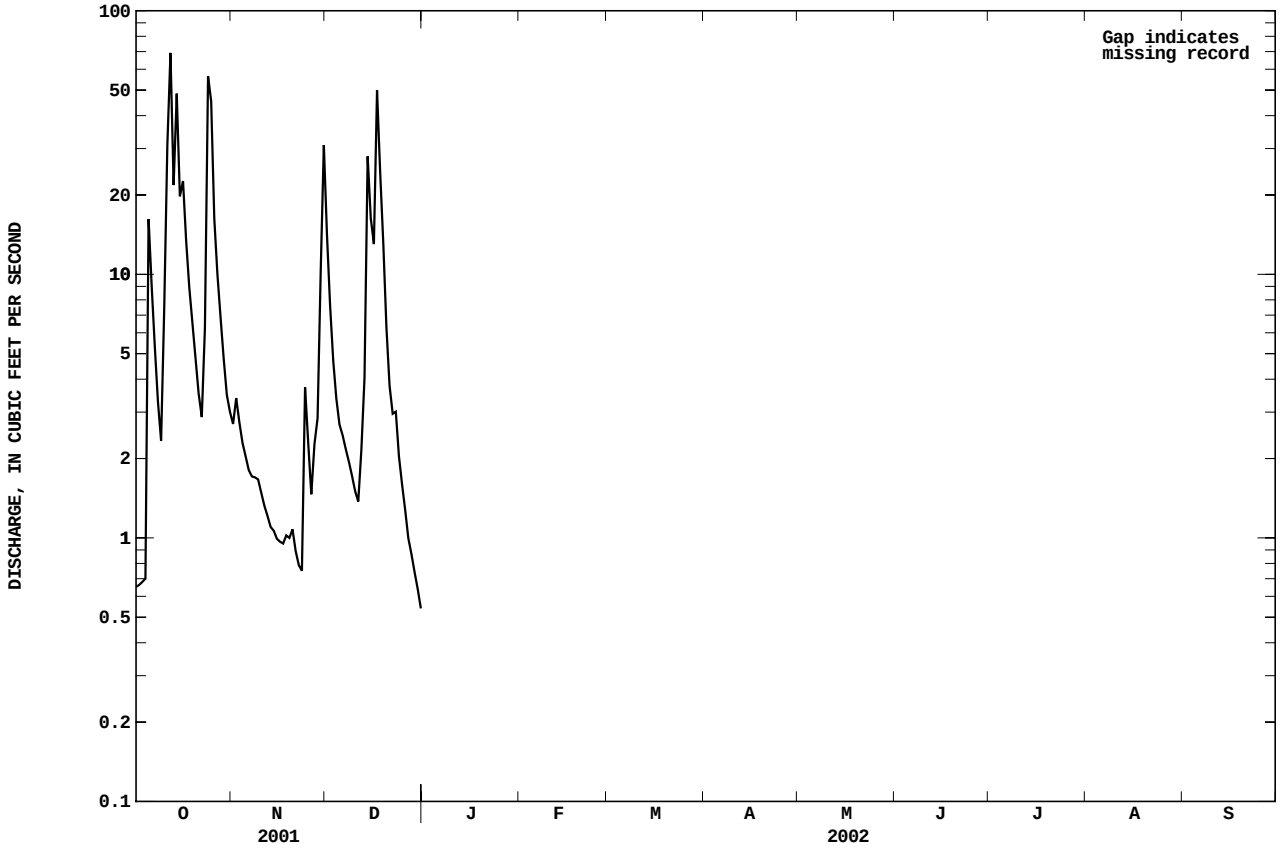
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

MEAN	2.940	5.693	4.250	5.954	5.613	6.114	7.061	7.200	5.850	3.441	1.405	2.257
MAX	14.6	20.8	19.6	16.2	16.4	12.5	12.1	21.4	26.2	10.5	3.32	9.04
(WY)	2002	1994	1991	1999	1990	1991	1996	1996	1998	1992	1993	1993
MIN	0.15	0.21	0.52	0.88	1.17	1.62	1.98	1.18	0.56	0.33	0.15	0.17
(WY)	1995	2000	1990	2000	1995	2001	1995	2001	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1990 - 2002	
ANNUAL TOTAL	1547.24		758.12			
ANNUAL MEAN	4.239		8.240		4.794	
HIGHEST ANNUAL MEAN					8.24	2002
LOWEST ANNUAL MEAN					2.87	1995
HIGHEST DAILY MEAN	69	Oct 12	69	Oct 12	283	Nov 14 1993
LOWEST DAILY MEAN	0.13	Jun 30	0.54	Dec 31	0.00	Aug 28 1991
ANNUAL SEVEN-DAY MINIMUM	0.23	Apr 29	0.93	Nov 17	0.00	Aug 30 1998
MAXIMUM PEAK FLOW			164	Oct 24	435	Nov 14 1993
MAXIMUM PEAK STAGE			4.22	Oct 24	7.35	May 16 1990
ANNUAL RUNOFF (CFSM)	1.03		2.01		1.17	
ANNUAL RUNOFF (INCHES)	14.04		6.88		15.89	
10 PERCENT EXCEEDS	9.4		24		10	
50 PERCENT EXCEEDS	1.4		2.8		1.4	
90 PERCENT EXCEEDS	0.45		0.81		0.16	

e Estimated

03353560 GUION CREEK ABOVE 52ND STREET AT INDIANAPOLIS, IN--Continued



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

LOCATION.--Lat 39°48'33", long 86°13'56", in NW$^1/_4$NW$^1/_4$ sec.29, T.16 N., R.03 E., Marion County, Hydrologic Unit 05120201, (INDIANAPOLIS WEST, IN quadrangle), on left bank, 150 ft downstream from bridge on West 30th Street at Indianapolis, 0.5 mi north of Indianapolis Motor Speedway, 0.6 mi west of Lafayette Road, and 0.6 mi upstream of confluence with Little Eagle Creek.

DRAINAGE AREA.--4.15 mi^2.

PERIOD OF RECORD.--October 1989 to December 2001 (discontinued).

REVISED RECORDS.--WDR IN-95-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 727.27 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.20	1.7	7.0	---	---	---	---	---	---	---	---	---
2	0.23	3.5	3.7	---	---	---	---	---	---	---	---	---
3	0.39	2.1	2.7	---	---	---	---	---	---	---	---	---
4	0.40	1.7	2.2	---	---	---	---	---	---	---	---	---
5	25	1.6	1.9	---	---	---	---	---	---	---	---	---
6	4.4	1.6	2.1	---	---	---	---	---	---	---	---	---
7	0.77	1.6	1.9	---	---	---	---	---	---	---	---	---
8	0.45	1.7	1.6	---	---	---	---	---	---	---	---	---
9	0.29	1.7	1.5	---	---	---	---	---	---	---	---	---
10	11	1.6	1.3	---	---	---	---	---	---	---	---	---
11	43	1.6	1.2	---	---	---	---	---	---	---	---	---
12	42	1.5	3.9	---	---	---	---	---	---	---	---	---
13	9.6	1.4	4.8	---	---	---	---	---	---	---	---	---
14	44	1.4	39	---	---	---	---	---	---	---	---	---
15	9.8	1.6	14	---	---	---	---	---	---	---	---	---
16	21	1.3	15	---	---	---	---	---	---	---	---	---
17	7.1	1.3	62	---	---	---	---	---	---	---	---	---
18	3.7	1.3	20	---	---	---	---	---	---	---	---	---
19	2.7	1.3	7.5	---	---	---	---	---	---	---	---	---
20	2.1	1.3	3.9	---	---	---	---	---	---	---	---	---
21	1.8	1.3	2.7	---	---	---	---	---	---	---	---	---
22	1.7	1.3	3.1	---	---	---	---	---	---	---	---	---
23	6.9	1.2	3.0	---	---	---	---	---	---	---	---	---
24	48	9.2	1.7	---	---	---	---	---	---	---	---	---
25	21	2.8	1.3	---	---	---	---	---	---	---	---	---
26	6.7	1.8	1.1	---	---	---	---	---	---	---	---	---
27	3.8	4.2	0.95	---	---	---	---	---	---	---	---	---
28	2.9	6.2	0.94	---	---	---	---	---	---	---	---	---
29	2.3	18	0.75	---	---	---	---	---	---	---	---	---
30	2.0	29	0.68	---	---	---	---	---	---	---	---	---
31	1.8	---	e0.64	---	---	---	---	---	---	---	---	---
TOTAL	327.03	107.8	214.06	---	---	---	---	---	---	---	---	---
MEAN	10.55	3.593	6.905	---	---	---	---	---	---	---	---	---
MAX	48	29	62	---	---	---	---	---	---	---	---	---
MIN	0.20	1.2	0.64	---	---	---	---	---	---	---	---	---
CFSM	2.54	0.87	1.66	---	---	---	---	---	---	---	---	---
IN.	2.93	0.97	1.92	---	---	---	---	---	---	---	---	---

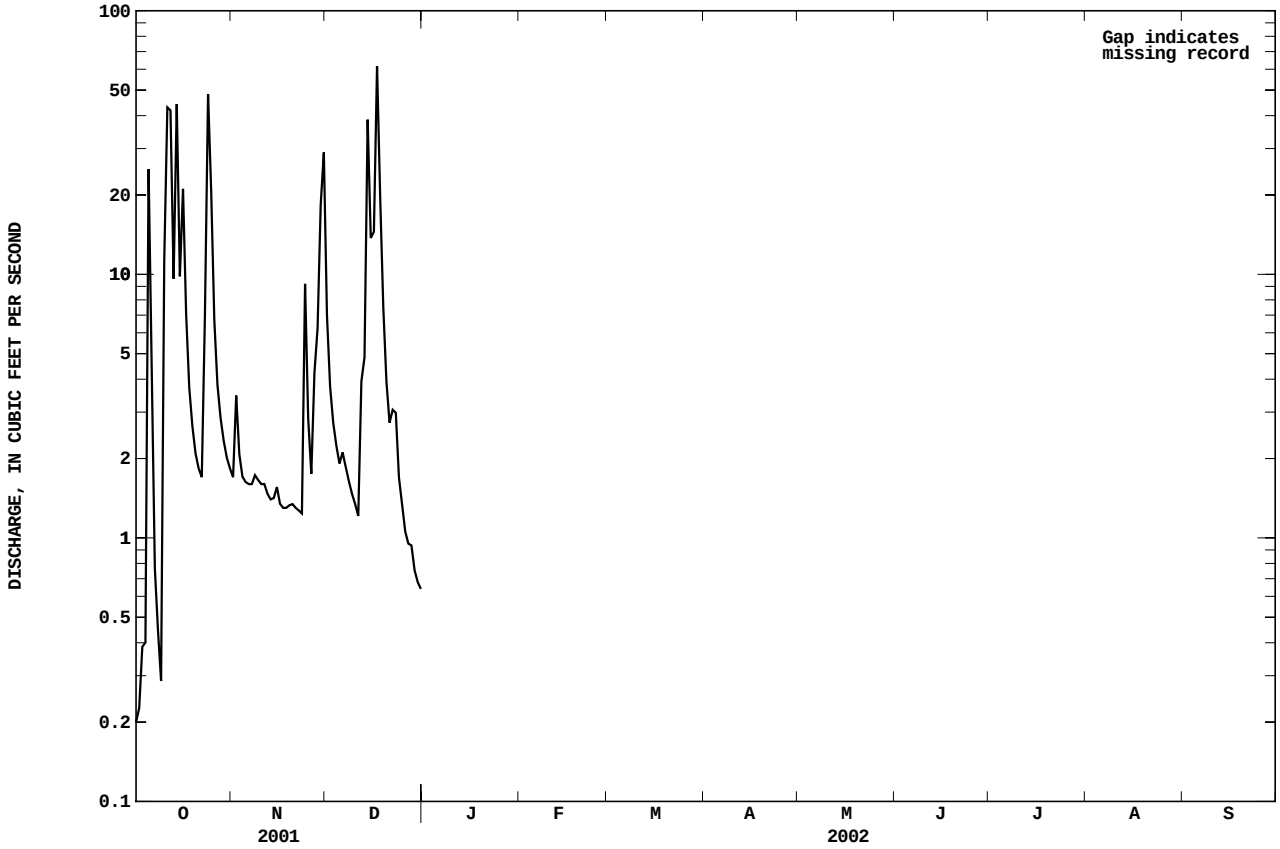
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2002, BY WATER YEAR (WY)

MEAN	2.717	4.932	4.032	4.344	4.599	5.178	6.526	7.244	5.434	3.497	1.814	2.120
MAX	10.5	16.0	17.8	9.70	13.7	12.3	13.1	26.9	18.9	10.0	3.05	6.22
(WY)	2002	1994	1991	1999	1990	1991	1996	1996	1998	1992	2000	1993
MIN	0.31	0.57	0.73	1.44	0.89	1.03	1.91	1.57	0.82	0.61	0.30	0.52
(WY)	1995	1998	1996	1992	1995	2001	1995	1992	1991	1991	1996	1991

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1989 - 2002	
ANNUAL TOTAL	1358.19		648.89			
ANNUAL MEAN	3.721		7.053		4.354	
HIGHEST ANNUAL MEAN					7.05	2002
LOWEST ANNUAL MEAN					2.66	1995
HIGHEST DAILY MEAN	62	Dec 17	62	Dec 17	226	Nov 14 1993
LOWEST DAILY MEAN	0.09	Aug 12	0.20	Oct 1	0.00	Sep 21 1991
ANNUAL SEVEN-DAY MINIMUM	0.17	Aug 6	0.91	Dec 25	0.07	Sep 26 1991
MAXIMUM PEAK FLOW			161	Oct 11	565	Jul 18 1996
MAXIMUM PEAK STAGE			4.93	Oct 11	6.81	Jun 16 2000
ANNUAL RUNOFF (CFSM)	0.90		1.70		1.05	
ANNUAL RUNOFF (INCHES)	12.17		5.82		14.25	
10 PERCENT EXCEEDS	8.9		21		9.5	
50 PERCENT EXCEEDS	1.0		2.0		1.2	
90 PERCENT EXCEEDS	0.26		0.76		0.26	

e Estimated

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



03353600 LITTLE EAGLE CREEK AT SPEEDWAY, IN

LOCATION.--Lat 39°47'15", long 86°13'41", in NE$^1/_4$SW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	9.7	67	e8.2	293	e28	31	39	19	14	4.5	e1.7
2	2.7	14	45	e7.8	66	62	62	58	15	11	4.3	e1.7
3	2.6	10	34	e7.6	38	96	96	28	11	9.5	4.2	e1.6
4	2.3	7.9	30	e7.4	26	e40	41	20	11	8.4	3.8	e1.6
5	113	6.6	27	e7.3	20	33	29	16	42	7.6	3.8	e1.6
6	45	5.9	28	e8.2	17	29	23	35	21	6.7	3.7	e1.5
7	15	5.8	25	e8.0	15	25	19	203	13	6.3	3.3	e1.5
8	9.6	6.0	23	e8.0	14	23	30	145	10	5.9	2.9	e1.4
9	7.1	6.1	21	8.2	12	144	45	112	11	51	2.9	e1.4
10	38	6.2	20	8.8	15	72	24	51	8.3	48	2.8	e1.4
11	200	5.8	18	8.2	20	43	19	31	12	14	3.1	e1.3
12	353	5.7	26	7.5	14	34	46	258	21	9.1	3.5	e1.3
13	101	5.6	51	7.1	12	29	54	652	85	7.4	5.9	e1.2
14	271	5.9	215	7.0	10	26	53	111	41	6.5	5.5	e1.2
15	101	6.0	96	6.7	9.7	41	35	61	29	5.3	4.4	1.1
16	157	e5.5	87	6.0	9.2	108	24	42	40	4.9	3.6	1.1
17	82	e5.3	309	6.0	8.5	45	19	42	15	6.2	3.2	1.1
18	58	e5.2	103	5.9	7.8	34	16	28	12	7.0	3.3	4.3
19	48	e5.4	51	6.2	17	28	15	22	10	6.9	144	1.6
20	41	e5.2	33	6.3	106	40	12	19	8.7	31	16	182
21	36	e5.0	24	6.1	56	30	135	17	8.0	8.3	5.9	39
22	32	e4.9	23	6.0	35	24	51	15	7.5	6.3	3.7	11
23	76	e4.8	26	5.8	27	22	28	14	7.2	7.4	5.5	6.4
24	295	30	20	7.3	23	20	51	15	25	6.0	5.0	4.2
25	130	19	15	6.8	24	191	83	26	294	4.9	4.4	3.3
26	35	8.7	14	5.8	87	80	30	28	156	5.2	2.4	2.9
27	21	20	12	5.3	45	99	169	15	118	6.3	2.1	62
28	15	27	12	5.2	e32	90	320	44	64	5.4	1.9	13
29	12	83	11	12	---	108	66	33	26	8.8	e1.9	6.9
30	10	193	e9.2	46	---	85	39	18	18	12	e1.8	4.8
31	9.3	---	e8.6	180	---	45	---	15	---	5.8	e1.8	---
TOTAL	2321.6	529.2	1483.8	432.7	1059.2	1774	1665	2213	1158.7	343.1	265.1	365.1
MEAN	74.89	17.64	47.86	13.96	37.83	57.23	55.50	71.39	38.62	11.07	8.552	12.17
MAX	353	193	309	180	293	191	320	652	294	51	144	182
MIN	2.3	4.8	8.6	5.2	7.8	20	12	14	7.2	4.9	1.8	1.1
CFSM	3.08	0.73	1.97	0.57	1.56	2.35	2.28	2.94	1.59	0.46	0.35	0.50
IN.	3.55	0.81	2.27	0.66	1.62	2.72	2.55	3.39	1.77	0.53	0.41	0.56

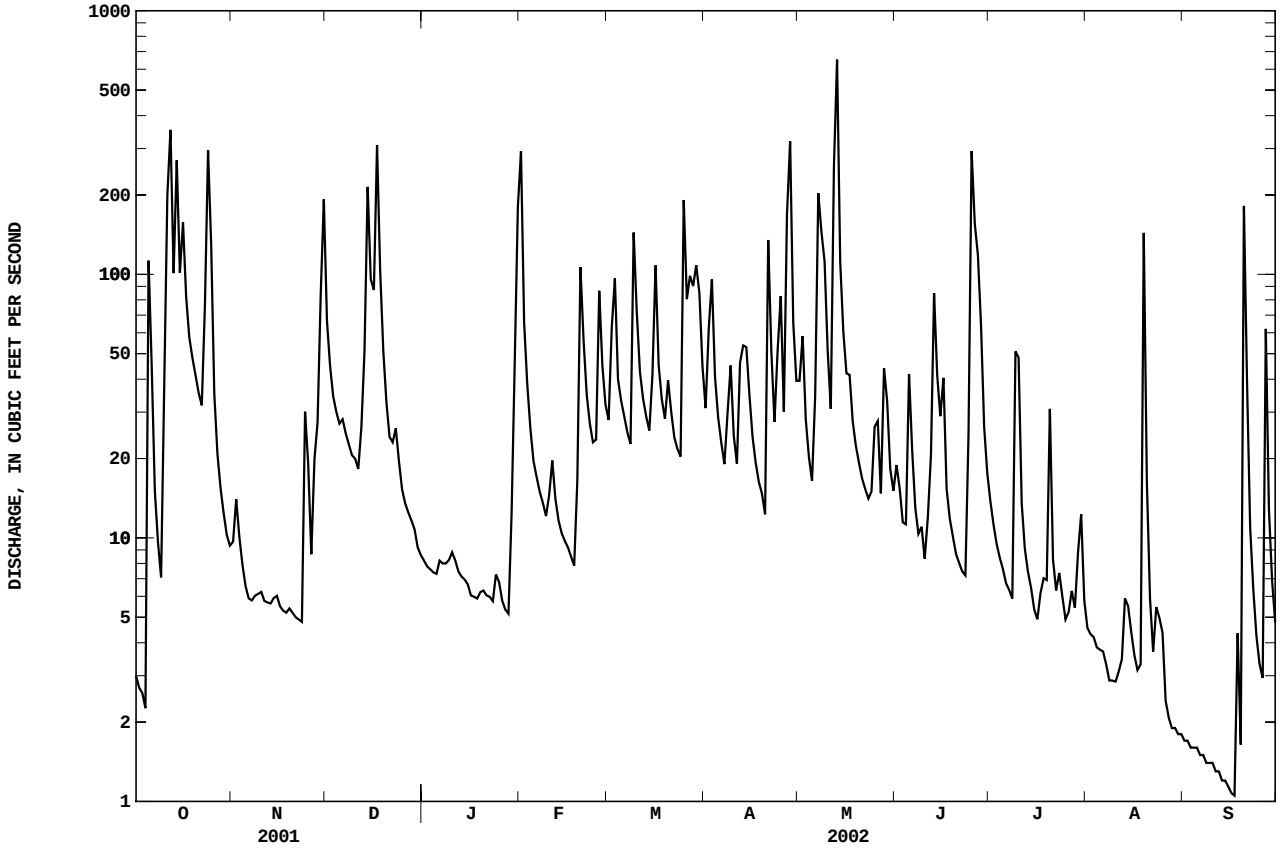
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2002, BY WATER YEAR (WY)

MEAN	12.78	24.77	28.59	25.97	31.27	37.14	36.78	33.77	21.66	18.80	11.57	11.52
MAX	88.9	115	111	78.3	77.1	87.8	84.4	140	112	92.3	44.7	101
(WY)	1987	1994	1991	1969	1997	1978	1996	1996	1998	1979	1979	1989
MIN	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1965 - 2002	
ANNUAL TOTAL	9023.3		13610.5			
ANNUAL MEAN	24.72		37.29		24.52	
HIGHEST ANNUAL MEAN					43.6	1993
LOWEST ANNUAL MEAN					4.86	1966
HIGHEST DAILY MEAN	353	Oct 12	652	May 13	1670	Nov 14 1993
LOWEST DAILY MEAN	1.1	Aug 15	1.1	Sep 15	0.00	Jul 8 1966
ANNUAL SEVEN-DAY MINIMUM	1.4	Aug 6	e1.2	Sep 11	0.07	Aug 2 1966
MAXIMUM PEAK FLOW			1330	May 13	3330	Jul 28 1979
MAXIMUM PEAK STAGE			6.95	May 13	12.13	Jul 28 1979
ANNUAL RUNOFF (CFSM)	1.02		1.53		1.01	
ANNUAL RUNOFF (INCHES)	13.81		20.84		13.71	
10 PERCENT EXCEEDS	57		96		51	
50 PERCENT EXCEEDS	9.3		15		8.0	
90 PERCENT EXCEEDS	3.2		3.3		1.4	

e Estimated

03353600 LITTLE EAGLE CREEK AT SPEEDWAY, IN--Continued



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

LOCATION.--Lat 39°42'52", long 86°12'02", in SE$^1/_4$NE$^1/_4$ sec.28, T.15N., R.3E., Marion County, Hydrologic Unit 05120201, (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. Natural flow affected by regulation of Morse Reservoir and Geist Reservoir, and by diversion of municipal water supply by the Indianapolis Water Company.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

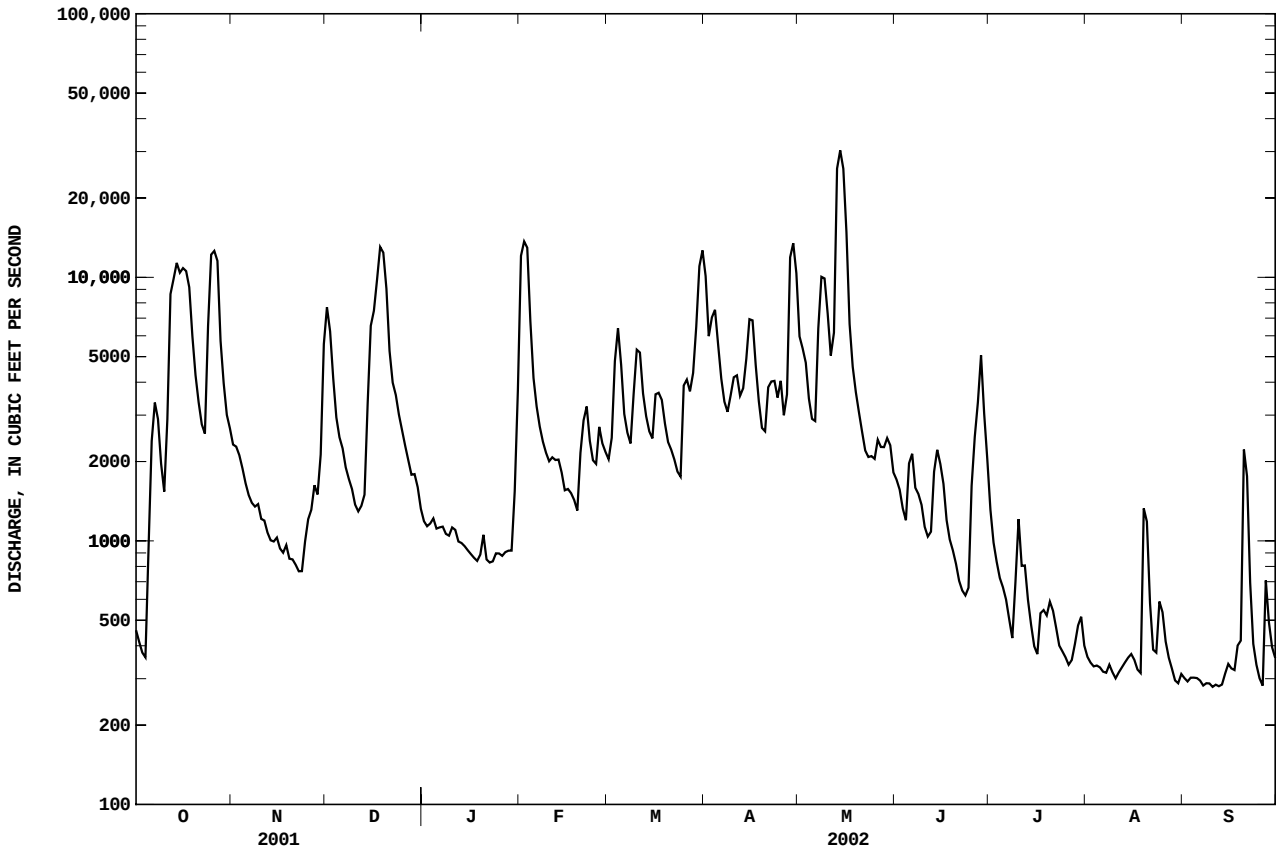
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	458	2320	7700	1190	12100	2040	10100	5970	1710	1310	363	302
2	414	2280	6240	1140	13700	2460	5980	5370	1570	986	345	293
3	377	2110	4140	1160	13000	4810	7050	4740	1330	833	334	303
4	361	1880	2940	1220	6800	6410	7530	3460	1200	723	336	303
5	947	1650	2470	1110	4150	4650	5540	2900	1970	667	331	302
6	2390	1490	2240	1130	3240	3030	4130	2850	2140	599	319	295
7	3350	1390	1900	1130	2710	2570	3370	6400	1590	504	316	282
8	2900	1350	1720	1060	2380	2340	3090	10000	1510	428	339	288
9	1960	1380	1570	1050	2160	3620	3570	9900	1370	700	318	288
10	1540	1210	1370	1120	2010	5310	4180	7280	1130	1210	301	279
11	2890	1190	1290	1100	2080	5180	4250	5050	1040	804	317	285
12	8640	1080	1360	995	2030	3630	3550	6160	1080	807	331	281
13	9880	1010	1500	982	2030	2970	3790	25900	1830	597	346	285
14	11300	995	3310	954	1820	2600	4910	30300	2220	480	360	313
15	10400	1030	6550	921	1560	2450	6940	25800	1960	398	372	341
16	10800	936	7470	891	1570	3600	6870	14800	1650	372	353	328
17	10600	902	9790	862	1520	3650	4650	6650	1200	532	325	324
18	9170	964	13000	840	1430	3430	3390	4580	1010	546	315	401
19	5980	856	12400	887	1300	2780	2680	3670	921	521	1330	418
20	4260	851	9050	1050	2160	2370	2600	3070	818	588	1180	2220
21	3360	812	5260	850	2870	2220	3830	2590	705	543	580	1760
22	2770	767	3990	828	3230	2040	4020	2200	649	468	387	694
23	2550	768	3580	836	2390	1830	4050	2080	621	401	377	407
24	6530	994	3010	896	2020	1750	3500	2100	664	381	589	339
25	12200	1210	2630	896	1960	3890	4050	2050	1620	362	536	301
26	12600	1310	2290	877	2710	4090	3000	2420	2480	339	415	282
27	11500	1630	2020	906	2340	3690	3600	2270	3360	353	360	708
28	5740	1500	1780	918	2180	4340	11900	2270	5060	406	328	491
29	3970	2120	1790	918	---	6490	13500	2460	3040	477	295	395
30	3010	5580	1600	1540	---	11000	10400	2310	2050	515	288	360
31	2670	---	1320	3710	---	12600	---	1820	---	401	313	---
TOTAL	165517	43565	127280	33967	99450	123840	160020	209420	49498	18251	12999	13868
MEAN	5339	1452	4106	1096	3552	3995	5334	6755	1650	588.7	419.3	462.3
MAX	12600	5580	13000	3710	13700	12600	13500	30300	5060	1310	1330	2220
MIN	361	767	1290	828	1300	1750	2600	1820	621	339	288	279
CFSM	2.81	0.77	2.16	0.58	1.87	2.10	2.81	3.56	0.87	0.31	0.22	0.24
IN.	3.24	0.85	2.49	0.67	1.95	2.43	3.14	4.10	0.97	0.36	0.25	0.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	1037	2143	1652	2351	2156	2760	2987	3153	2471	1280	588.0	602.1
MAX	5339	7366	4215	4949	4000	5526	5334	7735	6924	3806	1360	1485
(WY)	2002	1994	1997	1999	1997	1997	2002	1996	1998	1993	1998	1993
MIN	227	200	252	269	666	751	1433	1326	829	533	273	181
(WY)	1995	2000	2000	2000	1995	2000	2000	2000	1994	1999	1999	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1992 - 2002	
ANNUAL TOTAL	762726		1057675			
ANNUAL MEAN	2090		2898		1929	
HIGHEST ANNUAL MEAN					2947	1993
LOWEST ANNUAL MEAN					770	2000
HIGHEST DAILY MEAN	13000	Dec 18	30300	May 14	32700	Nov 17 1993
LOWEST DAILY MEAN	303	Aug 16	279	Sep 10	150	Oct 1 1995
ANNUAL SEVEN-DAY MINIMUM	318	Aug 12	284	Sep 7	161	Sep 14 1999
MAXIMUM PEAK FLOW			32300	May 13	36500	Nov 17 1993
MAXIMUM PEAK STAGE			12.24	May 13	13.22	Nov 17 1993
ANNUAL RUNOFF (CFSM)	1.10		1.53		1.02	
ANNUAL RUNOFF (INCHES)	14.95		20.73		13.81	
10 PERCENT EXCEEDS	4780		6830		4370	
50 PERCENT EXCEEDS	1310		1720		964	
90 PERCENT EXCEEDS	452		340		283	

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, 29.8°C, Aug. 3; minimum, 1.0°C, Jan. 5.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.1	16.5	17.4	13.2	11.6	12.5	9.6	8.7	9.1	---	---	---
2	19.1	17.3	18.2	14.0	12.8	13.4	9.8	8.6	9.2	---	---	---
3	19.9	17.8	18.7	13.7	12.2	13.1	10.3	8.1	9.3	---	---	---
4	20.2	18.2	19.0	13.5	11.9	12.9	11.3	10.0	10.7	4.0	1.6	2.9
5	19.9	15.8	18.1	13.1	12.5	12.7	11.8	10.7	11.3	4.9	1.0	2.2
6	15.8	14.7	15.3	---	---	---	11.4	10.7	11.1	5.8	1.6	3.2
7	14.9	13.6	14.3	---	---	---	11.8	10.9	11.4	5.8	1.5	2.4
8	14.8	13.8	14.3	---	---	---	11.4	10.4	11.0	2.8	1.1	2.0
9	15.0	13.7	14.3	11.8	10.6	11.3	10.9	9.2	9.9	7.2	1.8	3.8
10	16.0	13.6	14.5	12.2	10.5	11.1	9.9	8.8	9.2	7.1	4.8	6.1
11	15.9	15.0	15.6	11.5	10.1	10.7	9.7	8.6	8.9	7.6	5.6	6.7
12	15.9	15.4	15.6	11.0	10.3	10.7	9.8	7.9	8.6	7.8	4.1	6.3
13	15.9	15.3	15.6	11.2	10.1	10.7	9.6	8.5	8.9	8.6	3.5	6.3
14	15.8	15.0	15.5	11.8	10.3	11.0	10.2	7.9	8.7	8.5	4.2	6.7
15	15.3	14.5	14.9	11.8	11.1	11.4	8.0	7.6	7.8	7.9	7.0	7.6
16	14.5	12.8	13.6	12.3	11.1	11.8	9.3	7.6	8.2	8.4	5.2	7.3
17	13.7	12.5	13.1	12.9	11.7	12.3	9.3	7.6	8.3	7.7	5.2	7.1
18	13.0	11.3	12.2	13.7	12.5	13.0	7.9	7.1	7.5	8.0	3.3	6.4
19	13.8	11.7	12.7	13.0	12.5	12.8	---	---	---	8.4	3.7	6.0
20	14.2	12.2	13.3	12.6	11.3	11.8	---	---	---	5.8	3.7	4.5
21	14.9	13.0	14.0	11.5	10.5	11.1	7.1	5.4	6.4	7.4	3.3	5.7
22	15.2	13.6	14.5	10.8	10.2	10.4	7.4	6.0	6.7	8.0	3.0	6.7
23	15.8	14.9	15.3	10.6	9.9	10.2	7.4	6.4	7.0	9.0	7.9	8.5
24	15.4	13.3	14.5	13.4	10.1	11.3	---	---	---	8.9	7.5	8.2
25	13.3	12.2	12.9	12.0	10.7	11.2	---	---	---	8.8	7.5	8.2
26	12.2	10.6	11.5	11.3	10.4	10.9	---	---	---	8.9	6.9	8.4
27	10.7	9.8	10.3	12.3	10.7	11.1	---	---	---	8.9	7.5	8.2
28	11.3	9.3	10.3	11.9	10.1	10.8	6.3	3.2	4.8	8.8	7.0	8.1
29	11.6	9.8	10.7	11.6	9.5	10.2	---	---	---	11.0	8.6	9.1
30	12.4	11.2	11.8	11.1	8.9	9.9	---	---	---	11.0	8.2	9.4
31	12.9	11.5	12.3	---	---	---	---	---	---	8.5	6.5	7.2
MONTH	20.2	9.3	14.3	---	---	---	---	---	---	---	---	---

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

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.6	3.9	4.8	7.4	4.4	6.0	8.6	6.7	7.6	14.4	12.7	13.6
2	4.9	4.1	4.5	6.9	5.3	6.1	10.7	8.1	9.3	14.3	12.8	13.5
3	5.2	4.0	4.5	6.4	4.1	5.1	9.2	6.8	7.6	15.0	12.2	13.7
4	5.7	3.5	4.9	4.3	2.8	3.5	8.7	6.8	7.7	16.0	13.6	15.0
5	5.5	3.6	4.8	5.4	3.0	4.2	9.7	7.2	8.4	17.2	14.6	15.9
6	5.6	4.1	5.0	7.9	4.3	6.2	10.4	7.5	8.9	16.1	15.0	15.5
7	7.3	5.0	6.1	10.0	7.4	8.6	10.7	7.7	9.1	16.2	15.1	15.7
8	7.9	5.3	6.7	11.3	8.8	9.8	10.9	9.6	10.3	16.0	14.8	15.5
9	8.6	5.8	7.2	10.6	6.2	8.9	11.1	9.4	10.1	16.7	15.3	15.8
10	8.2	6.6	7.7	6.5	5.1	5.7	12.3	9.3	10.8	17.1	14.8	16.1
11	7.8	6.0	7.0	7.0	4.6	5.9	14.1	10.3	12.0	16.7	15.2	15.6
12	8.1	6.2	7.2	7.5	6.1	6.9	14.1	12.5	13.2	16.6	15.2	16.1
13	7.9	6.0	7.1	9.9	6.6	8.3	13.8	12.7	13.2	15.3	14.4	14.7
14	8.8	5.9	7.4	10.3	7.5	9.0	14.8	12.6	13.8	14.6	13.8	14.2
15	8.8	6.6	8.2	10.0	8.9	9.5	15.7	11.7	13.7	14.8	13.4	14.0
16	8.8	6.1	7.6	9.5	7.6	8.2	17.8	14.4	15.9	15.7	13.7	14.5
17	8.6	6.5	7.8	7.9	7.0	7.5	18.2	16.5	17.4	14.9	14.0	14.6
18	8.9	6.1	7.8	9.1	7.4	8.1	19.5	17.2	18.4	15.5	13.4	14.3
19	9.5	7.7	8.9	10.2	8.0	8.9	20.9	19.4	20.1	14.6	13.0	13.8
20	9.3	7.9	8.6	10.0	9.3	9.7	20.4	18.7	19.5	14.5	13.0	13.9
21	8.0	6.0	6.8	9.3	7.3	8.6	18.7	14.7	16.4	14.8	13.0	13.9
22	6.9	5.3	6.2	8.9	6.1	7.5	14.7	13.6	14.2	15.8	13.6	14.8
23	8.3	5.5	7.1	10.0	6.4	8.3	15.1	12.8	14.0	17.2	14.8	16.0
24	9.0	6.2	7.8	9.7	7.7	8.9	15.9	13.7	14.9	17.3	16.3	16.8
25	9.4	7.2	8.1	9.5	5.1	6.4	15.5	13.1	14.3	18.8	16.6	17.6
26	7.3	5.6	6.3	5.9	4.8	5.3	15.9	13.3	14.6	18.8	16.6	17.7
27	6.0	4.7	5.4	8.3	4.6	6.3	15.1	11.7	13.7	19.3	17.4	18.3
28	6.4	3.4	5.0	7.0	5.9	6.5	13.2	11.7	12.6	19.8	17.8	18.9
29	---	---	---	7.2	5.6	6.4	13.2	12.2	12.6	19.2	18.3	18.7
30	---	---	---	7.0	5.5	6.3	14.6	11.9	12.8	20.6	18.2	19.4
31	---	---	---	7.4	5.9	6.6	---	---	---	22.4	20.0	21.1
MONTH	9.5	3.4	6.7	11.3	2.8	7.2	20.9	6.7	12.9	22.4	12.2	15.8

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.7	20.8	21.7	26.5	24.7	25.6	29.0	26.8	27.9	27.3	24.1	25.7
2	22.5	21.7	22.1	27.3	25.9	26.6	28.2	26.9	27.5	27.4	24.7	26.1
3	23.4	21.7	22.5	27.7	26.8	27.3	29.8	26.7	28.0	27.3	25.1	26.3
4	24.2	22.4	23.3	28.2	27.2	27.7	29.3	27.1	28.2	27.2	24.9	26.0
5	24.0	22.2	23.0	28.7	27.7	28.1	29.0	27.4	28.2	27.2	24.6	25.7
6	22.2	21.1	21.6	27.7	26.8	27.3	28.2	26.4	27.4	27.1	24.2	25.5
7	22.3	20.3	21.3	28.1	26.4	27.2	27.0	25.5	26.2	26.8	24.6	25.7
8	23.1	20.6	21.9	28.0	26.6	27.3	27.0	25.0	25.8	27.5	24.9	26.3
9	23.4	21.3	22.4	27.0	24.9	26.4	27.4	24.9	26.1	27.8	25.7	26.8
10	24.0	22.0	23.1	25.6	25.0	25.3	27.2	24.9	26.1	27.8	26.0	26.9
11	23.8	22.9	23.5	25.5	24.6	25.0	27.2	25.4	26.3	26.3	24.9	25.7
12	24.0	23.4	23.7	24.7	23.8	24.3	27.3	25.8	26.5	25.7	24.3	25.0
13	23.7	21.7	22.7	25.0	23.7	24.3	26.6	25.9	26.2	25.3	23.3	24.4
14	22.4	20.9	21.7	25.9	24.1	24.9	25.9	25.2	25.5	25.6	24.0	24.7
15	22.6	20.4	21.4	27.2	24.5	25.5	26.3	24.6	25.4	25.6	24.4	25.0
16	22.7	20.2	21.4	27.2	24.9	25.8	27.2	24.7	25.9	25.9	23.7	24.9
17	22.7	20.6	21.6	25.7	24.8	25.3	27.1	25.2	26.1	24.9	23.5	24.3
18	23.3	21.3	22.3	26.3	24.6	25.4	26.6	25.5	26.0	25.1	23.6	24.3
19	24.0	21.9	22.9	26.7	25.1	25.8	25.9	23.4	24.6	25.0	23.6	24.3
20	24.9	22.9	23.9	27.4	25.6	26.3	24.8	23.4	24.1	24.8	21.1	22.9
21	25.2	24.2	24.7	28.8	26.1	27.2	25.8	23.7	24.8	22.7	21.1	21.8
22	26.1	24.9	25.5	28.7	27.0	27.7	27.1	24.6	25.8	22.4	21.6	22.0
23	26.5	25.5	26.0	27.5	26.6	27.0	27.3	24.9	26.1	22.4	20.7	21.6
24	27.2	25.2	26.1	27.5	26.1	26.6	26.8	25.5	26.0	22.6	20.8	21.8
25	26.5	23.1	25.2	27.4	25.6	26.4	26.8	25.4	26.0	22.4	21.0	21.7
26	24.1	22.8	23.8	26.6	25.7	26.2	27.0	25.4	26.0	22.4	20.6	21.5
27	24.8	22.5	23.5	27.1	25.8	26.4	27.1	25.0	25.8	22.4	20.0	20.8
28	24.6	22.7	23.7	28.0	26.0	26.9	26.5	24.7	25.4	20.9	19.9	20.4
29	25.4	23.2	24.3	27.7	26.3	26.9	26.7	24.2	25.3	21.6	20.5	21.1
30	25.9	23.6	24.8	28.3	26.2	27.0	26.2	24.3	25.2	22.8	21.0	21.7
31	---	---	---	28.9	26.6	27.6	26.6	23.9	25.1	---	---	---
MONTH	27.2	20.2	23.2	28.9	23.7	26.4	29.8	23.4	26.1	27.8	19.9	24.0

03353620 LICK CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°42'21", long 86°06'13", in NE$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	5.5	38	e6.3	446	e13	20	22	11	7.3	1.3	0.71
2	1.4	15	16	e6.0	54	65	21	23	7.2	5.4	1.5	0.71
3	1.5	7.6	10	e5.8	30	82	39	13	4.8	4.3	1.3	0.71
4	1.5	5.0	8.5	e5.6	20	e22	19	10	6.4	3.6	1.3	0.71
5	46	4.3	6.7	e5.4	14	16	14	11	47	2.8	1.3	0.71
6	24	3.9	8.7	e6.0	12	13	12	22	20	2.3	1.3	0.71
7	4.5	3.6	7.5	e5.6	11	11	10	527	9.0	2.0	1.3	0.71
8	2.8	3.6	5.6	e5.4	9.5	9.8	15	205	5.7	1.9	1.2	0.71
9	2.8	4.0	4.6	e5.6	8.8	110	34	94	6.0	3.9	1.2	0.71
10	29	3.5	4.0	6.6	12	37	16	35	4.3	7.6	1.2	0.71
11	154	3.4	3.7	5.9	15	20	12	22	7.1	2.4	1.2	0.71
12	225	3.2	8.1	5.5	11	16	65	272	4.7	1.8	1.2	0.71
13	48	3.0	24	5.3	8.5	15	80	722	79	1.7	1.2	0.71
14	280	3.0	163	6.1	7.3	11	54	89	29	1.7	1.6	0.71
15	89	3.0	50	7.4	7.2	16	30	38	18	1.7	1.7	1.2
16	152	2.8	47	6.5	6.8	34	18	25	19	1.6	1.4	0.76
17	48	2.7	456	5.3	6.3	17	14	23	8.0	4.9	1.3	0.71
18	21	2.7	115	5.7	5.7	13	12	15	5.1	4.3	1.3	35
19	13	2.8	40	5.2	9.2	12	10	12	4.2	6.6	24	13
20	9.2	2.7	25	5.1	45	30	8.9	10	3.5	6.7	3.2	166
21	7.2	2.7	18	4.7	27	19	154	8.9	3.0	2.7	1.1	32
22	6.5	2.7	16	4.5	15	13	38	8.2	2.8	1.6	0.82	7.3
23	14	2.5	24	4.4	11	11	19	7.6	2.5	3.0	1.9	3.1
24	321	18	16	11	9.8	10	58	21	2.2	2.4	1.4	2.3
25	157	14	12	6.6	12	205	69	19	142	2.4	1.0	2.1
26	32	5.3	9.9	5.3	48	100	20	12	40	2.2	0.86	1.9
27	14	43	e9.0	4.8	21	76	208	8.6	308	1.5	0.82	42
28	8.8	32	e8.6	4.5	e16	56	326	7.4	84	1.3	0.80	8.0
29	6.8	123	e7.8	6.3	---	69	45	6.6	20	5.1	0.74	3.4
30	6.0	211	e7.0	24	---	56	24	6.0	11	5.2	0.71	2.2
31	5.6	---	e6.6	254	---	26	---	6.6	---	2.3	0.71	---
TOTAL	1733.2	539.5	1176.3	446.4	899.1	1203.8	1464.9	2301.9	914.5	104.2	61.86	330.91
MEAN	55.91	17.98	37.95	14.40	32.11	38.83	48.83	74.25	30.48	3.361	1.995	11.03
MAX	321	211	456	254	446	205	326	722	308	7.6	24	166
MIN	1.4	2.5	3.7	4.4	5.7	9.8	8.9	6.0	2.2	1.3	0.71	0.71
CFSM	3.58	1.15	2.43	0.92	2.06	2.49	3.13	4.76	1.95	0.22	0.13	0.71
IN.	4.13	1.29	2.81	1.06	2.14	2.87	3.49	5.49	2.18	0.25	0.15	0.79

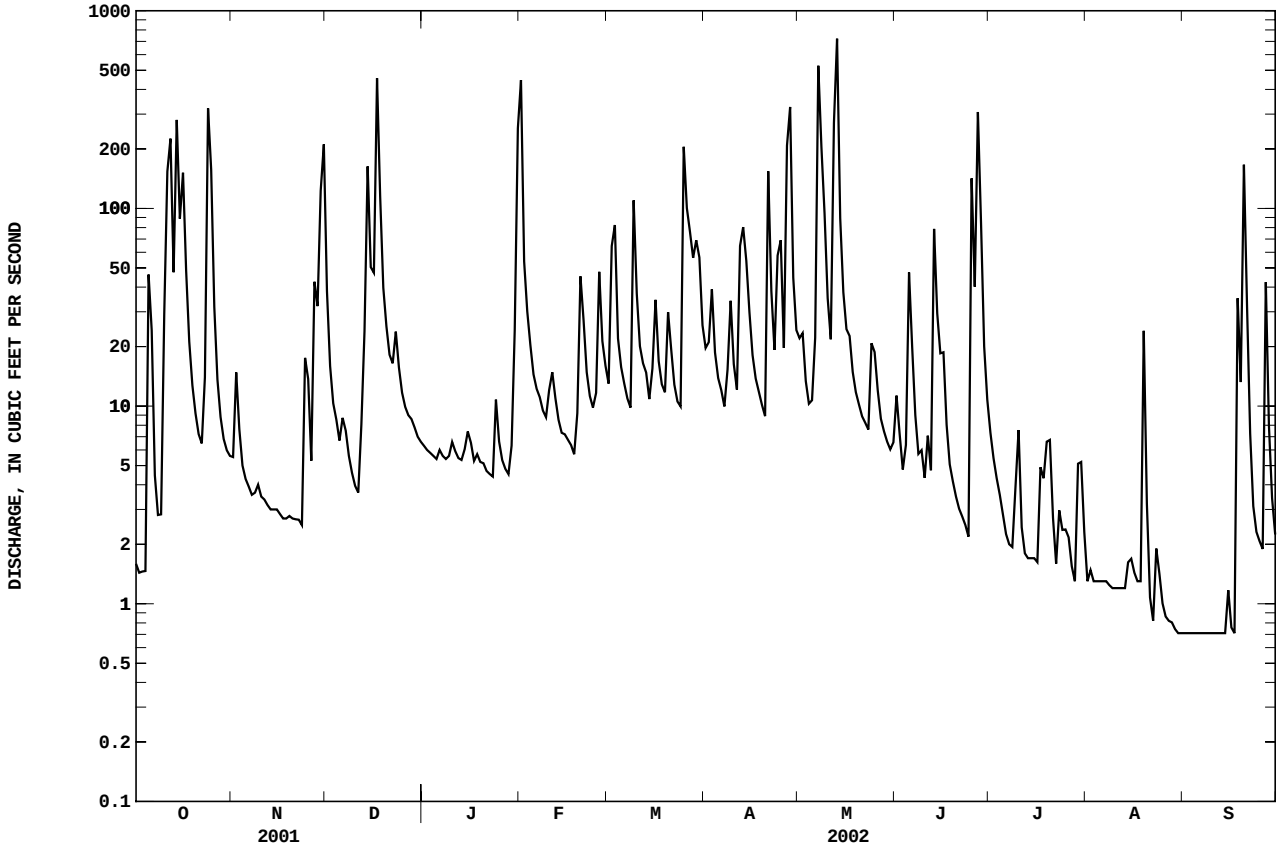
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

MEAN	9.496	20.80	23.09	20.81	26.23	30.52	27.73	26.69	18.64	17.24	10.57	8.329
MAX	55.9	102	76.4	50.5	57.1	64.6	71.4	102	88.8	95.5	54.1	48.2
(WY)	2002	1994	1991	1997	1975	1978	1996	1996	1998	1992	1979	1989
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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1971 - 2002	
ANNUAL TOTAL	7805.27		11176.57			
ANNUAL MEAN	21.38		30.62		19.98	
HIGHEST ANNUAL MEAN					30.6	2002
LOWEST ANNUAL MEAN					10.8	2000
HIGHEST DAILY MEAN	456	Dec 17	722	May 13	1380	Nov 14 1993
LOWEST DAILY MEAN	0.84	Sep 6	0.71	Aug 30	0.05	Sep 19 1983
ANNUAL SEVEN-DAY MINIMUM	1.4	Aug 11	0.71	Aug 30	0.07	Sep 22 1999
MAXIMUM PEAK FLOW			1600	Jun 27	2500	Jun 25 1978
MAXIMUM PEAK STAGE			7.21	Jun 27	9.61	Jun 25 1978
ANNUAL RUNOFF (CFSM)	1.37		1.96		1.28	
ANNUAL RUNOFF (INCHES)	18.61		26.65		17.40	
10 PERCENT EXCEEDS	48		67		44	
50 PERCENT EXCEEDS	5.5		8.0		6.7	
90 PERCENT EXCEEDS	2.2		1.3		1.2	

e Estimated

03353620 LICK CREEK AT INDIANAPOLIS, IN--Continued



03353635 DERBYSHIRE CREEK AT SOUTHPORT, IN

LOCATION.--Lat 39°40'15", long 86°07'21", in NE$^1/_4$SE$^1/_4$ sec.07, T.14 N., R.04 E., Marion County Hydrologic Unit 05120201, (BEECH GROVE, IN quadrangle), on left bank, 10 ft downstream from bridge on Derbyshire Road, 0.25 mi south of Fairhope Drive, and 0.3 mi upstream from mouth.

DRAINAGE AREA.--1.76 mi^2.

PERIOD OF RECORD.--September 1989 to December 2001 (discontinued).

REVISED RECORDS.--WDR IN-95-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 746.37 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.91	1.6	7.8	---	---	---	---	---	---	---	---	---
2	0.91	1.8	4.1	---	---	---	---	---	---	---	---	---
3	0.84	1.7	3.0	---	---	---	---	---	---	---	---	---
4	0.84	1.5	2.5	---	---	---	---	---	---	---	---	---
5	2.2	1.4	2.1	---	---	---	---	---	---	---	---	---
6	1.9	1.3	2.1	---	---	---	---	---	---	---	---	---
7	1.2	1.3	2.0	---	---	---	---	---	---	---	---	---
8	1.1	1.2	1.8	---	---	---	---	---	---	---	---	---
9	0.99	1.2	1.6	---	---	---	---	---	---	---	---	---
10	1.4	1.2	1.4	---	---	---	---	---	---	---	---	---
11	11	1.2	1.3	---	---	---	---	---	---	---	---	---
12	24	1.2	1.6	---	---	---	---	---	---	---	---	---
13	5.4	1.2	3.0	---	---	---	---	---	---	---	---	---
14	32	1.1	21	---	---	---	---	---	---	---	---	---
15	8.6	1.1	7.8	---	---	---	---	---	---	---	---	---
16	14	1.1	5.2	---	---	---	---	---	---	---	---	---
17	6.3	1.1	48	---	---	---	---	---	---	---	---	---
18	3.8	0.99	16	---	---	---	---	---	---	---	---	---
19	3.0	0.99	5.4	---	---	---	---	---	---	---	---	---
20	2.4	0.99	3.5	---	---	---	---	---	---	---	---	---
21	2.0	0.91	2.8	---	---	---	---	---	---	---	---	---
22	1.9	0.91	2.5	---	---	---	---	---	---	---	---	---
23	2.1	0.91	2.7	---	---	---	---	---	---	---	---	---
24	33	1.4	2.2	---	---	---	---	---	---	---	---	---
25	17	1.6	1.9	---	---	---	---	---	---	---	---	---
26	4.4	1.2	1.8	---	---	---	---	---	---	---	---	---
27	3.0	3.2	1.6	---	---	---	---	---	---	---	---	---
28	2.4	2.8	e1.4	---	---	---	---	---	---	---	---	---
29	2.1	12	e1.2	---	---	---	---	---	---	---	---	---
30	1.9	40	e1.1	---	---	---	---	---	---	---	---	---
31	1.8	---	e1.0	---	---	---	---	---	---	---	---	---
TOTAL	194.39	90.10	161.4	---	---	---	---	---	---	---	---	---
MEAN	6.271	3.003	5.206	---	---	---	---	---	---	---	---	---
MAX	33	40	48	---	---	---	---	---	---	---	---	---
MIN	0.84	0.91	1.0	---	---	---	---	---	---	---	---	---
CFSM	3.56	1.71	2.96	---	---	---	---	---	---	---	---	---
IN.	4.11	1.90	3.41	---	---	---	---	---	---	---	---	---

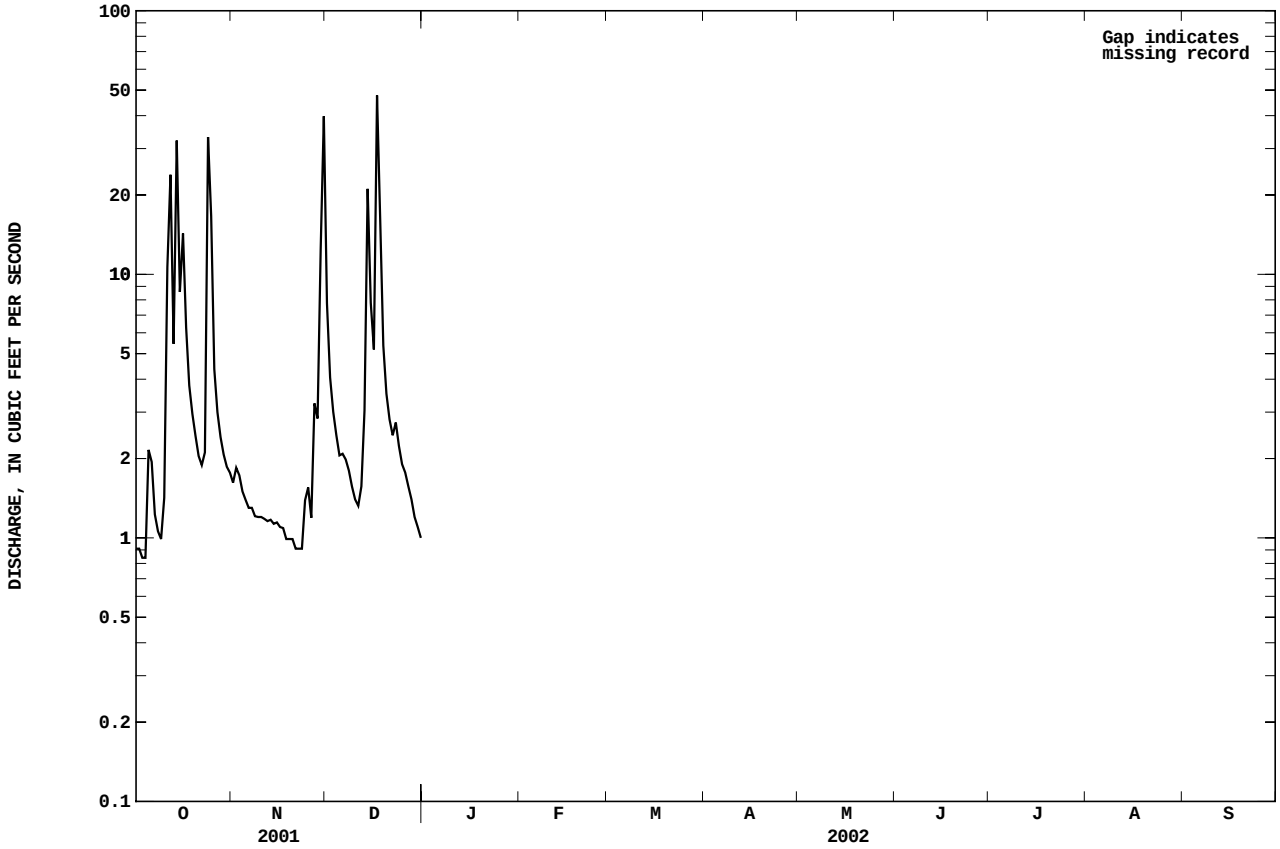
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

MEAN	1.446	2.971	3.023	3.301	3.289	3.712	3.831	3.820	3.143	2.280	0.981	0.954
MAX	6.27	11.9	17.0	6.91	13.1	8.25	7.78	12.2	11.4	10.8	2.97	3.44
(WY)	2002	1994	1991	1999	1990	1991	1996	1996	1998	1992	2000	2001
MIN	0.078	0.12	0.37	0.24	0.98	0.87	1.02	0.74	0.28	0.26	0.17	0.052
(WY)	1998	2000	1998	2000	1998	1994	2001	1992	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1990 - 2002	
ANNUAL TOTAL	1126.44		445.89			
ANNUAL MEAN	3.086		4.847		2.720	
HIGHEST ANNUAL MEAN					4.85	2002
LOWEST ANNUAL MEAN					1.45	2000
HIGHEST DAILY MEAN	80	Jun 6	48	Dec 17	273	Dec 30 1990
LOWEST DAILY MEAN	0.49	Sep 6	0.84	Oct 3	0.03	Sep 14 1991
ANNUAL SEVEN-DAY MINIMUM	0.61	May 10	0.97	Nov 17	0.04	Sep 21 1999
MAXIMUM PEAK FLOW			183	Oct 24	1010	May 15 1990
MAXIMUM PEAK STAGE			3.95	Oct 24	5.14	Jul 9 1992
ANNUAL RUNOFF (CFSM)	1.75		2.75		1.55	
ANNUAL RUNOFF (INCHES)	23.81		9.42		21.00	
10 PERCENT EXCEEDS	5.5		13		4.7	
50 PERCENT EXCEEDS	1.3		1.8		0.96	
90 PERCENT EXCEEDS	0.72		0.99		0.18	

e Estimated

03353635 DERBYSHIRE CREEK AT SOUTHPORT, IN--Continued



03353636 LITTLE BUCK CREEK AT SOUTHPORT, IN

LOCATION.--Lat 39°39'54", long 86°08'11", in SW¼SW¼ sec.7, T.14 N., R.4 E., Marion County, Hydrologic Unit 05120201, (MAYWOOD, IN quadrangle), on left bank 50 ft downstream from Southport Road bridge in Indianapolis, 0.6 mi west of U.S. Highway 31, and at mile 9.52.

DRAINAGE AREA.--10.8 mi^2.

PERIOD OF RECORD.--October 1989 to December 2001 (discontinued).

REVISED RECORDS.--WDR IN-95-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 725.50 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	9.0	50	---	---	---	---	---	---	---	---	---
2	3.0	15	29	---	---	---	---	---	---	---	---	---
3	2.6	13	22	---	---	---	---	---	---	---	---	---
4	2.2	10	18	---	---	---	---	---	---	---	---	---
5	17	8.2	15	---	---	---	---	---	---	---	---	---
6	20	7.4	16	---	---	---	---	---	---	---	---	---
7	9.6	6.6	14	---	---	---	---	---	---	---	---	---
8	6.0	6.0	12	---	---	---	---	---	---	---	---	---
9	4.6	5.7	10	---	---	---	---	---	---	---	---	---
10	9.6	5.6	9.1	---	---	---	---	---	---	---	---	---
11	81	5.4	8.2	---	---	---	---	---	---	---	---	---
12	178	5.0	11	---	---	---	---	---	---	---	---	---
13	44	4.6	27	---	---	---	---	---	---	---	---	---
14	215	4.4	119	---	---	---	---	---	---	---	---	---
15	62	4.2	58	---	---	---	---	---	---	---	---	---
16	96	4.0	42	---	---	---	---	---	---	---	---	---
17	46	3.8	333	---	---	---	---	---	---	---	---	---
18	27	3.7	111	---	---	---	---	---	---	---	---	---
19	21	3.9	47	---	---	---	---	---	---	---	---	---
20	16	3.9	27	---	---	---	---	---	---	---	---	---
21	13	3.7	17	---	---	---	---	---	---	---	---	---
22	11	3.5	13	---	---	---	---	---	---	---	---	---
23	12	3.4	14	---	---	---	---	---	---	---	---	---
24	163	11	10	---	---	---	---	---	---	---	---	---
25	107	27	7.8	---	---	---	---	---	---	---	---	---
26	37	13	6.4	---	---	---	---	---	---	---	---	---
27	23	29	5.7	---	---	---	---	---	---	---	---	---
28	17	27	5.3	---	---	---	---	---	---	---	---	---
29	14	111	e4.0	---	---	---	---	---	---	---	---	---
30	12	180	e3.5	---	---	---	---	---	---	---	---	---
31	11	---	e3.1	---	---	---	---	---	---	---	---	---
TOTAL	1283.9	538.0	1068.1	---	---	---	---	---	---	---	---	---
MEAN	41.42	17.93	34.45	---	---	---	---	---	---	---	---	---
MAX	215	180	333	---	---	---	---	---	---	---	---	---
MIN	2.2	3.4	3.1	---	---	---	---	---	---	---	---	---
CFSM	3.83	1.66	3.19	---	---	---	---	---	---	---	---	---
IN.	4.42	1.85	3.68	---	---	---	---	---	---	---	---	---

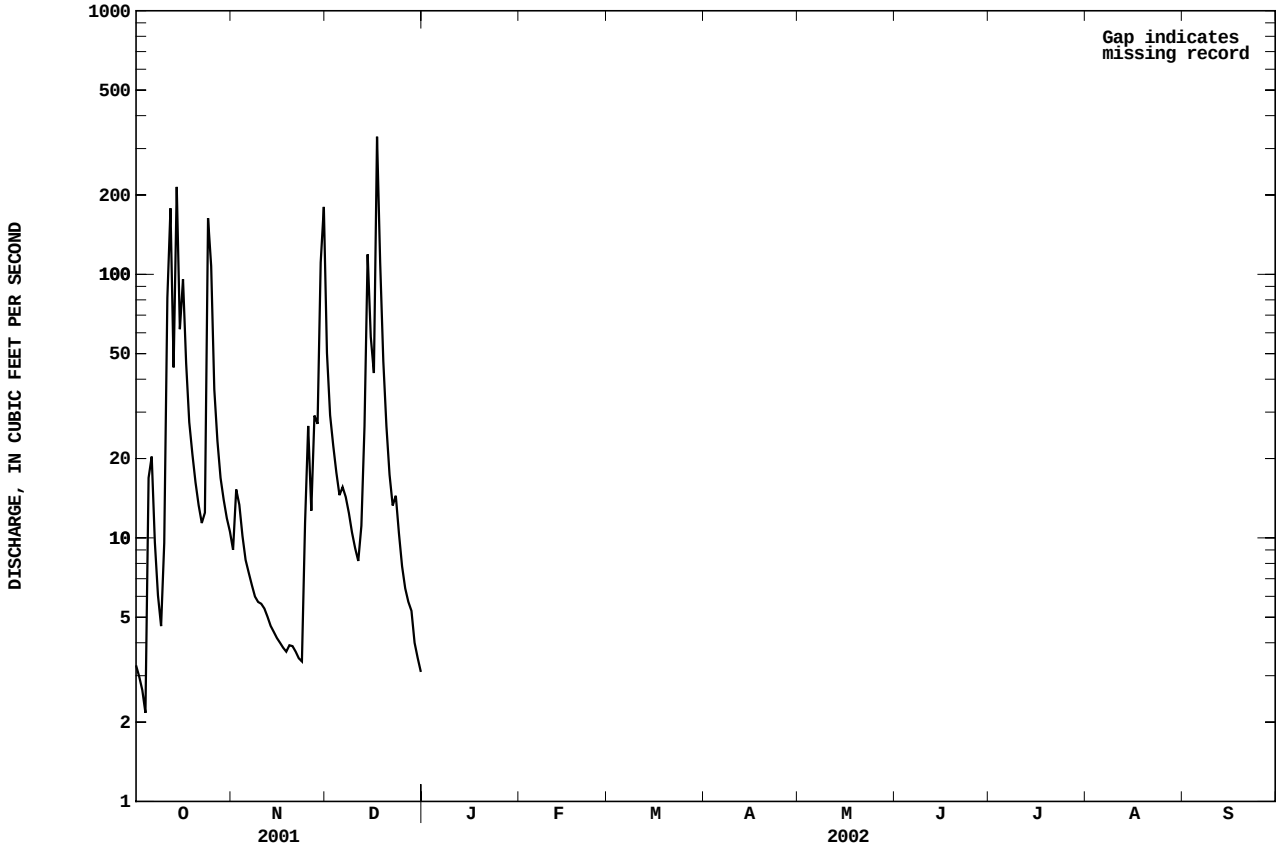
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2002, BY WATER YEAR (WY)

MEAN	9.357	18.08	16.78	19.64	18.17	22.39	25.54	23.33	20.75	14.61	5.363	6.449
MAX	41.4	68.9	72.5	49.6	48.1	53.8	50.4	73.9	65.7	70.6	12.9	24.0
(WY)	2002	1994	1991	1999	1990	1991	1996	1996	1998	1992	1990	2001
MIN	0.65	0.51	2.21	2.71	6.38	5.56	6.04	4.43	1.68	1.55	1.20	0.36
(WY)	2000	2000	1998	2000	1996	2001	2001	1999	1991	1991	1999	1991

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1989 - 2002	
ANNUAL TOTAL	7096.17		2890.0			
ANNUAL MEAN	19.44		31.41		16.64	
HIGHEST ANNUAL MEAN					31.4	2002
LOWEST ANNUAL MEAN					3.60	1989
HIGHEST DAILY MEAN	419	Jun 6	333	Dec 17	1110	Dec 30 1990
LOWEST DAILY MEAN	0.91	May 15	2.2	Oct 4	0.09	Sep 27 1997
ANNUAL SEVEN-DAY MINIMUM	1.3	May 11	3.7	Nov 17	0.11	Sep 26 1997
MAXIMUM PEAK FLOW			437	Oct 12	2120	Dec 30 1990
MAXIMUM PEAK STAGE			5.06	Oct 12	10.63	Nov 14 1993
ANNUAL RUNOFF (CFSM)	1.80		2.91		1.54	
ANNUAL RUNOFF (INCHES)	24.44		9.95		20.93	
10 PERCENT EXCEEDS	43		104		33	
50 PERCENT EXCEEDS	7.3		12		5.8	
90 PERCENT EXCEEDS	2.7		3.7		0.69	

e Estimated

03353636 LITTLE BUCK CREEK AT SOUTHPORT, IN--Continued



03353637 LITTLE BUCK CREEK NEAR INDIANAPOLIS, IN

LOCATION.--Lat 39°40'00", long 86°11'48", in SW$^1/_4$SW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.57	9.2	64	e5.8	370	14	24	36	9.7	5.7	0.32	0.00
2	0.47	14	33	e5.4	106	38	19	39	7.7	3.1	0.17	0.00
3	0.24	12	22	e5.1	66	111	43	23	6.1	2.2	0.07	0.00
4	0.08	9.4	17	e4.8	43	50	22	15	5.1	1.6	0.05	0.00
5	12	7.7	13	e4.6	27	23	15	10	29	1.3	0.30	0.00
6	17	6.9	14	e4.4	20	17	11	32	19	1.2	0.09	0.00
7	4.4	6.1	12	e4.3	16	13	8.5	543	10	1.00	0.00	0.00
8	2.3	5.4	10	e4.2	13	10	12	277	7.0	0.86	0.00	0.00
9	1.5	5.0	8.7	4.1	10	107	39	158	5.4	1.1	0.00	0.00
10	3.9	4.7	7.4	4.5	12	78	22	85	9.5	1.1	0.00	0.09
11	57	4.6	6.7	4.2	18	38	13	54	17	0.78	0.00	0.00
12	210	4.2	8.2	4.0	13	24	27	200	12	0.67	0.00	0.00
13	50	4.0	25	3.9	8.8	15	62	690	38	0.60	0.00	0.00
14	232	3.8	133	3.5	7.1	11	46	173	46	0.49	0.00	0.00
15	81	3.5	74	3.3	6.6	16	33	84	20	0.33	0.00	0.00
16	112	3.2	48	2.8	5.6	71	18	58	12	0.23	0.00	0.00
17	56	2.8	339	2.8	5.0	32	11	49	7.6	0.26	0.00	0.00
18	28	2.8	151	2.7	4.3	17	7.8	39	5.7	0.66	0.00	9.0
19	18	2.8	58	2.9	6.3	12	5.8	31	4.7	14	6.3	1.3
20	13	2.9	34	2.9	30	38	4.7	26	3.9	33	0.82	142
21	9.9	2.8	24	2.8	23	30	318	23	3.4	4.5	0.18	57
22	8.1	2.5	20	2.7	13	15	132	21	3.2	6.8	0.00	4.8
23	8.8	2.3	22	2.7	9.4	10	65	17	2.8	12	2.4	1.7
24	189	7.8	16	8.7	7.4	7.6	64	14	2.6	5.3	2.3	1.0
25	166	23	12	5.3	9.5	166	99	29	109	1.8	0.33	0.74
26	48	9.6	11	4.2	52	150	45	33	153	1.2	0.00	0.22
27	27	30	9.5	3.7	30	111	127	17	244	0.85	0.00	32
28	18	25	8.5	3.3	21	74	335	13	153	0.65	0.00	4.1
29	14	123	7.3	3.8	---	54	90	12	45	0.87	0.00	1.3
30	12	211	e6.7	13	---	62	48	9.8	14	0.99	0.00	0.77
31	11	---	e6.2	121	---	35	---	9.0	---	0.58	0.00	---
TOTAL	1411.26	552.0	1221.2	251.4	953.0	1449.6	1766.8	2819.8	1005.4	105.72	13.33	256.02
MEAN	45.52	18.40	39.39	8.110	34.04	46.76	58.89	90.96	33.51	3.410	0.430	8.534
MAX	232	211	339	121	370	166	335	690	244	33	6.3	142
MIN	0.08	2.3	6.2	2.7	4.3	7.6	4.7	9.0	2.6	0.23	0.00	0.00
CFSM	2.68	1.08	2.32	0.48	2.00	2.75	3.46	5.35	1.97	0.20	0.03	0.50
IN.	3.09	1.21	2.67	0.55	2.09	3.17	3.87	6.17	2.20	0.23	0.03	0.56

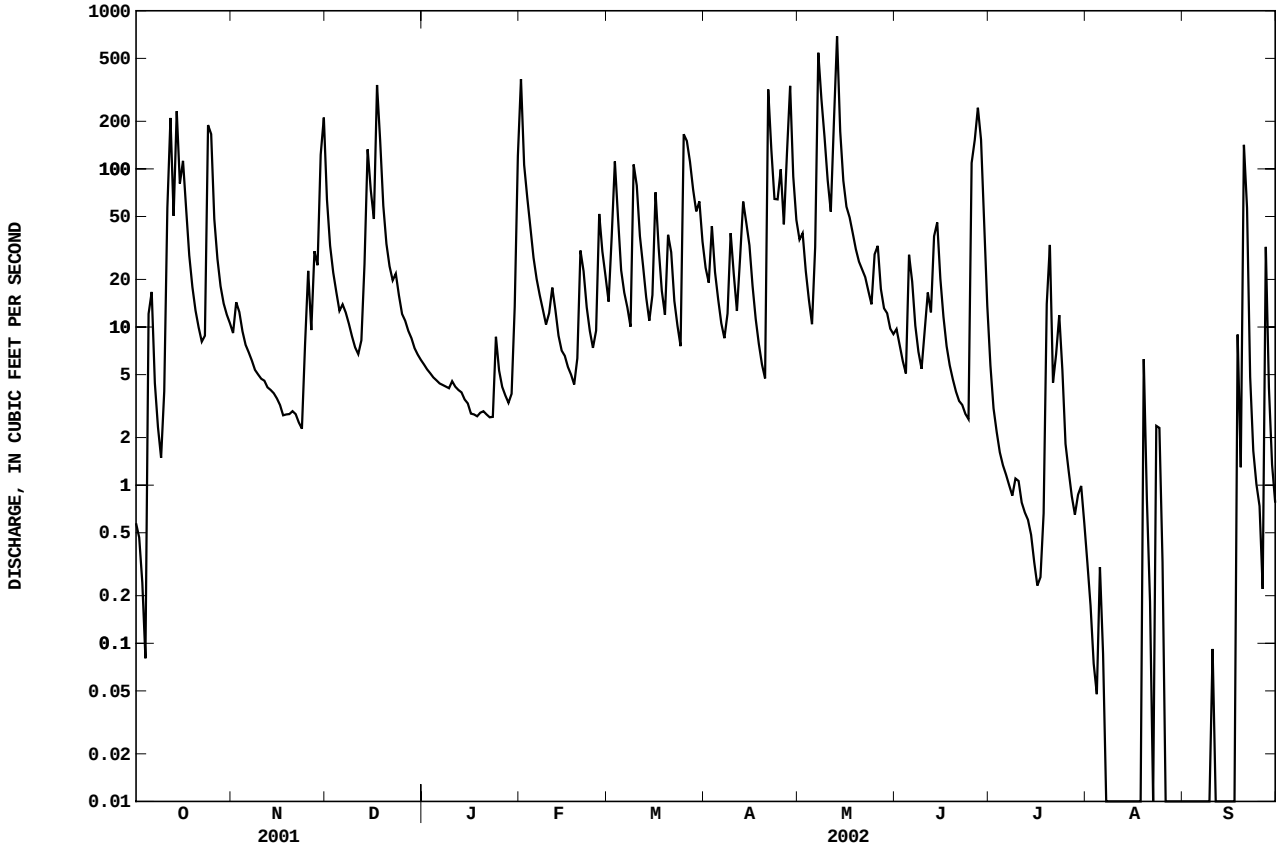
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

MEAN	11.24	23.74	21.03	24.70	23.48	29.16	34.54	35.10	27.02	17.02	6.112	7.760
MAX	45.5	91.9	99.4	62.7	54.5	68.0	63.7	105	77.3	85.7	18.3	28.6
(WY)	2002	1994	1991	1999	1990	1991	1996	1996	1998	1992	1990	1993
MIN	0.058	0.000	1.02	1.42	6.39	5.82	5.39	4.60	4.99	2.67	0.43	0.000
(WY)	2000	2000	1998	2000	1998	2001	2001	2001	1991	1991	2002	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1990 - 2002	
ANNUAL TOTAL	7206.18		11805.53			
ANNUAL MEAN	19.74		32.34		21.71	
HIGHEST ANNUAL MEAN					32.3	2002
LOWEST ANNUAL MEAN					10.4	2000
HIGHEST DAILY MEAN	428	Jun 6	690	May 13	1390	Dec 30 1990
LOWEST DAILY MEAN	0.00	May 4	0.00	Aug 7	0.00	Sep 8 1991
ANNUAL SEVEN-DAY MINIMUM	0.08	Aug 12	0.00	Aug 7	0.00	Sep 8 1991
MAXIMUM PEAK FLOW			1150	May 7	2300	Dec 30 1990
MAXIMUM PEAK STAGE			7.92	May 7	11.21	Nov 14 1993
ANNUAL RUNOFF (CFSM)	1.16		1.90		1.28	
ANNUAL RUNOFF (INCHES)	15.77		25.83		17.35	
10 PERCENT EXCEEDS	50		84		45	
50 PERCENT EXCEEDS	5.8		9.4		7.7	
90 PERCENT EXCEEDS	0.45		0.06		0.00	

e Estimated

03353637 LITTLE BUCK CREEK NEAR INDIANAPOLIS, IN--Continued



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, WH, FIELD, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	8.1	7.7	7.9	8.0	7.9	---
2	---	---	---	---	---	---	8.1	7.7	7.9	8.0	7.8	---
3	---	---	---	---	---	---	8.1	7.7	8.0	8.0	7.8	---
4	---	---	---	---	---	---	8.1	7.6	8.0	8.0	7.8	---
5	---	---	---	---	---	---	8.1	7.6	7.8	8.0	7.8	---
6	---	---	---	---	---	---	8.1	7.6	7.9	8.0	---	---
7	---	---	---	---	---	---	8.1	7.7	8.0	8.0	---	---
8	---	---	---	---	---	---	8.0	7.6	8.0	8.0	---	---
9	---	---	---	---	---	---	8.1	7.7	8.0	8.0	---	---
10	---	---	---	---	---	---	8.1	7.8	8.1	7.9	---	---
11	---	---	---	---	---	---	8.1	7.7	8.0	8.0	---	---
12	---	---	---	---	---	---	8.0	7.5	8.0	8.0	---	---
13	---	---	---	---	---	---	8.0	7.5	8.0	8.0	---	---
14	---	---	---	---	---	8.3	8.1	7.5	8.0	8.0	---	---
15	---	---	---	---	---	8.2	8.1	7.6	8.1	8.0	---	---
16	---	---	---	---	---	8.2	8.1	7.6	8.1	8.0	---	---
17	---	---	---	---	---	8.3	8.0	7.7	8.2	8.0	---	---
18	---	---	---	---	---	8.3	8.0	7.8	8.2	8.0	---	---
19	---	---	---	---	---	8.3	8.0	7.8	8.2	8.0	---	---
20	---	---	---	---	---	8.2	8.0	7.8	8.2	8.0	---	---
21	---	---	---	---	---	8.2	---	7.9	8.1	8.0	7.8	---
22	---	---	---	---	---	8.2	---	7.9	8.1	8.1	---	---
23	---	---	---	---	---	8.2	8.1	7.9	8.1	7.9	---	---
24	---	---	---	---	---	8.1	---	7.9	8.1	8.1	7.6	---
25	---	---	---	---	---	7.8	8.0	7.9	8.0	8.1	7.7	8.0
26	---	---	---	---	---	7.9	8.1	8.0	7.7	8.1	7.7	8.0
27	---	---	---	---	---	8.0	8.0	8.0	7.6	---	---	7.8
28	---	---	---	---	---	8.0	7.6	8.0	7.8	---	---	7.9
29	---	---	---	---	---	8.1	7.6	8.0	8.0	---	---	7.9
30	---	---	---	---	---	8.1	7.6	8.0	8.1	7.8	---	7.9
31	---	---	---	---	---	8.1	---	8.0	---	7.9	---	---

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	10.9	---	8.3	7.7	9.4	---
2	---	---	---	---	---	---	10.4	---	8.0	7.7	8.5	---
3	---	---	---	---	---	---	11.4	---	8.3	8.0	8.9	---
4	---	---	---	---	---	---	12.3	---	8.0	8.1	8.9	---
5	---	---	---	---	---	---	12.2	---	6.8	8.2	7.8	---
6	---	---	---	---	---	---	11.9	---	8.0	8.5	---	---
7	---	---	---	---	---	---	11.8	---	8.7	8.5	---	---
8	---	---	---	---	---	---	10.5	---	8.8	8.4	---	---
9	---	---	---	---	---	---	10.4	---	8.8	7.8	---	---
10	---	---	---	---	---	---	11.2	---	8.7	7.9	---	---
11	---	---	---	---	---	---	10.6	---	8.1	8.4	---	---
12	---	---	---	---	---	---	9.1	---	7.7	9.1	---	---
13	---	---	---	---	---	---	9.5	---	8.0	9.1	---	---
14	---	---	---	---	---	11.3	9.7	---	8.5	9.0	---	---
15	---	---	---	---	---	10.5	9.5	---	8.6	8.9	---	---
16	---	---	---	---	---	11.6	9.2	---	8.8	8.7	---	---
17	---	---	---	---	---	11.8	9.1	---	9.0	8.0	---	---
18	---	---	---	---	---	11.7	9.0	9.7	9.6	8.6	---	---
19	---	---	---	---	---	11.3	8.7	10	9.7	8.7	---	---
20	---	---	---	---	---	11.0	---	10.0	9.7	7.5	---	---
21	---	---	---	---	---	12.1	---	10.3	9.6	7.4	8.9	---
22	---	---	---	---	---	13.1	---	9.9	9.5	7.4	8.7	---
23	---	---	---	---	---	12.5	---	9.5	9.2	7.1	8.8	---
24	---	---	---	---	---	12.0	---	9.3	9.0	8.4	7.9	---
25	---	---	---	---	---	7.5	---	8.8	---	9.0	8.7	9.4
26	---	---	---	---	---	10.4	---	9.0	---	9.2	8.8	9.0
27	---	---	---	---	---	11.8	---	9.4	---	---	9.8	8.1
28	---	---	---	---	---	11.4	---	9.4	---	---	---	8.5
29	---	---	---	---	---	10.9	---	9.2	8.3	---	---	8.5
30	---	---	---	---	---	10.8	---	9.3	8.0	8.8	---	8.1
31	---	---	---	---	---	10.8	---	8.8	---	9.3	---	---

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	9.4	13.9	21.8	24.9	26.5	---
2	---	---	---	---	---	---	10.5	13.9	21.2	25.2	25.7	---
3	---	---	---	---	---	---	8.3	13.0	21.8	24.9	26.8	---
4	---	---	---	---	---	---	7.3	14.6	23.5	25.5	27.3	---
5	---	---	---	---	---	---	7.9	16.0	22.7	25.7	27.8	---
6	---	---	---	---	---	---	9.0	16.0	19.1	23.9	---	---
7	---	---	---	---	---	---	9.2	16.8	18.9	23.8	---	---
8	---	---	---	---	---	---	11.0	17.4	20.1	24.4	---	---
9	---	---	---	---	---	---	11.8	17.4	20.8	23.9	---	---
10	---	---	---	---	---	---	11.6	15.7	22.5	23.5	---	---
11	---	---	---	---	---	---	14.2	14.7	22.6	22.4	---	---
12	---	---	---	---	---	---	15.6	16.2	22.4	21.3	---	---
13	---	---	---	---	---	---	15.0	14.7	21.2	21.5	---	---
14	---	---	---	---	---	10.2	15.6	14.2	20.6	22.6	---	---
15	---	---	---	---	---	10.7	18.3	15.0	19.6	23.8	---	---
16	---	---	---	---	---	8.0	20.0	15.9	19.9	24.1	---	---
17	---	---	---	---	---	7.1	20.9	14.5	19.6	23.3	---	---
18	---	---	---	---	---	8.8	21.0	12.8	20.6	23.8	---	---
19	---	---	---	---	---	9.0	21.6	11.5	21.8	24.6	---	---
20	---	---	---	---	---	8.7	19.1	11.7	23.5	24.7	---	---
21	---	---	---	---	---	6.2	---	11.6	24.0	26.0	23.6	---
22	---	---	---	---	---	3.8	---	13.0	24.3	26.5	26.6	---
23	---	---	---	---	---	5.5	12.2	15.3	24.5	24.6	26.2	---
24	---	---	---	---	---	7.0	---	17.0	24.6	23.9	25.1	---
25	---	---	---	---	---	5.4	13.9	18.1	23.8	23.2	23.8	15.8
26	---	---	---	---	---	4.0	13.5	17.6	24.2	23.3	23.1	16.9
27	---	---	---	---	---	5.7	12.2	17.9	23.8	---	23.0	18.2
28	---	---	---	---	---	6.6	13.0	19.3	23.1	---	---	18.8
29	---	---	---	---	---	8.1	12.3	18.9	23.7	---	---	18.8
30	---	---	---	---	---	9.3	13.5	19.6	24.3	25.6	---	19.3
31	---	---	---	---	---	9.7	---	21.0	---	25.7	---	---

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	524	755	783	619	691	---
2	---	---	---	---	---	---	531	741	783	693	711	---
3	---	---	---	---	---	---	547	793	789	745	732	---
4	---	---	---	---	---	---	750	857	806	766	748	---
5	---	---	---	---	---	---	776	896	537	785	---	---
6	---	---	---	---	---	---	784	839	566	798	---	---
7	---	---	---	---	---	---	790	601	680	783	---	---
8	---	---	---	---	---	---	784	793	734	777	---	---
9	---	---	---	---	---	---	693	927	771	768	---	---
10	---	---	---	---	---	---	727	1020	732	---	---	---
11	---	---	---	---	---	---	751	962	629	---	---	---
12	---	---	---	---	---	---	701	744	540	---	---	---
13	---	---	---	---	---	---	549	464	562	---	---	---
14	---	---	---	---	---	807	568	589	440	---	---	---
15	---	---	---	---	---	792	623	713	554	---	---	---
16	---	---	---	---	---	493	686	714	638	---	---	---
17	---	---	---	---	---	581	747	708	695	---	---	---
18	---	---	---	---	---	619	793	746	740	---	---	---
19	---	---	---	---	---	634	847	781	809	---	---	---
20	---	---	---	---	---	639	914	805	867	409	---	---
21	---	---	---	---	---	740	---	817	871	508	589	---
22	---	---	---	---	---	782	---	826	864	553	---	---
23	---	---	---	---	---	804	1120	846	866	376	---	---
24	---	---	---	---	---	811	---	863	867	494	426	---
25	---	---	---	---	---	405	952	746	612	563	521	607
26	---	---	---	---	---	528	1210	579	340	602	---	638
27	---	---	---	---	---	452	1070	672	336	---	---	415
28	---	---	---	---	---	478	421	751	371	---	---	480
29	---	---	---	---	---	510	609	801	472	---	---	562
30	---	---	---	---	---	487	697	824	553	612	---	620
31	---	---	---	---	---	509	---	838	---	677	---	---

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)
OCT													
03...	0920	.31	735	9.3	8.0	921	18.0	14.9	94.1	29.1	2.53	55.2	280
17...	1010	57	E756	10.6	7.9	648	11.0	10.8	--	--	--	--	--
NOV													
14...	1420	3.7	737	14.8	8.3	909	E20.0	11.3	--	--	--	--	290
27...	0950	34	730	10.3	8.0	537	14.0	11.2	--	--	--	--	--
DEC													
13...	0945	28	731	10.7	7.9	619	10.0	9.7	--	--	--	--	200
26...	0940	11	735	13.7	8.0	886	-5.0	1.3	--	--	--	--	--
JAN													
10...	0930	4.7	733	12.5	8.0	947	-1.0	4.6	--	--	--	--	300
23...	1030	2.6	730	12.0	8.1	920	10.0	6.2	--	--	--	--	--
FEB													
07...	0910	16	738	11.7	8.1	862	5.0	3.6	--	--	--	--	300
21...	1300	21	733	9.7	8.1	778	2.0	6.6	--	--	--	--	--
MAR													
07...	1020	14	739	12.5	8.2	839	17.0	8.0	--	--	--	--	310
20...	1020	47	735	11.5	8.2	663	12.0	8.7	--	--	--	--	--
APR													
03...	1410	39	741	12.6	8.6	711	7.0	8.8	--	--	--	--	260
24...	0950	44	730	9.6	7.9	743	15.0	13.4	--	--	--	--	--
MAY													
07...	1100	1130	727	8.6	7.6	250	23.0	16.1	--	--	--	--	--
15...	1230	83	728	9.3	7.9	633	20.0	17.2	--	--	--	--	260
29...	1140	12	738	11.5	7.9	719	21.0	19.2	--	--	--	--	--
JUN													
04...	1100	5.3	730	10.7	8.0	814	31.5	24.2	--	--	--	--	310
12...	1120	12	731	8.0	7.9	521	23.0	22.2	--	--	--	--	--
19...	1050	4.7	742	10.6	8.2	794	29.0	21.6	--	--	--	--	--
24...	0900	2.6	739	9.2	8.1	859	28.0	23.1	--	--	--	--	--
JUL													
01...	0920	6.2	740	8.1	8.0	626	30.0	24.1	--	--	--	--	--
10...	1340	.95	739	8.0	8.1	747	27.0	24.6	--	--	--	--	280
17...	1300	.28	739	10.4	8.1	830	29.0	23.6	--	--	--	--	--
23...	1240	9.6	741	7.5	7.9	410	27.0	24.5	--	--	--	--	--
AUG													
19...	1200	42	741	7.2	7.9	331	19.0	22.5	--	--	--	--	78
SEP													
25...	1030	.80	753	10.6	8.2	599	23.0	16.1	--	--	--	--	190

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT													
03...	288	348	2	96.2	.2	8.21	47.4	460	<.04	.22	.27	.48	E.007
17...	--	--	--	--	--	--	--	--	E.02	--	.64	.95	.011
NOV													
14...	292	350	3	96.6	--	--	52.0	--	<.04	--	.29	.38	E.007
27...	--	--	--	--	--	--	--	--	<.04	--	.44	.35	E.007
DEC													
13...	199	241	0	55.4	--	--	32.5	--	<.04	--	.38	.63	.012
26...	--	--	--	--	--	--	--	--	E.02	--	.23	1.06	E.005
JAN													
10...	297	359	1	95.3	--	--	52.9	--	<.04	--	.19	.83	E.007
23...	--	--	--	--	--	--	--	--	<.04	--	.21	.42	<.008
FEB													
07...	296	E357	E2	76.4	--	--	47.1	--	<.04	--	.28	.98	E.005
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	308	371	2	78.7	--	--	45.8	--	E.02	--	.25	.56	E.004
20...	--	--	--	--	--	--	--	--	<.04	--	.40	.62	E.007
APR													
03...	256	303	5	68.0	--	--	37.1	--	<.04	--	.40	.69	.008
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	--	--	--	--	--	--	--	--	.09	--	2.5	.42	.014
15...	257	310	2	40.4	--	--	30.7	--	<.04	--	.46	.76	.017
29...	--	--	--	--	--	--	--	--	<.04	--	.35	.47	.011
JUN													
04...	304	366	2	71.8	--	--	40.9	--	<.04	--	.32	.53	.009
12...	--	--	--	--	--	--	--	--	<.04	--	.48	.58	.022
19...	--	--	--	--	--	--	--	--	<.04	--	.31	.48	.030
24...	--	--	--	--	--	--	--	--	<.04	--	.51	.47	.011
JUL													
01...	--	--	--	--	--	--	--	--	<.04	--	.40	.66	E.006
10...	279	E335	E3	71.0	--	--	38.9	--	<.04	--	.38	.51	.017
17...	--	--	--	--	--	--	--	--	<.04	--	.28	.37	.008
23...	--	--	--	--	--	--	--	--	<.04	--	.58	.43	.037
AUG													
19...	76	93	0	26.2	--	--	17.3	--	<.04	--	.95	.46	.018
SEP													
25...	187	225	1	51.3	--	--	38.1	--	<.04	--	.35	.46	E.006

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	NITRO-GEN,PARTICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INOR-GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC-ULATE TOTAL (MG/L AS C) (00689)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	2,4-D METHYL ESTER, WATER FLTRD REC (UG/L) (50470)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)
OCT													
03...	.03	.016	<.02	.022	.9	<.1	13.9	.9	E8	12.2	<.009	<.02	<.02
17...	--	--	.04	.086	--	--	--	--	--	--	<.009	.15	<.02
NOV													
14...	.05	--	<.02	.014	.9	<.1	3.3	.9	--	--	<.009	<.02	<.02
27...	--	--	<.02	.050	--	--	--	--	--	--	<.009	.19	<.02
DEC													
13...	.15	--	<.02	.033	1.0	<.1	3.6	1.0	--	--	<.009	.07	<.02
26...	--	--	<.02	.024	--	--	--	--	--	--	<.009	E.02	<.02
JAN													
10...	.14	--	<.02	.014	.4	<.1	2.8	.4	--	--	<.009	E.02	<.02
23...	--	--	<.02	.010	--	--	--	--	--	--	<.009	<.02	<.02
FEB													
07...	<.02	--	<.02	.021	.6	<.1	2.6	.6	--	--	<.009	<.02	<.02
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	.07	--	<.02	.018	.6	<.1	2.8	.6	--	--	<.009	<.02	<.02
20...	--	--	<.02	.038	--	--	--	--	--	--	--	--	--
APR													
03...	.05	--	<.02	.032	1.1	<.1	3.6	1.0	--	--	<.009	.48	<.02
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	--	--	.04	.68	--	--	--	--	--	--	<.009	E3.59	<.02
15...	.03	--	<.02	.069	1.1	<.1	3.7	1.1	--	--	<.009	.19	<.02
29...	--	--	<.02	.029	--	--	--	--	--	--	<.009	.13	<.02
JUN													
04...	.05	--	<.02	.023	.6	<.1	3.5	.6	--	--	<.009	.04	<.02
12...	--	--	<.02	.055	--	--	--	--	--	--	<.009	.82	<.02
19...	--	--	<.02	.032	--	--	--	--	--	--	<.009	.03	<.02
24...	--	--	<.02	.026	--	--	--	--	--	--	<.009	<.02	<.02
JUL													
01...	--	--	.02	.060	--	--	--	--	--	--	<.009	.04	<.02
10...	.04	--	<.02	.035	.2	<.1	4.5	.2	--	--	<.009	<.02	<.02
17...	--	--	E.01	.024	--	--	--	--	--	--	<.009	<.02	<.02
23...	--	--	<.02	.080	--	--	--	--	--	--	<.009	.34	<.02
AUG													
19...	.72	--	E.01	.195	10.6	<.1	7.9	10.5	--	--	<.009	.23	<.02
SEP													
25...	<.02	--	E.02	.045	.4	<.1	4.8	.4	--	--	<.009	<.02	<.02

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	3-KETO CARBO-FURAN WATER FLTRD REC (UG/L) (50295)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BENDIO-CARB, WATER FLTRD REC (UG/L) (50299)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)
OCT													
03...	<.002	<.006	<2	<.004	<.007	<.002	<.02	<.008	<.04	<.005	.016	<.03	<.010
17...	<.002	<.006	<2	<.004	<.007	<.002	<.02	<.008	<.04	<.005	.017	<.03	<.010
NOV													
14...	<.002	<.006	<2	<.004	<.007	<.002	<.02	<.008	<.04	<.005	.009	<.03	<.010
27...	<.002	<.006	<2	<.004	<.007	<.002	<.02	<.008	<.04	<.005	E.009	<.03	<.010
DEC													
13...	<.002	<.006	<2	<.004	<.007	<.002	<.02	<.008	<.04	<.005	.012	<.03	<.010
26...	<.002	<.006	<2	<.004	<.007	<.002	<.02	<.008	<.04	<.005	.011	<.03	<.010
JAN													
10...	<.006	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005	.007	<.03	<.010
23...	<.006	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005	.009	<.03	<.010
FEB													
07...	<.006	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005	.014	<.03	<.010
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	<.006	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005	.012	<.03	<.010
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
03...	<.006	<.006	<2	<.006	<.118	<.004	<.02	<.008	<.04	<.005	.012	<.03	<.010
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	<.006	<.006	<2	.014	<.007	.006	<.02	<.008	<.04	<.005	.044	<.03	E.005
15...	<.006	<.006	<2	E.005	<.007	<.004	<.02	<.008	<.04	<.005	.025	<.03	E.003
29...	<.006	<.006	<2	.040	<.007	<.004	<.02	<.008	<.04	<.005	.177	<.03	<.010
JUN													
04...	<.006	<.006	<2	.011	<.007	<.004	<.02	<.008	<.04	<.005	.069	<.03	<.010
12...	<.006	<.006	<2	.041	<.007	<.004	<.02	<.008	<.04	<.005	.355	<.03	<.010
19...	<.006	<.006	<2	.018	<.007	<.004	<.02	<.008	<.04	<.005	.150	<.03	<.010
24...	<.006	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005	.079	<.03	<.010
JUL													
01...	<.006	<.006	<2	.043	<.007	<.004	<.02	<.008	<.04	<.005	.945	<.03	<.010
10...	<.006	<.006	<2	.010	<.007	<.004	<.02	<.008	<.04	<.005	.296	<.03	<.010
17...	<.006	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005	.212	<.03	<.010
23...	<.006	<.006	<2	.009	<.007	<.004	<.02	<.008	<.04	<.005	.417	<.03	<.010
AUG													
19...	<.006	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005	.069	<.03	<.010
SEP													
25...	<.006	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005	.242	<.03	<.010

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BENOMYL WATER FLTRD REC (UG/L) (50300)	BEN-SUL-FURON METHYL WAT FLT REC (UG/L) (61693)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAF-FEINE, WATER FLTRD REC (UG/L) (50305)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-AMBEN, METHYL ESTER WATER FLTRD (UG/L) (61188)	CHLORI-MURON, WATER FLTRD REC (UG/L) (50306)
OCT													
03...	<.004	<.02	<.01	<.03	<.02	<.002	.019	<.03	<.041	<.006	<.020	<.02	<.010
17...	<.004	<.02	M	<.03	<.02	<.002	.043	<.03	<.041	<.006	<.020	<.02	<.010
NOV													
14...	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041	<.006	<.020	<.02	<.010
27...	<.004	<.02	<.01	<.03	<.02	<.002	E.282	M	<.041	<.006	<.020	<.02	<.010
DEC													
13...	<.004	<.02	<.01	<.03	<.02	<.002	E.626	<.03	E.002	<.006	<.020	<.02	<.010
26...	<.004	<.02	<.01	<.03	<.02	<.002	.068	<.03	<.041	<.006	<.020	<.02	<.010
JAN													
10...	<.004	<.02	<.01	<.03	<.02	<.002	.057	<.03	<.041	<.006	<.020	<.02	<.010
23...	<.004	<.02	<.01	<.03	<.02	<.002	.034	<.03	<.041	<.006	<.020	<.02	<.010
FEB													
07...	<.004	<.02	<.01	<.03	<.02	<.002	.060	<.03	<.041	<.006	<.020	<.02	<.010
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	<.004	<.02	<.01	<.03	<.02	<.002	.058	<.03	<.041	<.006	<.020	<.02	<.010
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
03...	<.004	<.02	<.01	<.03	<.02	<.002	.061	<.03	E.006	<.006	<.020	<.02	<.010
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	.014	<.02	<.01	<.03	<.02	<.002	.090	.06	E.059	<.006	<.020	<.02	<.010
15...	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	E.005	<.006	<.020	<.02	<.010
29...	<.004	<.02	<.01	<.03	<.02	<.002	.318	<.03	E.007	<.006	<.020	<.02	<.010
JUN													
04...	<.004	<.02	<.01	E.28	<.02	<.002	<.010	<.03	<.041	<.006	<.020	<.02	<.010
12...	<.004	<.02	<.01	E.17	<.02	<.002	.186	E.01	E.016	<.006	<.020	<.02	<.010
19...	<.004	<.02	<.01	<.03	<.02	<.002	.021	<.03	<.041	<.006	<.020	<.02	<.010
24...	<.004	<.02	<.01	<.03	<.02	<.002	.026	<.03	<.041	<.006	<.020	<.02	<.010
JUL													
01...	.022	<.02	<.01	E.01	<.02	<.002	.029	<.0033	E.009	<.006	<.020	<.02	<.010
10...	<.004	<.02	<.01	<.03	<.02	<.002	.118	E.01	E.019	<.006	<.020	<.02	<.010
17...	<.004	<.02	<.01	<.03	<.02	<.002	<.010	M	E.008	<.006	<.020	<.02	<.010
23...	.038	<.02	<.01	<.03	<.02	<.002	.121	.05	E.110	<.006	<.020	<.02	<.010
AUG													
19...	<.004	<.02	<.01	<.03	<.02	<.002	.703	E.02	E.057	<.006	<.020	<.02	<.010
SEP													
25...	.008	<.02	<.01	<.03	<.02	<.002	<.010	<.03	E.008	<.006	<.020	<.02	<.010

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEETHYL DEISO-PROPYL ATRAZIN DISS, REC (UG/L) (04039)	DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)
OCT													
03...	<.04	E.002	<.01	<.018	<.01	<.01	<.003	E.006	<.01	M	.029	<.01	<.01
17...	<.04	<.005	.06	<.018	<.01	--	<.003	E.01	<.01	E.01	.054	.11	<.01
NOV													
14...	<.04	<.005	.03	<.018	<.01	<.01	<.003	E.01	M	<.04	.014	.03	<.01
27...	<.04	<.005	.03	E.017	<.01	<.01	<.003	<.03	<.01	<.04	.036	.08	<.01
DEC													
13...	E.61	<.005	<.01	E.005	<.01	<.01	<.003	E.005	<.01	<.04	.010	.03	<.01
26...	<.04	<.005	.01	E.006	<.01	<.01	<.003	E.004	<.01	<.04	.007	.01	<.01
JAN													
10...	<.04	<.005	.02	<.018	<.01	<.01	<.003	<.006	M	<.04	.005	E.01	<.01
23...	<.04	<.005	.03	<.018	<.01	<.01	<.003	E.004	<.01	<.04	<.005	<.01	<.01
FEB													
07...	<.04	<.005	.03	<.018	<.01	<.01	<.003	E.007	<.01	<.04	.007	<.01	<.01
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	<.04	<.005	<.01	E.006	<.01	<.01	<.003	E.005	<.01	<.04	E.004	<.01	<.01
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
03...	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.005	<.0025	<.04	.038	<.01	<.01
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	<.04	<.005	.02	<.018	<.01	<.01	<.003	E.025	E.01	E.01	.232	.35	.13
15...	<.04	<.005	.04	<.018	<.01	<.01	<.003	E.009	M	<.04	.148	.16	<.01
29...	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.030	<.01	<.04	.052	.12	<.01
JUN													
04...	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.020	<.01	E.01	.021	E.02	<.01
12...	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.080	<.01	E.17	.092	<.01	<.01
19...	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.046	E.02	E.02	.022	.04	<.01
24...	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.027	<.01	E.02	.013	<.01	<.01
JUL													
01...	<.04	<.005	.08	<.018	<.01	<.01	<.003	E.088	E.03	E.03	.095	.05	<.01
10...	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.039	<.01	E.05	.025	<.01	<.01
17...	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.030	<.01	E.02	.014	<.01	<.01
23...	<.04	.006	<.01	<.018	<.01	<.01	<.003	E.058	<.01	E.04	.081	<.01	<.01
AUG													
19...	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.011	<.01	<.04	.035	<.01	<.01
SEP													
25...	<.04	<.005	.06	<.018	<.01	<.01	<.003	E.049	<.01	E.02	.048	<.01	<.01

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUMET-SULAM WATER FLTRD REC (UG/L) (61694)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	HYDROXY ATRA-ZINE WATER FLTRD REC (UG/L) (50355)
OCT													
03...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.058
17...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.091
NOV													
14...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.036
27...	<.005	<.01	M	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	<.008
DEC													
13...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.058
26...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.040
JAN													
10...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.034
23...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.035
FEB													
07...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.030
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.030
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
03...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.035
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.048
15...	<.005	<.01	<.03	<.02	E.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.028
29...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.160
JUN													
04...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.062
12...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.056
19...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.087
24...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.050
JUL													
01...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.222
10...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	<.008
17...	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.051
23...	<.005	<.01	<.03	<.02	.14	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.106
AUG													
19...	<.005	<.01	<.03	<.02	.10	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.122
SEP													
25...	<.005	<.01	<.03	<.02	E.01	<.002	<.009	<.005	<.03	<.01	<.03	<.003	E.102

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	IMAZ-AQUIN WATER FLTRD REC (UG/L) (50356)	IMAZE-THAPYR WATER FLTRD REC (UG/L) (50407)	IMID-ACLOP-RID WATER FLTRD REC (UG/L) (61695)	LINDANE DIS-SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METAL-AXYL WATER FLTRD REC (UG/L) (50359)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL OXIME WATER FLTRD REC (UG/L) (61696)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)
OCT													
03...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008	<.01	<.004
17...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	.03	<.01	<.02	<.008	<.01	<.004
NOV													
14...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008	<.01	<.004
27...	E.36	<.02	<.007	<.004	<.01	<.035	<.027	.02	<.01	E.01	<.008	--	<.004
DEC													
13...	E.71	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	E.01	<.008	--	<.004
26...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004
JAN													
10...	E2.08	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	E.01	<.008	--	<.004
23...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004
FEB													
07...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
03...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	.15	<.01	<.02	<.008	--	<.004
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	<.02	<.02	<.007	<.004	<.01	<.035	E.007	.47	<.01	<.02	<.008	--	<.004
15...	<.02	<.02	.017	<.004	<.01	<.035	E.014	.10	<.01	<.02	<.008	--	<.004
29...	E.19	<.02	<.007	<.004	<.01	<.035	<.027	.04	<.01	<.02	<.008	--	<.004
JUN													
04...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004
12...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	.24	<.01	<.02	<.008	--	<.004
19...	<.02	<.02	.026	<.004	<.01	<.035	<.027	.04	<.01	<.02	<.008	--	<.004
24...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	.02	<.01	<.02	<.008	--	<.004
JUL													
01...	<.02	<.02	<.007	<.004	<.01	<.035	E.008	<.02	<.01	E.01	<.008	--	<.004
10...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	.20	<.01	<.02	<.008	--	<.004
17...	<.02	<.02	<.007	<.004	<.01	<.035	<.027	E.01	<.01	<.02	<.008	--	<.004
23...	<.02	<.02	.099	<.004	<.01	<.035	E.011	.31	<.01	E.01	<.008	--	<.004
AUG													
19...	E3.40	<.02	<.007	<.004	<.01	<.035	.054	.21	<.01	<.02	<.008	--	<.004
SEP													
25...	<.02	<.02	<.007	<.004	<.01	<.035	E.008	<.02	<.01	<.02	<.008	--	<.004

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MET-SUL-FURON METHYL WAT FLT REC (UG/L) (61697)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NICOSUL FURON WATER FLTRD REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL OXIME WATER FLTRD REC (UG/L) (50410)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)
OCT													
03...	<.050	<.006	E.004	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.01
17...	<.050	<.006	E.006	<.006	<.03	<.002	<.007	<.01	E.01	<.02	<.02	<.01	<.01
NOV													
14...	<.050	<.006	E.006	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.01
27...	<.050	<.006	E.007	<.006	--	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
DEC													
13...	<.050	<.006	E.008	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
26...	<.050	<.006	E.003	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
JAN													
10...	<.050	<.006	<.013	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
23...	<.050	<.006	E.003	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
FEB													
07...	<.050	<.006	E.007	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	<.050	<.006	E.003	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
03...	<.050	<.006	E.008	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	<.050	<.006	.030	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
15...	<.050	<.006	E.010	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
29...	<.050	<.006	.046	<.006	E.36	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
JUN													
04...	<.050	<.006	.018	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
12...	<.050	<.006	.052	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
19...	<.050	<.006	.021	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
24...	<.050	<.006	.014	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
JUL													
01...	<.050	<.006	.539	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
10...	<.050	<.006	.140	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
17...	<.050	<.006	.081	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
23...	<.050	<.006	.202	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
AUG													
19...	<.050	<.006	.028	<.006	E.88	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01
SEP													
25...	<.050	<.006	.025	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)
OCT													
03...	<.003	<.007	<.002	<.010	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010
17...	<.003	<.007	<.002	<.010	<.006	<.011	<.02	.03	<.004	<.010	<.011	<.02	<.010
NOV													
14...	<.003	<.007	<.002	<.010	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010
27...	<.003	<.007	<.002	<.010	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010
DEC													
13...	<.003	<.007	<.002	<.010	<.006	<.011	<.02	.01	<.004	<.010	<.011	<.02	<.010
26...	<.003	<.007	<.002	<.010	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010
JAN													
10...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010
23...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010
FEB													
07...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
03...	<.003	<.010	<.004	.032	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	<.003	<.010	<.004	.039	<.006	<.011	<.02	.09	<.004	<.010	<.011	<.02	<.010
15...	<.003	<.010	<.004	E.013	<.006	<.011	<.02	.04	<.004	<.010	<.011	<.02	<.010
29...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	.06	<.004	<.010	<.011	<.02	<.010
JUN													
04...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010
12...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	.08	<.004	<.010	<.011	<.02	<.010
19...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	.04	<.004	<.010	<.011	<.02	<.010
24...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	.03	<.004	<.010	<.011	<.02	<.010
JUL													
01...	<.003	<.010	<.004	E.009	<.006	<.011	<.02	.04	<.004	<.010	<.011	<.02	<.010
10...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	.07	<.004	<.010	<.011	<.02	<.010
17...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	.05	<.004	<.010	<.011	<.02	<.010
23...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	.12	<.004	<.010	<.011	<.02	<.010
AUG													
19...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	.04	<.004	<.010	<.011	<.02	<.010
SEP													
25...	E.002	<.010	<.004	<.022	<.006	<.011	<.02	.06	<.008	<.010	<.011	<.02	<.010

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	PROP-ICONA-ZOLE , WATER FLTRD REC (UG/L) (50471)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SIDURON WATER FLTRD REC (UG/L) (38548)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SULFO-MET-RURON METHYL WTR FLT REC (UG/L) (50337)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-BENURON METHYL WATER FLTRD (UG/L) (61159)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)
OCT													
03...	<.02	<.008	<.02	E.005	<.009	<.02	<.010	<.110	<.02	<.005	<.002	<.009	E.01
17...	<.02	<.008	<.02	E.005	<.009	E.003	<.010	<.034	<.02	<.005	<.002	<.009	.04
NOV													
14...	<.02	<.008	<.02	E.006	<.009	<.003	<.010	<.034	<.02	<.005	<.002	<.009	<.02
27...	<.02	<.008	<.02	E.010	<.009	<.006	<.010	<.034	<.02	<.005	<.002	--	<.02
DEC													
13...	<.02	<.008	<.02	<.011	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02
26...	<.02	<.008	<.02	E.004	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	E.02
JAN													
10...	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02
23...	<.02	<.008	<.02	E.004	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02
FEB													
07...	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02
21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
07...	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02
20...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
03...	<.02	<.008	.03	E.005	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
07...	<.02	<.008	.04	.006	<.009	<.02	<.010	<.034	<.02	E.003	<.002	--	.12
15...	<.02	<.008	.04	E.004	<.009	M	<.010	<.034	<.02	<.005	<.002	--	.10
29...	<.02	<.008	E.01	.015	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	.06
JUN													
04...	<.02	<.008	<.02	.011	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02
12...	<.02	<.008	<.02	.021	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	.12
19...	<.02	<.008	<.02	.010	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	.04
24...	<.02	<.008	<.02	.010	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02
JUL													
01...	<.02	<.008	<.02	.020	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	.05
10...	<.02	<.008	<.02	.010	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	.09
17...	<.02	E.007	<.02	.007	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02
23...	<.02	<.008	<.02	.011	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02
AUG													
19...	<.02	<.008	<.02	.007	<.009	<.02	<.010	<.034	<.02	<.005	<.002	<.009	E.14
SEP													
25...	<.02	<.008	<.02	.008	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	.06

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	UREA 3(4-CHLOROPHENYL METHYL WAT FLT REC (UG/L) (61692)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L) (34506)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L) (34511)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L) (34501)	1,1-DI CHLORO-PRO-PENE, WAT, WH TOTAL (UG/L) (77168)	123-TRI CHLORO-PROPANE WATER WHOLE TOTAL (UG/L) (77443)	1,2-DIBROMO ETHANE WATER WHOLE TOTAL (UG/L) (77651)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L) (32103)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L) (34541)	TRANS-1,2-DI-CHLORO-ETHENE TOTAL (UG/L) (34546)	2,2-DI CHLORO-PRO-PANE WAT, WH TOTAL (UG/L) (77170)
OCT													
03...	<.009	<.02	--	--	--	--	--	--	--	--	--	--	--
17...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
NOV													
14...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
27...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
DEC													
13...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
26...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
JAN													
10...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
23...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
FEB													
07...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
21...	--	--	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
MAR													
07...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
20...	--	--	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
APR													
03...	E.003	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
24...	--	--	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
MAY													
07...	E.006	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
15...	E.003	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
29...	<.009	<.02	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
12...	<.009	<.02	--	--	--	--	--	--	--	--	--	--	--
19...	<.009	<.02	--	--	--	--	--	--	--	--	--	--	--
24...	<.009	<.02	--	--	--	--	--	--	--	--	--	--	--
JUL													
01...	<.009	<.02	--	--	--	--	--	--	--	--	--	--	--
10...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
17...	<.009	<.02	--	--	--	--	--	--	--	--	--	--	--
23...	<.009	<.02	--	--	--	--	--	--	--	--	--	--	--
AUG													
19...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05
SEP													
25...	<.009	<.02	<.03	<.06	<.04	<.04	<.05	<.16	<.04	<.1	<.03	<.03	<.05

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	2BUTENE TRANS-1 4-DI-CHLORO UNFLTRD RECOVER (UG/L) (73547)	2-HEXA-NONE WATER WHOLE TOTAL (UG/L) (77103)	ACETONE WATER WHOLE TOTAL (UG/L) (81552)	ACRYLO-NITRILE TOTAL (UG/L) (34215)	1,2,3-TRI-CHLORO BENZENE WAT, WH REC (UG/L) (77613)	BENZENE 123-TRI METHYL-WATER UNFLTRD RECOVER (UG/L) (77221)	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (UG/L) (34551)	BENZENE 124-TRI METHYL UNFILT RECOVER (UG/L) (77222)	BENZENE 135-TRI METHYL WATER UNFLTRD REC (UG/L) (77226)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI-CHLORO-WATER UNFLTRD REC (UG/L) (34571)	ISO-PROPYL-BENZENE WATER WHOLE REC (UG/L) (77223)	BENZENE N-BUTYL WATER UNFLTRD REC (UG/L) (77342)
OCT													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
NOV													
14...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
27...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
DEC													
13...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
26...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
JAN													
10...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
23...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
FEB													
07...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
21...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
MAR													
07...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
20...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
APR													
03...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
24...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
MAY													
07...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
15...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
19...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2
SEP													
25...	<.7	<.7	<7	<1	<.3	<.1	<.1	<.06	<.04	<.03	<.05	<.06	<.2

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BENZENE N-PROPY WATER UNFLTRD REC (UG/L) (77224)	BENZENE O-DI-CHLORO- WATER UNFLTRD REC (UG/L) (34536)	BENZENE SEC BUTYL- WATER UNFLTRD REC (UG/L) (77350)	BENZENE TERT- BUTYL- WATER UNFLTRD REC (UG/L) (77353)	BENZENE TOTAL (UG/L) (34030)	BROMO- BENZENE WATER, WHOLE, TOTAL (UG/L) (81555)	BROMO- ETHENE WATER UNFLTRD RECOVER (UG/L) (50002)	BROMO- FORM TOTAL (UG/L) (32104)	CARBON DI- SULFIDE WATER WHOLE TOTAL (UG/L) (77041)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- ETHANE TOTAL (UG/L) (34311)
OCT													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
NOV													
14...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
27...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
DEC													
13...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
26...	<.04	<.03	<.03	<.05	E.01	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
JAN													
10...	<.04	<.03	<.03	<.05	E.02	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
23...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
FEB													
07...	<.04	<.03	<.03	<.05	E.03	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
21...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
MAR													
07...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
20...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
APR													
03...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
24...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
MAY													
07...	<.04	<.03	<.03	<.05	E.04	<.04	<.1	<.06	E.02	<.06	<.03	<.2	<.1
15...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
19...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1
SEP													
25...	<.04	<.03	<.03	<.05	<.04	<.04	<.1	<.06	<.07	<.06	<.03	<.2	<.1

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CHLORO-FORM TOTAL (UG/L) (32106)	CIS-1,2-DI-CHLORO-ETHENE WATER TOTAL (UG/L) (77093)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34704)	DIBROMO CHLORO-PROPANE WATER WHOLE TOT.REC (UG/L) (82625)	DI-BROMO-METHANE WATER WHOLE RECOVER (UG/L) (30217)	BROMO-DI-CHLORO-METHANE TOTAL (UG/L) (32101)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L) (34668)	DI-ISO-PROPYL-ETHER, WATER, UNFLTRD RECOVER (UG/L) (81577)	ETHANE, 1112-TETRA-CHLORO-WAT UNF REC (UG/L) (77562)	ETHANE, 1,1,2,2 TETRA-CHLORO-WAT UNF REC (UG/L) (34516)	ETHANE 12DICL SURROG VOC UNFLTRD REC PERCENT (99832)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	ETHER ETHYL WATER UNFLTRD RECOVER (UG/L) (81576)
OCT													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	E.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	110	<.2	<.2
NOV													
14...	E.09	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	103	<.2	<.2
27...	E.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	106	<.2	<.2
DEC													
13...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	121	<.2	<.2
26...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	114	<.2	<.2
JAN													
10...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	118	<.2	<.2
23...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	111	<.2	<.2
FEB													
07...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	107	<.2	<.2
21...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	114	<.2	<.2
MAR													
07...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	122	<.2	<.2
20...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	128	<.2	<.2
APR													
03...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	110	<.2	<.2
24...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	112	<.2	<.2
MAY													
07...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	95.8	<.2	<.2
15...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	113	<.2	<.2
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	108	<.2	<.2
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	121	<.2	<.2
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
19...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	124	<.2	<.2
SEP													
25...	<.02	<.04	<.09	<.5	<.05	<.05	<.18	<.10	<.03	<.09	118	<.2	<.2

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ETHER TERT-BUTYL ETHYL UNFLTRD RECOVER (UG/L) (50004)	ETHER TERT-PENTYL METHYL UNFLTRD RECOVER (UG/L) (50005)	ETHYL-BENZENE TOTAL (UG/L) (34371)	FREON-113 WATER UNFLTRD REC (UG/L) (77652)	FURAN, TETRA-HYDRO-WATER UNFLTRD RECOVER (UG/L) (81607)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)	ISO-DURENE WATER UNFLTRD RECOVER (UG/L) (50000)	METHAC-RYLATE ETHYL-WATER UNFLTRD RECOVER (UG/L) (73570)	METHAC-RYLATE METHYL WATER UNFLTRD RECOVER (UG/L) (81597)	METH-ACRYLO-NITRILE WATER UNFLTRD RECOVER (UG/L) (81593)	METHANE BROMO CHLORO-WAT UNFLTRD REC (UG/L) (77297)	METHYL ACRY-LATE WATER UNFLTRD RECOVER (UG/L) (49991)	METHYL IODIDE WATER UNFLTRD RECOVER (UG/L) (77424)
OCT													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
NOV													
14...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
27...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
DEC													
13...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
26...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
JAN													
10...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
23...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
FEB													
07...	<.05	<.08	E.01	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
21...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
MAR													
07...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
20...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
APR													
03...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
24...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
MAY													
07...	<.05	<.08	E.04	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
15...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
19...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25
SEP													
25...	<.05	<.08	<.03	<.06	<2	<.1	<.2	<.2	<.3	<.6	<.07	<2.0	<.25

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	METHYL TERT-BUTYL ETHER WAT UNF REC (UG/L) (78032)	METHYL-BROMIDE TOTAL (UG/L) (34413)	METHYL-CHLO-RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO-RIDE TOTAL (UG/L) (34423)	METHYL-ETHYL-KETONE WATER WHOLE TOTAL (UG/L) (81595)	METHYL ISO-BUTYL KETONE WAT.WH. TOTAL (UG/L) (78133)	META/ PARA-XYLENE WATER UNFLTRD REC (UG/L) (85795)	NAPHTH-ALENE TOTAL (UG/L) (34696)	O-CHLORO-TOLUENE WATER WHOLE TOTAL (UG/L) (77275)	O-XYLENE WATER WHOLE TOTAL (UG/L) (77135)	P-ISO-PROPYL-TOLUENE WATER WHOLE REC (UG/L) (77356)	1234-TETRA METHYL BENZENE UNFLTRD REC (UG/L) (49999)	1,3-DI-CHLORO-PROPANE WAT. WH TOTAL (UG/L) (77173)
OCT													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
NOV													
14...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
27...	<.2	<.3	<.2	<.2	<5.0	<.4	E.01	<.5	<.03	<.07	<.07	<.2	<.1
DEC													
13...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
26...	<.2	<.3	<.2	M	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
JAN													
10...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
23...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
FEB													
07...	<.2	<.3	<.2	<.2	<5.0	<.4	E.03	<.5	<.03	<.07	<.07	<.2	<.1
21...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
MAR													
07...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
20...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
APR													
03...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
24...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
MAY													
07...	<.2	<.3	<.2	<.2	<5.0	<.4	E.06	<.5	<.03	<.07	<.07	<.2	<.1
15...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
04...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
19...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1
SEP													
25...	<.2	<.3	<.2	<.2	<5.0	<.4	<.06	<.5	<.03	<.07	<.07	<.2	<.1

03353637 LITTLE BUCK CREEK NR INDIANAPOLIS, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	PROPENE 3-CHLORO- WATER UNFLTRD RECOVER (UG/L) (78109)	STYRENE TOTAL (UG/L) (77128)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L) (34475)	TOLUENE O-ETHYL WATER UNFLTRD RECOVER (UG/L) (77220)	TOLUENE P-CHLOR WATER UNFLTRD REC (UG/L) (77277)	TOLUENE TOTAL (UG/L) (34010)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L) (34699)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L) (39180)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L) (34488)	VINYL CHLO-RIDE TOTAL (UG/L) (39175)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT												
03...	--	--	--	--	--	--	--	--	--	--	47	10
17...	<.07	E.01	<.03	<.06	<.05	E.01	<.09	<.04	<.09	<.1	77	19
NOV												
14...	<.07	<.04	<.03	<.06	<.05	E.01	<.09	<.04	<.09	<.1	46	5.0
27...	<.07	<.04	<.03	<.06	<.05	E.03	<.09	<.04	<.09	<.1	82	16
DEC												
13...	<.07	<.04	<.03	<.06	<.05	E.02	<.09	<.04	<.09	<.1	75	17
26...	<.07	<.04	<.03	<.06	<.05	E.02	<.09	<.04	<.09	<.1	69	4.0
JAN												
10...	<.07	<.04	<.03	<.06	<.05	E.04	<.09	<.04	<.09	<.1	14	48
23...	<.07	<.04	<.03	<.06	<.05	E.02	<.09	<.04	<.09	<.1	22	13
FEB												
07...	<.07	<.04	<.03	<.06	<.05	E.05	<.09	<.04	<.09	<.1	97	536
21...	<.07	<.04	<.03	<.06	<.05	E.02	<.09	<.04	<.09	<.1	--	--
MAR												
07...	<.07	<.04	<.03	<.06	<.05	E.02	<.09	<.04	<.09	<.1	63	20
20...	<.07	<.04	<.03	<.06	<.05	E.04	<.09	<.04	<.09	<.1	--	--
APR												
03...	<.07	<.04	<.03	<.06	<.05	<.05	<.09	<.04	<.09	<.1	73	18
24...	<.07	<.04	<.03	<.06	<.05	E.03	<.09	<.04	<.09	<.1	--	--
MAY												
07...	<.07	<.04	E.02	<.06	<.05	.26	<.09	<.04	<.09	<.1	82	783
15...	<.07	<.04	<.03	<.06	<.05	E.02	<.09	<.04	<.09	<.1	84	32
29...	--	--	--	--	--	--	--	--	--	--	83	5.0
JUN												
04...	<.07	<.04	<.03	<.06	<.05	E.02	<.09	<.04	<.09	<.1	81	21
12...	--	--	--	--	--	--	--	--	--	--	88	7.0
19...	--	--	--	--	--	--	--	--	--	--	73	5.0
24...	--	--	--	--	--	--	--	--	--	--	36	7.0
JUL												
01...	--	--	--	--	--	--	--	--	--	--	74	10
10...	<.07	<.04	<.03	<.06	<.05	E.02	<.09	<.04	<.09	<.1	40	2.0
17...	--	--	--	--	--	--	--	--	--	--	43	2.0
23...	--	--	--	--	--	--	--	--	--	--	82	11
AUG												
19...	<.07	<.04	<.03	<.06	<.05	E.03	<.09	<.04	<.09	<.1	91	107
SEP												
25...	<.07	<.04	<.03	<.06	<.05	E.01	<.09	<.04	<.09	<.1	25	4.0

03353700 WEST FORK WHITE LICK CREEK AT DANVILLE, IN

LOCATION.--Lat 39°45'39", long 86°30'54", in SE$^1/_4$SW$^1/_4$ sec.3, T.15 N., R.1 W., Hendricks County, Hydrologic Unit 05120201, (DANVILLE, IN quadrangle), at Danville Filtration Plant, 600 ft upstream of U.S. Highway 36 bridge, 0.6 mi upstream from small left bank tributary, and 7 mi west of Avon.

DRAINAGE AREA.--28.8 mi^2.

PERIOD OF RECORD.--May 1958 to current year.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 828.83 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 23, 1968, nonrecording gage and crest-stage gage on upstream side of bridge at same datum. Oct. 23, 1968, to Aug. 6, 1970, water-stage recorder on upstream side of bridge at same datum. Aug. 7, 1970 to Nov. 14, 1994, water-stage recorder on downstream side of bridge at same datum.

REMARKS.--Records good except those for Oct. 1-5, May 9 - Sept. 30, and estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 28, 1957, reached a stage of 16.0 ft, from floodmarks, discharge, 6,660 ft^3/s, from contracted-opening measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	22	129	e11	491	e35	58	66	20	5.0	0.72	0.40
2	2.5	19	71	e10	160	74	68	64	17	4.5	1.4	0.38
3	2.4	15	48	e9.6	93	121	131	45	17	3.9	1.5	0.31
4	2.2	14	35	e9.2	54	e45	66	35	16	3.4	0.56	0.36
5	97	13	29	e8.7	33	e33	46	30	46	2.8	0.26	0.33
6	137	12	27	e8.7	28	e31	35	34	32	2.3	0.47	0.40
7	48	12	24	e8.2	25	29	30	823	21	1.9	0.55	0.34
8	25	11	21	e8.0	21	26	40	321	17	1.7	0.95	0.42
9	14	9.4	18	e8.5	19	238	59	198	15	3.8	0.65	0.38
10	14	9.7	17	9.5	20	150	42	115	14	11	0.91	0.43
11	197	8.5	15	8.5	19	77	34	76	13	5.6	0.88	0.44
12	650	7.5	17	8.6	20	56	33	354	14	3.5	1.1	0.55
13	184	7.6	37	8.5	16	43	31	1430	63	2.7	3.4	0.51
14	526	7.6	260	8.7	15	34	44	293	96	2.0	3.5	0.70
15	175	7.2	180	7.4	15	36	40	134	44	1.6	1.6	0.61
16	300	7.0	134	e6.7	13	119	30	90	49	1.3	1.6	0.63
17	163	6.6	563	e6.6	11	63	25	67	22	1.1	0.59	0.27
18	91	6.5	247	e6.4	11	41	23	50	14	1.4	0.52	0.44
19	63	6.8	121	7.1	17	33	21	39	12	1.1	7.7	2.5
20	42	6.1	74	8.1	162	33	19	31	10	0.97	4.3	17
21	33	5.9	49	7.3	119	30	194	27	9.0	0.79	1.5	6.6
22	28	5.8	40	6.3	61	25	128	24	8.3	0.55	0.67	2.1
23	51	5.6	37	7.0	40	24	63	23	7.5	0.67	4.7	0.81
24	327	23	29	7.1	32	23	126	22	6.9	0.63	6.2	0.46
25	224	31	25	5.9	28	199	244	20	6.6	0.42	2.7	0.39
26	97	16	23	5.9	54	126	85	19	8.3	0.40	1.5	0.37
27	60	19	21	5.8	45	159	224	18	10	1.2	1.0	3.9
28	40	21	19	6.0	e34	196	676	28	8.8	0.80	0.61	2.3
29	32	75	15	7.8	---	175	173	48	6.4	2.4	0.51	1.5
30	26	339	e13	20	---	175	93	30	5.6	1.2	0.45	1.1
31	24	---	e12	172	---	86	---	23	---	0.59	0.38	---
TOTAL	3677.8	749.8	2350	419.1	1656	2535	2881	4577	629.4	71.22	53.38	46.93
MEAN	118.6	24.99	75.81	13.52	59.14	81.77	96.03	147.6	20.98	2.297	1.722	1.564
MAX	650	339	563	172	491	238	676	1430	96	11	7.7	17
MIN	2.2	5.6	12	5.8	11	23	19	18	5.6	0.40	0.26	0.27
CFSM	4.12	0.87	2.63	0.47	2.05	2.84	3.33	5.13	0.73	0.08	0.06	0.05
IN.	4.75	0.97	3.04	0.54	2.14	3.27	3.72	5.91	0.81	0.09	0.07	0.06

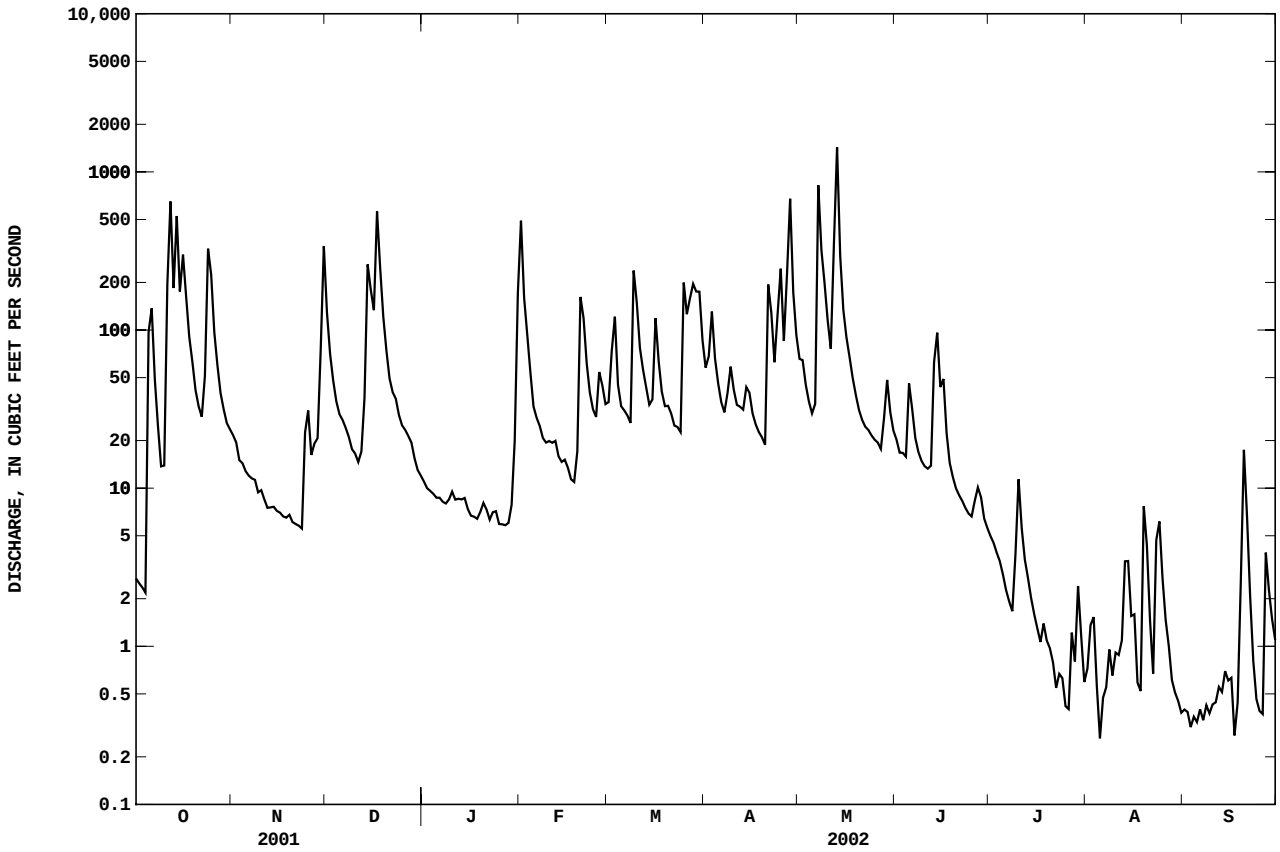
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2002, BY WATER YEAR (WY)

MEAN	11.68	27.53	37.88	37.72	48.75	59.33	52.20	40.92	23.72	18.48	8.253	6.336
MAX	119	156	154	134	151	145	123	178	174	134	69.4	109
(WY)	2002	1986	1991	1999	1990	1978	1996	1996	1998	1979	1979	1989
MIN	0.000	0.041	0.035	0.062	2.82	8.86	9.14	3.87	0.51	0.14	0.026	0.000
(WY)	1965	2000	1964	1977	1964	1994	1971	1976	1988	1991	1964	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1959 - 2002	
ANNUAL TOTAL	14562.65		19646.63			
ANNUAL MEAN	39.90		53.83		31.03	
HIGHEST ANNUAL MEAN					55.7	1973
LOWEST ANNUAL MEAN					6.35	1966
HIGHEST DAILY MEAN	650	Oct 12	1430	May 13	2260	Jan 22 1999
LOWEST DAILY MEAN	0.26	Aug 15	0.26	Aug 5	0.00	Oct 3 1960
ANNUAL SEVEN-DAY MINIMUM	0.40	Aug 11	0.36	Sep 1	0.00	Oct 3 1960
MAXIMUM PEAK FLOW			2710	May 13	5120	Feb 27 1997
MAXIMUM PEAK STAGE			9.40	May 13	12.13	Jul 13 1979
ANNUAL RUNOFF (CFSM)	1.39		1.87		1.08	
ANNUAL RUNOFF (INCHES)	18.81		25.38		14.64	
10 PERCENT EXCEEDS	98		142		72	
50 PERCENT EXCEEDS	12		17		8.2	
90 PERCENT EXCEEDS	2.2		0.66		0.18	

e Estimated

03353700 WEST FORK WHITE LICK CREEK AT DANVILLE, IN--Continued



03353800 WHITE LICK CREEK AT MOORESVILLE, IN

LOCATION.--Lat 39°36'28", long 86°22'56", in NE$^1/_4$SE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	195	830	125	3380	249	435	e520	e222	109	33	14
2	19	193	458	119	1140	293	350	e580	e183	93	29	13
3	17	185	337	116	623	702	665	e476	e158	80	28	12
4	16	167	275	111	428	398	446	e364	e140	72	26	12
5	20	161	237	115	302	285	330	e306	e268	65	24	12
6	250	150	222	114	254	250	274	e314	e337	58	22	11
7	333	143	208	113	240	230	240	e4870	e225	52	21	11
8	245	139	188	103	204	207	245	e2590	e172	47	19	10
9	177	134	172	104	185	709	366	e1560	e165	49	18	9.9
10	132	127	158	107	178	1070	317	e908	e175	165	18	9.9
11	203	125	149	105	187	490	258	e549	138	114	17	9.8
12	2930	121	146	98	182	361	252	e1330	149	71	16	9.1
13	1120	115	211	93	167	301	415	e7880	343	58	16	8.6
14	1910	112	985	90	148	260	330	e2520	636	50	23	9.4
15	1270	112	1370	87	143	237	367	e988	336	43	24	10
16	1150	115	649	79	143	599	276	e627	280	39	20	11
17	1070	109	e2700	76	130	451	230	e485	208	49	17	10
18	555	111	e2440	72	117	326	201	e383	160	58	17	12
19	388	109	e1090	72	121	267	183	e319	132	41	32	22
20	295	107	e651	72	425	280	165	e284	112	41	160	180
21	239	115	e410	72	646	269	e1540	e248	100	45	71	267
22	206	121	335	70	394	225	e1130	e226	92	43	41	93
23	203	102	329	68	287	205	e573	e210	85	101	30	47
24	1400	117	284	79	239	191	e366	e197	79	53	68	32
25	1970	200	242	77	210	1110	e979	e212	80	40	43	25
26	734	170	219	68	365	1010	e411	e268	391	34	31	22
27	446	174	201	65	346	766	e518	e223	351	34	24	76
28	329	178	189	64	272	1110	e4560	e294	373	39	20	80
29	272	308	173	65	---	1020	e1360	e789	198	39	17	49
30	235	1370	144	124	---	1250	e727	e298	137	53	16	34
31	212	---	140	669	---	628	---	e228	---	44	15	---
TOTAL	18366	5585	16142	3392	11456	15749	18509	31046	6425	1879	956	1121.7
MEAN	592.5	186.2	520.7	109.4	409.1	508.0	617.0	1001	214.2	60.61	30.84	37.39
MAX	2930	1370	2700	669	3380	1250	4560	7880	636	165	160	267
MIN	16	102	140	64	117	191	165	197	79	34	15	8.6
CFSM	2.79	0.88	2.46	0.52	1.93	2.40	2.91	4.72	1.01	0.29	0.15	0.18
IN.	3.22	0.98	2.83	0.60	2.01	2.76	3.25	5.45	1.13	0.33	0.17	0.20

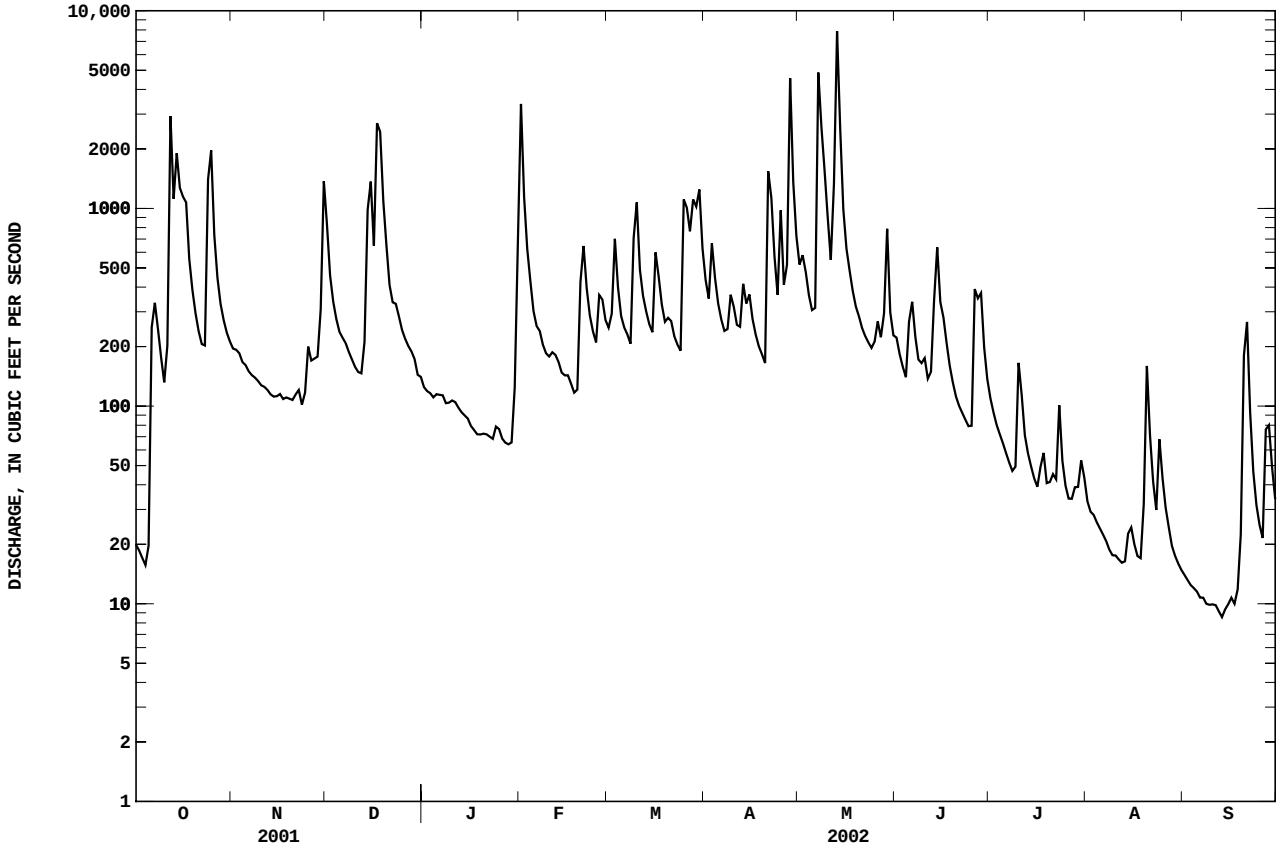
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

MEAN	79.68	193.3	263.4	258.5	326.0	417.4	376.0	303.2	177.7	140.3	77.88	56.36
MAX	592	1193	975	845	942	1154	1328	1062	936	764	567	712
(WY)	2002	1994	1991	1969	1971	1963	1964	1996	1998	1979	1979	1989
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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1957 - 2002	
ANNUAL TOTAL	83027		130626.7			
ANNUAL MEAN	227.5		357.9		222.7	
HIGHEST ANNUAL MEAN					372	1974
LOWEST ANNUAL MEAN					51.1	1966
HIGHEST DAILY MEAN	2930	Oct 12	e7880	May 13	12100	Dec 30 1990
LOWEST DAILY MEAN	13	Aug 15	8.6	Sep 13	0.68	Aug 27 1988
ANNUAL SEVEN-DAY MINIMUM	14	Aug 12	9.5	Sep 8	1.8	Sep 24 1988
MAXIMUM PEAK FLOW			unknown	May 13	19000	Jul 13 1979
MAXIMUM PEAK STAGE			unknown	May 13	23.31	Jul 13 1979
ANNUAL RUNOFF (CFSM)	1.07		1.69		1.05	
ANNUAL RUNOFF (INCHES)	14.57		22.92		14.27	
10 PERCENT EXCEEDS	451		805		472	
50 PERCENT EXCEEDS	122		178		89	
90 PERCENT EXCEEDS	31		21		13	

e Estimated

03353800 WHITE LICK CREEK AT MOORESVILLE, IN--Continued



03354000 WHITE RIVER NEAR CENTERTON, IN

(Former National stream-quality accounting network station)

LOCATION.--Lat 39°29'51", long 86°24'02", in NE$^1/_4$NE$^1/_4$ 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 except for estimated daily discharges, which are poor. Flow regulated by upstream reservoirs.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 22.8 ft at Martinsville site (from information by Indiana State Highway Commission) and 21.9 ft at site 0.4 mi downstream (from information by Corps of Engineers), discharge, 90,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1160	3450	8820	1840	15000	2620	13500	10400	2870	e2130	717	556
2	1080	3230	8230	1700	15100	2610	9270	7450	2610	e1700	673	524
3	969	3160	6060	1680	15200	5400	8260	7140	2320	1470	632	529
4	860	2850	4290	1710	12700	6550	8740	5310	2050	1320	615	534
5	837	2570	3460	1630	6410	6210	7830	4290	2270	1200	611	534
6	2470	2360	3130	1610	4810	4150	5840	4000	3570	1130	585	528
7	2950	2210	2820	1620	3940	3290	4710	15500	2650	1050	558	507
8	2990	2080	2500	1530	3370	2900	4020	19100	2370	983	567	489
9	2400	2060	2290	1470	2970	4140	4770	15200	2170	948	580	492
10	1870	1970	2100	1530	2730	7040	4850	11500	2140	1580	552	483
11	2770	1870	1920	1530	2680	6610	5420	7520	1830	1420	542	473
12	9820	1770	1920	1430	2610	5090	5040	7690	1880	1220	557	466
13	10600	1660	2270	1370	2530	3940	6340	27600	2290	1110	579	463
14	13300	1590	4620	1350	2390	3380	6090	37800	4030	994	609	471
15	14100	1610	8270	1310	2100	3020	7610	35200	3160	922	623	534
16	12500	1550	8970	1270	1980	4250	7940	30400	2800	851	628	523
17	13200	1470	13700	1230	1940	4600	6590	20200	2150	801	582	507
18	11500	1470	17900	1190	1820	4210	4770	8980	1800	1030	543	506
19	9150	1450	15700	1170	1710	3690	3690	6850	1620	930	649	707
20	6200	1380	13800	1270	2370	3270	3290	5650	1490	991	1900	1190
21	4880	1360	8630	1210	3630	3150	6630	4760	1370	933	1210	3510
22	4050	1330	5930	1130	3880	2750	7810	4000	1260	902	932	1620
23	3470	1250	5290	1110	3240	2490	5780	3600	1200	934	801	1090
24	7920	1290	4440	1180	2660	2310	4730	3330	1160	865	943	829
25	14200	1910	3850	1180	2370	5550	6820	3630	e2230	793	1020	676
26	14100	1760	3330	1150	3230	7270	4920	3880	e3490	732	896	602
27	13900	2180	3030	1130	3250	6120	4500	3660	e4840	690	798	921
28	10700	2220	2670	1140	2800	6330	16200	3490	e5840	726	700	1210
29	6100	3660	2460	1100	---	7250	16500	4740	e4070	785	631	906
30	4540	7560	2400	1400	---	11100	15700	3930	e2890	901	571	797
31	3890	---	2070	3520	---	12900	---	3080	---	843	554	---
TOTAL	208476	66280	176870	44690	129420	154190	218160	329880	76420	32884	22358	23177
MEAN	6725	2209	5705	1442	4622	4974	7272	10640	2547	1061	721.2	772.6
MAX	14200	7560	17900	3520	15200	12900	16500	37800	5840	2130	1900	3510
MIN	837	1250	1920	1100	1710	2310	3290	3080	1160	690	542	463
CFSM	2.75	0.90	2.33	0.59	1.89	2.04	2.98	4.35	1.04	0.43	0.30	0.32
IN.	3.17	1.01	2.69	0.68	1.97	2.35	3.32	5.02	1.16	0.50	0.34	0.35

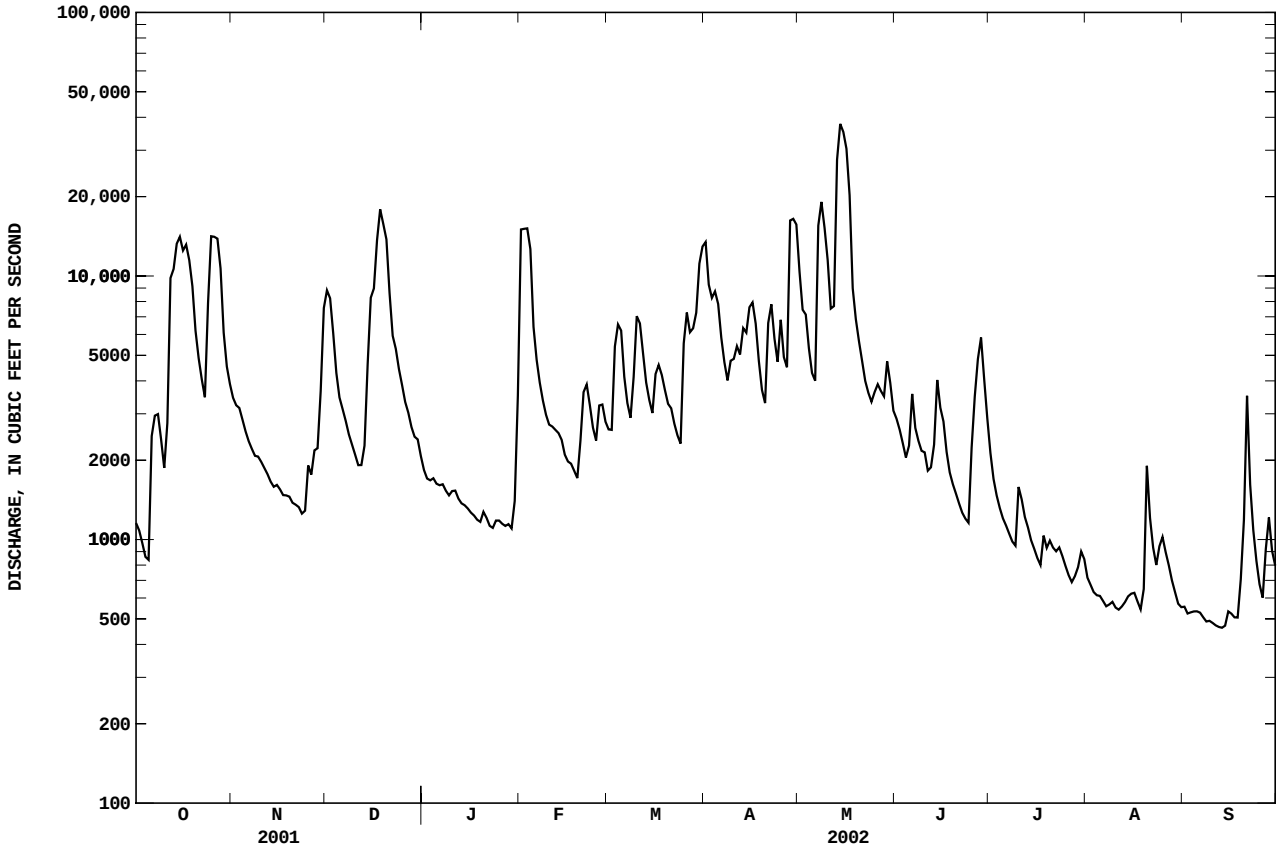
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2002, BY WATER YEAR (WY)

MEAN	948.2	1829	2573	3235	3764	4512	4342	3189	2499	1811	1112	900.2
MAX	6725	11760	8248	17760	10430	10390	11530	11280	10310	6629	6001	8417
(WY)	2002	1994	1958	1950	1950	1963	1964	1996	1998	1979	1979	1989
MIN	281	320	305	302	460	1083	1097	799	419	344	338	213
(WY)	1964	1954	1964	1977	1964	2000	1971	1976	1988	1954	1966	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1948 - 2002	
ANNUAL TOTAL	1007624		1482805			
ANNUAL MEAN	2761		4062		2552	
HIGHEST ANNUAL MEAN					4115	1950
LOWEST ANNUAL MEAN					812	1954
HIGHEST DAILY MEAN	17900	Dec 18	37800	May 14	47100	Apr 22 1964
LOWEST DAILY MEAN	530	Aug 17	463	Sep 13	138	Sep 27 1954
ANNUAL SEVEN-DAY MINIMUM	576	Aug 12	477	Sep 8	157	Sep 27 1954
MAXIMUM PEAK FLOW			38300	May 14	50500	Apr 22 1964
MAXIMUM PEAK STAGE			17.08	May 14	18.38	Dec 31 1990
ANNUAL RUNOFF (CFSM)	1.13		1.66		1.04	
ANNUAL RUNOFF (INCHES)	15.34		22.57		14.19	
10 PERCENT EXCEEDS	6090		9200		5730	
50 PERCENT EXCEEDS	1770		2390		1350	
90 PERCENT EXCEEDS	921		630		408	

e Estimated

03354000 WHITE RIVER NEAR CENTERTON, IN--Continued



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.--Records fair.

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, 31.0°C, July. 8, minimum, -2.0°C, on Jan. 2.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.2	16.5	17.8	13.8	12.5	13.1	9.6	9.1	9.3	3.2	2.1	2.7
2	21.0	17.6	19.1	14.5	13.8	14.1	9.3	8.7	9.0	3.3	2.0	2.7
3	21.3	18.5	19.7	14.3	13.1	13.7	9.6	8.6	9.1	3.7	2.6	3.1
4	21.1	18.6	19.8	14.1	12.7	13.4	11.1	9.5	10.3	3.4	2.3	2.8
5	19.8	16.6	18.5	13.5	12.1	12.9	12.1	10.9	11.4	4.4	2.8	3.4
6	16.6	14.2	15.1	13.2	11.6	12.3	12.0	11.2	11.7	4.7	4.1	4.4
7	15.1	13.1	14.1	13.0	11.3	12.2	11.7	11.0	11.3	4.7	3.7	4.2
8	14.9	13.1	14.1	13.3	11.9	12.6	11.0	10.0	10.6	4.3	3.0	3.7
9	16.0	14.0	14.9	12.7	11.4	12.1	10.0	8.7	9.4	5.5	3.8	4.5
10	15.8	14.9	15.4	12.4	10.8	11.7	8.9	7.6	8.3	6.6	5.5	6.1
11	16.2	15.5	15.9	12.1	11.1	11.6	8.7	7.3	8.0	6.3	5.2	5.7
12	16.4	15.9	16.1	11.9	10.3	11.2	9.0	8.0	8.6	5.7	4.6	5.2
13	16.8	16.1	16.4	12.2	10.4	11.3	9.9	9.0	9.6	5.5	4.6	5.1
14	16.8	15.8	16.5	12.9	11.0	11.9	9.8	7.9	8.8	6.6	5.4	6.0
15	15.8	15.0	15.3	13.4	11.6	12.5	8.1	7.7	7.9	6.3	5.5	5.9
16	15.0	12.5	13.8	14.1	12.4	13.2	8.3	7.9	8.1	6.0	5.1	5.6
17	12.8	12.1	12.4	14.4	13.1	13.7	8.7	8.3	8.6	6.0	5.2	5.7
18	12.5	11.8	12.2	13.8	12.7	13.3	8.6	8.1	8.3	5.8	4.5	5.2
19	13.0	12.0	12.5	13.6	12.1	13.2	8.1	7.0	7.6	5.9	4.9	5.3
20	14.2	12.6	13.4	12.1	10.7	11.4	7.0	6.2	6.4	5.2	4.6	4.9
21	15.3	13.6	14.5	11.3	10.0	10.7	6.5	5.8	6.1	5.9	4.5	5.2
22	15.9	14.5	15.2	11.2	9.4	10.3	6.9	5.9	6.3	6.6	5.0	5.9
23	16.4	15.8	16.1	11.3	10.0	10.6	7.2	6.3	6.9	8.3	6.5	7.5
24	16.4	15.4	16.0	13.0	11.3	12.3	6.3	4.8	5.4	8.4	7.2	8.0
25	15.4	13.2	14.1	12.7	11.0	11.9	4.8	3.9	4.3	7.3	5.8	6.6
26	13.2	11.2	12.1	11.6	9.8	10.8	4.0	3.5	3.7	7.6	5.9	6.7
27	11.2	10.1	10.7	12.2	11.2	11.8	4.1	3.2	3.6	8.1	6.4	7.2
28	10.4	9.4	9.9	11.2	9.7	10.4	4.5	3.6	4.0	9.1	6.9	8.0
29	11.4	10.0	10.7	10.0	9.2	9.5	4.1	3.0	3.7	11.1	9.1	10.2
30	12.2	11.1	11.6	10.3	9.6	10.1	3.0	2.3	2.7	11.0	9.4	10.3
31	13.1	11.7	12.4	---	---	---	3.3	2.2	2.8	9.4	7.9	8.3
MONTH	21.3	9.4	14.7	14.5	9.2	12.0	12.1	2.2	7.5	11.1	2.0	5.7

03354000 WHITE RIVER NEAR CENTERTON, IN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.1	5.8	7.1	6.2	3.6	4.9	9.1	7.5	8.3	14.8	14.1	14.4
2	5.8	4.9	5.2	6.0	5.7	5.8	10.2	8.8	9.5	15.1	14.5	14.9
3	4.9	4.3	4.7	5.7	3.2	4.5	10.0	8.7	9.3	15.8	13.6	14.7
4	4.7	3.7	4.2	3.2	2.2	2.8	9.0	8.2	8.6	17.2	14.4	15.8
5	4.4	3.5	4.0	4.3	2.4	3.3	9.5	8.0	8.7	18.6	15.3	17.0
6	4.6	3.7	4.1	6.9	4.2	5.5	10.6	8.5	9.5	18.9	17.0	17.6
7	6.0	4.4	5.1	9.2	6.4	7.8	11.0	8.9	10	19.4	16.6	17.9
8	6.9	5.3	6.0	11.3	8.6	9.9	11.7	10.5	10.9	18.5	17.8	18.2
9	7.6	5.8	6.7	11.1	8.2	10.3	12.2	11.6	11.9	18.7	18.0	18.4
10	7.7	7.1	7.5	8.2	5.6	6.5	13.4	10.6	12.0	18.1	16.8	17.5
11	7.8	6.2	7.0	6.4	5.2	6.0	14.7	11.7	13.3	17.6	16.6	16.8
12	7.2	5.8	6.6	7.0	6.2	6.5	15.5	14.1	14.7	17.6	16.4	16.8
13	7.3	5.9	6.6	9.7	7.0	8.2	15.3	14.7	15.0	17.6	14.2	15.6
14	7.0	5.3	6.2	10.4	8.3	9.4	16.6	14.5	15.5	16.2	14.4	15.4
15	7.9	6.2	6.9	10.6	10.0	10.4	17.7	15.8	16.7	16.7	15.2	16.0
16	7.7	6.2	6.9	10.0	8.6	9.1	18.5	16.8	17.6	16.8	15.9	16.4
17	7.6	5.7	6.7	8.6	7.9	8.1	20.6	18.3	19.4	16.8	15.4	16.2
18	7.5	5.6	6.6	9.4	8.1	8.7	21.4	19.1	20.3	15.8	14.7	15.3
19	7.5	6.9	7.1	9.4	9.0	9.2	22.2	20.2	21.3	15.2	14.3	14.7
20	8.7	7.5	8.1	9.8	9.2	9.4	21.9	20.0	21.0	14.9	13.8	14.4
21	8.1	6.2	7.1	9.3	6.3	8.1	20.0	13.7	16.6	15.5	13.5	14.5
22	6.7	5.6	6.1	7.6	5.1	6.3	14.3	13.8	14.1	16.6	13.6	15.1
23	7.0	4.9	6.0	8.5	5.5	7.0	15.4	13.0	14.2	18.1	15.0	16.6
24	7.7	5.7	6.7	8.7	7.1	7.9	16.1	13.9	15.2	18.9	17.3	18.0
25	8.9	6.9	7.9	8.2	5.1	6.4	15.9	14.6	15.3	20.2	18.3	19.2
26	8.5	4.9	6.8	---	---	---	16.4	13.9	15.2	20.4	18.0	19.2
27	4.9	3.4	4.0	---	---	---	15.9	13.2	14.6	20.8	18.5	19.7
28	4.6	2.6	3.6	7.2	6.3	6.8	14.0	12.9	13.5	21.7	19.9	20.8
29	---	---	---	8.1	6.6	7.3	14.1	12.7	13.4	21.2	19.9	20.5
30	---	---	---	8.5	7.6	8.1	14.7	13.1	13.9	22.0	20.2	21.0
31	---	---	---	8.5	7.6	8.1	---	---	---	23.6	21.0	22.2
MONTH	8.9	2.6	6.1	---	---	---	22.2	7.5	14.0	23.6	13.5	17.1

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.4	22.2	23.2	28.9	26.2	27.5	30.4	27.1	28.8	27.3	23.9	25.6
2	24.1	22.6	23.3	29.4	26.6	27.9	29.3	27.1	28.2	27.8	24.9	26.2
3	25.2	22.0	23.5	29.7	26.7	28.2	30.3	26.8	28.4	27.9	25.1	26.4
4	26.3	23.4	24.7	30.1	27.0	28.5	30.8	27.6	29.1	27.4	24.6	26.0
5	25.3	23.6	24.4	30.2	27.3	28.8	30.6	28.1	29.2	26.9	23.5	25.2
6	23.6	21.4	22.3	30.5	26.8	28.9	29.4	26.7	28.2	26.8	23.5	25.1
7	22.9	20.5	21.6	30.2	26.2	28.4	27.7	24.4	26.1	26.6	23.5	25.1
8	24.2	21.0	22.5	31.0	26.5	28.8	27.3	23.8	25.5	27.3	24.7	25.8
9	23.8	22.2	23.1	30.1	27.6	28.7	27.6	23.7	25.6	27.3	25.0	26.1
10	25.9	22.6	24.1	28.7	26.2	27.5	27.8	24.1	25.9	27.5	25.0	26.1
11	25.0	23.5	24.3	27.4	24.4	25.8	27.7	25.0	26.3	26.3	24.0	25.2
12	25.2	23.2	24.1	26.3	23.8	25.1	27.8	25.7	26.7	25.0	22.2	23.6
13	24.4	22.6	23.7	26.6	23.7	25.1	26.8	25.8	26.3	24.3	21.5	22.9
14	24.0	21.9	23.2	27.0	23.6	25.3	26.2	25.2	25.7	24.5	22.7	23.5
15	24.3	20.4	22.0	28.2	24.3	26.2	26.9	24.8	25.7	25.3	23.6	24.3
16	23.7	21.2	22.5	28.4	24.8	26.6	28.6	25.3	26.8	25.6	23.2	24.1
17	24.0	20.8	22.4	27.0	25.4	26.3	28.3	26.0	27.1	23.7	22.2	23.1
18	24.6	21.6	23.1	27.6	24.9	26.3	27.1	25.9	26.4	24.7	22.5	23.5
19	25.5	22.2	23.8	28.5	25.3	26.8	26.3	24.7	25.5	25.7	23.6	24.6
20	27.0	23.6	25.2	29.9	25.8	27.8	26.7	24.7	25.6	24.7	22.2	23.5
21	27.7	24.6	26.1	30.8	26.8	28.8	27.5	24.4	25.9	23.0	21.5	22.3
22	28.3	25.0	26.6	30.6	27.8	29.2	28.5	25.7	27.1	22.4	20.5	21.5
23	28.5	25.1	26.8	29.0	26.8	27.7	29.5	26.5	27.9	21.8	19.1	20.4
24	28.4	25.5	26.9	28.6	25.3	26.8	28.8	26.4	27.5	21.8	18.8	20.2
25	---	---	---	28.4	24.7	26.6	28.3	25.9	27.0	20.8	18.7	19.8
26	---	---	---	27.2	25.6	26.4	27.7	25.3	26.5	20.4	19.1	19.8
27	27.5	24.7	25.8	28.5	25.5	26.7	27.7	25.0	26.2	21.5	19.4	20.3
28	26.3	24.0	25.3	29.8	26.1	27.9	26.7	24.5	25.6	22.2	19.9	20.7
29	27.0	24.6	26.0	29.4	27.2	28.2	26.7	24.1	25.4	22.6	19.5	21.0
30	27.9	25.5	26.7	30.2	26.5	28.2	26.4	23.8	25.1	23.0	20.1	21.6
31	---	---	---	30.5	26.5	28.4	26.7	23.6	25.1	---	---	---
MONTH	---	---	---	31.0	23.6	27.4	30.8	23.6	26.7	27.9	18.7	23.4

03357000 WHITE RIVER AT SPENCER, IN

LOCATION.--Lat 39°16'51", long 86°45'44", in NE$^1/_4$NE$^1/_4$ 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 1971 to current year (gage heights only).

REVISED RECORDS.--WDR IN-95-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 526.04 ft above 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, 22.86 ft, May 15; minimum gage height, 2.91 ft, Sept. 13, 14, 15.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.79	7.37	13.35	5.50	14.98	6.65	15.52	16.56	7.39	6.20	3.63	3.14
2	3.67	7.04	12.95	5.28	17.34	6.87	15.02	12.16	6.98	5.60	3.54	3.10
3	3.51	6.90	10.49	5.18	16.97	9.85	12.00	11.28	6.58	5.22	3.47	3.06
4	3.32	6.52	8.54	5.16	16.52	10.33	12.28	9.64	6.21	4.96	3.42	3.06
5	3.27	6.16	7.57	5.09	12.18	10.32	11.97	8.58	6.28	4.73	3.38	3.05
6	5.04	5.86	7.14	5.05	9.27	8.42	10.06	8.87	7.87	4.58	3.36	3.05
7	5.78	5.64	6.81	5.04	8.25	7.44	8.98	15.43	7.04	4.43	3.28	3.03
8	6.09	5.44	6.37	4.89	7.61	6.98	8.32	19.81	6.55	4.29	3.25	2.99
9	5.58	5.37	6.05	4.84	7.12	8.85	9.23	20.27	6.25	4.68	3.29	2.99
10	5.09	5.25	5.75	4.88	6.83	11.91	9.29	18.59	6.22	5.02	3.25	2.96
11	6.66	5.10	5.45	4.90	6.67	11.28	9.67	15.48	6.05	5.02	3.21	2.94
12	12.14	4.95	5.45	4.77	6.51	9.69	11.02	14.72	5.97	4.60	3.21	2.92
13	13.46	4.78	5.99	4.67	6.36	8.39	13.24	19.50	7.09	4.47	3.26	2.91
14	14.38	4.65	10.12	4.63	6.18	7.69	12.72	22.75	8.23	4.25	3.30	2.91
15	15.84	4.64	12.79	4.54	5.85	7.31	13.33	22.57	7.46	4.10	3.32	2.95
16	15.96	4.58	12.60	4.48	5.61	8.54	12.99	21.84	7.11	3.97	3.34	3.05
17	15.50	4.45	15.80	4.40	5.52	8.90	11.42	20.85	6.35	3.86	3.30	2.98
18	15.25	4.39	18.28	4.34	5.34	8.44	9.37	17.65	5.86	4.19	3.23	2.99
19	13.78	4.42	18.94	4.31	5.29	7.98	8.22	11.97	5.56	4.08	3.24	3.03
20	10.32	4.27	17.85	4.35	6.36	8.10	7.64	10.37	5.35	4.03	5.04	4.17
21	8.78	4.23	15.73	4.40	7.72	8.03	11.43	9.45	5.13	4.01	4.45	6.80
22	7.87	4.19	10.69	4.26	7.78	7.31	14.08	8.71	4.95	4.14	3.95	5.08
23	7.40	4.08	9.67	4.22	7.20	6.85	11.03	8.22	4.81	4.08	3.66	4.32
24	14.37	4.52	8.72	4.40	6.58	6.55	10.86	8.14	4.70	3.94	3.54	3.84
25	15.85	5.35	8.03	4.44	6.27	10.94	12.58	8.32	4.82	3.81	3.83	3.57
26	16.88	5.02	7.42	4.34	7.30	13.47	10.50	8.30	6.92	3.71	3.71	3.44
27	16.75	5.92	7.07	4.31	7.39	12.23	11.16	8.05	7.85	3.64	3.56	3.53
28	15.99	6.41	6.65	4.30	6.83	11.80	15.11	7.76	10.27	3.59	3.43	4.39
29	10.97	10.02	6.34	4.27	---	12.42	17.62	9.25	8.46	3.68	3.32	3.91
30	8.77	12.76	6.20	4.56	---	14.11	17.53	8.30	7.24	3.79	3.22	3.68
31	7.92	---	5.79	9.02	---	14.93	---	7.68	---	3.80	3.14	---
MEAN	10.00	5.68	9.70	4.80	8.35	9.44	11.81	13.26	6.58	4.34	3.49	3.46
MAX	16.88	12.76	18.94	9.02	17.34	14.93	17.62	22.75	10.27	6.20	5.04	6.80
MIN	3.27	4.08	5.45	4.22	5.29	6.55	7.64	7.68	4.70	3.59	3.14	2.91

CAL YR 2001 MEAN 6.01 MAX 18.94 MIN 2.74
WTR YR 2002 MEAN 7.58 MAX 22.75 MIN 2.91

03357330 BIG WALNUT CREEK NEAR ROACHDALE, IN

LOCATION.--Lat 39°48'58", long 86°45'12", in SE$^1/_4$NW$^1/_4$ 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 fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	139	544	e73	1740	161	e400	415	111	81	19	e12
2	---	127	324	e70	671	254	e300	549	102	68	29	e11
3	---	111	240	e67	394	462	e420	417	93	58	31	e9.8
4	---	102	185	e65	252	265	327	310	88	53	19	8.6
5	---	94	154	e63	155	191	255	254	514	48	17	8.1
6	---	87	137	e63	121	168	202	287	321	42	16	7.6
7	---	80	122	e60	102	151	184	3420	194	39	14	7.4
8	---	76	107	e62	82	134	196	1460	143	37	13	7.2
9	---	70	94	35	71	642	264	909	118	44	12	7.3
10	---	69	85	30	69	644	238	584	104	321	12	6.8
11	---	68	78	27	72	343	203	408	99	120	12	6.0
12	---	59	77	24	77	266	190	1370	201	67	12	5.2
13	---	58	120	25	65	222	200	4890	473	51	16	5.4
14	---	59	614	23	56	e180	290	1810	763	43	26	5.4
15	---	53	762	21	57	e170	332	764	371	38	20	5.5
16	---	51	508	18	e52	482	238	504	e250	33	14	5.8
17	---	48	1850	18	e49	345	198	384	e160	31	11	5.7
18	---	47	1090	18	e48	247	e150	302	122	32	10	5.8
19	---	48	604	18	e70	199	e130	245	98	31	235	8.7
20	---	45	382	18	e400	192	116	210	84	28	267	158
21	---	43	279	17	562	172	614	180	73	e23	76	220
22	---	42	229	16	330	144	574	161	68	e21	39	64
23	---	41	220	17	235	135	306	149	64	e22	67	32
24	---	63	182	19	187	125	332	141	59	e19	91	21
25	---	124	150	16	161	600	736	171	108	e17	e51	18
26	623	83	137	14	218	545	317	267	562	19	e31	15
27	388	75	129	14	211	455	506	187	314	24	e23	45
28	278	67	112	14	177	812	e2450	154	288	20	e19	65
29	217	139	97	16	---	e920	939	164	156	22	e16	36
30	177	868	e80	55	---	1010	561	143	104	30	e15	26
31	155	---	e76	472	---	e620	---	123	---	21	e13	---
TOTAL	1838	3036	9768	1468	6684	11256	12168	21332	6205	1503	1246	839.3
MEAN	306.3	101.2	315.1	47.35	238.7	363.1	405.6	688.1	206.8	48.48	40.19	27.98
MAX	623	868	1850	472	1740	1010	2450	4890	763	321	267	220
MIN	155	41	76	14	48	125	116	123	59	17	10	5.2
CFSM	2.34	0.77	2.41	0.36	1.82	2.77	3.10	5.25	1.58	0.37	0.31	0.21
IN.	0.52	0.86	2.77	0.42	1.90	3.20	3.46	6.06	1.76	0.43	0.35	0.24

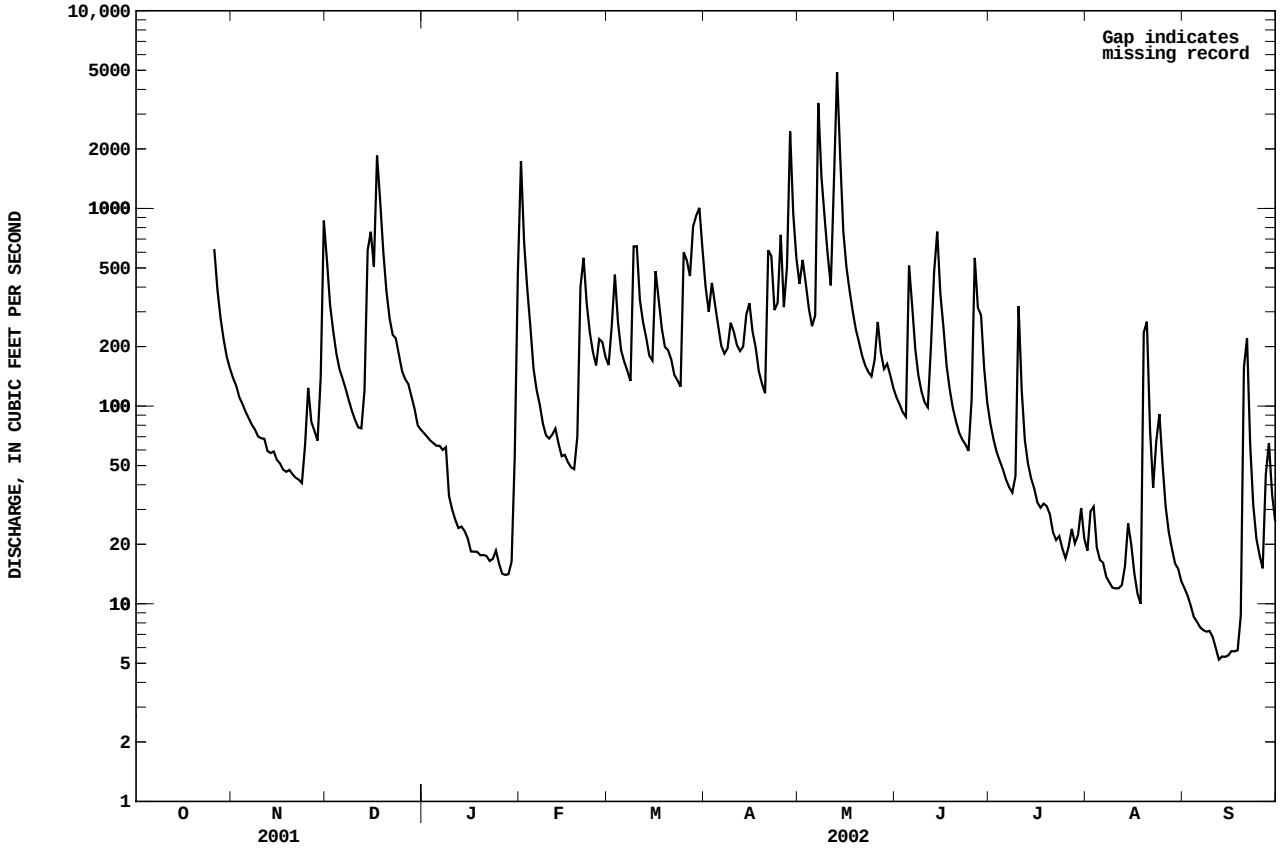
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2002, BY WATER YEAR (WY)

MEAN	306.3	101.2	315.1	47.35	238.7	363.1	405.6	688.1	206.8	48.48	40.19	27.98
MAX	306	101	315	47.4	239	363	406	688	207	48.5	40.2	28.0
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002
MIN	306	101	315	47.4	239	363	406	688	207	48.5	40.2	28.0
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2002 WATER YEAR	
ANNUAL TOTAL	77343.3	
ANNUAL MEAN	227.5	
HIGHEST DAILY MEAN	4890	May 13
LOWEST DAILY MEAN	5.2	Sep 12
ANNUAL SEVEN-DAY MINIMUM	5.5	Sep 12
MAXIMUM PEAK FLOW	6360	May 13
MAXIMUM PEAK STAGE	15.58	May 13
ANNUAL RUNOFF (CFSM)	1.74	
ANNUAL RUNOFF (INCHES)	21.96	
10 PERCENT EXCEEDS	549	
50 PERCENT EXCEEDS	103	
90 PERCENT EXCEEDS	15	

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, WH, FIELD, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	8.1	8.1	8.4
2	---	---	---	---	---	---	---	---	---	8.0	8.1	8.3
3	---	---	---	---	---	---	---	---	---	8.0	8.1	8.3
4	---	---	---	---	---	---	---	---	---	7.9	8.2	8.3
5	---	---	---	---	---	---	---	---	---	7.8	8.2	8.3
6	---	---	---	---	---	---	---	---	---	7.8	8.2	8.3
7	---	---	---	---	---	---	---	---	---	8.0	---	8.2
8	---	---	---	---	---	---	---	---	---	8.0	8.4	8.2
9	---	---	---	---	---	---	---	---	---	8.0	8.3	8.2
10	---	---	---	---	---	---	---	---	---	7.8	8.3	8.2
11	---	---	---	---	---	---	---	---	---	8.1	8.3	8.3
12	---	---	---	---	---	---	---	---	---	8.2	8.3	8.4
13	---	---	---	---	---	---	---	---	---	8.1	8.3	8.4
14	---	---	---	---	---	---	---	---	---	8.0	8.4	8.3
15	---	---	---	---	---	---	---	---	---	8.0	8.4	8.3
16	---	---	---	---	---	---	---	---	---	8.0	8.4	8.3
17	---	---	---	---	---	---	---	---	---	8.0	8.4	8.4
18	---	---	---	---	---	---	---	---	---	8.0	8.4	8.4
19	---	---	---	---	---	---	---	---	---	8.0	8.3	8.4
20	---	---	---	---	---	---	---	---	8.2	8.0	8.1	8.1
21	---	---	---	---	---	---	---	---	8.1	8.0	8.4	7.8
22	---	---	---	---	---	---	---	---	8.0	8.0	8.4	---
23	---	---	---	---	---	---	---	---	8.0	8.0	8.5	---
24	---	---	---	---	---	---	---	---	8.0	8.1	8.4	---
25	---	---	---	---	---	---	---	---	7.9	8.1	8.5	---
26	---	---	---	---	---	---	---	---	7.7	8.1	8.5	---
27	---	---	---	---	---	---	---	---	7.9	8.1	8.5	---
28	---	---	---	---	---	---	---	---	7.9	8.1	8.5	8.2
29	---	---	---	---	---	---	---	---	8.0	8.1	8.5	8.4
30	---	---	---	---	---	---	---	---	8.1	8.1	8.4	8.4
31	---	---	---	---	---	---	---	---	---	8.1	8.4	---

03357330 BIG WALNUT CREEK NR ROACHDALE, IN--Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	9.0	7.4	7.4
2	---	---	---	---	---	---	---	---	---	9.3	7.1	7.5
3	---	---	---	---	---	---	---	---	---	9.5	7.5	8.4
4	---	---	---	---	---	---	---	---	---	9.6	7.2	8.0
5	---	---	---	---	---	---	---	---	---	9.2	7.1	8.2
6	---	---	---	---	---	---	---	---	---	9.3	7.5	8.1
7	---	---	---	---	---	---	---	---	---	9.3	---	8.4
8	---	---	---	---	---	---	---	---	---	9.1	10.2	7.9
9	---	---	---	---	---	---	---	---	---	7.5	9.7	8.4
10	---	---	---	---	---	---	---	---	---	6.7	8.6	8.7
11	---	---	---	---	---	---	---	---	---	7.7	7.6	8.1
12	---	---	---	---	---	---	---	---	---	8.3	7.6	9.1
13	---	---	---	---	---	---	---	---	---	8.5	6.7	10.3
14	---	---	---	---	---	---	---	---	---	8.6	7.2	9.3
15	---	---	---	---	---	---	---	---	---	8.5	7.5	8.3
16	---	---	---	---	---	---	---	---	---	8.6	7.4	8.2
17	---	---	---	---	---	---	---	---	---	8.1	7.0	9.9
18	---	---	---	---	---	---	---	---	---	7.8	7.1	8.9
19	---	---	---	---	---	---	---	---	---	7.8	7.0	7.9
20	---	---	---	---	---	---	---	---	10.4	7.6	5.8	7.3
21	---	---	---	---	---	---	---	---	10.5	7.3	6.9	---
22	---	---	---	---	---	---	---	---	10.3	6.9	6.7	---
23	---	---	---	---	---	---	---	---	9.9	6.5	6.5	---
24	---	---	---	---	---	---	---	---	9.6	7.9	6.7	---
25	---	---	---	---	---	---	---	---	9.3	8.0	7.2	---
26	---	---	---	---	---	---	---	---	8.0	7.4	7.2	---
27	---	---	---	---	---	---	---	---	8.4	8.1	7.3	---
28	---	---	---	---	---	---	---	---	8.6	7.7	7.5	3.8
29	---	---	---	---	---	---	---	---	8.8	7.0	7.7	9.2
30	---	---	---	---	---	---	---	---	8.9	7.6	7.8	10.9
31	---	---	---	---	---	---	---	---	---	7.4	7.9	---

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	26.7	29.4	26.0
2	---	---	---	---	---	---	---	---	---	27.5	28.8	26.5
3	---	---	---	---	---	---	---	---	---	27.9	29.1	26.6
4	---	---	---	---	---	---	---	---	---	28.3	30.0	24.9
5	---	---	---	---	---	---	---	---	---	28.7	29.8	24.3
6	---	---	---	---	---	---	---	---	---	27.2	28.3	24.6
7	---	---	---	---	---	---	---	---	---	26.9	---	24.8
8	---	---	---	---	---	---	---	---	---	27.3	25.2	25.9
9	---	---	---	---	---	---	---	---	---	27.2	25.6	26.4
10	---	---	---	---	---	---	---	---	---	24.8	26.2	26.3
11	---	---	---	---	---	---	---	---	---	24.3	26.1	24.3
12	---	---	---	---	---	---	---	---	---	23.4	26.8	22.1
13	---	---	---	---	---	---	---	---	---	23.8	26.3	21.6
14	---	---	---	---	---	---	---	---	---	24.9	25.3	23.3
15	---	---	---	---	---	---	---	---	---	25.9	25.9	24.1
16	---	---	---	---	---	---	---	---	---	26.0	27.1	23.1
17	---	---	---	---	---	---	---	---	---	26.2	27.5	21.5
18	---	---	---	---	---	---	---	---	---	26.4	26.5	23.6
19	---	---	---	---	---	---	---	---	---	27.0	23.9	24.7
20	---	---	---	---	---	---	---	---	24.4	28.0	23.2	23.0
21	---	---	---	---	---	---	---	---	25.7	29.4	24.5	21.5
22	---	---	---	---	---	---	---	---	26.3	30.2	26.8	---
23	---	---	---	---	---	---	---	---	26.4	28.1	26.7	---
24	---	---	---	---	---	---	---	---	26.4	27.0	25.9	---
25	---	---	---	---	---	---	---	---	26.1	26.7	25.4	---
26	---	---	---	---	---	---	---	---	23.6	26.2	25.2	---
27	---	---	---	---	---	---	---	---	23.9	27.3	25.5	---
28	---	---	---	---	---	---	---	---	23.6	28.9	25.5	19.7
29	---	---	---	---	---	---	---	---	24.4	28.4	25.3	20.2
30	---	---	---	---	---	---	---	---	25.5	28.5	25.2	20.8
31	---	---	---	---	---	---	---	---	---	28.9	25.5	---

03357330 BIG WALNUT CREEK NR ROACHDALE, IN--Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	636	---
2	---	---	---	---	---	---	---	---	---	---	622	---
3	---	---	---	---	---	---	---	---	---	---	600	---
4	---	---	---	---	---	---	---	---	---	---	593	492
5	---	---	---	---	---	---	---	---	---	---	617	537
6	---	---	---	---	---	---	---	---	---	---	621	561
7	---	---	---	---	---	---	---	---	---	---	---	582
8	---	---	---	---	---	---	---	---	---	---	514	590
9	---	---	---	---	---	---	---	---	---	---	523	594
10	---	---	---	---	---	---	---	---	---	---	541	596
11	---	---	---	---	---	---	---	---	---	---	571	685
12	---	---	---	---	---	---	---	---	---	---	599	747
13	---	---	---	---	---	---	---	---	---	---	593	737
14	---	---	---	---	---	---	---	---	---	---	597	729
15	---	---	---	---	---	---	---	---	---	---	617	716
16	---	---	---	---	---	---	---	---	---	---	622	711
17	---	---	---	---	---	---	---	---	---	---	623	692
18	---	---	---	---	---	---	---	---	---	---	623	683
19	---	---	---	---	---	---	---	---	---	---	---	653
20	---	---	---	---	---	---	---	---	---	---	---	526
21	---	---	---	---	---	---	---	---	---	---	419	486
22	---	---	---	---	---	---	---	---	---	---	489	---
23	---	---	---	---	---	---	---	---	---	---	535	---
24	---	---	---	---	---	---	---	---	---	---	480	---
25	---	---	---	---	---	---	---	---	---	---	552	---
26	---	---	---	---	---	---	---	---	---	627	601	---
27	---	---	---	---	---	---	---	---	---	645	637	---
28	---	---	---	---	---	---	---	---	---	642	667	659
29	---	---	---	---	---	---	---	---	---	624	---	669
30	---	---	---	---	---	---	---	---	---	620	---	692
31	---	---	---	---	---	---	---	---	---	630	---	---

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT													
31...	1140	155	743	10.6	8.1	693	18.0	11.5	270	272	328	2	30.4
NOV													
13...	1230	59	747	14.1	8.2	686	15.0	7.0	260	257	309	2	31.8
DEC													
11...	1020	79	740	14.8	8.2	716	8.0	3.0	270	270	326	2	31.2
JAN													
08...	1020	88	735	14.7	8.1	749	-1.0	.1	260	264	320	1	30.0
FEB													
05...	0940	155	748	13.6	8.1	636	-2.0	.8	230	230	E278	E1	28.0
MAR													
05...	1100	191	739	7.0	8.2	675	1.0	1.7	260	255	308	2	28.9
APR													
05...	1230	253	742	15.0	8.2	617	10.0	6.8	280	276	333	2	25.9
MAY													
13...	1120	6140	725	9.6	7.7	163	2.0	12.1	92	90	E110	E0	4.03
JUN													
05...	1010	705	729	7.3	7.7	328	25.0	20.6	110	107	E129	E0	14.8
JUL													
09...	1230	36	735	8.8	8.1	627	31.0	25.3	250	257	308	2	26.7
AUG													
07...	1230	13	743	10.0	8.3	563	30.0	25.5	200	201	242	1	28.6
SEP													
11...	1130	6.0	739	9.8	8.0	594	21.0	23.2	220	211	E254	E2	31.9

03357330 BIG WALNUT CREEK NR ROACHDALE, IN--Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INOR-GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC-ULATE TOTAL (MG/L AS C) (00689)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
OCT													
31...	46.3	<.04	.33	4.99	.012	.16	.03	.058	1.1	<.1	3.5	1.0	<.002
NOV													
13...	52.1	<.04	.24	3.25	.008	.05	<.02	.013	.7	<.1	3.5	.7	<.002
DEC													
11...	48.9	<.04	.21	4.57	.009	.04	<.02	.018	.7	<.1	2.4	.7	<.002
JAN													
08...	55.7	E.03	.18	4.50	.010	<.02	E.01	.025	.3	<.1	2.1	.3	<.006
FEB													
05...	39.9	<.04	.47	6.20	.021	<.02	.02	.078	.8	<.1	2.8	.8	<.006
MAR													
05...	41.5	<.04	.28	6.81	.009	.09	<.02	.025	.5	<.1	2.2	.5	<.006
APR													
05...	39.5	<.04	.30	6.23	.011	.05	E.02	.031	.4	<.1	2.9	.4	--
MAY													
13...	6.3	<.04	1.8	1.69	.052	.39	.08	.64	7.5	<.1	6.6	7.5	<.006
JUN													
05...	20.1	E.03	6.4	5.06	.061	3.48	.05	1.74	32.8	1.1	6.8	31.6	<.006
JUL													
09...	46.6	<.04	.36	2.14	.025	.12	<.02	.028	.6	<.1	2.9	.6	<.006
AUG													
07...	43.4	<.04	.45	.49	.008	.13	E.02	.065	.7	<.1	4.1	.7	<.006
SEP													
11...	52.1	<.04	.34	.39	.021	.13	<.02	.038	.6	<.1	3.6	.6	<.006

Date	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
OCT													
31...	<.004	<.002	<.005	.089	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.050	<.005
NOV													
13...	<.004	<.002	<.005	.063	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.028	<.005
DEC													
11...	<.004	<.002	<.005	.054	<.010	<.002	<.041	<.020	<.005	E.003	<.003	E.031	<.005
JAN													
08...	<.006	<.004	<.005	.033	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.015	<.005
FEB													
05...	<.006	<.004	<.005	.058	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.039	<.005
MAR													
05...	<.006	<.004	<.005	.050	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.025	<.005
APR													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
13...	.134	.005	<.005	3.16	<.010	<.002	E.009	E.046	E.004	<.018	<.003	E.275	.014
JUN													
05...	7.42	.027	<.005	E36.6	<.010	<.002	<.041	<.020	.045	<.018	<.003	E1.14	<.005
JUL													
09...	.061	<.004	<.005	.754	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.099	<.005
AUG													
07...	.051	<.004	<.005	.370	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.057	E.003
SEP													
11...	.022	<.004	<.005	.212	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.024	<.005

03357330 BIG WALNUT CREEK NR ROACHDALE, IN--Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
OCT													
31...	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.028	<.006
NOV													
13...	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.023	<.006
DEC													
11...	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.015	E.003
JAN													
08...	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006	E.009	<.006
FEB													
05...	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.030	<.006
MAR													
05...	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.018	<.006
APR													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
13...	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.842	.020
JUN													
05...	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006	4.44	1.23
JUL													
09...	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	E.011	<.050	<.006	.099	<.006
AUG													
07...	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.097	<.006
SEP													
11...	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.053	<.006

Date	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)
OCT													
31...	<.002	<.007	<.003	<.007	<.002	<.010	<.006	<.011	M	<.004	<.010	<.011	<.02
NOV													
13...	<.002	<.007	<.003	<.007	<.002	<.010	<.006	<.011	M	<.004	<.010	<.011	<.02
DEC													
11...	<.002	<.007	<.003	<.007	<.002	<.010	<.006	<.011	M	<.004	<.010	<.011	<.02
JAN													
08...	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02
FEB													
05...	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02
MAR													
05...	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02
APR													
05...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
13...	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02
JUN													
05...	<.002	<.007	<.003	<.010	<.004	E.021	<.006	<.011	<.01	<.004	<.010	<.011	<.02
JUL													
09...	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	M	<.004	<.010	<.011	<.02
AUG													
07...	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02
SEP													
11...	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02

03357330 BIG WALNUT CREEK NR ROACHDALE, IN--Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT									
31...	.073	M	<.034	<.02	<.005	<.002	<.009	30	22
NOV									
13...	.028	<.02	<.034	<.02	<.005	<.002	<.009	52	9.0
DEC									
11...	.051	<.02	<.034	<.02	<.005	<.002	<.009	44	10
JAN									
08...	.041	<.02	<.034	<.02	<.005	<.002	<.009	7	69
FEB									
05...	.096	<.02	<.034	<.02	<.005	<.002	<.009	63	36
MAR									
05...	.062	<.02	<.034	<.02	<.005	<.002	<.009	39	29
APR									
05...	--	--	--	--	--	--	--	97	16
MAY									
13...	.426	<.02	<.034	<.02	<.005	<.002	<.009	94	405
JUN									
05...	6.88	<.02	<.034	<.02	<.005	<.002	<.009	98	1490
JUL									
09...	.051	<.02	<.034	<.02	<.005	<.002	<.009	64	24
AUG									
07...	.036	<.02	<.034	<.02	<.005	<.002	<.009	83	8.0
SEP									
11...	.022	<.02	<.034	<.02	<.005	<.002	<.009	64	13

03357350 PLUM CREEK NEAR BAINBRIDGE, IN

LOCATION.--Lat 39°45'42", long 86°43'46", in SW$^1/_4$SE$^1/_4$ sec.3, T.15 N., R.3 W., Putnam County, Hydrologic Unit 05120203, (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 for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.56	2.8	8.7	e1.3	43	4.6	6.2	6.2	1.3	0.34	0.12	0.08
2	0.51	2.5	6.0	e1.2	10	6.9	7.0	6.1	1.0	0.29	0.17	0.08
3	0.46	2.0	5.0	e1.2	7.5	8.5	8.2	4.8	0.88	0.26	0.10	0.08
4	0.43	1.9	4.1	e1.1	5.3	5.3	6.0	4.1	0.91	0.23	0.09	0.08
5	10	1.6	3.6	e1.1	4.1	4.3	5.0	3.6	6.6	0.16	0.09	0.08
6	8.7	1.5	3.5	e1.1	3.7	3.9	4.3	4.9	3.6	0.14	0.09	0.07
7	3.6	1.4	3.2	e1.0	3.5	3.5	4.0	196	2.5	0.13	0.09	0.07
8	1.7	1.4	2.9	e1.0	3.1	3.3	4.6	20	1.7	0.13	0.08	0.07
9	1.2	1.1	2.3	e1.1	2.8	26	5.6	14	1.2	0.35	0.08	0.06
10	2.1	1.2	2.1	1.2	2.8	10	4.6	8.5	0.98	0.56	0.08	0.04
11	30	1.00	1.8	1.0	2.7	7.1	3.9	6.5	0.93	0.25	0.08	0.00
12	58	0.92	2.2	1.1	2.5	5.7	4.2	51	1.8	0.18	0.08	0.00
13	16	0.92	3.9	1.00	1.9	5.0	4.3	120	2.6	0.13	0.17	0.00
14	78	0.91	27	1.0	1.8	4.2	6.5	13	3.4	0.12	0.10	0.00
15	12	0.86	12	0.87	1.9	5.5	5.3	8.3	2.6	0.11	0.09	0.00
16	27	0.83	13	0.85	1.7	12	4.1	6.6	1.7	0.11	0.08	0.00
17	12	0.77	59	e0.78	1.4	6.9	3.4	5.4	1.0	0.12	0.08	0.00
18	7.9	0.77	14	e0.74	1.3	5.3	3.0	4.6	0.77	0.12	0.09	0.00
19	5.9	0.82	8.7	e0.72	2.5	4.7	2.6	4.0	0.61	0.12	0.29	0.10
20	4.8	0.70	6.2	e0.74	20	4.8	2.2	3.6	0.52	0.12	0.21	4.5
21	3.9	0.71	5.1	0.82	12	4.2	59	3.3	0.46	0.12	0.17	1.2
22	3.6	0.69	4.8	0.70	7.4	3.5	14	3.1	0.44	0.13	0.14	0.24
23	12	0.66	4.7	0.85	5.6	3.4	7.9	2.9	0.42	0.14	0.18	0.23
24	44	3.6	3.9	0.89	4.7	3.4	35	2.8	0.38	0.10	0.19	0.21
25	16	3.5	3.4	0.72	4.2	28	21	3.0	0.44	0.10	0.16	0.20
26	7.9	2.1	3.3	0.70	6.6	11	8.4	2.6	0.66	0.10	0.15	0.20
27	5.5	2.0	3.0	0.69	5.3	19	42	2.2	1.2	0.11	0.13	0.45
28	4.5	2.0	2.8	0.70	4.6	19	63	2.0	0.82	0.11	0.11	0.27
29	3.8	6.5	2.2	0.84	---	20	10	1.8	0.44	0.12	0.09	0.23
30	3.4	25	e1.6	3.0	---	14	7.5	1.6	0.37	0.13	0.08	0.22
31	3.2	---	e1.4	25	---	8.2	---	1.4	---	0.12	0.08	---
TOTAL	388.66	72.66	225.4	55.01	173.9	271.2	362.8	517.9	42.23	5.25	3.74	8.76
MEAN	12.54	2.422	7.271	1.775	6.211	8.748	12.09	16.71	1.408	0.169	0.121	0.292
MAX	78	25	59	25	43	28	63	196	6.6	0.56	0.29	4.5
MIN	0.43	0.66	1.4	0.69	1.3	3.3	2.2	1.4	0.37	0.10	0.08	0.00
CFSM	4.18	0.81	2.42	0.59	2.07	2.92	4.03	5.57	0.47	0.06	0.04	0.10
IN.	4.82	0.90	2.79	0.68	2.16	3.36	4.50	6.42	0.52	0.07	0.05	0.11

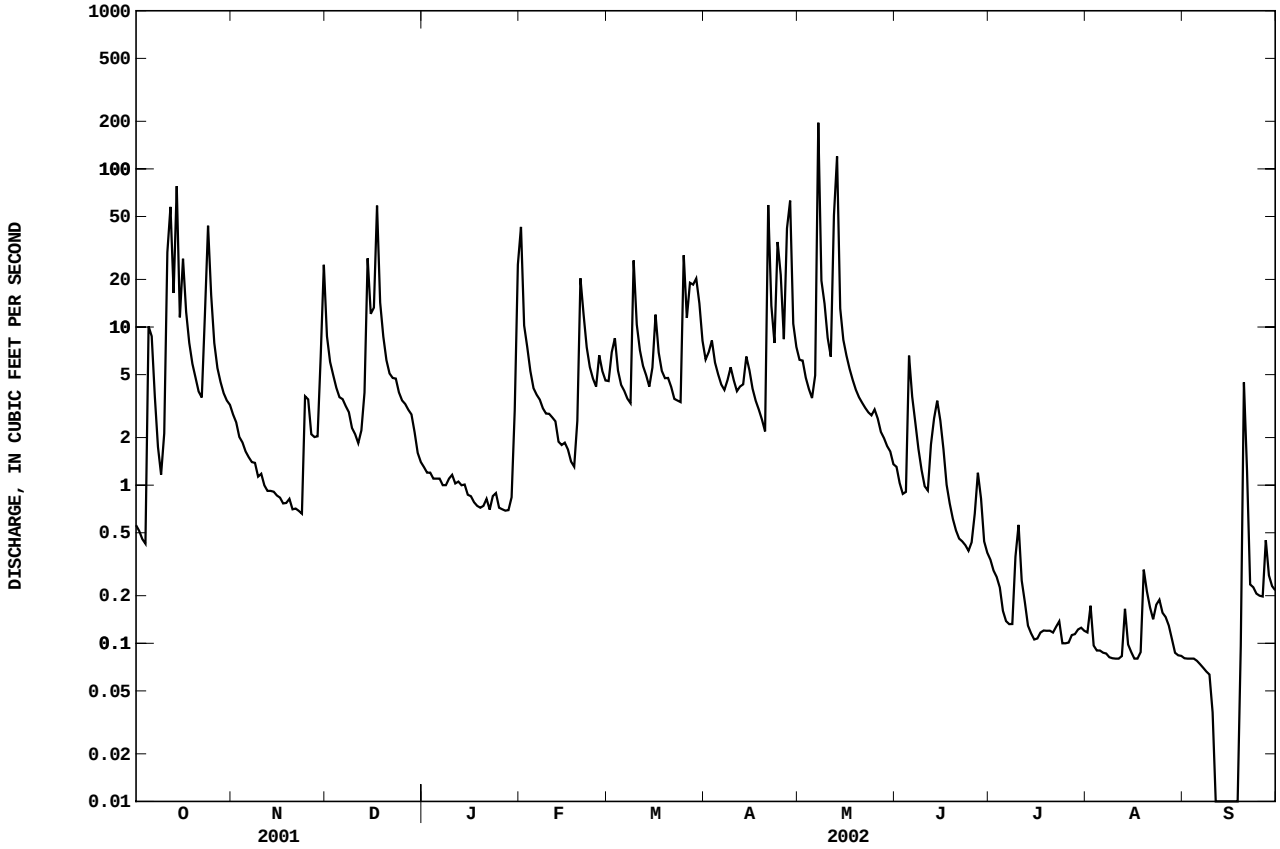
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	1.469	3.648	4.551	3.743	5.625	6.496	5.572	4.364	2.819	2.139	1.109	1.048
MAX	12.5	20.6	18.4	13.5	17.1	19.1	12.7	16.7	13.7	12.9	7.90	12.8
(WY)	2002	1986	1991	1974	1971	1978	1996	2002	1998	1979	1979	1989
MIN	0.000	0.000	0.000	0.000	0.55	1.46	0.92	0.14	0.007	0.019	0.001	0.000
(WY)	1997	1998	1998	1977	1998	1981	1971	1976	1988	1988	1991	1988

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	1579.41		2127.51			
ANNUAL MEAN	4.327		5.829		3.528	
HIGHEST ANNUAL MEAN					5.83	2002
LOWEST ANNUAL MEAN					1.49	2000
HIGHEST DAILY MEAN	203	Jun 6	196	May 7	218	Nov 19 1985
LOWEST DAILY MEAN	0.03	Aug 17	0.00	Sep 11	0.00	Aug 18 1970
ANNUAL SEVEN-DAY MINIMUM	0.05	Aug 11	0.00	Sep 11	0.00	Aug 26 1970
MAXIMUM PEAK FLOW			735	May 7	940	Sep 14 1989
MAXIMUM PEAK STAGE			5.77	May 7	6.50	Sep 14 1989
ANNUAL RUNOFF (CFSM)	1.44		1.94		1.18	
ANNUAL RUNOFF (INCHES)	19.58		26.38		15.98	
10 PERCENT EXCEEDS	8.6		12		7.2	
50 PERCENT EXCEEDS	1.4		2.0		0.97	
90 PERCENT EXCEEDS	0.24		0.10		0.01	

e Estimated

03357350 PLUM CREEK NEAR BAINBRIDGE, IN--Continued



03357500 BIG WALNUT CREEK NEAR REELSVILLE, IN

LOCATION.--Lat 39°32'11", long 86°58'35", in NW$^1/_4$SW$^1/_4$ 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 current year. Published as Eel River near Reelsville, October 1952 to September 1956.

REVISED RECORDS.--WSP 1335: 1950. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 588.24 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Dec. 10, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good except those for May 07-16 and estimated daily discharges, which are poor. Flow partly regulated by Soil Conservation Service control structures on tributaries to Little Walnut Creek beginning in 1971.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	342	1210	e276	4010	527	1050	1140	374	213	53	30
2	25	316	710	e254	1880	571	874	1080	447	182	51	27
3	25	295	524	e220	1150	982	1110	960	275	159	64	25
4	23	263	449	e192	845	752	962	741	232	143	61	23
5	65	243	382	199	651	602	777	623	292	131	51	21
6	304	224	346	197	557	530	677	580	537	120	46	19
7	300	209	362	191	507	485	604	5510	351	109	42	19
8	201	197	339	172	466	448	615	7130	266	102	39	18
9	147	187	314	182	433	1410	776	3050	225	109	36	17
10	121	175	292	178	416	1770	712	1920	200	323	34	15
11	271	166	276	173	421	1020	624	1150	187	285	33	13
12	3470	158	274	162	404	790	619	2440	301	175	32	12
13	2010	149	362	161	390	681	757	8000	372	134	36	12
14	4980	145	1090	160	365	602	694	7120	788	115	47	11
15	2410	142	1700	154	356	552	818	2440	635	102	44	13
16	1920	137	1040	147	347	959	690	1390	496	93	41	11
17	1780	132	3390	141	333	935	584	990	381	86	35	11
18	1060	127	2880	135	317	734	520	775	303	81	32	11
19	758	125	1380	134	325	621	479	633	254	79	39	12
20	582	122	961	133	886	607	444	548	221	79	226	92
21	466	118	745	134	1390	569	2390	477	196	73	179	351
22	391	114	634	131	903	500	2320	425	178	70	102	178
23	365	112	600	131	673	470	1190	386	164	80	72	96
24	2900	185	537	136	570	447	828	356	156	69	85	65
25	2630	304	477	133	507	1650	1640	359	151	63	100	51
26	1430	246	435	126	642	1690	971	414	510	59	76	43
27	904	216	410	121	625	1250	1090	396	597	57	59	62
28	662	199	391	120	543	1670	6270	346	528	57	48	65
29	527	296	367	122	---	1790	3710	309	374	60	42	85
30	442	1700	e320	177	---	2060	1670	306	267	63	37	65
31	387	---	e300	715	---	1410	---	321	---	60	33	---
TOTAL	31582	7344	23497	5607	20912	29084	36465	52315	10258	3531	1875	1473
MEAN	1019	244.8	758.0	180.9	746.9	938.2	1216	1688	341.9	113.9	60.48	49.10
MAX	4980	1700	3390	715	4010	2060	6270	8000	788	323	226	351
MIN	23	112	274	120	317	447	444	306	151	57	32	11
CFSM	3.13	0.75	2.33	0.55	2.29	2.88	3.73	5.18	1.05	0.35	0.19	0.15
IN.	3.60	0.84	2.68	0.64	2.39	3.32	4.16	5.97	1.17	0.40	0.21	0.17

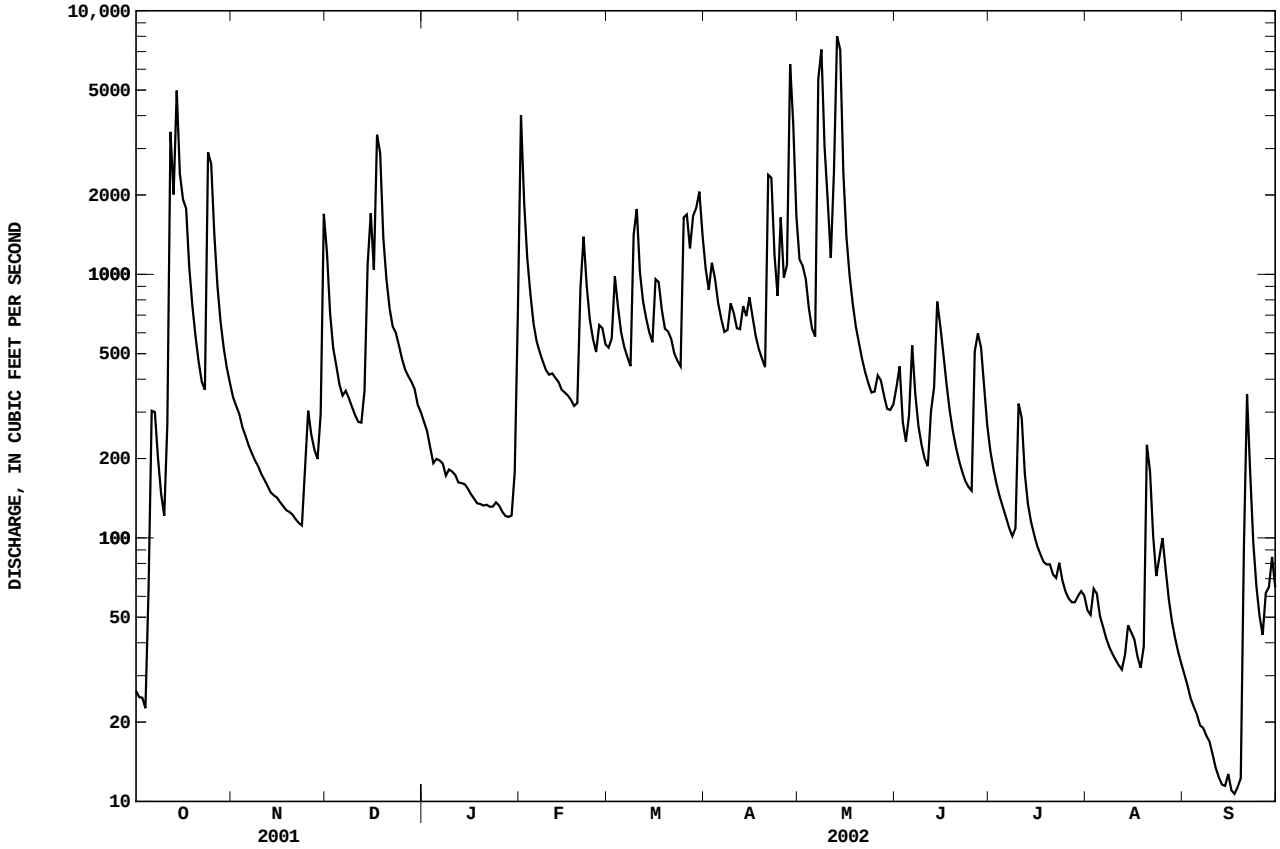
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)

MEAN	119.1	266.3	394.4	455.3	525.1	633.4	595.7	477.2	338.5	217.4	122.7	112.5
MAX	1019	1655	1602	2947	1402	1636	1459	1848	2183	1221	1047	1248
(WY)	2002	1986	1991	1950	1950	1978	1957	1996	1957	1979	1979	1989
MIN	4.79	11.2	9.71	13.6	65.1	151	142	69.5	26.7	19.4	9.49	4.76
(WY)	1965	2000	1964	1977	1964	1966	1971	1976	1988	1954	1966	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1950 - 2002	
ANNUAL TOTAL	148414		223943			
ANNUAL MEAN	406.6		613.5		353.8	
HIGHEST ANNUAL MEAN					640	1950
LOWEST ANNUAL MEAN					76.0	1954
HIGHEST DAILY MEAN	5100	Jun 7	8000	May 13	18600	Jun 29 1957
LOWEST DAILY MEAN	23	Aug 17	11	Sep 14	1.4	Sep 8 1954
ANNUAL SEVEN-DAY MINIMUM	28	Sep 28	12	Sep 12	2.3	Oct 6 1988
MAXIMUM PEAK FLOW			10000	May 8	30700	Jun 28 1957
MAXIMUM PEAK STAGE			15.97	May 8	18.63	Jun 28 1957
ANNUAL RUNOFF (CFSM)	1.25		1.88		1.09	
ANNUAL RUNOFF (INCHES)	16.94		25.55		14.75	
10 PERCENT EXCEEDS	938		1410		768	
50 PERCENT EXCEEDS	194		316		149	
90 PERCENT EXCEEDS	50		42		21	

e Estimated

03357500 BIG WALNUT CREEK NEAR REELSVILLE, IN--Continued



03358000 MILL CREEK NEAR CATARACT, IN

LOCATION.--Lat 39°26'00", long 86°45'48", in NE$^1/_4$SE$^1/_4$ 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 good except for estimated daily discharges, which are poor.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	204	1710	e123	3030	278	385	526	410	74	22	5.9
2	25	186	619	e115	2760	308	318	568	271	60	17	5.5
3	23	178	425	e108	858	952	417	381	155	51	17	5.3
4	21	157	331	e101	446	400	314	291	125	44	20	4.9
5	24	146	274	e93	295	284	253	242	118	38	15	4.7
6	219	134	262	e88	247	242	219	297	e122	32	13	4.6
7	166	126	267	e84	219	213	196	2810	e106	28	12	4.6
8	99	119	231	e76	191	188	207	5100	e90	26	11	4.5
9	73	111	198	e75	169	920	311	4960	e80	51	10	4.4
10	76	106	174	e75	162	1610	276	2760	e75	217	9.8	4.3
11	654	103	160	e76	160	542	225	936	93	77	9.3	4.3
12	2760	91	156	e76	149	392	206	1340	262	42	9.2	3.8
13	2760	86	403	e75	133	325	392	5060	162	33	12	3.8
14	2720	86	1480	e75	117	268	343	6050	170	28	38	4.0
15	2730	84	2620	e75	118	239	321	3720	139	25	20	4.3
16	1750	81	1210	e74	114	776	236	1220	187	22	13	4.4
17	1250	76	2530	e73	104	471	197	534	113	21	11	4.5
18	645	74	3440	e72	93	330	171	365	85	25	10	4.8
19	448	76	1950	e71	99	266	158	288	70	21	11	5.4
20	336	75	666	e72	609	371	144	250	60	21	14	384
21	271	69	445	e73	804	370	974	214	54	22	15	417
22	229	69	362	e72	381	259	2480	188	50	25	11	60
23	211	66	389	e73	270	225	1000	172	47	308	9.3	24
24	2320	128	318	96	224	202	531	158	44	122	8.0	15
25	3290	435	255	95	195	1150	1220	284	43	49	12	12
26	2230	211	227	80	463	1980	505	365	368	31	10	10
27	668	310	204	78	415	1270	696	207	256	26	8.2	37
28	407	336	190	76	296	1220	3190	170	404	23	7.3	63
29	313	1020	171	78	---	750	3730	246	157	21	6.8	30
30	258	2310	e137	137	---	1030	1520	184	96	46	6.4	19
31	226	---	e131	1050	---	539	---	180	---	35	6.1	---
TOTAL	27228	7253	21935	3585	13121	18370	21135	40066	4412	1644	394.4	1159.0
MEAN	878.3	241.8	707.6	115.6	468.6	592.6	704.5	1292	147.1	53.03	12.72	38.63
MAX	3290	2310	3440	1050	3030	1980	3730	6050	410	308	38	417
MIN	21	66	131	71	93	188	144	158	43	21	6.1	3.8
CFSM	3.58	0.99	2.89	0.47	1.91	2.42	2.88	5.28	0.60	0.22	0.05	0.16
IN.	4.13	1.10	3.33	0.54	1.99	2.79	3.21	6.08	0.67	0.25	0.06	0.18

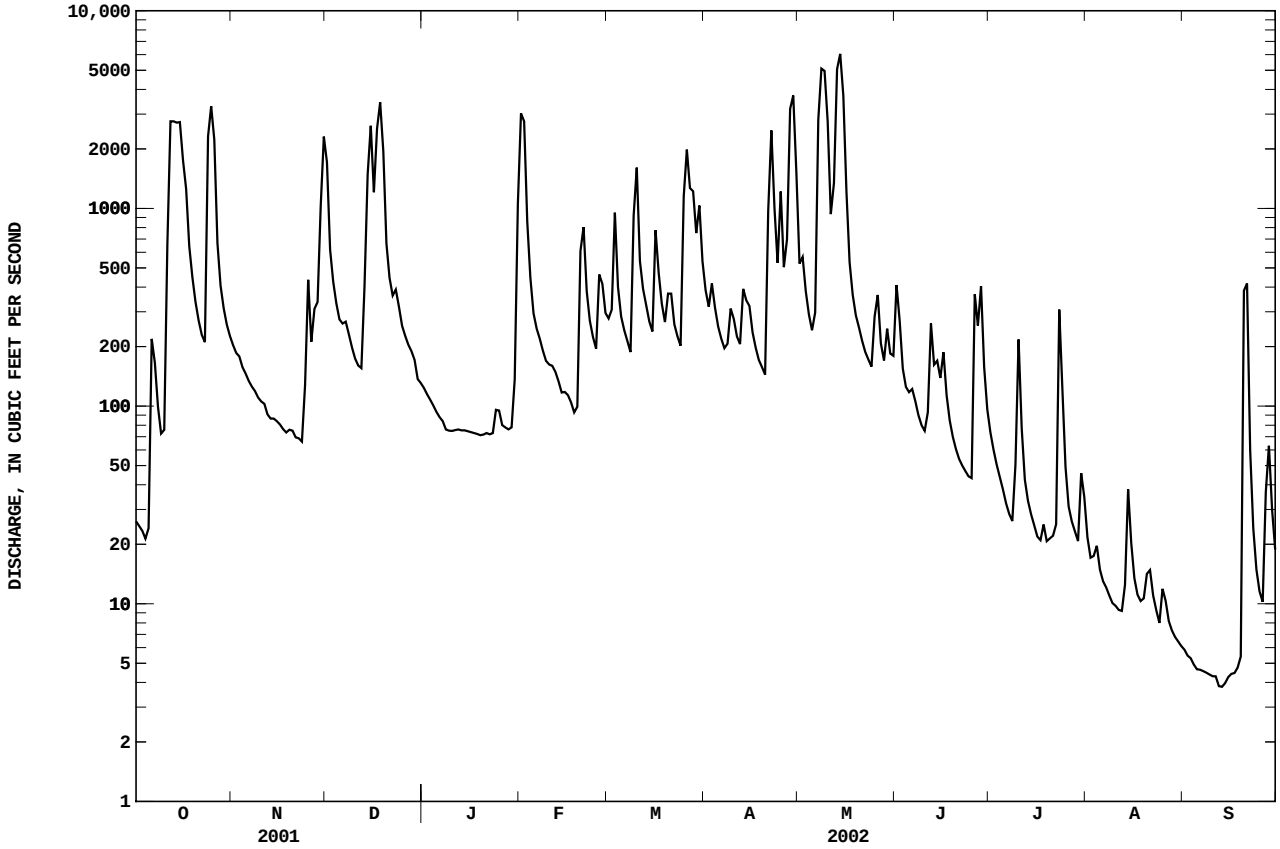
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)

MEAN	81.32	227.8	309.7	343.9	409.7	492.3	423.4	347.3	243.1	181.2	103.8	80.62
MAX	878	1576	1135	2214	1088	1425	1064	1522	1120	1694	1092	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1950 - 2002	
ANNUAL TOTAL	106707.8		160302.4			
ANNUAL MEAN	292.4		439.2		269.6	
HIGHEST ANNUAL MEAN					528	1979
LOWEST ANNUAL MEAN					37.3	1954
HIGHEST DAILY MEAN	3440	Dec 18	6050	May 14	11500	Dec 30 1990
LOWEST DAILY MEAN	9.2	Aug 15	3.8	Sep 12	0.10	Sep 7 1954
ANNUAL SEVEN-DAY MINIMUM	11	Aug 11	4.1	Sep 9	0.20	Sep 2 1954
MAXIMUM PEAK FLOW			6340	May 14	12200	Dec 30 1990
MAXIMUM PEAK STAGE			18.12	May 14	22.58	Jun 24 1960
ANNUAL RUNOFF (CFSM)	1.19		1.79		1.10	
ANNUAL RUNOFF (INCHES)	16.20		24.34		14.95	
10 PERCENT EXCEEDS	649		1210		579	
50 PERCENT EXCEEDS	115		160		82	
90 PERCENT EXCEEDS	27		11		7.8	

e Estimated

03358000 MILL CREEK NEAR CATARACT, IN--Continued



03359000 MILL CREEK NEAR MANHATTAN, IN

LOCATION.--Lat 39°29'16", long 86°55'30", in SE$^1/_4$SE$^1/_4$ 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 2001 (discharge) October 2001 to September 2002 (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.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 13.46 ft, May 7, 2002, minimum gage height, 8.14 ft, Oct. 30, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 13.46 ft, May 7; minimum gage height, 8.14 ft, Oct. 30.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.43	10.51	8.67	10.35	8.70	9.82	9.00	8.79	10.97	10.89	8.42	8.26
2	8.44	10.51	8.67	10.63	8.71	9.83	9.00	8.79	10.96	10.87	8.42	8.26
3	8.44	10.50	8.67	10.62	8.72	9.83	9.00	8.79	10.95	10.84	8.32	8.26
4	8.44	10.49	9.50	10.58	8.72	9.83	9.55	8.80	10.94	10.82	8.32	8.26
5	8.44	10.48	9.94	10.57	8.71	9.82	9.97	9.09	10.93	10.79	8.32	8.26
6	8.44	10.75	9.93	10.56	8.71	9.82	9.97	9.10	10.92	10.76	8.34	8.26
7	8.43	10.74	10.24	10.54	9.53	9.81	10.27	11.63	10.92	10.73	8.34	8.27
8	8.44	10.73	10.23	10.52	10.28	9.80	9.52	8.82	10.90	10.12	8.34	8.27
9	8.93	10.71	10.22	10.50	10.53	8.46	8.77	8.80	10.90	9.77	8.29	8.28
10	8.62	10.70	10.21	10.48	10.50	8.46	10.27	8.80	11.09	9.76	8.29	8.28
11	9.06	10.98	10.20	10.47	10.49	8.46	10.25	8.80	11.08	8.92	8.30	8.28
12	8.62	10.96	10.19	10.45	10.47	8.96	10.50	10.40	11.07	8.44	8.30	8.29
13	8.85	10.94	10.18	10.43	10.46	9.88	10.49	10.90	11.06	8.44	8.30	8.28
14	8.65	10.92	8.94	10.41	10.44	10.18	10.48	8.83	11.04	8.44	8.30	8.30
15	8.65	10.90	8.95	9.76	10.42	10.18	8.68	8.82	11.03	8.44	8.28	8.29
16	8.66	10.88	8.70	8.90	10.40	10.17	8.68	8.82	11.02	8.44	8.26	8.28
17	8.66	10.86	8.72	8.30	10.38	10.17	8.69	9.81	11.00	8.44	8.26	8.30
18	8.66	10.84	8.71	8.30	10.09	10.16	9.91	9.81	10.99	8.37	8.27	8.29
19	8.66	10.81	8.72	8.78	9.75	9.44	10.21	9.81	10.98	8.38	8.27	8.33
20	8.67	10.79	8.72	8.78	9.38	9.45	8.70	10.31	10.96	8.32	8.26	8.27
21	8.67	10.76	8.72	8.77	8.35	9.45	8.72	10.70	11.07	8.32	8.26	9.83
22	9.30	10.74	8.72	8.39	9.42	10.15	8.72	11.02	11.05	8.37	8.27	9.08
23	9.31	10.14	8.73	8.39	9.42	10.14	8.73	11.02	11.04	8.52	8.26	8.31
24	8.70	10.13	9.59	8.40	9.81	10.13	8.77	11.02	11.02	9.42	8.26	8.23
25	8.69	10.13	10.11	8.72	8.57	9.45	8.75	11.01	11.05	8.54	8.26	8.24
26	8.70	10.12	10.11	8.72	9.42	8.60	8.75	11.00	10.99	8.54	8.26	8.25
27	8.70	9.78	10.10	8.72	9.83	8.61	8.87	11.00	10.97	8.54	8.26	8.24
28	8.70	9.78	10.39	8.67	9.83	9.52	8.94	10.99	10.96	8.41	8.26	8.24
29	8.70	9.88	10.38	8.67	---	8.98	8.78	10.98	10.93	8.42	8.27	8.25
30	8.77	8.66	10.37	8.68	---	8.99	8.79	10.97	10.92	8.42	8.26	8.26
31	10.17	---	10.36	8.77	---	9.00	---	10.97	---	8.42	8.26	---
MEAN	8.73	10.50	9.54	9.51	9.64	9.53	9.32	9.95	10.99	9.16	8.29	8.35
MAX	10.17	10.98	10.39	10.63	10.53	10.18	10.50	11.63	11.09	10.89	8.42	9.83
MIN	8.43	8.66	8.67	8.30	8.35	8.46	8.68	8.79	10.90	8.32	8.26	8.23

WTR YR 2002 MEAN 9.46 MAX 11.63 MIN 8.23

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, 28.4°C, Aug. 6, minimum, 2.5°C, Jan. 19.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.5	19.0	19.5	13.6	13.5	13.6	10.3	9.9	10.1	4.7	4.4	4.5
2	20.5	19.0	19.5	13.6	13.2	13.4	10.0	9.6	9.8	4.4	3.9	4.3
3	20.5	19.0	19.5	13.2	12.9	13.1	10.0	9.4	9.7	3.9	3.6	3.8
4	20.6	19.1	19.6	13.0	12.8	12.9	10.1	9.8	10.0	3.9	3.7	3.9
5	19.3	18.7	19.0	12.9	12.7	12.8	10.4	10.1	10.1	3.7	3.6	3.6
6	19.0	18.1	18.6	12.8	12.6	12.7	10.4	10.1	10.3	3.6	3.4	3.5
7	18.6	17.6	18.0	12.7	12.6	12.6	10.1	9.9	10.0	3.5	3.3	3.4
8	18.5	17.7	18.0	12.7	12.4	12.6	10.1	9.6	9.9	3.3	3.2	3.3
9	18.2	17.6	17.9	12.6	12.4	12.5	9.7	9.4	9.5	3.2	3.0	3.1
10	18.1	17.8	17.9	12.4	12.3	12.4	9.4	9.2	9.3	3.2	3.1	3.1
11	17.8	17.5	17.8	12.4	12.2	12.3	9.2	9.0	9.1	3.1	3.0	3.1
12	18.0	17.5	17.7	12.3	12.1	12.2	9.1	9.0	9.1	3.1	3.0	3.1
13	17.8	17.5	17.7	12.2	12.0	12.1	9.1	9.0	9.1	3.1	2.9	3.0
14	17.7	16.6	17.1	12.2	12.0	12.1	9.0	8.7	8.9	3.1	2.9	3.0
15	16.9	16.3	16.7	12.3	12.1	12.1	8.9	8.7	8.8	3.1	2.9	3.0
16	16.3	16.0	16.1	12.2	12.2	12.2	8.7	8.6	8.6	3.0	2.8	2.9
17	16.2	15.7	15.9	12.5	12.1	12.2	8.7	8.5	8.6	3.1	2.8	2.9
18	16.1	15.5	15.7	12.7	12.2	12.3	8.5	8.1	8.3	3.1	2.6	2.9
19	15.9	15.1	15.6	12.5	11.9	12.2	8.2	7.9	8.1	3.0	2.5	2.8
20	15.2	14.6	14.9	11.9	11.6	11.7	8.0	7.7	7.9	2.9	2.7	2.8
21	14.8	14.2	14.6	11.6	11.3	11.4	7.8	7.5	7.6	3.2	2.8	2.9
22	14.8	14.0	14.3	11.4	11.1	11.2	7.8	7.5	7.7	3.3	2.8	3.0
23	14.7	14.3	14.5	11.2	11.0	11.1	7.8	7.2	7.5	4.0	3.1	3.6
24	14.6	13.5	14.2	11.4	11.1	11.2	7.2	6.9	7.0	3.7	3.3	3.5
25	13.7	13.0	13.4	11.3	11.0	11.2	6.9	6.6	6.7	3.5	2.9	3.2
26	13.3	13.1	13.2	11.1	10.9	11.0	6.6	6.3	6.5	3.7	3.1	3.3
27	13.8	13.2	13.4	11.1	10.9	11.0	6.3	6.0	6.1	3.8	3.2	3.5
28	13.7	13.2	13.3	10.9	10.6	10.7	6.0	5.9	6.0	4.1	3.4	3.7
29	13.8	13.3	13.5	10.6	10.5	10.5	5.9	5.4	5.6	4.2	3.7	4.0
30	13.9	13.4	13.5	10.6	10.2	10.4	5.4	5.0	5.1	4.5	4.1	4.2
31	13.7	13.2	13.5	---	---	---	5.0	4.7	4.8	5.0	4.5	4.6
MONTH	20.6	13.0	16.3	13.6	10.2	12.0	10.4	4.7	8.3	5.0	2.5	3.4

03359000 MILL CREEK NEAR MANHATTAN, IN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.2	4.3	4.6	5.2	4.6	4.8	6.6	5.9	6.3	11.2	10.0	10.5
2	4.6	4.1	4.3	5.0	4.7	4.8	7.6	6.4	7.0	11.3	10.0	10.6
3	4.8	4.2	4.4	4.8	4.2	4.5	6.9	6.3	6.6	11.1	10.2	10.7
4	4.7	4.2	4.3	4.2	3.9	4.0	7.0	6.3	6.6	11.9	10.3	11.0
5	4.4	3.9	4.1	4.1	3.8	3.9	6.9	6.4	6.6	12.0	10.6	11.3
6	4.3	4.0	4.1	4.3	4.0	4.1	7.9	6.7	7.3	12.5	11.2	11.7
7	4.3	3.9	4.1	4.8	4.2	4.4	8.1	7.6	7.8	12.9	11.3	11.9
8	4.4	4.1	4.2	5.7	4.8	5.1	8.2	7.8	8.0	12.8	10.9	11.5
9	4.7	4.3	4.5	6.7	4.7	5.8	8.3	7.7	8.2	12.6	10.7	11.7
10	4.8	4.6	4.7	5.8	4.4	4.9	9.3	7.3	8.3	12.5	10.7	11.7
11	4.8	4.6	4.7	5.9	4.5	5.1	9.6	8.5	8.9	12.2	11.0	11.6
12	4.8	4.7	4.8	5.8	5.3	5.6	10.2	9.4	9.9	12.4	11.5	12.0
13	4.8	4.6	4.7	6.0	5.3	5.6	9.9	9.4	9.6	12.3	11.5	11.9
14	4.7	4.5	4.6	6.6	5.6	6.1	10.8	9.7	10.0	12.5	11.3	11.9
15	4.7	4.6	4.7	6.4	6.2	6.3	11.2	8.9	10.1	12.9	11.4	12.1
16	4.7	4.6	4.6	6.6	6.2	6.4	10.6	8.1	9.3	12.6	11.6	12.1
17	4.9	4.6	4.7	6.4	6.2	6.3	9.6	8.3	9.0	13.0	11.8	12.5
18	5.0	4.6	4.8	6.9	6.4	6.6	11.7	8.3	9.7	13.4	12.8	13.0
19	5.0	4.8	4.9	7.3	6.9	7.2	12.9	9.6	10.8	13.4	12.6	13.0
20	5.3	5.0	5.1	7.3	6.8	7.0	12.0	8.7	10.1	13.5	12.9	13.2
21	5.3	5.0	5.2	6.8	6.3	6.6	9.3	8.7	9.0	13.7	13.2	13.4
22	5.3	4.8	5.0	6.3	6.0	6.2	9.2	8.7	8.9	14.0	13.4	13.6
23	5.4	4.9	5.1	6.5	6.1	6.2	9.8	8.7	9.2	14.3	13.4	13.8
24	5.8	5.0	5.4	6.7	6.5	6.6	10.5	8.9	9.7	13.9	13.4	13.8
25	6.0	5.3	5.6	6.6	6.1	6.3	10.8	8.5	9.4	14.0	13.7	13.8
26	5.3	5.0	5.2	6.1	5.6	5.9	10.2	9.2	9.8	14.1	13.6	13.9
27	5.0	4.6	4.8	6.7	5.5	6.0	11.2	9.6	10.0	14.1	13.8	14.0
28	4.7	4.5	4.6	6.2	5.7	5.9	11.1	9.4	9.9	14.1	13.8	14.0
29	---	---	---	6.6	6.0	6.2	10.7	9.9	10.2	14.3	13.9	14.0
30	---	---	---	6.5	6.1	6.2	10.9	10.0	10.5	14.3	13.8	14.1
31	---	---	---	6.9	6.1	6.4	---	---	---	14.4	14.0	14.2
MONTH	6.0	3.9	4.7	7.3	3.8	5.7	12.9	5.9	8.9	14.4	10.0	12.5

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.6	13.9	14.2	20.2	19.7	19.9	28.2	26.6	27.3	26.2	24.6	25.4
2	14.6	14.1	14.3	20.8	20.1	20.4	28.0	26.7	27.3	26.6	24.9	25.7
3	14.5	14.3	14.4	21.3	20.6	20.9	28.3	26.6	27.4	26.4	25.1	25.8
4	14.7	14.2	14.5	21.5	21.0	21.3	28.3	26.7	27.5	26.5	24.6	25.5
5	14.7	14.3	14.5	22.1	21.5	21.8	28.3	26.8	27.5	26.2	24.1	25.1
6	14.7	14.4	14.5	22.8	22.0	22.3	28.4	26.7	27.4	26.1	24.2	25.1
7	14.9	14.5	14.6	23.3	22.6	23.0	28.0	25.9	27.0	26.0	24.3	25.1
8	14.8	14.5	14.7	23.5	22.1	22.9	27.9	25.8	26.8	26.1	24.8	25.5
9	14.9	14.6	14.8	22.9	21.1	22.1	27.7	25.7	26.6	26.3	24.9	25.6
10	15.1	14.7	14.9	22.3	21.4	22.0	27.2	25.3	26.3	26.4	24.8	25.5
11	15.5	14.7	15.1	23.2	20.2	21.8	26.9	25.6	26.3	25.8	24.2	24.9
12	15.2	14.7	15.1	25.4	20.2	21.9	27.0	25.7	26.2	25.0	23.5	24.2
13	15.4	15.0	15.2	26.8	25.0	25.8	26.4	25.9	26.1	25.1	23.4	24.1
14	15.5	15.0	15.3	26.9	25.4	26.0	26.2	25.8	26.0	24.9	23.9	24.3
15	15.9	15.2	15.4	26.8	25.2	25.9	26.5	25.6	26.0	25.2	24.1	24.5
16	15.9	15.2	15.6	26.8	25.4	26.0	27.7	25.4	26.3	25.1	23.6	24.2
17	15.8	15.5	15.7	26.7	25.7	26.1	26.8	25.6	26.2	24.0	23.1	23.5
18	16.0	15.6	15.8	26.9	25.8	26.3	26.4	25.5	25.8	24.7	23.5	24.0
19	16.1	15.7	15.9	27.1	25.7	26.3	26.0	25.0	25.4	24.8	23.8	24.3
20	16.3	15.9	16.1	27.2	25.9	26.5	26.0	24.8	25.3	24.3	22.7	23.6
21	16.6	16.0	16.4	27.7	25.8	26.7	26.5	24.6	25.5	23.6	22.7	23.2
22	17.1	16.5	16.7	27.9	25.9	26.9	26.4	25.2	25.9	23.4	21.8	22.7
23	17.4	16.7	17.0	27.0	25.5	26.3	26.9	25.4	26.1	22.6	21.8	22.3
24	17.6	17.0	17.3	26.1	21.8	23.7	26.3	25.4	25.8	22.7	21.6	22.0
25	18.3	17.5	17.7	27.2	22.0	24.5	26.5	25.0	25.8	22.2	20.9	21.5
26	18.6	17.2	18.0	27.1	26.2	26.5	26.6	24.6	25.6	22.1	21.1	21.6
27	19.1	17.8	18.6	27.5	26.2	26.7	26.9	24.7	25.7	22.4	21.2	21.7
28	19.1	18.2	18.8	28.0	26.5	27.2	26.5	24.8	25.6	22.0	20.9	21.4
29	19.4	19.0	19.2	28.0	26.8	27.2	26.5	24.7	25.5	22.5	21.1	21.7
30	19.8	19.4	19.6	27.8	26.4	27.0	26.3	24.7	25.4	22.6	21.3	21.9
31	---	---	---	28.1	26.3	27.0	26.2	24.8	25.5	---	---	---
MONTH	19.8	13.9	16.0	28.1	19.7	24.5	28.4	24.6	26.2	26.6	20.9	23.9
YEAR	28.4	2.5	13.6									

03360000 EEL RIVER AT BOWLING GREEN, IN

LOCATION.--Lat 39°22'58", long 87°01'14", in NE$^1/_4$NE$^1/_4$ 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 good. 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

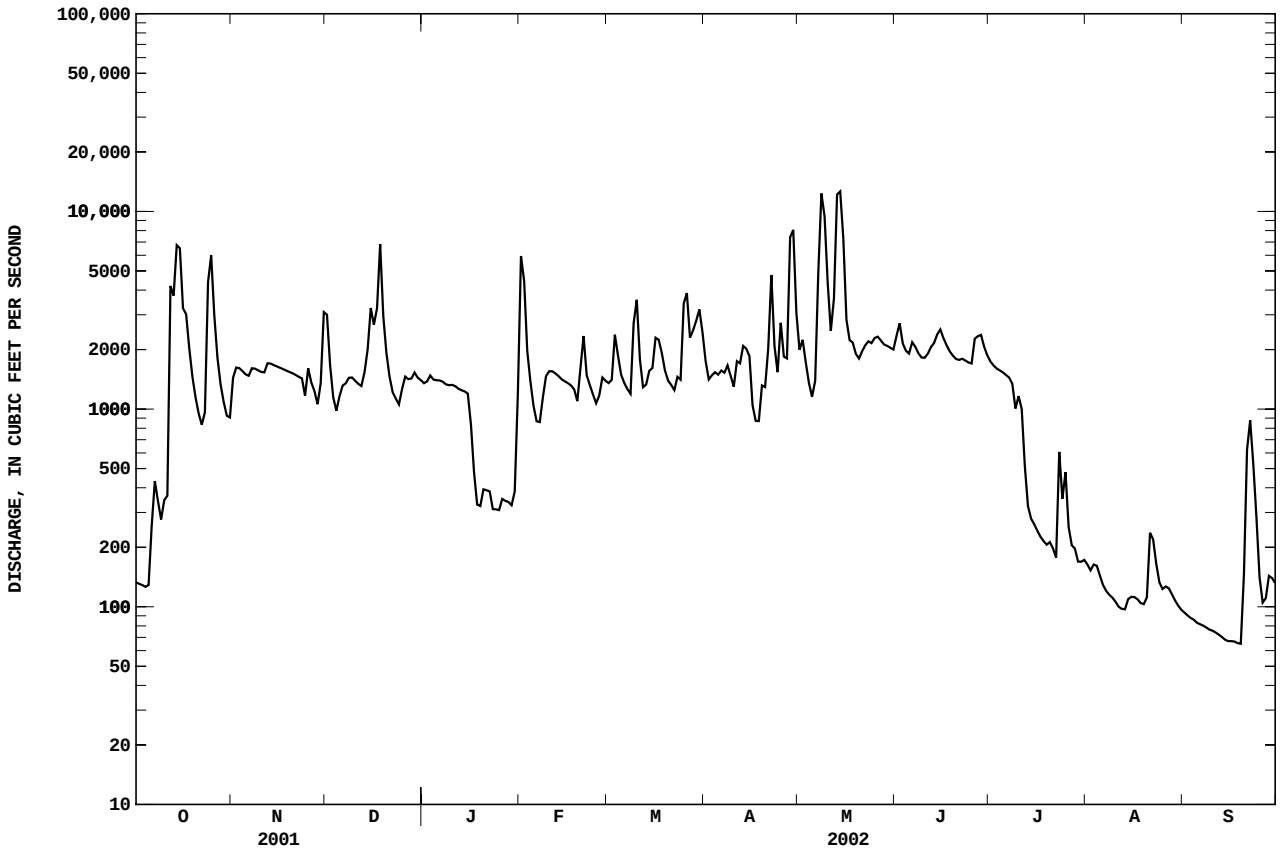
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	1440	3000	1350	5950	1350	1750	2000	2350	1740	163	93
2	131	1620	1670	1380	4460	1410	1410	2240	2710	1660	153	90
3	129	1610	1150	1480	1970	2380	1480	1720	2150	1610	164	88
4	126	1560	981	1410	1380	1860	1540	1360	1970	1570	161	86
5	129	1500	1160	1400	1040	1490	1490	1150	1910	1530	144	83
6	257	1470	1310	1400	867	1360	1570	1390	2180	1490	129	82
7	432	1610	1350	1380	860	1260	1530	4910	2070	1440	120	80
8	342	1600	1440	1330	1150	1190	1660	12300	1920	1340	115	79
9	276	1570	1450	1320	1470	2720	1470	9460	1820	1010	111	77
10	346	1540	1390	1330	1550	3570	1300	4380	1820	1160	106	76
11	365	1530	1340	1310	1550	1780	1750	2480	1910	1000	100	74
12	4200	1700	1310	1270	1510	1290	1700	3630	2060	514	98	72
13	3750	1700	1530	1250	1470	1330	2090	12200	2160	323	97	70
14	6750	1670	2010	1230	1410	1560	2020	12600	2390	279	109	68
15	6510	1640	3250	1200	1380	1610	1850	7270	2530	261	112	67
16	3230	1620	2670	837	1350	2300	1050	2830	2280	242	112	67
17	3020	1590	3240	478	1320	2240	871	2230	2100	226	109	67
18	2030	1570	6830	329	1260	1920	870	2170	1960	215	104	65
19	1460	1540	2940	323	1100	1570	1320	1900	1860	206	103	65
20	1150	1520	1920	393	1610	1390	1290	1800	1790	212	112	145
21	952	1490	1460	388	2340	1320	2020	1960	1770	197	237	622
22	833	1460	1220	383	1480	1250	4770	2100	1800	177	219	877
23	964	1430	1130	312	1320	1460	2090	2200	1760	607	164	528
24	4400	1170	1060	311	1190	1410	1540	2160	1720	352	133	285
25	6000	1610	1260	308	1070	3420	2730	2290	1700	480	123	141
26	2980	1360	1460	351	1170	3860	1840	2320	2270	253	127	105
27	1820	1230	1420	344	1440	2300	1800	2220	2340	205	124	111
28	1340	1060	1430	339	1390	2510	7410	2120	2370	197	116	143
29	1090	1350	1530	326	---	2800	8060	2090	2070	169	108	140
30	926	3100	1440	383	---	3190	3070	2040	1870	169	101	132
31	908	---	1400	1200	---	2440	---	2000	---	173	97	---
TOTAL	56979	46860	56751	27045	46057	61540	65341	113520	61610	21007	3971	4678
MEAN	1838	1562	1831	872.4	1645	1985	2178	3662	2054	677.6	128.1	155.9
MAX	6750	3100	6830	1480	5950	3860	8060	12600	2710	1740	237	877
MIN	126	1060	981	308	860	1190	870	1150	1700	169	97	65
CFSM	2.21	1.88	2.21	1.05	1.98	2.39	2.62	4.41	2.47	0.82	0.15	0.19
IN.	2.55	2.10	2.54	1.21	2.06	2.76	2.93	5.09	2.76	0.94	0.18	0.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

MEAN	303.7	587.8	898.5	1217	1303	1544	1607	1242	892.8	594.8	320.5	297.3
MAX	1838	3076	2960	7212	3249	3843	4120	5090	4077	2746	2656	2488
(WY)	2002	1986	1991	1950	1950	1938	1944	1943	1957	1987	1979	1989
MIN	22.5	29.7	29.0	27.5	107	125	285	129	66.9	39.4	24.1	13.9
(WY)	1941	1965	1964	1977	1934	1941	1971	1934	1988	1954	1936	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1931 - 2002	
ANNUAL TOTAL	347554		565359			
ANNUAL MEAN	952.2		1549		901.5	
HIGHEST ANNUAL MEAN					1551	1950
LOWEST ANNUAL MEAN					161	1954
HIGHEST DAILY MEAN	6830	Dec 18	12600	May 14	28700	Jun 29 1957
LOWEST DAILY MEAN	125	Aug 22	65	Sep 18	11	Oct 7 1954
ANNUAL SEVEN-DAY MINIMUM	132	Sep 29	67	Sep 13	12	Oct 2 1954
MAXIMUM PEAK FLOW			15400	May 13	34000	Jan 4 1950
MAXIMUM PEAK STAGE			20.71	May 13	23.53	Jan 4 1950
ANNUAL RUNOFF (CFSM)	1.15		1.87		1.09	
ANNUAL RUNOFF (INCHES)	15.58		25.34		14.76	
10 PERCENT EXCEEDS	1710		2720		2200	
50 PERCENT EXCEEDS	537		1400		369	
90 PERCENT EXCEEDS	172		114		56	

03360000 EEL RIVER AT BOWLING GREEN, IN--Continued



03360500 WHITE RIVER AT NEWBERRY, IN

LOCATION.--Lat 38°55'39", long 87°00'41", in NE$^1/_4$NW$^1/_4$ sec.30, T.6 N., R.5 W., Greene County, Hydrologic Unit 05120202, (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. 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.

REVISIONS.--The peak discharges and annual maximum(*) reported for water years 1998 and 1999 has been revised as shown in the following table:

Water Year	Date	Discharges (ft^3/s)	Gage Height (ft)
1998	June 19, 1998	49,100	22.70
1999	Jan. 26, 1999	54,200	23.51

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

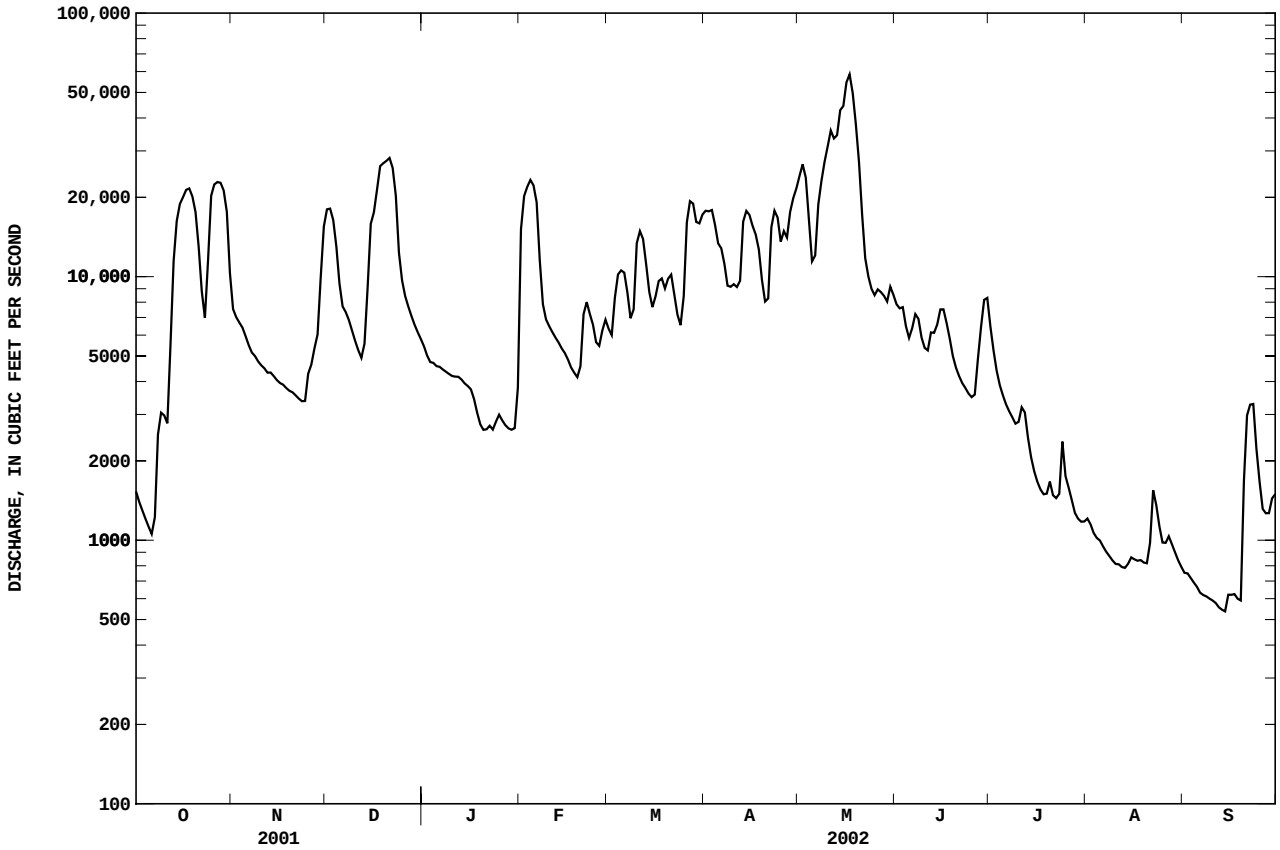
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1530	7540	18000	5440	15100	6350	17800	24100	7860	6460	1210	752
2	1400	7020	18100	5020	20200	6000	17700	26700	7580	5240	1150	749
3	1300	6700	16400	4740	21900	8320	17900	23800	7660	4400	1060	719
4	1210	6400	13000	4710	23300	10200	15700	16500	6490	3870	1020	691
5	1130	5940	9410	4580	22200	10600	13400	11400	5850	3540	997	665
6	1060	5500	7710	4550	19200	10400	12800	12000	6370	3280	947	632
7	1220	5150	7340	4450	11500	8720	11200	18800	7210	3080	904	620
8	2520	5000	6840	4360	7860	6950	9240	23000	6920	2930	871	612
9	3050	4770	6250	4270	6880	7520	9150	27300	5870	2770	839	601
10	2970	4610	5710	4200	6490	13400	9360	31200	5370	2810	813	590
11	2780	4490	5260	4180	6170	14900	9130	35900	5250	3200	810	578
12	5500	4320	4920	4170	5880	13900	9650	33400	6140	3050	791	556
13	11500	4330	5570	4070	5630	11100	16200	34400	6120	2450	785	545
14	16300	4190	9120	3940	5350	8740	17800	42800	6590	2060	814	537
15	18900	4050	15900	3850	5130	7660	17200	44400	7510	1820	860	621
16	20000	3950	17500	3730	4850	8420	15600	54600	7520	1670	846	621
17	21300	3890	21400	3430	4530	9620	14500	58600	6670	1560	836	624
18	21600	3780	26300	3050	4320	9850	12700	49700	5820	1490	841	600
19	20100	3690	26900	2750	4150	9020	9710	37900	5000	1500	823	591
20	17600	3640	27500	2620	4570	9820	8050	27300	4510	1670	818	1680
21	13000	3540	28200	2640	7210	10200	8270	17200	4190	1480	976	2980
22	8800	3450	25800	2720	8010	8530	15400	11800	3950	1440	1550	3270
23	6980	3370	20300	2630	7220	7170	17800	10000	3780	1500	1360	3290
24	11500	3370	12300	2820	6580	6540	16800	9000	3600	2370	1130	2220
25	20300	4280	9670	2990	5640	8430	13600	8510	3490	1750	980	1670
26	22400	4630	8430	2850	5460	16100	14900	8950	3570	1580	977	1310
27	22900	5340	7700	2730	6260	19300	14100	8740	4870	1420	1030	1270
28	22700	6040	7090	2660	6870	18900	17600	8450	6440	1270	966	1270
29	21200	9910	6570	2620	---	16100	19900	8050	8170	1210	899	1440
30	17600	15500	6160	2660	---	15900	21600	9160	8300	1180	839	1490
31	10300	---	5800	3790	---	17200	---	8530	---	1180	793	---
TOTAL	350650	158390	407150	113220	258460	335860	424760	742190	178670	75230	29535	33794
MEAN	11310	5280	13130	3652	9231	10830	14160	23940	5956	2427	952.7	1126
MAX	22900	15500	28200	5440	23300	19300	21600	58600	8300	6460	1550	3290
MIN	1060	3370	4920	2620	4150	6000	8050	8050	3490	1180	785	537
CFSM	2.41	1.13	2.80	0.78	1.97	2.31	3.02	5.11	1.27	0.52	0.20	0.24
IN.	2.78	1.26	3.23	0.90	2.05	2.67	3.37	5.89	1.42	0.60	0.23	0.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

MEAN	1635	3069	4622	6701	6995	8618	8881	7056	4724	3240	1957	1596
MAX	11310	24180	16780	36920	21870	19150	20340	25090	19350	13270	15900	13510
(WY)	2002	1994	1958	1950	1950	1963	1944	1943	1998	1979	1979	1989
MIN	259	408	386	405	705	686	1539	677	771	536	308	317
(WY)	1941	1945	1945	1945	1931	1941	1941	1941	1988	1936	1941	1940

03360500 WHITE RIVER AT NEWBERRY, IN--Continued

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1929 - 2002	
ANNUAL TOTAL	1969338		3107909			
ANNUAL MEAN	5395		8515		4913	
HIGHEST ANNUAL MEAN					8752	1950
LOWEST ANNUAL MEAN					958	1941
HIGHEST DAILY MEAN	28200	Dec 21	58600	May 17	103000	Nov 18 1993
LOWEST DAILY MEAN	813	Aug 18	537	Sep 14	200	Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	885	Aug 12	574	Sep 8	211	Sep 26 1941
MAXIMUM PEAK FLOW			60200	May 17	105000	Nov 18 1993
MAXIMUM PEAK STAGE			24.22	May 17	25.87	Nov 18 1993
ANNUAL RUNOFF (CFSM)	1.15		1.82		1.05	
ANNUAL RUNOFF (INCHES)	15.63		24.66		14.24	
10 PERCENT EXCEEDS	12200		20000		11600	
50 PERCENT EXCEEDS	3370		5820		2560	
90 PERCENT EXCEEDS	1360		930		629	



03361000 BIG BLUE RIVER AT CARTHAGE, IN

LOCATION.--Lat 39°44'38", long 85°34'33", in SW$^1/_4$SW$^1/_4$ 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 current year. Prior to October 1961, published as Blue River at Carthage.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 859.33 ft above 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

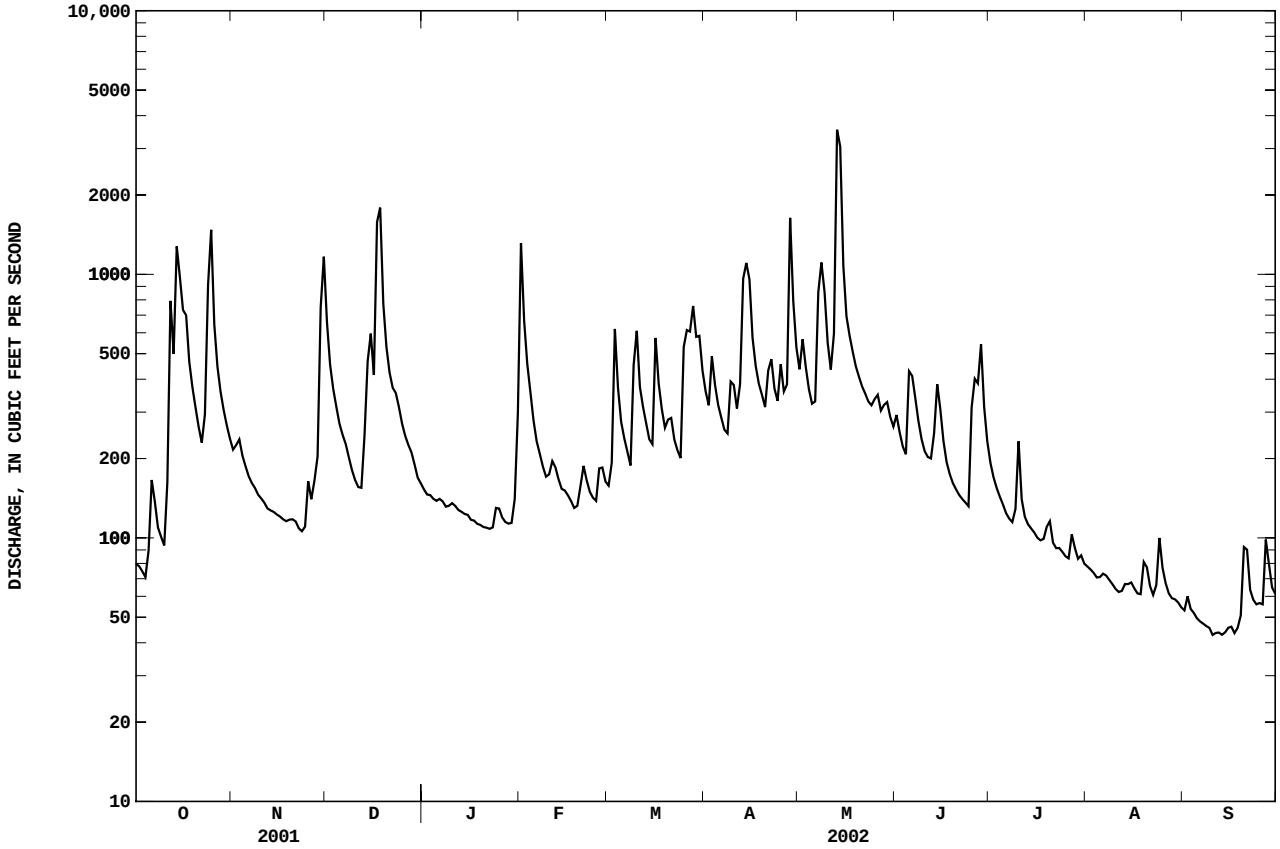
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	216	659	153	1310	158	360	436	292	193	78	53
2	78	225	454	146	668	192	318	567	252	170	76	60
3	75	236	367	145	458	621	488	445	222	155	74	54
4	71	205	314	141	358	371	381	367	208	143	71	52
5	90	187	271	138	279	276	319	323	429	134	71	50
6	166	171	246	141	233	239	286	329	411	124	73	48
7	137	161	227	137	209	212	257	855	339	118	72	47
8	109	155	202	131	186	188	249	1110	277	115	69	46
9	101	146	181	132	171	453	392	856	237	129	67	46
10	94	141	166	135	174	610	380	550	213	232	64	43
11	163	136	156	132	196	374	310	435	203	140	62	44
12	793	129	155	128	185	314	383	595	200	120	63	44
13	499	127	244	126	167	272	962	3540	249	113	67	43
14	1280	125	467	123	153	237	1100	3060	383	109	67	44
15	977	123	596	122	151	227	958	1080	307	105	68	46
16	732	120	415	117	145	574	574	694	233	100	64	46
17	699	118	1580	116	138	385	449	585	194	98	62	44
18	467	116	1790	113	130	308	384	509	175	99	61	46
19	374	117	773	112	132	262	349	447	161	110	81	51
20	313	118	531	110	157	281	314	408	153	116	77	92
21	264	115	424	109	188	285	432	375	146	96	66	90
22	230	109	371	108	165	236	476	353	140	91	61	64
23	294	106	354	110	149	215	368	329	136	92	66	58
24	910	110	313	130	142	201	331	318	132	88	100	56
25	1480	164	271	129	138	530	456	336	312	85	77	57
26	646	140	244	120	184	614	359	349	402	84	67	56
27	447	165	225	115	185	606	382	304	386	103	62	99
28	359	204	211	113	164	758	1640	320	543	92	59	80
29	305	750	190	114	---	579	792	328	314	83	58	65
30	267	1170	169	140	---	584	529	287	233	86	57	61
31	238	---	161	297	---	431	---	264	---	80	54	---
TOTAL	12738	6105	12727	4083	6915	11593	14978	20754	7882	3603	2114	1685
MEAN	410.9	203.5	410.5	131.7	247.0	374.0	499.3	669.5	262.7	116.2	68.19	56.17
MAX	1480	1170	1790	297	1310	758	1640	3540	543	232	100	99
MIN	71	106	155	108	130	158	249	264	132	80	54	43
CFSM	2.23	1.11	2.23	0.72	1.34	2.03	2.71	3.64	1.43	0.63	0.37	0.31
IN.	2.58	1.23	2.57	0.83	1.40	2.34	3.03	4.20	1.59	0.73	0.43	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)

MEAN	98.87	164.0	212.8	227.9	284.7	324.5	329.2	263.9	214.4	151.0	101.6	77.04
MAX	579	925	702	619	741	967	829	916	848	581	649	400
(WY)	1987	1994	1991	1959	1951	1963	1964	1996	1958	1979	1979	1989
MIN	34.2	38.6	33.2	27.9	59.6	84.2	97.8	81.5	48.1	32.5	30.5	24.4
(WY)	1964	1977	1977	1977	1964	1981	1971	1976	1988	1977	1988	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002	
ANNUAL TOTAL	78547		105177			
ANNUAL MEAN	215.2		288.2		203.7	
HIGHEST ANNUAL MEAN					324	1973
LOWEST ANNUAL MEAN					78.8	1977
HIGHEST DAILY MEAN	1790	Dec 18	3540	May 13	6900	Mar 5 1963
LOWEST DAILY MEAN	57	Sep 6	43	Sep 10	17	Jan 18 1977
ANNUAL SEVEN-DAY MINIMUM	61	Sep 2	44	Sep 8	19	Jul 31 1977
MAXIMUM PEAK FLOW			4830	May 13	12900	Mar 4 1963
MAXIMUM PEAK STAGE			10.32	May 13	14.62	Mar 4 1963
ANNUAL RUNOFF (CFSM)	1.17		1.57		1.11	
ANNUAL RUNOFF (INCHES)	15.88		21.26		15.04	
10 PERCENT EXCEEDS	449		584		406	
50 PERCENT EXCEEDS	136		184		116	
90 PERCENT EXCEEDS	74		64		51	

03361000 BIG BLUE RIVER AT CARTHAGE, IN--Continued



03361500 BIG BLUE RIVER AT SHELBYVILLE, IN

LOCATION.--Lat 39°31'45", long 85°46'55", in SE$^1/_4$SE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	471	2400	e342	2320	346	852	1100	520	374	131	91
2	172	450	1390	e328	2330	376	722	1010	508	329	129	89
3	163	475	1020	e318	1290	1190	864	948	452	298	126	90
4	151	439	825	e310	939	992	876	737	414	274	122	87
5	157	403	706	313	689	670	686	639	595	256	135	85
6	232	373	637	315	567	548	598	616	844	235	119	83
7	308	352	608	313	502	488	541	2570	756	221	116	81
8	256	335	548	293	451	442	514	4540	590	210	115	78
9	221	318	489	293	411	660	669	3920	493	203	113	75
10	209	303	437	296	395	1650	886	1990	438	302	109	72
11	289	295	404	290	405	991	710	1290	447	268	107	69
12	1510	278	389	280	408	755	692	1190	500	219	107	68
13	1550	267	556	277	382	640	2100	5420	438	200	108	68
14	2140	263	934	270	347	556	2660	8320	1020	190	109	67
15	3550	258	1710	268	338	509	3170	6010	848	180	108	71
16	2080	253	1170	258	330	903	1810	2140	710	171	108	70
17	2070	246	3190	254	315	914	1240	1500	530	171	106	70
18	1400	240	5330	248	294	689	967	1230	439	166	103	68
19	1030	240	3780	245	288	572	783	1030	385	316	105	73
20	796	240	1760	241	314	590	674	889	350	358	119	118
21	648	234	1190	236	383	667	1550	783	325	223	110	158
22	552	227	946	234	372	566	1850	700	308	183	104	114
23	506	220	846	232	335	502	1120	645	295	169	115	92
24	1380	229	747	253	318	464	873	600	279	163	121	87
25	2800	310	641	279	307	902	1100	631	277	154	126	84
26	2110	338	571	266	346	1990	936	702	1210	148	111	83
27	1180	360	527	254	400	1740	833	632	696	146	105	113
28	851	468	490	247	364	1730	3100	580	937	163	100	136
29	681	1670	452	248	---	1410	3090	587	623	144	98	109
30	580	2880	e388	271	---	1460	1560	539	446	140	96	96
31	515	---	e360	515	---	1090	---	495	---	137	93	---
TOTAL	30272	13435	35441	8787	16140	27002	38026	53983	16673	6711	3474	2645
MEAN	976.5	447.8	1143	283.5	576.4	871.0	1268	1741	555.8	216.5	112.1	88.17
MAX	3550	2880	5330	515	2330	1990	3170	8320	1210	374	135	158
MIN	151	220	360	232	288	346	514	495	277	137	93	67
CFSM	2.32	1.06	2.72	0.67	1.37	2.07	3.01	4.14	1.32	0.51	0.27	0.21
IN.	2.67	1.19	3.13	0.78	1.43	2.39	3.36	4.77	1.47	0.59	0.31	0.23

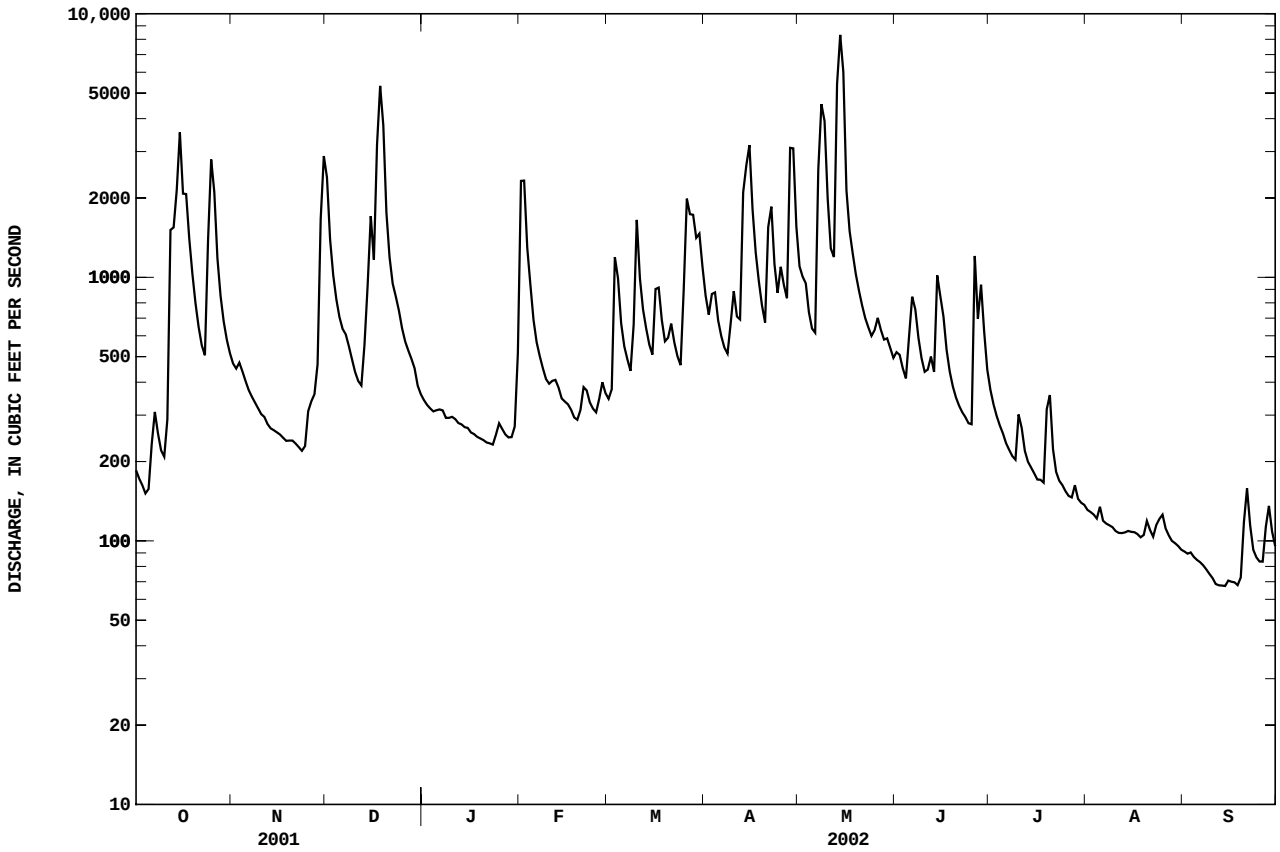
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

MEAN	181.2	348.0	481.4	622.5	698.7	790.1	788.5	615.6	474.3	319.7	195.1	144.1
MAX	1199	2114	1575	4319	2208	1970	1973	2605	1729	1363	1404	953
(WY)	1987	1994	1967	1950	1950	1963	1964	1996	1998	1979	1979	1989
MIN	41.7	52.5	52.3	38.3	92.0	204	183	149	81.2	56.1	46.4	43.1
(WY)	1964	1954	1964	1977	1964	1957	1971	1976	1988	1954	1988	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	176171		252589			
ANNUAL MEAN	482.7		692.0		470.2	
HIGHEST ANNUAL MEAN					908	1950
LOWEST ANNUAL MEAN					166	1954
HIGHEST DAILY MEAN	5330	Dec 18	8320	May 14	13800	Mar 5 1963
LOWEST DAILY MEAN	99	Sep 6	67	Sep 14	27	Jan 18 1977
ANNUAL SEVEN-DAY MINIMUM	110	Sep 3	69	Sep 12	32	Jan 16 1977
MAXIMUM PEAK FLOW			9120	May 14	13800	Nov 15 1993
MAXIMUM PEAK STAGE			16.21	May 14	18.41	Nov 15 1993
ANNUAL RUNOFF (CFSM)	1.15		1.64		1.12	
ANNUAL RUNOFF (INCHES)	15.57		22.32		15.18	
10 PERCENT EXCEEDS	1020		1550		1000	
50 PERCENT EXCEEDS	293		395		240	
90 PERCENT EXCEEDS	144		108		74	

e Estimated

03361500 BIG BLUE RIVER AT SHELBYVILLE, IN--Continued



03361650 SUGAR CREEK AT NEW PALESTINE, IN

LOCATION.--Lat 39°42'51", long 85°53'08", in SE$^1/_4$SW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	116	648	e64	983	74	252	219	57	46	13	6.8
2	20	112	421	e60	1020	104	189	205	54	37	12	6.3
3	19	113	248	e58	742	338	237	255	49	32	12	6.5
4	18	112	185	e54	328	319	276	184	47	28	12	5.6
5	21	99	146	e52	213	179	192	140	67	25	11	5.2
6	56	89	126	e52	158	136	151	126	60	22	10	4.6
7	65	81	115	e50	131	118	129	384	55	21	8.9	4.8
8	57	75	103	e48	113	103	119	583	48	19	8.2	5.9
9	43	69	91	e47	101	198	174	551	43	20	7.6	5.7
10	36	65	82	50	95	335	224	354	40	52	8.7	5.0
11	131	62	75	48	95	251	173	217	39	30	8.3	4.7
12	635	59	72	46	94	170	315	333	39	22	8.5	4.4
13	604	54	99	45	86	139	540	1360	54	20	7.9	3.9
14	754	53	256	45	76	118	533	1550	109	18	8.4	4.0
15	755	51	459	43	70	110	444	1370	73	17	9.0	4.3
16	892	51	421	41	67	158	316	631	81	15	8.1	4.2
17	749	48	767	41	63	153	202	303	54	14	8.7	4.4
18	560	47	948	39	58	130	153	217	43	15	8.4	5.9
19	332	46	927	39	56	109	128	171	37	69	10	5.3
20	238	45	469	38	71	112	111	142	34	314	12	20
21	184	45	267	38	104	115	166	122	31	93	13	19
22	153	42	200	37	95	108	215	106	30	56	10	8.3
23	144	41	176	38	80	95	173	95	28	38	9.8	5.7
24	387	52	155	42	71	87	137	92	27	28	17	4.8
25	903	178	130	43	66	276	241	92	149	22	10	4.0
26	904	128	112	44	81	444	191	83	124	20	9.1	3.8
27	735	137	102	42	85	418	208	74	228	19	8.3	10
28	291	141	94	41	81	503	736	68	242	17	7.4	7.9
29	205	405	84	41	---	517	615	64	98	17	7.5	7.0
30	161	728	e74	58	---	488	350	62	65	17	6.9	5.4
31	135	---	e68	209	---	405	---	60	---	15	6.5	---
TOTAL	10211	3344	8120	1593	5283	6810	7890	10213	2105	1178	298.2	193.4
MEAN	329.4	111.5	261.9	51.39	188.7	219.7	263.0	329.5	70.17	38.00	9.619	6.447
MAX	904	728	948	209	1020	517	736	1550	242	314	17	20
MIN	18	41	68	37	56	74	111	60	27	14	6.5	3.8
CFSM	3.51	1.19	2.79	0.55	2.01	2.34	2.80	3.51	0.75	0.40	0.10	0.07
IN.	4.05	1.32	3.22	0.63	2.09	2.70	3.13	4.05	0.83	0.47	0.12	0.08

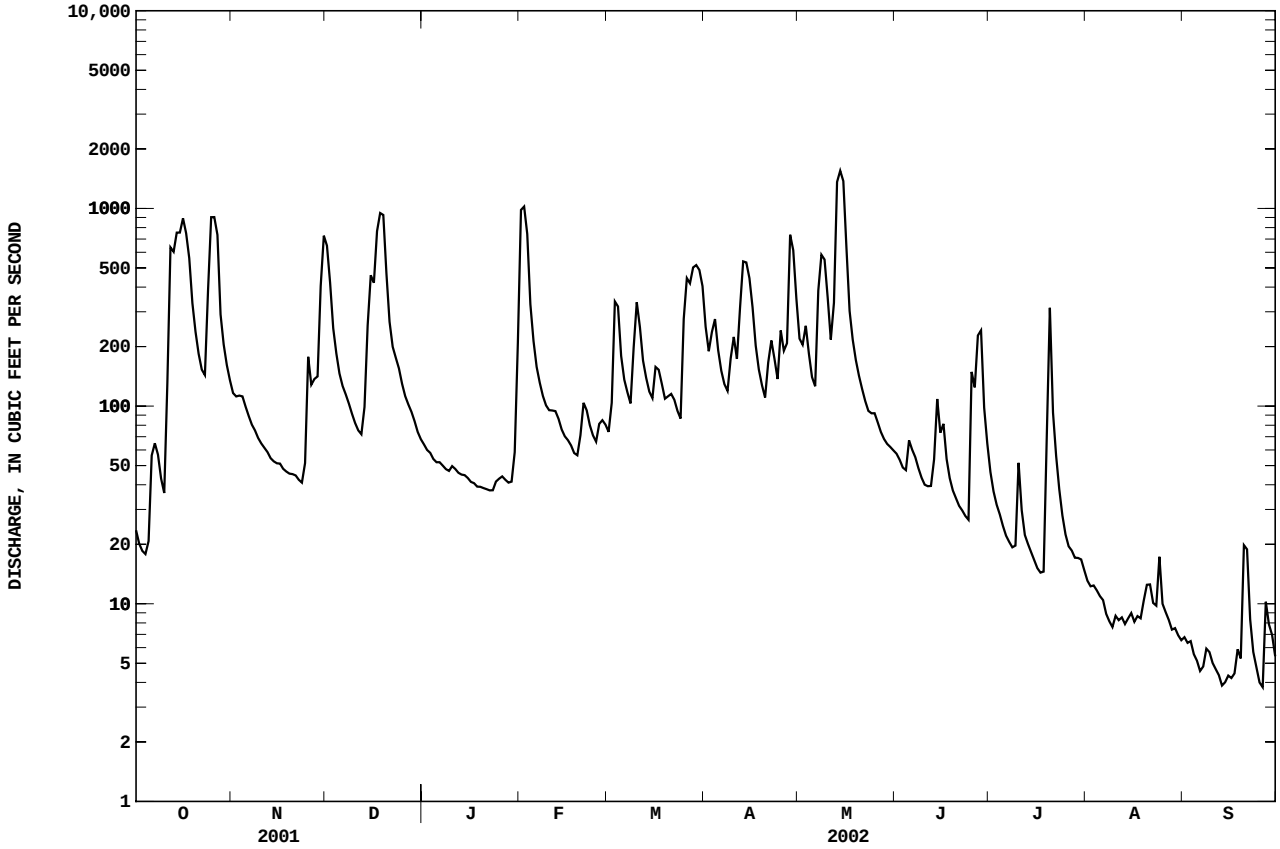
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

MEAN	43.73	90.01	121.6	125.0	162.1	169.9	158.8	136.7	99.31	63.42	40.92	27.55
MAX	329	441	352	345	439	413	299	549	469	241	306	314
(WY)	2002	1994	1991	1969	1982	1978	1996	1996	1998	1969	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1968 - 2002		
ANNUAL TOTAL	45377		57238.6				
ANNUAL MEAN	124.3		156.8		102.9		
HIGHEST ANNUAL MEAN					157		2002
LOWEST ANNUAL MEAN					37.7		1977
HIGHEST DAILY MEAN	948	Dec 18	1550	May 14	1930	Nov 15	1993
LOWEST DAILY MEAN	12	Sep 5	3.8	Sep 26	0.11	Sep 19	1999
ANNUAL SEVEN-DAY MINIMUM	14	Sep 1	4.3	Sep 11	0.26	Sep 16	1999
MAXIMUM PEAK FLOW			1690	May 14	2340	Nov 14	1993
MAXIMUM PEAK STAGE			9.09	May 14	10.34	Feb 23	1979
ANNUAL RUNOFF (CFSM)	1.32		1.67		1.10		
ANNUAL RUNOFF (INCHES)	17.98		22.68		14.89		
10 PERCENT EXCEEDS	332		421		243		
50 PERCENT EXCEEDS	61		73		46		
90 PERCENT EXCEEDS	21		8.3		8.4		

e Estimated

03361650 SUGAR CREEK AT NEW PALESTINE, IN--Continued



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, WH, FIELD, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	8.1	7.8	8.2	---	8.1	7.7
2	---	---	---	---	---	---	8.1	7.7	8.2	8.1	8.2	7.7
3	---	---	---	---	---	---	8.1	7.7	8.2	8.2	8.2	7.7
4	---	---	---	---	---	---	8.1	---	8.2	8.2	8.2	7.4
5	---	---	---	---	---	---	8.2	---	7.9	8.2	8.2	7.1
6	---	---	---	---	---	---	8.3	---	8.0	8.1	8.2	7.0
7	---	---	---	---	---	---	8.3	---	8.1	8.1	8.2	7.0
8	---	---	---	---	---	---	8.2	---	8.1	8.0	8.2	7.4
9	---	---	---	---	---	---	8.1	7.4	8.2	7.9	8.2	---
10	---	---	---	---	---	---	8.1	7.5	8.2	7.8	8.2	---
11	---	---	---	---	---	---	8.0	7.6	8.2	7.9	8.2	---
12	---	---	---	---	---	---	7.8	7.6	8.1	8.0	8.2	---
13	---	---	---	---	---	---	7.7	---	8.1	8.0	8.1	---
14	---	---	---	---	---	---	7.7	---	8.0	8.0	8.1	---
15	---	---	---	---	---	---	7.8	7.6	8.1	8.1	8.1	---
16	---	---	---	---	---	8.2	7.8	7.7	8.2	8.2	8.1	---
17	---	---	---	---	---	8.3	7.9	7.8	8.2	8.1	8.1	---
18	---	---	---	---	---	8.4	7.9	7.9	8.2	8.1	8.1	---
19	---	---	---	---	---	8.3	8.0	8.0	8.2	8.0	8.1	---
20	---	---	---	---	---	8.3	8.0	8.0	8.1	7.6	8.1	---
21	---	---	---	---	---	8.3	7.9	8.1	8.1	7.8	8.2	---
22	---	---	---	---	---	8.4	8.0	8.2	8.1	7.9	8.2	---
23	---	---	---	---	---	8.4	---	8.2	8.1	7.9	8.1	---
24	---	---	---	---	---	8.4	---	8.1	8.1	8.0	8.0	---
25	---	---	---	---	---	8.0	7.8	8.0	7.9	8.0	7.9	---
26	---	---	---	---	---	7.9	8.0	8.1	7.8	8.0	7.9	---
27	---	---	---	---	---	8.0	7.9	8.2	7.9	8.0	7.9	8.2
28	---	---	---	---	---	8.0	7.6	8.3	---	8.0	7.8	8.2
29	---	---	---	---	---	7.9	7.6	8.3	---	8.1	7.8	8.2
30	---	---	---	---	---	7.9	---	8.2	---	8.1	7.8	8.1
31	---	---	---	---	---	8.0	---	8.2	---	8.1	7.8	---

03361650 SUGAR CREEK AT NEW PALESTINE, IN--Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	11.5	9.3	8.5	---	7.1	7.2
2	---	---	---	---	---	---	14.4	9.2	8.3	8.0	7.2	7.3
3	---	---	---	---	---	---	12.6	9.7	8.7	8.6	7.5	6.9
4	---	---	---	---	---	---	10.6	---	8.3	8.7	7.0	6.9
5	---	---	---	---	---	---	11.8	---	6.9	8.8	7.0	7.3
6	---	---	---	---	---	---	12.3	---	7.8	9.1	7.3	7.5
7	---	---	---	---	---	---	12.5	---	8.8	9.3	8.0	8.2
8	---	---	---	---	---	---	10.4	---	8.9	8.8	8.2	7.3
9	---	---	---	---	---	---	10	8.4	8.5	7.6	8.2	---
10	---	---	---	---	---	---	10.9	9.0	8.3	7.2	8.2	---
11	---	---	---	---	---	---	11.0	9.3	7.6	7.8	8.2	---
12	---	---	---	---	---	---	8.7	8.8	8.0	8.2	8.0	---
13	---	---	---	---	---	---	8.5	---	8.3	8.2	7.1	---
14	---	---	---	---	---	---	8.7	---	8.3	8.2	6.9	---
15	---	---	---	---	---	---	8.6	8.1	8.8	8.0	7.2	---
16	---	---	---	---	---	11.5	8.3	7.9	9.0	8.0	6.7	---
17	---	---	---	---	---	12.4	8.3	8.2	8.9	7.4	7.0	---
18	---	---	---	---	---	13.4	8.4	9.0	8.9	7.6	6.9	---
19	---	---	---	---	---	12.2	8.3	9.4	8.7	7.1	6.6	---
20	---	---	---	---	---	12.0	8.1	9.7	8.4	6.6	7.5	---
21	---	---	---	---	---	13.2	8.1	9.9	8.3	7.1	7.3	---
22	---	---	---	---	---	15.1	9.6	9.9	8.1	7.2	6.6	---
23	---	---	---	---	---	15.1	---	9.5	7.9	7.0	6.5	---
24	---	---	---	---	---	14.2	---	8.9	7.9	7.4	6.2	---
25	---	---	---	---	---	11.8	8.7	8.5	7.7	7.5	6.5	---
26	---	---	---	---	---	12.2	9.5	8.9	7.7	7.4	6.8	---
27	---	---	---	---	---	12.6	8.8	9.1	8.0	7.4	6.9	11.6
28	---	---	---	---	---	11.9	8.3	9.4	---	7.2	7.1	12.2
29	---	---	---	---	---	11.6	8.9	9.2	---	6.7	7.1	12.0
30	---	---	---	---	---	11.3	---	9.2	---	6.9	7.3	11.7
31	---	---	---	---	---	11.1	---	9.1	---	7.1	7.3	---

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	8.6	13.0	21.7	---	25.4	22.4
2	---	---	---	---	---	---	9.3	13.3	21.7	24.8	25.3	23.1
3	---	---	---	---	---	---	8.4	12.6	21.6	24.9	25.6	23.5
4	---	---	---	---	---	---	7.3	---	23.1	25.4	26.3	22.2
5	---	---	---	---	---	---	7.2	---	22.1	25.6	26.2	21.3
6	---	---	---	---	---	---	8.0	---	19.4	24.0	24.8	20.9
7	---	---	---	---	---	---	8.5	---	18.5	23.6	22.1	21.4
8	---	---	---	---	---	---	10	---	19.5	23.9	21.4	22.9
9	---	---	---	---	---	---	10.8	16.3	20.9	24.0	21.4	---
10	---	---	---	---	---	---	10.3	15.3	22.4	23.7	21.8	---
11	---	---	---	---	---	---	12.0	14.5	22.7	22.4	22.6	---
12	---	---	---	---	---	---	14.0	14.9	22.1	21.3	23.5	---
13	---	---	---	---	---	---	13.4	---	20.7	21.4	23.4	---
14	---	---	---	---	---	---	13.4	---	19.7	22.1	22.8	---
15	---	---	---	---	---	---	14.8	14.5	18.9	22.8	23.2	---
16	---	---	---	---	---	8.0	17.2	15.7	19.1	23.1	24.1	---
17	---	---	---	---	---	7.1	18.7	14.7	19.8	22.9	24.3	---
18	---	---	---	---	---	8.0	19.4	13.0	20.9	23.2	24.0	---
19	---	---	---	---	---	8.4	20.4	11.9	22.6	23.0	23.0	---
20	---	---	---	---	---	8.2	19.4	11.4	23.6	22.7	22.6	---
21	---	---	---	---	---	6.6	15.0	11.4	23.6	24.4	22.7	---
22	---	---	---	---	---	4.2	12.1	12.3	24.1	25.7	24.1	---
23	---	---	---	---	---	4.9	---	14.4	24.2	24.9	24.5	---
24	---	---	---	---	---	6.1	---	16.4	24.1	23.8	24.3	---
25	---	---	---	---	---	5.0	13.2	17.4	23.7	23.0	23.2	---
26	---	---	---	---	---	3.8	13.0	17.0	22.2	23.2	23.0	---
27	---	---	---	---	---	4.5	12.4	17.7	21.9	24.0	22.7	17.4
28	---	---	---	---	---	5.7	12.1	19.3	---	25.1	22.2	17.8
29	---	---	---	---	---	6.5	11.3	19.4	---	25.4	22.0	17.9
30	---	---	---	---	---	7.7	---	19.6	---	25.0	21.9	18.4
31	---	---	---	---	---	8.5	---	20.7	---	25.0	21.8	---

03361650 SUGAR CREEK AT NEW PALESTINE, IN--Continued

[(National Water-Quality Assessment Program), White River Basin, Miami River Basin Study Unit]--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	501	529	620	---	603	---
2	---	---	---	---	---	---	550	558	623	630	616	---
3	---	---	---	---	---	---	568	539	607	649	618	---
4	---	---	---	---	---	---	538	---	608	646	615	---
5	---	---	---	---	---	---	547	---	558	643	615	---
6	---	---	---	---	---	---	576	---	595	642	611	---
7	---	---	---	---	---	---	587	---	626	642	---	---
8	---	---	---	---	---	---	600	---	638	645	---	---
9	---	---	---	---	---	---	587	393	641	645	---	---
10	---	---	---	---	---	---	579	421	644	582	---	---
11	---	---	---	---	---	---	563	447	633	565	---	---
12	---	---	---	---	---	---	512	417	608	587	---	---
13	---	---	---	---	---	---	419	---	558	607	---	---
14	---	---	---	---	---	---	435	---	542	617	---	---
15	---	---	---	---	---	---	469	251	587	623	---	---
16	---	---	---	---	---	571	490	394	599	622	---	---
17	---	---	---	---	---	609	540	474	638	638	---	---
18	---	---	---	---	---	598	574	515	647	641	---	---
19	---	---	---	---	---	601	597	539	650	559	---	---
20	---	---	---	---	---	610	609	559	648	293	615	---
21	---	---	---	---	---	625	576	577	---	392	618	---
22	---	---	---	---	---	619	559	595	644	414	615	---
23	---	---	---	---	---	595	---	608	640	459	616	---
24	---	---	---	---	---	560	---	609	641	482	580	---
25	---	---	---	---	---	482	542	604	505	498	533	---
26	---	---	---	---	---	492	593	615	466	520	553	---
27	---	---	---	---	---	489	566	617	461	543	594	---
28	---	---	---	---	---	459	374	611	---	560	---	599
29	---	---	---	---	---	434	402	616	---	575	---	600
30	---	---	---	---	---	455	---	618	---	588	---	---
31	---	---	---	---	---	456	---	616	---	598	---	---

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]

WATER-QUALITY RECORDS

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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 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)
OCT													
03...	1220	19	732	9.6	8.0	--	26.0	16.2	83.1	29.9	2.09	14.3	270
17...	1420	686	E746	9.4	7.6	455	11.0	10.9	--	--	--	--	--
NOV													
16...	1050	51	737	12.4	8.2	684	16.0	10.6	--	--	--	--	240
27...	1340	148	727	10.8	8.0	632	15.0	11.1	--	--	--	--	--
DEC													
13...	1330	102	725	12.3	8.0	667	12.0	9.0	--	--	--	--	260
26...	1220	113	727	14.0	8.0	654	-5.0	1.8	--	--	--	--	--
JAN													
10...	1340	49	725	13.8	8.1	699	11.0	3.7	--	--	--	--	290
23...	1500	38	723	13.8	8.3	681	8.0	5.0	--	--	--	--	--
FEB													
07...	1320	130	729	--	8.1	591	9.0	4.4	--	--	--	--	220
MAR													
07...	1420	115	727	16.3	8.3	615	20.0	8.8	--	--	--	--	260
APR													
02...	1215	186	715	11.7	8.4	563	7.0	9.4	--	--	--	--	240
MAY													
06...	1500	130	717	9.2	8.0	599	21.0	15.6	--	--	--	--	--
14...	1350	1600	725	9.2	7.7	221	15.0	13.6	--	--	--	--	91
29...	1430	64	732	9.3	8.0	619	22.0	19.7	--	--	--	--	--
JUN													
03...	1120	49	727	9.1	8.1	629	30.0	21.3	--	--	--	--	280
10...	1230	41	730	8.7	8.1	649	29.0	22.5	--	--	--	--	--
17...	1120	54	732	8.6	8.1	602	23.0	18.5	--	--	--	--	--
24...	1200	27	733	7.6	8.1	649	30.0	24.1	--	--	--	--	--
JUL													
01...	1150	47	734	7.4	7.9	603	33.0	23.8	--	--	--	--	--
08...	1420	20	733	8.5	8.1	648	31.0	24.6	--	--	--	--	280
16...	1420	15	733	9.1	8.2	639	28.0	23.7	--	--	--	--	--
22...	1450	49	724	7.8	8.0	427	30.0	26.6	--	--	--	--	--
AUG													
08...	1200	7.9	742	8.2	8.1	624	27.0	21.9	--	--	--	--	230
21...	1300	12	738	9.2	8.1	613	29.0	22.9	--	--	--	--	--
SEP													
09...	1230	5.4	735	8.8	8.1	647	31.0	23.6	--	--	--	--	240

394340085524601 SUGAR CREEK AT CO. RD. 400S AT NEW PALESTINE, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT													
03...	274	331	2	37.0	.2	7.82	41.8	362	<.04	.21	.28	1.25	.026
17...	--	--	--	--	--	--	--	--	<.04	--	.67	2.90	.015
NOV													
16...	244	294	2	31.3	--	--	43.4	--	<.04	--	.26	1.32	E.005
27...	--	--	--	--	--	--	--	--	<.04	--	.53	2.59	.010
DEC													
13...	257	311	1	33.4	--	--	35.9	--	<.04	--	.32	2.41	.010
26...	--	--	--	--	--	--	--	--	E.02	--	.29	3.04	E.007
JAN													
10...	281	340	2	32.0	--	--	47.2	--	<.04	--	.17	2.11	E.007
23...	--	--	--	--	--	--	--	--	<.04	--	.17	1.24	<.008
FEB													
07...	224	E270	E1	26.9	--	--	32.4	--	<.04	--	.45	3.16	.026
MAR													
07...	264	E316	E3	30.4	--	--	33.8	--	<.04	--	.26	3.58	.010
APR													
02...	236	282	3	26.0	--	--	29.8	--	<.04	--	.36	4.17	.011
MAY													
06...	--	--	--	--	--	--	--	--	E.02	--	.42	3.48	.034
14...	87	106	1	7.38	--	--	8.0	--	<.04	--	1.1	1.50	.101
29...	--	--	--	--	--	--	--	--	<.04	--	.38	1.84	.010
JUN													
03...	278	335	2	26.6	--	--	38.5	--	<.04	--	.40	1.53	.033
10...	--	--	--	--	--	--	--	--	<.04	--	.38	1.77	.020
17...	--	--	--	--	--	--	--	--	<.04	--	.48	3.57	.103
24...	--	--	--	--	--	--	--	--	<.04	--	.33	1.14	.014
JUL													
01...	--	--	--	--	--	--	--	--	<.04	--	.52	2.90	.024
08...	275	E332	E2	28.9	--	--	37.7	--	<.04	--	.34	1.46	.010
16...	--	--	--	--	--	--	--	--	<.04	--	.28	.89	E.007
22...	--	--	--	--	--	--	--	--	<.04	--	.92	1.37	.024
AUG													
08...	232	279	2	31.7	--	--	39.0	--	.05	--	.38	.33	E.006
21...	--	--	--	--	--	--	--	--	<.04	--	.33	.21	.009
SEP													
09...	241	E289	E2	32.3	--	--	41.2	--	<.04	--	.30	.15	.016

Date	NITRO-GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INOR-GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC-ULATE TOTAL (MG/L AS C) (00689)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	2,4-D METHYL ESTER, WATER FLTRD REC (UG/L) (50470)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)
OCT													
03...	.08	.036	<.02	.049	1.0	<.1	5.8	1.0	E8	17.2	<.009	<.02	<.02
17...	--	--	.10	.190	--	--	--	--	--	--	<.009	.04	<.02
NOV													
16...	.09	--	<.02	.018	.8	<.1	3.3	.8	--	--	<.009	<.02	<.02
27...	--	--	E.01	.082	--	--	--	--	--	--	<.009	.11	<.02
DEC													
13...	.08	--	E.01	.047	.8	<.1	3.0	.8	--	--	<.009	.04	<.02
26...	--	--	E.01	.045	--	--	--	--	--	--	<.009	E.01	<.02
JAN													
10...	<.02	--	<.02	.017	.4	<.1	2.3	.4	--	--	<.009	E.01	<.02
23...	--	--	<.02	.013	--	--	--	--	--	--	<.009	<.02	<.02
FEB													
07...	.09	--	<.02	.069	1.0	<.1	3.0	1.0	--	--	<.009	.05	<.02
MAR													
07...	.16	--	<.02	.029	.6	<.1	2.4	.6	--	--	<.009	<.02	<.02
APR													
02...	.22	--	E.01	.065	1.4	<.1	2.9	1.4	--	--	<.009	<.02	<.02
MAY													
06...	--	--	<.02	.053	--	--	--	--	--	--	<.009	.17	<.02
14...	.18	--	<.02	.33	3.8	.1	7.0	3.7	--	--	<.009	.51	<.02
29...	--	--	<.02	.052	--	--	--	--	--	--	.018	.06	<.02
JUN													
03...	.18	--	<.02	.064	1.3	<.1	3.1	1.3	--	--	<.009	.04	<.02
10...	--	--	E.02	.066	--	--	--	--	--	--	<.009	.05	<.02
17...	--	--	<.02	.102	--	--	--	--	--	--	.020	.27	<.02
24...	--	--	<.02	.084	--	--	--	--	--	--	<.009	.05	<.02
JUL													
01...	--	--	.04	.109	--	--	--	--	--	--	<.009	.04	<.02
08...	.03	--	.04	.080	.4	<.1	3.0	.4	--	--	<.009	.06	<.02
16...	--	--	.04	.068	--	--	--	--	--	--	<.009	<.02	<.02
22...	--	--	.02	.163	--	--	--	--	--	--	<.009	.12	<.02
AUG													
08...	.10	--	.06	.095	.4	<.1	3.6	.4	--	--	<.009	<.02	<.02
21...	--	--	.02	.089	--	--	--	--	--	--	<.009	E.01	<.02
SEP													
09...	.05	--	E.02	.086	.6	<.1	3.5	.6	--	--	<.009	<.02	<.02

394340085524601 SUGAR CREEK AT CO. RD. 400S AT NEW PALESTINE, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	3-KETO CARBO-FURAN WATER FLTRD REC (UG/L) (50295)	ACETO-CHLOR ESA FLTRD 0.7 UM GF REC (UG/L) (61029)	ACETO-CHLOR OA FLTRD 0.7 UM GF REC (UG/L) (61030)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALA-CHLOR OA FLTRD 0.7 UM GF REC (UG/L) (61031)	ALA-CHLOR ESA WAT FLT GF 0.7U REC (UG/L) (50009)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)
OCT													
03...	<.002	<.006	<2	--	--	<.004	<.007	--	--	<.002	<.02	<.008	<.04
17...	<.002	<.006	<2	.28	.20	.009	<.007	<.05	.11	.003	<.02	<.008	<.04
NOV													
16...	<.002	<.006	<2	<.05	<.05	<.004	<.007	<.05	.29	<.002	<.02	<.008	<.04
27...	<.002	<.006	<2	--	--	.007	<.007	--	--	<.002	<.02	<.008	<.04
DEC													
13...	<.002	<.006	<2	.12	.06	E.003	<.007	<.05	.09	<.002	<.02	<.008	<.04
26...	<.002	<.006	<2	--	--	<.004	<.007	--	--	<.002	<.02	<.008	<.04
JAN													
10...	<.006	<.006	<2	.07	<.05	<.006	<.007	<.05	.13	<.004	<.02	<.008	<.04
23...	<.006	<.006	<2	--	--	<.006	<.007	--	--	<.004	<.02	<.008	<.04
FEB													
07...	<.006	<.006	<2	.13	.06	<.006	<.007	<.05	.10	<.004	<.02	<.008	<.04
MAR													
07...	<.006	<.006	<2	.10	.05	<.006	<.007	<.05	.12	<.004	<.02	<.008	<.04
APR													
02...	<.006	<.006	<2	.10	.07	<.006	<.118	<.05	.10	<.004	<.02	<.008	<.04
MAY													
06...	<.006	<.006	<2	--	--	.012	<.007	--	--	<.004	<.02	<.008	<.04
14...	<.006	<.006	<2	.14	.13	.122	<.007	<.05	<.05	.006	<.02	<.008	<.04
29...	<.006	<.006	<2	.11	.09	.049	<.007	<.05	.14	<.004	<.02	<.008	<.04
JUN													
03...	<.006	<.006	<2	.09	.08	.027	<.007	<.05	.13	<.004	<.02	<.008	<.04
10...	<.006	<.006	<2	.12	.12	.511	<.007	<.05	.14	<.004	<.02	<.008	<.04
17...	<.006	<.006	<2	.32	.38	.129	<.007	<.05	.11	.006	<.02	<.008	<.04
24...	<.006	<.006	<2	.12	.09	.014	<.007	<.05	.12	<.004	<.02	<.008	<.04
JUL													
01...	<.006	<.006	<2	.56	.61	.070	<.007	<.05	.05	<.004	<.02	<.008	<.04
08...	<.006	<.006	<2	.48	.68	.048	<.007	<.05	.09	<.004	<.02	<.008	<.04
16...	<.006	<.006	<2	.21	.18	.050	<.007	<.05	.08	<.004	<.02	<.008	<.04
22...	<.006	<.006	<2	.34	.44	.114	<.007	<.05	.09	<.004	<.02	<.008	<.04
AUG													
08...	<.006	<.006	<2	.07	<.05	.006	<.007	<.05	.10	<.004	<.02	<.008	<.04
21...	<.006	<.006	<2	<.05	<.05	<.006	<.007	<.05	.09	<.004	<.02	<.008	<.04
SEP													
09...	<.006	<.006	<2	<.05	<.05	E.004	<.007	<.05	.10	<.004	<.02	<.008	<.04

Date	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BENDIO-CARB, WATER FLTRD REC (UG/L) (50299)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENOMYL WATER FLTRD REC (UG/L) (50300)	BEN-SUL-FURON METHYL WAT FLT REC (UG/L) (61693)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAF-FEINE, WATER FLTRD REC (UG/L) (50305)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)
OCT													
03...	<.005	.119	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	.020	<.03	<.041
17...	<.005	.123	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	.021	<.03	<.041
NOV													
16...	<.005	.057	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	.024	<.03	<.041
27...	<.005	.061	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	.026	<.03	<.041
DEC													
13...	<.005	.078	<.03	<.010	<.004	<.02	E.02	<.03	<.02	<.002	E.035	<.03	<.041
26...	<.005	.079	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	.040	<.03	<.041
JAN													
10...	<.005	.039	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	.036	<.03	<.041
23...	<.005	.034	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	.041	<.03	<.041
FEB													
07...	<.005	.076	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	.026	<.03	<.041
MAR													
07...	<.005	.070	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	.028	<.03	<.041
APR													
02...	<.005	.077	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	.022	<.03	<.041
MAY													
06...	<.005	.731	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	.015	<.03	<.041
14...	<.005	4.01	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041
29...	<.005	.675	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	.023	<.03	<.041
JUN													
03...	<.005	.518	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	.015	<.03	<.041
10...	<.005	1.85	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041
17...	<.005	3.52	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	.086	<.03	<.041
24...	<.005	.656	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041
JUL													
01...	<.005	1.82	<.03	<.010	<.004	<.02	E.38	<.03	<.02	<.002	<.010	<.03	<.041
08...	<.005	1.08	<.03	<.010	<.004	<.02	E.03	<.03	<.02	<.002	<.010	<.03	<.041
16...	<.005	.736	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041
22...	<.005	2.04	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	<.010	E.01	E.012
AUG													
08...	<.005	.216	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	E.111	<.03	<.041
21...	<.005	.096	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041
SEP													
09...	<.005	.060	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	.013	<.03	<.041

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-AMBEN, METHYL ESTER WATER FLTRD (UG/L) (61188)	CHLORI-MURON, WATER FLTRD REC (UG/L) (50306)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEETHYL DEISO-PROPYL ATRAZIN DISS, REC (UG/L) (04039)
OCT													
03...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.045	<.01
17...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	--	<.003	E.09	<.01
NOV													
16...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.03	E.02
27...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.03	<.01
DEC													
13...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.032	E.04
26...	<.006	<.020	<.02	E.008	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.036	<.01
JAN													
10...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.016	E.01
23...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.007	<.01
FEB													
07...	<.006	<.020	<.02	E.007	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.043	<.01
MAR													
07...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.034	<.01
APR													
02...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.028	E.01
MAY													
06...	<.006	<.020	.02	E.016	<.04	<.005	<.01	E.015	<.01	<.01	<.003	E.058	E.02
14...	<.006	<.020	<.02	E.079	<.04	<.005	<.01	.135	<.01	<.01	<.003	E.254	<.01
29...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	E.007	<.01	<.01	<.003	E.057	<.01
JUN													
03...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.065	E.02
10...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.129	<.01
17...	E.004	<.020	<.02	E.015	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.345	E.07
24...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.080	<.01
JUL													
01...	<.006	<.020	<.02	<.010	<.04	<.005	.06	E.009	<.01	<.01	<.003	E.263	E.07
08...	<.006	<.020	<.02	<.010	<.04	<.005	.07	E.006	<.01	<.01	<.003	E.160	<.01
16...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.093	<.01
22...	.007	E.014	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.212	<.01
AUG													
08...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.036	<.01
21...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.015	<.01
SEP													
09...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	E.006	<.01	<.01	<.003	E.009	<.01

Date	DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DIMETH-ENAMID OA, WATER FLT, REC (UG/L) (62482)	DIMETH-ENAMID, ESA, WAT FLT (UG/L) (61951)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
OCT													
03...	E.02	<.005	<.01	<.01	<.005	--	--	<.01	E.02	<.02	<.01	<.002	<.009
17...	E.04	.008	<.01	<.01	<.005	<.05	<.05	<.01	M	<.02	<.01	<.002	<.009
NOV													
16...	E.01	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
27...	E.02	<.005	<.01	<.01	<.005	--	--	<.01	E.01	<.02	<.01	<.002	<.009
DEC													
13...	E.01	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
26...	E.01	<.005	<.01	<.01	<.005	--	--	<.01	E.01	<.02	<.01	<.002	<.009
JAN													
10...	<.04	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
23...	<.04	<.005	<.01	<.01	<.005	--	--	<.01	E.02	<.02	<.01	<.002	<.009
FEB													
07...	E.01	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
MAR													
07...	E.01	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
APR													
02...	E.01	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
MAY													
06...	E.01	E.003	<.01	<.01	<.005	--	--	<.01	<.03	<.02	<.01	<.002	<.009
14...	E.13	.009	<.01	<.01	<.005	<.05	<.05	<.01	M	<.02	<.01	<.002	<.009
29...	<.04	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
JUN													
03...	E.02	<.005	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	<.01	<.002	<.009
10...	E.15	<.005	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	<.01	<.002	<.009
17...	E.12	<.005	.04	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
24...	E.04	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
JUL													
01...	E.07	E.004	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
08...	E.09	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
16...	E.04	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
22...	E.14	.024	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009
AUG													
08...	E.02	E.003	<.01	<.01	<.005	<.05	<.05	<.01	E.02	<.02	<.01	<.002	<.009
21...	<.04	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.02	<.02	<.01	<.002	<.009
SEP													
09...	<.04	<.005	<.01	<.01	<.005	<.05	<.05	<.01	E.01	<.02	<.01	<.002	<.009

394340085524601 SUGAR CREEK AT CO. RD. 400S AT NEW PALESTINE, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUFEN-ACET, ESA, WAT FLT (UG/L) (61952)	FLUFE-NACET OA, WATER FLT, REC (UG/L) (62483)	FLUMET-SULAM WATER FLTRD REC (UG/L) (61694)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	HYDROXY ATRA-ZINE WATER FLTRD REC (UG/L) (50355)	IMAZ-AQUIN WATER FLTRD REC (UG/L) (50356)	IMAZE-THAPYR WATER FLTRD REC (UG/L) (50407)	IMID-ACLOP-RID WATER FLTRD REC (UG/L) (61695)	LINDANE DIS-SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)
OCT													
03...	<.005	<.03	--	--	<.01	<.03	<.003	E.161	<.02	<.02	<.007	<.004	<.01
17...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.252	E.01	E.04	<.007	<.004	<.01
NOV													
16...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.093	M	E.01	<.007	<.004	<.01
27...	<.005	<.03	--	--	<.01	<.03	<.003	E.143	E.07	E.02	<.007	<.004	<.01
DEC													
13...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.199	E.10	E.02	<.007	<.004	<.01
26...	<.005	<.03	--	--	<.01	<.03	<.003	E.106	E.06	E.02	<.007	<.004	<.01
JAN													
10...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.076	E.03	E.01	<.007	<.004	<.01
23...	<.005	<.03	--	--	<.01	<.03	<.003	E.077	E.01	E.01	<.007	<.004	<.01
FEB													
07...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.094	E.03	<.02	<.007	<.004	<.01
MAR													
07...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.080	E.02	<.02	<.007	<.004	<.01
APR													
02...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.094	E.02	<.02	<.007	<.004	<.01
MAY													
06...	<.005	<.03	--	--	<.01	<.03	<.003	E.157	E.03	<.02	<.007	<.004	<.01
14...	<.005	<.03	.06	<.05	<.01	<.03	<.003	E.526	E.18	E.02	<.007	<.004	<.01
29...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.362	E.02	E.01	<.007	<.004	<.01
JUN													
03...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.191	E.02	E.01	<.007	<.004	<.01
10...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.275	E.02	<.02	<.007	<.004	<.01
17...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.456	E.04	E.07	<.007	<.004	<.01
24...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.177	E.01	<.02	<.007	<.004	<.01
JUL													
01...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.539	E.02	E.04	<.007	<.004	<.01
08...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.246	<.02	<.02	<.007	<.004	<.01
16...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.169	<.02	<.02	<.007	<.004	<.01
22...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.504	E.01	<.02	<.007	<.004	<.01
AUG													
08...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.188	<.02	<.02	<.007	<.004	<.01
21...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.197	<.02	<.02	<.007	<.004	<.01
SEP													
09...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.106	<.02	<.02	<.007	<.004	<.01

Date	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METAL-AXYL WATER FLTRD REC (UG/L) (50359)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL OXIME WATER FLTRD REC (UG/L) (61696)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METOLA-CHLOR ESA FLTRD 0.7 UM GF REC (UG/L) (61043)	METOLA-CHLOR OA FLTRD 0.7 UM GF REC (UG/L) (61044)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)
OCT													
03...	<.035	<.027	<.02	<.01	<.02	<.008	<.01	<.004	<.050	<.006	--	--	.022
17...	<.035	<.027	<.02	<.01	<.02	<.008	<.01	<.004	<.050	<.006	.91	.39	.042
NOV													
16...	<.035	<.027	<.02	<.01	<.02	<.008	<.01	<.004	<.050	<.006	.52	.13	E.011
27...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	--	--	.024
DEC													
13...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.48	.14	E.010
26...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	--	--	.013
JAN													
10...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.36	.09	E.006
23...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	--	--	E.005
FEB													
07...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.52	.20	.016
MAR													
07...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.49	.17	E.010
APR													
02...	<.035	<.027	<.11	<.01	<.02	<.008	--	<.004	<.050	<.006	.44	.12	.015
MAY													
06...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	--	--	.128
14...	<.035	<.027	.03	<.01	<.02	<.008	--	<.004	<.050	<.006	.30	.21	.481
29...	<.035	<.027	<.02	<.01	E.01	<.008	--	<.004	<.050	<.006	.53	.15	.087
JUN													
03...	<.035	<.027	<.02	<.01	M	<.008	--	<.004	<.050	<.006	.45	.14	.069
10...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.54	.16	.104
17...	<.035	<.027	<.02	<.01	E.01	<.008	--	<.004	<.050	<.006	.66	.33	.495
24...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.42	.14	.043
JUL													
01...	<.035	<.027	<.02	<.01	.02	<.008	--	<.004	<.050	<.006	.65	.35	.365
08...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.48	.18	.117
16...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.48	.20	.161
22...	<.035	<.027	.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.55	.44	.547
AUG													
08...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.18	.08	.046
21...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.13	.06	.022
SEP													
09...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.13	.05	.014

394340085524601 SUGAR CREEK AT CO. RD. 400S AT NEW PALESTINE, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MET-SUL-FURON METHYL WAT FLT REC (UG/L) (61697)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NICOSUL FURON WATER FLTRD REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL OXIME WATER FLTRD REC (UG/L) (50410)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)
OCT													
03...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.01	<.003	<.007	<.002
17...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.01	<.003	<.007	<.002
NOV													
16...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.01	<.003	<.007	<.002
27...	.010	--	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.007	<.002
DEC													
13...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.007	<.002
26...	.007	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.007	<.002
JAN													
10...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
23...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	E.001	<.010	<.004
FEB													
07...	.009	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
MAR													
07...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
APR													
02...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
MAY													
06...	E.004	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
14...	.041	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
29...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
JUN													
03...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
10...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
17...	.008	<.03	<.002	<.007	<.01	E.06	<.02	<.02	--	<.01	<.003	<.010	<.004
24...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
JUL													
01...	<.006	<.03	<.002	<.007	<.01	E.04	<.02	<.02	--	<.01	<.003	<.010	<.004
08...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
16...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
22...	<.006	<.03	<.002	<.007	<.01	E.05	<.02	<.02	--	<.01	<.003	<.010	<.004
AUG													
08...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
21...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
SEP													
09...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004

Date	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROP-ICONA-ZOLE , WATER FLTRD REC (UG/L) (50471)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SIDURON WATER FLTRD REC (UG/L) (38548)
OCT													
03...	<.010	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
17...	<.010	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
NOV													
16...	<.010	<.006	<.011	<.02	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
27...	<.010	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
DEC													
13...	<.010	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
26...	<.010	<.006	<.011	<.02	M	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
JAN													
10...	<.022	<.006	<.011	<.02	M	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
23...	<.022	<.006	<.011	<.02	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
FEB													
07...	<.022	<.006	<.011	<.02	<.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
MAR													
07...	<.022	<.006	<.011	<.02	M	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
APR													
02...	<.022	<.006	<.011	<.02	M	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
MAY													
06...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
14...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
29...	<.022	<.006	<.011	<.02	M	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
JUN													
03...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
10...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
17...	<.022	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
24...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
JUL													
01...	<.022	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
08...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
16...	<.022	<.006	<.011	<.02	.06	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
22...	<.022	<.006	<.011	<.02	.09	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
AUG													
08...	<.022	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
21...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
SEP													
09...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02

394340085524601 SUGAR CREEK AT CO. RD. 400S AT NEW PALESTINE, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SULFO-MET-RURON METHYL WTR FLT REC (UG/L) (50337)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-BENURON METHYL WATER FLTRD (UG/L) (61159)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	UREA 3(4-CHLOR OPHENYL METHYL WAT FLT REC (UG/L) (61692)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT													
03...	E.004	<.009	<.02	<.010	<.060	<.02	<.005	<.002	<.009	<.02	<.009	<.02	64
17...	.075	<.009	E.003	<.010	<.034	<.02	<.005	<.002	<.009	<.02	<.009	<.02	79
NOV													
16...	E.006	<.009	<.002	<.010	<.034	<.02	<.005	<.002	<.009	<.02	<.009	<.02	52
27...	.028	<.009	E.003	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	82
DEC													
13...	.020	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	54
26...	E.009	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	37
JAN													
10...	E.005	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	.20	<.009	<.02	16
23...	<.005	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	E.02	<.009	<.02	35
FEB													
07...	.008	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	65
MAR													
07...	.008	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	49
APR													
02...	.008	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	89
MAY													
06...	.021	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	93
14...	.321	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	95
29...	.030	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	59
JUN													
03...	.025	<.009	<.02	<.010	<.034	<.02	<.005	<.002	<.009	<.02	<.009	<.02	89
10...	.020	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	E3.01	<.009	<.02	92
17...	.032	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	.37	<.009	<.02	98
24...	.014	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	.06	<.009	<.02	65
JUL													
01...	.026	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	.05	<.009	<.02	96
08...	.015	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	.05	<.009	<.02	94
16...	.013	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	81
22...	.025	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	89
AUG													
08...	.006	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	45
21...	<.005	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	56
SEP													
09...	.005	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	52

Date	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT	
03...	15
17...	37
NOV	
16...	13
27...	26
DEC	
13...	27
26...	36
JAN	
10...	32
23...	9.0
FEB	
07...	49
MAR	
07...	35
APR	
02...	18
MAY	
06...	214
14...	111
29...	26
JUN	
03...	30
10...	22
17...	39
24...	44
JUL	
01...	27
08...	6.0
16...	8.0
22...	31
AUG	
08...	14
21...	17
SEP	
09...	10

03361850 BUCK CREEK AT ACTON, IN

LOCATION.--Lat 39°39'25", long 85°57'27", in NW$^1/_4$SE$^1/_4$ 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 good except for estimated daily discharges, which are poor. Low flow is affected by regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	72	447	e33	1570	76	165	164	41	78	15	0.82
2	17	74	247	e31	632	112	126	166	39	60	8.2	0.80
3	14	83	168	e30	313	464	201	138	35	45	8.0	7.1
4	14	64	131	e29	206	218	162	103	31	34	6.5	2.4
5	26	61	101	e28	159	133	120	83	57	29	9.1	1.6
6	98	52	90	e28	111	104	96	90	73	28	8.8	1.6
7	73	48	89	e29	85	86	76	1310	44	21	12	1.9
8	47	45	77	e30	72	77	73	1020	32	22	4.8	0.86
9	33	48	62	e31	65	287	156	624	30	18	4.6	1.2
10	31	40	57	34	58	358	137	337	36	44	4.7	2.5
11	244	38	54	30	69	179	102	196	32	33	12	1.6
12	1050	41	47	32	68	137	209	433	35	26	4.0	7.2
13	498	34	107	27	59	112	559	2360	51	21	2.9	2.4
14	976	32	428	28	47	85	370	1460	192	15	2.7	1.5
15	692	32	519	31	46	78	300	475	84	13	5.5	2.2
16	585	36	286	25	42	196	182	254	88	16	4.4	1.0
17	442	30	1200	23	39	138	122	188	57	14	3.5	1.4
18	265	28	1140	25	39	102	94	140	43	22	2.5	4.5
19	185	33	431	22	41	85	77	104	35	52	15	22
20	139	28	256	22	76	122	69	84	29	45	19	125
21	105	27	171	25	137	126	460	70	23	28	16	161
22	91	25	130	25	99	88	358	59	20	19	5.9	31
23	89	24	126	22	69	71	179	56	18	29	4.6	13
24	430	32	110	33	57	62	132	50	18	19	5.4	13
25	1080	156	93	35	54	484	404	81	164	12	5.8	5.7
26	463	104	78	31	110	600	217	68	327	13	12	3.9
27	241	138	68	29	110	461	265	51	415	7.7	2.8	37
28	157	147	62	30	81	447	1440	49	808	6.1	1.9	41
29	118	554	49	27	---	331	491	43	256	8.0	6.8	15
30	98	917	e41	50	---	398	251	44	126	15	2.1	11
31	79	---	e37	277	---	242	---	38	---	17	1.6	---
TOTAL	8399	3043	6902	1152	4514	6459	7593	10338	3239	809.8	218.1	521.18
MEAN	270.9	101.4	222.6	37.16	161.2	208.4	253.1	333.5	108.0	26.12	7.035	17.37
MAX	1080	917	1200	277	1570	600	1440	2360	808	78	19	161
MIN	14	24	37	22	39	62	69	38	18	6.1	1.6	0.80
CFSM	3.44	1.29	2.83	0.47	2.05	2.64	3.21	4.23	1.37	0.33	0.09	0.22
IN.	3.97	1.44	3.26	0.54	2.13	3.05	3.58	4.88	1.53	0.38	0.10	0.25

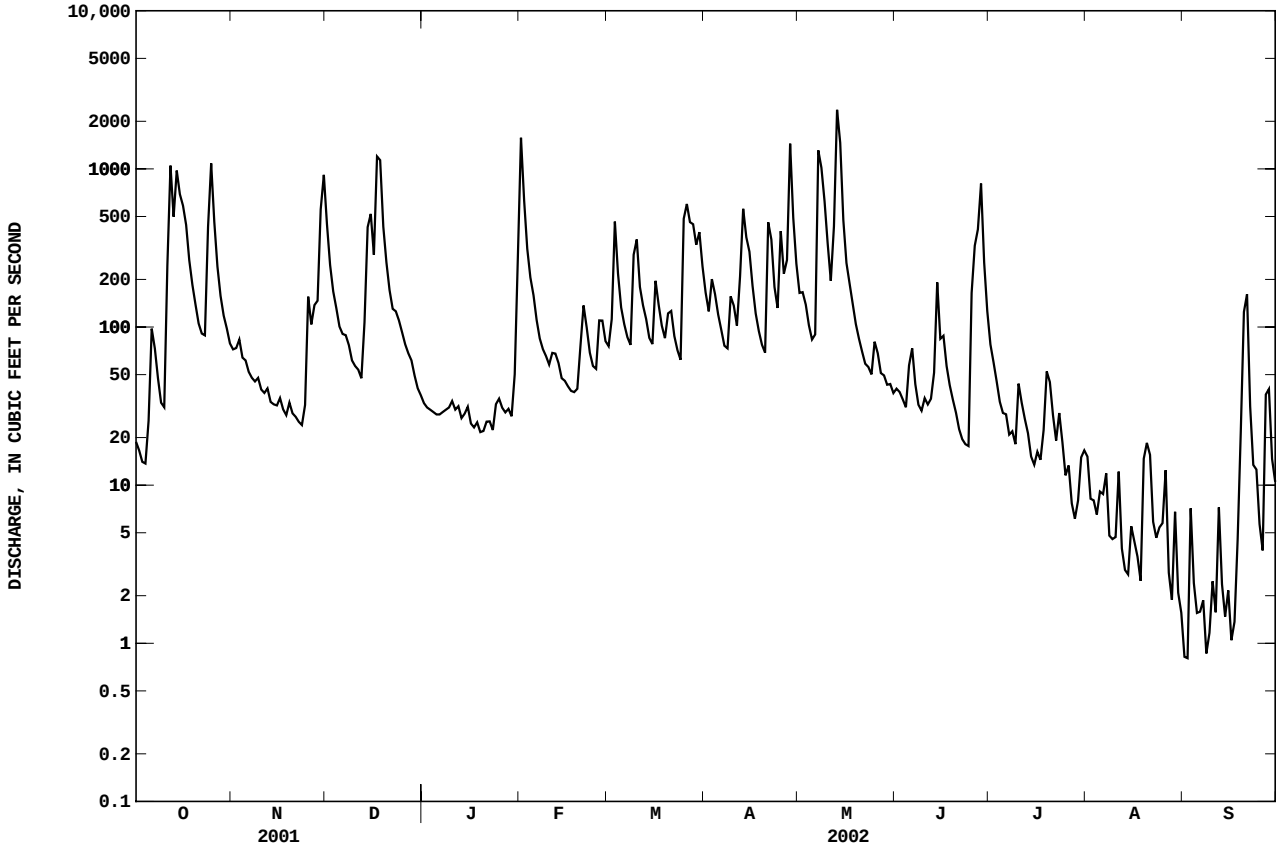
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

MEAN	39.36	94.62	111.8	111.9	135.0	154.2	138.7	121.8	86.75	65.94	35.48	23.24
MAX	312	463	333	352	349	347	302	462	478	324	216	166
(WY)	1987	1994	1991	1969	1971	1978	1996	1996	1998	1969	1979	1989
MIN	2.96	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1968 - 2002	
ANNUAL TOTAL	37046.4		53188.08			
ANNUAL MEAN	101.5		145.7		93.00	
HIGHEST ANNUAL MEAN					146	2002
LOWEST ANNUAL MEAN					36.7	1977
HIGHEST DAILY MEAN	1200	Dec 17	2360	May 13	3570	Nov 14 1993
LOWEST DAILY MEAN	4.7	Sep 5	0.80	Sep 2	0.60	Oct 1 1967
ANNUAL SEVEN-DAY MINIMUM	9.7	Aug 12	1.6	Sep 5	0.98	Sep 22 1999
MAXIMUM PEAK FLOW			2870	May 13	7140	Jul 20 1969
MAXIMUM PEAK STAGE			11.41	May 13	14.99	Jul 20 1969
ANNUAL RUNOFF (CFSM)	1.29		1.85		1.18	
ANNUAL RUNOFF (INCHES)	17.49		25.11		16.04	
10 PERCENT EXCEEDS	216		420		205	
50 PERCENT EXCEEDS	44		57		33	
90 PERCENT EXCEEDS	15		6.0		5.8	

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 SE$^1/_4$SW$^1/_4$ 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 those for March 26 to May 8 and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	103	707	e57	1440	104	297	219	105	53	11	e5.0
2	28	103	385	e54	749	122	234	204	89	e45	10	e4.8
3	25	106	273	e53	383	467	282	150	72	e45	9.9	e4.9
4	24	90	211	e51	258	239	218	124	64	34	9.2	5.2
5	29	80	172	e50	180	157	179	107	63	30	9.2	5.0
6	68	72	158	e53	148	130	151	130	103	27	10	4.9
7	66	68	158	53	129	114	133	2380	94	23	11	4.7
8	47	64	135	e52	111	100	128	3250	71	22	8.7	4.7
9	37	58	113	e51	98	432	311	1840	61	21	7.9	4.6
10	41	55	99	51	94	618	271	661	209	e19	7.4	4.8
11	302	52	89	50	91	289	193	368	118	19	7.3	4.8
12	1140	47	86	48	87	219	453	391	108	17	7.6	4.9
13	593	45	186	48	77	178	1510	3140	84	16	8.1	5.0
14	1310	45	562	45	71	144	1110	2600	107	15	9.6	6.1
15	1150	44	714	44	68	128	834	727	90	15	9.5	6.6
16	751	42	417	40	64	272	389	399	72	14	8.9	6.6
17	646	40	1680	40	60	210	255	294	58	16	e7.3	5.9
18	371	38	1950	38	55	161	190	243	49	21	e7.0	5.6
19	270	39	702	38	56	135	153	184	44	18	e7.3	5.8
20	207	39	405	38	86	245	130	149	40	17	11	69
21	164	36	292	38	141	275	412	125	36	14	11	115
22	137	35	234	36	102	178	941	109	35	e13	8.8	33
23	124	33	214	36	85	141	366	99	33	e12	14	13
24	996	e34	178	54	76	123	246	93	31	13	28	8.3
25	1150	e198	142	62	72	647	336	118	30	13	17	6.2
26	507	e322	124	53	154	1110	222	160	e84	12	11	e5.3
27	290	e442	111	49	163	894	277	114	e129	12	8.6	41
28	204	e719	100	47	120	539	1270	102	307	11	7.7	e48
29	161	1200	88	46	---	526	636	114	107	e10	7.3	e19
30	133	1330	e67	62	---	920	311	96	68	e11	7.0	e11
31	117	---	e62	273	---	435	---	82	---	12	6.0	---
TOTAL	11119	5579	10814	1710	5218	10252	12438	18772	2561	620	304.3	468.7
MEAN	358.7	186.0	348.8	55.16	186.4	330.7	414.6	605.5	85.37	20.00	9.816	15.62
MAX	1310	1330	1950	273	1440	1110	1510	3250	307	53	28	115
MIN	24	33	62	36	55	100	128	82	30	10	6.0	4.6
CFSM	3.35	1.74	3.26	0.52	1.74	3.09	3.87	5.66	0.80	0.19	0.09	0.15
IN.	3.87	1.94	3.76	0.59	1.81	3.56	4.32	6.53	0.89	0.22	0.11	0.16

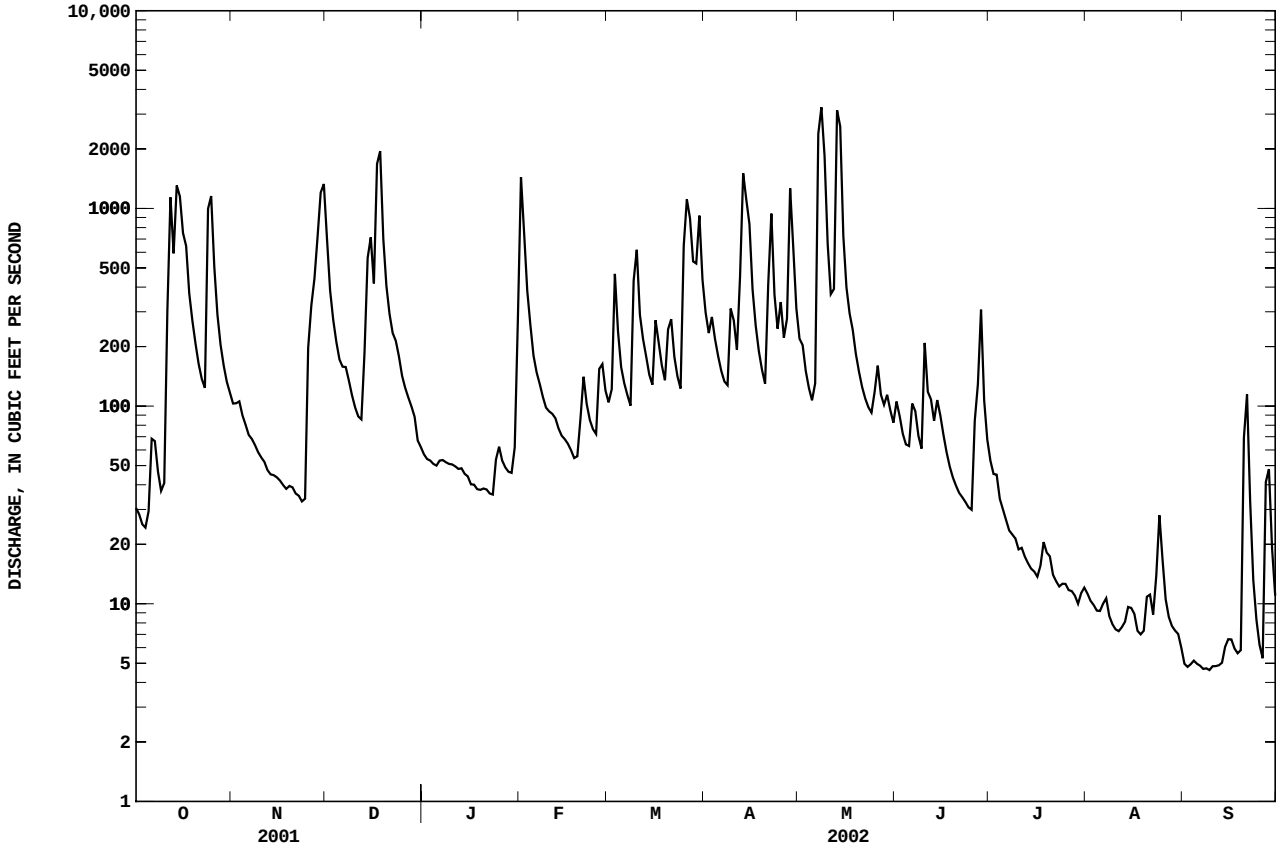
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

MEAN	31.91	83.73	118.9	154.2	174.1	207.8	185.5	154.8	101.1	71.32	29.17	24.23
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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	50966.2		79856.0			
ANNUAL MEAN	139.6		218.8		111.1	
HIGHEST ANNUAL MEAN					216	2002
LOWEST ANNUAL MEAN					20.3	1954
HIGHEST DAILY MEAN	1950	Dec 18	3250	May 8	6260	May 24 1968
LOWEST DAILY MEAN	7.1	Aug 17	4.6	Sep 9	0.50	Sep 29 1953
ANNUAL SEVEN-DAY MINIMUM	9.2	Aug 11	4.8	Sep 6	0.73	Oct 19 1953
MAXIMUM PEAK FLOW			5590	May 7	10700	Jan 27 1952
MAXIMUM PEAK STAGE			11.19	May 7	13.40	Jan 27 1952
ANNUAL RUNOFF (CFSM)	1.30		2.04		1.04	
ANNUAL RUNOFF (INCHES)	17.72		27.76		14.10	
10 PERCENT EXCEEDS	316		574		250	
50 PERCENT EXCEEDS	61		86		37	
90 PERCENT EXCEEDS	20		8.8		4.7	

e Estimated

03362000 YOUNGS CREEK NEAR EDINBURGH, IN--Continued



03362500 SUGAR CREEK NEAR EDINBURGH, IN

LOCATION.--Lat 39°21'39", long 85°59'51", in SW$^1/_4$SE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	e364	e2480	e244	e1580	e284	1210	1260	398	412	89	36
2	152	e332	e1420	e228	e1700	e293	909	1010	383	320	82	33
3	142	e311	e938	e217	e1260	e644	890	878	338	265	75	31
4	130	e279	e738	e213	e882	e819	945	761	307	225	70	31
5	131	e262	e622	e209	e602	e715	794	615	303	196	67	33
6	185	e239	e456	e202	e523	e658	645	567	512	175	77	30
7	347	e227	e396	e199	e459	e538	551	3470	482	160	67	28
8	288	e219	e354	e193	e401	464	499	9420	372	146	64	27
9	239	e206	e327	e207	e351	802	717	8540	314	142	58	26
10	201	e194	e310	e203	e309	2350	979	3710	406	136	54	26
11	e348	e188	e296	e193	e277	1340	772	1670	353	176	52	25
12	e709	e174	e294	e187	e262	920	828	1260	373	148	53	25
13	e964	e167	e468	e180	e258	733	3830	6280	332	131	54	24
14	e1370	e163	e846	e177	e239	604	3380	10700	511	121	52	27
15	e1850	e162	e1140	e172	e229	522	3300	8530	577	111	54	31
16	e1380	e157	e908	e168	e218	812	1760	4410	431	104	51	27
17	e1140	e147	e2400	e167	e216	890	1140	1700	407	114	49	27
18	e893	e139	e6850	e160	e214	690	839	1210	315	116	48	26
19	e729	e138	e4210	e155	e208	564	681	928	269	115	49	27
20	e572	e134	e2100	e153	e225	643	579	772	239	545	55	78
21	e455	e130	e1010	e152	e283	861	1110	659	217	520	64	281
22	e353	e128	e759	e147	e256	645	4100	578	200	253	60	197
23	e331	e127	e675	e148	e218	526	1620	528	186	207	55	105
24	e1610	e126	e590	e183	e206	459	1040	489	178	202	84	74
25	e1990	e226	e496	e241	e200	1230	1390	520	171	150	67	62
26	e1610	e370	e409	e225	e298	3520	1280	620	1080	123	58	55
27	e948	e451	e367	e198	e340	3260	939	535	891	113	53	85
28	e674	e723	e339	e191	e312	2240	3760	499	1900	103	49	131
29	e518	e1450	e310	e186	---	1910	5210	510	1180	96	43	118
30	e445	e3020	e285	e216	---	2550	2250	449	594	92	41	83
31	e409	---	e259	e500	---	1750	---	403	---	91	41	---
TOTAL	21276	10953	33052	6214	12526	34236	47947	73481	14219	5808	1835	1809
MEAN	686.3	365.1	1066	200.5	447.4	1104	1598	2370	474.0	187.4	59.19	60.30
MAX	1990	3020	6850	500	1700	3520	5210	10700	1900	545	89	281
MIN	130	126	259	147	200	284	499	403	171	91	41	24
CFSM	1.45	0.77	2.25	0.42	0.94	2.33	3.37	5.00	1.00	0.40	0.12	0.13
IN.	1.67	0.86	2.59	0.49	0.98	2.69	3.76	5.77	1.12	0.46	0.14	0.14

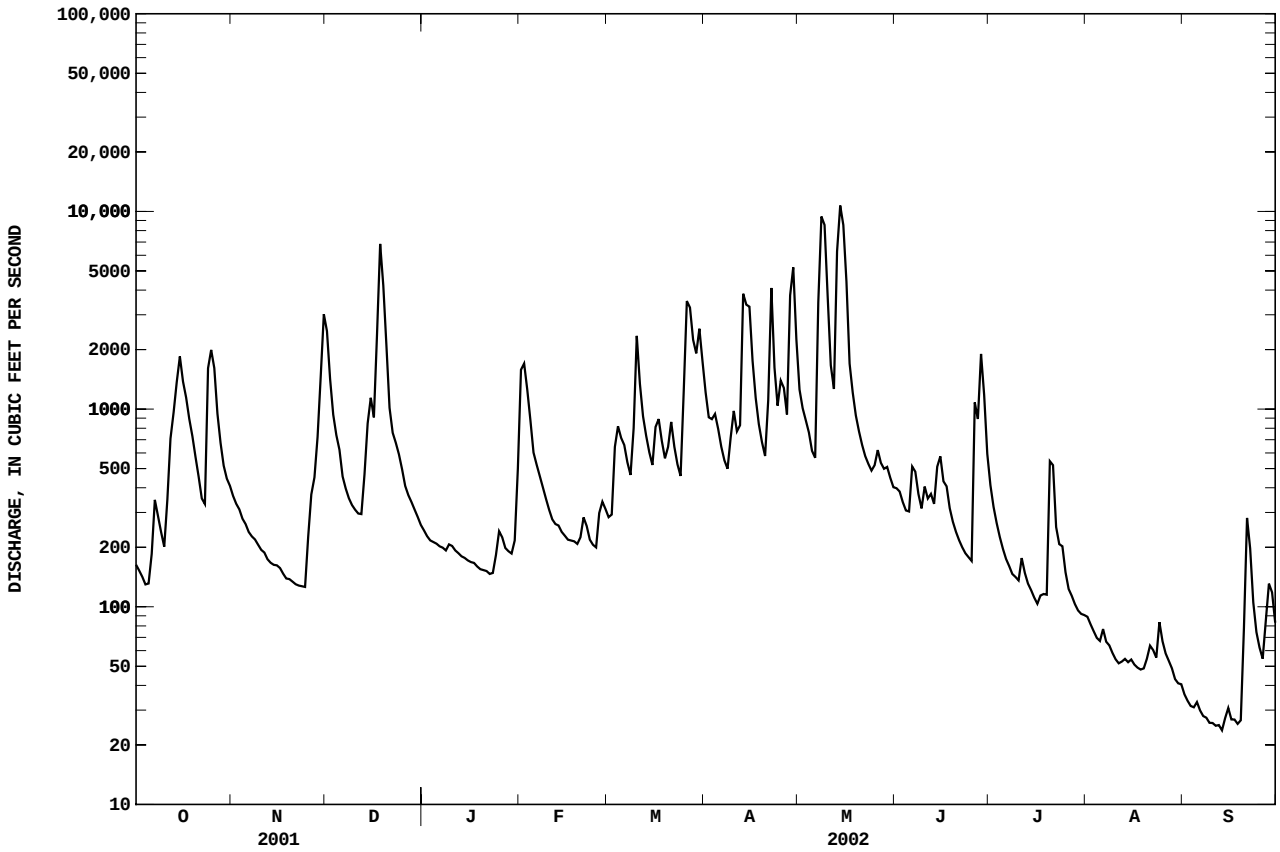
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2002, BY WATER YEAR (WY)

MEAN	149.8	372.0	513.0	692.9	777.4	929.6	848.6	707.8	484.5	321.6	173.2	126.6
MAX	983	2591	1742	4000	2192	2281	2076	2878	2381	1564	1348	1295
(WY)	1987	1994	1991	1950	1950	1961	1964	1996	1998	1979	1979	1989
MIN	22.2	33.4	30.4	36.5	74.8	215	170	120	58.7	29.5	25.4	13.4
(WY)	1945	1954	1964	1977	1964	1981	1971	1976	1988	1954	1954	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1943 - 2002	
ANNUAL TOTAL	173469		263356			
ANNUAL MEAN	475.3		721.5		506.3	
HIGHEST ANNUAL MEAN					849	1950
LOWEST ANNUAL MEAN					160	1954
HIGHEST DAILY MEAN	6850	Dec 18	10700	May 14	19200	May 29 1956
LOWEST DAILY MEAN	74	Aug 17	24	Sep 13	9.2	Sep 18 1954
ANNUAL SEVEN-DAY MINIMUM	85	Aug 12	26	Sep 8	10	Sep 13 1954
MAXIMUM PEAK FLOW			11000	May 14	27600	May 29 1956
MAXIMUM PEAK STAGE			14.68	May 14	18.38	May 29 1956
ANNUAL RUNOFF (CFSM)	1.00		1.52		1.07	
ANNUAL RUNOFF (INCHES)	13.61		20.67		14.51	
10 PERCENT EXCEEDS	959		1610		1150	
50 PERCENT EXCEEDS	289		310		211	
90 PERCENT EXCEEDS	118		55		46	

e Estimated

03362500 SUGAR CREEK NEAR EDINBURGH, IN--Continued



03363500 FLATROCK RIVER AT ST. PAUL, IN

LOCATION.--Lat 39°25'03", long 85°38'03", in SE$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	312	2170	e242	1790	179	761	876	596	154	24	10
2	80	288	1310	e223	1790	195	616	768	504	136	23	e9.8
3	76	273	857	e215	1020	756	1170	723	337	124	22	e9.5
4	69	251	663	e204	708	739	1010	567	271	113	21	e9.0
5	71	232	544	e200	503	478	705	481	264	103	20	e8.8
6	92	215	495	197	405	369	571	477	724	93	22	e8.4
7	177	204	502	192	359	327	490	2950	662	86	20	e7.8
8	143	193	442	e167	318	292	451	5160	441	81	18	7.0
9	116	182	386	172	285	444	1840	3550	349	77	16	7.8
10	102	170	340	177	281	1100	1850	1770	322	83	15	7.3
11	112	167	315	172	284	753	1050	978	291	124	15	7.2
12	548	154	304	164	292	560	994	906	295	89	21	6.8
13	860	146	625	162	274	469	4190	7550	251	74	21	5.4
14	1310	146	838	154	234	395	4680	7810	428	67	16	4.9
15	1760	142	1150	150	223	362	4450	3700	426	61	18	6.8
16	1620	137	915	139	218	737	2590	1510	420	54	17	6.5
17	1230	132	4890	135	206	808	1160	914	292	52	16	7.9
18	938	127	6130	133	184	587	866	749	233	50	e14	8.1
19	663	128	3650	132	179	470	759	613	201	54	e13	e6.6
20	529	130	1460	130	195	589	688	523	178	52	e13	e5.8
21	431	121	939	128	208	675	1800	454	163	46	e12	5.3
22	363	118	725	125	196	518	2890	398	153	45	e11	7.7
23	326	117	699	122	180	428	1210	364	146	41	e11	12
24	884	119	635	139	173	379	862	335	140	38	e37	11
25	1800	173	518	153	167	783	1140	332	134	35	e27	9.2
26	1610	208	444	147	188	2200	916	366	182	35	e22	10
27	804	296	397	138	191	1780	738	358	227	33	e18	18
28	572	439	358	134	177	1400	2890	329	333	30	16	28
29	469	1620	320	136	---	1200	2580	323	286	31	14	20
30	399	2360	e280	196	---	1660	1360	297	193	29	13	16
31	349	---	e274	464	---	1070	---	269	---	27	11	---
TOTAL	18588	9300	33575	5342	11228	22702	47277	46400	9442	2117	557	288.6
MEAN	599.6	310.0	1083	172.3	401.0	732.3	1576	1497	314.7	68.29	17.97	9.620
MAX	1800	2360	6130	464	1790	2200	4680	7810	724	154	37	28
MIN	69	117	274	122	167	179	451	269	134	27	11	4.9
CFSM	1.98	1.02	3.57	0.57	1.32	2.42	5.20	4.94	1.04	0.23	0.06	0.03
IN.	2.28	1.14	4.12	0.66	1.38	2.79	5.80	5.70	1.16	0.26	0.07	0.04

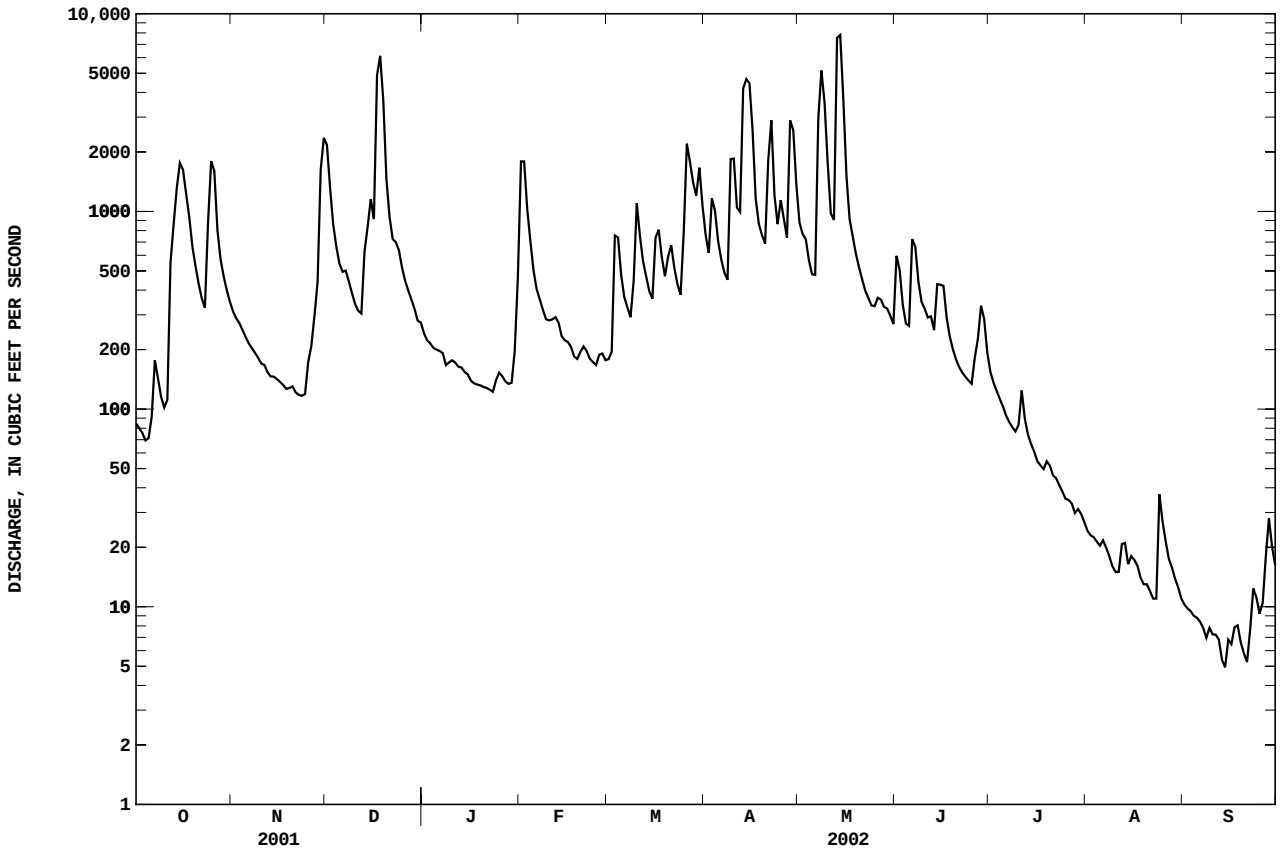
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

MEAN	90.85	214.5	347.7	485.8	516.6	581.3	589.8	461.8	297.6	187.7	90.03	65.18
MAX	600	1342	1567	3450	1808	1605	1576	1968	1502	915	716	392
(WY)	2002	1994	1991	1937	1950	1961	2002	1996	1998	1979	1979	1989
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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1931 - 2002	
ANNUAL TOTAL	132972		206816.6			
ANNUAL MEAN	364.3		566.6		326.4	
HIGHEST ANNUAL MEAN					642	1950
LOWEST ANNUAL MEAN					40.6	1941
HIGHEST DAILY MEAN	6130	Dec 18	7810	May 14	16500	Jan 5 1949
LOWEST DAILY MEAN	26	Sep 7	4.9	Sep 14	0.60	Aug 7 1931
ANNUAL SEVEN-DAY MINIMUM	35	Sep 3	6.4	Sep 10	0.80	Oct 12 1963
MAXIMUM PEAK FLOW			10100	May 13	18500	Jan 5 1949
MAXIMUM PEAK STAGE			9.04	May 13	12.37	May 24 1968
ANNUAL RUNOFF (CFSM)	1.20		1.87		1.08	
ANNUAL RUNOFF (INCHES)	16.33		25.39		14.64	
10 PERCENT EXCEEDS	782		1330		751	
50 PERCENT EXCEEDS	189		242		134	
90 PERCENT EXCEEDS	70		15		16	

e Estimated

03363500 FLATROCK RIVER AT ST. PAUL, IN--Continued



03363900 FLATROCK RIVER AT COLUMBUS, IN

LOCATION.--Lat 39°14'06", long 85°55'36", in NE$^1/_4$SW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	607	3310	e450	1840	400	1200	1450	658	356	97	53
2	152	564	2050	e420	2420	408	990	1200	812	315	95	52
3	147	529	1330	e400	1660	755	1200	1070	675	288	92	51
4	139	492	1080	e390	1200	1090	1430	934	580	267	89	49
5	134	462	918	e380	958	832	1100	813	532	247	87	48
6	135	433	808	e370	815	692	915	758	637	227	84	48
7	142	406	797	e360	740	622	806	2170	893	207	81	46
8	238	386	749	e350	684	573	743	8670	736	196	77	45
9	219	368	673	e360	631	613	1230	10700	619	193	76	45
10	198	348	594	359	595	1350	2130	5150	607	190	75	45
11	186	333	542	355	582	1210	1480	1960	546	184	71	44
12	448	323	508	342	569	941	1090	1520	554	212	71	43
13	1170	302	687	334	563	821	3560	5700	548	186	81	43
14	1480	291	1050	326	525	738	5890	15200	505	170	79	43
15	2450	285	1460	316	494	676	7790	11100	677	160	75	46
16	2170	277	1280	306	484	856	5420	4170	621	149	67	49
17	1760	269	3050	294	468	1100	2200	1880	607	143	68	47
18	1520	260	11200	287	445	942	1660	1470	503	184	70	46
19	1160	254	9470	280	423	804	1290	1240	449	155	68	45
20	956	254	3740	275	432	840	1190	1070	412	192	67	51
21	806	250	1630	270	450	1060	1250	956	384	205	65	55
22	688	242	1240	265	439	909	4410	864	360	162	62	56
23	613	237	1090	261	417	775	2840	793	343	149	59	51
24	980	235	1020	275	400	707	1500	748	330	141	59	47
25	2420	286	903	296	391	819	1460	719	320	132	60	45
26	2250	406	803	297	407	2330	1400	696	310	126	64	47
27	1580	445	733	287	433	2970	1140	700	356	120	69	57
28	1080	698	675	278	419	1860	2840	666	451	115	61	60
29	888	1620	623	276	---	1560	4350	748	519	110	59	62
30	765	3330	563	341	---	1820	2500	667	427	108	56	63
31	671	---	e490	599	---	1640	---	612	---	102	54	---
TOTAL	27704	15192	55066	10399	19884	32713	67004	86394	15971	5691	2238	1482
MEAN	893.7	506.4	1776	335.5	710.1	1055	2233	2787	532.4	183.6	72.19	49.40
MAX	2450	3330	11200	599	2420	2970	7790	15200	893	356	97	63
MIN	134	235	490	261	391	400	743	612	310	102	54	43
CFSM	1.67	0.95	3.33	0.63	1.33	1.98	4.18	5.22	1.00	0.34	0.14	0.09
IN.	1.93	1.06	3.84	0.72	1.39	2.28	4.67	6.02	1.11	0.40	0.16	0.10

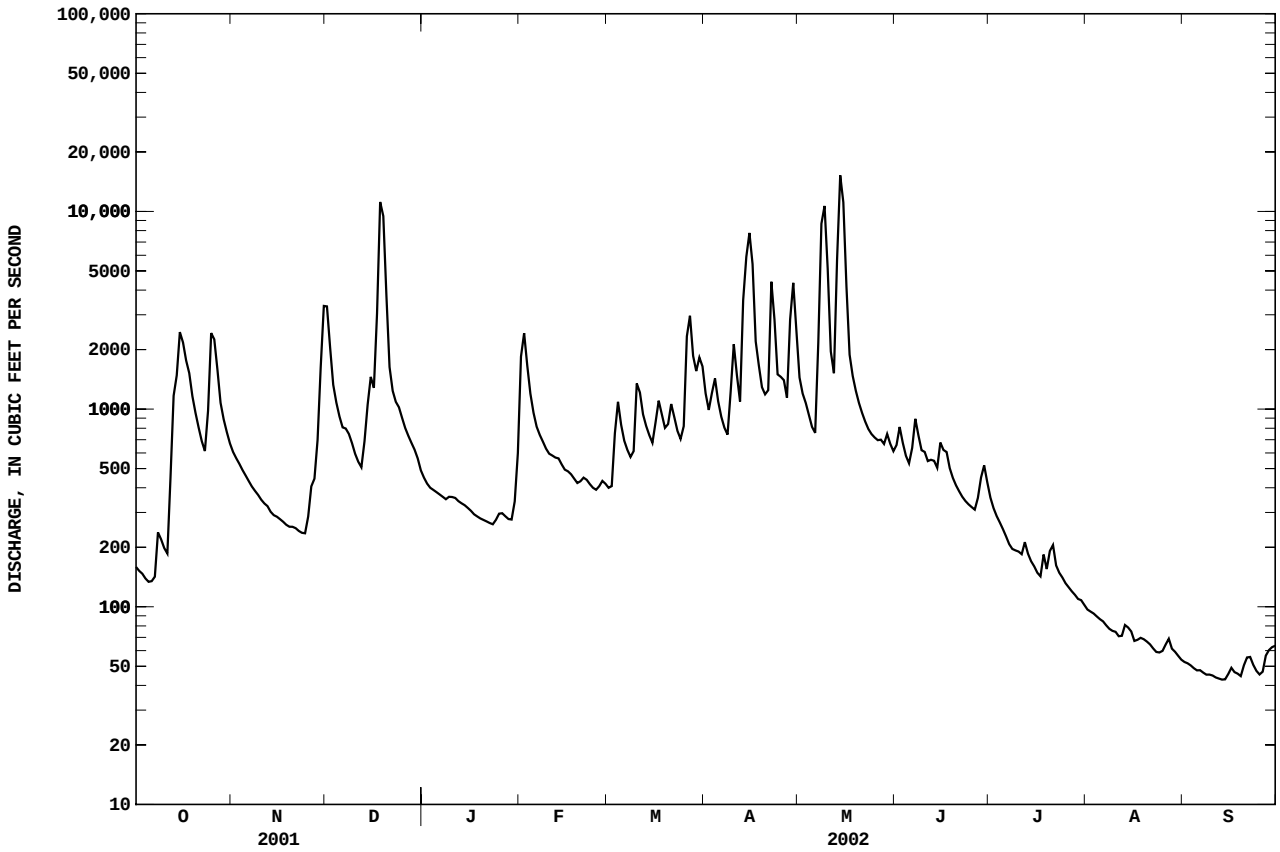
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

MEAN	189.2	435.3	687.4	722.9	922.8	952.2	1026	943.8	608.1	392.3	243.2	145.5
MAX	912	2336	2092	1827	2524	2223	2301	3871	2728	1556	1296	837
(WY)	1994	1994	1991	1969	1982	1978	1996	1996	1998	1979	1979	1989
MIN	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1968 - 2002	
ANNUAL TOTAL	211921		339738			
ANNUAL MEAN	580.6		930.8		603.9	
HIGHEST ANNUAL MEAN					949	1996
LOWEST ANNUAL MEAN					271	1977
HIGHEST DAILY MEAN	11200	Dec 18	15200	May 14	18200	Dec 31 1990
LOWEST DAILY MEAN	80	Sep 8	43	Sep 12	13	Sep 18 1999
ANNUAL SEVEN-DAY MINIMUM	98	Aug 24	44	Sep 8	13	Sep 18 1999
MAXIMUM PEAK FLOW			16200	May 14	20000	May 25 1968
MAXIMUM PEAK STAGE			14.76	May 14	15.87	May 25 1968
ANNUAL RUNOFF (CFSM)	1.09		1.74		1.13	
ANNUAL RUNOFF (INCHES)	14.76		23.67		15.37	
10 PERCENT EXCEEDS	1150		1850		1320	
50 PERCENT EXCEEDS	333		484		314	
90 PERCENT EXCEEDS	139		62		59	

e Estimated

03363900 FLATROCK RIVER AT COLUMBUS, IN--Continued



03364000 EAST FORK WHITE RIVER AT COLUMBUS, IN

LOCATION.--Lat 39°12'00", long 85°55'32", in NE$^1/_4$NW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	723	2270	11400	1630	6720	1550	4570	5580	2000	1640	423	250
2	656	2090	9040	1540	10400	1570	3640	4260	2190	1390	402	240
3	605	2020	5260	1500	8950	3230	3840	3810	1960	1230	389	233
4	553	1990	3920	1450	5240	4660	4350	3330	1750	1110	375	230
5	534	1860	3210	1410	3620	3330	3630	2850	1650	1010	364	222
6	565	1780	2820	1410	2870	2570	3020	2730	2210	922	381	e215
7	817	1660	2690	1380	2480	2230	2650	7080	2750	851	356	e202
8	1040	1590	2500	1310	2210	2010	2450	18100	2330	789	338	e197
9	922	1480	2270	1290	2000	2690	3260	25200	1980	761	330	e192
10	789	1420	2030	1280	1870	5580	5080	17500	1890	754	322	e188
11	922	1360	1880	1290	1800	5110	4110	8210	1770	842	314	e185
12	3460	1310	1790	1240	1770	3630	3370	5150	1820	854	309	e182
13	6540	1240	2220	1210	1740	3010	9410	13400	1800	734	321	e178
14	7510	1200	3600	1190	1620	2620	12400	29700	1810	670	320	174
15	10300	1170	6410	1150	1520	2340	13500	31300	2740	625	319	210
16	11000	1140	6190	1120	1480	2970	11800	19600	2310	577	309	196
17	9400	1110	10400	1080	1420	3890	6700	9560	2130	559	304	185
18	7090	1070	19100	1060	1340	3250	4860	5360	1760	678	306	185
19	5010	1040	20400	1040	1290	2740	3810	4230	1540	586	301	180
20	3760	1040	13500	1020	1340	2980	3360	3580	1400	977	300	234
21	3030	1010	6770	993	1570	3390	4160	3130	1290	1750	311	451
22	2570	979	4640	979	1680	2990	10500	2800	1220	1070	308	588
23	2290	952	3930	962	1540	2530	8680	2560	1150	821	299	384
24	5550	958	3530	1060	1420	2280	4800	2420	1080	772	322	308
25	9650	1510	3080	1140	1340	2990	5020	2480	1040	657	325	273
26	10300	1900	2700	1150	1490	8440	4980	2530	1760	576	331	257
27	7800	2130	2460	1100	1740	10200	3990	2470	2690	531	311	321
28	4790	2590	2270	1060	1690	7480	8870	2400	2920	504	294	368
29	3440	6090	2100	1040	---	6220	12300	2520	3230	487	280	407
30	2850	10700	1910	1220	---	6720	11000	2260	2080	462	266	351
31	2510	---	1730	1850	---	6230	---	2040	---	435	260	---
TOTAL	126976	58659	165750	38154	74150	121430	184110	248140	58250	25624	10090	7786
MEAN	4096	1955	5347	1231	2648	3917	6137	8005	1942	826.6	325.5	259.5
MAX	11000	10700	20400	1850	10400	10200	13500	31300	3230	1750	423	588
MIN	534	952	1730	962	1290	1550	2450	2040	1040	435	260	174
CFSM	2.40	1.15	3.13	0.72	1.55	2.29	3.60	4.69	1.14	0.48	0.19	0.15
IN.	2.77	1.28	3.61	0.83	1.62	2.65	4.01	5.41	1.27	0.56	0.22	0.17

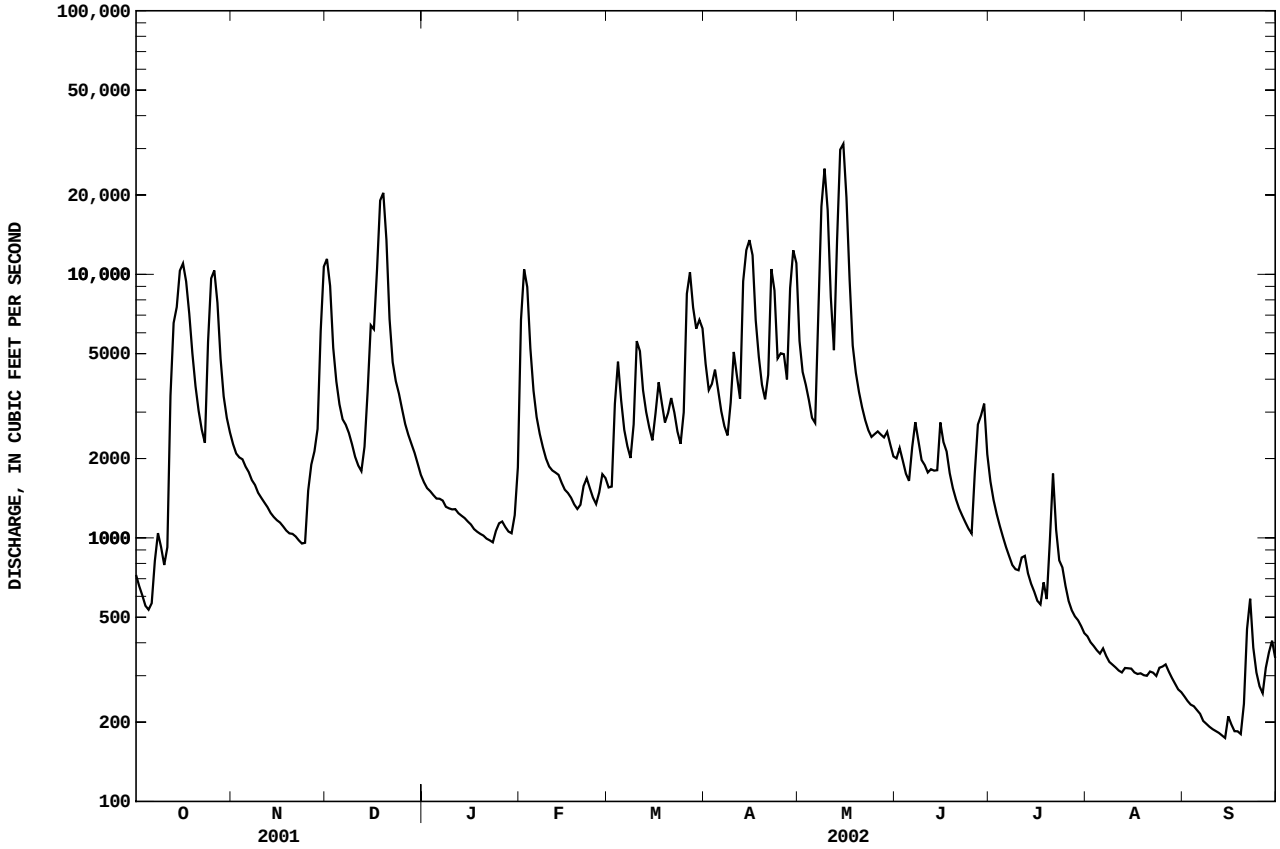
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)

MEAN	628.1	1347	1996	2588	2965	3215	3116	2636	1774	1280	745.2	521.9
MAX	4096	8137	6004	14400	8640	8014	7466	10960	8272	4990	5185	3696
(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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002	
ANNUAL TOTAL	764934		1119119			
ANNUAL MEAN	2096		3066		1895	
HIGHEST ANNUAL MEAN					3304	1950
LOWEST ANNUAL MEAN					534	1954
HIGHEST DAILY MEAN	20400	Dec 19	31300	May 15	49000	Mar 6 1963
LOWEST DAILY MEAN	357	Sep 7	174	Sep 14	85	Sep 22 1994
ANNUAL SEVEN-DAY MINIMUM	466	Sep 3	185	Sep 8	90	Sep 28 1954
MAXIMUM PEAK FLOW			34400	May 15	52300	Mar 6 1963
MAXIMUM PEAK STAGE			13.12	May 15	16.23	Mar 6 1963
ANNUAL RUNOFF (CFSM)	1.23		1.80		1.11	
ANNUAL RUNOFF (INCHES)	16.67		24.39		15.08	
10 PERCENT EXCEEDS	4470		7490		4260	
50 PERCENT EXCEEDS	1400		1770		977	
90 PERCENT EXCEEDS	562		311		250	

e Estimated

03364000 EAST FORK WHITE RIVER AT COLUMBUS, IN--Continued



03364500 CLIFTY CREEK AT HARTSVILLE, IN

LOCATION.--Lat 39°16'25", long 85°42'10", in NW$^1/_4$NW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	81	461	e58	1150	42	162	182	140	17	1.7	0.34
2	13	75	276	e56	450	54	137	164	100	15	1.3	0.30
3	12	70	200	e51	264	254	347	128	67	14	1.2	0.25
4	11	61	158	e48	183	151	262	109	53	12	1.1	e0.16
5	12	57	131	e47	131	109	174	98	51	11	0.91	e0.05
6	16	53	125	e45	112	90	141	107	362	9.4	0.78	0.00
7	17	50	143	e44	101	79	120	1560	256	8.1	0.68	0.00
8	19	48	125	e43	89	71	112	1730	135	7.4	0.62	0.00
9	15	44	107	e45	79	126	390	707	95	7.0	0.56	0.00
10	14	41	93	46	78	231	294	312	76	7.3	0.46	0.00
11	21	41	88	45	81	138	186	202	81	6.5	0.54	0.00
12	261	36	83	42	83	116	187	173	203	5.8	1.5	0.00
13	204	33	192	41	75	101	1380	3700	97	5.1	0.81	0.00
14	830	33	296	40	65	89	1260	1580	75	4.3	1.1	0.00
15	552	32	301	39	64	87	660	368	60	3.9	1.4	0.08
16	296	31	235	36	62	764	322	230	108	3.5	0.94	e0.04
17	265	30	3510	34	57	386	209	174	72	4.5	0.99	0.00
18	186	29	2040	33	50	250	158	147	48	4.6	1.1	0.00
19	141	30	495	32	48	201	134	118	38	38	1.6	0.00
20	110	29	294	32	53	410	256	102	33	17	1.3	0.03
21	89	29	206	31	52	336	608	89	29	6.2	1.1	0.04
22	76	27	164	30	44	200	758	79	27	22	0.85	0.03
23	73	27	206	29	40	155	313	74	25	20	0.74	0.08
24	923	29	191	45	38	131	210	74	24	7.2	0.65	0.03
25	921	57	146	69	38	290	275	108	22	4.6	0.50	0.00
26	344	61	123	56	50	1090	190	99	22	3.5	0.41	0.00
27	200	215	109	48	52	596	200	75	27	3.1	0.37	1.4
28	143	333	98	44	43	338	1720	78	30	2.8	0.36	0.86
29	116	1110	87	43	---	239	470	123	25	2.3	0.37	0.53
30	99	1010	e66	106	---	327	254	79	19	2.2	0.40	0.34
31	89	---	e64	368	---	215	---	64	---	1.9	0.36	---
TOTAL	6083	3802	10813	1726	3632	7666	11889	12833	2400	277.2	26.70	4.56
MEAN	196.2	126.7	348.8	55.68	129.7	247.3	396.3	414.0	80.00	8.942	0.861	0.152
MAX	923	1110	3510	368	1150	1090	1720	3700	362	38	1.7	1.4
MIN	11	27	64	29	38	42	112	64	19	1.9	0.36	0.00
CFSM	2.15	1.39	3.82	0.61	1.42	2.71	4.34	4.53	0.88	0.10	0.01	0.00
IN.	2.48	1.55	4.40	0.70	1.48	3.12	4.84	5.22	0.98	0.11	0.01	0.00

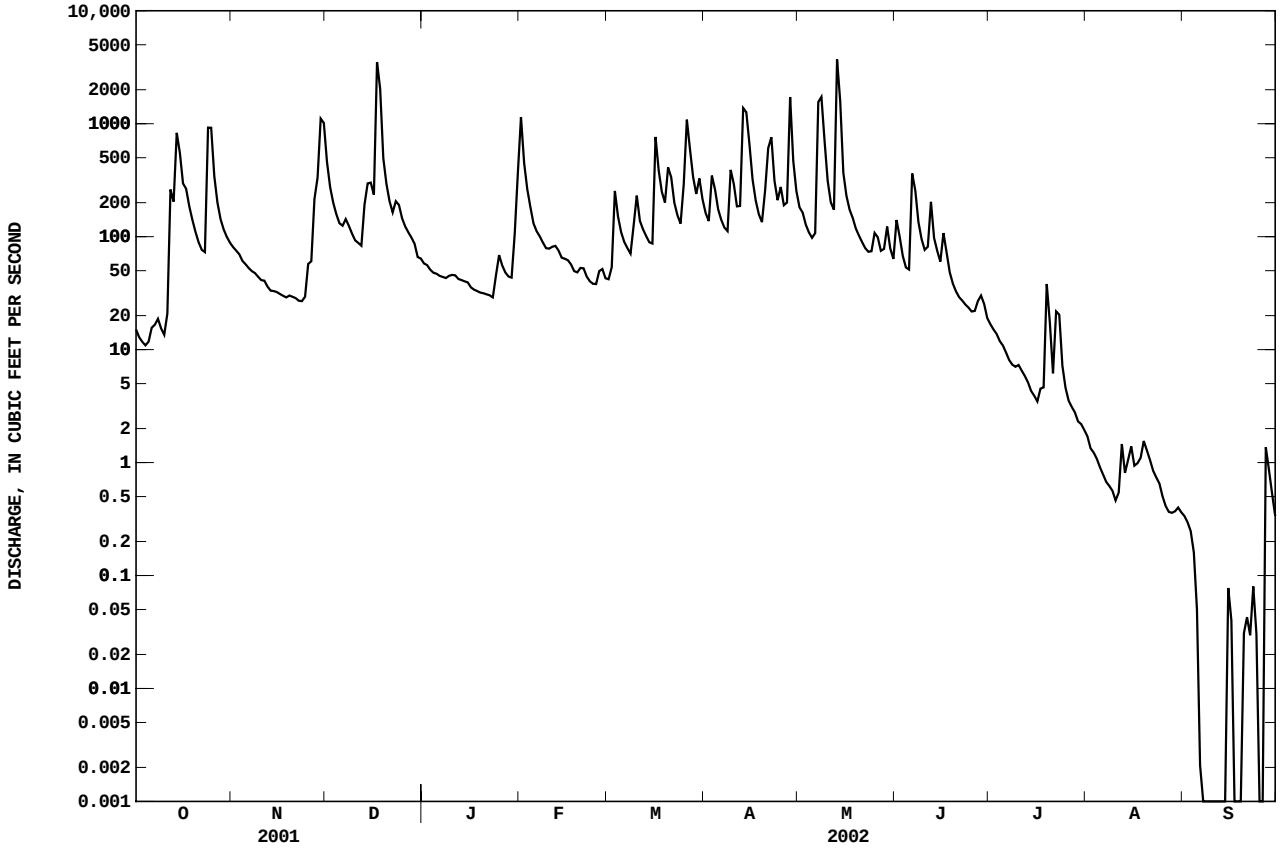
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)

MEAN	26.02	71.40	119.0	155.5	164.4	179.3	161.5	140.0	80.58	56.37	31.02	18.02
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	0.000	0.000	0.13	1.47	7.17	21.1	17.7	10.9	1.16	0.000	0.000	0.000
(WY)	1954	1954	1954	1977	1954	1954	1976	1976	1988	1954	1954	1953

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002	
ANNUAL TOTAL	44757.6		61152.46			
ANNUAL MEAN	122.6		167.5		99.97	
HIGHEST ANNUAL MEAN					197	1950
LOWEST ANNUAL MEAN					9.00	1954
HIGHEST DAILY MEAN	3510	Dec 17	3700	May 13	6230	Apr 29 1996
LOWEST DAILY MEAN	4.2	Aug 30	0.00	Sep 6	0.00	Oct 14 1948
ANNUAL SEVEN-DAY MINIMUM	5.1	Aug 24	0.00	Sep 6	0.00	Sep 2 1951
MAXIMUM PEAK FLOW			5000	Dec 17	11300	Jan 21 1959
MAXIMUM PEAK STAGE			9.58	Dec 17	14.29	Jan 21 1959
ANNUAL RUNOFF (CFSM)	1.34		1.83		1.09	
ANNUAL RUNOFF (INCHES)	18.22		24.89		14.86	
10 PERCENT EXCEEDS	254		337		220	
50 PERCENT EXCEEDS	48		61		32	
90 PERCENT EXCEEDS	13		0.54		0.83	

e Estimated

03364500 CLIFTY CREEK AT HARTSVILLE, IN--Continued



03365500 EAST FORK WHITE RIVER AT SEYMOUR, IN

LOCATION.--Lat 38°58'57", long 85°53'57", in NW$^1/_4$NE$^1/_4$ sec.7, T.6 N., R.6 E., Jackson County, Hydrologic Unit 05120206, (SEYMOUR, IN quadrangle), on left bank 1,700 ft downstream from highway bridge, 1 mi north of Seymour, 9.5 mi downstream from Sand Creek, and at mile 214.6.

DRAINAGE AREA.--2,341 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	3350	19000	2790	7990	1930	7020	11400	3190	2440	669	381
2	981	3050	14600	2620	12400	1840	5530	7500	3310	2020	645	368
3	895	2830	9950	2540	12200	3610	4980	6340	3170	1770	620	356
4	827	2720	6670	2470	9450	5610	5990	5500	2850	1590	598	347
5	780	2570	5200	2360	6300	5050	5520	4730	2700	1440	578	336
6	779	2440	4340	2320	4660	3700	4530	4490	6390	1320	558	327
7	897	2300	4260	2280	3820	3030	3880	7430	6260	1220	562	320
8	1140	2190	3910	2180	3320	2680	3490	31400	4430	1150	530	313
9	1160	2090	3440	2110	2950	2590	3970	42700	3500	1100	511	306
10	1040	1990	3040	2090	2720	5660	6390	33600	3230	1110	496	298
11	989	1920	2730	2090	2580	6870	6300	20300	e2900	1070	481	290
12	2160	1850	2530	2040	2490	5540	4970	9130	e2950	1160	468	283
13	5750	1780	3080	1980	2410	4300	8380	20200	e2920	1080	460	277
14	8110	1720	4630	1930	2260	3630	21900	46300	2770	994	479	274
15	13100	1670	7470	1890	2110	3180	26500	42300	3180	944	502	289
16	13600	1640	8140	1840	2020	6790	20200	35600	3360	891	484	311
17	13600	1600	15800	1780	1930	7360	12800	23100	3050	851	484	297
18	11600	1570	e24000	1730	1830	5810	7800	10000	2710	984	730	287
19	8800	1530	e42000	1700	1720	4570	6160	7310	2340	994	1180	283
20	5990	1510	e30000	1660	1710	6020	5620	6170	2090	1060	555	291
21	4530	1500	15700	1620	1860	7010	5760	5440	1930	1860	488	334
22	3700	1460	8250	1590	2040	5370	15400	4880	1800	1670	481	501
23	3220	1420	6770	1560	1960	4140	15700	4420	1710	1240	462	588
24	10200	1400	6360	1700	1800	3490	9370	4080	1620	1110	480	458
25	29700	1680	5430	2090	1700	3400	8840	5150	1550	1010	566	396
26	17700	2280	4670	1960	1760	8420	7650	5140	1540	905	515	365
27	13100	4290	4170	1830	2060	17100	6510	4410	2950	831	485	521
28	9530	5630	3830	1740	2110	12100	9830	3920	3260	787	453	953
29	5940	10500	3580	1680	---	8990	18300	4590	4080	753	433	644
30	4500	17400	3250	1850	---	7850	16400	4050	3250	736	410	564
31	3790	---	2960	3850	---	8200	---	3530	---	699	393	---
TOTAL	199198	89880	279760	63870	102160	175840	285690	425110	90990	36789	16756	11558
MEAN	6426	2996	9025	2060	3649	5672	9523	13710	3033	1187	540.5	385.3
MAX	29700	17400	42000	3850	12400	17100	26500	46300	6390	2440	1180	953
MIN	779	1400	2530	1560	1700	1840	3490	3530	1540	699	393	274
CFSM	2.74	1.28	3.85	0.88	1.56	2.42	4.07	5.86	1.30	0.51	0.23	0.16
IN.	3.17	1.43	4.45	1.01	1.62	2.79	4.54	6.76	1.45	0.58	0.27	0.18

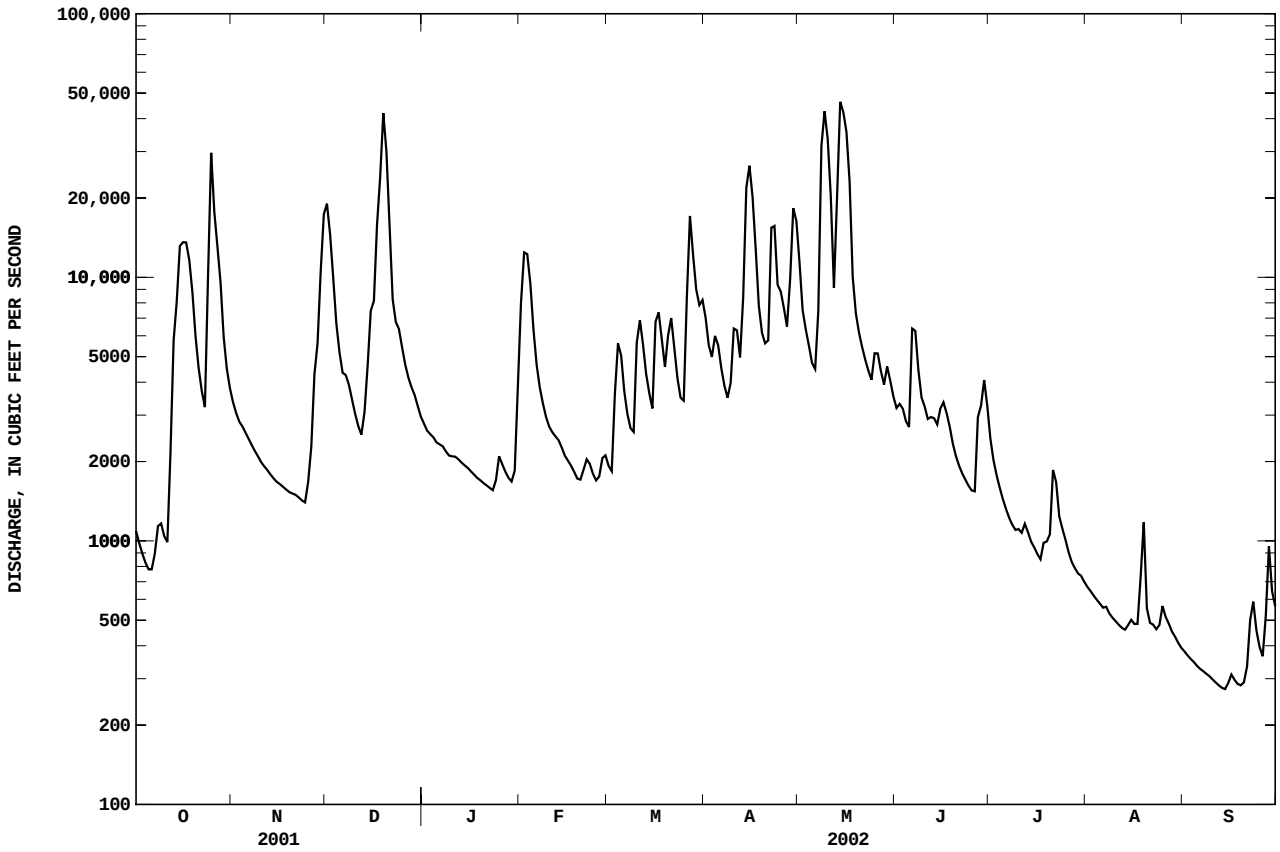
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2002, BY WATER YEAR (WY)

MEAN	811.9	1621	2608	3773	3959	4533	4391	3606	2360	1596	955.4	646.7
MAX	6369	11570	9245	19560	12290	10690	9525	17020	12630	6040	8795	4244
(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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1928 - 2002	
ANNUAL TOTAL	1099269		1777601			
ANNUAL MEAN	3012		4870		2565	
HIGHEST ANNUAL MEAN					4865	2002
LOWEST ANNUAL MEAN					287	1941
HIGHEST DAILY MEAN	42000	Dec 19	46300	May 14	63500	Jan 6 1949
LOWEST DAILY MEAN	354	Sep 7	274	Sep 14	86	Sep 28 1941
ANNUAL SEVEN-DAY MINIMUM	445	Sep 3	288	Sep 9	93	Sep 25 1941
MAXIMUM PEAK FLOW			48200	May 14	78500	Jan 5 1949
MAXIMUM PEAK STAGE			18.45	May 14	19.67	Jan 5 1949
ANNUAL RUNOFF (CFSM)	1.29		2.08		1.10	
ANNUAL RUNOFF (INCHES)	17.47		28.25		14.89	
10 PERCENT EXCEEDS	6390		11500		5820	
50 PERCENT EXCEEDS	1720		2580		1230	
90 PERCENT EXCEEDS	660		484		300	

e Estimated

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IN--Continued



03366200 HARBERTS CREEK NEAR MADISON, IN

LOCATION.--Lat 38°46'55", long 85°29'08", in SW$^1/_4$SE$^1/_4$ sec.14, T.4 N., R.9 E., Jefferson County, Hydrologic Unit 05120207, (CLIFTY FALLS, IN quadrangle), mounted on left downstream wingwall of bridge on County Road 533 West, 0.2 mi west of Smyrna, 3.7 mi upstream from Big Creek, and 4 mi northwest of Madison.

DRAINAGE AREA.--9.31 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 725.75 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.54	2.5	20	e2.9	181	5.1	3.9	6.1	1.4	0.97	0.01	0.00
2	0.53	2.3	9.5	e2.8	24	32	3.3	29	1.3	0.72	0.00	0.00
3	0.49	2.0	6.2	e2.5	14	53	3.0	9.6	1.1	0.58	0.00	0.00
4	0.56	1.8	4.6	e2.4	9.9	8.2	2.7	4.9	0.94	0.45	0.00	0.00
5	2.5	1.6	3.9	e2.3	7.5	4.7	2.3	3.5	1.1	0.33	0.00	0.00
6	7.6	1.5	47	e2.6	6.7	4.4	2.1	290	18	0.24	0.00	0.00
7	2.2	1.4	25	e2.3	6.1	3.6	1.9	82	5.7	0.26	0.00	0.00
8	1.3	e1.1	26	e2.0	5.2	2.9	1.9	524	2.8	0.20	0.00	0.00
9	1.1	e1.0	12	3.1	4.6	14	2.6	73	1.9	2.6	0.00	0.00
10	1.1	e0.87	7.0	5.3	5.1	11	2.5	22	1.5	2.6	0.00	0.00
11	1.3	e0.82	4.8	7.6	6.5	5.2	2.1	12	1.2	0.64	0.00	0.00
12	18	e0.78	5.2	5.6	5.4	4.7	2.0	10	2.5	0.33	0.00	0.00
13	13	e0.70	32	e4.4	4.5	4.7	82	423	6.2	0.26	0.00	0.00
14	224	e0.64	58	e4.2	3.9	3.6	111	46	6.1	0.25	0.00	0.00
15	31	e0.63	17	e3.4	3.7	3.3	27	16	2.5	0.15	0.00	5.6
16	39	e0.56	166	e2.9	3.5	84	9.8	9.7	2.2	0.07	0.00	0.67
17	17	e0.55	476	e2.6	3.2	15	6.1	35	1.5	0.21	0.00	0.18
18	9.1	e0.53	74	e2.4	2.9	8.4	4.7	40	1.2	2.2	0.00	0.04
19	6.5	e0.60	23	3.0	2.8	75	3.8	11	0.88	3.2	0.05	0.03
20	5.1	e0.84	14	2.9	8.1	178	8.6	7.4	0.71	0.96	0.08	0.17
21	4.2	e0.60	9.7	2.8	17	26	335	5.6	0.58	0.44	0.03	1.1
22	3.8	e0.56	8.5	3.3	7.8	10	145	4.5	0.50	0.50	0.00	0.39
23	146	e0.53	101	3.4	5.5	6.7	14	3.7	0.44	0.28	0.00	0.12
24	343	1.5	22	122	4.6	5.1	25	3.1	0.39	0.23	0.00	0.04
25	85	3.9	12	22	4.2	8.0	64	2.7	5.9	0.11	0.00	0.0
26	16	2.6	8.6	12	8.5	142	9.5	2.5	9.8	0.10	0.00	0.19
27	8.0	30	7.1	8.7	7.7	21	43	3.1	6.8	0.09	0.00	573
28	5.3	236	6.2	7.3	5.3	9.7	153	2.3	6.6	0.08	0.00	13
29	4.0	200	5.6	6.6	---	7.4	15	2.4	2.3	0.07	0.00	2.5
30	3.2	133	e4.4	49	---	6.9	7.4	2.1	1.4	0.05	0.00	1.2
31	2.7	---	e3.4	38	---	4.9	---	1.7	---	0.04	0.00	---
TOTAL	1003.12	631.41	1219.7	342.3	369.2	768.5	1094.2	1687.9	95.44	19.21	0.17	598.23
MEAN	32.36	21.05	39.35	11.04	13.19	24.79	36.47	54.45	3.181	0.620	0.005	19.94
MAX	343	236	476	122	181	178	335	524	18	3.2	0.08	573
MIN	0.49	0.53	3.4	2.0	2.8	2.9	1.9	1.7	0.39	0.04	0.00	0.00
CFSM	3.48	2.26	4.23	1.19	1.42	2.66	3.92	5.85	0.34	0.07	0.00	2.14
IN.	4.01	2.52	4.87	1.37	1.48	3.07	4.37	6.74	0.38	0.08	0.00	2.39

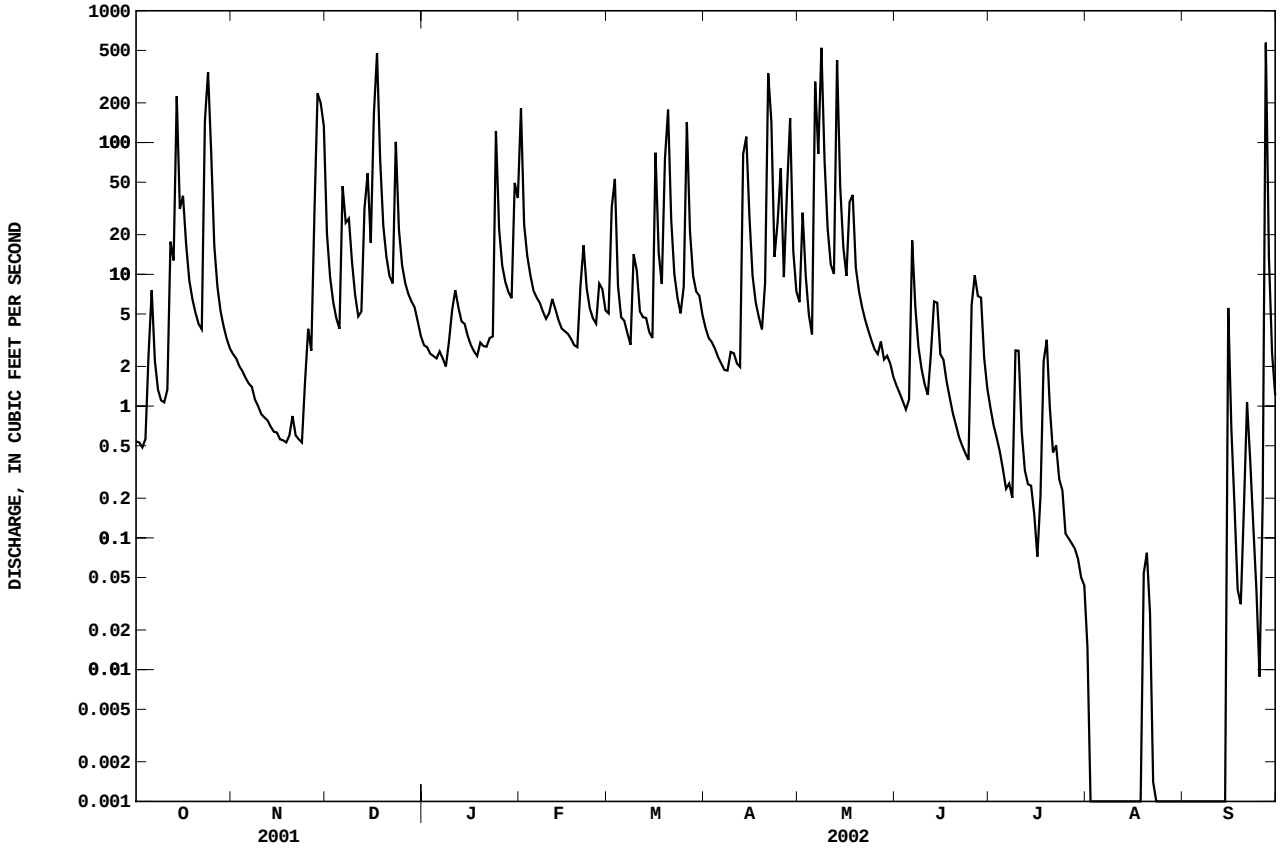
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	4.317	12.59	18.92	18.75	21.54	24.94	24.10	18.41	8.689	3.863	4.380	3.063
MAX	32.4	48.6	64.1	57.5	51.9	52.0	84.5	76.1	51.3	14.7	28.2	19.9
(WY)	2002	1980	1991	1982	1971	1975	1996	1996	1997	1993	1992	2002
MIN	0.036	0.11	1.52	0.49	1.47	4.72	2.21	0.72	0.083	0.21	0.000	0.000
(WY)	1998	2000	1977	1977	1992	1969	2001	1999	1988	1991	1999	1998

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	4931.32		7829.38			
ANNUAL MEAN	13.51		21.45		13.59	
HIGHEST ANNUAL MEAN					23.7	1996
LOWEST ANNUAL MEAN					6.13	1981
HIGHEST DAILY MEAN	476	Dec 17	573	Sep 27	1110	Apr 29 1996
LOWEST DAILY MEAN	0.19	Aug 15	0.00	Aug 2	0.00	Oct 1 1968
ANNUAL SEVEN-DAY MINIMUM	0.36	Aug 11	0.00	Aug 2	0.00	Aug 26 1969
MAXIMUM PEAK FLOW			1630	May 8	2150	May 16 1990
MAXIMUM PEAK STAGE			7.61	May 8	8.96	May 16 1990
ANNUAL RUNOFF (CFSM)	1.45		2.30		1.46	
ANNUAL RUNOFF (INCHES)	19.70		31.28		19.83	
10 PERCENT EXCEEDS	28		39		26	
50 PERCENT EXCEEDS	2.7		3.2		2.4	
90 PERCENT EXCEEDS	0.56		0.00		0.07	

e Estimated

03366200 HARBERTS CREEK NEAR MADISON, IN--Continued



03366500 MUSCATATUCK RIVER NEAR DEPUTY, IN

LOCATION.--Lat 38°48'15", long 85°40'26", in SW$^1/_4$NE$^1/_4$ 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 fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	175	1550	e190	4700	242	333	410	178	58	8.9	4.7
2	41	156	657	e162	1720	261	293	820	135	46	8.3	4.6
3	37	143	453	e145	689	1890	274	594	110	37	7.9	4.5
4	32	130	350	e140	500	e695	253	353	94	31	7.6	4.4
5	33	120	291	e135	388	425	235	279	91	27	7.2	4.2
6	77	112	500	176	329	348	216	2400	1830	23	6.8	4.0
7	86	105	1230	180	300	313	200	5370	1600	20	6.3	3.8
8	82	100	703	168	273	276	193	10200	367	18	6.1	3.8
9	56	93	570	171	249	289	226	4930	200	17	6.0	3.7
10	44	89	390	182	240	538	236	1160	232	49	5.7	3.5
11	37	86	304	220	250	402	222	489	189	35	5.8	3.3
12	110	83	262	238	261	319	199	336	113	22	5.9	3.2
13	355	80	622	223	240	304	2650	9930	154	18	5.6	3.2
14	2730	78	1480	210	214	291	4300	4710	375	16	6.1	3.4
15	2570	76	1540	200	198	267	2870	863	183	16	11	4.3
16	642	74	1290	190	189	3950	749	457	122	15	9.5	4.4
17	567	72	14600	181	180	1570	436	406	99	14	7.4	4.1
18	339	70	7190	170	170	722	351	1250	75	15	7.1	4.0
19	231	70	1460	166	163	735	292	534	61	22	12	5.7
20	181	77	762	160	198	4210	353	326	51	60	17	8.5
21	147	75	550	156	533	2070	1090	257	44	34	13	7.3
22	124	74	457	155	439	755	6060	216	38	80	10	6.0
23	289	74	1990	156	302	513	1020	186	33	126	8.3	5.2
24	9720	75	1320	2090	249	415	487	164	30	39	7.5	4.8
25	6870	88	624	1560	223	397	2110	149	63	24	6.9	4.6
26	1190	97	471	589	250	3050	765	147	665	17	6.4	5.2
27	537	698	394	426	319	1880	614	143	401	15	6.1	5980
28	372	3040	346	348	281	727	7300	395	418	13	6.1	1910
29	285	7220	314	305	---	529	1900	2970	132	12	5.8	201
30	234	4780	277	702	---	462	600	718	79	10	5.3	95
31	201	---	e220	1850	---	394	---	283	---	9.5	5.0	---
TOTAL	28265	18210	43167	11944	14047	29239	36827	51445	8162	938.5	238.6	8304.4
MEAN	911.8	607.0	1392	385.3	501.7	943.2	1228	1660	272.1	30.27	7.697	276.8
MAX	9720	7220	14600	2090	4700	4210	7300	10200	1830	126	17	5980
MIN	32	70	220	135	163	242	193	143	30	9.5	5.0	3.2
CFSM	3.11	2.07	4.75	1.31	1.71	3.22	4.19	5.66	0.93	0.10	0.03	0.94
IN.	3.59	2.31	5.48	1.52	1.78	3.71	4.68	6.53	1.04	0.12	0.03	1.05

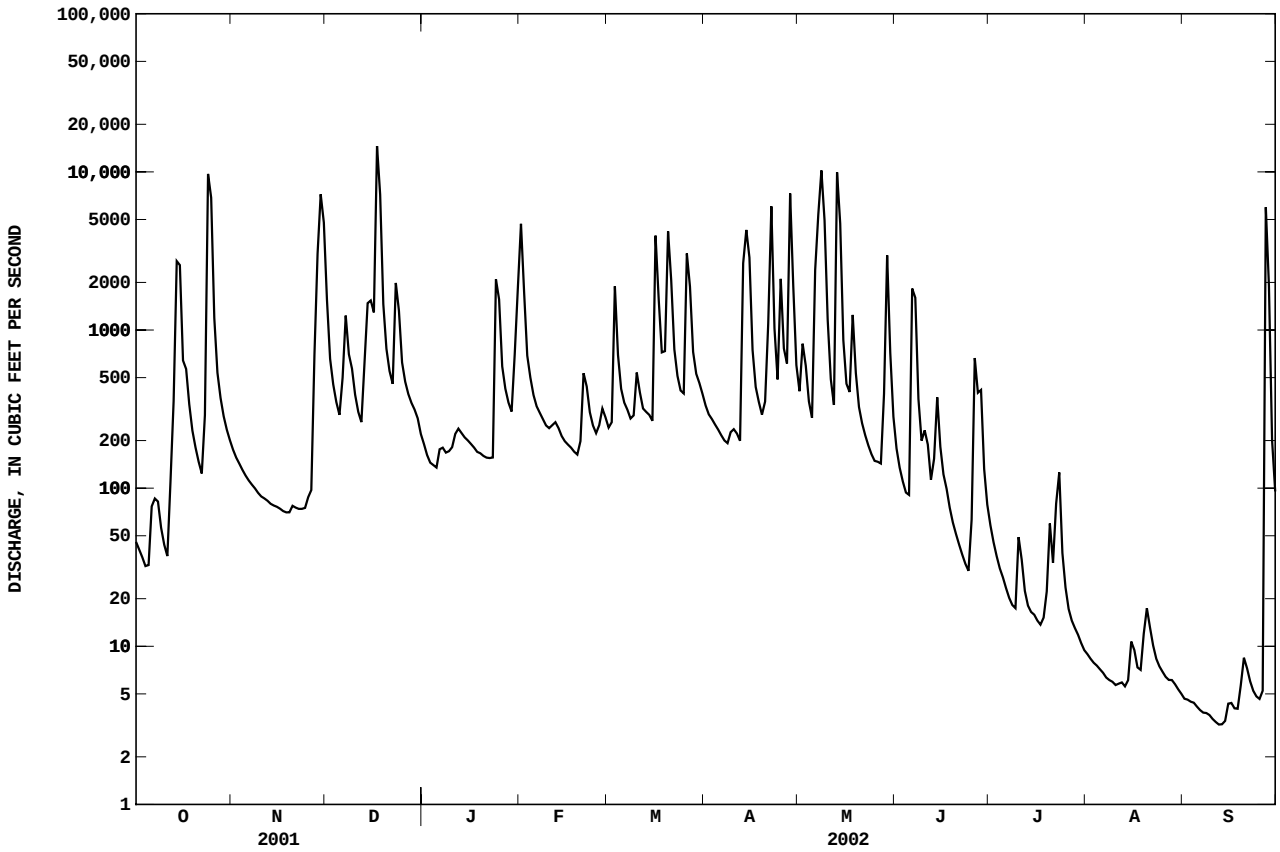
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)

MEAN	74.17	250.0	454.9	608.4	638.5	712.7	582.8	473.0	246.4	151.9	93.68	59.33
MAX	912	1438	1723	2896	1826	2055	1957	1967	1552	661	748	480
(WY)	2002	1980	1991	1950	1950	1964	1996	1983	1997	1958	1992	1974
MIN	0.000	0.15	0.21	9.24	18.1	65.2	68.8	23.8	9.46	0.42	0.000	0.000
(WY)	1954	1964	1964	1977	1954	1954	2001	1976	1988	1954	1954	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002	
ANNUAL TOTAL	154034		250787.5			
ANNUAL MEAN	422.0		687.1		360.9	
HIGHEST ANNUAL MEAN					687	2002
LOWEST ANNUAL MEAN					25.3	1954
HIGHEST DAILY MEAN	14600	Dec 17	14600	Dec 17	32400	Jan 21 1959
LOWEST DAILY MEAN	10	Aug 17	3.2	Sep 12	0.00	Oct 1 1948
ANNUAL SEVEN-DAY MINIMUM	15	Aug 12	3.4	Sep 8	0.00	Oct 1 1948
MAXIMUM PEAK FLOW			19200	Dec 17	52200	Jan 21 1959
MAXIMUM PEAK STAGE			25.60	Dec 17	34.27	Jan 21 1959
ANNUAL RUNOFF (CFSM)	1.44		2.35		1.23	
ANNUAL RUNOFF (INCHES)	19.56		31.84		16.74	
10 PERCENT EXCEEDS	747		1760		754	
50 PERCENT EXCEEDS	110		200		78	
90 PERCENT EXCEEDS	38		6.2		3.5	

e Estimated

03366500 MUSCATATUCK RIVER NEAR DEPUTY, IN--Continued



03368000 BRUSH CREEK NEAR NEBRASKA, IN

LOCATION.--Lat 39°04'13", long 85°29'10" in NW1/4NE1/4 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 estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	5.0	28	e3.1	201	7.3	7.4	e22	5.5	0.15	0.00	0.02
2	1.6	4.5	17	e2.9	23	75	6.6	e38	5.1	0.13	0.00	0.02
3	1.4	3.9	12	e2.7	15	68	6.8	e16	4.5	0.10	0.00	0.01
4	1.2	3.5	9.5	e2.6	11	15	5.7	e9.9	4.2	0.08	0.00	0.01
5	31	3.2	7.9	e2.3	8.0	11	5.2	e8.2	103	0.07	0.00	0.0
6	26	2.9	28	e2.9	7.1	9.3	4.8	e311	215	0.05	0.00	0.00
7	4.9	2.8	22	e2.8	6.6	7.8	4.4	e278	19	0.03	0.00	0.00
8	3.2	2.6	13	e2.6	5.7	6.6	4.4	e710	3.9	0.03	0.00	0.00
9	2.6	2.4	9.4	e2.4	5.1	21	26	e174	51	0.03	0.00	0.00
10	2.3	2.4	7.5	4.9	6.6	15	10	e57	3.3	0.17	0.00	0.00
11	2.5	2.3	6.4	e4.7	7.4	9.6	7.5	e38	1.6	0.14	0.00	0.00
12	82	2.2	6.8	e3.7	5.8	9.1	8.8	e54	2.5	0.06	0.00	0.00
13	13	2.1	27	e3.4	4.8	8.5	273	e617	117	0.04	0.00	0.00
14	328	2.1	93	e3.2	4.2	7.2	247	e137	8.7	0.03	0.00	0.00
15	39	2.0	28	e3.1	4.2	12	43	e17	2.4	0.03	0.00	0.00
16	43	2.0	131	e2.9	3.9	213	20	e15	1.5	0.02	0.00	0.00
17	19	1.9	796	e2.7	3.5	26	14	e45	0.92	0.04	0.00	0.00
18	10	1.9	74	e2.5	3.2	18	11	e48	0.69	0.18	1.0	0.00
19	7.5	2.2	24	e2.3	3.2	63	166	e31	0.70	0.17	0.73	0.00
20	5.9	2.5	15	e2.3	30	129	55	e19	0.56	0.16	0.21	0.00
21	4.9	2.1	11	e2.2	23	28	e184	e13	0.36	0.10	0.09	0.00
22	4.4	1.9	9.9	e2.2	11	15	e86	e10	0.30	0.07	0.06	0.00
23	120	1.9	63	2.7	7.9	11	e27	5.9	0.25	0.05	0.05	0.00
24	905	2.1	19	103	6.6	9.4	e44	5.5	0.22	0.05	0.20	0.00
25	88	2.9	12	19	5.9	15	e173	5.5	4.4	0.03	0.26	0.00
26	22	2.5	e8.3	11	13	185	e27	5.4	1.1	0.02	0.12	0.00
27	14	111	e7.1	9.1	9.5	30	e96	4.7	0.39	0.01	0.06	86
28	9.9	219	e5.9	7.3	7.3	16	e303	28	0.38	0.0	0.04	1.1
29	8.0	280	e4.7	6.6	---	13	e60	16	0.25	0.00	0.03	0.24
30	6.7	147	e3.8	71	---	11	e20	8.8	0.18	0.0	0.03	0.13
31	5.7	---	e3.3	86	---	8.7	---	6.4	---	0.00	0.02	---
TOTAL	1814.5	824.8	1503.5	380.1	443.5	1073.5	1946.6	2754.3	558.90	2.04	2.90	87.53
MEAN	58.53	27.49	48.50	12.26	15.84	34.63	64.89	88.85	18.63	0.066	0.094	2.918
MAX	905	280	796	103	201	213	303	710	215	0.18	1.0	86
MIN	1.2	1.9	3.3	2.2	3.2	6.6	4.4	4.7	0.18	0.00	0.00	0.00
CFSM	5.13	2.41	4.25	1.08	1.39	3.04	5.69	7.79	1.63	0.01	0.01	0.26
IN.	5.92	2.69	4.91	1.24	1.45	3.50	6.35	8.99	1.82	0.01	0.01	0.29

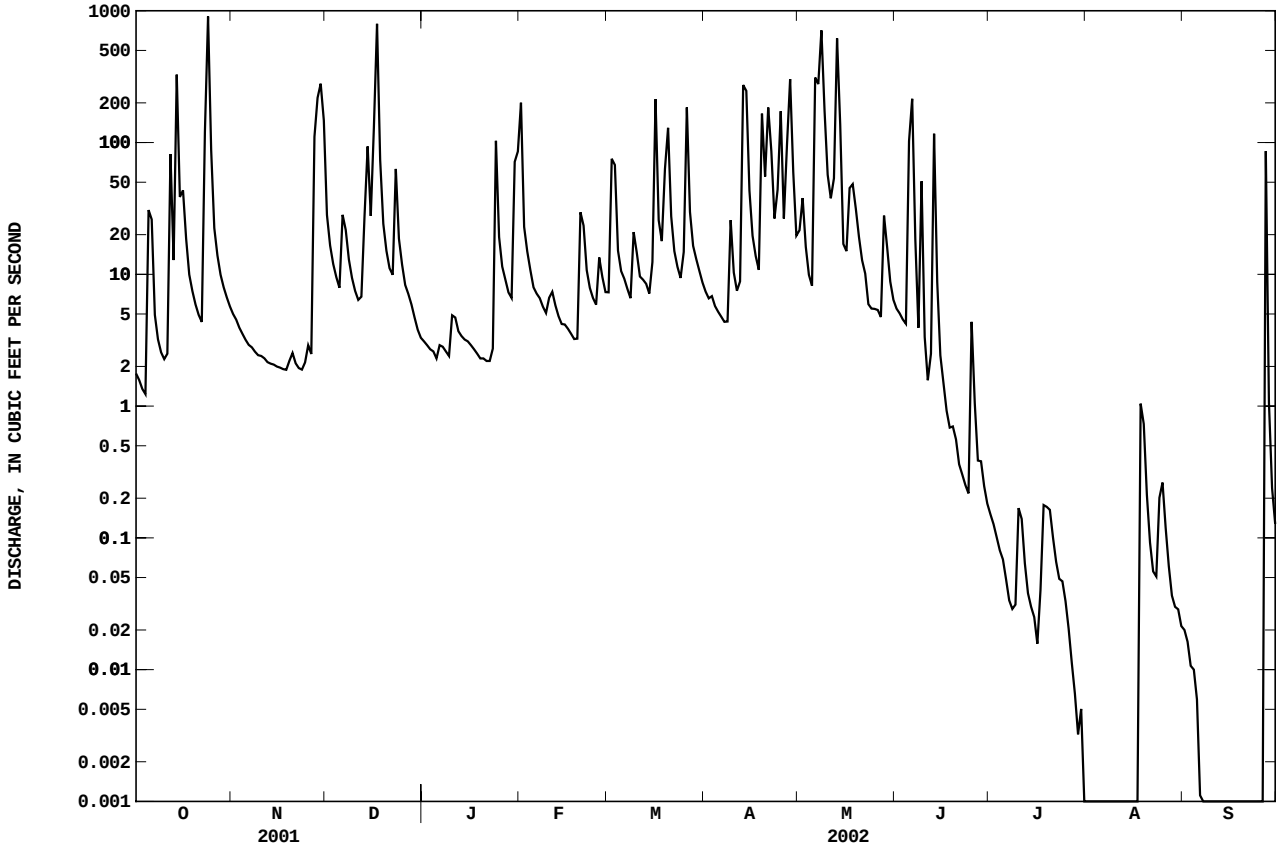
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2002, BY WATER YEAR (WY)

MEAN	3.822	10.13	17.80	19.68	22.09	27.55	25.95	21.45	9.814	7.139	4.551	2.135
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	0.000	0.000	0.000	0.063	1.44	4.22	2.12	0.76	0.12	0.025	0.000	0.000
(WY)	1958	1964	1964	1977	1964	1969	1976	1976	1965	1970	1964	1957

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1956 - 2002	
ANNUAL TOTAL	7510.98		11392.17			
ANNUAL MEAN	20.58		31.21		14.31	
HIGHEST ANNUAL MEAN					31.2	2002
LOWEST ANNUAL MEAN					5.92	1977
HIGHEST DAILY MEAN	905	Oct 24	905	Oct 24	1460	Jan 21 1959
LOWEST DAILY MEAN	0.52	Sep 6	0.00	Jul 28	0.00	Oct 4 1955
ANNUAL SEVEN-DAY MINIMUM	0.86	Aug 31	0.00	Jul 28	0.00	Aug 6 1956
MAXIMUM PEAK FLOW			2660	Oct 24	9360	Jun 10 1981
MAXIMUM PEAK STAGE			10.55	Oct 24	12.99	Jun 10 1981
ANNUAL RUNOFF (CFSM)	1.81		2.74		1.26	
ANNUAL RUNOFF (INCHES)	24.51		37.17		17.05	
10 PERCENT EXCEEDS	39		78		25	
50 PERCENT EXCEEDS	4.1		4.8		2.2	
90 PERCENT EXCEEDS	1.4		0.00		0.00	

e Estimated

03368000 BRUSH CREEK NEAR NEBRASKA, IN--Continued



03369000 VERNON FORK MUSCATATUCK RIVER NEAR BUTLERVILLE, IN

LOCATION.--Lat 39°02'55", long 85°32'40", in NW$^1/_4$SE$^1/_4$ sec.17, T.7 N., R.9 E., Jennings County, Hydrologic Unit 05120207, (BUTLERVILLE, IN quadrangle), on left bank 0.3 mi downstream from Muscatatuck State School dam, 1.1 mi downstream from Brush Creek, 2 mi northwest of Butlerville, and at mile 50.6.

DRAINAGE AREA.--85.9 mi^2.

PERIOD OF RECORD.--February 1942 to December 2001 (discontinued). Prior to October 1960, published as North Fork of Vernon Fork near Butlerville, and as Vernon Fork near Butlerville, October 1960 to September 1979.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 669.40 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 19, 1942, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Water supply for the Muscatatuck State School is diverted and the sewage effluent returned above station. Flow regulated by Brush Creek Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	78	403	---	---	---	---	---	---	---	---	---
2	13	74	242	---	---	---	---	---	---	---	---	---
3	12	74	182	---	---	---	---	---	---	---	---	---
4	11	74	149	---	---	---	---	---	---	---	---	---
5	19	71	128	---	---	---	---	---	---	---	---	---
6	77	68	191	---	---	---	---	---	---	---	---	---
7	48	63	247	---	---	---	---	---	---	---	---	---
8	26	59	167	---	---	---	---	---	---	---	---	---
9	19	61	133	---	---	---	---	---	---	---	---	---
10	17	62	112	---	---	---	---	---	---	---	---	---
11	18	59	102	---	---	---	---	---	---	---	---	---
12	295	58	98	---	---	---	---	---	---	---	---	---
13	136	52	223	---	---	---	---	---	---	---	---	---
14	1000	46	565	---	---	---	---	---	---	---	---	---
15	300	44	367	---	---	---	---	---	---	---	---	---
16	183	45	366	---	---	---	---	---	---	---	---	---
17	158	42	5000	---	---	---	---	---	---	---	---	---
18	93	43	981	---	---	---	---	---	---	---	---	---
19	74	46	303	---	---	---	---	---	---	---	---	---
20	57	48	183	---	---	---	---	---	---	---	---	---
21	44	47	138	---	---	---	---	---	---	---	---	---
22	36	41	115	---	---	---	---	---	---	---	---	---
23	121	37	258	---	---	---	---	---	---	---	---	---
24	5830	42	181	---	---	---	---	---	---	---	---	---
25	1110	182	125	---	---	---	---	---	---	---	---	---
26	323	90	102	---	---	---	---	---	---	---	---	---
27	182	1380	90	---	---	---	---	---	---	---	---	---
28	128	1240	81	---	---	---	---	---	---	---	---	---
29	105	1970	75	---	---	---	---	---	---	---	---	---
30	94	1200	e50	---	---	---	---	---	---	---	---	---
31	84	---	e43	---	---	---	---	---	---	---	---	---
TOTAL	10626	7396	11400	---	---	---	---	---	---	---	---	---
MEAN	342.8	246.5	367.7	---	---	---	---	---	---	---	---	---
MAX	5830	1970	5000	---	---	---	---	---	---	---	---	---
MIN	11	37	43	---	---	---	---	---	---	---	---	---
CFSM	3.99	2.87	4.28	---	---	---	---	---	---	---	---	---
IN.	4.60	3.20	4.94	---	---	---	---	---	---	---	---	---

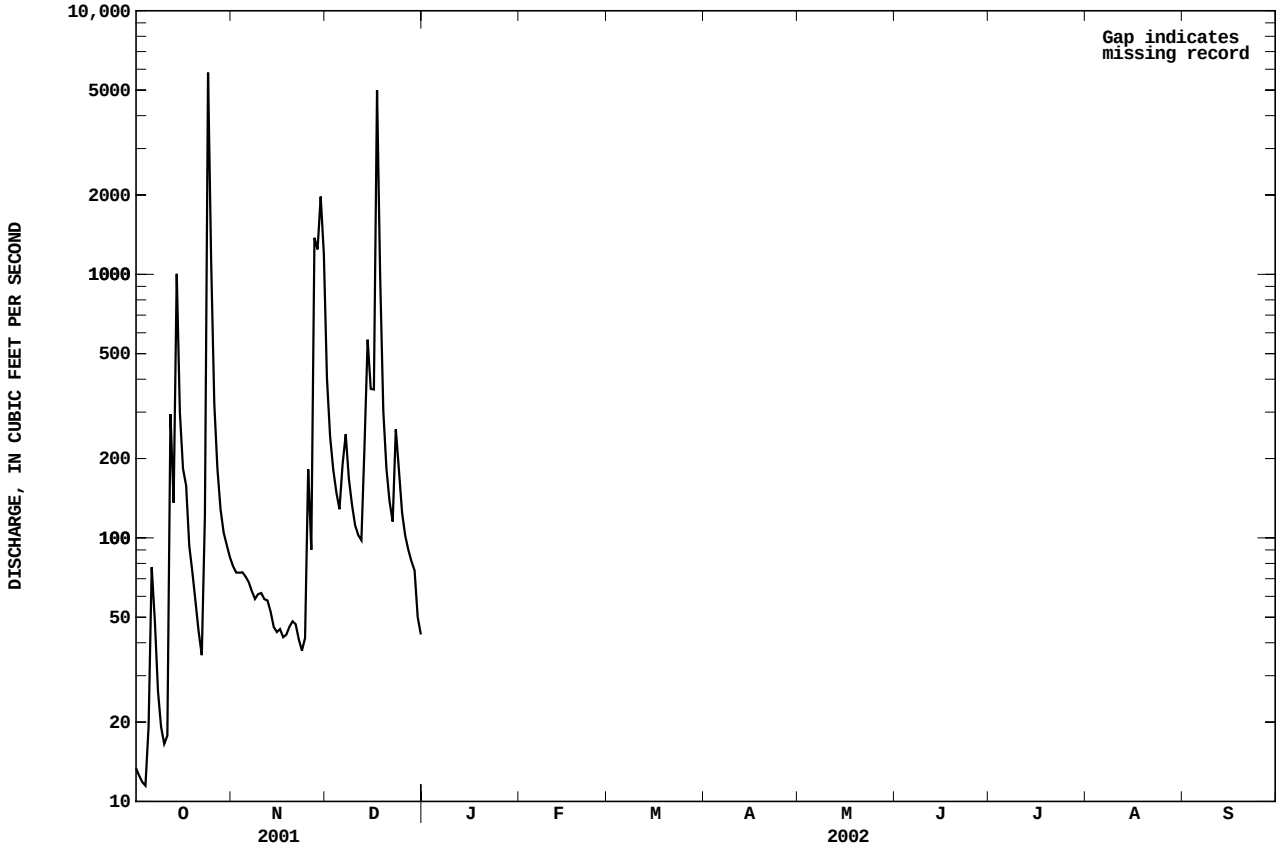
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2002, BY WATER YEAR (WY)

MEAN	21.76	62.43	108.6	151.1	159.4	197.6	168.9	128.9	63.49	44.55	28.32	15.88
MAX	343	441	395	763	492	604	509	554	317	277	308	126
(WY)	2002	1986	1991	1950	1950	1945	1998	1968	1998	1992	1978	1950
MIN	0.33	0.34	0.37	1.28	11.3	29.3	18.4	6.91	1.56	1.22	1.32	0.37
(WY)	1952	1944	1944	1977	1964	1983	1976	1949	1965	1954	1951	1943

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1943 - 2002	
ANNUAL TOTAL	47265.4		29422			
ANNUAL MEAN	129.5		319.8		95.51	
HIGHEST ANNUAL MEAN					320	2002
LOWEST ANNUAL MEAN					13.1	1954
HIGHEST DAILY MEAN	5830	Oct 24	5830	Oct 24	13200	Jan 21 1959
LOWEST DAILY MEAN	8.4	Sep 5	11	Oct 4	0.00	Jul 20 1944
ANNUAL SEVEN-DAY MINIMUM	12	Jun 27	28	Oct 1	0.00	Oct 29 1944
MAXIMUM PEAK FLOW			12900	Oct 24	26200	Jan 21 1959
MAXIMUM PEAK STAGE			17.19	Oct 24	25.41	Jan 21 1959
ANNUAL RUNOFF (CFSM)	1.51		3.72		1.11	
ANNUAL RUNOFF (INCHES)	20.47		12.74		15.11	
10 PERCENT EXCEEDS	225		856		186	
50 PERCENT EXCEEDS	43		92		20	
90 PERCENT EXCEEDS	14		29		1.4	

e Estimated

03369000 VERNON FORK MUSCATATUCK RIVER NEAR BUTLERVILLE, IN--Continued



03369500 VERNON FORK MUSCATATUCK RIVER AT VERNON, IN

LOCATION.--Lat 38°58'34", long 85°37'13", in NW$^1/_4$SE$^1/_4$ 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 those for June 30 to July 17 and 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	105	779	e84	3330	145	189	329	156	26	6.1	5.8
2	31	95	393	e74	680	202	165	741	120	23	5.6	4.8
3	28	87	283	e64	369	1600	158	360	104	17	4.7	4.1
4	26	82	227	e58	277	391	153	248	80	15	4.8	e3.9
5	28	73	194	e58	210	257	132	190	274	14	4.7	e3.7
6	140	67	262	82	179	213	120	613	3980	12	4.4	e3.4
7	111	62	489	84	163	183	111	4890	884	10	4.5	e3.1
8	62	61	285	75	146	158	106	5570	336	9.6	4.2	e2.8
9	45	57	215	77	131	200	288	1420	441	9.3	4.1	e2.8
10	37	55	164	85	130	415	296	516	430	17	3.8	e2.6
11	34	52	135	101	149	228	189	308	191	22	4.3	e2.4
12	568	50	121	89	140	193	160	249	215	14	9.4	e2.3
13	349	48	325	86	124	185	3010	8640	632	10	8.3	e2.3
14	2800	47	1070	81	109	164	3540	1650	485	9.1	7.0	e2.5
15	1090	45	769	78	103	149	1380	515	197	8.2	15	e3.3
16	458	45	613	70	100	2600	489	327	137	7.8	11	e3.4
17	451	47	9940	63	94	684	322	271	101	24	11	e3.0
18	238	51	2810	59	86	433	251	389	72	86	293	e3.0
19	170	55	707	56	82	407	460	310	54	28	205	e4.0
20	133	58	401	54	127	2200	1290	252	39	17	42	e6.6
21	110	57	291	52	408	797	3030	225	34	18	19	e5.2
22	96	63	236	53	223	383	2440	204	30	15	13	e4.3
23	220	66	819	51	160	283	577	173	28	12	9.9	e3.9
24	12100	70	470	801	135	233	461	128	25	11	10	e3.6
25	2990	177	268	435	122	236	1940	434	46	9.2	27	e3.4
26	593	134	203	217	167	2360	480	250	119	8.0	14	e4.7
27	323	2250	174	158	209	942	613	144	40	7.6	10	1090
28	215	2400	153	131	150	419	3870	837	68	7.0	8.8	260
29	165	4610	137	118	---	321	739	1590	37	6.8	12	47
30	143	2910	111	531	---	271	394	564	27	7.4	10	18
31	121	---	e96	1020	---	222	---	242	---	5.9	7.5	---
TOTAL	23910	13979	23140	5045	8303	17474	27353	32579	9382	486.9	794.1	1509.9
MEAN	771.3	466.0	746.5	162.7	296.5	563.7	911.8	1051	312.7	15.71	25.62	50.33
MAX	12100	4610	9940	1020	3330	2600	3870	8640	3980	86	293	1090
MIN	26	45	96	51	82	145	106	128	25	5.9	3.8	2.3
CFSM	3.90	2.35	3.77	0.82	1.50	2.85	4.60	5.31	1.58	0.08	0.13	0.25
IN.	4.49	2.63	4.35	0.95	1.56	3.28	5.14	6.12	1.76	0.09	0.15	0.28

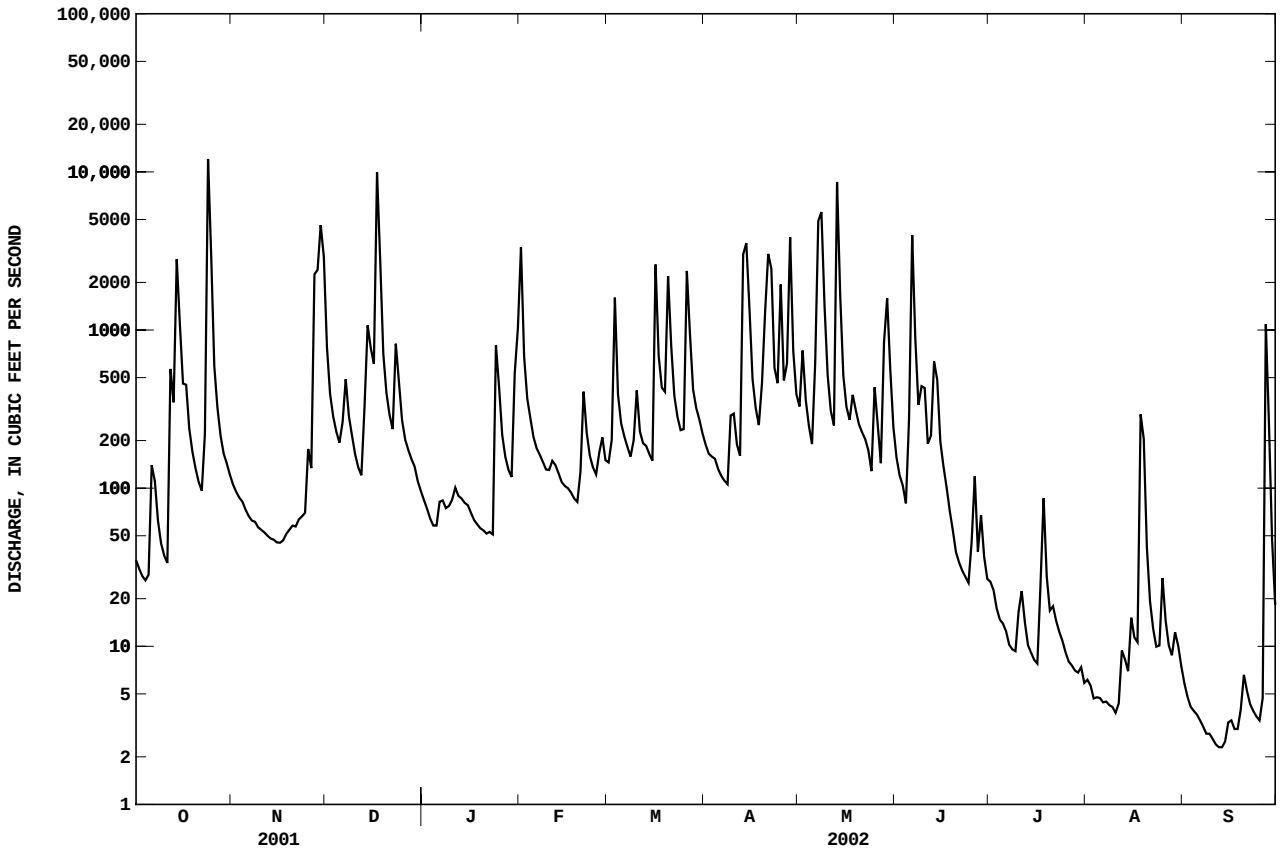
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	49.78	142.2	260.6	350.0	386.9	465.6	417.4	310.2	169.2	99.64	65.60	36.52
MAX	771	986	962	2049	1188	1798	1402	1440	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	0.003	0.19
(WY)	1941	1954	1944	1977	1964	1941	1941	1941	1988	1954	1940	1943

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	107749		163955.9			
ANNUAL MEAN	295.2		449.2		228.7	
HIGHEST ANNUAL MEAN					468	1950
LOWEST ANNUAL MEAN					32.8	1954
HIGHEST DAILY MEAN	12100	Oct 24	12100	Oct 24	31900	Jan 21 1959
LOWEST DAILY MEAN	13	Sep 6	2.3	Sep 12	0.00	Aug 2 1940
ANNUAL SEVEN-DAY MINIMUM	21	Aug 12	2.5	Sep 8	0.00	Aug 2 1940
MAXIMUM PEAK FLOW			21400	Oct 24	56800	Jan 21 1959
MAXIMUM PEAK STAGE			23.37	Oct 24	32.83	Jan 21 1959
ANNUAL RUNOFF (CFSM)	1.49		2.27		1.16	
ANNUAL RUNOFF (INCHES)	20.24		30.80		15.69	
10 PERCENT EXCEEDS	497		826		462	
50 PERCENT EXCEEDS	87		130		48	
90 PERCENT EXCEEDS	34		6.0		2.7	

e Estimated

03369500 VERNON FORK MUSCATATUCK RIVER AT VERNON, IN--Continued



03371500 EAST FORK WHITE RIVER NEAR BEDFORD, IN

LOCATION.--Lat 38°46'10", long 86°24'30", in SW$^1/_4$NE$^1/_4$ 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 fair except those for Dec. 3 - Feb. 11, and Apr. 16 - June 10, 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

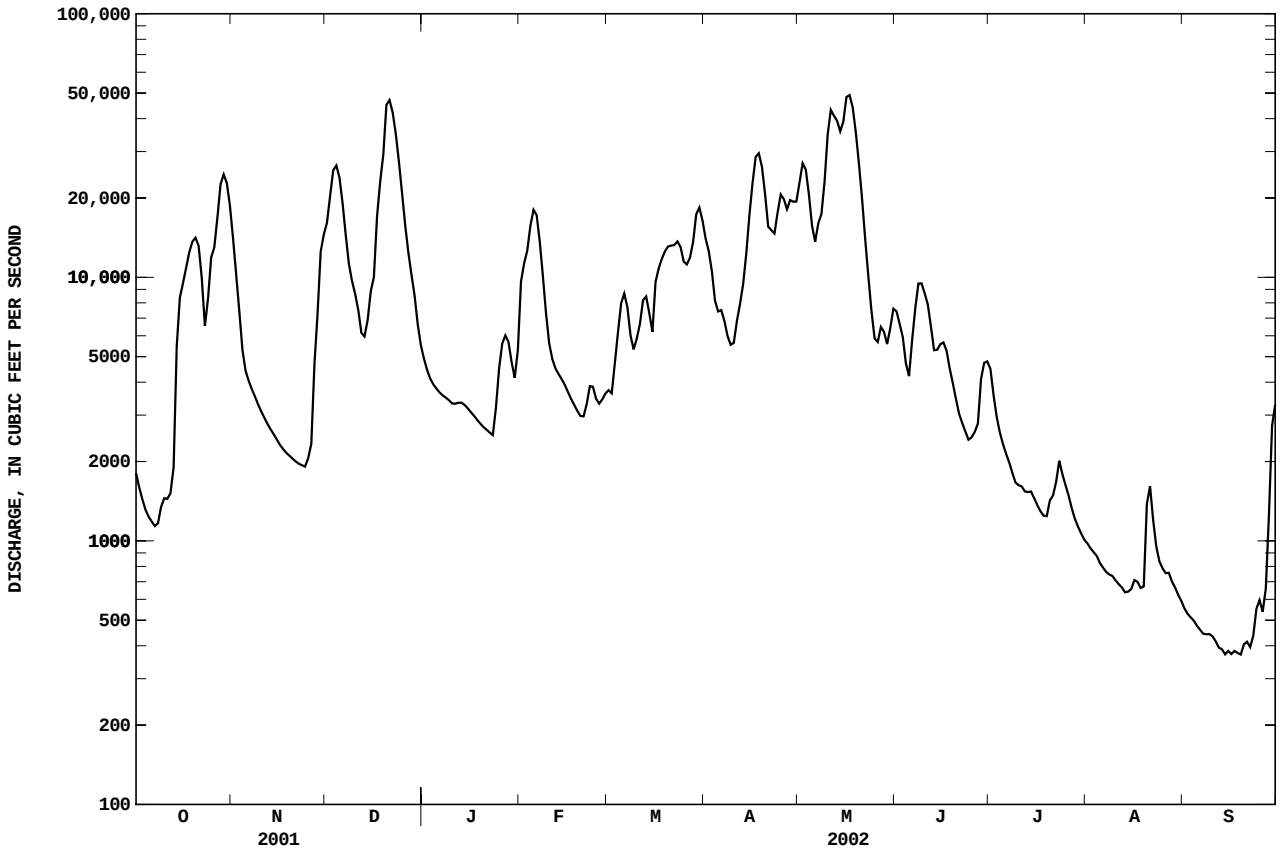
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1810	14000	16100	4910	9630	3730	14000	22900	7430	4500	978	554
2	1600	10200	20400	4450	11300	3630	12600	27100	6660	3580	937	529
3	1440	7420	25500	4130	12600	4740	10500	25600	5930	2960	906	513
4	1310	5290	26600	3920	15700	6200	8140	20600	4710	2580	876	498
5	1240	4420	23900	3780	18000	7970	7420	15700	4220	2330	824	477
6	1180	4040	19100	3660	17200	8680	7500	13600	5800	2140	791	460
7	1140	3760	14500	3560	13700	7710	6830	16000	7640	1990	762	444
8	1170	3530	11300	3490	10100	6010	5990	17400	9470	1810	746	442
9	1340	3290	9680	3420	7300	5330	5550	23000	9480	1670	736	443
10	1450	3100	8670	3320	5630	5860	5640	34800	8690	1630	708	434
11	1440	2930	7520	3320	4900	6650	6840	43200	7890	1610	685	416
12	1520	2780	6160	3340	4510	8190	7930	41000	6490	1540	666	394
13	1910	2650	5960	3340	4300	8460	9440	39300	5290	1530	638	388
14	5480	2540	6890	3280	4110	7310	12400	35800	5310	1540	642	371
15	8380	2420	8850	3180	3910	6210	17300	39000	5570	1450	656	382
16	9520	2310	10000	3080	3670	9600	22800	48300	5660	1370	710	372
17	10900	2230	17000	2980	3460	10800	28700	49100	5260	1300	699	382
18	12400	2160	23000	2880	3280	11700	29500	44100	4510	1250	663	375
19	13700	2100	29200	2790	3110	12600	26200	35400	3960	1240	672	370
20	14100	2050	45100	2700	2980	13100	20700	26800	3450	1420	1380	405
21	13200	2000	47000	2640	2970	13200	15600	19800	3030	1490	1610	414
22	9910	1960	42200	2580	3310	13300	15100	13900	2800	1680	1200	395
23	6540	1940	35000	2520	3870	13700	14700	10000	2600	2010	952	437
24	8330	1910	27400	3200	3840	13000	17600	7440	2420	1790	835	553
25	11900	2060	20800	4510	3460	11500	20600	5860	2470	1630	788	596
26	13000	2330	15800	5600	3320	11200	19800	5680	2590	1480	754	539
27	16900	4690	12500	6020	3450	11900	18100	6480	2790	1330	757	660
28	22600	7290	10200	5690	3630	13600	19600	6200	4110	1210	702	1250
29	24600	12500	8530	4770	---	17400	19400	5580	4740	1130	665	2740
30	22800	14600	6640	4160	---	18400	19400	6420	4800	1070	624	3290
31	18700	---	5530	5290	---	16400	---	7600	---	1010	592	---
TOTAL	261510	134500	567030	116510	187240	308080	445880	713660	155770	55270	25154	19523
MEAN	8436	4483	18290	3758	6687	9938	14860	23020	5192	1783	811.4	650.8
MAX	24600	14600	47000	6020	18000	18400	29500	49100	9480	4500	1610	3290
MIN	1140	1910	5530	2520	2970	3630	5550	5580	2420	1010	592	370
CFSM	2.18	1.16	4.74	0.97	1.73	2.57	3.85	5.96	1.34	0.46	0.21	0.17
IN.	2.52	1.30	5.46	1.12	1.80	2.97	4.30	6.88	1.50	0.53	0.24	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	1227	2428	4592	4953	6440	7988	7497	6711	3932	2491	1813	1108
MAX	8436	15520	18290	15010	15610	18710	15180	30650	16310	9649	11280	5234
(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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1940 - 2002	
ANNUAL TOTAL	1871100		2990127			
ANNUAL MEAN	5126		8192		4254	
HIGHEST ANNUAL MEAN					8192	2002
LOWEST ANNUAL MEAN					643	1941
HIGHEST DAILY MEAN	47000	Dec 21	49100	May 17	78200	May 1 1996
LOWEST DAILY MEAN	935	Sep 2	370	Sep 19	138	Sep 7 1941
ANNUAL SEVEN-DAY MINIMUM	1030	Aug 13	377	Sep 13	196	Sep 5 1941
MAXIMUM PEAK FLOW			49900	May 16	80500	May 1 1996
MAXIMUM PEAK STAGE			31.29	May 16	36.32	May 1 1996
ANNUAL RUNOFF (CFSM)	1.33		2.12		1.10	
ANNUAL RUNOFF (INCHES)	18.03		28.81		14.97	
10 PERCENT EXCEEDS	10600		20500		10500	
50 PERCENT EXCEEDS	2890		4510		2180	
90 PERCENT EXCEEDS	1260		680		482	

03371500 EAST FORK WHITE RIVER NEAR BEDFORD, IN--Continued



03371520 BACK CREEK AT LEESVILLE, IN

LOCATION.--Lat 38°50'48", long 86°18'06", in SW$^1/_4$SE$^1/_4$ sec.21, T.5 N., R.2 E., Lawrence County, Hydrologic Unit 05120208, (TUNNELTON, IN quadrangle), on left bank at downstream side of county road bridge, 0.9 mi west of Leesville, 2.5 mi upstream from Jones Defeat Hollow, and 7 miles upstream from mouth.

DRAINAGE AREA.--24.1 mi^2.

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

REVISED RECORDS.--WDR IN-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 575.00 ft above 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1913 reached a stage of 18.1 ft from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.16	9.4	151	e10	672	e22	25	308	11	6.1	0.00	0.00
2	0.16	8.0	72	e9.0	169	94	21	306	9.1	e4.6	0.00	0.00
3	0.15	6.8	44	e8.0	95	215	24	107	7.6	e3.7	0.00	0.00
4	0.15	5.7	33	e7.0	61	e75	19	66	6.7	2.9	0.00	0.00
5	0.21	4.9	25	e6.0	44	52	17	48	9.5	2.3	0.00	0.00
6	0.28	4.3	32	e6.0	37	40	15	593	28	1.8	0.00	0.00
7	0.24	3.7	36	e5.6	32	32	14	461	15	1.5	0.00	0.00
8	e0.22	3.4	29	e5.2	27	27	13	1340	9.7	1.3	0.00	0.00
9	e0.20	3.0	22	e6.0	23	205	34	269	7.7	1.2	0.00	0.00
10	e0.18	2.7	19	e8.0	22	144	24	86	6.3	2.3	0.00	0.00
11	0.64	2.5	16	9.0	20	75	20	29	5.6	1.8	0.00	0.00
12	10	2.3	27	7.2	19	57	62	58	5.1	1.4	0.00	0.00
13	2.5	2.0	128	6.6	17	45	643	1670	7.2	1.1	0.00	0.00
14	107	2.0	231	6.4	16	36	558	336	7.2	1.1	e0.00	0.00
15	18	1.9	136	6.1	15	293	194	167	5.7	0.96	e0.00	e0.00
16	11	1.8	190	5.4	14	990	80	104	6.1	0.80	0.00	0.00
17	8.5	1.6	2010	e5.2	13	180	194	87	4.9	0.64	0.00	0.00
18	4.9	1.6	406	4.9	13	82	115	72	4.2	0.58	e0.20	0.00
19	3.3	1.7	178	5.0	12	108	130	53	3.7	0.49	e1.9	0.00
20	2.3	1.8	101	4.9	16	431	149	45	3.4	0.37	0.79	0.17
21	1.6	1.6	64	4.9	17	170	655	36	3.1	0.31	0.47	0.65
22	1.2	1.5	47	4.7	14	74	366	30	2.9	0.25	0.24	0.13
23	70	1.4	117	5.0	14	49	147	25	2.5	0.29	0.10	0.0
24	1240	3.8	72	166	13	37	98	20	2.4	0.32	0.06	0.00
25	269	20	49	61	13	53	83	28	2.7	0.20	0.0	0.00
26	76	11	38	34	38	570	62	30	3.6	0.10	0.00	0.00
27	37	298	30	24	e28	164	156	142	287	0.06	0.00	13
28	23	437	25	19	e24	79	395	55	68	0.02	0.00	2.9
29	17	865	19	17	---	54	134	28	15	0.00	0.00	1.1
30	14	485	e15	108	---	39	84	20	8.5	0.00	0.00	0.83
31	11	---	e12	189	---	30	---	15	---	0.00	0.00	---
TOTAL	1929.89	2195.4	4374	764.1	1498	4522	4531	6634	559.4	38.49	3.76	18.78
MEAN	62.25	73.18	141.1	24.65	53.50	145.9	151.0	214.0	18.65	1.242	0.121	0.626
MAX	1240	865	2010	189	672	990	655	1670	287	6.1	1.9	13
MIN	0.15	1.4	12	4.7	12	22	13	15	2.4	0.00	0.00	0.00
CFSM	2.58	3.04	5.85	1.02	2.22	6.05	6.27	8.88	0.77	0.05	0.01	0.03
IN.	2.98	3.39	6.75	1.18	2.31	6.98	6.99	10.24	0.86	0.06	0.01	0.03

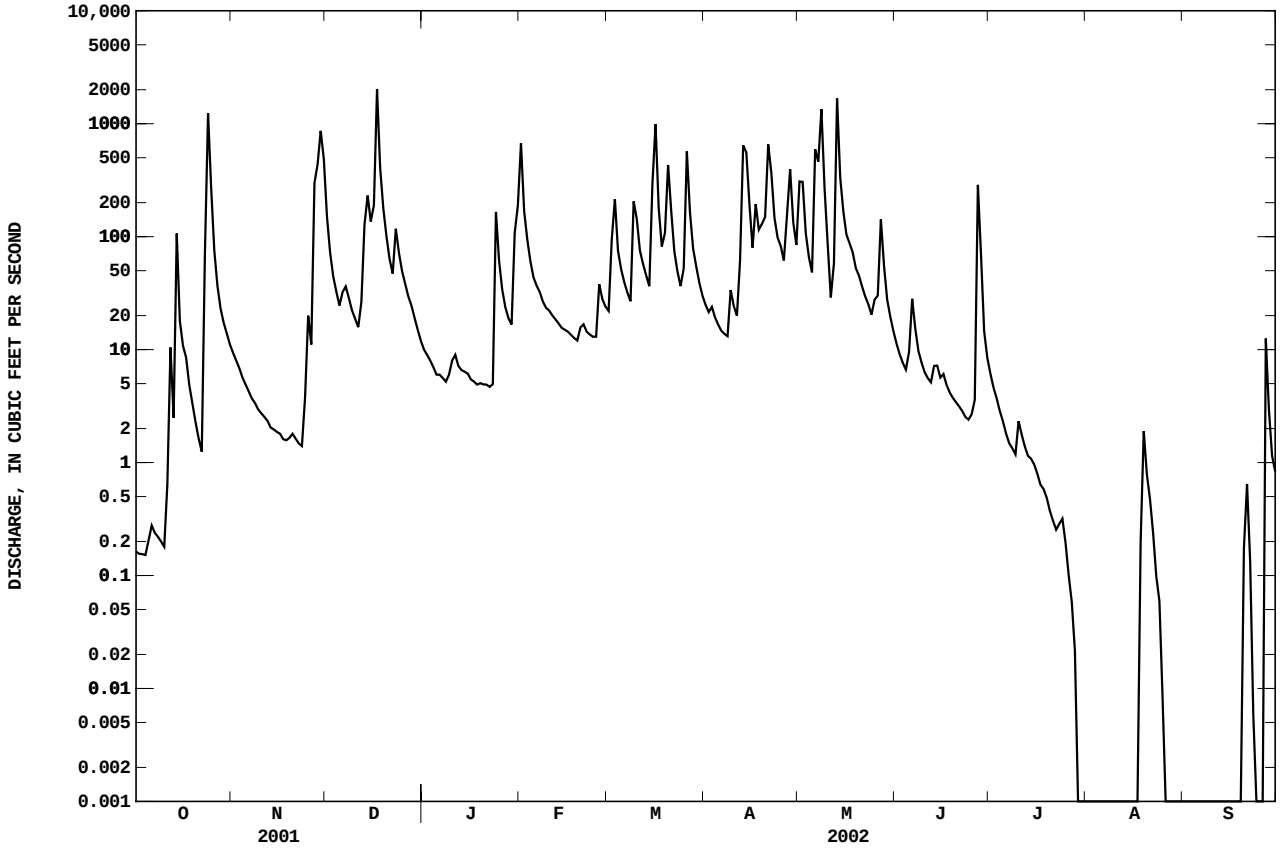
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

MEAN	10.15	31.69	44.43	42.68	52.57	65.40	70.43	49.91	24.97	19.98	15.81	6.505
MAX	62.3	132	141	147	105	168	176	214	159	195	92.4	60.9
(WY)	2002	1986	2002	1982	1979	1989	1972	2002	1997	1973	1979	1974
MIN	0.000	0.008	1.71	0.98	5.78	9.74	6.84	2.70	0.25	0.014	0.037	0.000
(WY)	1989	2000	2000	1977	1992	1981	2001	1988	1988	1991	1999	1988

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1971 - 2002	
ANNUAL TOTAL	14253.49		27068.82			
ANNUAL MEAN	39.05		74.16		36.12	
HIGHEST ANNUAL MEAN					74.2	2002
LOWEST ANNUAL MEAN					14.4	1987
HIGHEST DAILY MEAN	2010	Dec 17	2010	Dec 17	5000	Jul 21 1973
LOWEST DAILY MEAN	0.13	Sep 6	0.00	Jul 29	0.00	Oct 4 1970
ANNUAL SEVEN-DAY MINIMUM	0.17	Sep 28	0.00	Jul 29	0.00	Jul 12 1975
MAXIMUM PEAK FLOW			4800	Oct 24	15300	Jul 21 1973
MAXIMUM PEAK STAGE			8.98	Oct 24	14.00	Jul 21 1973
ANNUAL RUNOFF (CFSM)	1.62		3.08		1.50	
ANNUAL RUNOFF (INCHES)	22.00		41.78		20.36	
10 PERCENT EXCEEDS	71		173		77	
50 PERCENT EXCEEDS	7.0		11		9.0	
90 PERCENT EXCEEDS	0.24		0.00		0.27	

e Estimated

03371520 BACK CREEK AT LEESVILLE, IN--Continued



03372500 SALT CREEK NEAR HARRODSBURG, IN

LOCATION.--Lat 39°00'16", long 86°30'31", in NE$^1/_4$NW$^1/_4$ sec.34, T.7 N., R.1 W., Monroe County, Hydrologic Unit 05120208, (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 2001 (discharge). October 2001 to September 2002 (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.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 24.08 ft, Dec. 17, 2001; minimum gage height, 5.21 ft, Aug. 21, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 24.08 ft, Dec. 17; minimum gage height, 5.21 ft, Aug. 21.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.62	14.30	10.03	16.83	13.44	7.97	11.04	16.99	19.64	16.16	5.49	5.51
2	5.64	14.28	9.30	17.36	9.80	9.93	10.98	15.40	19.58	16.10	5.46	5.52
3	5.65	15.45	11.83	17.32	8.89	9.41	13.05	14.49	19.49	16.07	5.49	5.53
4	5.66	16.64	11.96	17.27	8.45	10.98	14.27	13.82	19.44	16.01	5.49	5.53
5	5.71	16.65	11.67	17.21	8.32	12.53	15.49	13.25	20.57	15.97	5.48	5.53
6	5.85	16.64	11.61	17.20	8.18	13.76	16.60	19.37	20.05	15.92	5.48	5.53
7	5.73	16.48	12.91	17.05	12.36	13.75	16.61	15.75	19.65	14.71	5.48	5.56
8	5.69	16.42	14.25	17.01	13.78	13.65	14.43	21.52	19.49	11.93	5.48	6.17
9	5.70	16.38	15.41	17.00	15.01	15.48	16.17	15.23	19.44	10.08	5.48	5.61
10	5.74	16.34	16.58	16.99	15.04	10.03	17.48	14.79	19.32	10.16	5.49	5.57
11	7.82	16.29	16.59	16.93	14.97	12.97	17.41	16.13	19.80	7.17	5.48	5.58
12	7.80	13.84	16.79	16.88	16.09	14.23	18.76	17.47	19.43	7.12	5.48	5.57
13	6.73	12.21	17.04	16.86	16.10	15.36	18.12	23.49	19.37	6.17	5.51	5.57
14	10.06	12.12	17.93	16.83	16.59	16.48	16.43	21.74	19.20	6.17	5.53	5.57
15	8.84	10.25	15.48	16.78	16.59	16.77	12.85	23.05	19.16	5.50	5.54	6.39
16	8.92	10.18	14.37	16.75	15.53	15.77	12.16	23.29	19.06	5.48	5.55	5.76
17	8.41	7.45	23.90	16.70	14.81	11.85	12.33	23.45	18.95	5.48	5.55	5.60
18	10.99	7.42	19.06	16.65	12.04	11.12	10.55	23.45	18.86	5.49	6.30	5.63
19	10.92	7.44	13.86	---	7.58	9.35	10.29	23.28	18.80	5.48	5.72	5.59
20	8.02	5.75	14.28	---	8.70	11.21	9.09	22.84	18.73	5.48	5.63	9.23
21	7.86	5.73	15.19	---	8.01	9.51	16.14	22.08	18.67	5.48	5.57	6.28
22	10.60	5.70	14.78	16.51	10.36	8.85	11.33	21.09	18.60	5.48	5.53	5.85
23	10.75	5.69	13.44	15.43	10.35	12.85	13.58	20.40	18.56	6.08	5.55	5.69
24	17.29	7.68	11.16	15.23	10.31	12.79	13.56	20.05	18.51	5.64	5.56	5.61
25	11.42	6.16	8.96	15.00	10.31	14.42	13.73	20.33	16.40	5.53	5.53	5.57
26	9.62	7.65	8.22	13.65	10.81	16.31	13.43	19.98	16.28	5.49	5.52	5.59
27	8.92	9.66	8.08	13.56	8.12	12.95	15.81	19.87	17.92	5.51	5.52	6.86
28	8.98	12.54	12.69	12.09	8.04	12.01	15.65	19.80	16.48	5.51	5.52	6.00
29	9.18	14.11	15.54	10.29	---	11.77	13.02	19.83	16.28	5.49	5.52	5.77
30	11.41	13.13	16.82	11.04	---	11.53	13.89	19.73	16.21	5.63	5.51	5.74
31	12.97	---	16.88	12.59	---	11.29	---	19.68	---	5.52	5.51	---
MEAN	8.53	11.69	14.08	---	11.73	12.48	14.14	19.41	18.73	8.52	5.55	5.85
MAX	17.29	16.65	23.90	---	16.59	16.77	18.76	23.49	20.57	16.16	6.30	9.23
MIN	5.62	5.69	8.08	---	7.58	7.97	9.09	13.25	16.21	5.48	5.46	5.51

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: Maximum, 24.6°C, July 5-6, minimum, 2.1°C, Jan. 18-23.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.1	18.9	19.5	13.1	13.1	13.1	10.2	9.9	10.1	4.9	4.6	4.7
2	20.1	18.9	19.3	13.5	13.1	13.2	9.9	9.5	9.9	4.6	4.2	4.3
3	19.7	18.9	19.1	13.1	13.1	13.1	9.9	9.5	9.7	4.2	3.9	4.0
4	19.7	18.5	19.1	13.5	13.1	13.2	9.9	9.5	9.8	3.9	3.5	3.6
5	18.9	18.1	18.8	13.1	12.8	13.0	9.9	9.9	9.9	3.5	3.5	3.5
6	18.9	18.1	18.3	12.8	12.8	12.8	9.9	9.9	9.9	3.5	3.2	3.2
7	18.5	17.7	18.0	12.8	12.4	12.6	9.9	9.9	9.9	3.2	3.2	3.2
8	18.5	17.3	17.7	12.8	12.4	12.5	9.9	9.5	9.9	3.2	2.8	3.2
9	18.1	17.3	17.5	12.4	12.4	12.4	9.9	9.5	9.5	3.2	2.8	2.8
10	17.7	17.3	17.5	12.4	12.1	12.2	9.5	9.2	9.4	2.8	2.8	2.8
11	17.7	17.3	17.4	12.1	12.1	12.1	9.2	9.2	9.2	2.8	2.8	2.8
12	17.7	17.3	17.4	12.1	11.7	11.9	9.2	9.2	9.2	2.8	2.8	2.8
13	17.7	17.3	17.5	11.7	11.7	11.7	9.2	9.2	9.2	2.8	2.8	2.8
14	17.7	16.9	17.3	11.7	11.7	11.7	9.2	9.2	9.2	2.8	2.5	2.8
15	17.3	16.5	17.1	11.7	11.3	11.6	9.2	8.8	9.0	2.8	2.5	2.7
16	17.3	16.5	16.8	12.1	11.3	11.6	8.8	8.8	8.8	2.5	2.5	2.5
17	16.5	16.1	16.3	11.7	11.3	11.5	8.8	8.8	8.8	2.5	2.5	2.5
18	16.1	15.8	15.9	11.7	11.3	11.5	8.8	8.8	8.8	2.5	2.1	2.5
19	15.8	15.8	15.8	11.3	11.3	11.3	8.8	8.5	8.5	---	---	---
20	15.8	15.4	15.5	11.3	11.0	11.0	8.5	8.1	8.3	2.1	2.1	2.1
21	15.4	15.4	15.4	11.0	10.6	10.7	8.1	8.1	8.1	2.1	2.1	2.1
22	15.4	15.0	15.3	11.0	10.2	10.4	8.1	7.8	8.0	2.1	2.1	2.1
23	15.4	15.0	15.3	10.6	10.2	10.4	8.1	7.8	7.9	2.5	2.1	2.2
24	15.8	15.4	15.5	11.0	10.6	10.7	7.8	7.4	7.5	2.5	2.5	2.5
25	15.4	15.0	15.2	10.6	10.2	10.6	7.4	7.1	7.1	2.5	2.5	2.5
26	15.0	14.3	14.5	10.6	10.2	10.4	7.1	6.7	6.9	2.8	2.5	2.5
27	14.3	13.9	14.2	11.0	10.6	10.7	6.7	6.4	6.6	2.8	2.5	2.6
28	13.9	13.5	13.8	10.6	10.2	10.3	6.4	6.4	6.4	2.8	2.5	2.7
29	13.5	13.5	13.5	10.2	10.2	10.2	6.4	5.7	6.0	3.2	2.8	3.0
30	13.5	13.1	13.5	10.2	10.2	10.2	5.7	5.3	5.7	3.5	3.2	3.4
31	13.5	13.1	13.1	---	---	---	5.3	4.9	5.1	3.9	3.5	3.6
MONTH	20.1	13.1	16.5	13.5	10.2	11.6	10.2	4.9	8.5	---	---	---

03372500 SALT CREEK NEAR HARRODSBURG, IN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.9	3.5	3.6	4.2	3.9	4.1	7.4	6.0	6.5	14.3	13.1	13.7
2	3.5	3.5	3.5	4.2	4.2	4.2	7.4	6.0	6.8	13.9	12.8	13.2
3	3.9	3.5	3.7	4.2	3.5	3.9	7.4	6.7	7.2	14.3	12.8	13.5
4	3.9	3.2	3.5	3.9	3.5	3.7	7.8	6.7	7.0	14.3	13.9	14.3
5	3.5	3.5	3.5	3.9	3.5	3.8	7.8	6.7	7.3	14.6	13.9	14.2
6	3.5	3.2	3.5	3.9	3.5	3.8	7.4	7.1	7.2	14.6	12.1	13.4
7	3.9	3.2	3.6	4.2	3.9	4.1	7.1	7.1	7.1	12.8	11.7	12.2
8	3.9	3.5	3.6	4.9	4.2	4.5	7.8	7.1	7.5	12.8	12.1	12.5
9	3.9	3.5	3.6	5.3	4.9	5.1	8.5	7.8	8.3	12.8	11.3	12.0
10	3.9	3.9	3.9	5.3	4.6	5.0	8.5	7.8	8.2	14.6	11.7	13.3
11	4.2	3.9	3.9	5.3	4.9	4.9	9.2	8.5	8.8	15.8	14.6	15.1
12	4.2	3.9	4.0	5.3	4.9	5.0	10.2	8.5	9.1	15.0	12.4	13.7
13	4.2	3.9	4.0	5.3	5.3	5.3	10.2	8.8	9.5	13.5	12.4	12.9
14	3.9	3.9	3.9	5.7	4.9	5.3	10.2	8.8	9.3	14.6	12.8	13.6
15	4.2	3.9	4.1	6.4	5.7	5.9	10.6	8.8	9.6	15.4	14.6	15.1
16	4.2	3.9	4.1	6.4	6.0	6.2	11.3	8.5	9.5	15.4	15.0	15.2
17	4.2	3.9	4.1	6.0	6.0	6.0	11.3	8.8	9.8	15.8	14.6	15.5
18	4.2	4.2	4.2	6.4	6.0	6.2	10.2	8.8	9.5	15.8	15.0	15.5
19	4.2	4.2	4.2	6.7	6.4	6.5	10.2	8.8	9.2	15.4	15.0	15.3
20	4.9	4.2	4.5	7.1	6.7	6.8	10.2	8.8	9.6	15.4	15.0	15.3
21	4.6	4.2	4.6	6.7	5.7	6.4	11.7	10.2	10.9	15.8	15.0	15.3
22	4.6	4.2	4.4	6.4	5.7	6.0	11.3	9.2	10.0	15.8	15.4	15.4
23	4.6	4.2	4.5	6.0	5.7	5.9	13.1	9.9	11.9	15.8	15.0	15.5
24	4.6	4.2	4.5	6.4	5.7	5.9	13.9	11.3	12.5	16.1	15.4	15.5
25	5.3	4.6	4.8	6.4	6.0	6.1	13.9	10.2	11.6	16.5	15.4	15.6
26	5.3	4.6	4.8	6.0	5.7	5.9	13.5	12.4	12.8	16.5	15.4	16.0
27	4.6	4.2	4.4	6.7	5.7	6.0	13.5	12.8	13.1	16.9	16.5	16.7
28	4.6	3.9	4.2	6.4	5.7	5.8	13.1	10.2	11.7	16.9	16.9	16.9
29	---	---	---	6.4	5.7	6.0	12.8	11.3	12.1	16.9	16.5	16.7
30	---	---	---	6.7	6.0	6.3	13.5	12.4	13.0	17.3	16.5	16.8
31	---	---	---	7.4	6.4	6.8	---	---	---	16.9	16.1	16.6
MONTH	5.3	3.2	4.0	7.4	3.5	5.4	13.9	6.0	9.6	17.3	11.3	14.7

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.3	16.1	16.4	21.7	20.5	21.0	22.5	20.5	21.5	23.8	22.5	23.1
2	18.5	16.1	17.3	22.5	20.9	21.7	22.5	20.5	21.4	23.3	22.5	22.9
3	18.5	17.3	18.0	22.5	21.3	21.9	22.9	20.9	21.9	23.8	22.1	22.8
4	17.3	16.5	17.0	22.1	20.9	21.6	22.9	21.3	21.9	23.8	21.3	22.7
5	18.1	16.5	17.0	24.6	21.7	22.8	22.5	21.3	21.9	23.8	22.5	23.0
6	19.7	16.5	18.9	24.6	23.8	24.1	23.8	21.3	23.0	24.2	22.5	23.1
7	19.3	18.9	19.2	24.2	21.7	22.5	24.2	21.7	23.1	23.8	22.5	23.1
8	19.3	17.7	18.1	22.1	20.1	20.8	23.8	21.7	22.6	23.3	22.1	22.8
9	18.9	17.7	18.2	20.5	16.9	19.5	23.3	21.3	22.5	23.8	22.5	23.1
10	19.3	17.7	18.2	20.9	17.7	19.6	22.9	21.3	22.0	23.8	22.1	23.1
11	19.3	16.9	17.6	22.9	20.5	21.9	22.9	20.5	21.7	23.8	22.5	23.2
12	18.9	16.5	17.7	22.9	22.1	22.4	22.5	20.5	21.8	23.8	22.5	23.2
13	19.7	17.3	19.2	22.1	21.3	21.7	22.5	20.9	21.7	23.3	22.1	22.8
14	19.7	16.9	18.4	21.7	20.9	21.1	22.5	20.1	21.4	22.9	22.5	22.7
15	18.5	16.5	17.6	21.7	20.1	20.9	22.9	20.9	21.7	22.9	22.5	22.6
16	19.3	17.7	18.3	21.3	19.7	20.4	22.1	20.1	21.3	23.3	22.1	22.7
17	20.1	19.3	19.5	20.9	18.9	20.2	22.5	20.5	21.7	22.9	22.1	22.6
18	20.5	18.5	19.2	20.9	18.9	20.0	22.5	20.5	21.5	22.9	22.1	22.6
19	20.9	18.9	19.9	20.9	19.3	19.9	22.5	21.7	22.1	22.9	22.1	22.5
20	20.5	19.7	20.0	21.7	18.9	20.4	23.3	20.9	22.2	22.5	21.7	22.1
21	20.9	19.7	20.2	22.1	20.1	20.9	22.9	20.5	22.4	22.5	21.7	22.1
22	21.3	20.1	20.6	20.9	20.1	20.4	22.5	20.9	21.8	22.5	20.9	21.8
23	21.7	20.1	20.8	21.7	18.9	20.3	23.3	21.7	22.1	22.1	20.9	21.4
24	21.7	20.1	20.7	22.5	20.5	21.4	22.9	20.5	21.8	22.1	20.9	21.3
25	21.7	19.3	20.4	22.1	20.5	21.4	23.3	21.7	22.6	21.7	20.9	21.3
26	20.1	19.3	19.7	20.9	19.7	20.6	23.3	22.1	22.8	21.3	20.9	21.0
27	20.5	17.3	19.3	21.3	19.3	20.5	24.2	22.5	23.1	21.3	20.9	21.0
28	21.7	17.7	20.4	21.3	18.9	20.0	23.8	22.5	23.2	21.3	20.5	20.8
29	21.7	20.9	21.3	21.3	18.5	20.0	24.2	22.5	23.3	21.3	20.1	20.7
30	21.3	20.5	20.9	22.5	17.7	20.6	23.8	22.5	23.3	21.3	20.1	20.6
31	---	---	---	22.1	20.1	21.3	23.8	22.5	23.2	---	---	---
MONTH	21.7	16.1	19.0	24.6	16.9	21.0	24.2	20.1	22.2	24.2	20.1	22.3

03373500 EAST FORK WHITE RIVER AT SHOALS, IN

LOCATION.--Lat 38°40'02", long 86°47'32", in SW$^1/_4$NW$^1/_4$ 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. Flow partially regulated by upstream reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

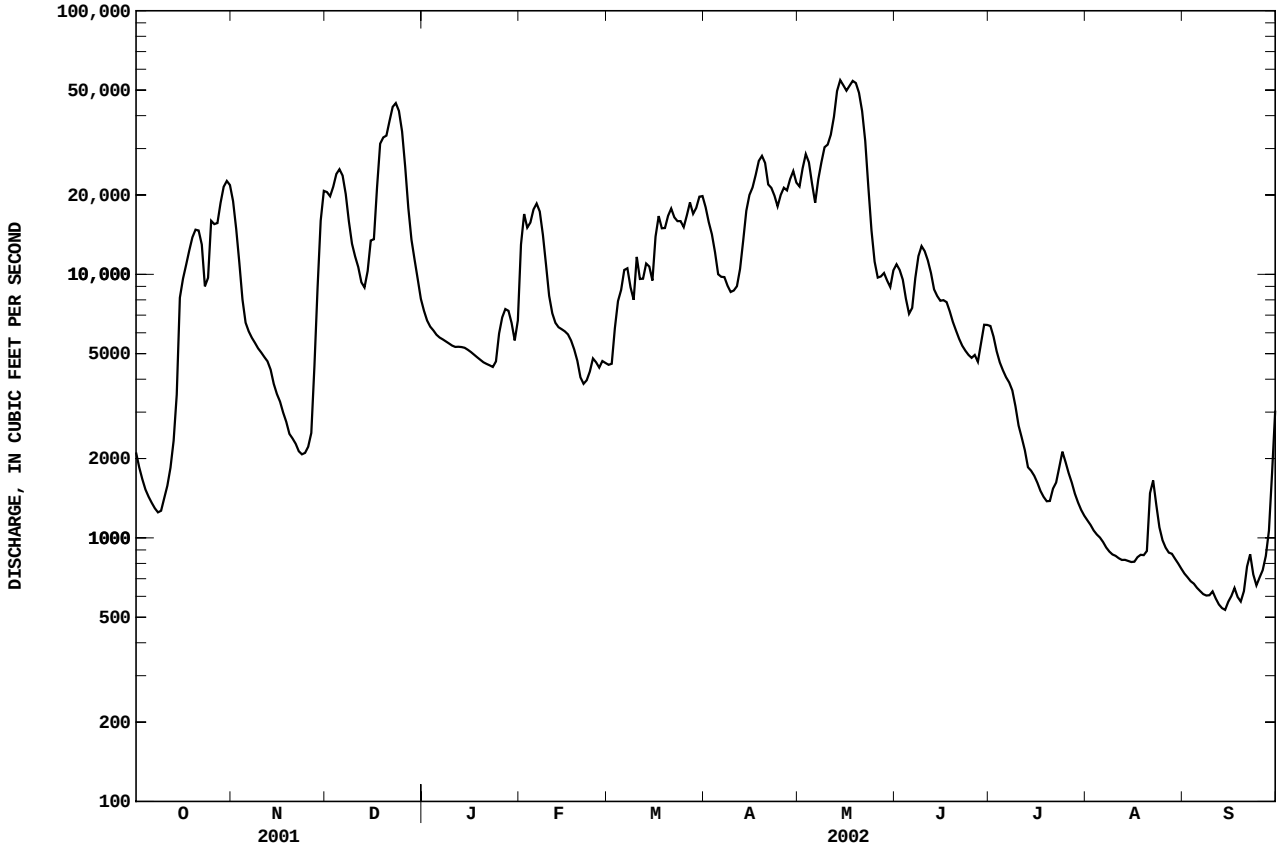
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2110	19000	20500	7280	13000	4540	18000	21500	10900	6370	1170	732
2	1850	14800	19800	6680	16900	4580	15800	25300	10400	5800	1120	709
3	1670	11100	21500	6330	15000	6250	14200	28600	9540	5100	1070	685
4	1530	8030	24000	6130	15700	7910	12100	26600	8080	4630	1030	670
5	1430	6560	25000	5900	17600	8730	10000	22100	7090	4320	1000	647
6	1360	6080	23700	5760	18600	10400	9780	18700	7460	4070	965	629
7	1300	5740	20200	5660	17300	10500	9760	23000	9680	3890	919	612
8	1250	5490	15900	5560	14100	8930	9050	26600	11700	3630	887	604
9	1270	5240	13100	5470	10900	8010	8570	30400	12800	3160	865	606
10	1420	5050	11700	5370	8290	11600	8680	31100	12200	2670	855	627
11	1580	4850	10600	5300	7110	9600	9010	33900	11300	2400	837	589
12	1850	4680	9330	5310	6540	9620	10500	39600	10100	2150	825	559
13	2340	4350	8920	5300	6300	11000	13400	49600	8770	1850	825	541
14	3500	3840	10300	5260	6190	10700	17400	54600	8270	1800	818	533
15	8150	3510	13400	5170	6080	9470	20000	52200	7940	1720	810	572
16	9630	3290	13600	5070	5920	13900	21400	49800	7980	1620	812	602
17	10900	2990	21400	4960	5610	16600	23800	52000	7840	1510	845	645
18	12300	2760	31300	4840	5190	15000	26900	54200	7240	1430	862	596
19	13800	2480	33100	4740	4700	15000	28100	53200	6600	1380	860	573
20	14800	2380	33600	4640	4070	16700	26500	48800	6120	1380	892	628
21	14700	2280	38200	4570	3840	17800	21900	41600	5690	1540	1480	778
22	13000	2130	43200	4520	3960	16500	21300	32100	5360	1620	1650	867
23	9000	2080	44600	4450	4280	15900	19900	21400	5130	1850	1330	727
24	9700	2100	41700	4670	4800	15900	18100	14700	4950	2120	1100	660
25	16000	2220	34800	5960	4640	15100	20000	11200	4820	1940	979	707
26	15500	2500	25600	6860	4430	16700	21300	9720	4940	1760	918	754
27	15600	4500	17900	7380	4690	18700	20800	9820	4660	1620	879	854
28	18700	8890	13500	7270	4610	17000	23000	10100	5480	1470	870	1060
29	21500	16000	11400	6540	---	17900	24700	9470	6440	1360	833	1760
30	22600	20700	9600	5610	---	19700	22300	8950	6430	1280	799	3040
31	21800	---	8070	6690	---	19800	---	10400	---	1210	764	---
TOTAL	272140	185620	669520	175250	240350	400040	526250	921260	235910	78650	29869	23566
MEAN	8779	6187	21600	5653	8584	12900	17540	29720	7864	2537	963.5	785.5
MAX	22600	20700	44600	7380	18600	19800	28100	54600	12800	6370	1650	3040
MIN	1250	2080	8070	4450	3840	4540	8570	8950	4660	1210	764	533
CFSM	1.78	1.26	4.38	1.15	1.74	2.62	3.56	6.03	1.60	0.51	0.20	0.16
IN.	2.05	1.40	5.06	1.32	1.81	3.02	3.97	6.96	1.78	0.59	0.23	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2002, BY WATER YEAR (WY)

MEAN	1692	2950	5471	8566	8684	10980	10150	7820	4667	2981	1969	1374
MAX	12520	18370	21590	47640	30880	34300	24000	35120	19290	13520	15220	9154
(WY)	1911	1994	2002	1937	1950	1945	1913	1996	1997	1958	1979	1926
MIN	262	293	305	432	589	562	1029	529	696	365	265	233
(WY)	1941	1955	1964	1931	1931	1941	1915	1941	1936	1954	1936	1954

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1904 - 2002	
ANNUAL TOTAL	2208720		3758425			
ANNUAL MEAN	6051		10300		5589	
HIGHEST ANNUAL MEAN					10370	1950
LOWEST ANNUAL MEAN					855	1941
HIGHEST DAILY MEAN	44600	Dec 23	54600	May 14	155000	Mar 28 1913
LOWEST DAILY MEAN	1080	Sep 3	533	Sep 14	64	Oct 6 1935
ANNUAL SEVEN-DAY MINIMUM	1180	Aug 14	575	Sep 10	168	Oct 3 1935
MAXIMUM PEAK FLOW			55000	May 14	160000	Mar 28 1913
MAXIMUM PEAK STAGE			28.50	May 14	42.20	Mar 28 1913
ANNUAL RUNOFF (CFSM)	1.23		2.09		1.13	
ANNUAL RUNOFF (INCHES)	16.68		28.38		15.41	
10 PERCENT EXCEEDS	13400		23000		14500	
50 PERCENT EXCEEDS	3520		6540		2680	
90 PERCENT EXCEEDS	1380		855		530	

03373500 EAST FORK WHITE RIVER AT SHOALS, IN--Continued



03373980 WHITE RIVER ABOVE PETERSBURG, IN

LOCATION.--Lat 38°31'42", long 87°15'12", in NE$^1/_4$SW$^1/_4$ sec.12, T.1 N., R.8 W., Pike County, Hydrologic Unit 05120202, (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 fair. 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, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	1480
12	---	---	---	---	---	---	---	---	---	---	---	1460
13	---	---	---	---	---	---	---	---	---	---	---	1420
14	---	---	---	---	---	---	---	---	---	---	---	1410
15	---	---	---	---	---	---	---	---	---	---	---	1460
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	1490
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
CFSM	---	---	---	---	---	---	---	---	---	---	---	---
IN.	---	---	---	---	---	---	---	---	---	---	---	---

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, 31.8°C, Aug. 4-5, minimum, 1.9°C, Jan. 4.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	11.2	10.3	10.7	10.0	9.6	9.7	2.4	2.0	2.2
2	---	---	---	11.9	11.1	11.5	9.7	9.5	9.6	2.5	2.1	2.3
3	---	---	---	12.2	11.7	12.0	9.5	9.0	9.2	2.4	2.1	2.3
4	---	---	---	12.8	12.2	12.5	9.5	9.0	9.2	2.4	1.9	2.2
5	---	---	---	12.9	12.4	12.6	9.9	9.3	9.6	2.6	2.1	2.3
6	---	---	---	12.8	12.3	12.6	10.1	9.8	10.0	2.9	2.5	2.7
7	---	---	---	12.7	12.0	12.4	10.6	10.0	10.3	3.0	2.6	2.8
8	---	---	---	12.7	12.0	12.4	10.6	10.5	10.6	3.1	2.5	2.8
9	---	---	---	12.3	11.7	12.0	10.5	10.1	10.2	3.6	2.9	3.2
10	---	---	---	11.9	11.2	11.6	10.1	9.5	9.8	4.1	3.6	3.8
11	---	---	---	11.7	11.0	11.4	9.5	9.0	9.2	4.2	3.8	4.0
12	17.4	16.8	17.1	11.5	10.8	11.2	9.1	8.9	8.9	4.3	3.8	4.1
13	17.8	17.3	17.5	11.2	10.5	10.9	9.0	8.9	9.0	4.2	3.7	4.0
14	17.7	17.0	17.3	11.5	10.7	11.1	9.1	8.9	9.0	4.5	4.0	4.3
15	17.0	16.2	16.6	11.5	10.8	11.2	9.0	8.8	8.9	4.7	4.3	4.5
16	16.2	15.4	15.6	11.9	11.2	11.6	9.3	9.0	9.1	4.6	4.2	4.4
17	15.4	14.7	15.0	12.1	11.4	11.8	9.6	9.3	9.5	4.5	4.1	4.3
18	14.7	14.3	14.5	12.4	11.6	12.0	9.5	9.2	9.4	4.4	3.8	4.1
19	14.4	13.4	13.8	12.2	11.4	12.0	9.4	8.3	8.9	4.3	3.8	4.0
20	13.4	12.9	13.1	11.4	10.4	10.9	8.3	7.6	7.9	3.8	3.6	3.7
21	13.3	12.9	13.1	10.4	9.6	9.9	7.8	7.1	7.4	4.1	3.4	3.8
22	13.6	13.1	13.3	9.9	9.3	9.6	7.2	6.5	6.7	4.5	3.7	4.1
23	14.6	13.6	14.1	10.4	9.5	9.8	6.7	5.7	6.3	5.2	4.5	4.9
24	15.7	14.5	15.2	11.7	10.4	11.2	5.7	4.6	4.9	6.1	5.2	5.8
25	15.5	14.8	15.2	11.8	11.4	11.6	4.6	4.3	4.4	6.1	5.2	5.6
26	14.8	14.2	14.5	11.4	10.7	11.1	4.4	3.4	3.9	5.6	4.9	5.2
27	14.2	13.2	13.6	11.5	10.8	11.2	3.4	3.0	3.2	6.0	5.3	5.6
28	13.2	11.5	12.4	10.8	9.8	10.2	3.3	2.9	3.1	6.5	5.6	6.0
29	11.5	10.1	10.6	10.1	9.4	9.7	3.2	2.7	3.0	7.3	6.5	6.8
30	10.2	9.8	10.0	10.2	10.0	10.2	2.7	2.3	2.5	7.5	7.2	7.4
31	10.7	9.8	10.2	---	---	---	2.3	2.1	2.2	9.0	7.4	8.1
MONTH	---	---	---	12.9	9.3	11.3	10.6	2.1	7.6	9.0	1.9	4.2

03373980 WHITE RIVER ABOVE PETERSBURG, IN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.1	8.6	8.9	5.9	4.9	5.4	9.7	8.2	8.8	16.1	15.5	15.8
2	8.6	8.3	8.5	6.0	5.7	5.8	10.4	9.6	9.9	16.1	15.6	15.9
3	8.6	8.1	8.4	5.7	4.3	5.0	10.5	10.2	10.3	16.4	15.4	15.9
4	8.1	7.1	7.6	4.3	3.6	3.9	11.0	10.4	10.6	17.0	15.6	16.3
5	7.1	6.0	6.6	4.8	3.8	4.3	11.0	10.3	10.7	17.5	15.9	16.7
6	6.0	4.8	5.3	5.3	4.6	5.0	10.9	10.3	10.6	17.2	16.6	16.9
7	4.8	4.1	4.4	5.9	5.1	5.5	10.8	10.3	10.6	17.9	17.0	17.4
8	4.8	4.1	4.4	6.8	5.7	6.2	10.8	10.6	10.7	18.4	17.2	17.8
9	5.2	4.6	4.9	7.7	6.8	7.3	11.3	10.8	11.0	18.5	18.0	18.2
10	5.6	5.2	5.4	7.7	7.2	7.5	12.0	10.8	11.4	18.9	17.5	18.2
11	6.0	5.3	5.6	8.2	7.2	7.7	12.8	11.4	12.1	19.7	18.2	18.9
12	6.2	5.6	5.9	8.2	7.9	8.0	14.4	12.8	13.4	20.2	19.5	19.9
13	6.5	5.8	6.1	8.6	8.1	8.4	14.5	14.0	14.2	19.5	17.8	18.5
14	6.6	5.8	6.2	9.1	8.4	8.7	14.8	14.3	14.5	18.5	17.4	17.9
15	6.6	5.9	6.3	9.3	8.8	8.9	15.9	14.6	15.2	19.1	18.0	18.5
16	6.7	6.0	6.3	9.0	8.6	8.7	17.3	15.7	16.4	18.7	18.3	18.5
17	6.7	5.9	6.3	9.2	8.7	8.8	19.4	17.3	18.1	18.3	16.9	17.8
18	6.7	5.8	6.3	9.5	9.2	9.3	21.0	19.3	20.1	17.0	16.2	16.7
19	6.8	6.3	6.5	9.3	9.3	9.3	21.6	20.9	21.2	17.0	16.3	16.7
20	7.6	6.8	7.2	9.3	9.1	9.2	21.8	21.3	21.5	16.9	16.4	16.6
21	7.6	7.0	7.2	9.1	8.3	8.8	21.8	21.3	21.5	16.5	15.6	16.1
22	7.2	6.7	6.9	8.4	7.9	8.2	21.3	19.4	20.0	16.7	15.3	16.0
23	7.2	6.4	6.8	8.1	7.7	7.9	19.4	16.9	18.1	17.2	15.5	16.3
24	7.6	6.7	7.1	7.9	7.3	7.5	16.9	16.0	16.2	17.4	16.3	16.8
25	7.7	7.1	7.5	7.5	7.1	7.3	16.0	15.2	15.5	17.5	16.9	17.2
26	7.7	6.2	6.9	7.4	6.6	6.8	15.7	15.2	15.4	18.2	17.0	17.6
27	6.2	5.0	5.5	7.6	6.6	7.0	15.5	15.0	15.1	18.8	17.9	18.3
28	5.3	4.5	4.9	7.5	7.0	7.2	15.8	14.8	15.3	19.3	18.7	19.0
29	---	---	---	7.6	7.1	7.4	15.7	14.7	15.2	19.7	19.1	19.4
30	---	---	---	7.8	7.3	7.5	16.3	14.7	15.4	20.7	19.7	20.1
31	---	---	---	8.5	7.5	8.0	---	---	---	21.6	20.4	21.0
MONTH	9.1	4.1	6.4	9.5	3.6	7.3	21.8	8.2	14.6	21.6	15.3	17.6

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.0	21.2	21.6	27.2	26.0	26.6	30.9	28.8	29.8	28.6	26.8	27.6
2	22.7	21.7	22.2	27.8	26.5	27.1	31.0	29.2	30.1	28.8	26.7	27.7
3	23.3	22.3	22.8	28.3	26.8	27.6	31.4	29.4	30.4	28.9	26.8	27.9
4	23.9	22.7	23.3	28.7	27.3	28.0	31.8	29.9	30.7	29.0	26.8	27.9
5	23.9	23.4	23.6	29.0	27.6	28.3	31.8	30.0	30.9	28.6	26.1	27.4
6	23.5	22.6	23.0	28.7	27.5	28.2	31.3	29.5	30.4	28.3	25.6	27.0
7	22.6	22.1	22.4	28.5	27.2	27.9	29.5	27.6	28.6	28.3	25.9	27.1
8	22.7	21.6	22.2	28.5	27.1	27.8	28.8	26.5	27.7	28.9	26.4	27.6
9	23.1	21.9	22.5	28.5	27.4	27.9	28.5	26.2	27.4	29.0	26.9	28.0
10	23.1	22.2	22.7	28.0	27.3	27.7	28.7	26.2	27.5	29.1	27.0	28.1
11	23.2	22.5	22.8	27.8	26.5	27.2	28.5	27.0	27.7	28.3	26.2	27.1
12	23.3	22.7	23.0	27.1	26.1	26.5	28.9	27.0	27.9	26.3	24.2	25.4
13	23.7	22.9	23.3	26.3	25.4	26.0	28.2	27.0	27.5	25.3	23.4	24.5
14	23.5	23.0	23.2	27.0	25.4	26.2	27.0	26.2	26.5	25.4	24.2	24.8
15	23.0	22.3	22.7	27.5	25.7	26.6	26.9	25.7	26.2	26.2	24.4	25.3
16	23.1	22.2	22.7	27.6	26.2	26.9	27.9	25.9	26.8	26.0	24.6	25.3
17	23.2	22.2	22.7	28.0	27.0	27.4	27.9	26.3	27.1	25.3	24.1	24.5
18	23.2	22.1	22.7	27.7	26.7	27.1	27.9	26.8	27.3	25.6	23.5	24.5
19	23.4	22.3	22.8	28.3	26.2	27.2	27.2	26.0	26.6	26.1	24.5	25.3
20	24.3	22.7	23.5	29.2	27.2	28.1	27.8	25.9	26.8	25.4	23.0	24.3
21	24.8	23.4	24.1	30.4	28.3	29.3	28.8	26.4	27.5	23.4	22.1	22.8
22	25.6	23.9	24.7	30.0	29.1	29.6	29.5	27.4	28.4	22.9	22.0	22.6
23	26.1	24.4	25.2	29.5	28.5	29.0	29.4	28.0	28.7	22.3	21.0	21.7
24	26.3	24.9	25.6	29.4	27.9	28.6	29.3	28.0	28.6	22.0	20.6	21.4
25	26.6	25.1	25.8	29.3	27.6	28.4	29.0	28.0	28.4	21.4	20.5	21.0
26	26.8	25.5	26.2	28.9	28.0	28.3	28.2	27.1	27.5	21.0	20.2	20.5
27	26.9	25.9	26.3	29.4	27.6	28.4	28.0	26.1	27.1	21.3	19.7	20.5
28	26.7	25.6	26.2	29.9	28.1	29.0	28.2	26.3	27.2	22.2	20.4	21.2
29	26.4	25.6	26.0	29.7	28.4	29.1	28.3	26.3	27.2	22.8	21.0	21.8
30	26.8	25.7	26.2	30.2	28.3	29.2	28.2	26.2	27.2	22.9	21.4	22.2
31	---	---	---	30.4	28.3	29.4	28.7	26.4	27.5	---	---	---
MONTH	26.9	21.2	23.7	30.4	25.4	27.9	31.8	25.7	28.0	29.1	19.7	24.8

03374000 WHITE RIVER AT PETERSBURG, IN

LOCATION.--Lat 38°30'39", long 87°17'22", in SE$^1/_4$SW$^1/_4$ 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 fair. 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4980	43500	38300	15900	20600	12700	40100	49100	19800	15300	3440	2040
2	e4450	36400	40300	14600	27500	12700	38700	50200	19800	14300	3350	1960
3	e4000	26700	41300	13600	32300	13500	36700	52300	19000	12700	3280	1870
4	3680	20000	42500	12800	34200	15400	34700	57200	18600	11200	3160	1800
5	3480	16200	43400	12300	36200	18200	32100	59200	17000	10200	3010	1750
6	3320	14200	42300	12000	39100	19500	28800	54700	16100	9490	2890	1690
7	3110	13000	39600	11800	41300	20500	25600	51200	16400	8930	2760	1640
8	2970	12200	35200	11500	40100	20500	23500	53800	18000	8510	2660	1610
9	3450	11600	28000	11300	31900	18900	21900	63000	19500	8100	2570	1580
10	4220	11100	22200	11200	22500	20300	20700	66500	19400	7690	2500	1560
11	4770	10700	19200	11000	18000	22800	20000	68400	18500	7120	2440	1520
12	6480	10300	17600	10800	15900	24200	19800	73300	17600	7050	2380	1500
13	7840	9970	17800	10800	14800	24500	22500	104000	17400	6770	2360	1440
14	14300	9600	19700	10700	14000	24400	28300	117000	17500	6170	2390	1410
15	18900	9070	25300	10500	13600	22400	36700	115000	17400	5640	2310	1490
16	22200	8590	28600	10300	13200	23800	40300	115000	17000	5260	2280	1590
17	24400	8220	40200	10100	12700	27100	42400	113000	16900	4940	2260	1530
18	26000	7860	53900	9780	12100	28400	43800	115000	16100	4700	2260	1640
19	27900	7550	61800	9410	11500	28100	45000	117000	14900	4470	2340	1730
20	30200	7200	67800	9030	11100	30100	45300	114000	13600	4320	2360	2360
21	31800	6970	72600	8740	11000	32500	43600	105000	12600	4370	2280	5330
22	31200	6780	74600	8570	11800	32500	42300	90000	11800	4330	2480	5290
23	25500	6540	77400	8510	12800	30600	41200	72900	11200	4340	3230	4690
24	21300	6520	79100	9870	13100	27900	40900	55700	10800	4390	3330	4770
25	25100	7370	75800	10900	12900	26100	40500	39200	10600	5070	2930	4050
26	30500	7420	65800	11600	12500	28700	40500	27100	10500	5010	2610	3420
27	33000	11400	54000	11900	11900	35600	40600	22000	10700	4530	2420	3370
28	34900	15200	41200	11800	12100	38100	44300	20700	10800	4270	2360	3270
29	38000	22100	28300	11500	---	39400	47100	20300	12500	3960	2320	3130
30	41500	30800	21200	11200	---	40500	48300	19500	14400	3730	2230	3550
31	44200	---	17900	12300	---	40800	---	19200	---	3580	2130	---
TOTAL	577650	415060	1332900	346310	560700	800700	1076200	2100500	466400	210440	81320	74580
MEAN	18630	13840	43000	11170	20020	25830	35870	67760	15550	6788	2623	2486
MAX	44200	43500	79100	15900	41300	40800	48300	117000	19800	15300	3440	5330
MIN	2970	6520	17600	8510	11000	12700	19800	19200	10500	3580	2130	1410
CFSM	1.67	1.24	3.86	1.00	1.80	2.32	3.22	6.09	1.40	0.61	0.24	0.22
IN.	1.93	1.39	4.46	1.16	1.87	2.68	3.60	7.02	1.56	0.70	0.27	0.25

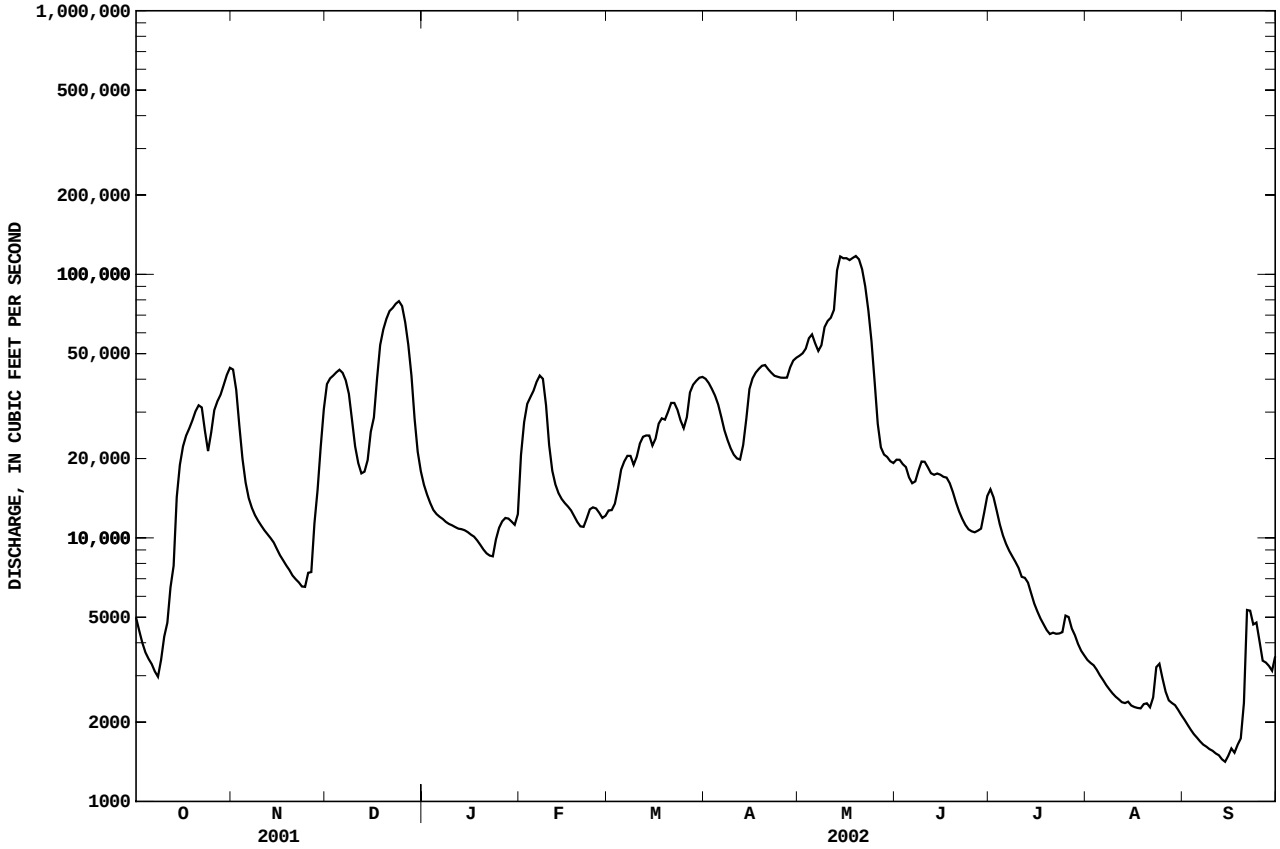
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2002, BY WATER YEAR (WY)

MEAN	3512	6665	11290	17030	18300	22400	22120	18150	11490	7479	4771	3415
MAX	18630	46800	43000	86440	67080	55340	42900	70110	38550	25620	39590	19640
(WY)	2002	1994	2002	1950	1950	1945	1944	1996	1998	1958	1979	1989
MIN	653	884	861	981	1388	1597	3767	1597	1950	1118	870	878
(WY)	1941	1954	1964	1977	1931	1941	1941	1941	1988	1954	1936	1936

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1928 - 2002	
ANNUAL TOTAL	4699800		8042760			
ANNUAL MEAN	12880		22030		12190	
HIGHEST ANNUAL MEAN					22760	1950
LOWEST ANNUAL MEAN					2138	1941
HIGHEST DAILY MEAN	79100	Dec 24	117000	May 14	182000	Jan 22 1937
LOWEST DAILY MEAN	2420	Aug 18	1410	Sep 14	573	Oct 1 1941
ANNUAL SEVEN-DAY MINIMUM	2720	Aug 14	1500	Sep 11	598	Sep 26 1941
MAXIMUM PEAK FLOW			119000	May 14	183000	Jan 22 1937
MAXIMUM PEAK STAGE			25.86	May 14	28.30	Jan 22 1937
ANNUAL RUNOFF (CFSM)	1.16		1.98		1.10	
ANNUAL RUNOFF (INCHES)	15.72		26.89		14.89	
10 PERCENT EXCEEDS	27900		46000		30000	
50 PERCENT EXCEEDS	8220		14300		6520	
90 PERCENT EXCEEDS	3520		2460		1520	

e Estimated

03374000 WHITE RIVER AT PETERSBURG, IN--Continued



03374100 WHITE RIVER AT HAZLETON, 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, WH, FIELD, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	8.3	---
2	---	---	---	---	---	---	---	---	---	---	8.2	---
3	---	---	---	---	---	---	---	---	---	---	8.3	---
4	---	---	---	---	---	---	---	---	---	---	8.2	---
5	---	---	---	---	---	---	---	---	---	---	8.0	---
6	---	---	---	---	---	---	---	---	---	---	8.2	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	8.3	---	---
13	---	---	---	---	---	---	---	---	---	8.4	---	---
14	---	---	---	---	---	---	---	---	---	8.4	---	---
15	---	---	---	---	---	---	---	---	---	8.4	---	---
16	---	---	---	---	---	---	---	---	---	8.4	---	---
17	---	---	---	---	---	---	---	---	---	8.3	---	---
18	---	---	---	---	---	---	---	---	---	8.3	---	---
19	---	---	---	---	---	---	---	---	---	8.3	---	---
20	---	---	---	---	---	---	---	---	---	8.3	---	---
21	---	---	---	---	---	---	---	---	---	8.2	---	---
22	---	---	---	---	---	---	---	---	---	8.1	---	---
23	---	---	---	---	---	---	---	---	---	8.1	---	---
24	---	---	---	---	---	---	---	---	---	8.2	---	---
25	---	---	---	---	---	---	---	---	---	8.2	---	---
26	---	---	---	---	---	---	---	---	---	8.1	---	---
27	---	---	---	---	---	---	---	---	---	8.3	---	---
28	---	---	---	---	---	---	---	---	---	8.4	---	---
29	---	---	---	---	---	---	---	---	---	8.3	---	---
30	---	---	---	---	---	---	---	---	---	8.3	---	---
31	---	---	---	---	---	---	---	---	---	8.3	---	---

03374100 WHITE RIVER AT HAZLETON, IN--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	11.9	---
2	---	---	---	---	---	---	---	---	---	---	9.4	---
3	---	---	---	---	---	---	---	---	---	---	7.4	---
4	---	---	---	---	---	---	---	---	---	---	7.0	---
5	---	---	---	---	---	---	---	---	---	---	7.1	---
6	---	---	---	---	---	---	---	---	---	---	7.3	---
7	---	---	---	---	---	---	---	---	---	---	8.1	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	8.4	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	11.3	---	---
20	---	---	---	---	---	---	---	---	---	12.0	---	---
21	---	---	---	---	---	---	---	---	---	12.2	---	---
22	---	---	---	---	---	---	---	---	---	12.0	---	---
23	---	---	---	---	---	---	---	---	---	9.9	---	---
24	---	---	---	---	---	---	---	---	---	9.7	---	---
25	---	---	---	---	---	---	---	---	---	9.7	---	---
26	---	---	---	---	---	---	---	---	---	8.1	---	---
27	---	---	---	---	---	---	---	---	---	7.9	---	---
28	---	---	---	---	---	---	---	---	---	8.6	---	---
29	---	---	---	---	---	---	---	---	---	9.6	---	---
30	---	---	---	---	---	---	---	---	---	10.7	---	---
31	---	---	---	---	---	---	---	---	---	12.1	---	---

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	31.7	---
2	---	---	---	---	---	---	---	---	---	---	31.8	---
3	---	---	---	---	---	---	---	---	---	---	31.9	---
4	---	---	---	---	---	---	---	---	---	---	32.4	---
5	---	---	---	---	---	---	---	---	---	---	32.5	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	23.7	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	28.0	---	---
13	---	---	---	---	---	---	---	---	---	27.4	25.1	---
14	---	---	---	---	---	---	---	---	---	27.1	24.8	---
15	---	---	---	---	---	---	---	---	---	27.7	---	---
16	---	---	---	---	---	---	---	---	---	28.4	---	---
17	---	---	---	---	---	---	---	---	---	28.9	---	---
18	---	---	---	---	---	---	---	---	---	28.8	---	---
19	---	---	---	---	---	---	---	---	---	28.9	---	---
20	---	---	---	---	---	---	---	---	---	29.6	---	---
21	---	---	---	---	---	---	---	---	---	30.8	---	---
22	---	---	---	---	---	---	---	---	---	31.5	---	---
23	---	---	---	---	---	---	---	---	---	30.9	---	---
24	---	---	---	---	---	---	---	---	---	30.6	---	---
25	---	---	---	---	---	---	---	---	---	30.2	---	---
26	---	---	---	---	---	---	---	---	---	29.8	---	---
27	---	---	---	---	---	---	---	---	---	30.0	---	---
28	---	---	---	---	---	---	---	---	---	30.4	---	---
29	---	---	---	---	---	---	---	---	---	30.8	---	---
30	---	---	---	---	---	---	---	---	---	30.9	---	---
31	---	---	---	---	---	---	---	---	---	31.3	---	---

03374100 WHITE RIVER AT HAZLETON, IN--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	467	---
2	---	---	---	---	---	---	---	---	---	---	613	---
3	---	---	---	---	---	---	---	---	---	---	671	---
4	---	---	---	---	---	---	---	---	---	---	707	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	489	---	---
13	---	---	---	---	---	---	---	---	---	505	---	---
14	---	---	---	---	---	---	---	---	---	506	---	---
15	---	---	---	---	---	---	---	---	---	524	---	---
16	---	---	---	---	---	---	---	---	---	570	---	---
17	---	---	---	---	---	---	---	---	---	594	---	---
18	---	---	---	---	---	---	---	---	---	579	---	---
19	---	---	---	---	---	---	---	---	---	592	---	---
20	---	---	---	---	---	---	---	---	---	602	---	---
21	---	---	---	---	---	---	---	---	---	603	---	---
22	---	---	---	---	---	---	---	---	---	617	---	---
23	---	---	---	---	---	---	---	---	---	626	---	---
24	---	---	---	---	---	---	---	---	---	628	---	---
25	---	---	---	---	---	---	---	---	---	627	---	---
26	---	---	---	---	---	---	---	---	---	665	---	---
27	---	---	---	---	---	---	---	---	---	686	---	---
28	---	---	---	---	---	---	---	---	---	640	---	---
29	---	---	---	---	---	---	---	---	---	617	---	---
30	---	---	---	---	---	---	---	---	---	526	---	---
31	---	---	---	---	---	---	---	---	---	421	---	---

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS FIX END FIELD CAC03 (MG/L) (39036)
OCT													
04...	1210	3660	745	11.5	8.4	594	27.0	20.6	62.5	19.4	4.95	28.5	180
18...	1230	26000	758	7.3	7.5	398	15.0	14.5	--	--	--	--	--
NOV													
15...	1340	9020	745	10.2	8.1	552	E20.0	12.8	--	--	--	--	190
28...	1320	14700	749	8.7	7.8	435	10.0	11.4	--	--	--	--	--
DEC													
12...	1240	17400	745	10.3	7.8	471	10.0	9.5	--	--	--	--	150
JAN													
09...	1240	11300	736	12.5	7.8	548	11.0	4.2	--	--	--	--	190
FEB													
06...	1240	39200	751	8.5	7.8	344	.0	5.2	--	--	--	--	120
MAR													
06...	1400	19600	743	12.2	8.1	462	15.0	5.4	--	--	--	--	160
APR													
04...	1320	34600	753	10.4	8.2	438	6.0	10.0	--	--	--	--	160
MAY													
09...	1200	63500	733	7.0	7.6	283	17.0	19.3	--	--	--	--	--
16...	1250	11500	748	7.9	7.4	233	25.0	18.5	--	--	--	--	98
30...	1145	19500	744	8.0	7.7	484	28.0	20.9	--	--	--	--	--
JUN													
06...	1320	16100	750	6.8	7.8	452	20.0	24.3	--	--	--	--	160
13...	1410	17400	737	7.3	7.8	425	25.0	24.5	--	--	--	--	--
20...	1310	13600	752	8.0	7.9	446	28.0	24.3	--	--	--	--	--
27...	1350	10600	738	7.4	8.0	469	30.0	28.0	--	--	--	--	--
JUL													
11...	1400	7020	745	9.0	8.2	476	37.0	28.9	--	--	--	--	170
18...	1330	4690	744	11.2	8.2	588	24.0	29.3	--	--	--	--	--
25...	1330	5210	746	11.8	8.3	625	31.0	30.2	--	--	--	--	--
AUG													
15...	1450	2300	745	10.4	8.4	668	28.0	28.3	--	--	--	--	170
29...	1330	2310	746	12.3	8.5	629	28.0	29.3	--	--	--	--	--
SEP													
12...	1400	1490	750	11.8	8.4	714	26.0	27.3	--	--	--	--	160

03374100 WHITE RIVER AT HAZLETON, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICARBONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CARBONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)
OCT													
04...	181	215	3	43.5	.3	6.39	55.9	358	<.04	.32	.91	1.88	.022
18...	--	--	--	--	--	--	--	--	<.04	--	1.0	1.79	.015
NOV													
15...	189	228	1	29.9	--	--	45.9	--	<.04	--	.49	2.08	E.004
28...	--	--	--	--	--	--	--	--	.05	--	1.6	2.14	.017
DEC													
12...	155	188	0	20.6	--	--	36.5	--	<.04	--	.45	2.29	.009
JAN													
09...	194	235	0	25.5	--	--	51.0	--	E.03	--	.34	2.60	.009
FEB													
06...	122	148	0	18.5	--	--	28.1	--	<.04	--	.90	1.74	.179
MAR													
06...	164	198	0	26.5	--	--	39.0	--	<.04	--	.53	1.92	.010
APR													
04...	161	193	1	23.8	--	--	32.3	--	<.04	--	.61	2.98	.010
MAY													
09...	--	--	--	--	--	--	--	--	<.04	--	.83	1.26	.031
16...	97	118	0	7.68	--	--	16.2	--	<.04	--	.78	.79	.044
30...	--	--	--	--	--	--	--	--	<.04	--	.65	2.15	.015
JUN													
06...	163	197	0	17.5	--	--	40.2	--	<.04	--	.72	1.88	.022
13...	--	--	--	--	--	--	--	--	<.04	--	1.1	2.15	.024
20...	--	--	--	--	--	--	--	--	<.04	--	.67	1.76	.084
27...	--	--	--	--	--	--	--	--	<.04	--	.97	1.48	.012
JUL													
11...	171	203	2	23.4	--	--	43.6	--	<.04	--	1.1	.70	.014
18...	--	--	--	--	--	--	--	--	<.04	--	.92	.42	.011
25...	--	--	--	--	--	--	--	--	<.04	--	1.2	.22	.014
AUG													
15...	162	E194	E1	53.0	--	--	81.1	--	<.04	--	1.2	<.05	<.008
29...	--	--	--	--	--	--	--	--	<.04	--	1.1	<.05	<.008
SEP													
12...	160	186	4	59.1	--	--	99.5	--	<.04	--	1.1	<.05	<.008

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	NITROGEN,PARTICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	ORTHOPHOSPHATE, DISSOLVED (MG/L AS P) (00671)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INORGANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTICULATE TOTAL (MG/L AS C) (00689)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	2,4-D METHYL ESTER, WATER FLTRD REC (UG/L) (50470)	2,4-D, DISSOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)
OCT													
04...	.75	.078	.05	.21	5.7	<.1	6.1	5.7	<10	E2.3	<.009	.03	<.02
18...	--	--	.09	.36	--	--	--	--	--	--	<.009	.10	<.02
NOV													
15...	.43	--	.06	.138	2.6	<.1	3.8	2.6	--	--	<.009	<.02	<.02
28...	--	--	.20	.63	--	--	--	--	--	--	<.009	.31	<.02
DEC													
12...	.27	--	.06	.164	1.5	<.1	4.4	1.5	--	--	<.009	.05	<.02
JAN													
09...	<.02	--	.06	.111	1.7	<.1	2.9	1.6	--	--	<.009	E.02	<.02
FEB													
06...	.29	--	<.02	.186	3.1	<.1	5.2	3.1	--	--	<.009	.06	<.02
MAR													
06...	.32	--	.03	.164	3.0	.5	3.3	2.5	--	--	<.009	<.02	<.02
APR													
04...	.21	--	.04	.160	1.5	<.1	3.7	1.5	--	--	<.009	.03	<.02
MAY													
09...	--	--	.05	.22	--	--	--	--	--	--	<.009	.23	<.02
16...	.20	--	E.02	.179	1.6	.2	6.0	1.5	--	--	<.009	.15	<.02
30...	--	--	.05	.192	--	--	--	--	--	--	--	--	--
JUN													
06...	.14	--	.04	.198	1.9	<.1	3.6	1.8	--	--	<.009	.27	<.02
13...	--	--	.05	.28	--	--	--	--	--	--	<.009	.24	<.02
20...	--	--	<.02	.184	--	--	--	--	--	--	<.009	<.02	<.02
27...	--	--	.03	.20	--	--	--	--	--	--	<.009	.08	<.02
JUL													
11...	.79	--	<.02	.171	4.8	<.1	3.4	4.8	--	--	<.009	<.02	<.02
18...	--	--	<.02	.142	--	--	--	--	--	--	--	--	--
25...	--	--	<.02	.134	--	--	--	--	--	--	--	--	--
AUG													
15...	.90	--	<.02	.149	6.1	<.1	3.7	6.1	--	--	<.009	E.02	<.02
29...	--	--	<.02	.134	--	--	--	--	--	--	--	--	--
SEP													
12...	.98	--	<.02	.145	8.1	<.1	4.3	8.1	--	--	<.009	.03	<.02

03374100 WHITE RIVER AT HAZLETON, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	3HYDRXY CARBO-FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	3-KETO CARBO-FURAN WATER FLTRD REC (UG/L) (50295)	ACETO-CHLOR ESA FLTRD 0.7 UM GF REC (UG/L) (61029)	ACETO-CHLOR OA FLTRD 0.7 UM GF REC (UG/L) (61030)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALA-CHLOR OA FLTRD 0.7 UM GF REC (UG/L) (61031)	ALA-CHLOR ESA WAT FLT GF 0.7U REC (UG/L) (50009)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)
OCT													
04...	<.002	<.006	<2	--	--	.009	<.007	--	--	.003	<.02	<.008	<.04
18...	<.002	<.006	<2	.22	.17	.015	<.007	<.05	.06	.003	<.02	<.008	<.04
NOV													
15...	<.002	<.006	<2	.09	.05	.004	<.007	<.05	.06	<.002	<.02	<.008	<.04
28...	<.002	<.006	<2	--	--	.040	<.007	--	--	<.002	<.02	<.008	<.04
DEC													
12...	<.002	<.006	<2	.12	.07	.005	<.007	<.05	.09	<.002	<.02	<.008	<.04
JAN													
09...	<.006	<.006	<2	.06	<.05	.009	<.007	<.05	.08	<.004	<.02	<.008	<.04
FEB													
06...	<.006	<.006	<2	.13	.08	<.006	<.007	<.05	.09	<.004	<.02	<.008	<.04
MAR													
06...	<.006	<.006	<2	.07	<.05	.008	<.007	<.05	.07	<.004	<.02	<.008	<.04
APR													
04...	<.006	<.006	<2	.09	.06	.009	<.118	<.05	.08	.005	<.02	<.008	<.04
MAY													
09...	<.006	<.006	<2	.07	.07	.092	<.007	<.05	.05	.027	<.02	<.008	<.04
16...	<.006	<.006	<2	.07	.07	.132	<.007	<.05	<.05	.011	<.02	<.008	<.04
30...	<.006	--	--	--	--	.197	--	--	--	.006	--	--	--
JUN													
06...	<.006	<.006	<2	.17	.29	.560	<.007	<.05	<.05	.039	<.02	<.008	<.04
13...	<.006	<.006	<2	.45	.59	1.04	<.007	.09	.11	.182	<.02	<.008	<.04
20...	<.006	<.006	<2	.34	.39	.278	<.007	.06	.08	.039	<.02	<.008	<.04
27...	<.006	<.006	<2	.28	.30	.188	<.007	<.05	<.05	.013	<.02	<.008	<.04
JUL													
11...	<.006	<.006	<2	.31	.30	.067	<.007	<.05	.06	.010	<.02	<.008	<.04
18...	<.006	--	--	--	--	.041	--	--	--	<.004	--	--	--
25...	<.006	--	--	--	--	.017	--	--	--	<.004	--	--	--
AUG													
15...	<.006	<.006	<2	.08	.13	<.006	<.007	<.05	.09	<.004	<.02	<.008	<.04
29...	<.006	--	--	--	--	E.006	--	--	--	<.004	--	--	--
SEP													
12...	<.006	<.006	<2	.07	.07	<.006	<.007	<.05	.08	<.004	<.02	<.008	<.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BENDIO-CARB, WATER FLTRD REC (UG/L) (50299)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENOMYL WATER FLTRD REC (UG/L) (50300)	BEN-SUL-FURON METHYL WAT FLT REC (UG/L) (61693)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAF-FEINE, WATER FLTRD REC (UG/L) (50305)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)
OCT													
04...	<.005	.168	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	<.010	<.03	<.041
18...	<.005	.178	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	.058	<.03	<.041
NOV													
15...	<.005	.083	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	<.010	<.03	<.041
28...	<.005	.155	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	<.010	<.03	<.041
DEC													
12...	<.005	.115	<.03	<.010	<.004	<.02	E.03	<.03	<.02	<.002	<.010	M	E.006
JAN													
09...	<.005	.054	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	<.010	<.03	<.041
FEB													
06...	<.005	.075	<.03	<.010	<.004	<.02	<.01	E.01	<.02	<.002	.054	<.03	<.041
MAR													
06...	<.005	.046	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	.029	<.03	<.041
APR													
04...	<.005	.053	<.03	<.010	<.004	<.02	E.01	<.03	<.02	<.002	.055	<.03	E.006
MAY													
09...	<.005	1.73	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	E.01	E.010
16...	<.005	1.88	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.003	<.010	M	E.006
30...	<.005	3.75	--	<.010	--	--	--	--	--	<.002	--	--	<.041
JUN													
06...	<.005	5.98	<.03	<.010	<.004	<.02	E.01	E.03	<.02	<.002	<.010	<.03	<.041
13...	<.005	9.30	<.03	<.010	<.004	<.02	<.01	E.04	<.02	<.002	<.010	<.03	E.006
20...	<.005	3.66	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041
27...	<.005	2.29	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041
JUL													
11...	<.005	1.77	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041
18...	<.005	.928	--	<.010	--	--	--	--	--	<.002	--	--	<.041
25...	<.005	.556	--	<.010	--	--	--	--	--	<.002	--	--	<.041
AUG													
15...	<.005	.359	<.03	<.010	<.004	<.02	M	<.03	<.02	<.002	<.010	<.03	<.041
29...	<.005	.334	--	<.010	--	--	--	--	--	<.002	--	--	<.041
SEP													
12...	<.005	.272	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041

03374100 WHITE RIVER AT HAZLETON, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-AMBEN, METHYL ESTER WATER FLTRD (UG/L) (61188)	CHLORI-MURON, WATER FLTRD REC (UG/L) (50306)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEETHYL DEISO-PROPYL ATRAZIN DISS, REC (UG/L) (04039)
OCT													
04...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.053	<.01
18...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	--	<.003	E.08	<.01
NOV													
15...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.04	E.02
28...	<.006	<.020	<.02	E.180	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.04	<.01
DEC													
12...	<.006	<.020	<.02	E.095	E.29	<.005	<.01	E.005	<.01	<.01	<.003	E.036	E.03
JAN													
09...	<.006	<.020	<.02	E.031	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.024	<.01
FEB													
06...	<.006	<.020	E.03	E.029	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.035	<.01
MAR													
06...	<.006	<.020	<.02	E.018	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.022	<.01
APR													
04...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.019	E.01
MAY													
09...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.090	E.03
16...	<.006	<.020	<.02	E.050	<.04	<.005	<.01	E.017	<.01	<.01	<.003	E.081	<.01
30...	--	<.020	--	--	--	<.005	--	<.018	--	--	<.003	E.080	--
JUN													
06...	<.006	<.020	<.02	E.016	<.04	<.005	<.01	<.025	<.01	<.01	<.003	E.244	<.01
13...	<.006	<.020	<.02	E.054	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.329	<.01
20...	<.006	<.020	<.02	E.019	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.335	E.07
27...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.249	<.01
JUL													
11...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.220	<.01
18...	--	<.020	--	--	--	<.005	--	<.018	--	--	<.003	E.136	--
25...	--	<.020	--	--	--	<.005	--	<.018	--	--	<.003	E.073	--
AUG													
15...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.066	<.01
29...	--	<.020	--	--	--	<.005	--	<.018	--	--	<.003	E.061	--
SEP													
12...	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	E.051	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	DEISO-PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DIMETH-ENAMID OA, WATER FLT, REC (UG/L) (62482)	DIMETH-ENAMID, ESA, WAT FLT (UG/L) (61951)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
OCT													
04...	E.03	.009	<.01	<.01	<.005	--	--	<.01	<.03	<.02	E.01	<.002	<.009
18...	E.07	.013	.02	<.01	<.005	<.05	<.05	<.01	<.03	<.02	<.01	<.002	<.009
NOV													
15...	E.02	E.003	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	<.01	<.002	<.009
28...	E.14	<.005	<.01	<.01	<.005	--	--	<.01	<.03	<.02	E.01	<.002	<.009
DEC													
12...	E.04	E.004	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	<.01	<.002	<.009
JAN													
09...	<.04	<.005	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	<.01	.004	<.009
FEB													
06...	E.05	E.004	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	<.01	<.002	<.009
MAR													
06...	E.03	E.002	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	<.01	<.002	<.009
APR													
04...	E.02	E.004	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	E.01	<.002	<.009
MAY													
09...	E.06	.009	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	.08	<.002	<.009
16...	E.09	.011	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	.05	<.002	<.009
30...	--	.006	--	--	<.005	--	--	--	--	<.02	--	<.002	<.009
JUN													
06...	E.16	.007	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	.03	<.002	<.009
13...	E.47	<.007	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	.02	<.002	<.009
20...	E.13	.007	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	.03	<.002	<.009
27...	E.17	E.002	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	E.01	<.002	<.009
JUL													
11...	E.16	E.004	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	E.01	<.002	<.009
18...	--	<.005	--	--	<.005	--	--	--	--	<.02	--	<.002	<.009
25...	--	<.005	--	--	<.005	--	--	--	--	<.02	--	<.002	<.009
AUG													
15...	E.04	<.005	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	E.01	<.002	<.009
29...	--	<.005	--	--	<.005	--	--	--	--	<.02	--	<.002	<.009
SEP													
12...	E.02	<.005	<.01	<.01	<.005	<.05	<.05	<.01	<.03	<.02	E.01	<.002	<.009

03374100 WHITE RIVER AT HAZLETON, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUFEN-ACET, ESA, WAT FLT (UG/L) (61952)	FLUFE-NACET OA, WATER FLT, REC (UG/L) (62483)	FLUMET-SULAM WATER FLTRD REC (UG/L) (61694)	FLUO-METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	HYDROXY ATRA-ZINE WATER FLTRD REC (UG/L) (50355)	IMAZ-AQUIN WATER FLTRD REC (UG/L) (50356)	IMAZE-THAPYR WATER FLTRD REC (UG/L) (50407)	IMID-ACLOP-RID WATER FLTRD REC (UG/L) (61695)	LINDANE DIS-SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)
OCT													
04...	<.005	<.03	--	--	<.01	<.03	<.003	E.192	<.02	<.02	<.007	<.004	<.01
18...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.303	<.02	<.02	<.007	<.004	<.01
NOV													
15...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.122	<.02	<.02	<.007	<.004	<.01
28...	<.005	<.03	--	--	<.01	<.03	<.003	E.261	<.02	<.02	<.007	<.004	<.01
DEC													
12...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.225	E.03	E.01	<.007	<.004	<.01
JAN													
09...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	<.008	E.01	<.02	<.007	<.004	<.01
FEB													
06...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.105	E.01	<.02	<.007	<.004	<.01
MAR													
06...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.065	<.02	<.02	<.007	<.004	<.01
APR													
04...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.086	<.02	<.02	<.007	<.004	<.01
MAY													
09...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.286	E.01	<.02	<.007	<.004	<.01
16...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.322	E.01	E.04	<.007	<.004	<.01
30...	<.005	--	--	--	--	--	<.003	--	--	--	--	<.004	--
JUN													
06...	<.005	<.03	<.05	<.05	E.02	<.03	<.003	E.387	E.01	E.05	<.007	<.004	<.01
13...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.782	E.02	E.10	<.007	<.004	<.01
20...	<.005	<.03	<.05	<.05	E.04	<.03	<.003	E.574	E.01	E.02	<.007	<.004	<.01
27...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.342	<.02	<.02	<.007	<.004	<.01
JUL													
11...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.331	<.02	<.02	<.007	<.004	<.01
18...	<.005	--	--	--	--	--	<.003	--	--	--	--	<.004	--
25...	<.005	--	--	--	--	--	<.003	--	--	--	--	<.004	--
AUG													
15...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	E.267	<.02	<.02	<.007	<.004	<.01
29...	<.005	--	--	--	--	--	<.003	--	--	--	--	<.004	--
SEP													
12...	<.005	<.03	<.05	<.05	<.01	<.03	<.003	<.008	<.02	<.02	<.007	<.004	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METAL-AXYL WATER FLTRD REC (UG/L) (50359)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL OXIME WATER FLTRD REC (UG/L) (61696)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METOLA-CHLOR ESA FLTRD 0.7 UM GF REC (UG/L) (61043)	METOLA-CHLOR OA FLTRD 0.7 UM GF REC (UG/L) (61044)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)
OCT													
04...	<.035	<.027	M	<.01	<.02	<.008	<.01	<.004	<.050	<.006	--	--	.051
18...	<.035	<.027	E.01	<.01	<.02	<.008	<.01	<.004	<.050	<.006	.67	.33	.067
NOV													
15...	<.035	<.027	<.02	<.01	<.02	<.008	<.01	<.004	<.050	<.006	.47	.18	.037
28...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	--	--	.101
DEC													
12...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.54	.16	.027
JAN													
09...	<.035	E.007	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.35	.10	.026
FEB													
06...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.50	.27	.040
MAR													
06...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.36	.12	.020
APR													
04...	<.035	E.005	<.11	<.01	<.02	<.008	--	<.004	<.050	<.006	.45	.13	.035
MAY													
09...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.23	.10	.324
16...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.19	.08	.326
30...	<.035	<.027	--	--	--	--	--	--	<.050	<.006	--	--	.761
JUN													
06...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.42	.19	.921
13...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.58	.37	2.20
20...	<.035	<.027	<.02	<.01	.02	<.008	--	<.004	<.050	<.006	.53	.33	.851
27...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.44	.22	.613
JUL													
11...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.54	.25	.334
18...	<.035	<.027	--	--	--	--	--	--	<.050	<.006	--	--	.145
25...	<.035	<.027	--	--	--	--	--	--	<.050	<.006	--	--	.075
AUG													
15...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.24	.13	.044
29...	<.035	<.027	--	--	--	--	--	--	<.050	<.006	--	--	.036
SEP													
12...	<.035	<.027	<.02	<.01	<.02	<.008	--	<.004	<.050	<.006	.22	.12	.031

03374100 WHITE RIVER AT HAZLETON, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MET-SUL-FURON METHYL WAT FLT REC (UG/L) (61697)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NICOSUL FURON WATER FLTRD REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL OXIME WATER FLTRD REC (UG/L) (50410)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)
OCT													
04...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.01	<.003	<.007	<.002
18...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.01	<.003	<.007	<.002
NOV													
15...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01	<.01	<.003	<.007	<.002
28...	.029	--	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.007	<.002
DEC													
12...	.009	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.007	<.002
JAN													
09...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
FEB													
06...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
MAR													
06...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
APR													
04...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
MAY													
09...	.011	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
16...	.019	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
30...	.010	--	<.002	<.007	--	--	--	--	--	--	<.003	<.010	<.004
JUN													
06...	.023	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
13...	.050	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
20...	.025	<.03	<.002	<.007	<.01	E.01	<.02	<.02	--	<.01	<.003	<.010	<.004
27...	.010	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
JUL													
11...	.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
18...	<.006	--	<.002	<.007	--	--	--	--	--	--	<.003	<.010	<.004
25...	<.006	--	<.002	<.007	--	--	--	--	--	--	<.003	<.010	<.004
AUG													
15...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004
29...	<.006	--	<.002	<.007	--	--	--	--	--	--	<.003	<.010	<.004
SEP													
12...	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	--	<.01	<.003	<.010	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROP-ICONA-ZOLE , WATER FLTRD REC (UG/L) (50471)	PRO-POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SIDURON WATER FLTRD REC (UG/L) (38548)
OCT													
04...	<.010	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
18...	<.010	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
NOV													
15...	<.010	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
28...	<.010	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
DEC													
12...	<.010	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
JAN													
09...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
FEB													
06...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
MAR													
06...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
APR													
04...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
MAY													
09...	<.022	<.006	<.011	<.02	E.01	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
16...	<.022	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
30...	<.022	<.006	<.011	--	.02	<.004	<.010	<.011	<.02	--	--	--	--
JUN													
06...	<.022	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
13...	<.022	<.006	<.011	<.02	.02	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
20...	<.022	<.006	<.011	<.02	.03	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
27...	<.022	<.006	<.011	<.02	.03	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
JUL													
11...	<.022	<.006	<.011	<.02	.03	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
18...	<.022	<.006	<.011	--	.06	<.004	<.010	<.011	<.02	--	--	--	--
25...	<.022	<.006	<.011	--	.03	<.004	<.010	<.011	<.02	--	--	--	--
AUG													
15...	<.022	<.006	<.011	<.02	.03	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02
29...	<.022	<.006	<.011	--	.07	<.004	<.010	<.011	<.02	--	--	--	--
SEP													
12...	<.022	<.006	<.011	<.02	.03	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02

03374100 WHITE RIVER AT HAZLETON, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SULFO-MET-RURON METHYL WTR FLT REC (UG/L) (50337)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-BENURON METHYL WATER FLTRD (UG/L) (61159)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	UREA 3(4-CHLOR OPHENYL METHYL WAT FLT REC (UG/L) (61692)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT													
04...	.017	<.009	<.02	<.010	<.034	<.02	<.005	<.002	<.009	<.02	<.009	<.02	92
18...	.248	<.009	E.003	<.010	<.034	<.02	<.005	<.002	<.009	.03	<.009	<.02	91
NOV													
15...	.167	<.009	<.002	<.010	<.034	<.02	<.005	<.002	<.009	<.02	<.009	<.02	94
28...	2.95	<.009	<.006	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	92
DEC													
12...	.273	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	43
JAN													
09...	.134	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	94
FEB													
06...	.358	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	97
MAR													
06...	.137	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	93
APR													
04...	.090	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	93
MAY													
09...	.309	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	.03	<.009	<.02	99
16...	.331	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	98
30...	.329	--	<.02	--	<.034	<.02	<.005	<.002	--	--	<.009	--	--
JUN													
06...	.559	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	81
13...	1.04	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	96
20...	.375	E.007	E.01	<.010	<.034	<.02	<.005	<.002	--	.04	<.009	<.02	90
27...	.225	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	.13	<.009	<.02	96
JUL													
11...	.232	<.009	E.01	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	96
18...	.099	--	<.02	--	<.034	<.02	<.005	<.002	--	--	<.009	--	--
25...	.057	--	<.02	--	<.034	<.02	<.005	<.002	--	--	<.009	--	--
AUG													
15...	.038	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	93
29...	.054	--	<.02	--	<.034	<.02	<.005	<.002	--	--	<.009	--	--
SEP													
12...	.033	<.009	<.02	<.010	<.034	<.02	<.005	<.002	--	<.02	<.009	<.02	87

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT	
04...	68
18...	252
NOV	
15...	61
28...	352
DEC	
12...	144
JAN	
09...	26
FEB	
06...	298
MAR	
06...	109
APR	
04...	79
MAY	
09...	85
16...	62
30...	--
JUN	
06...	172
13...	289
20...	134
27...	158
JUL	
11...	113
18...	--
25...	--
AUG	
15...	77
29...	--
SEP	
12...	38

03374455 PATOKA RIVER NEAR HARDINSBURG, IN

LOCATION.--Lat 38°26'41", long 86°23'14", in NW$^1/_4$SE$^1/_4$ sec.10, T.1 S., R.1 E., Orange County, Hydrologic Unit 05120209, (VALEENE, IN quadrangle), on downstream edge of right pier of county road bridge, 0.3 mi downstream from Fudge Creek, 0.7 mi northeast of Valeene, 6.0 mi southwest of Hardinsburg, and at mile 158.0.

DRAINAGE AREA.--12.8 mi^2.

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

GAGE.--Water-stage recorder and partial concrete control. Datum of gage is 606.89 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.66	e5.6	90	e9.6	394	e15	21	31	3.0	1.7	0.15	0.01
2	0.60	e5.2	44	e8.5	95	47	18	31	2.8	e1.4	0.11	0.01
3	0.67	e4.6	30	e7.6	52	124	16	30	2.8	e1.2	0.09	0.0
4	0.91	e4.0	22	e7.2	34	47	14	21	2.3	e1.1	0.06	0.00
5	2.5	e3.6	17	e6.8	24	32	12	16	88	e1.0	0.05	0.00
6	4.8	e3.3	67	e7.4	21	25	e11	87	134	e0.90	0.04	0.00
7	e2.3	e3.1	69	e6.8	18	20	10	114	40	e0.84	0.03	0.00
8	e0.94	e3.0	49	e6.6	15	17	10	533	16	e0.78	0.01	0.00
9	e1.0	e3.0	36	e7.2	13	61	26	134	9.6	e0.74	0.0	0.00
10	e1.1	e2.8	25	e9.0	12	57	19	58	6.7	e1.1	0.00	0.00
11	e1.2	e2.7	19	e9.0	10	34	16	34	5.3	e0.96	0.00	0.00
12	e6.8	e2.5	19	e8.2	9.7	29	14	84	5.1	e0.82	0.00	0.00
13	e5.0	e2.4	82	e7.7	8.6	25	378	908	7.8	e0.70	0.00	0.00
14	e120	e2.3	115	e7.4	7.7	20	745	169	8.4	e0.70	0.01	0.00
15	29	e2.3	67	e7.1	7.6	18	159	67	4.9	e0.68	0.05	0.00
16	10	e2.2	340	6.8	7.1	187	70	38	3.8	e0.60	0.04	0.00
17	4.9	e2.1	1120	6.7	6.6	72	43	28	3.1	e0.54	0.04	0.00
18	3.0	e2.0	236	6.2	6.0	43	31	27	2.5	e0.50	0.08	0.00
19	2.4	e2.3	103	6.3	5.9	119	25	19	2.2	e0.50	0.15	0.00
20	2.2	e2.6	56	6.0	17	268	22	15	e1.9	e0.47	0.11	0.0
21	2.2	e2.3	38	5.9	27	104	116	12	e1.7	e0.44	0.09	0.01
22	2.8	e2.2	31	6.0	e10	51	163	10	e1.5	0.41	0.07	0.00
23	108	e2.1	116	6.5	e9.0	36	59	8.7	e1.3	0.37	0.07	0.00
24	302	e5.0	63	184	e8.0	28	38	7.6	e5.0	0.32	0.08	0.00
25	144	e19	40	75	e7.6	28	33	6.6	31	0.27	0.06	0.00
26	50	e5.8	31	39	e35	201	24	5.8	15	0.19	0.05	0.00
27	e21	41	25	28	e21	87	56	5.0	6.2	0.18	0.05	23
28	e13	300	21	22	e17	49	260	4.6	4.9	0.16	0.04	1.5
29	e10	510	18	18	---	37	79	4.3	3.6	0.13	0.03	0.80
30	e7.4	277	14	98	---	33	42	3.9	2.4	0.19	0.03	0.70
31	e6.2	---	e11	122	---	26	---	3.3	---	0.19	0.02	---
TOTAL	866.58	1226.0	3014	752.5	898.8	1940	2530	2515.8	422.8	20.08	1.61	26.03
MEAN	27.95	40.87	97.23	24.27	32.10	62.58	84.33	81.15	14.09	0.648	0.052	0.868
MAX	302	510	1120	184	394	268	745	908	134	1.7	0.15	23
MIN	0.60	2.0	11	5.9	5.9	15	10	3.3	1.3	0.13	0.00	0.00
CFSM	2.18	3.19	7.60	1.90	2.51	4.89	6.59	6.34	1.10	0.05	0.00	0.07
IN.	2.52	3.56	8.76	2.19	2.61	5.64	7.35	7.31	1.23	0.06	0.00	0.08

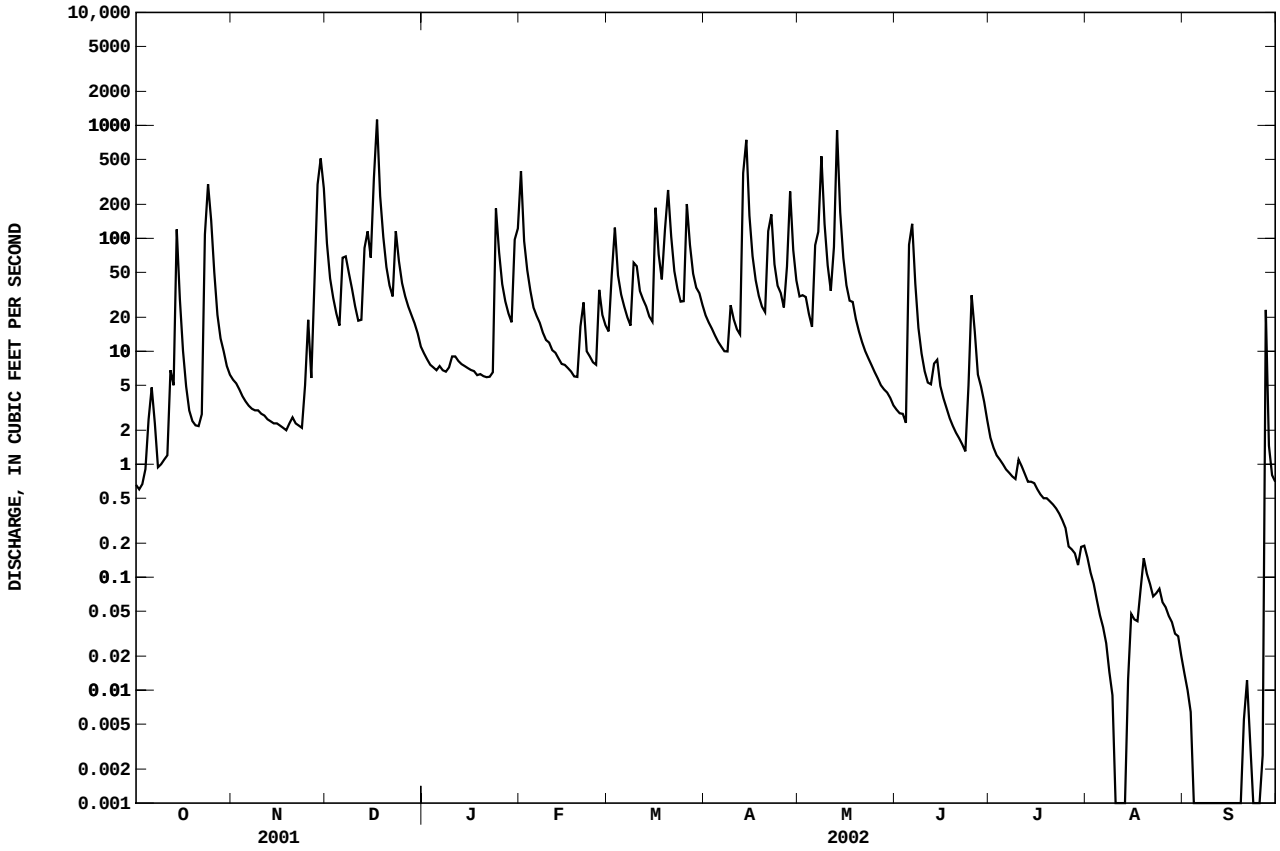
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	3.695	18.41	32.73	34.12	39.74	49.62	50.38	38.20	18.68	9.200	5.369	3.900
MAX	28.0	77.3	109	107	89.6	134	133	158	108	89.6	35.8	34.4
(WY)	2002	1980	1991	1982	1990	1997	1996	1996	1997	1979	1998	1996
MIN	0.000	0.000	1.17	0.61	2.58	8.80	6.79	2.47	0.46	0.26	0.000	0.000
(WY)	1998	2000	1981	1981	1992	1981	1976	2001	1988	1983	1991	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	8074.10		14214.20			
ANNUAL MEAN	22.12		38.94		25.26	
HIGHEST ANNUAL MEAN					47.3	1996
LOWEST ANNUAL MEAN					6.35	1992
HIGHEST DAILY MEAN	1120	Dec 17	1120	Dec 17	1770	Jul 26 1979
LOWEST DAILY MEAN	0.50	Sep 5	0.00	Aug 9	0.00	Oct 4 1970
ANNUAL SEVEN-DAY MINIMUM	0.65	Jul 11	0.00	Sep 3	0.00	Sep 11 1972
MAXIMUM PEAK FLOW			1990	Apr 14	9270	Jul 26 1979
MAXIMUM PEAK STAGE			8.31	Apr 14	11.35	Jul 26 1979
ANNUAL RUNOFF (CFSM)	1.73		3.04		1.97	
ANNUAL RUNOFF (INCHES)	23.47		41.31		26.81	
10 PERCENT EXCEEDS	42		92		53	
50 PERCENT EXCEEDS	4.0		7.4		5.1	
90 PERCENT EXCEEDS	0.85		0.03		0.24	

e Estimated

03374455 PATOKA RIVER NEAR HARDINSBURG, IN--Continued



03374500 PATOKA RIVER NEAR CUZCO, IN

LOCATION.--Lat 38°26'31", long 86°42'51", in SW$^1/_4$SW$^1/_4$ 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 2001 (discharge). October 2001 to September 2002 (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.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 10.63 ft, Jan. 20, 21, 2002, minimum gage height, 2.12 ft, June 20, 2002.

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, 10.63 ft, Jan. 20, 21; minimum gage height, 2.12 ft, June 20.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.04	3.94	3.48	9.04	5.60	3.51	9.38	7.47	5.15	5.66	4.92	3.32
2	3.22	4.04	3.42	9.21	5.45	4.13	9.33	7.38	5.14	5.65	4.93	3.32
3	3.41	4.05	4.63	9.15	5.37	3.60	9.28	8.58	5.14	5.65	4.92	3.33
4	3.59	4.07	5.42	9.11	8.49	3.55	9.25	9.59	5.13	5.65	4.92	3.33
5	3.73	4.10	5.40	9.22	10.41	3.53	7.43	9.57	5.13	5.65	4.92	3.33
6	3.72	4.13	5.46	9.17	10.46	3.52	5.14	8.35	5.13	5.65	4.91	3.33
7	3.77	4.14	5.42	9.12	10.41	3.51	5.13	7.45	5.11	5.65	4.91	3.33
8	3.81	4.16	5.42	9.08	10.35	3.51	5.14	7.32	5.11	5.65	4.91	3.33
9	3.87	4.16	---	9.04	10.49	3.78	5.14	4.26	5.10	5.68	4.91	3.33
10	3.89	4.17	6.61	9.01	10.44	3.59	5.14	4.21	5.09	5.62	4.91	3.34
11	3.99	4.15	6.61	8.97	10.38	3.55	5.13	4.20	5.09	5.62	4.91	3.35
12	3.92	4.14	6.75	9.14	10.31	3.55	5.94	8.61	5.07	5.62	4.05	3.34
13	4.15	4.15	5.38	9.10	10.27	3.53	5.25	8.29	4.20	5.61	4.06	3.34
14	3.81	4.17	6.63	9.64	10.23	3.53	6.46	4.33	4.19	5.61	4.06	3.34
15	3.59	4.17	6.59	9.60	9.37	4.00	5.23	4.28	4.19	5.61	4.07	3.34
16	3.58	4.17	6.59	10.15	9.33	3.65	5.22	4.26	4.18	5.60	4.07	3.34
17	---	4.17	8.40	10.61	9.25	3.58	5.22	4.26	5.00	5.60	4.07	3.34
18	---	4.16	4.00	10.58	9.21	3.55	6.85	6.66	4.99	5.59	4.07	3.33
19	3.66	4.16	3.90	10.53	9.17	4.13	7.47	7.59	2.24	5.59	4.07	3.35
20	3.68	4.15	3.87	10.63	9.21	3.75	7.01	6.43	5.04	5.58	4.06	3.37
21	3.71	4.15	6.61	10.57	7.22	4.36	7.64	8.76	5.04	5.58	4.05	3.34
22	3.74	4.15	6.65	9.54	5.18	7.40	7.03	8.74	5.04	5.57	4.05	3.34
23	4.15	4.14	6.64	5.51	3.51	9.47	6.99	7.51	5.04	4.09	4.06	3.34
24	4.15	4.18	7.52	5.48	3.50	9.43	7.00	5.36	5.63	4.85	4.05	3.34
25	3.76	4.14	7.51	9.44	3.54	9.44	9.69	5.33	5.64	4.92	4.05	3.34
26	3.69	4.42	7.50	9.42	3.57	9.81	9.64	5.36	5.64	4.93	4.05	3.42
27	3.66	3.90	9.25	9.47	3.53	9.46	9.17	5.25	5.64	4.93	4.05	3.39
28	3.69	4.72	9.22	9.40	3.53	9.37	5.50	4.35	5.03	4.93	4.05	3.39
29	3.73	4.32	9.17	9.34	---	9.36	5.37	5.16	5.03	4.94	4.05	3.38
30	3.75	3.64	9.12	7.52	---	9.53	7.45	5.15	5.66	4.93	3.32	3.39
31	3.82	---	9.08	6.16	---	9.44	---	5.15	---	4.93	3.32	---
MEAN	---	4.14	---	9.10	7.78	5.49	6.85	6.43	4.96	5.39	4.31	3.35
MAX	---	4.72	---	10.63	10.49	9.81	9.69	9.59	5.66	5.68	4.93	3.42
MIN	---	3.64	---	5.48	3.50	3.51	5.13	4.20	2.24	4.09	3.32	3.32

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, 28.4°C, Aug. 6, minimum, 3.7°C, Jan. 20-22.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.3	18.1	19.4	15.2	14.2	14.7	11.6	10.5	11.0	6.2	5.8	6.0
2	20.6	18.4	19.5	15.2	14.8	15.0	11.7	10.7	11.1	5.8	5.5	5.7
3	20.4	18.8	19.7	15.1	13.9	14.6	11.8	10.5	11.2	5.5	5.2	5.3
4	20.4	18.8	19.7	15.1	13.6	14.4	11.8	11.3	11.6	5.2	5.0	5.1
5	20.1	18.7	19.3	14.8	13.5	14.1	12.0	11.5	11.7	5.1	4.9	5.0
6	18.7	17.4	18.1	14.4	12.9	13.7	11.7	11.5	11.6	5.0	4.8	4.9
7	18.5	16.5	17.7	14.5	13.0	13.8	11.7	11.5	11.6	4.8	4.7	4.7
8	18.3	16.9	17.7	14.6	13.1	13.9	11.5	11.3	11.5	4.7	4.5	4.6
9	18.6	17.0	17.9	14.3	12.9	13.6	---	---	---	4.7	4.5	4.6
10	18.5	17.7	18.1	14.0	12.5	13.3	11.1	10.9	11.0	4.6	4.3	4.5
11	18.4	18.0	18.1	13.7	12.6	13.2	11.0	10.7	10.8	4.3	4.1	4.2
12	18.6	18.0	18.3	13.6	12.3	13.0	10.8	10.7	10.8	4.5	4.2	4.3
13	18.8	18.1	18.5	13.7	12.3	13.0	10.9	10.7	10.8	4.3	4.2	4.3
14	18.7	17.7	18.0	13.7	12.5	13.2	10.8	10.7	10.7	4.5	4.2	4.4
15	18.1	16.4	17.4	13.7	12.4	13.1	10.7	10.6	10.6	4.4	4.2	4.3
16	17.9	16.2	16.7	13.9	12.6	13.2	10.6	9.6	10.3	4.3	4.1	4.2
17	---	---	---	13.9	12.7	13.3	10.5	9.9	10.2	4.3	4.1	4.2
18	---	---	---	14.2	12.6	13.4	10.4	9.5	9.9	4.2	4.0	4.1
19	17.3	15.9	16.5	13.6	12.6	13.2	---	---	---	4.1	3.9	4.0
20	17.7	15.8	16.7	12.6	11.6	12.1	9.8	9.0	9.3	3.9	3.7	3.8
21	17.9	16.4	17.1	12.3	11.2	11.8	9.8	9.0	9.4	4.0	3.7	3.8
22	17.8	16.1	17.0	12.3	11.3	11.9	9.6	9.4	9.5	4.0	3.7	3.9
23	18.0	17.0	17.5	12.7	11.6	12.1	9.4	9.1	9.3	4.5	4.0	4.2
24	18.0	16.6	17.3	13.2	12.6	12.9	9.1	8.8	8.9	5.1	4.2	4.5
25	17.1	15.5	16.1	13.0	12.1	12.5	8.8	8.4	8.6	4.5	4.1	4.3
26	15.9	14.6	15.1	12.7	11.3	12.0	8.4	8.0	8.2	4.5	4.2	4.3
27	15.1	13.9	14.6	12.6	11.6	12.1	8.0	7.8	7.9	4.6	4.3	4.4
28	15.0	13.5	14.4	11.7	9.8	10.6	7.8	7.5	7.6	5.0	4.4	4.6
29	15.2	13.5	14.5	11.9	10.0	10.7	7.5	7.0	7.2	5.3	4.9	5.1
30	15.2	14.1	14.7	12.0	10.6	11.1	7.0	6.7	6.9	5.5	5.1	5.2
31	15.2	13.9	14.7	---	---	---	6.7	6.2	6.4	7.0	5.5	6.0
MONTH	---	---	---	15.2	9.8	13.0	---	---	---	7.0	3.7	4.6

03374500 Patoka River near Cuzco, IN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.9	5.6	6.0	7.1	5.1	6.0	8.5	7.8	8.2	14.4	13.0	13.6
2	5.8	5.5	5.6	6.3	6.0	6.2	9.3	8.3	8.7	14.3	12.8	13.4
3	5.9	5.5	5.7	6.0	4.2	5.0	8.6	8.4	8.5	14.6	13.2	14.0
4	5.5	5.4	5.4	5.5	3.8	4.6	8.8	8.5	8.6	15.1	14.0	14.6
5	5.5	5.3	5.4	6.5	4.5	5.4	8.9	8.5	8.6	14.8	14.2	14.6
6	5.3	5.2	5.3	7.1	5.3	6.1	9.6	8.5	9.0	15.5	14.0	14.8
7	5.4	5.2	5.3	7.9	5.9	6.7	10.2	9.1	9.5	15.1	14.2	14.6
8	5.6	5.2	5.4	8.4	6.1	7.2	10.3	9.4	9.9	17.9	14.4	15.7
9	5.8	5.3	5.5	9.2	6.4	7.8	10.2	9.8	10.0	18.5	16.7	17.7
10	5.8	5.6	5.7	7.7	5.3	6.4	11.5	9.8	10.5	18.7	16.4	17.7
11	5.8	5.6	5.7	7.5	5.5	6.5	12.5	10.7	11.5	19.7	18.2	19.0
12	5.7	5.5	5.6	7.1	6.7	6.9	13.2	11.8	12.5	19.3	17.8	18.9
13	5.7	5.5	5.6	8.4	6.8	7.4	13.7	12.2	12.7	17.9	16.2	17.1
14	6.0	5.5	5.7	9.3	6.6	7.9	13.6	12.4	13.0	18.0	16.2	17.1
15	5.8	5.6	5.7	8.9	7.9	8.4	14.2	12.5	13.4	19.3	16.9	18.1
16	5.8	5.6	5.7	8.7	7.9	8.4	16.0	13.6	14.7	19.2	18.3	18.6
17	5.8	5.6	5.7	8.1	7.5	7.8	15.4	14.3	14.8	18.8	18.2	18.5
18	6.3	5.8	6.0	8.5	7.6	8.1	16.5	14.5	15.3	18.2	17.3	17.8
19	6.1	5.9	6.0	9.1	8.1	8.6	16.1	14.1	15.2	18.0	17.3	17.6
20	6.3	6.0	6.2	8.9	8.1	8.6	15.5	14.2	15.2	17.6	15.7	17.1
21	6.3	6.2	6.2	8.1	7.0	7.5	17.4	14.4	16.1	17.5	15.7	16.4
22	6.4	6.0	6.1	7.6	6.8	7.2	14.4	11.3	12.1	16.3	15.7	16.0
23	7.2	5.9	6.4	7.6	7.1	7.3	15.8	12.3	14.6	16.1	15.7	15.9
24	7.9	6.1	6.9	8.0	7.3	7.6	16.8	15.7	16.2	15.9	15.0	15.5
25	7.9	6.6	7.1	7.7	7.5	7.6	15.7	11.7	12.7	15.7	14.7	15.3
26	6.6	4.9	5.9	7.7	7.4	7.5	13.0	12.1	12.7	16.0	14.7	15.4
27	6.0	4.7	5.3	7.7	7.3	7.4	13.8	12.5	13.2	15.7	15.0	15.3
28	6.5	4.8	5.5	8.1	7.3	7.7	13.7	11.3	12.5	20.2	15.0	17.9
29	---	---	---	8.3	7.5	7.8	12.7	11.5	12.2	20.0	18.7	19.4
30	---	---	---	8.2	7.6	7.9	13.6	12.2	12.9	19.9	18.7	19.4
31	---	---	---	8.4	7.8	8.1	---	---	---	19.9	18.5	19.2
MONTH	7.9	4.7	5.8	9.3	3.8	7.2	17.4	7.8	12.2	20.2	12.8	16.7

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.0	18.4	19.2	23.5	23.1	23.3	26.9	26.0	26.4	27.2	25.8	26.4
2	20.5	18.3	19.5	24.3	23.1	23.6	27.0	26.0	26.4	27.3	25.7	26.3
3	20.9	18.8	20.1	24.6	23.2	23.9	27.2	26.1	26.6	27.1	25.6	26.1
4	21.1	19.1	20.1	24.5	23.5	23.9	27.2	25.1	26.6	27.4	25.6	26.3
5	21.4	18.9	20.4	24.6	23.3	24.0	27.0	25.1	26.1	27.8	25.7	26.5
6	20.3	18.9	19.6	25.2	24.3	24.8	28.4	25.8	27.4	27.7	25.8	26.6
7	21.4	19.2	20.6	25.3	23.4	24.4	27.7	26.5	26.9	27.6	25.9	26.6
8	21.2	20.2	20.6	25.0	23.7	24.3	26.9	26.1	26.4	27.6	25.8	26.6
9	21.5	20.2	20.9	25.2	22.1	24.1	26.7	25.9	26.3	27.4	25.9	26.6
10	22.0	20.8	21.4	26.6	21.4	24.5	26.6	25.4	25.9	27.6	25.4	26.5
11	21.9	19.7	20.9	26.2	24.4	25.3	26.2	24.9	25.7	26.7	25.2	25.8
12	21.5	20.0	20.8	25.1	24.3	24.7	27.0	25.8	26.3	26.8	25.2	25.8
13	22.4	18.3	20.9	25.0	23.8	24.4	26.7	25.6	26.2	26.3	24.9	25.6
14	21.6	18.2	19.7	24.8	23.8	24.4	26.3	25.5	25.9	26.1	25.5	25.8
15	20.7	17.9	19.4	24.7	23.6	24.2	27.2	25.3	26.0	26.4	25.5	25.8
16	21.3	19.3	20.4	25.0	24.1	24.5	26.3	25.4	25.7	26.2	25.1	25.5
17	21.9	20.1	21.1	24.8	23.6	24.3	26.2	25.6	26.0	25.6	24.9	25.3
18	22.5	21.0	21.8	24.5	23.9	24.3	26.0	25.4	25.7	26.3	25.0	25.5
19	---	---	---	24.7	23.8	24.2	26.4	25.4	25.9	26.0	25.3	25.6
20	---	---	---	24.6	23.9	24.3	26.8	25.4	26.0	25.5	24.5	25.1
21	22.9	21.5	22.2	25.5	24.5	25.1	27.4	26.2	26.7	25.7	24.3	24.8
22	23.5	21.7	22.6	25.8	25.0	25.4	26.8	25.7	26.3	24.9	23.5	24.2
23	23.2	21.9	22.5	26.1	23.3	25.1	26.7	25.4	25.9	24.6	23.0	23.7
24	23.6	22.2	22.9	---	---	---	26.8	25.8	26.1	24.3	22.8	23.4
25	23.9	22.0	22.7	26.0	24.3	25.5	26.7	25.8	26.1	23.6	22.6	23.0
26	24.1	21.9	22.6	25.5	24.1	25.1	26.9	25.8	26.4	23.0	21.2	22.2
27	22.8	20.8	22.1	25.4	24.5	25.0	27.0	25.7	26.3	21.2	19.8	20.6
28	23.6	21.7	22.9	25.6	24.3	25.1	27.0	26.0	26.6	21.6	19.9	20.7
29	23.7	23.0	23.2	26.1	22.8	25.2	26.7	25.7	26.1	21.7	20.2	20.8
30	23.5	23.0	23.3	26.4	25.0	25.8	27.4	25.7	26.4	21.6	20.1	20.7
31	---	---	---	26.6	25.1	26.0	27.7	25.9	26.6	---	---	---
MONTH	---	---	---	---	---	---	28.4	24.9	26.3	27.8	19.8	24.8

03375500 PATOKA RIVER AT JASPER, IN

LOCATION.--Lat 38°24'49", long 86°52'36", in NW$^1/_4$SE$^1/_4$ 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 fair except for estimated daily discharges, which are poor. 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	48	1520	869	1400	160	1130	649	230	251	e186	63
2	20	45	881	861	1450	190	1040	862	227	276	185	61
3	15	45	292	881	1180	741	1010	818	223	277	185	61
4	13	40	222	883	572	430	984	770	221	276	184	61
5	13	44	277	878	702	230	956	808	219	276	183	61
6	19	60	365	888	942	188	826	922	235	276	183	61
7	20	51	552	892	1080	165	387	1120	227	276	182	61
8	18	45	428	882	1150	149	271	1550	219	276	182	61
9	17	36	377	878	1160	329	287	1730	216	278	182	61
10	17	33	333	880	1160	677	280	1760	213	330	182	61
11	35	33	427	877	1160	322	266	1010	214	273	182	61
12	144	32	529	868	1160	227	271	445	222	271	183	61
13	116	32	840	871	1150	198	1050	1840	219	270	139	61
14	670	32	827	879	1110	173	1420	3120	169	270	107	61
15	504	32	891	903	1080	162	1520	2230	126	270	105	61
16	166	32	852	939	1020	873	1480	1250	123	270	98	62
17	105	33	1700	976	948	817	870	544	122	269	105	62
18	77	32	2700	1030	911	359	481	287	176	269	105	62
19	62	33	2110	1080	894	391	566	425	199	267	106	63
20	53	35	1340	1120	915	1080	885	575	109	274	105	83
21	47	35	606	1140	981	1060	855	589	80	268	105	104
22	41	34	457	1150	794	479	962	655	196	266	104	68
23	53	33	675	1100	386	541	997	719	200	267	105	61
24	493	43	663	1010	189	884	744	628	200	205	114	61
25	668	78	648	858	128	987	620	354	241	112	105	61
26	269	70	673	833	196	1240	763	264	288	176	103	58
27	126	720	655	973	235	1380	892	257	275	183	104	125
28	90	987	782	999	178	1430	1100	249	274	183	103	111
29	72	1360	886	996	---	1370	1150	186	224	184	103	71
30	61	1580	893	1030	---	1280	732	218	201	e186	103	64
31	53	---	880	1170	---	1200	---	235	---	e186	89	---
TOTAL	4079	5713	25281	29594	24231	19712	24795	27069	6088	7711	4207	2033
MEAN	131.6	190.4	815.5	954.6	865.4	635.9	826.5	873.2	202.9	248.7	135.7	67.77
MAX	670	1580	2700	1170	1450	1430	1520	3120	288	330	186	125
MIN	13	32	222	833	128	149	266	186	80	112	89	58
CFSM	0.50	0.73	3.11	3.64	3.30	2.43	3.15	3.33	0.77	0.95	0.52	0.26
IN.	0.58	0.81	3.59	4.20	3.44	2.80	3.52	3.84	0.86	1.09	0.60	0.29

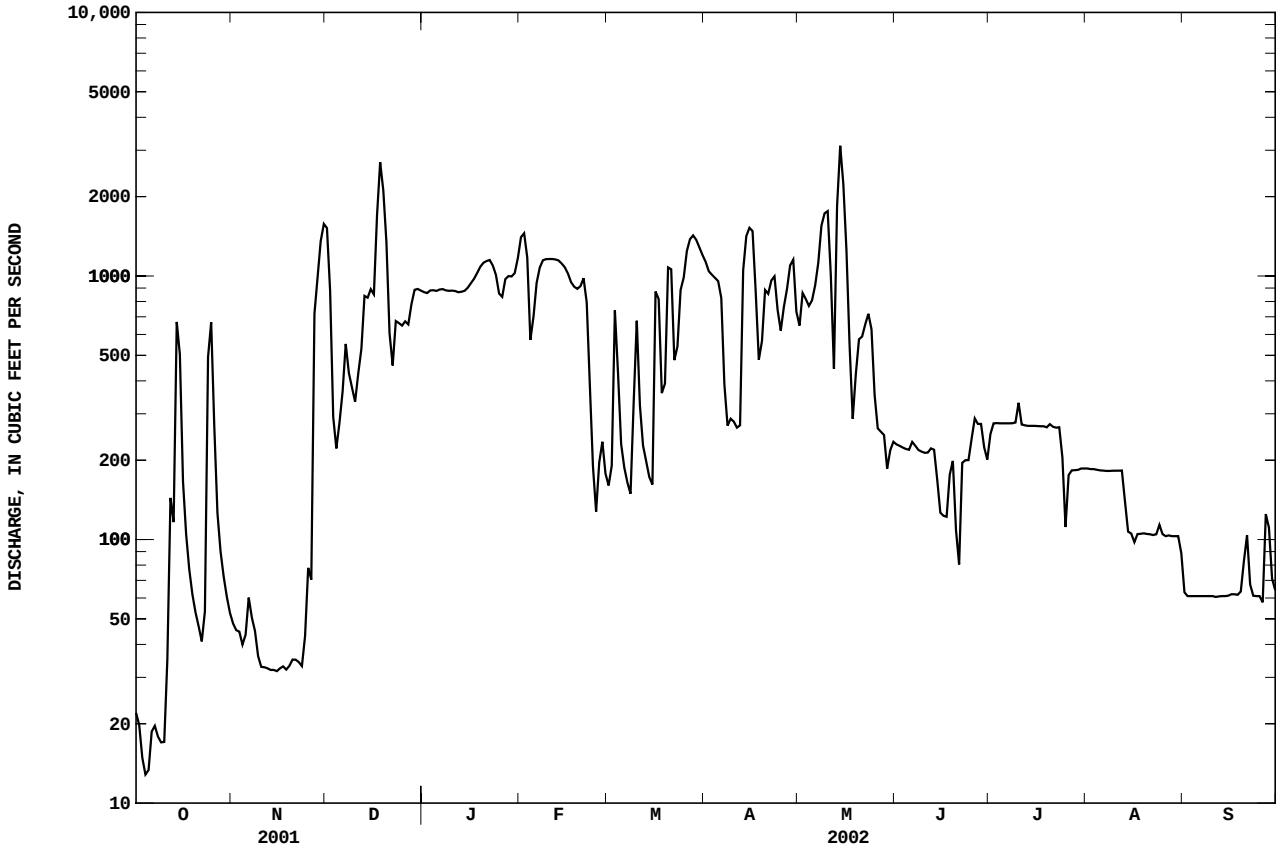
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)

MEAN	102.4	227.4	431.9	626.8	669.6	765.7	602.9	428.2	208.2	122.1	101.0	90.46
MAX	494	800	1506	2742	1898	2543	1574	2034	1044	787	530	484
(WY)	1980	1975	1952	1950	1950	1964	1972	1996	1996	1958	1977	1979
MIN	0.000	0.000	0.17	17.5	27.7	144	54.1	29.8	8.66	0.074	0.000	0.000
(WY)	1949	1954	1954	1964	1964	1992	2001	2001	1953	1954	1952	1953

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002	
ANNUAL TOTAL	85586		180513			
ANNUAL MEAN	234.5		494.6		363.3	
HIGHEST ANNUAL MEAN					673	1950
LOWEST ANNUAL MEAN					63.6	1954
HIGHEST DAILY MEAN	2700	Dec 18	3120	May 14	13500	Mar 11 1964
LOWEST DAILY MEAN	13	Oct 4	13	Oct 4	0.00	Oct 1 1948
ANNUAL SEVEN-DAY MINIMUM	16	Oct 3	16	Oct 3	0.00	Oct 1 1948
MAXIMUM PEAK FLOW			3360	May 14	14100	Mar 11 1964
MAXIMUM PEAK STAGE			15.95	May 14	21.20	Mar 11 1964
ANNUAL RUNOFF (CFSM)	0.89		1.89		1.39	
ANNUAL RUNOFF (INCHES)	12.15		25.63		18.84	
10 PERCENT EXCEEDS	749		1130		1060	
50 PERCENT EXCEEDS	48		270		133	
90 PERCENT EXCEEDS	24		52		7.6	

e Estimated

03375500 PATOKA RIVER AT JASPER, IN--Continued



03375800 HALL CREEK NEAR ST. ANTHONY, IN

LOCATION.--Lat 38°21'45", long 86°49'43", in NW$^1/_4$NW$^1/_4$ sec.11, T.2 S., R.4 W., Dubois County, Hydrologic Unit 05120209, (SAINT ANTHONY, IN quadrangle), on right bank 10 ft downstream of bridge on County Road 125 South, 0.7 mi upstream from Grassy Fork, 3.3 mi north of St. Anthony, and at mile 4.1.

DRAINAGE AREA.--21.8 mi^2.

PERIOD OF RECORD.--October 1970 to December 2001 (discontinued).

REVISED RECORDS.--WDR IN-75-1: 1971-74.

GAGE.--Water-stage recorder. Datum of gage is 456.22 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1997 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.23	11	73	---	---	---	---	---	---	---	---	---
2	0.22	9.7	44	---	---	---	---	---	---	---	---	---
3	0.22	8.3	30	---	---	---	---	---	---	---	---	---
4	0.20	7.3	22	---	---	---	---	---	---	---	---	---
5	0.51	6.5	16	---	---	---	---	---	---	---	---	---
6	4.3	5.7	91	---	---	---	---	---	---	---	---	---
7	1.7	5.3	58	---	---	---	---	---	---	---	---	---
8	0.83	4.8	54	---	---	---	---	---	---	---	---	---
9	0.54	4.2	36	---	---	---	---	---	---	---	---	---
10	0.51	4.1	26	---	---	---	---	---	---	---	---	---
11	6.4	3.8	19	---	---	---	---	---	---	---	---	---
12	39	3.4	79	---	---	---	---	---	---	---	---	---
13	17	3.3	114	---	---	---	---	---	---	---	---	---
14	225	3.3	153	---	---	---	---	---	---	---	---	---
15	38	3.1	67	---	---	---	---	---	---	---	---	---
16	26	2.9	471	---	---	---	---	---	---	---	---	---
17	19	2.7	1350	---	---	---	---	---	---	---	---	---
18	15	2.7	168	---	---	---	---	---	---	---	---	---
19	12	3.6	70	---	---	---	---	---	---	---	---	---
20	9.2	5.7	43	---	---	---	---	---	---	---	---	---
21	7.5	3.8	32	---	---	---	---	---	---	---	---	---
22	6.8	3.4	28	---	---	---	---	---	---	---	---	---
23	257	3.3	82	---	---	---	---	---	---	---	---	---
24	333	24	41	---	---	---	---	---	---	---	---	---
25	102	24	30	---	---	---	---	---	---	---	---	---
26	40	14	23	---	---	---	---	---	---	---	---	---
27	27	117	20	---	---	---	---	---	---	---	---	---
28	20	389	18	---	---	---	---	---	---	---	---	---
29	17	506	15	---	---	---	---	---	---	---	---	---
30	15	255	e11	---	---	---	---	---	---	---	---	---
31	13	---	e9.4	---	---	---	---	---	---	---	---	---
TOTAL	1254.16	1440.9	3293.4	---	---	---	---	---	---	---	---	---
MEAN	40.46	48.03	106.2	---	---	---	---	---	---	---	---	---
MAX	333	506	1350	---	---	---	---	---	---	---	---	---
MIN	0.20	2.7	9.4	---	---	---	---	---	---	---	---	---
CFSM	1.86	2.20	4.87	---	---	---	---	---	---	---	---	---
IN.	2.14	2.46	5.62	---	---	---	---	---	---	---	---	---

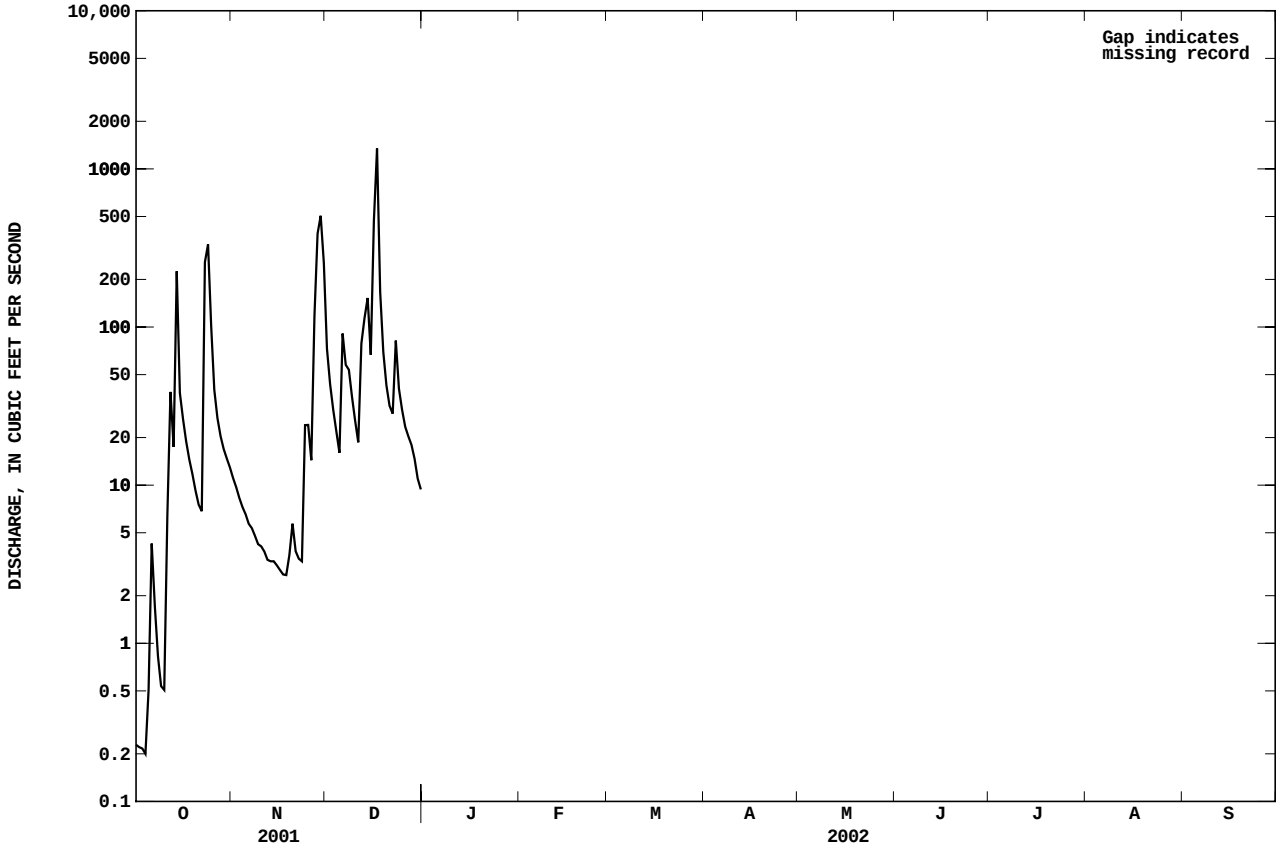
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2002, BY WATER YEAR (WY)

MEAN	8.573	31.65	41.58	40.78	55.00	57.54	52.81	34.02	22.07	19.26	11.17	10.30
MAX	40.5	147	125	154	131	131	142	153	73.7	247	52.5	68.0
(WY)	2002	1980	1991	1982	1985	1989	1972	1983	1979	1979	1979	1986
MIN	0.003	0.22	3.28	0.17	4.96	13.9	5.82	0.35	0.003	0.32	0.040	0.000
(WY)	1988	2000	1977	1977	1992	1981	2001	1988	1988	1983	1991	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1971 - 2002	
ANNUAL TOTAL	9423.91		5988.46			
ANNUAL MEAN	25.82		65.09		31.88	
HIGHEST ANNUAL MEAN					78.4	1979
LOWEST ANNUAL MEAN					11.5	1992
HIGHEST DAILY MEAN	1350	Dec 17	1350	Dec 17	5110	Jul 26 1979
LOWEST DAILY MEAN	0.02	Aug 8	0.20	Oct 4	0.00	Jun 23 1972
ANNUAL SEVEN-DAY MINIMUM	0.08	Aug 25	1.1	Oct 1	0.00	Jun 23 1972
MAXIMUM PEAK FLOW			1860	Dec 17	11500	Jul 26 1979
MAXIMUM PEAK STAGE			14.37	Dec 17	15.30	Jul 26 1979
ANNUAL RUNOFF (CFSM)	1.18		2.99		1.46	
ANNUAL RUNOFF (INCHES)	16.08		10.22		19.87	
10 PERCENT EXCEEDS	45		164		61	
50 PERCENT EXCEEDS	5.9		16		6.9	
90 PERCENT EXCEEDS	0.31		2.0		0.27	

e Estimated

03375800 HALL CREEK NEAR ST. ANTHONY, IN--Continued



03376300 PATOKA RIVER AT WINSLOW, IN

LOCATION.--Lat 38°22'48", long 87°13'00", in SW$^1/_4$SW$^1/_4$ 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 except for estimated daily discharges, which are poor. Flow regulated by Patoka Lake. Minor diversion by municipal water supply 100 ft above gage.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1937 reached a stage of 28.9 ft, from floodmarks, information from State of Indiana, Department of Natural Resources.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	435	2920	1190	2500	492	2560	2390	705	250	182	121
2	37	222	3260	1120	2400	431	2450	2590	514	237	180	108
3	36	152	3700	1070	2480	1020	2340	2740	406	284	180	84
4	36	126	3800	1030	2690	1240	2190	2770	353	300	180	69
5	36	113	3540	998	2820	1280	2030	2630	352	297	178	65
6	35	104	3020	987	2730	1180	1880	2520	516	294	177	64
7	60	99	2490	977	2470	904	1710	2610	592	292	173	63
8	66	106	2100	964	2160	608	1510	3330	489	293	172	63
9	50	104	1830	960	1940	698	1350	4180	384	290	173	63
10	43	96	1580	970	1770	1370	1090	4540	337	309	174	64
11	47	90	1290	979	1640	1380	858	4480	307	366	174	64
12	237	83	1080	973	1540	1320	715	4190	320	347	173	62
13	551	79	1370	962	1460	1110	2060	6430	370	297	176	62
14	1100	77	1720	951	1380	846	2560	7900	414	288	180	65
15	1450	76	1910	944	1320	635	2920	8620	360	289	154	65
16	1450	75	2010	934	1260	1620	3790	8410	251	281	130	66
17	1370	75	3840	935	1210	1770	5160	7340	189	276	124	72
18	1060	76	5040	944	1160	1760	5240	6180	170	275	120	78
19	673	74	6910	966	1110	1910	4610	5140	165	276	122	74
20	347	75	7510	991	1090	2620	3940	4140	200	278	127	86
21	198	82	6980	1010	1130	2530	3440	3180	209	278	129	187
22	138	85	6090	1030	1110	2430	3070	2380	150	281	125	246
23	117	80	5180	1050	1080	2500	2710	1880	132	279	123	147
24	822	110	4350	1440	937	2530	2470	1560	199	280	125	93
25	1640	e351	3540	1590	648	2420	2340	1350	372	265	137	74
26	1630	e467	2780	1560	466	2760	2230	1160	467	190	133	71
27	1650	e1350	2280	1550	602	2790	2210	981	466	144	124	97
28	1680	e1910	1920	1520	602	2660	2590	793	375	172	122	407
29	1580	e2690	1650	1460	---	2570	2550	678	356	183	121	355
30	1240	2950	1450	1440	---	2690	2450	767	311	181	121	156
31	819	---	1300	1620	---	2660	---	879	---	182	121	---
TOTAL	20235	12412	98440	35115	43705	52734	77023	108738	10431	8254	4630	3291
MEAN	652.7	413.7	3175	1133	1561	1701	2567	3508	347.7	266.3	149.4	109.7
MAX	1680	2950	7510	1620	2820	2790	5240	8620	705	366	182	407
MIN	35	74	1080	934	466	431	715	678	132	144	120	62
CFSM	1.08	0.69	5.27	1.88	2.59	2.82	4.26	5.82	0.58	0.44	0.25	0.18
IN.	1.25	0.77	6.07	2.17	2.70	3.25	4.75	6.71	0.64	0.51	0.29	0.20

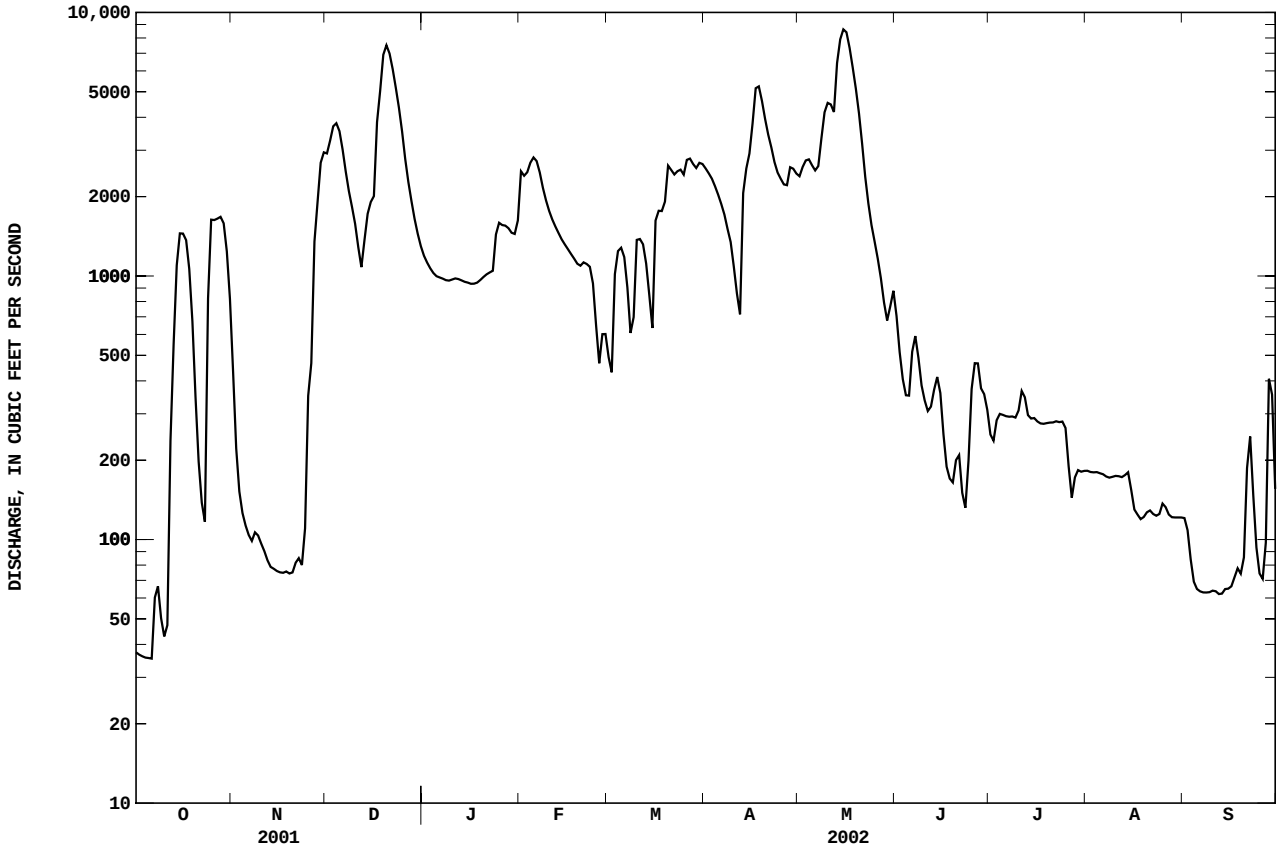
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

MEAN	168.9	384.0	840.3	1060	1359	1571	1412	1163	561.4	300.8	188.0	184.0
MAX	653	2218	3175	2576	2832	5126	3426	4863	2958	1305	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1964 - 2002	
ANNUAL TOTAL	244458		475008			
ANNUAL MEAN	669.7		1301		762.3	
HIGHEST ANNUAL MEAN					1332	1997
LOWEST ANNUAL MEAN					224	1992
HIGHEST DAILY MEAN	7510	Dec 20	8620	May 15	15200	Mar 13 1964
LOWEST DAILY MEAN	30	Jul 20	35	Oct 6	0.50	Aug 5 1964
ANNUAL SEVEN-DAY MINIMUM	34	Jul 14	40	Oct 1	0.61	Sep 8 1972
MAXIMUM PEAK FLOW			8840	May 15	15500	Mar 13 1964
MAXIMUM PEAK STAGE			26.31	May 15	28.84	Mar 13 1964
ANNUAL RUNOFF (CFSM)	1.11		2.16		1.26	
ANNUAL RUNOFF (INCHES)	15.08		29.30		17.18	
10 PERCENT EXCEEDS	1640		2930		2030	
50 PERCENT EXCEEDS	152		858		306	
90 PERCENT EXCEEDS	44		79		26	

e Estimated

03376300 PATOKA RIVER AT WINSLOW, IN--Continued



03376350 SOUTH FORK PATOKA RIVER NEAR SPURGEON, IN

LOCATION.--Lat 38°17'49", long 87°15'37", in NW$^1/_4$SW$^1/_4$ 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, which are poor. Runoff affected by un-reclaimed surface mined lands.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	20	121	e67	455	28	97	245	47	23	13	7.3
2	4.2	21	75	e66	125	79	88	278	44	22	11	7.4
3	4.3	23	59	e65	87	125	87	141	41	21	11	7.4
4	4.2	20	44	e64	69	62	73	100	38	20	11	7.2
5	7.2	26	35	65	58	45	66	84	47	20	11	6.5
6	9.2	24	80	71	55	37	64	180	65	18	10	6.9
7	5.6	18	76	70	52	32	57	165	45	18	9.6	6.5
8	5.0	16	60	65	43	28	59	821	38	17	8.9	6.4
9	4.9	15	43	70	38	231	134	332	34	16	9.1	6.4
10	5.1	18	33	74	37	127	79	156	32	20	9.1	6.9
11	34	14	27	72	32	78	67	124	31	18	9.0	6.5
12	59	13	86	68	31	71	75	144	35	20	8.9	6.1
13	26	12	149	67	28	62	474	1450	68	17	11	6.1
14	240	13	232	68	27	51	499	443	50	16	17	7.0
15	50	17	111	63	28	76	212	194	43	17	14	7.7
16	29	14	285	60	26	295	122	137	36	16	12	7.6
17	16	13	1540	59	24	105	108	123	32	15	10	7.2
18	13	12	486	53	22	79	97	112	30	17	9.9	11
19	10	14	232	60	22	329	86	96	29	16	11	8.3
20	9.3	16	164	56	48	431	88	85	30	15	10	32
21	9.4	13	138	58	43	164	208	80	27	16	9.5	20
22	10	17	129	47	31	105	197	76	24	15	9.7	10
23	54	14	172	44	28	102	99	71	24	19	9.0	7.2
24	248	80	123	214	27	82	89	67	25	16	9.1	6.5
25	147	53	106	85	25	105	93	71	26	14	8.8	6.0
26	62	46	95	63	46	499	70	75	28	15	8.5	7.3
27	36	371	90	49	e32	177	177	68	25	15	9.3	62
28	27	339	87	44	e29	116	400	60	47	14	8.2	14
29	24	482	81	41	---	325	134	58	28	14	7.7	8.9
30	30	378	e69	87	---	256	96	59	25	15	7.4	7.5
31	21	---	e68	186	---	123	---	52	---	15	7.3	---
TOTAL	1208.3	2132	5096	2221	1568	4425	4195	6147	1094	530	311.0	317.8
MEAN	38.98	71.07	164.4	71.65	56.00	142.7	139.8	198.3	36.47	17.10	10.03	10.59
MAX	248	482	1540	214	455	499	499	1450	68	23	17	62
MIN	3.9	12	27	41	22	28	57	52	24	14	7.3	6.0
CFSM	0.91	1.66	3.84	1.67	1.31	3.34	3.27	4.63	0.85	0.40	0.23	0.25
IN.	1.05	1.85	4.43	1.93	1.36	3.85	3.65	5.34	0.95	0.46	0.27	0.28

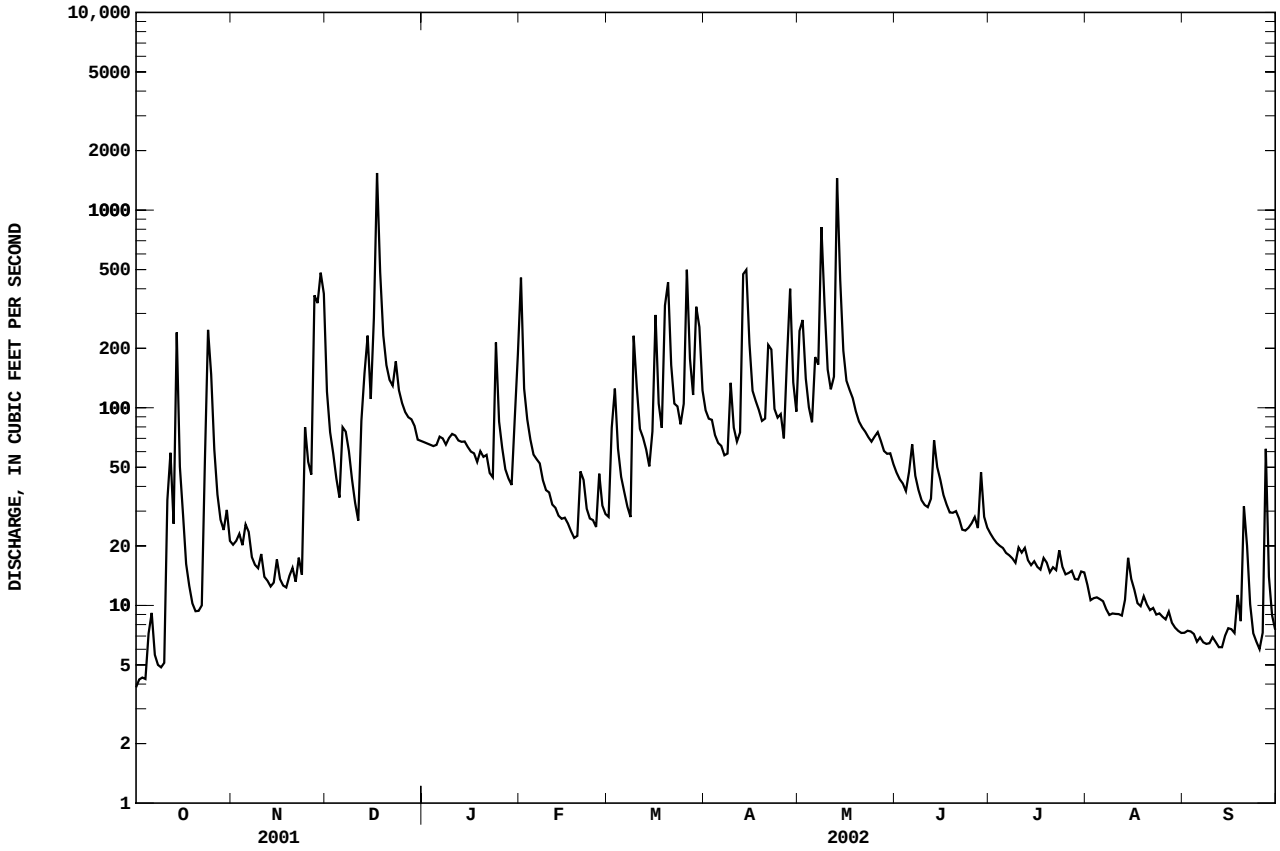
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2002, BY WATER YEAR (WY)

MEAN	16.11	39.04	61.71	59.67	81.56	94.19	88.04	69.32	43.55	31.82	23.52	17.42
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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1965 - 2002	
ANNUAL TOTAL	15714.9		29245.1			
ANNUAL MEAN	43.05		80.12		52.00	
HIGHEST ANNUAL MEAN					118	1979
LOWEST ANNUAL MEAN					25.3	1981
HIGHEST DAILY MEAN	1540	Dec 17	1540	Dec 17	3640	Jun 9 1979
LOWEST DAILY MEAN	3.4	Sep 29	3.9	Oct 1	0.00	Jan 20 1977
ANNUAL SEVEN-DAY MINIMUM	3.8	Sep 27	5.5	Oct 1	0.00	Jan 20 1977
MAXIMUM PEAK FLOW			1990	Dec 17	5900	Jun 9 1979
MAXIMUM PEAK STAGE			13.05	Dec 17	15.07	Jun 9 1979
ANNUAL RUNOFF (CFSM)	1.01		1.87		1.21	
ANNUAL RUNOFF (INCHES)	13.66		25.42		16.51	
10 PERCENT EXCEEDS	84		177		112	
50 PERCENT EXCEEDS	17		41		22	
90 PERCENT EXCEEDS	5.7		8.4		6.4	

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. Flow regulated by Patoka Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

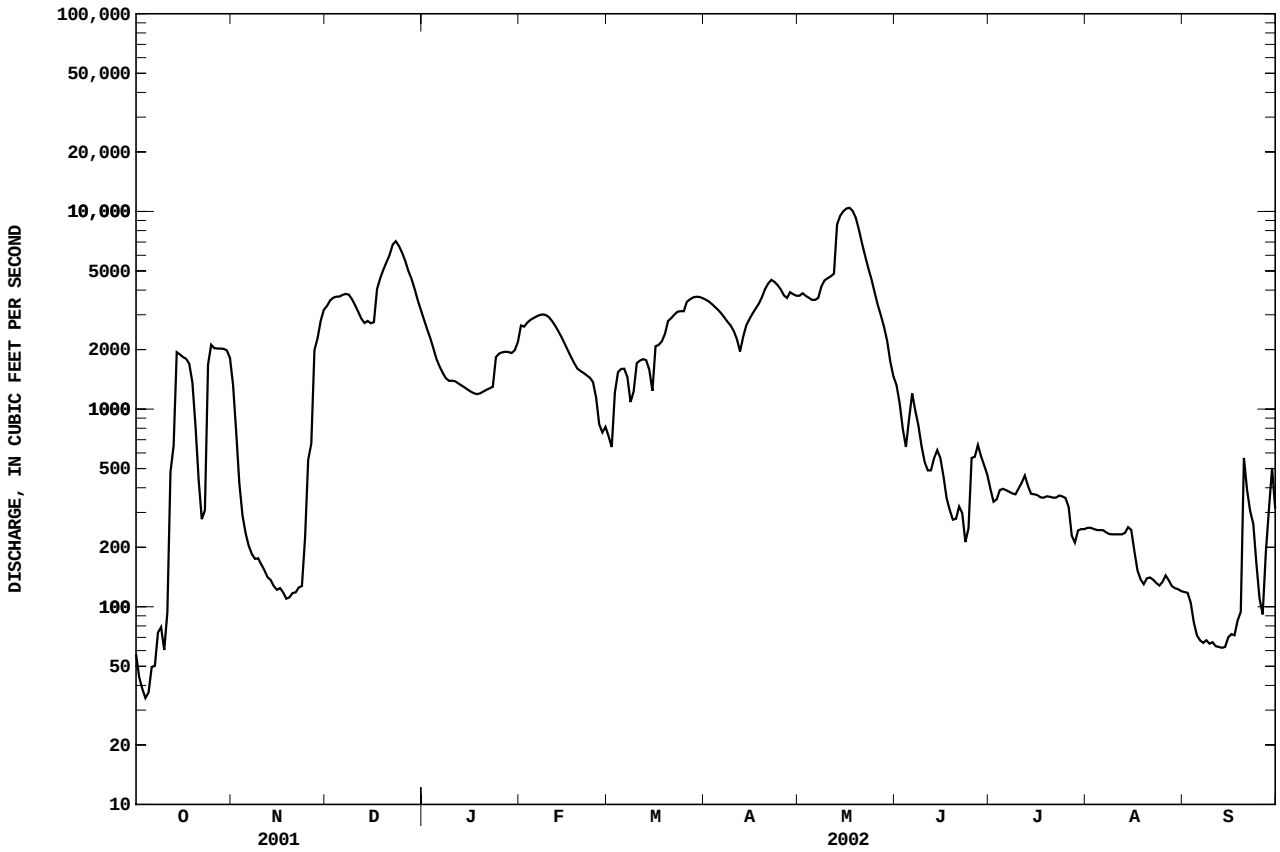
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	1330	3320	2840	2650	728	3580	3750	1320	394	251	119
2	44	764	3540	2540	2610	643	3500	3860	1070	340	251	118
3	38	422	3660	2290	2740	1210	3400	3740	794	349	248	105
4	35	291	3700	2030	2830	1540	3290	3660	644	389	245	83
5	37	236	3710	1790	2890	1600	3170	3570	889	395	244	72
6	50	203	3780	1640	2950	1600	3050	3570	1200	389	244	68
7	50	185	3830	1520	2990	1450	2900	3660	982	382	238	66
8	74	175	3790	1430	3010	1090	2770	4180	825	374	233	68
9	79	176	3590	1390	2990	1230	2650	4480	649	371	232	65
10	60	164	3350	1390	2910	1710	2480	4590	539	397	233	66
11	94	153	3100	1380	2780	1760	2260	4700	489	424	232	63
12	481	141	2870	1350	2630	1790	1960	4840	490	461	232	63
13	653	137	2720	1320	2470	1770	2320	8590	564	409	236	62
14	1940	127	2790	1290	2310	1580	2660	9510	619	373	253	63
15	1890	122	2720	1250	2140	1240	2850	10000	567	371	245	70
16	1830	124	2750	1220	1980	2080	3050	10300	457	367	191	73
17	1800	118	4050	1200	1830	2110	3220	10400	354	358	153	72
18	1700	110	4580	1190	1710	2200	3420	10100	309	356	137	85
19	1360	112	5070	1200	1600	2400	3690	9280	276	362	130	94
20	820	117	5530	1230	1560	2790	4050	8050	279	360	139	566
21	439	118	6020	1250	1520	2880	4320	6870	321	356	141	390
22	277	125	6790	1270	1480	3010	4510	5930	298	357	137	305
23	308	127	7070	1300	1440	3110	4400	5150	213	365	132	263
24	1680	223	6690	1830	1370	3130	4240	4530	250	362	128	165
25	2120	554	6180	1910	1140	3130	4040	3900	566	355	134	110
26	2030	670	5630	1940	837	3490	3760	3370	573	320	144	91
27	2020	1990	5010	1950	762	3590	3650	2980	658	229	136	188
28	2020	2280	4570	1940	813	3670	3900	2610	578	211	127	311
29	2020	2800	4060	1920	---	3700	3810	2210	519	243	124	504
30	1980	3180	3560	1980	---	3690	3750	1740	466	247	123	314
31	1820	---	3170	2180	---	3640	---	1460	---	247	120	---
TOTAL	29807	17274	131200	50960	58942	69561	100650	165580	17758	10913	5813	4682
MEAN	961.5	575.8	4232	1644	2105	2244	3355	5341	591.9	352.0	187.5	156.1
MAX	2120	3180	7070	2840	3010	3700	4510	10400	1320	461	253	566
MIN	35	110	2720	1190	762	643	1960	1460	213	211	120	62
CFSM	1.17	0.70	5.15	2.00	2.56	2.73	4.08	6.50	0.72	0.43	0.23	0.19
IN.	1.35	0.78	5.94	2.31	2.67	3.15	4.55	7.49	0.80	0.49	0.26	0.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2002, BY WATER YEAR (WY)

MEAN	257.4	516.1	1018	1517	1803	2193	1955	1527	812.7	444.6	315.3	229.6
MAX	2573	2978	4232	8365	5570	8531	4664	6810	4322	3075	3915	1125
(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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1935 - 2002	
ANNUAL TOTAL	339565		663140			
ANNUAL MEAN	930.3		1817		1045	
HIGHEST ANNUAL MEAN					2080	1950
LOWEST ANNUAL MEAN					151	1954
HIGHEST DAILY MEAN	7070	Dec 23	10400	May 17	18500	Jan 26 1937
LOWEST DAILY MEAN	35	Oct 4	35	Oct 4	0.00	Aug 29 1936
ANNUAL SEVEN-DAY MINIMUM	45	Oct 1	45	Oct 1	0.00	Aug 29 1936
MAXIMUM PEAK FLOW			10500	May 17	18700	Jan 26 1937
MAXIMUM PEAK STAGE			23.17	May 17	26.80	Jan 26 1937
ANNUAL RUNOFF (CFSM)	1.13		2.21		1.27	
ANNUAL RUNOFF (INCHES)	15.37		30.01		17.28	
10 PERCENT EXCEEDS	2320		3960		2840	
50 PERCENT EXCEEDS	287		1300		386	
90 PERCENT EXCEEDS	67		119		29	

03376500 PATOKA RIVER NEAR PRINCETON, IN--Continued



03377500 WABASH RIVER AT MOUNT CARMEL, IL

LOCATION.--Lat 38°24'07", long 87°45'10", in SE$^1/_4$NW$^1/_4$ 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 good. 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

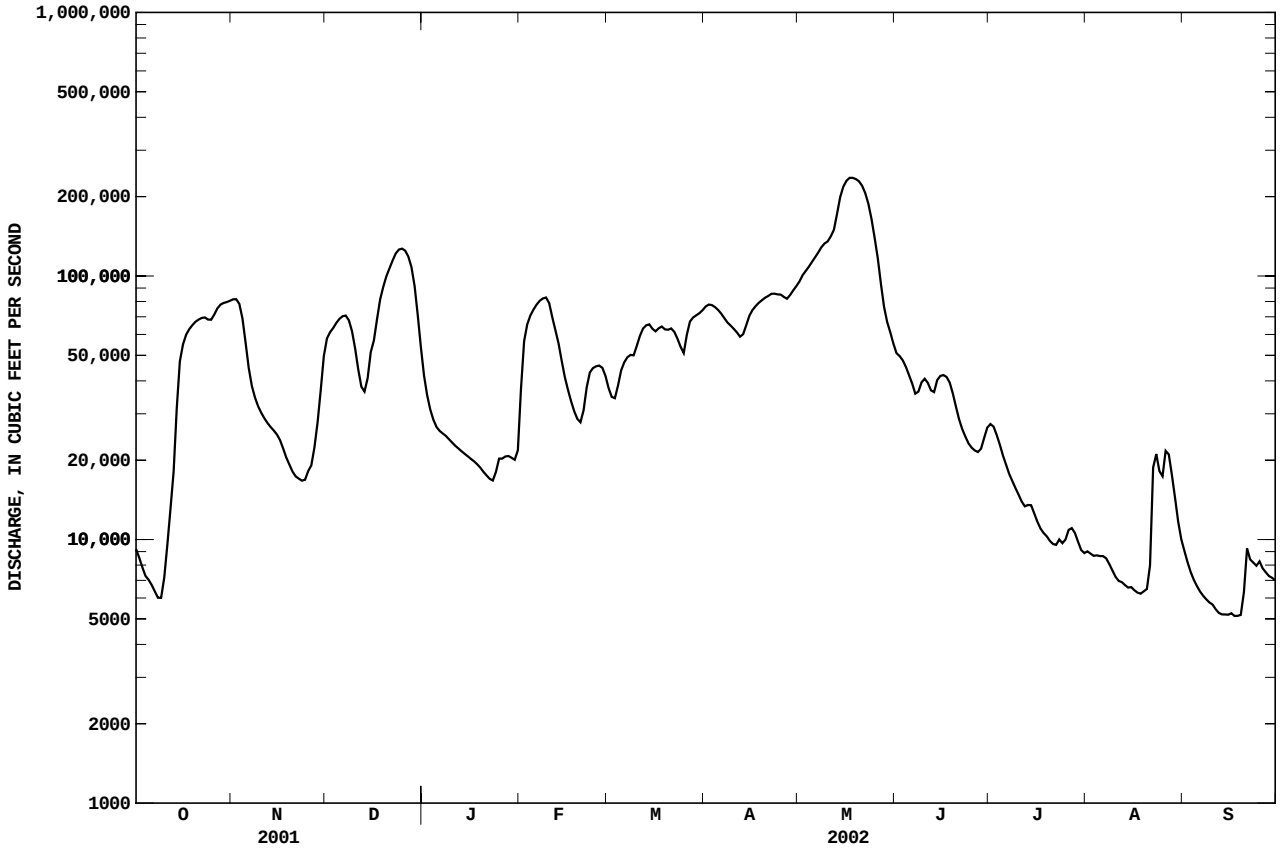
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9200	81600	57900	42100	37300	37500	76600	95400	50900	27400	9020	9040
2	8540	81600	61200	35400	56600	34800	77900	101000	49700	26800	8840	8200
3	7850	78400	63500	31200	65600	34400	77600	105000	47800	25000	8670	7530
4	7280	69000	66400	28500	70800	38400	76200	109000	45200	22900	8710	7030
5	7040	55800	68800	26700	74600	43800	74300	113000	42100	20800	8660	6650
6	6720	44800	70400	25800	77900	47000	71900	118000	39100	19200	8650	6350
7	6350	38200	70800	25300	80500	49200	69200	123000	35800	17700	8480	6120
8	6010	34600	67900	24700	82200	50200	66500	129000	36400	16700	8070	5930
9	6000	32000	61800	24000	82800	50000	64800	133000	39500	15700	7630	5770
10	7170	30300	53100	23300	79000	54300	63000	135000	40700	14800	7220	5660
11	9560	28800	44200	22700	69700	59300	61100	141000	39300	13900	6970	5440
12	13100	27700	38000	22200	62300	63200	58800	150000	36800	13400	6890	5260
13	18100	26700	36400	21600	55500	65000	60200	172000	36300	13500	6720	5200
14	31400	25900	41000	21100	47700	65500	65200	199000	40300	13500	6570	5200
15	47500	25000	51400	20700	41400	63100	70700	218000	41800	12600	6600	5190
16	55000	23800	56900	20200	37000	61700	74300	230000	42100	11700	6420	5250
17	59900	22200	68600	19800	33500	63300	76900	236000	41400	11000	6290	5130
18	62800	20500	81600	19300	30700	64300	79100	236000	39400	10600	6230	5130
19	65100	19200	91100	18700	28700	62700	81000	233000	35800	10300	6360	5180
20	67000	18100	99900	18100	27900	62500	82700	229000	31900	9890	6490	6320
21	68400	17400	107000	17500	30900	63200	84000	220000	28500	9620	7980	9250
22	69300	17000	115000	17000	37800	61400	85600	206000	26200	9540	18800	8400
23	69600	16700	122000	16800	43000	57800	85700	188000	24600	10000	21100	8180
24	68300	16900	126000	18100	44700	53900	85200	165000	23200	9690	18200	7960
25	68200	18200	127000	20300	45400	51000	85000	140000	22300	10000	17400	8260
26	71400	19100	125000	20300	45700	59900	83300	117000	21800	10900	21700	7770
27	75400	22400	119000	20700	44800	67200	82000	93700	21500	11000	21000	7510
28	77900	27800	108000	20800	41700	69600	84700	76400	22100	10600	17600	7270
29	79000	36700	91700	20400	---	70900	88200	67000	24300	9810	14400	7160
30	79600	49700	71300	20100	---	72300	91600	61200	26600	9130	11700	7010
31	80500	---	53800	21800	---	74100	---	55400	---	8890	10000	---
TOTAL	1309220	1026100	2416700	705200	1475700	1771500	2283300	4595100	1053400	436570	329370	200350
MEAN	42230	34200	77960	22750	52700	57150	76110	148200	35110	14080	10620	6678
MAX	80500	81600	127000	42100	82800	74100	91600	236000	50900	27400	21700	9250
MIN	6000	16700	36400	16800	27900	34400	58800	55400	21500	8890	6230	5130
CFSM	1.47	1.19	2.72	0.79	1.84	2.00	2.66	5.18	1.23	0.49	0.37	0.23
IN.	1.70	1.33	3.14	0.92	1.92	2.30	2.97	5.97	1.37	0.57	0.43	0.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2002, BY WATER YEAR (WY)

MEAN	9789	15620	25860	37090	41190	49900	50240	42820	28910	19310	12070	8962
MAX	42230	87950	92340	199300	147100	108700	106400	148200	80120	73580	75530	50670
(WY)	2002	1994	1986	1950	1950	1985	1938	2002	1998	1958	1979	1989
MIN	2465	2632	2266	2861	3758	4815	11900	5805	5035	3366	2372	2572
(WY)	1941	1931	1964	1977	1931	1941	1941	1934	1988	1936	1936	1940

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1928 - 2002	
ANNUAL TOTAL	10853830		17602510			
ANNUAL MEAN	29740		48230		28410	
HIGHEST ANNUAL MEAN					56740	1950
LOWEST ANNUAL MEAN					6144	1941
HIGHEST DAILY MEAN	127000	Dec 25	236000	May 17	302000	May 25 1943
LOWEST DAILY MEAN	5850	Aug 18	5130	Sep 17	1650	Sep 27 1941
ANNUAL SEVEN-DAY MINIMUM	6020	Aug 14	5180	Sep 13	1700	Dec 19 1963
MAXIMUM PEAK FLOW			237000	May 17	305000	May 25 1943
MAXIMUM PEAK STAGE			32.35	May 17	32.35	May 17 2002
ANNUAL RUNOFF (CFSM)	1.04		1.68		0.99	
ANNUAL RUNOFF (INCHES)	14.10		22.87		13.48	
10 PERCENT EXCEEDS	67100		92500		68100	
50 PERCENT EXCEEDS	20500		37000		16600	
90 PERCENT EXCEEDS	8020		7250		4380	

03377500 WABASH RIVER AT MOUNT CARMEL, IL--Continued



03378500 WABASH RIVER AT NEW HARMONY, IN

LOCATION.--Lat 38°07'53", long 87°56'32" in SE$^1/_4$SE$^1/_4$ 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, 21.79 ft, May 18; mimimum gage height, 1.17 ft, Sept. 15, 19, and 20.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.40	15.57	12.43	---	8.88	8.61	14.97	16.39	12.13	6.65	2.39	2.47
2	2.29	15.57	13.01	---	12.03	8.03	15.09	16.71	11.64	6.48	2.33	2.21
3	2.11	15.37	13.35	---	13.51	7.93	15.11	16.97	11.17	6.11	2.29	2.01
4	1.95	14.48	13.75	---	14.31	8.64	14.99	17.17	10.63	5.67	2.28	1.85
5	1.88	12.65	14.01	6.65	14.75	9.62	14.84	17.41	10.33	5.23	2.26	1.73
6	1.79	10.47	14.30	6.39	15.06	10.25	14.61	17.69	9.58	4.87	2.25	1.63
7	1.69	8.89	14.39	6.20	15.25	10.65	14.29	17.93	8.71	4.52	2.23	1.54
8	1.59	8.01	14.10	6.03	15.45	10.89	13.95	18.45	8.71	4.27	2.13	1.47
9	1.55	7.43	13.29	5.85	15.51	11.17	13.66	18.60	9.22	4.05	2.00	1.41
10	1.81	7.00	11.93	5.69	15.33	11.75	13.39	18.73	9.46	3.85	1.87	1.39
11	2.49	6.67	10.23	5.53	14.58	12.53	13.03	18.85	9.23	3.65	1.77	1.31
12	3.25	6.41	8.97	5.39	13.55	13.15	12.85	19.27	8.76	3.50	1.73	1.25
13	4.34	6.19	8.63	5.27	12.45	13.46	12.99	19.80	8.61	3.53	1.69	1.21
14	7.31	5.99	9.99	5.13	10.99	13.56	13.88	20.55	9.33	3.53	1.63	1.21
15	10.25	5.81	11.41	5.03	9.65	13.41	14.36	21.16	9.63	3.31	1.63	1.19
16	11.61	5.57	12.63	4.93	8.67	13.33	14.73	21.24	9.69	3.10	1.57	1.23
17	12.51	5.22	14.91	4.82	7.89	13.41	14.93	21.72	9.56	2.91	1.52	1.22
18	13.04	4.87	15.71	4.71	7.27	13.47	15.08	21.72	9.19	3.01	1.51	1.19
19	13.45	4.57	16.31	4.59	6.83	13.65	15.33	21.59	8.52	2.75	1.54	1.17
20	13.71	4.33	16.77	4.43	6.63	13.71	15.43	21.49	7.72	2.63	1.59	1.79
21	13.97	4.14	17.07	4.29	7.15	13.61	15.65	21.32	7.01	2.57	1.65	2.59
22	14.12	4.06	17.37	4.17	8.47	13.29	15.75	20.91	6.49	2.55	4.45	2.27
23	14.45	3.99	17.88	4.13	9.45	12.77	15.79	20.45	6.11	2.63	5.15	2.20
24	14.43	4.09	18.09	4.64	9.81	12.03	15.93	19.88	5.86	2.57	4.55	2.09
25	14.29	4.31	18.23	5.03	10.01	11.63	15.87	19.17	5.64	2.63	4.30	2.20
26	14.53	4.61	18.25	4.95	10.07	13.17	15.75	18.29	5.48	2.83	5.31	2.14
27	14.89	5.56	18.10	5.00	9.97	14.01	15.73	17.34	5.38	2.88	5.15	2.03
28	15.17	6.88	17.72	5.02	9.41	14.35	15.95	16.15	5.49	2.79	4.43	1.93
29	15.33	9.05	16.97	4.95	---	14.72	16.01	15.01	5.97	2.59	3.74	1.88
30	15.39	11.20	15.55	4.94	---	14.74	16.23	14.11	6.45	2.44	3.12	1.83
31	15.52	---	---	5.76	---	14.80	---	13.11	---	2.35	2.71	---
MEAN	8.81	7.63	---	---	11.18	12.27	14.87	18.68	8.39	3.63	2.67	1.72
MAX	15.52	15.57	---	---	15.51	14.80	16.23	21.72	12.13	6.65	5.31	2.59
MIN	1.55	3.99	---	---	6.63	7.93	12.85	13.11	5.38	2.35	1.51	1.17

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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	Sample type	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TURBID-ITY LAB HACH 2100AN (NTU) (99872)	UV ABSORB-ANCE 254 NM, WTR FLT (UNITS /CM) (50624)	UV ABSORB-ANCE 280 NM, WTR FLT (UNITS /CM) (61726)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)
OCT												
30...	1230	ENVIRONMENTAL	79600	41	.230	.177	767	7.8	7.4	402	21.0	11.0
DEC												
11...	1240	ENVIRONMENTAL	43500	38	.137	.103	759	9.4	7.4	486	13.5	9.0
11...	1248	BLANK	--	--	<.004	<.004	--	--	--	--	--	--
JAN												
29...	1300	ENVIRONMENTAL	20400	34	.076	.057	751	12.7	7.7	563	19.5	8.0
29...	1308	BLANK	--	--	--	--	--	--	--	--	--	--
FEB												
12...	1220	ENVIRONMENTAL	62200	63	.138	.103	756	12.0	7.8	480	13.5	5.0
MAR												
05...	1300	ENVIRONMENTAL	44200	77	.104	.078	761	13.3	7.9	551	11.0	3.5
05...	1310	REPLICATE	--	74	.102	.077	--	--	--	--	--	--
19...	1300	ENVIRONMENTAL	62400	140	.124	.093	753	10.5	7.8	454	11.5	9.0
APR												
09...	1230	ENVIRONMENTAL	64800	52	.112	.083	757	11.0	7.6	481	19.0	10.5
23...	1300	ENVIRONMENTAL	85700	60	.157	.118	758	7.9	7.4	425	18.5	19.0
23...	1308	BLANK	--	--	--	--	--	--	--	--	--	--
MAY												
06...	1330	ENVIRONMENTAL	120000	53	.150	.112	752	8.8	7.6	325	23.2	17.5
28...	1330	ENVIRONMENTAL	8000	48	.133	.098	752	7.3	7.5	455	25.0	21.0
28...	1340	REPLICATE	--	50	.134	.099	--	--	--	--	--	--
JUN												
11...	1300	ENVIRONMENTAL	39300	260	.107	.080	751	7.0	7.9	484	30.0	24.5
11...	1308	BLANK	--	--	--	--	--	--	--	--	--	--
25...	1240	ENVIRONMENTAL	22300	67	.087	.065	--	8.7	8.1	553	--	27.5
JUL												
16...	1310	ENVIRONMENTAL	11700	31	.086	.064	--	8.0	8.2	521	--	28.0
AUG												
06...	1250	ENVIRONMENTAL	8650	37	.085	.063	--	7.8	8.3	538	--	28.0
06...	1300	REPLICATE	--	45	.086	.064	--	--	--	--	--	--
SEP												
09...	1200	ENVIRONMENTAL	5770	18	--	--	--	7.5	8.0	575	--	28.0

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT													
30...	180	47.6	14.0	5.62	7.64	133	162	18.3	.2	8.66	29.0	238	E.02
DEC													
11...	220	58.3	17.1	4.44	10.5	158	193	24.0	.2	8.38	43.7	298	E.03
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
29...	250	65.7	20.0	2.73	17.2	180	220	26.2	.1	6.92	62.0	344	<.04
29...	--	E.01	<.008	.01	<.09	--	--	.06	<.01	<.13	<.01	--	<.015
FEB													
12...	210	55.7	17.2	3.46	9.81	152	183	23.6	.2	7.15	41.7	282	E.03
MAR													
05...	240	62.7	20.6	2.40	15.7	179	213	29.2	.2	6.39	55.1	330	<.04
05...	240	64.2	20.5	2.59	15.2	--	--	29.6	.2	6.50	55.3	332	<.04
19...	190	51.2	16.0	2.45	10.2	155	189	21.4	.2	6.05	43.8	260	<.04
APR													
09...	220	58.0	18.0	2.55	11.6	154	187	24.3	.2	5.61	41.5	284	<.04
23...	180	49.1	15.0	2.94	8.56	138	168	17.6	.1	5.56	35.1	262	<.04
23...	--	.01	<.008	.01	<.09	--	--	.06	<.01	<.13	<.01	--	<.015
MAY													
06...	170	45.6	13.5	3.15	7.28	130	159	16.0	.2	5.67	30.5	231	<.04
28...	210	56.5	16.3	3.19	8.44	158	192	15.6	.2	6.18	39.8	271	<.04
28...	210	56.6	16.3	3.19	8.46	152	186	15.6	.2	6.19	39.7	271	<.04
JUN													
11...	230	60.4	18.1	3.32	12.9	166	203	21.8	.2	5.63	41.7	250	<.04
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	250	66.2	21.1	2.72	13.7	188	229	24.6	.1	5.08	47.1	330	<.04
JUL													
16...	210	47.3	22.8	2.87	20.1	146	179	30.4	.2	.16	61.7	297	<.04
AUG													
06...	200	42.2	24.1	3.13	25.2	140	122	36.7	.2	<.13	65.5	300	<.04
06...	200	42.2	23.8	3.18	25.0	--	--	36.9	.2	<.13	65.5	288	<.04
SEP													
09...	230	51.1	23.9	3.44	28.0	169	206	38.5	.2	.79	62.9	325	E.03

Date	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN,PAR TICULTE WAT FLT SUSP (MG/L AS N) (49570)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, INORG + ORGANIC PARTIC. TOTAL (MG/L AS C) (00694)	CARBON, INOR-GANIC, PARTIC. TOTAL (MG/L AS C) (00688)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC-ULATE TOTAL (MG/L AS C) (00689)	PHEO-PHYTIN A, PHYTO-PHYTON (UG/L) (62360)
OCT													
30...	.62	.91	2.86	.021	.48	.144	.124	.27	3.8	.1	7.2	3.6	5.5
DEC													
11...	.45	.77	3.15	.016	.19	.101	.085	.21	2.5	<.1	4.6	2.5	4.7
11...	--	--	--	--	<.02	--	--	--	.3	<.1	.4	.3	--
JAN													
29...	.24	.57	2.77	.008	.26	.051	.043	.140	2.4	<.1	3.0	2.3	5.6
29...	--	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--
FEB													
12...	.49	.77	5.01	.016	.26	.116	.098	.21	2.5	<.1	4.7	2.5	2.5
MAR													
05...	.35	.80	4.14	.008	.40	.070	.051	.21	3.4	<.1	3.8	3.3	4.6
05...	.37	.70	4.13	.008	.42	.070	.048	.21	3.7	<.1	3.7	3.7	5.5
19...	.35	.94	3.56	<.008	.50	.068	.055	.28	9.1	<.1	4.2	9.1	5.0
APR													
09...	.33	.83	4.64	.013	.41	.068	.054	.173	3.3	<.1	3.7	3.3	4.6
23...	.43	1.4	2.61	.027	.46	.075	.057	.20	3.5	<.1	4.8	3.4	--
23...	--	--	<.013	<.002	--	--	<.007	--	--	--	--	--	--
MAY													
06...	.45	.67	3.37	.036	.18	.085	.065	.194	4.7	<.1	4.8	4.7	3.8
28...	.35	.71	2.64	.023	.40	.066	.051	.185	2.9	<.1	4.1	2.9	--
28...	.35	.71	2.59	.023	.35	.067	.052	.186	2.9	.2	4.1	2.6	--
JUN													
11...	.26	1.2	3.89	.025	1.02	.089	.073	.44	8.3	.1	3.5	8.1	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	.28	1.4	3.14	.009	.78	.035	.024	.23	6.5	<.1	3.0	6.4	--
JUL													
16...	.28	1.4	.54	.012	1.06	.013	<.007	.138	8.8	.2	2.9	8.6	50.5
AUG													
06...	.33	1.4	<.05	<.008	1.11	.014	<.007	.142	8.6	<.1	3.3	8.6	51.7
06...	.32	1.4	<.05	<.008	1.25	.016	<.007	.141	11.1	<.1	3.3	11.1	51.7
SEP													
09...	.39	.99	.14	E.005	.63	.019	<.007	.111	4.0	<.1	3.6	4.0	53.4

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
OCT													
30...	3.5	1.1	42	29	1.5	.4	128	1.0	<.002	.014	<.002	<.005	.107
DEC													
11...	4.8	1.0	52	11	2.1	.5	180	1.4	<.002	<.013	<.002	<.005	.133
11...	--	--	--	--	--	--	--	--	<.002	<.004	<.002	<.005	<.007
JAN													
29...	24.9	.9	75	E6	3.4	.6	211	2.5	<.006	<.006	<.004	<.005	.063
29...	--	<.2	<7	<10	<.3	<.3	<.08	<.2	--	--	--	--	--
FEB													
12...	5.2	.9	42	10	1.6	.9	174	1.6	--	--	--	--	--
MAR													
05...	11.9	2.4	62	E6	2.8	.9	188	<.2	<.006	.013	.005	<.005	.086
05...	9.3	2.4	60	E6	2.7	.7	188	<.2	<.006	.014	E.004	<.005	.090
19...	8.2	.8	37	11	1.8	.7	139	.3	<.006	.011	<.004	<.005	.084
APR													
09...	13.4	.7	36	E6	1.9	.4	166	2.0	<.006	.009	<.004	<.005	.066
23...	--	1.1	41	E10	1.7	.6	133	1.8	<.006	.035	<.004	<.005	1.97
23...	--	<.2	<7	<10	<.3	<.3	<.08	<.2	--	--	--	--	--
MAY													
06...	8.8	.9	36	E8	1.7	.4	120	1.7	<.006	.361	.012	<.005	4.40
28...	--	1.2	46	E7	2.0	.5	142	2.0	<.006	.196	.009	<.005	1.89
28...	--	1.2	46	E7	2.0	.5	144	1.8	<.006	.205	.009	<.005	1.94
JUN													
11...	--	1.2	57	<10	2.3	.5	161	2.5	<.006	1.64	.054	<.005	9.28
11...	--	--	--	--	--	--	--	--	<.006	<.006	<.004	<.005	<.007
25...	--	1.1	79	<10	3.1	.7	173	1.4	<.006	.246	.020	<.005	2.79
JUL													
16...	124	1.0	120	<10	5.8	.8	168	1.1	<.006	.043	<.004	<.005	1.15
AUG													
06...	149	1.2	144	<10	5.5	.5	184	1.7	<.006	.019	<.004	<.005	.576
06...	150	1.2	147	<10	5.5	.5	185	1.7	<.006	.019	<.004	<.005	.576
SEP													
09...	34.7	1.5	187	<10	4.6	.7	199	2.6	<.006	.016	<.004	<.005	.400

Date	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)
OCT													
30...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.049	E.005	<.005	<.02	<.002	<.009
DEC													
11...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.040	<.005	<.005	<.02	<.002	<.009
11...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009
JAN													
29...	<.010	<.002	E.007	<.020	<.005	<.018	<.003	E.032	<.005	<.005	<.02	<.002	<.009
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
05...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.020	<.005	<.005	<.02	<.002	<.009
05...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.020	<.005	<.005	<.02	<.002	<.009
19...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.014	<.005	<.005	<.02	<.002	<.009
APR													
09...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.012	E.003	<.005	<.02	<.002	<.009
23...	<.010	<.002	E.014	<.020	<.005	<.018	<.003	E.052	<.005	<.005	<.02	<.002	<.009
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
06...	<.010	<.002	E.004	<.020	<.005	E.011	<.003	E.117	.008	<.005	<.02	<.002	<.009
28...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.140	E.004	<.005	<.02	.002	<.009
28...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.145	<.005	<.005	<.02	<.002	<.009
JUN													
11...	<.010	<.002	<.041	<.020	E.003	<.018	<.003	E.381	E.004	<.005	<.02	<.002	<.009
11...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	<.006	<.005	<.005	<.02	<.002	<.009
25...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.286	E.003	<.005	<.02	.003	<.009
JUL													
16...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.124	E.002	<.005	<.02	<.002	<.009
AUG													
06...	<.010	<.002	<.041	<.020	E.004	<.018	<.003	E.099	E.004	<.005	<.02	E.002	<.009
06...	<.010	<.002	<.041	<.020	E.004	<.018	<.003	E.112	E.004	E.004	<.02	E.002	<.009
SEP													
09...	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.096	<.005	<.005	<.02	<.002	<.009

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)	PARA-THION, DIS-SOLVED (UG/L) (39542)
OCT													
30...	<.005	<.003	<.004	<.035	E.003	<.050	<.006	.073	<.006	<.002	<.007	<.003	<.007
DEC													
11...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.056	.022	<.002	<.007	<.003	<.007
11...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.007
JAN													
29...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.026	<.006	<.002	<.007	<.003	<.010
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
05...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.046	<.006	<.002	<.007	<.003	<.010
05...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.045	<.006	<.002	<.007	<.003	<.010
19...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.039	<.006	<.002	<.007	<.003	<.010
APR													
09...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.050	.007	<.002	<.007	<.003	<.010
23...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.131	.011	<.002	<.007	<.003	<.010
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
06...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.988	.033	<.002	<.007	<.003	<.010
28...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.436	.019	<.002	<.007	<.003	<.010
28...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.439	.019	<.002	<.007	<.003	<.010
JUN													
11...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	2.04	.027	<.002	<.007	<.003	<.010
11...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	<.013	<.006	<.002	<.007	<.003	<.010
25...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.607	.009	<.002	<.007	<.003	<.010
JUL													
16...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.238	<.006	<.002	<.007	<.003	<.010
AUG													
06...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.124	<.006	<.002	<.007	<.003	<.010
06...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.125	<.006	<.002	<.007	<.003	<.010
SEP													
09...	<.005	<.003	<.004	<.035	<.027	<.050	<.006	.116	<.006	<.002	<.007	<.003	<.010

Date	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)
OCT													
30...	<.002	<.010	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.113	M	<.034	<.02
DEC													
11...	<.002	<.010	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.600	M	<.034	<.02
11...	<.002	<.010	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.011	<.02	<.034	<.02
JAN													
29...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.097	<.02	<.034	<.02
29...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
05...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.287	<.02	<.034	<.02
05...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.302	<.02	<.034	<.02
19...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	.253	M	<.034	<.02
APR													
09...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.082	<.02	<.034	<.02
23...	<.004	<.022	<.006	<.011	E.01	<.004	<.010	<.011	<.02	.899	<.02	<.034	<.02
23...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY													
06...	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.413	E.01	<.034	<.02
28...	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.244	<.02	<.034	<.02
28...	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.244	<.02	<.034	<.02
JUN													
11...	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.610	<.02	<.034	<.02
11...	<.004	<.022	<.006	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
25...	<.004	<.022	<.006	<.011	.03	<.004	<.010	<.011	<.02	.220	E.01	<.034	<.02
JUL													
16...	<.004	<.022	<.006	<.011	.02	<.004	<.010	<.011	<.02	.124	E.01	<.034	<.02
AUG													
06...	<.004	<.022	<.006	<.011	.05	<.004	<.010	<.011	<.02	.054	E.01	<.034	<.02
06...	<.004	<.022	<.006	<.011	.05	<.004	<.010	<.011	<.02	.054	E.01	<.034	<.02
SEP													
09...	<.004	<.022	<.006	<.011	.04	<.004	<.010	<.011	<.02	.035	E.01	<.034	<.02

03378500 WABASH RIVER AT NEW HARMONY, IN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT					
30...	<.005	<.002	<.009	87	119
DEC					
11...	<.005	<.002	<.009	90	85
11...	<.005	<.002	<.009	--	--
JAN					
29...	<.005	<.002	<.009	97	52
29...	--	--	--	--	--
FEB					
12...	--	--	--	86	81
MAR					
05...	<.005	<.002	<.009	95	126
05...	<.005	<.002	<.009	--	--
19...	<.005	<.002	<.009	96	209
APR					
09...	<.005	<.002	<.009	89	59
23...	<.005	<.002	<.009	92	93
23...	--	--	--	--	--
MAY					
06...	<.005	<.002	<.009	77	73
28...	<.005	<.002	<.009	89	71
28...	<.005	<.002	<.009	--	--
JUN					
11...	<.005	<.002	<.009	99	293
11...	<.005	<.002	<.009	--	--
25...	<.005	<.002	<.009	98	133
JUL					
16...	<.005	<.002	<.009	99	71
AUG					
06...	<.005	<.002	<.009	95	57
06...	<.005	<.002	<.009	--	--
SEP					
09...	<.005	<.002	<.009	99	24

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 for Sept. 12-19 and below 1.0 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	28	457	e27	1860	30	114	110	19	4.0	0.34	0.45
2	1.0	23	171	e25	296	62	100	111	17	3.4	0.27	0.51
3	0.91	19	127	e24	166	251	91	107	16	3.0	0.27	0.50
4	0.87	18	102	e23	119	84	76	78	14	2.7	0.44	0.40
5	1.3	17	86	e22	92	66	66	60	253	2.6	0.36	0.31
6	4.2	15	148	e24	86	57	59	137	479	2.6	0.26	0.24
7	3.8	14	166	e22	84	48	54	404	129	2.3	0.33	0.21
8	1.7	13	120	e21	71	42	55	2470	76	1.8	0.29	0.18
9	1.2	12	96	26	64	464	88	1110	51	1.6	0.23	0.13
10	1.0	12	82	29	62	275	60	225	37	57	0.20	0.11
11	22	12	70	27	48	125	54	137	30	5.2	0.16	0.10
12	234	9.8	276	26	49	114	70	109	32	2.4	0.13	0.20
13	100	9.2	638	29	40	100	1180	4090	107	1.7	0.18	0.41
14	1490	9.9	1250	28	35	86	1840	1570	51	1.3	0.38	0.50
15	241	9.7	430	25	38	80	565	245	23	1.1	0.30	0.51
16	116	9.2	1230	21	34	877	190	146	19	0.91	0.24	0.96
17	73	8.8	6740	22	29	220	126	142	17	0.79	0.30	1.5
18	46	8.9	3800	22	24	141	98	194	14	2.0	0.35	2.1
19	34	9.9	603	30	26	1080	243	116	13	2.1	0.43	3.1
20	24	10	179	32	60	1550	245	93	12	6.3	0.58	847
21	19	9.6	131	33	60	403	426	77	11	9.9	0.53	540
22	16	8.8	118	32	37	179	701	65	11	2.2	0.35	14
23	314	8.6	213	35	32	136	164	58	9.9	1.9	0.44	3.7
24	2990	66	127	642	31	113	340	48	8.6	1.6	1.8	2.0
25	931	103	94	211	30	152	1110	40	35	1.2	0.76	1.3
26	154	35	81	124	54	1860	214	35	15	1.0	0.57	1.3
27	88	1790	70	95	36	408	420	34	8.1	0.93	0.51	311
28	61	1240	62	79	30	200	899	29	6.6	0.79	0.46	49
29	45	2720	49	68	---	256	234	27	5.5	0.63	0.35	5.6
30	36	3090	e34	82	---	257	143	26	4.9	0.52	0.31	2.5
31	32	---	e30	394	---	143	---	22	---	0.46	0.36	---
TOTAL	7083.08	9339.4	17780	2300	3593	9859	10025	12115	1524.6	125.93	12.48	1789.82
MEAN	228.5	311.3	573.5	74.19	128.3	318.0	334.2	390.8	50.82	4.062	0.403	59.66
MAX	2990	3090	6740	642	1860	1860	1840	4090	479	57	1.8	847
MIN	0.87	8.6	30	21	24	30	54	22	4.9	0.46	0.13	0.10
CFSM	2.20	2.99	5.51	0.71	1.23	3.06	3.21	3.76	0.49	0.04	0.00	0.57
IN.	2.53	3.34	6.36	0.82	1.29	3.53	3.59	4.33	0.55	0.05	0.00	0.64

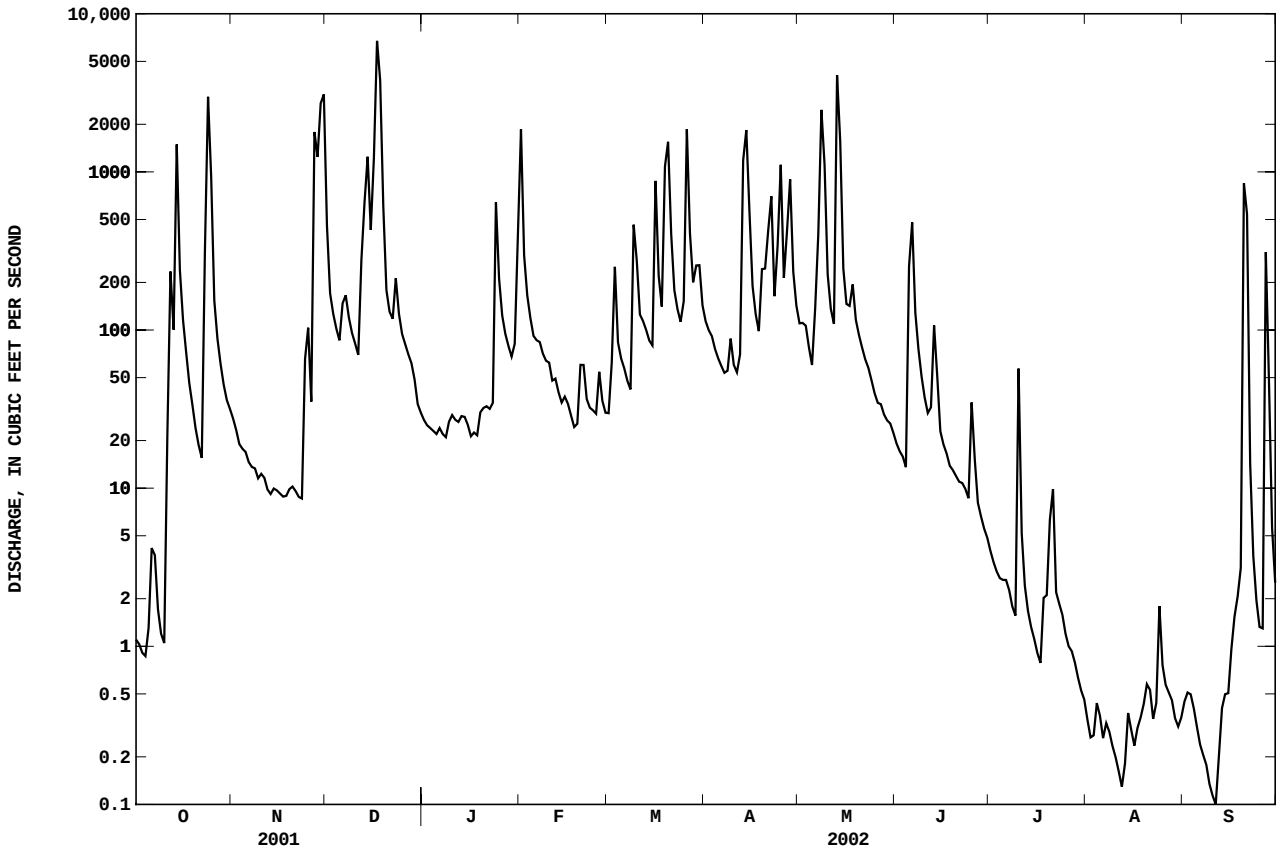
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

MEAN	25.01	84.53	139.4	141.8	187.6	214.5	199.3	163.1	91.36	72.09	43.44	26.59
MAX	228	513	710	559	727	581	702	742	347	264	341	233
(WY)	2002	1986	1983	1982	1990	1975	1996	1990	1996	1992	1977	1982
MIN	0.019	0.61	0.30	0.13	9.15	14.3	8.73	2.98	0.62	0.33	0.18	0.000
(WY)	1969	2000	1966	1977	1992	1981	1981	1988	1988	1994	1988	1983

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1966 - 2002	
ANNUAL TOTAL	51648.50		75547.31			
ANNUAL MEAN	141.5		207.0		115.3	
HIGHEST ANNUAL MEAN					207	2002
LOWEST ANNUAL MEAN					38.7	1987
HIGHEST DAILY MEAN	6740	Dec 17	6740	Dec 17	9400	Apr 29 1996
LOWEST DAILY MEAN	0.40	Jul 8	0.10	Sep 11	0.00	Jul 22 1966
ANNUAL SEVEN-DAY MINIMUM	0.64	Jul 2	0.17	Sep 6	0.00	Jul 29 1966
MAXIMUM PEAK FLOW			7680	Dec 17	10400	Apr 29 1996
MAXIMUM PEAK STAGE			19.35	Dec 17	20.35	Apr 29 1996
ANNUAL RUNOFF (CFSM)	1.36		1.99		1.11	
ANNUAL RUNOFF (INCHES)	18.47		27.02		15.07	
10 PERCENT EXCEEDS	235		422		212	
50 PERCENT EXCEEDS	25		34		17	
90 PERCENT EXCEEDS	1.7		0.46		0.25	

e Estimated

03378550 BIG CREEK NEAR WADESVILLE, IN--Continued



04092677 GRAND CALUMET RIVER AT INDUSTRIAL HWY AT GARY, IN

LOCATION.--Lat 41°36'29", long 87°23'39",in NW1/4NW1/4 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 except for estimated daily discharges, which are poor. 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e500	e503	e530	396	487	493	492	569	640	675	655	609
2	e504	e483	e527	374	486	504	497	558	624	685	647	634
3	e508	e501	e522	420	491	484	519	584	623	713	651	609
4	e519	e490	e520	467	456	477	519	587	644	736	637	615
5	e526	e483	e520	475	463	496	510	595	594	759	623	610
6	e539	e492	530	448	471	470	508	611	608	754	617	636
7	e526	e487	520	403	478	477	511	570	637	734	614	643
8	e512	e481	525	401	489	525	544	598	660	738	625	637
9	e509	e495	519	403	495	515	525	632	652	732	623	633
10	e506	e494	528	412	475	504	532	621	658	722	626	621
11	e518	e500	533	393	462	513	524	625	651	744	615	620
12	e505	e503	520	364	476	516	534	665	632	740	610	641
13	e527	e498	519	337	483	522	523	622	643	748	618	659
14	e534	e495	534	347	492	526	540	644	658	717	597	647
15	e521	e501	519	363	498	532	563	649	645	718	588	632
16	e509	e497	514	419	487	521	562	644	655	711	587	641
17	e509	e508	528	388	478	528	567	599	665	705	546	655
18	e508	e499	534	366	492	510	571	599	661	725	564	638
19	e513	e506	510	375	511	515	575	585	673	711	567	663
20	e521	e513	523	427	521	513	588	597	677	716	566	659
21	e516	e516	534	439	486	494	565	610	680	706	556	616
22	e525	e504	521	437	497	497	538	602	683	736	529	620
23	e516	e503	507	440	509	502	557	596	692	703	532	611
24	e531	e506	472	421	503	491	559	619	701	695	554	593
25	e521	e514	454	445	497	477	553	591	e700	691	557	590
26	e509	e515	430	451	499	474	548	602	697	686	578	588
27	e505	e515	445	444	492	507	555	600	700	684	603	594
28	e501	e515	437	448	494	509	542	617	715	671	601	612
29	e492	e515	421	440	---	500	551	613	699	671	589	614
30	e486	e517	431	e479	---	502	564	623	679	654	610	622
31	e494	---	441	e470	---	495	---	627	---	648	617	---
TOTAL	15910	15049	15568	12892	13668	15589	16236	18854	19846	22028	18502	18762
MEAN	513.2	501.6	502.2	415.9	488.1	502.9	541.2	608.2	661.5	710.6	596.8	625.4
MAX	539	517	534	479	521	532	588	665	715	759	655	663
MIN	486	481	421	337	456	470	492	558	594	648	529	588

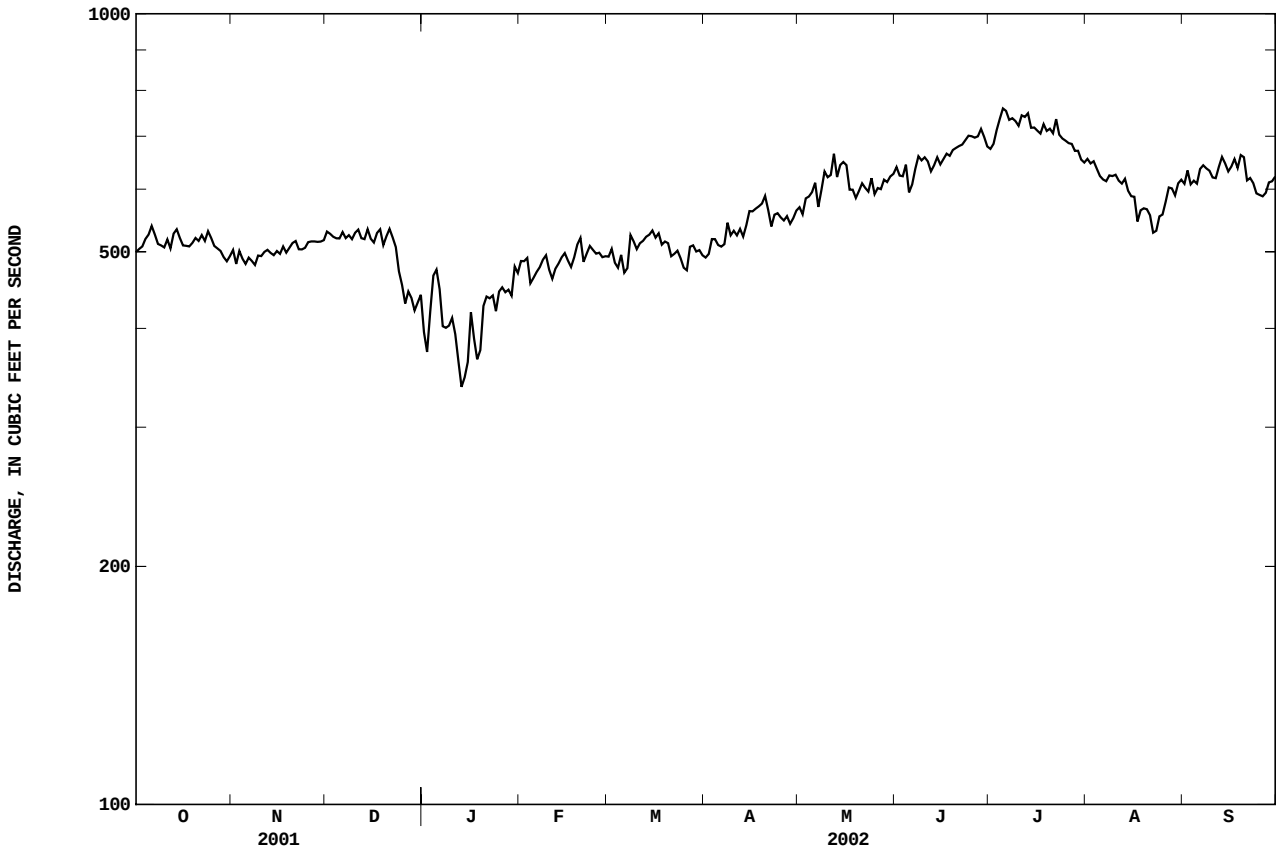
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

MEAN	493.3	482.0	469.7	462.4	483.5	494.1	505.3	511.9	536.5	530.1	525.8	526.9
MAX	543	506	523	515	534	548	579	608	662	711	597	625
(WY)	2000	1999	2000	1999	1999	1999	1999	2002	2002	2002	2002	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 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1995 - 2002	
ANNUAL TOTAL	185543		202904			
ANNUAL MEAN	508.3		555.9		501.8	
HIGHEST ANNUAL MEAN					556	2002
LOWEST ANNUAL MEAN					444	1996
HIGHEST DAILY MEAN	597	Apr 21	759	Jul 5	759	Jul 5 2002
LOWEST DAILY MEAN	413	Jan 1	337	Jan 13	305	Apr 27 1996
ANNUAL SEVEN-DAY MINIMUM	423	Jan 1	369	Jan 12	361	Apr 25 1996
MAXIMUM PEAK FLOW			837	May 12	1010	Jun 27 2000
MAXIMUM PEAK STAGE			3.56	May 12	4.81	Jun 13 1994
10 PERCENT EXCEEDS	538		678		588	
50 PERCENT EXCEEDS	510		529		498	
90 PERCENT EXCEEDS	473		463		431	

e Estimated

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 NE$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

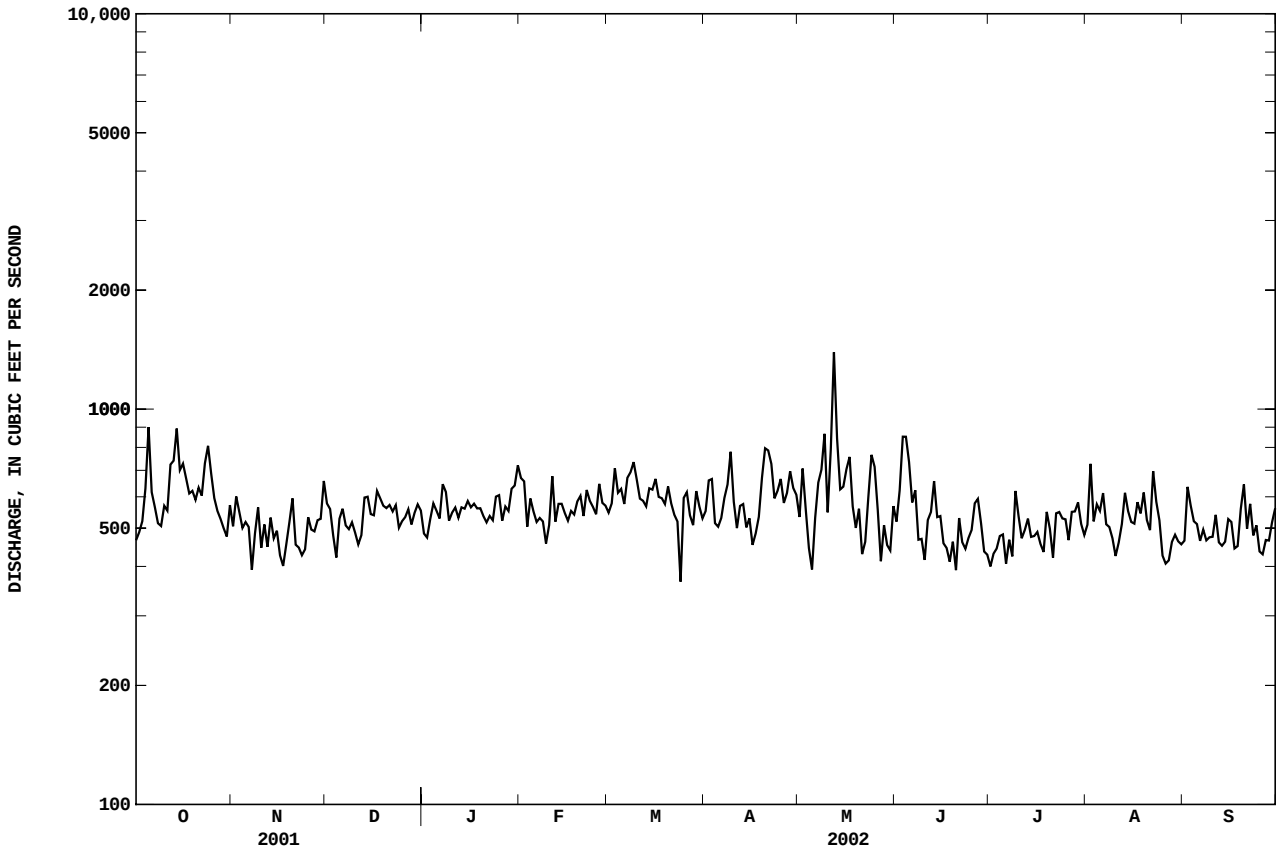
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	466	505	577	484	669	547	552	533	519	400	510	465
2	488	601	559	473	656	577	660	707	622	431	727	636
3	521	549	478	527	504	709	666	556	852	444	520	570
4	630	501	421	577	594	614	515	445	851	477	574	520
5	900	518	528	553	551	628	504	393	735	482	553	512
6	616	503	560	529	518	575	530	531	581	406	613	464
7	565	392	508	646	530	670	596	652	623	467	511	496
8	514	485	497	617	520	692	645	702	467	424	503	465
9	506	564	517	522	457	734	780	866	470	621	471	474
10	570	446	487	547	509	663	583	548	415	536	425	475
11	553	511	455	564	677	594	500	792	524	471	460	540
12	724	448	480	531	519	586	569	1390	549	495	512	460
13	741	532	597	564	576	567	575	843	657	528	614	451
14	893	471	600	560	576	630	502	627	533	475	552	462
15	701	492	543	585	546	626	529	637	536	478	518	527
16	728	426	539	564	522	666	453	705	458	489	513	518
17	668	401	621	576	553	600	485	757	445	456	582	444
18	612	454	595	561	541	595	534	567	411	435	545	450
19	621	518	570	561	584	575	670	501	462	550	615	559
20	590	594	562	536	603	637	796	560	391	498	524	645
21	633	454	572	517	537	577	786	430	530	421	494	498
22	604	446	551	537	624	540	727	462	461	545	697	576
23	729	427	572	523	586	520	595	601	443	549	583	479
24	807	442	501	601	565	366	622	766	472	529	523	508
25	687	533	521	606	542	596	666	714	495	526	426	436
26	595	496	533	522	647	616	579	556	578	466	407	429
27	553	491	558	567	579	538	614	412	593	550	414	467
28	527	524	511	552	570	509	696	509	515	551	461	465
29	499	528	547	629	---	620	632	453	436	581	481	518
30	476	658	574	641	---	567	607	439	428	512	463	561
31	572	---	554	721	---	529	---	568	---	480	455	---
TOTAL	19289	14910	16688	17493	15855	18463	18168	19222	16052	15273	16246	15070
MEAN	622.2	497.0	538.3	564.3	566.2	595.6	605.6	620.1	535.1	492.7	524.1	502.3
MAX	900	658	621	721	677	734	796	1390	852	621	727	645
MIN	466	392	421	473	457	366	453	393	391	400	407	429

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

MEAN	597.1	602.9	636.2	636.6	646.6	664.5	632.3	649.3	615.1	577.3	592.9	575.1
MAX	752	916	1094	963	843	1111	922	1016	724	761	759	759
(WY)	1997	1997	1997	1997	1997	1999	1999	1999	1996	1996	1996	1996
MIN	418	407	429	467	476	508	498	508	439	471	467	416
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1997

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1994 - 2002	
ANNUAL TOTAL	207486		202729			
ANNUAL MEAN	568.5		555.4		618.8	
HIGHEST ANNUAL MEAN					727	1999
LOWEST ANNUAL MEAN					462	1998
HIGHEST DAILY MEAN	911	Jun 12	1390	May 12	2120	Mar 21 1999
LOWEST DAILY MEAN	298	May 9	366	Mar 24	-641	Oct 21 1993
ANNUAL SEVEN-DAY MINIMUM	421	Apr 25	438	Jun 30	-180	Oct 15 1993
MAXIMUM PEAK FLOW			8970	Jun 3	8970	Jun 3 2002
MAXIMUM PEAK STAGE			11.03	Jun 3	14.41	Mar 9 1998
10 PERCENT EXCEEDS	663		669		782	
50 PERCENT EXCEEDS	565		542		596	
90 PERCENT EXCEEDS	478		449		448	

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 NW1/4NW1/4 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 good except for estimated daily discharges, which are poor. Flow subject to regulation by operation of Lake George Dam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

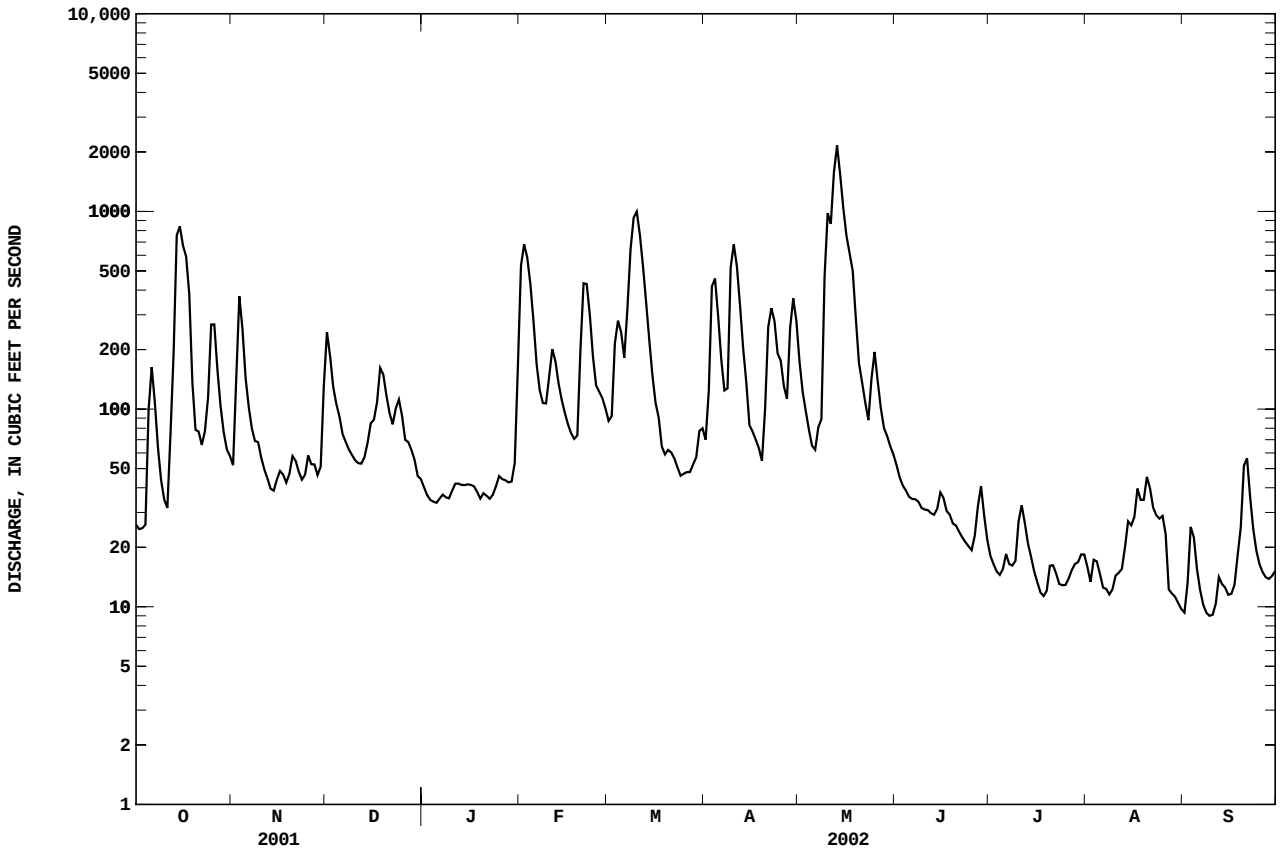
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	52	245	40	532	87	70	174	52	18	16	9.3
2	25	141	185	37	682	92	123	123	45	16	13	13
3	25	372	129	35	585	215	417	98	41	15	17	25
4	26	254	106	34	430	280	458	79	39	14	17	22
5	99	144	92	34	278	245	295	65	36	16	15	16
6	163	103	75	35	168	182	179	62	35	18	12	12
7	108	80	68	37	124	320	124	81	35	16	12	10
8	64	69	62	36	107	641	127	89	34	16	12	9.3
9	44	68	59	35	107	929	520	466	32	17	12	9.0
10	35	57	55	39	146	998	682	980	31	27	14	9.1
11	32	49	53	42	201	758	526	865	31	33	15	10
12	75	44	53	42	175	526	333	1580	30	26	16	14
13	192	40	57	41	135	345	203	2150	29	21	20	13
14	757	39	68	41	112	223	136	1530	31	18	27	12
15	840	44	85	42	96	148	83	1040	38	15	26	12
16	671	49	88	41	84	108	77	754	36	13	28	12
17	591	47	108	41	76	90	70	614	31	12	40	13
18	383	42	161	38	71	65	64	500	29	11	35	18
19	136	47	150	35	74	59	55	287	26	12	35	25
20	79	58	117	38	200	62	100	170	26	16	45	52
21	77	55	95	36	433	60	259	136	24	16	40	56
22	66	48	84	35	429	56	324	108	22	15	32	36
23	77	44	101	37	299	51	279	88	21	13	29	25
24	114	47	112	41	184	46	191	143	20	13	28	19
25	268	58	92	46	132	47	176	195	19	13	29	16
26	268	53	70	44	122	48	131	138	23	14	23	15
27	158	52	68	44	114	48	113	101	32	15	12	14
28	104	46	62	43	101	53	258	80	41	16	12	14
29	76	51	55	43	---	57	363	73	29	17	11	14
30	63	132	46	53	---	77	279	65	22	18	10	15
31	58	---	44	163	---	80	---	59	---	18	9.7	---
TOTAL	5700	2385	2845	1348	6197	6996	7015	12893	940	518	662.7	539.7
MEAN	183.9	79.50	91.77	43.48	221.3	225.7	233.8	415.9	31.33	16.71	21.38	17.99
MAX	840	372	245	163	682	998	682	2150	52	33	45	56
MIN	25	39	44	34	71	46	55	59	19	11	9.7	9.0
CFSM	1.48	0.64	0.74	0.35	1.78	1.82	1.89	3.35	0.25	0.13	0.17	0.15
IN.	1.71	0.72	0.85	0.40	1.86	2.10	2.10	3.87	0.28	0.16	0.20	0.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2002, BY WATER YEAR (WY)

MEAN	58.39	91.20	109.7	117.9	153.0	215.2	212.5	151.6	117.7	62.75	48.16	47.05
MAX	433	499	393	475	456	688	477	454	557	315	427	312
(WY)	1955	1986	1983	1993	1997	1979	1950	1970	1993	1996	1990	1993
MIN	6.42	10.7	12.5	10.8	14.7	38.3	23.1	21.8	16.4	10.7	8.81	6.91
(WY)	1957	1957	1963	1977	1964	1957	1963	1958	1988	1988	1964	1948

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1948 - 2002	
ANNUAL TOTAL	36628		48039.4			
ANNUAL MEAN	100.4		131.6		115.1	
HIGHEST ANNUAL MEAN					234	1993
LOWEST ANNUAL MEAN					35.3	1963
HIGHEST DAILY MEAN	1400	Feb 10	2150	May 13	3900	Nov 28 1990
LOWEST DAILY MEAN	14	Jul 14	9.0	Sep 9	0.00	Nov 5 1978
ANNUAL SEVEN-DAY MINIMUM	16	Jul 10	10	Sep 6	0.04	Aug 29 1996
MAXIMUM PEAK FLOW			2310	May 13	4230	Nov 28 1990
MAXIMUM PEAK STAGE			13.87	May 13	19.48	Oct 11 1954
ANNUAL RUNOFF (CFSM)	0.81		1.06		0.93	
ANNUAL RUNOFF (INCHES)	10.99		14.41		12.61	
10 PERCENT EXCEEDS	162		322		273	
50 PERCENT EXCEEDS	53		53		48	
90 PERCENT EXCEEDS	23		14		13	

04093000 DEEP RIVER AT LAKE GEORGE OUTLET AT HOBART, IN--Continued



04093200 LITTLE CALUMET RIVER AT GARY, IN

LOCATION.--Lat 41°34'19", long 87°19'13", in NE$^1/_4$SE$^1/_4$ sec.15, T.36 N., R.8 W., Lake County, Hydrologic Unit 04040001, (GARY, IN quadrangle), on right bank 100 ft upstream of Conrail Railroad bridge, 800 ft upstream of Martin Luther King Avenue bridge at Gary, 1.3 mi downstream of highway 53, and 1.5 mi upstream from confluence with Deep River.

DRAINAGE AREA.--5.82 mi^2, approximately.

PERIOD OF RECORD.--June 1958 to September 1967, October 1968 to September 30, 1971 (discharge), December, 1984 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 580.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Stage affected by backwater from Deep River during times of flood. Minimum gage height for the period of record may have been lower prior to December 13, 1984.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 13.31 ft, Nov. 30, 1990; minimum gage height, 5.27 ft, Aug. 7, 8, 1991. Minimum gage height was not published prior to December 13, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Flood in October 1954 reached a stage of 13.09 ft, from flood mark.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 12.27 ft, May 15, 16; minimum gage height, 8.51 ft, June 24.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.20	9.00	9.49	8.72	9.17	9.50	9.46	9.79	8.86	8.72	8.83	8.79
2	9.20	9.02	9.60	8.67	9.44	9.46	9.48	9.74	8.82	8.69	8.79	8.83
3	9.20	9.11	9.58	8.63	9.59	9.48	9.59	9.67	8.78	8.66	8.76	8.92
4	9.20	9.21	9.50	8.60	9.65	9.58	9.71	9.58	8.77	8.65	8.73	8.97
5	9.25	9.25	9.40	8.59	9.66	9.60	9.77	9.50	8.76	8.64	8.71	8.98
6	9.47	9.25	9.31	8.58	9.62	9.61	9.78	9.47	8.74	8.66	8.70	8.97
7	9.65	9.17	9.22	8.56	9.56	9.65	9.75	9.46	8.72	8.69	8.69	8.95
8	9.70	9.08	9.14	8.56	9.49	9.75	9.72	9.46	8.70	8.73	8.69	8.94
9	9.70	9.00	9.05	8.56	9.42	9.96	9.80	9.65	8.68	8.76	8.70	8.91
10	9.68	8.92	8.98	8.57	9.40	10.14	10.00	9.88	8.66	8.80	8.71	8.90
11	9.60	8.89	8.92	8.58	9.44	10.13	10.10	10.06	8.65	8.85	8.72	8.87
12	9.57	8.86	8.89	8.59	9.53	10.12	10.10	10.39	8.63	8.89	8.72	8.86
13	9.63	8.81	8.90	8.60	9.56	10.09	10.02	11.35	8.63	8.89	8.72	8.86
14	9.79	8.77	8.95	8.61	9.56	10.02	9.93	12.11	8.63	8.89	8.74	8.85
15	9.89	8.74	9.04	8.62	9.53	9.93	9.82	12.27	8.68	8.88	8.74	8.84
16	9.97	8.71	9.13	8.62	9.48	9.80	9.71	11.84	8.68	8.87	8.77	8.83
17	9.98	8.70	9.22	8.62	9.42	9.67	9.61	11.24	8.66	8.87	8.80	8.82
18	9.90	8.69	9.27	8.62	9.37	9.54	9.53	10.69	8.63	8.86	8.80	8.82
19	9.79	8.70	9.32	8.62	9.33	9.43	9.45	10.18	8.61	8.85	8.81	8.85
20	9.68	8.76	9.34	8.61	9.38	9.34	9.45	9.96	8.59	8.83	8.81	8.92
21	9.52	8.81	9.32	8.60	9.56	9.26	9.53	9.70	8.58	8.82	8.81	8.97
22	9.37	8.83	9.27	8.59	9.70	9.21	9.61	9.51	8.57	8.80	8.87	8.99
23	9.25	8.85	9.24	8.60	9.75	9.15	9.67	9.38	8.54	8.79	8.89	9.00
24	9.21	8.87	9.21	8.62	9.76	9.10	9.68	9.34	8.51	8.78	8.89	9.00
25	9.23	8.97	9.15	8.62	9.76	9.05	9.68	9.33	8.52	8.78	8.89	8.99
26	9.27	9.08	9.08	8.63	9.72	9.01	9.68	9.27	8.64	8.78	8.87	8.99
27	9.30	9.14	9.02	8.64	9.66	8.98	9.64	9.20	8.76	8.79	8.86	8.99
28	9.30	9.19	8.96	8.66	9.58	9.00	9.69	9.12	8.81	8.80	8.84	8.98
29	9.25	9.21	8.90	8.69	---	9.23	9.76	9.05	8.81	8.83	8.82	8.98
30	9.17	9.30	8.84	8.75	---	9.39	9.80	8.98	8.77	8.85	8.80	8.98
31	9.07	---	8.78	8.89	---	9.45	---	8.91	---	8.84	8.80	---
MEAN	9.48	8.96	9.16	8.63	9.54	9.54	9.72	9.94	8.68	8.79	8.78	8.92
MAX	9.98	9.30	9.60	8.89	9.76	10.14	10.10	12.27	8.86	8.89	8.89	9.00
MIN	9.07	8.69	8.78	8.56	9.17	8.98	9.45	8.91	8.51	8.64	8.69	8.79

WTR YR 2002 MEAN 9.18 MAX 12.27 MIN 8.51

04094000 LITTLE CALUMET RIVER AT PORTER, IN

LOCATION.--Lat 41°37'18", long 87°05'13", in NE$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	66	131	e40	285	68	71	77	56	42	28	25
2	33	113	99	e39	254	74	97	76	53	38	35	25
3	32	190	81	e38	126	156	163	69	51	36	31	27
4	33	118	74	e37	105	165	112	62	52	35	29	25
5	99	95	70	e37	81	123	87	59	53	34	28	24
6	116	78	67	e38	76	105	79	64	52	32	27	24
7	73	68	63	e39	70	197	71	73	50	32	26	24
8	52	62	58	e41	69	310	87	66	47	32	26	24
9	50	59	54	e47	81	444	341	180	47	34	28	23
10	42	58	55	56	103	425	336	290	47	33	27	23
11	41	60	55	59	101	187	144	151	46	31	27	23
12	115	55	52	58	82	119	105	735	45	31	26	26
13	231	52	59	57	73	103	89	908	46	30	26	24
14	576	53	63	55	67	90	78	454	48	29	30	23
15	685	56	77	56	64	83	72	228	48	29	29	23
16	386	53	70	54	61	79	67	136	44	29	28	24
17	564	51	84	53	59	73	63	187	43	28	29	27
18	297	55	101	e49	58	70	61	142	43	28	28	25
19	135	62	84	e46	63	67	58	108	41	29	33	32
20	102	71	76	e44	106	66	142	94	40	28	31	42
21	87	64	69	45	151	65	185	84	39	29	28	30
22	80	58	65	46	111	62	129	78	38	28	30	24
23	93	54	77	48	90	63	100	74	38	44	31	23
24	104	52	76	54	79	62	83	109	37	35	30	21
25	171	57	e62	52	72	61	97	114	47	33	31	21
26	150	55	e54	49	75	62	83	88	56	33	28	22
27	97	52	e52	48	75	62	76	77	59	34	27	23
28	81	49	e49	48	70	75	132	71	53	32	26	24
29	73	53	e46	47	---	78	122	68	47	32	25	23
30	68	104	e44	57	---	98	94	64	43	33	25	22
31	64	---	e42	112	---	83	---	60	---	29	25	---
TOTAL	4764	2073	2109	1549	2707	3775	3424	5046	1409	1002	878	746
MEAN	153.7	69.10	68.03	49.97	96.68	121.8	114.1	162.8	46.97	32.32	28.32	24.87
MAX	685	190	131	112	285	444	341	908	59	44	35	42
MIN	32	49	42	37	58	61	58	59	37	28	25	21
CFSM	2.32	1.04	1.03	0.75	1.46	1.84	1.72	2.46	0.71	0.49	0.43	0.38
IN.	2.68	1.16	1.19	0.87	1.52	2.12	1.92	2.84	0.79	0.56	0.49	0.42

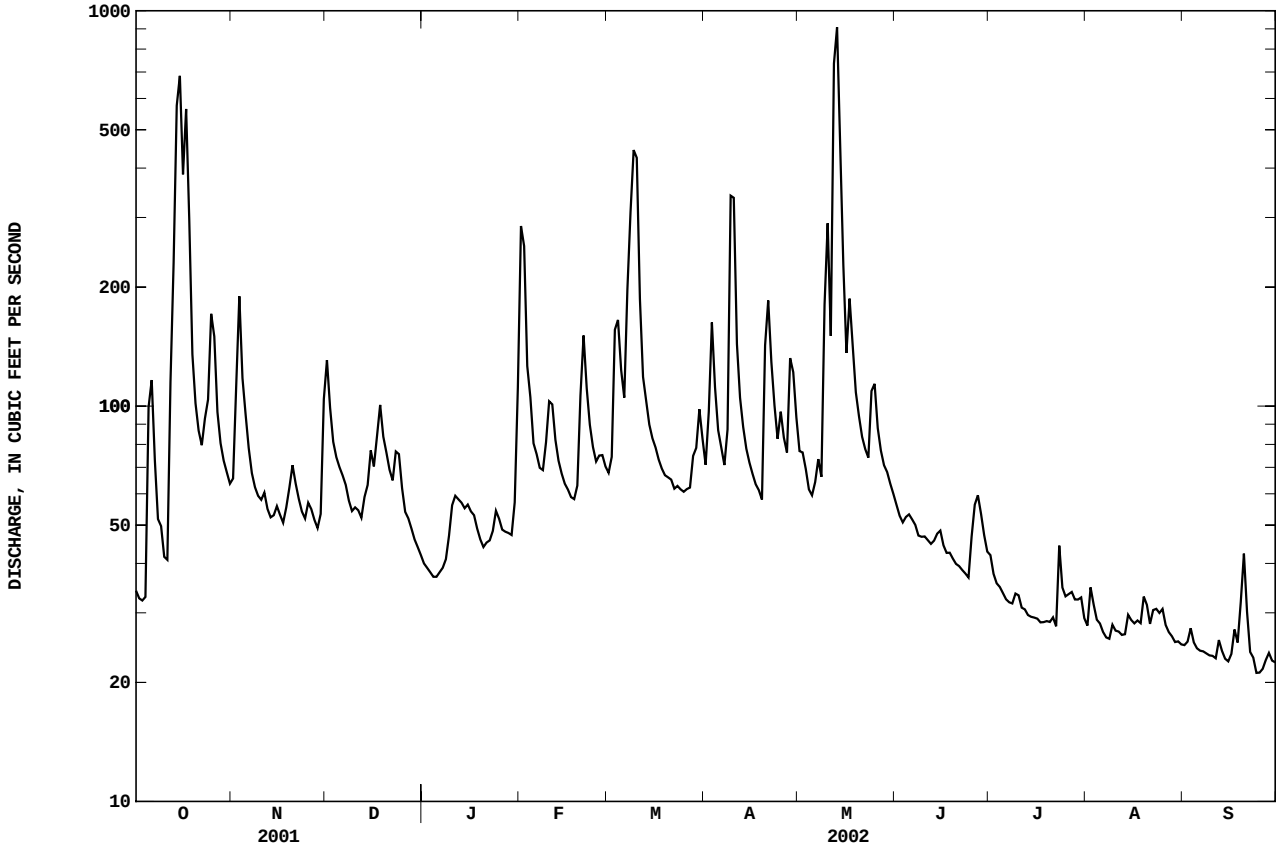
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2002, BY WATER YEAR (WY)

MEAN	59.58	75.57	79.20	79.96	96.36	121.0	116.8	88.48	74.25	47.83	42.60	43.14
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	50.4	44.6	33.5	25.6	22.2	23.1	21.4
(WY)	1964	1954	1964	1977	1964	2000	1963	1958	1965	1988	1964	1953

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1946 - 2002	
ANNUAL TOTAL	27112		29482			
ANNUAL MEAN	74.28		80.77		76.91	
HIGHEST ANNUAL MEAN					124	1991
LOWEST ANNUAL MEAN					36.5	1964
HIGHEST DAILY MEAN	1010	Feb 10	908	May 13	3040	Nov 28 1990
LOWEST DAILY MEAN	24	Aug 14	21	Sep 24	17	Aug 24 1965
ANNUAL SEVEN-DAY MINIMUM	25	Aug 11	22	Sep 24	19	Aug 20 1965
MAXIMUM PEAK FLOW			1130	May 12	3880	Nov 28 1990
MAXIMUM PEAK STAGE			8.36	May 12	11.66	Oct 10 1954
ANNUAL RUNOFF (CFSM)	1.12		1.22		1.16	
ANNUAL RUNOFF (INCHES)	15.24		16.57		15.79	
10 PERCENT EXCEEDS	109		133		140	
50 PERCENT EXCEEDS	54		58		49	
90 PERCENT EXCEEDS	28		27		28	

e Estimated

04094000 LITTLE CALUMET RIVER AT PORTER, IN--Continued



04095090 BURNS DITCH AT PORTAGE, IN

LOCATION.--Lat 41°37'20", long 87°10'35", in NE$^1/_4$NW$^1/_4$ 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 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	328	518	1020	368	1490	593	650	933	520	333	314	284
2	349	776	853	436	e1900	578	769	832	467	342	353	317
3	349	1120	755	383	e1500	1060	1390	730	444	299	328	334
4	280	1020	714	e471	1210	1120	1360	678	513	282	330	382
5	661	819	727	413	1010	1020	1140	597	498	289	226	367
6	938	708	594	273	e851	877	951	634	485	316	302	345
7	716	604	484	389	710	1190	826	646	466	294	293	298
8	626	526	448	437	e644	1730	877	677	431	274	347	282
9	560	492	468	388	683	2440	1780	1490	370	333	350	282
10	488	340	413	396	678	2800	2320	2180	388	343	323	272
11	423	381	418	458	e856	2280	1810	2080	446	366	347	326
12	701	449	423	403	e760	1700	1390	3610	374	360	288	357
13	1130	472	457	467	e728	1360	1100	5260	409	303	390	333
14	2290	453	459	400	e890	1110	958	4440	433	284	444	314
15	3130	471	578	459	e671	911	833	3450	454	286	384	256
16	2550	423	490	413	568	819	770	2670	405	343	336	291
17	2480	487	613	485	550	666	700	2350	370	373	364	296
18	1950	478	810	542	e652	659	674	2010	409	341	352	338
19	1220	415	732	e455	556	613	569	1630	394	328	282	400
20	828	540	684	e500	854	606	835	1280	389	324	372	e490
21	653	449	589	e396	1200	502	1250	1120	349	374	345	e433
22	581	463	555	e458	1210	593	1320	981	303	348	382	e344
23	673	441	638	371	1060	564	1170	861	256	350	362	e329
24	819	402	581	409	881	461	997	998	278	375	348	e353
25	1040	394	497	e490	685	468	1050	1070	387	386	310	e315
26	1060	447	501	e452	703	487	913	976	435	378	301	e287
27	873	469	494	464	703	549	820	795	475	370	290	e282
28	e804	449	435	352	e668	597	1140	737	437	250	320	e307
29	600	415	413	324	---	602	1320	721	392	286	306	e342
30	580	775	381	440	---	748	1130	684	353	378	289	e342
31	578	---	426	775	---	720	---	587	---	393	277	---
TOTAL	30258	16196	17650	13467	24871	30423	32812	47707	12330	10301	10255	9898
MEAN	976.1	539.9	569.4	434.4	888.2	981.4	1094	1539	411.0	332.3	330.8	329.9
MAX	3130	1120	1020	775	1900	2800	2320	5260	520	393	444	490
MIN	280	340	381	273	550	461	569	587	256	250	226	256

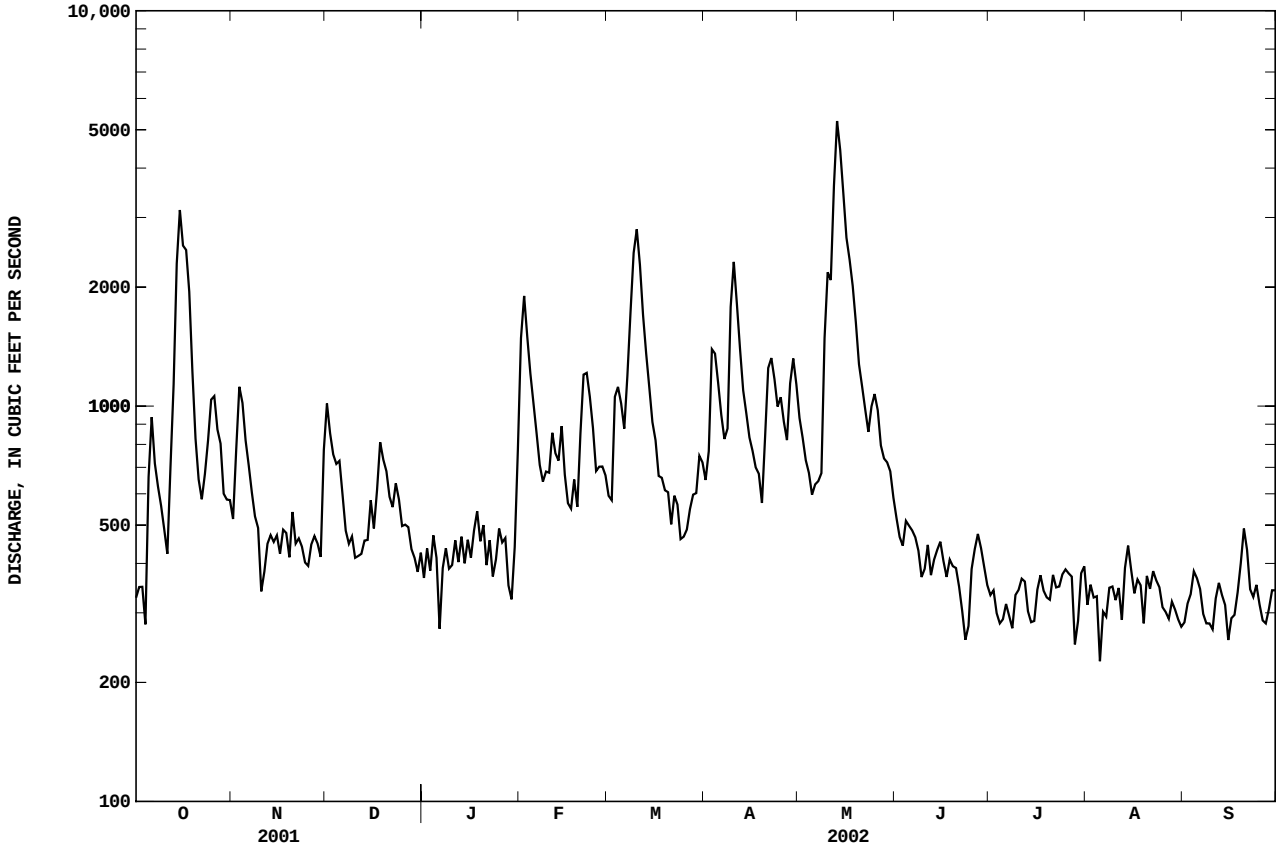
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

MEAN	363.0	370.1	407.6	430.9	612.5	570.5	621.7	709.4	658.7	391.8	347.3	266.0
MAX	976	540	569	587	1305	981	1094	1539	1187	637	505	398
(WY)	2002	2002	2002	1998	2001	2002	2002	2002	2000	1996	1995	1995
MIN	107	144	179	231	255	321	358	288	237	214	205	147
(WY)	1996	1999	1999	1996	1996	1996	1997	1999	1999	1997	1999	1997

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1995 - 2002	
ANNUAL TOTAL	190449		256168			
ANNUAL MEAN	521.8		701.8		478.1	
HIGHEST ANNUAL MEAN					702	2002
LOWEST ANNUAL MEAN					288	1999
HIGHEST DAILY MEAN	4130	Feb 10	5260	May 13	e8000	May 10 1996
LOWEST DAILY MEAN	106	Sep 23	226	Aug 5	83	Oct 16 1995
ANNUAL SEVEN-DAY MINIMUM	199	Sep 12	295	Aug 26	95	Oct 13 1995
MAXIMUM PEAK FLOW			5650	May 13	unknown	unknown
MAXIMUM PEAK STAGE			c5.77	Jun 3	unknown	unknown
10 PERCENT EXCEEDS	823		1210		819	
50 PERCENT EXCEEDS	416		487		383	
90 PERCENT EXCEEDS	223		309		182	

e Estimated
c Backwater

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 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	62	126	17	380	e105	e154	e157	92	102	61	e55
2	31	130	92	28	204	e172	e265	e134	80	92	152	e48
3	50	116	89	53	121	e220	e254	e125	94	103	79	e57
4	88	105	83	48	193	e200	e222	e111	87	104	79	e64
5	180	89	79	70	113	e167	e176	e144	58	62	77	e71
6	112	71	94	107	104	e235	e153	e135	63	-29	48	e78
7	63	59	86	118	94	e336	e169	e138	79	-8.2	3.5	65
8	36	87	79	81	106	e483	e237	e282	65	46	18	48
9	25	77	82	85	159	e540	e446	e395	75	93	55	65
10	30	85	60	118	e165	e451	e343	e297	68	57	46	53
11	89	92	77	133	e146	e315	e254	e572	78	-2.1	71	41
12	184	75	86	118	e141	e252	e210	e822	60	-17	65	54
13	169	69	92	129	e172	173	e179	e610	82	3.3	68	79
14	449	79	103	121	e129	188	e154	e430	84	4.2	68	53
15	221	71	114	112	e109	e155	e141	211	99	63	70	70
16	257	87	101	108	e106	e126	e131	194	102	90	90	80
17	233	80	127	109	e125	e165	e111	243	81	69	69	66
18	120	75	108	78	e106	e132	e100	144	87	61	67	82
19	118	92	88	71	e164	e116	e137	130	77	73	69	95
20	91	98	86	61	e230	e96	e205	87	86	66	71	80
21	e71	70	88	85	e235	e149	e241	99	57	70	73	57
22	e65	70	78	63	e202	e111	e225	127	63	123	119	49
23	e78	77	87	114	e172	e90	e170	138	54	107	e67	52
24	e90	96	67	140	e131	e90	e240	223	32	83	e84	71
25	e123	94	67	85	e169	e99	e167	149	88	81	e70	e63
26	e125	99	70	82	e145	e107	e144	137	87	101	e69	e76
27	e102	94	69	75	e123	e120	e176	94	121	87	e59	72
28	e93	95	61	105	e112	e112	e252	82	109	79	e57	68
29	e94	103	63	133	---	e151	e208	84	83	90	e53	56
30	96	156	47	177	---	e136	e176	85	96	100	e68	58
31	84	---	41	285	---	e121	---	119	---	70	e57	---
TOTAL	3604	2653	2590	3109	4356	5913	6040	6698	2387	2023.2	2102.5	1926
MEAN	116.3	88.43	83.55	100.3	155.6	190.7	201.3	216.1	79.57	65.26	67.82	64.20
MAX	449	156	127	285	380	540	446	822	121	123	152	95
MIN	25	59	41	17	94	90	100	82	32	-29	3.5	41

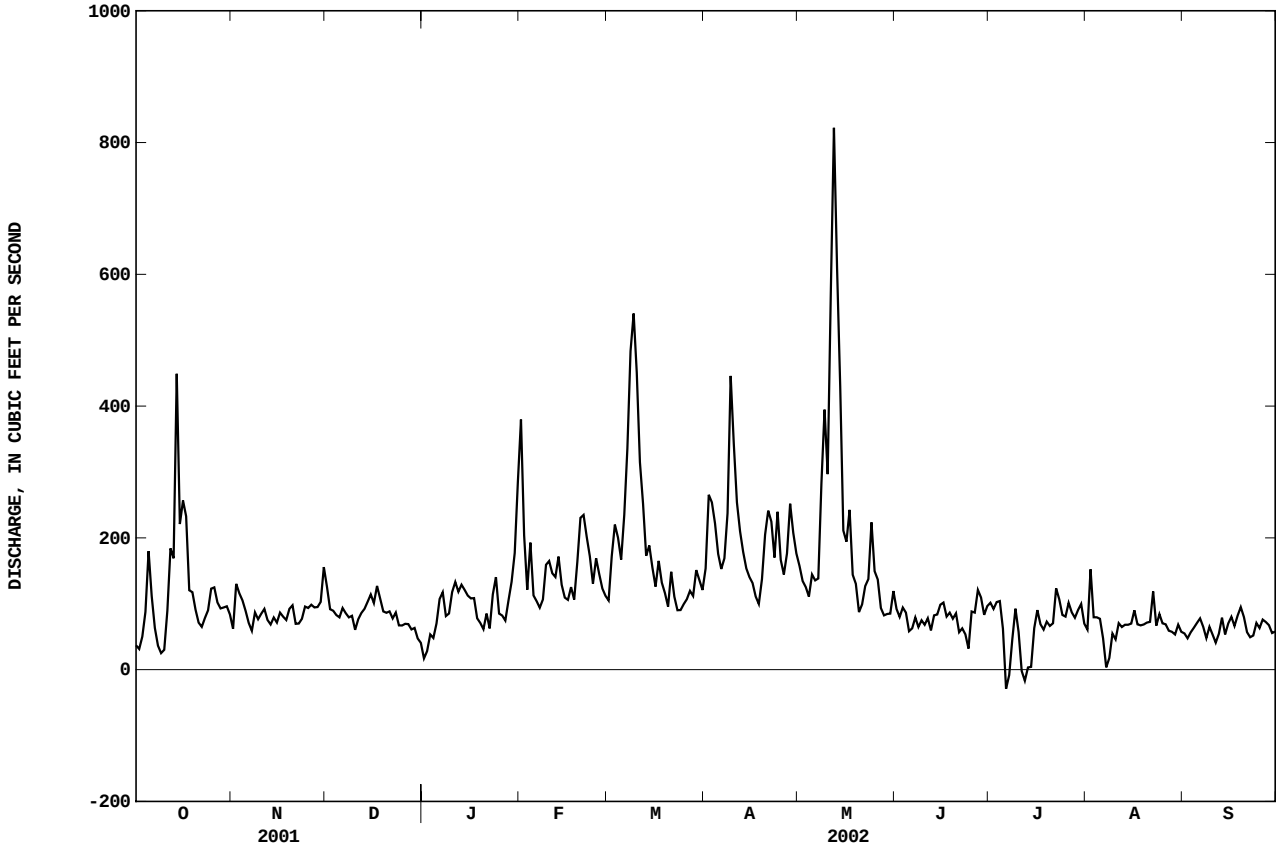
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

MEAN	114.6	123.4	131.2	133.2	147.0	145.3	159.6	151.1	127.4	112.4	98.72	92.59
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	97.8	88.4	83.5	100	108	117	124	111	79.6	65.3	67.8	64.2
(WY)	2001	2002	2002	2002	1998	2000	1998	2001	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1994 - 2002	
ANNUAL TOTAL	40867		43401.7			
ANNUAL MEAN	112.0		118.9		127.0	
HIGHEST ANNUAL MEAN					145	1995
LOWEST ANNUAL MEAN					114	2001
HIGHEST DAILY MEAN	650	Feb 10	e822	May 12	unknown	unknown
LOWEST DAILY MEAN	25	Oct 9	-29	Jul 6	unknown	unknown
ANNUAL SEVEN-DAY MINIMUM	42	Aug 11	20	Jul 6	unknown	unknown
MAXIMUM PEAK FLOW			unknown		unknown	unknown
MAXIMUM PEAK STAGE			unknown		unknown	unknown
10 PERCENT EXCEEDS	160		215		172	
50 PERCENT EXCEEDS	101		92		118	
90 PERCENT EXCEEDS	67		56		79	

e Estimated

04095380 TRAIL CREEK AT MICHIGAN CITY HARBOR, IN--Continued



04096100 GALENA RIVER NEAR LAPORTE, IN

LOCATION.--Lat 41°44'54", long 86°40'30", in SE$^1/_4$NW$^1/_4$ sec.17, T.38 N., R.2 W., LaPorte County, Hydrologic Unit 04040001, (SPRINGVILLE, IN quadrangle), on left bank at downstream side of bridge on County Road 125 East, 1.3 mi south of Indiana-Michigan State line, 7.5 mi west of LaPorte-St. Joseph County line, and 9.8 mi north of Courthouse in LaPorte.

DRAINAGE AREA.--17.2 mi^2, of which 2.30 mi^2 does not contribute directly to surface runoff.

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

REVISED RECORDS.--WDR IN-80-1: 1970, 1971(P), 1972, 1973, 1974(P), 1975 (M), 1976 (P), and 1978 (P).

GAGE.--Water-stage recorder. Datum of gage is 625.00 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum instantaneous gage height may have occurred Nov. 28, 1990 during period of no gage height record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	26	32	e18	57	22	26	26	22	17	11	9.6
2	14	50	27	e17	36	28	36	26	21	16	20	9.7
3	14	39	25	e18	29	55	34	25	22	16	14	9.8
4	15	32	24	e17	e25	e34	30	24	22	15	13	9.2
5	57	29	23	e18	e21	e28	28	23	21	15	12	9.1
6	41	27	23	19	23	e20	26	24	21	14	11	8.9
7	25	26	22	20	22	52	27	25	21	14	11	7.6
8	21	26	22	20	23	113	39	24	20	13	9.3	7.2
9	20	25	22	21	26	119	79	47	19	20	9.0	7.2
10	19	24	21	26	30	76	40	32	20	17	8.6	7.6
11	23	24	21	27	26	41	32	42	21	16	8.4	8.6
12	57	23	21	25	24	36	29	387	20	15	8.1	8.2
13	59	23	23	23	22	34	27	201	20	14	8.3	8.2
14	246	24	26	23	21	31	26	59	20	13	11	8.2
15	85	24	27	23	21	29	26	41	20	13	11	8.4
16	95	23	24	22	21	28	25	44	20	13	13	8.3
17	121	23	29	22	21	27	26	60	20	13	13	7.9
18	50	23	27	21	20	27	25	37	20	13	12	8.4
19	38	28	25	20	23	26	23	31	19	13	12	9.0
20	33	27	24	19	42	26	48	29	18	13	12	11
21	32	24	22	19	38	26	37	27	18	12	11	11
22	29	23	22	20	32	25	33	27	18	16	13	9.8
23	44	23	23	21	28	25	28	26	17	23	13	9.9
24	50	23	22	21	25	26	27	40	17	14	21	9.3
25	75	23	22	20	23	26	30	31	18	13	17	9.2
26	42	22	e18	19	25	26	26	28	19	13	13	9.2
27	36	22	e18	19	24	28	28	26	21	12	12	9.4
28	32	22	e19	19	23	30	37	25	19	12	11	9.5
29	30	24	e19	19	---	31	30	25	18	13	9.3	10
30	28	43	e17	22	---	31	27	24	17	13	9.0	10
31	28	---	e18	41	---	28	---	23	---	12	8.8	---
TOTAL	1473	795	708	659	751	1154	955	1509	589	446	365.8	269.4
MEAN	47.52	26.50	22.84	21.26	26.82	37.23	31.83	48.68	19.63	14.39	11.80	8.980
MAX	246	50	32	41	57	119	79	387	22	23	21	11
MIN	14	22	17	17	20	20	23	23	17	12	8.1	7.2
CFSM	2.76	1.54	1.33	1.24	1.56	2.16	1.85	2.83	1.14	0.84	0.69	0.52
IN.	3.19	1.72	1.53	1.43	1.62	2.50	2.07	3.26	1.27	0.96	0.79	0.58

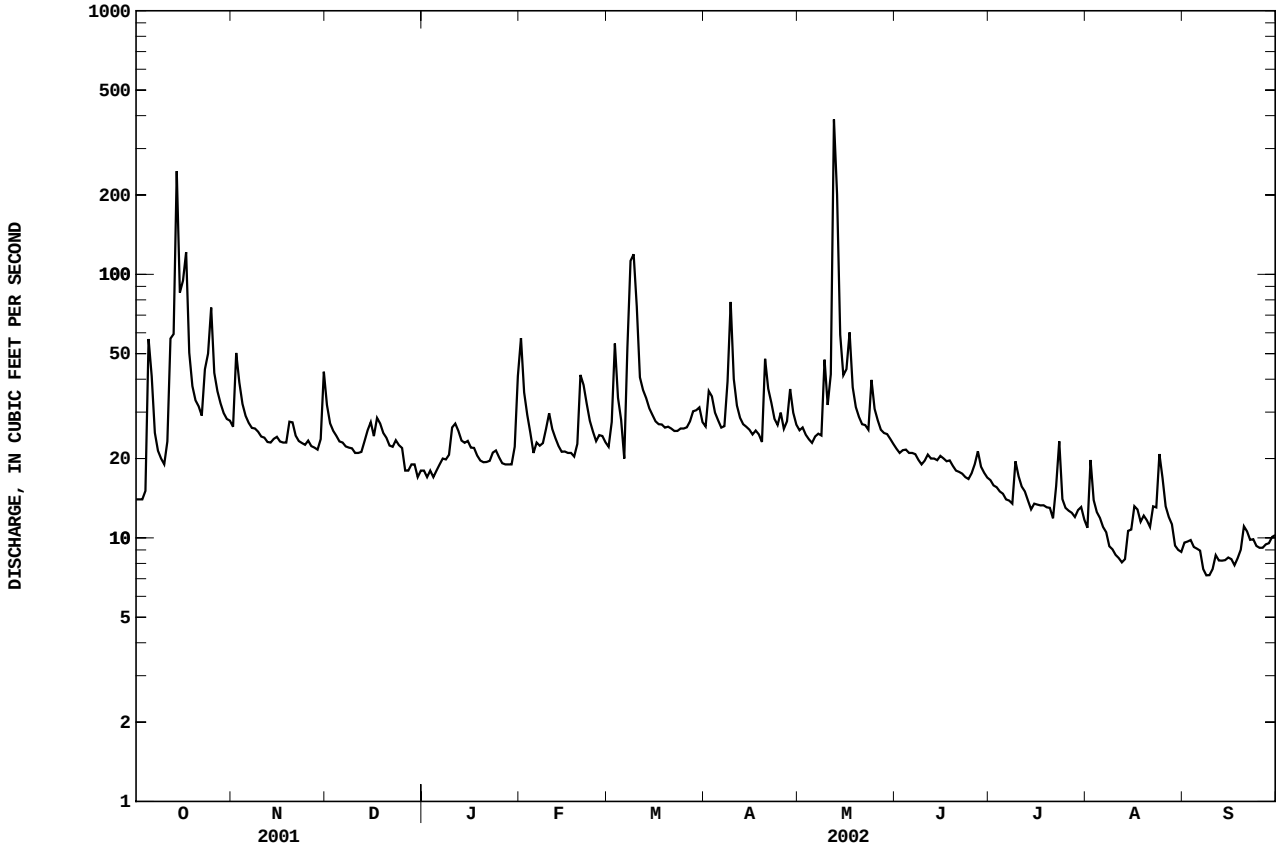
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	23.16	29.80	29.77	27.26	31.72	36.88	33.98	27.53	24.06	17.52	15.62	16.49
MAX	47.5	64.4	51.8	54.5	65.3	70.1	56.0	65.5	69.7	39.0	28.5	32.6
(WY)	2002	1991	1973	1998	1997	1982	1970	1996	1993	1996	1996	1993
MIN	14.8	15.7	15.6	15.0	19.2	19.4	18.2	15.5	12.3	10.3	9.71	8.98
(WY)	1990	2000	1990	1976	1980	1981	1971	1992	1971	1988	1970	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	9091.6		9674.2			
ANNUAL MEAN	24.91		26.50		26.11	
HIGHEST ANNUAL MEAN					35.4	1993
LOWEST ANNUAL MEAN					19.1	2000
HIGHEST DAILY MEAN	272	Feb 9	387	May 12	650	Nov 28 1990
LOWEST DAILY MEAN	9.1	Aug 6	7.2	Sep 8	6.7	Sep 13 1973
ANNUAL SEVEN-DAY MINIMUM	9.8	Aug 9	7.8	Sep 7	7.6	Aug 27 1970
MAXIMUM PEAK FLOW			521	May 12	900	Nov 28 1990
MAXIMUM PEAK STAGE			6.28	May 12	7.04	Jun 8 1993
ANNUAL RUNOFF (CFSM)	1.45		1.54		1.52	
ANNUAL RUNOFF (INCHES)	19.66		20.92		20.62	
10 PERCENT EXCEEDS	36		39		42	
50 PERCENT EXCEEDS	21		23		21	
90 PERCENT EXCEEDS	11		10		12	

e Estimated

04096100 GALENA RIVER NEAR LAPORTE, IN--Continued



04099510 PIGEON CREEK NEAR ANGOLA, IN

LOCATION.--Lat 41°38'04", long 85°06'35", in NW1/4SE1/4 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 datum. Oct. 1947 to Aug. 3, 1953, nonrecording gage at site 1.2 mi upstream at same datum. Aug. 4, 1953, to Apr. 3, 1974, recording gage at site 1.3 mi upstream at same datum. Apr. 18, 1974, to Sept. 2, 1974, nonrecording gage at same site and datum.

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

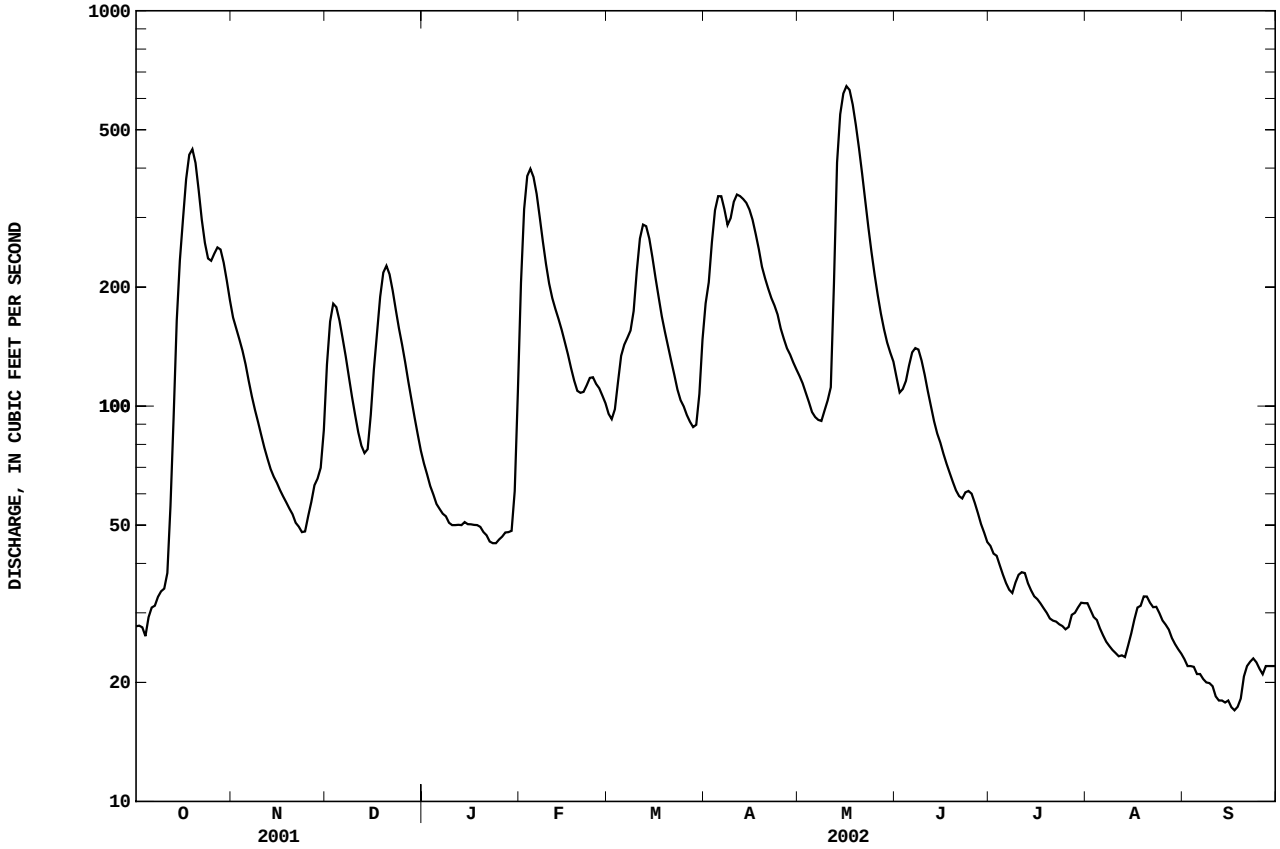
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	168	127	72	205	96	182	119	118	44	32	23
2	28	157	164	67	315	93	206	114	108	42	30	22
3	28	148	182	63	382	98	260	108	110	42	29	22
4	26	138	178	60	398	115	313	102	116	40	29	22
5	29	127	165	57	380	134	340	97	127	37	27	21
6	31	116	148	55	344	143	339	94	137	36	26	21
7	31	106	134	53	300	149	315	92	140	34	25	20
8	33	98	119	53	260	155	287	92	139	34	25	20
9	34	91	106	51	229	174	299	97	130	36	24	20
10	35	84	95	50	204	219	329	103	120	37	24	20
11	38	78	86	50	188	265	343	112	109	38	23	18
12	56	74	79	50	176	288	340	204	100	38	23	18
13	94	69	76	50	166	285	334	413	92	36	23	18
14	165	66	78	51	156	265	327	547	85	34	25	18
15	234	64	95	50	145	238	314	618	81	33	27	18
16	298	61	124	50	135	211	296	645	76	32	29	17
17	375	59	153	50	125	188	272	630	71	32	31	17
18	432	57	189	50	116	169	249	579	68	31	31	17
19	447	55	218	49	109	154	225	514	64	30	33	18
20	412	53	226	48	108	142	210	449	61	29	33	21
21	352	51	215	47	109	130	198	388	59	29	32	22
22	296	50	196	45	113	120	188	331	58	28	31	23
23	259	48	175	45	118	110	180	283	60	28	31	23
24	236	48	157	45	118	104	170	245	61	28	30	22
25	233	53	143	46	114	100	157	215	60	27	29	22
26	243	57	129	47	111	95	148	191	57	28	28	21
27	252	63	115	48	106	91	140	171	54	30	27	22
28	249	66	104	48	102	88	135	156	50	30	26	22
29	231	70	94	48	---	90	129	145	48	31	25	22
30	208	87	85	61	---	107	124	137	45	32	24	22
31	185	---	77	108	---	147	---	130	---	32	24	---
TOTAL	5598	2462	4232	1667	5332	4763	7349	8121	2604	1038	856	612
MEAN	180.6	82.07	136.5	53.77	190.4	153.6	245.0	262.0	86.80	33.48	27.61	20.40
MAX	447	168	226	108	398	288	343	645	140	44	33	23
MIN	26	48	76	45	102	88	124	92	45	27	23	17
CFSM	2.16	0.98	1.63	0.64	2.28	1.84	2.93	3.14	1.04	0.40	0.33	0.24
IN.	2.49	1.10	1.89	0.74	2.38	2.12	3.27	3.62	1.16	0.46	0.38	0.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2002, BY WATER YEAR (WY)

MEAN	36.97	54.01	76.63	93.98	111.9	158.9	164.7	117.3	82.11	49.98	37.74	32.58
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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1946 - 2002	
ANNUAL TOTAL	41825		44634			
ANNUAL MEAN	114.6		122.3		84.53	
HIGHEST ANNUAL MEAN					151	1950
LOWEST ANNUAL MEAN					19.5	1964
HIGHEST DAILY MEAN	711	Feb 13	645	May 16	996	May 21 1996
LOWEST DAILY MEAN	20	Aug 15	17	Sep 16	3.4	Oct 25 1964
ANNUAL SEVEN-DAY MINIMUM	21	Aug 12	18	Sep 12	3.5	Oct 22 1964
MAXIMUM PEAK FLOW			648	May 16	1000	May 21 1996
MAXIMUM PEAK STAGE			10.08	May 16	13.90	Mar 22 1982
ANNUAL RUNOFF (CFSM)	1.37		1.46		1.01	
ANNUAL RUNOFF (INCHES)	18.63		19.88		13.76	
10 PERCENT EXCEEDS	232		287		189	
50 PERCENT EXCEEDS	80		92		54	
90 PERCENT EXCEEDS	28		24		17	

04099510 PIGEON CREEK NEAR ANGOLA, IN--Continued



04099750 PIGEON RIVER NEAR SCOTT, IN

LOCATION.--Lat 41°44'56", long 85°34'35", in SE$^1/_4$NW$^1/_4$ sec.14, T.38 N., R.8 E., Lagrange County, Hydrologic Unit 04050001, (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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135	494	416	e270	761	482	447	439	497	e210	177	128
2	133	486	411	e260	998	485	506	438	472	e200	175	129
3	130	459	406	e250	1020	541	656	437	476	194	164	124
4	127	423	429	e245	990	563	745	417	560	183	160	117
5	156	400	428	e240	992	549	723	383	599	178	157	114
6	192	365	423	e232	988	546	724	379	612	171	141	111
7	181	351	408	e224	968	587	739	376	618	168	137	108
8	167	341	382	e219	925	653	769	380	555	164	135	113
9	158	328	357	e214	868	710	869	457	525	215	132	113
10	153	314	324	e210	822	800	940	486	499	290	128	111
11	159	298	311	220	759	841	894	467	474	242	127	107
12	246	286	302	230	699	797	852	773	457	212	129	101
13	374	275	303	224	659	786	846	1370	443	192	126	97
14	367	240	311	220	608	782	834	1650	406	178	156	96
15	466	261	349	220	585	753	815	1480	413	171	158	99
16	521	261	363	219	573	715	778	1430	398	154	153	101
17	629	250	387	216	552	670	754	1470	370	152	155	98
18	669	243	459	213	526	613	723	1500	332	151	152	98
19	672	239	482	207	508	542	682	1450	323	140	156	101
20	689	233	505	203	529	518	691	1380	310	132	160	113
21	696	226	506	202	567	488	708	1290	292	137	154	120
22	694	221	483	200	578	449	685	1200	283	144	150	120
23	697	215	483	201	550	408	626	1080	275	172	149	119
24	697	214	468	207	521	409	578	987	e265	162	165	115
25	699	258	438	206	512	407	555	889	e260	152	161	112
26	709	289	e400	200	458	399	506	798	e320	148	156	112
27	658	271	e370	198	536	389	476	714	e400	170	e150	111
28	627	261	e340	197	493	392	496	648	e360	178	e142	116
29	603	269	e320	198	---	405	491	611	e240	180	e137	115
30	572	334	e300	281	---	442	455	577	e220	215	e132	117
31	528	---	e280	461	---	452	---	538	---	209	129	---
TOTAL	13504	9105	12144	7087	19545	17573	20563	26494	12254	5564	4603	3336
MEAN	435.6	303.5	391.7	228.6	698.0	566.9	685.4	854.6	408.5	179.5	148.5	111.2
MAX	709	494	506	461	1020	841	940	1650	618	290	177	129
MIN	127	214	280	197	458	389	447	376	220	132	126	96
CFSM	1.42	0.99	1.28	0.74	2.27	1.85	2.23	2.78	1.33	0.58	0.48	0.36
IN.	1.64	1.10	1.47	0.86	2.37	2.13	2.49	3.21	1.48	0.67	0.56	0.40

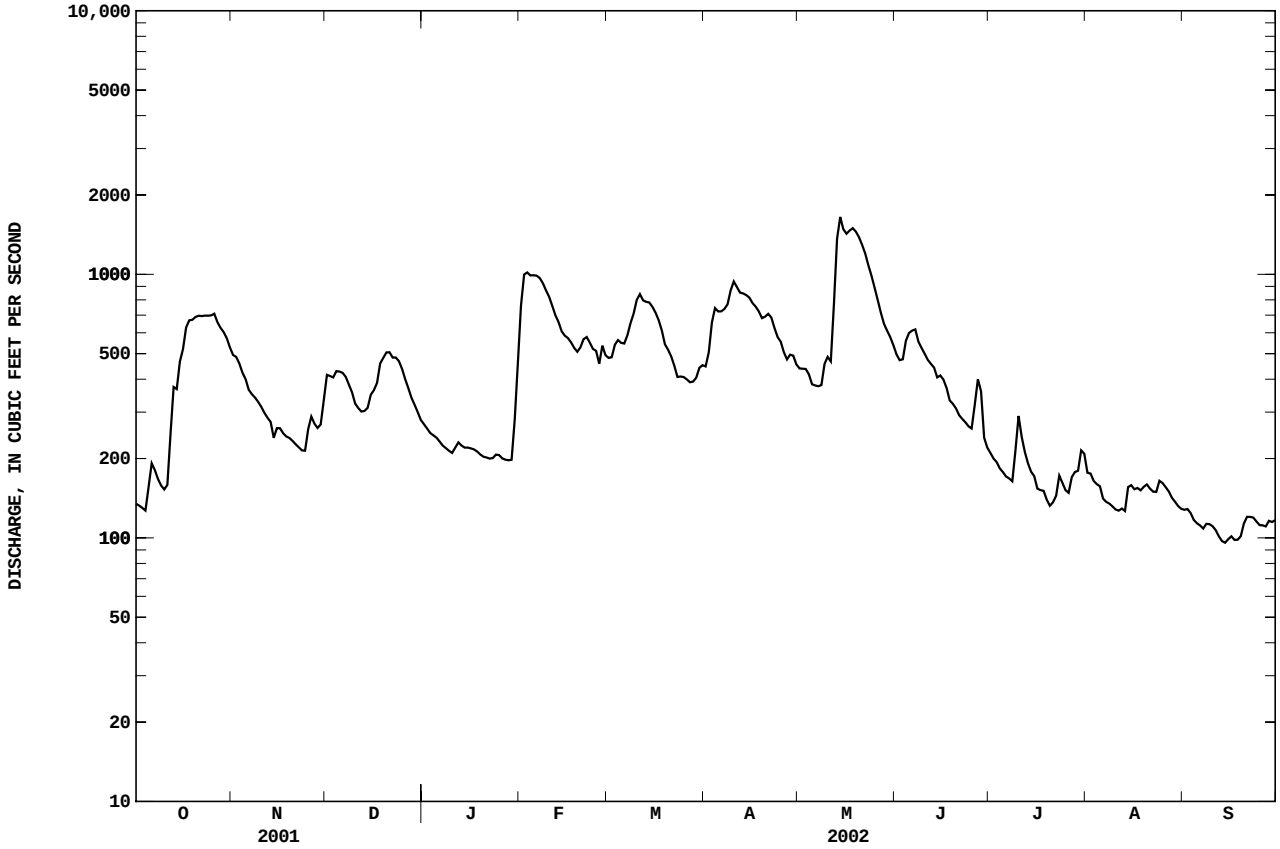
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2002, BY WATER YEAR (WY)

MEAN	225.8	294.4	360.0	391.2	452.2	589.6	595.4	464.6	385.6	260.9	220.2	201.4
MAX	575	684	719	1169	875	1389	1089	976	1103	654	516	538
(WY)	1987	1993	1983	1993	2001	1982	1978	1996	1981	1981	1981	1981
MIN	96.3	96.7	157	166	143	279	324	233	132	104	92.5	85.8
(WY)	1972	1972	1972	2000	1972	2000	1971	1971	1988	1988	1988	1971

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1968 - 2002	
ANNUAL TOTAL	130852		151772			
ANNUAL MEAN	358.5		415.8		366.7	
HIGHEST ANNUAL MEAN					545	1993
LOWEST ANNUAL MEAN					207	1972
HIGHEST DAILY MEAN	1410	Feb 11	1650	May 14	2340	Mar 21 1982
LOWEST DAILY MEAN	106	Aug 14	96	Sep 14	42	Oct 21 1971
ANNUAL SEVEN-DAY MINIMUM	112	Aug 9	99	Sep 12	69	Aug 27 1971
MAXIMUM PEAK FLOW			1710	May 14	2370	Mar 21 1982
MAXIMUM PEAK STAGE			6.88	May 14	7.85	Mar 21 1982
ANNUAL RUNOFF (CFSM)	1.17		1.35		1.19	
ANNUAL RUNOFF (INCHES)	15.86		18.39		16.23	
10 PERCENT EXCEEDS	642		775		685	
50 PERCENT EXCEEDS	311		365		295	
90 PERCENT EXCEEDS	138		130		148	

e Estimated

04099750 PIGEON RIVER NEAR SCOTT, IN--Continued



04099808 LITTLE ELKHART RIVER AT MIDDLEBURY, IN

LOCATION.--Lat 41°40'31", long 85°42'01", in NE$^1/_4$SE$^1/_4$ sec.10, T.37 N., R.7 E., Elkhart County, Hydrologic Unit 04050001, (MIDDLEBURY, IN quadrangle), on left bank 15 ft downstream from bridge on County Road 16, 0.1 mi east of Middlebury, 0.4 mi upstream from intersection of State Road 13 bridge and Little Elkhart River, and 1.7 mi downstream from Rowe Eden Ditch.

DRAINAGE AREA.--97.6 mi^2, of which 5.89 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1979 to current year.

REVISED RECORDS.--WDR IN-82-1: 1980, 1981. WDR IN-92-1: 1991.

GAGE.--Water-stage recorder. Datum of gage is 810.00 ft above 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	93	108	e68	530	93	120	101	105	70	46	35
2	39	102	92	e67	308	100	167	103	101	66	53	34
3	39	102	85	e66	232	194	264	98	123	63	51	34
4	40	94	80	66	197	164	177	94	125	58	50	33
5	55	90	76	66	168	132	153	91	139	57	50	35
6	61	87	74	66	151	132	138	91	141	56	48	34
7	56	85	72	65	140	186	129	91	122	57	44	32
8	52	83	70	64	133	172	146	105	111	55	41	34
9	50	81	69	65	127	243	266	166	104	68	39	35
10	49	80	67	65	125	250	193	138	100	67	40	35
11	51	78	66	65	118	179	164	124	97	63	41	36
12	102	76	66	64	114	162	150	871	94	59	40	36
13	103	74	68	63	108	151	141	777	93	56	37	35
14	153	73	78	63	104	139	134	423	95	52	43	35
15	154	72	116	64	102	132	127	307	95	51	45	35
16	163	71	96	65	99	124	120	259	90	46	45	35
17	183	68	124	65	97	118	116	331	87	46	45	35
18	146	68	131	63	93	114	113	246	90	48	45	35
19	124	68	110	62	95	110	108	211	84	50	49	36
20	110	66	101	61	116	108	139	190	80	50	47	39
21	102	65	93	61	131	105	134	176	78	47	44	39
22	99	64	89	60	115	101	128	163	77	50	45	38
23	114	63	89	61	105	100	119	152	76	49	46	37
24	126	64	86	62	101	98	112	144	74	46	46	36
25	165	66	82	61	97	98	108	138	79	42	44	36
26	135	63	80	60	99	98	102	132	88	45	43	36
27	121	63	79	59	98	97	102	125	84	54	42	36
28	111	62	77	59	95	102	115	120	77	54	37	37
29	104	65	75	59	---	121	109	118	74	55	35	37
30	98	114	e70	133	---	169	104	114	72	56	35	36
31	95	---	e69	356	---	132	---	111	---	50	34	---
TOTAL	3039	2300	2638	2324	3998	4224	4198	6310	2855	1686	1350	1066
MEAN	98.03	76.67	85.10	74.97	142.8	136.3	139.9	203.5	95.17	54.39	43.55	35.53
MAX	183	114	131	356	530	250	266	871	141	70	53	39
MIN	39	62	66	59	93	93	102	91	72	42	34	32
CFSM	1.07	0.84	0.93	0.82	1.56	1.49	1.53	2.22	1.04	0.59	0.47	0.39
IN.	1.23	0.93	1.07	0.94	1.62	1.71	1.70	2.56	1.16	0.68	0.55	0.43

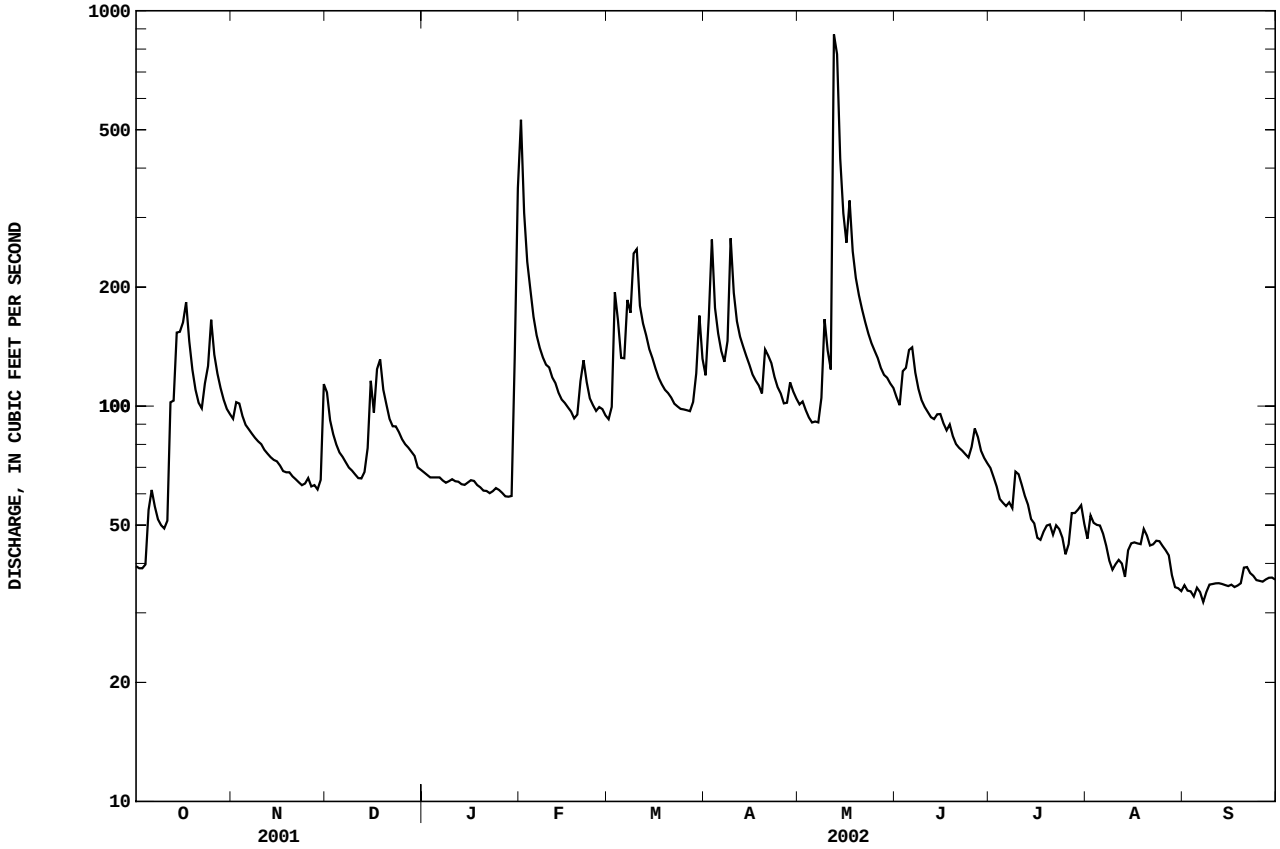
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)

MEAN	76.74	93.23	103.8	110.2	126.3	143.1	134.9	111.6	100.7	69.32	61.44	59.85
MAX	172	202	207	307	280	404	210	264	278	189	160	118
(WY)	1991	1986	1991	1993	1985	1982	1985	1996	1993	1981	1998	1981
MIN	36.0	38.6	36.4	42.7	52.4	56.8	78.5	55.3	36.7	34.9	37.7	35.5
(WY)	1995	1981	2001	2000	2000	2000	2000	1988	1988	2001	2001	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1980 - 2002	
ANNUAL TOTAL	27942		35988			
ANNUAL MEAN	76.55		98.60		99.09	
HIGHEST ANNUAL MEAN					155	1993
LOWEST ANNUAL MEAN					53.0	2000
HIGHEST DAILY MEAN	659	Feb 10	871	May 12	2040	Feb 24 1985
LOWEST DAILY MEAN	22	Aug 14	32	Sep 7	22	Aug 14 2001
ANNUAL SEVEN-DAY MINIMUM	24	Aug 8	34	Sep 2	24	Aug 8 2001
MAXIMUM PEAK FLOW			1700	May 12	2470	Feb 24 1985
MAXIMUM PEAK STAGE			9.60	May 12	10.52	Feb 24 1985
ANNUAL RUNOFF (CFSM)	0.83		1.08		1.08	
ANNUAL RUNOFF (INCHES)	11.34		14.60		14.68	
10 PERCENT EXCEEDS	121		157		165	
50 PERCENT EXCEEDS	67		84		78	
90 PERCENT EXCEEDS	32		39		42	

e Estimated

04099808 LITTLE ELKHART RIVER AT MIDDLEBURY, IN--Continued



04099850 PINE CREEK NEAR ELKHART, IN

LOCATION.--Lat 41°40'53", long 85°52'57", in NE$^1/_4$NW$^1/_4$ sec.7, T.37 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, (ELKHART, IN quadrangle), on right bank 50 ft upstream from bridge on County Road 14, 0.3 mi east of the intersection of County Roads 17 and 14, 3.1 mi east of Elkhart, and at mile 2.0.

DRAINAGE AREA.--31.0 mi^2, of which 8.75 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 755.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	18	27	e11	175	e16	21	16	22	21	11	11
2	7.8	26	20	e11	55	19	42	16	22	20	21	11
3	7.6	25	18	e11	32	57	43	15	28	19	20	11
4	7.5	21	17	e11	28	e20	25	14	31	18	19	11
5	13	19	16	12	23	e23	21	13	31	18	18	11
6	21	18	15	12	20	27	19	13	29	17	17	11
7	15	18	15	12	19	43	18	13	26	17	16	10
8	13	17	14	12	18	40	28	17	24	16	16	10
9	12	17	14	12	19	78	46	49	23	20	15	10
10	11	17	13	12	21	64	27	58	22	18	15	9.9
11	11	16	13	12	20	e30	23	41	23	17	14	9.8
12	34	15	13	12	18	e26	22	110	22	e13	14	9.8
13	27	15	14	12	17	e25	20	128	21	e13	14	9.4
14	64	15	20	12	16	e23	20	67	21	e12	15	9.4
15	40	15	32	12	16	e21	18	53	22	e11	16	9.5
16	59	14	22	12	16	e20	17	46	21	e11	15	9.5
17	61	14	31	12	16	e19	17	54	20	e10	15	9.3
18	36	14	30	11	15	e18	16	48	21	e11	14	9.3
19	27	14	23	11	16	e17	16	e36	20	e12	15	9.4
20	23	14	21	11	23	e17	26	e33	19	e13	15	10
21	20	13	19	11	26	e16	23	e31	18	e12	14	9.7
22	20	13	18	10	21	e16	21	e30	18	e13	14	9.3
23	27	13	18	11	18	e15	18	e29	18	e12	14	9.2
24	31	13	17	11	18	e15	17	e28	17	e12	14	9.0
25	45	13	e15	11	17	e15	17	e27	32	9.5	14	9.0
26	28	13	e14	11	19	e15	16	e26	63	12	14	8.6
27	25	13	e14	11	20	e16	16	e25	33	16	13	8.4
28	22	12	e14	10	e17	e19	22	e24	26	13	12	8.3
29	21	14	e12	10	---	e24	18	e22	23	12	11	8.4
30	19	35	e10	36	---	33	17	23	21	12	12	8.0
31	19	---	e11	108	---	24	---	23	---	11	11	---
TOTAL	774.8	494	550	473	739	811	670	1128	737	441.5	458	289.2
MEAN	24.99	16.47	17.74	15.26	26.39	26.16	22.33	36.39	24.57	14.24	14.77	9.640
MAX	64	35	32	108	175	78	46	128	63	21	21	11
MIN	7.5	12	10	10	15	15	16	13	17	9.5	11	8.0
CFSM	0.81	0.53	0.57	0.49	0.85	0.84	0.72	1.17	0.79	0.46	0.48	0.31
IN.	0.93	0.59	0.66	0.57	0.89	0.97	0.80	1.35	0.88	0.53	0.55	0.35

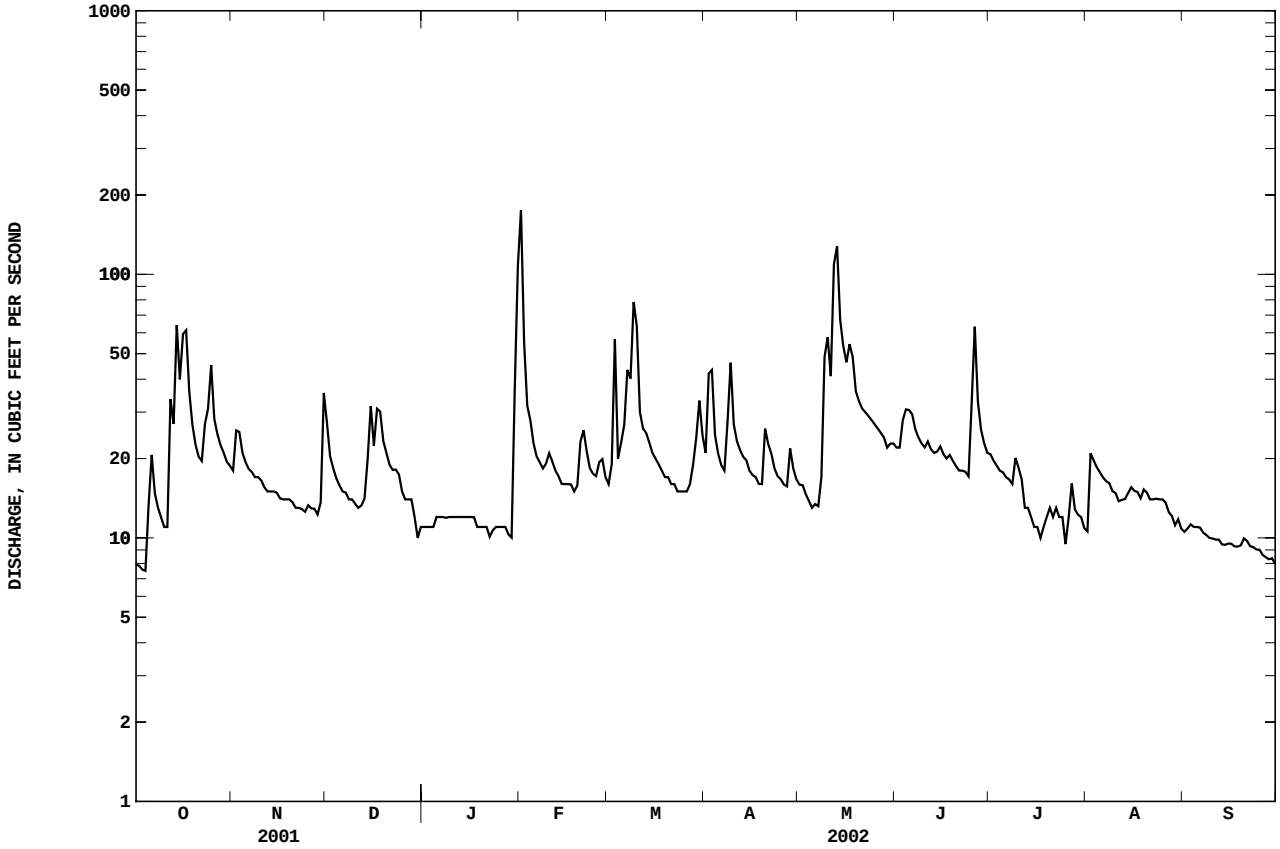
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)

MEAN	14.76	16.53	19.22	19.30	22.92	26.07	25.91	21.71	21.98	15.44	13.02	12.03
MAX	42.4	32.8	52.7	45.6	47.6	82.3	42.7	50.7	68.1	39.2	26.7	23.7
(WY)	1991	1986	1991	1993	1985	1982	1999	1996	1993	1981	1997	1981
MIN	4.12	5.26	4.44	4.96	8.13	9.71	12.5	8.00	7.79	6.17	5.01	3.22
(WY)	2001	2001	2001	2001	2000	2000	2000	2000	1988	2001	2000	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1980 - 2002		
ANNUAL TOTAL	5688.6		7565.5				
ANNUAL MEAN	15.59		20.73		19.05		
HIGHEST ANNUAL MEAN					30.1		1993
LOWEST ANNUAL MEAN					8.29		2000
HIGHEST DAILY MEAN	262	Feb 10	175	Feb 1	532	Dec 30	1990
LOWEST DAILY MEAN	1.8	Aug 9	7.5	Oct 4	1.8	Aug 9	2001
ANNUAL SEVEN-DAY MINIMUM	2.5	Aug 8	8.5	Sep 24	2.2	Sep 2	2000
MAXIMUM PEAK FLOW			210	May 12	607	Dec 30	1990
MAXIMUM PEAK STAGE			5.29	Feb 1	9.74	Jul 26	1981
ANNUAL RUNOFF (CFSM)	0.50		0.67		0.61		
ANNUAL RUNOFF (INCHES)	6.83		9.08		8.35		
10 PERCENT EXCEEDS	25		32		31		
50 PERCENT EXCEEDS	12		17		15		
90 PERCENT EXCEEDS	4.5		11		7.2		

e Estimated

04099850 PINE CREEK NEAR ELKHART, IN--Continued



04100222 NORTH BRANCH ELKHART RIVER AT COSPERVILLE, IN

LOCATION.--Lat 41°28'54", long 85°28'32", in NE$^1/_4$NW$^1/_4$ 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).

REMARKS.--Records good 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	241	195	e155	269	159	225	205	203	61	26	20
2	15	235	201	e147	318	158	249	199	189	56	26	19
3	14	231	202	e140	335	176	292	191	178	53	26	17
4	13	223	201	134	342	183	311	182	171	49	24	16
5	24	215	198	128	342	184	314	172	183	46	23	15
6	44	204	193	122	336	184	314	165	187	42	22	14
7	44	194	190	118	327	194	312	161	180	39	19	14
8	42	183	184	113	315	199	318	159	168	35	17	13
9	38	174	176	109	302	219	347	171	158	38	15	12
10	34	165	169	107	290	248	361	180	146	37	14	12
11	40	158	163	105	278	260	360	187	136	23	14	11
12	104	149	158	103	261	260	358	264	128	17	13	10
13	148	144	156	102	248	259	360	331	120	16	12	9.6
14	189	134	164	101	232	259	359	363	114	16	12	9.1
15	212	129	186	100	217	254	349	379	107	14	11	8.7
16	238	124	195	99	206	251	341	386	102	14	11	8.1
17	257	120	220	96	194	245	331	401	96	14	11	7.4
18	266	116	244	95	182	236	321	402	94	14	11	7.6
19	267	110	253	93	175	229	305	399	90	14	13	7.7
20	265	106	253	93	178	220	302	393	84	14	16	7.9
21	259	102	251	90	183	210	299	380	79	15	18	6.6
22	262	98	247	87	186	199	289	363	76	16	19	5.9
23	265	95	241	86	183	188	279	348	72	16	21	5.4
24	273	95	234	87	178	183	267	333	67	17	24	5.1
25	289	130	225	87	171	181	250	319	70	18	26	5.6
26	288	135	215	86	170	176	239	302	89	18	28	7.2
27	287	136	205	86	168	171	229	284	81	19	28	11
28	283	133	195	86	164	169	224	266	77	19	27	15
29	274	138	185	86	---	178	219	249	72	21	25	17
30	265	175	e172	110	---	205	212	233	67	25	24	19
31	253	---	e163	175	---	218	---	217	---	26	22	---
TOTAL	5268	4592	6234	3326	6750	6455	8936	8584	3584	822	598	336.9
MEAN	169.9	153.1	201.1	107.3	241.1	208.2	297.9	276.9	119.5	26.52	19.29	11.23
MAX	289	241	253	175	342	260	361	402	203	61	28	20
MIN	13	95	156	86	164	158	212	159	67	14	11	5.1
CFSM	1.20	1.08	1.42	0.76	1.70	1.47	2.10	1.95	0.84	0.19	0.14	0.08
IN.	1.38	1.20	1.63	0.87	1.77	1.69	2.34	2.25	0.94	0.22	0.16	0.09

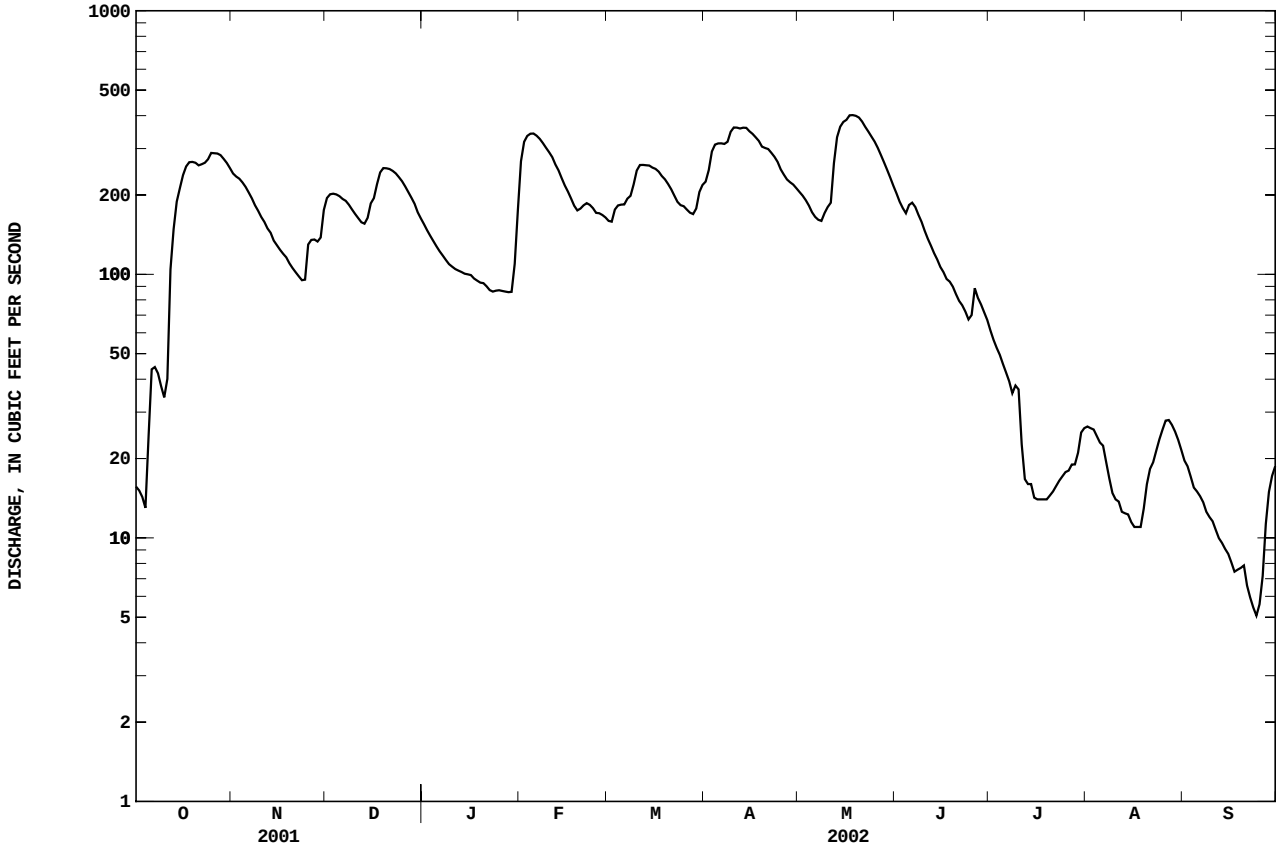
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2002, BY WATER YEAR (WY)

MEAN	81.16	114.5	138.9	156.5	163.4	249.3	242.0	172.4	142.6	81.89	61.00	61.92
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	46.5	42.2	43.2	87.2	111	67.2	18.1	16.4	18.3	9.59
(WY)	1975	1972	1972	1977	1972	2000	2000	1988	1988	1988	1978	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1972 - 2002	
ANNUAL TOTAL	46042.1		55485.9			
ANNUAL MEAN	126.1		152.0		138.6	
HIGHEST ANNUAL MEAN					222	1993
LOWEST ANNUAL MEAN					69.5	2000
HIGHEST DAILY MEAN	429	Feb 15	402	May 18	916	Mar 22 1982
LOWEST DAILY MEAN	8.0	Aug 13	5.1	Sep 24	2.2	Jul 7 1988
ANNUAL SEVEN-DAY MINIMUM	8.5	Aug 12	6.2	Sep 20	2.8	Jul 3 1988
MAXIMUM PEAK FLOW			403	May 17	919	Mar 23 1982
MAXIMUM PEAK STAGE			6.19	May 17	8.12	Mar 23 1982
ANNUAL RUNOFF (CFSM)	0.89		1.07		0.98	
ANNUAL RUNOFF (INCHES)	12.06		14.54		13.26	
10 PERCENT EXCEEDS	265		303		296	
50 PERCENT EXCEEDS	108		163		108	
90 PERCENT EXCEEDS	17		14		30	

e Estimated

04100222 NORTH BRANCH ELKHART RIVER AT COSPERVILLE, IN--Continued



04100252 FORKER CREEK NEAR BURR OAK, IN

LOCATION.--Lat 41°19'58", long 85°25'25", in SE$^1/_4$NE$^1/_4$ sec.12, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001, (MERRIAM, IN quadrangle), on right bank 300 ft downstream from bridge on State Highway 9, and 400 ft downstream from Miller Lake Outlet, 0.8 mi northeast of Burr Oak, and 4.5 mi south of Albion.

DRAINAGE AREA.--19.2 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 889.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Occasional regulation at Miller Lake Outlet.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.76	32	64	21	89	e14	e64	33	16	e5.6	e1.9	e1.4
2	0.76	30	64	21	109	e16	e80	32	14	e5.0	e1.9	e1.6
3	0.69	30	54	21	93	e43	e104	31	14	e4.1	e1.8	e1.5
4	0.78	29	46	20	72	e33	e80	30	14	e3.7	e1.8	e1.4
5	1.2	26	39	19	54	e29	e66	29	16	e2.8	e1.7	e1.2
6	1.5	25	35	20	42	e27	e56	29	16	e2.3	e1.7	e1.1
7	1.4	25	32	21	33	e30	e45	29	15	e2.4	e1.6	e1.2
8	1.3	23	29	23	28	e28	e56	29	14	e2.5	e1.6	e1.3
9	1.2	22	27	23	24	e60	e96	35	12	e4.7	e1.7	e1.3
10	1.9	21	26	24	21	e76	e88	40	12	e8.4	e1.7	e1.4
11	5.7	21	25	24	19	e60	79	43	11	e6.0	e1.8	e1.5
12	25	20	25	24	17	e50	65	78	11	e4.8	e1.9	e1.4
13	55	19	25	24	e16	e40	66	112	e10	e4.1	e2.1	e1.3
14	79	19	29	25	e15	e35	66	105	e12	e3.6	e2.5	e1.3
15	87	19	43	25	e14	e30	58	82	e12	e3.3	e2.7	e1.2
16	91	19	54	26	e13	e26	49	64	e10	e3.0	e3.0	e1.1
17	97	19	66	26	e12	e23	44	55	e9.0	e2.7	e2.9	e1.1
18	89	18	83	26	e12	e20	45	46	e7.6	e2.5	e2.5	e1.4
19	72	18	81	25	e13	e19	41	39	e6.6	e2.4	e2.9	e1.7
20	59	18	65	25	e17	e17	40	34	e6.0	e2.3	e2.7	e3.5
21	50	17	53	25	e22	16	42	29	e20	e2.2	e2.1	e3.3
22	52	17	44	26	e21	e14	43	26	e26	e2.4	e2.2	e2.5
23	63	17	39	26	e17	e12	41	24	e20	e2.7	e2.9	e1.8
24	75	18	35	26	e16	e12	38	22	e16	e2.0	e2.7	e1.5
25	84	20	e32	26	e15	e13	34	20	e13	e1.9	e2.5	e1.2
26	79	22	e29	26	e18	e13	32	19	e12	e6.8	e2.0	e1.2
27	67	23	27	26	e16	e15	31	17	e10	e9.0	e1.8	e2.5
28	54	23	26	27	e15	e17	34	16	e8.3	e5.4	e1.7	e2.1
29	46	26	e24	27	---	e32	36	17	e7.2	e3.8	e1.6	e1.7
30	40	44	e23	27	---	e64	35	17	e6.4	e2.8	e1.6	e1.4
31	35	---	22	39	---	e80	---	17	---	e2.0	e1.5	---
TOTAL	1316.19	680	1266	764	853	964	1654	1199	377.1	117.2	65.0	48.1
MEAN	42.46	22.67	40.84	24.65	30.46	31.10	55.13	38.68	12.57	3.781	2.097	1.603
MAX	97	44	83	39	109	80	104	112	26	9.0	3.0	3.5
MIN	0.69	17	22	19	12	12	31	16	6.0	1.9	1.5	1.1
CFSM	2.21	1.18	2.13	1.28	1.59	1.62	2.87	2.01	0.65	0.20	0.11	0.08
IN.	2.55	1.32	2.45	1.48	1.65	1.87	3.20	2.32	0.73	0.23	0.13	0.09

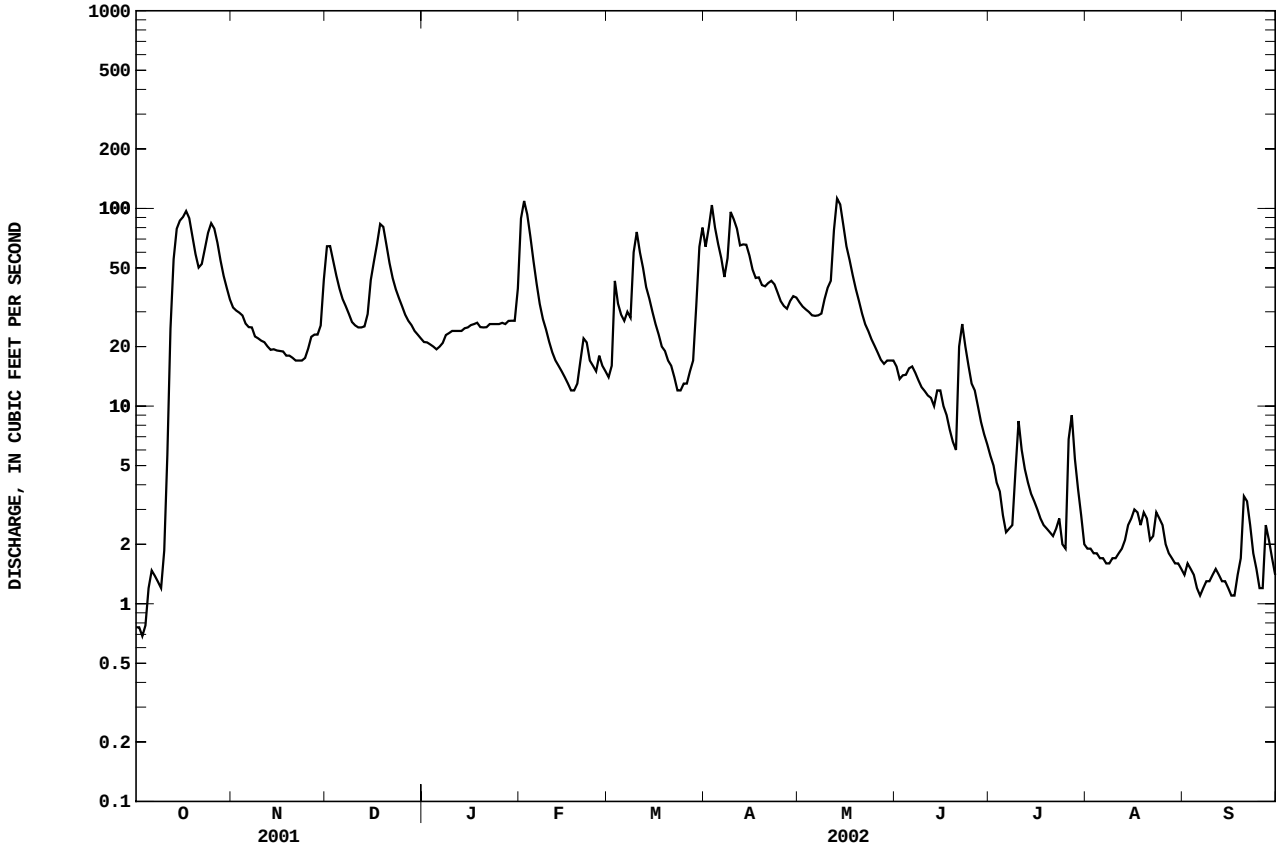
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	8.113	13.28	18.64	18.05	24.29	34.24	33.91	19.34	19.27	8.661	4.748	4.948
MAX	50.6	48.8	52.5	67.1	62.5	111	60.5	41.9	90.7	49.5	36.4	33.4
(WY)	1991	1989	1978	1993	1985	1982	1978	1996	1981	1986	1990	1990
MIN	0.31	0.25	0.21	0.81	2.96	9.28	9.61	4.70	1.98	0.41	0.25	0.23
(WY)	1995	1995	2000	2000	1979	2000	1971	1988	1988	1971	1971	1978

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	6596.11		9303.59			
ANNUAL MEAN	18.07		25.49		17.23	
HIGHEST ANNUAL MEAN					29.0	1982
LOWEST ANNUAL MEAN					6.54	2000
HIGHEST DAILY MEAN	152	Feb 10	112	May 13	431	Feb 25 1985
LOWEST DAILY MEAN	0.30	Aug 19	0.69	Oct 3	0.10	Nov 12 1994
ANNUAL SEVEN-DAY MINIMUM	0.43	Aug 15	1.0	Oct 1	0.12	Oct 2 1996
MAXIMUM PEAK FLOW			116	May 13	480	Feb 24 1985
MAXIMUM PEAK STAGE			4.28	May 13	7.03	Dec 30 1990
ANNUAL RUNOFF (CFSM)	0.94		1.33		0.90	
ANNUAL RUNOFF (INCHES)	12.78		18.03		12.19	
10 PERCENT EXCEEDS	48		64		43	
50 PERCENT EXCEEDS	11		20		8.9	
90 PERCENT EXCEEDS	0.81		1.7		0.78	

e Estimated

04100252 FORKER CREEK NEAR BURR OAK, IN--Continued



04100377 SOLOMON CREEK NEAR SYRACUSE, IN

LOCATION.--Lat 41°27'30", long 85°43'12", in NW$^1/_4$SE$^1/_4$ sec.28, T.35 N., R.7 E., Elkhart County, Hydrologic Unit 04050001, (LAKE WAWASEE, IN quadrangle), on right bank 40 ft upstream from County Road 52 East bridge over Solomon Creek, and 2.5 mi northeast of Syracuse, and 6.8 mi west of Ligonier.

DRAINAGE AREA.--36.1 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	66	65	41	163	40	71	76	45	54	18	6.8
2	21	69	59	38	129	41	99	77	43	51	19	10
3	20	70	56	38	97	66	149	73	44	47	18	13
4	19	66	53	37	79	e57	110	71	48	45	17	10
5	24	63	51	36	69	58	94	69	72	47	15	9.4
6	33	60	49	36	65	58	83	70	108	47	13	9.6
7	31	58	47	35	61	70	79	69	97	45	11	8.0
8	29	57	45	34	58	70	86	70	89	42	10	7.2
9	27	55	43	34	56	96	133	84	84	53	10	9.3
10	25	54	41	33	56	114	110	88	81	52	12	12
11	26	52	38	33	53	87	96	86	79	50	12	9.8
12	70	50	38	33	52	78	92	242	77	49	11	14
13	80	50	40	33	50	73	101	226	75	46	9.5	16
14	112	52	48	32	48	69	95	157	74	41	8.8	15
15	123	51	63	31	47	67	88	120	74	34	8.1	16
16	129	49	61	31	46	64	82	105	72	32	8.0	16
17	133	47	73	32	44	61	80	112	70	29	6.9	16
18	116	46	84	33	42	59	77	97	68	29	8.6	16
19	102	46	77	31	42	59	75	87	66	29	11	17
20	90	44	70	30	51	58	91	81	64	29	13	17
21	83	43	65	30	56	56	98	74	63	27	14	18
22	84	40	61	29	52	54	97	69	63	24	17	18
23	98	38	61	29	50	53	88	65	61	22	18	17
24	110	38	59	29	47	52	83	61	60	19	17	17
25	134	39	56	29	46	52	80	59	60	20	14	16
26	113	39	54	28	48	52	76	56	66	20	13	16
27	96	39	52	28	45	51	76	54	63	20	11	17
28	86	36	51	28	43	52	86	51	59	21	9.2	16
29	78	38	48	28	---	61	83	49	57	21	8.2	16
30	73	60	46	44	---	87	79	48	55	22	7.7	16
31	69	---	44	96	---	77	---	47	---	19	7.3	---
TOTAL	2256	1515	1698	1079	1695	1992	2737	2693	2037	1086	376.3	415.1
MEAN	72.77	50.50	54.77	34.81	60.54	64.26	91.23	86.87	67.90	35.03	12.14	13.84
MAX	134	70	84	96	163	114	149	242	108	54	19	18
MIN	19	36	38	28	42	40	71	47	43	19	6.9	6.8
CFSM	2.02	1.40	1.52	0.96	1.68	1.78	2.53	2.41	1.88	0.97	0.34	0.38
IN.	2.32	1.56	1.75	1.11	1.75	2.05	2.82	2.78	2.10	1.12	0.39	0.43

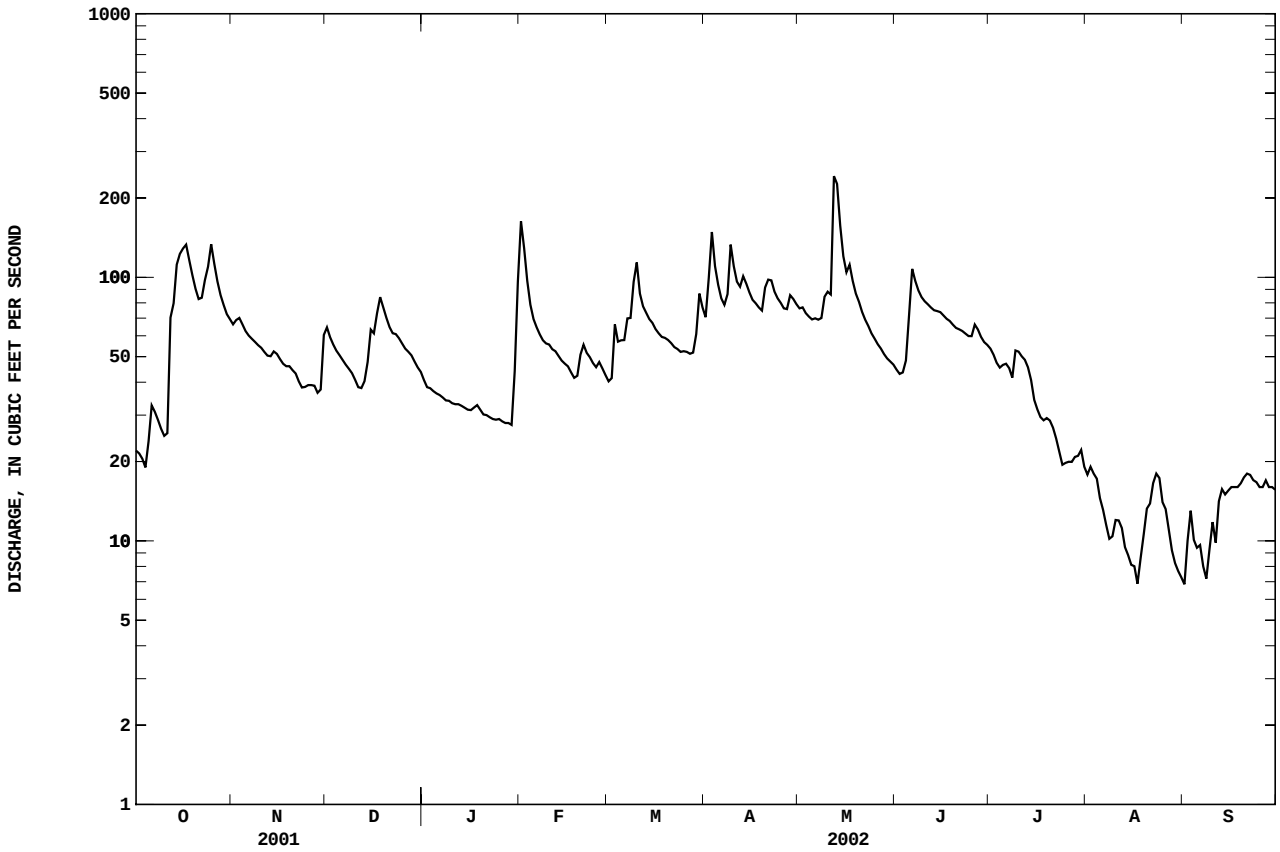
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY)

MEAN	26.71	31.40	32.84	41.05	40.92	44.18	49.86	41.01	47.20	28.97	22.33	21.01
MAX	72.2	60.1	60.3	94.8	79.9	75.4	85.8	59.4	82.3	56.3	38.3	36.5
(WY)	2002	1993	1991	1993	2001	1998	1998	1990	1993	1997	2001	1990
MIN	11.2	12.5	14.8	13.7	15.3	18.7	23.4	24.4	16.5	12.1	10.5	11.7
(WY)	1996	2000	1990	2000	2000	2000	2000	1989	1988	1988	1988	1994

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1988 - 2002	
ANNUAL TOTAL	16537		19579.4			
ANNUAL MEAN	45.31		53.64		35.10	
HIGHEST ANNUAL MEAN					53.2	1993
LOWEST ANNUAL MEAN					17.5	2000
HIGHEST DAILY MEAN	201	Feb 10	242	May 12	256	Jun 9 1993
LOWEST DAILY MEAN	10	Aug 8	6.8	Sep 1	6.3	Sep 6 2000
ANNUAL SEVEN-DAY MINIMUM	12	Jan 1	8.6	Aug 27	7.0	Sep 2 2000
MAXIMUM PEAK FLOW			309	May 12	333	Jun 8 1993
MAXIMUM PEAK STAGE			6.05	May 12	6.35	Jun 8 1993
ANNUAL RUNOFF (CFSM)	1.26		1.49		0.97	
ANNUAL RUNOFF (INCHES)	17.04		20.18		13.21	
10 PERCENT EXCEEDS	79		94		63	
50 PERCENT EXCEEDS	41		51		30	
90 PERCENT EXCEEDS	14		15		14	

e Estimated

04100377 SOLOMON CREEK NEAR SYRACUSE, IN--Continued



04100500 ELKHART RIVER AT GOSHEN, IN

LOCATION.--Lat 41°35'36", long 85°50'55", in NE$^1/_4$NE$^1/_4$ 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 and those for July 26 to Sept. 30, which are poor. Occasional low-flow regulation at Goshen Dam, 3.4 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	1170	1150	e602	2610	833	1120	1110	e825	e487	229	166
2	225	1170	979	e600	2390	847	1200	1100	e790	e457	225	162
3	216	1190	902	e600	1740	1130	1800	1070	e789	e434	215	159
4	219	1120	883	e606	1420	1260	1840	1040	e793	e408	208	149
5	300	1040	875	e612	1290	1070	1550	1010	e838	e386	210	144
6	501	991	870	615	1250	1000	1460	995	e925	e367	190	150
7	483	943	859	592	1230	1200	1420	988	e873	e356	179	142
8	420	902	831	560	1190	1260	1440	1030	e823	e341	175	139
9	382	856	811	567	1160	1390	1810	1210	e791	e363	172	141
10	362	814	786	582	1120	1750	1930	1320	e771	e415	174	136
11	357	784	754	582	1090	1530	1640	1100	e798	e354	174	131
12	699	755	733	571	1050	1290	1540	2460	e768	e327	176	138
13	1150	723	745	559	1010	1250	1530	4160	e736	e311	169	129
14	1260	716	793	556	967	1240	1540	2770	e729	e297	176	126
15	1690	707	1130	565	941	1220	1490	2140	e722	e277	195	133
16	1660	666	1070	554	916	1190	1450	1880	e686	e252	189	136
17	1870	642	1070	503	893	1130	1420	1980	e647	e234	194	135
18	1900	634	1360	491	868	1100	1380	1940	e636	e227	188	136
19	1630	601	1240	479	874	1070	1330	1730	e604	e217	201	140
20	1420	533	1140	490	945	1050	1460	1640	e585	e219	213	156
21	1310	513	1100	492	1070	1030	1760	1550	e559	e207	202	164
22	1290	499	1090	489	1010	993	1630	1460	e545	e226	206	156
23	1430	484	1070	479	937	963	1460	1400	e531	e300	218	150
24	1740	483	1050	487	903	944	1340	1320	e526	e177	222	144
25	1870	495	1010	492	886	942	1280	1270	e529	e172	212	144
26	1900	548	946	465	898	898	1230	1220	e563	182	208	146
27	1600	587	921	416	887	868	1190	1150	e606	215	194	152
28	1420	583	900	389	861	884	1270	1070	e561	219	185	160
29	1330	606	865	395	---	971	1290	957	e528	223	183	161
30	1270	879	e680	683	---	1250	1150	901	e508	256	175	156
31	1220	---	e610	1490	---	1240	---	861	---	241	171	---
TOTAL	33351	22634	29223	17563	32406	34793	43950	45832	20585	9147	6028	4381
MEAN	1076	754.5	942.7	566.5	1157	1122	1465	1478	686.2	295.1	194.5	146.0
MAX	1900	1190	1360	1490	2610	1750	1930	4160	925	487	229	166
MIN	216	483	610	389	861	833	1120	861	508	172	169	126
CFSM	1.81	1.27	1.59	0.95	1.95	1.89	2.47	2.49	1.16	0.50	0.33	0.25
IN.	2.09	1.42	1.83	1.10	2.03	2.18	2.75	2.87	1.29	0.57	0.38	0.27

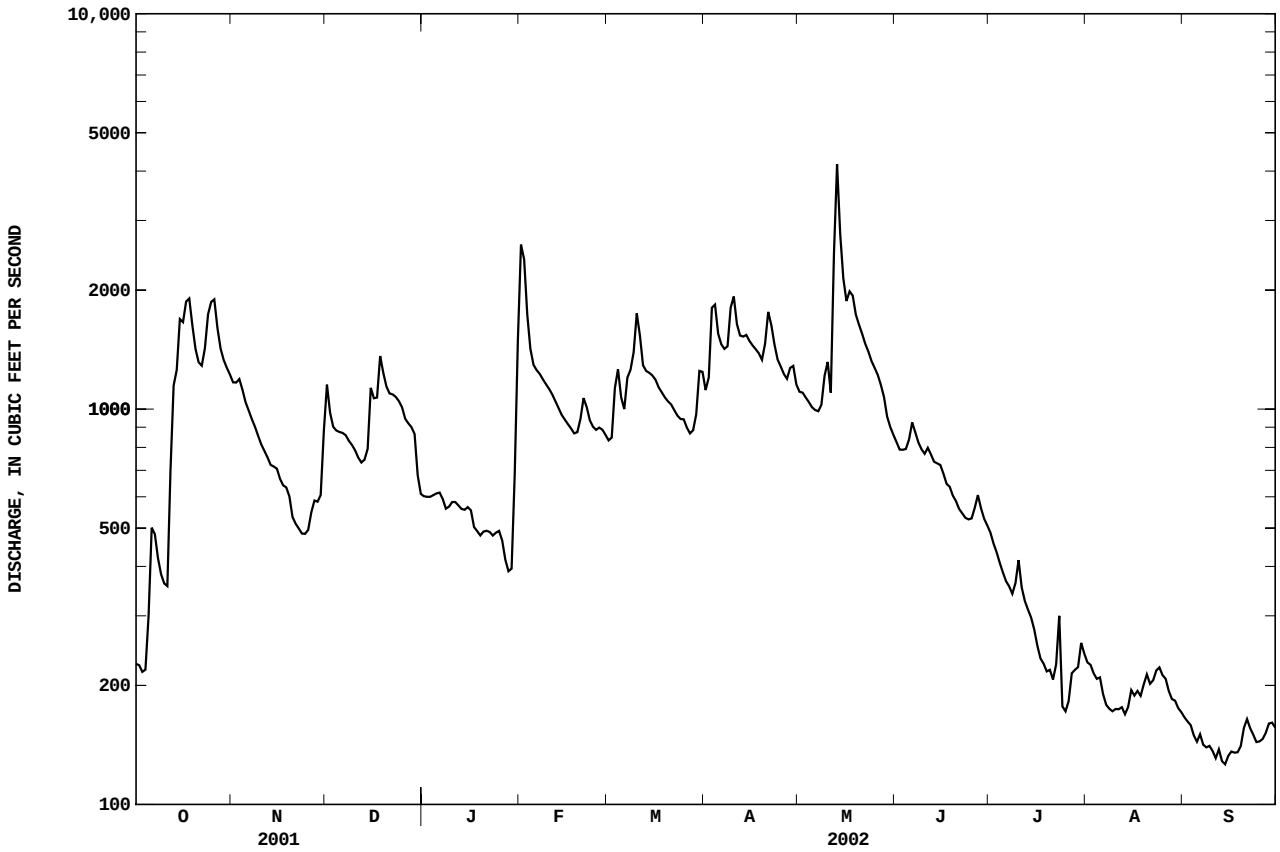
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2002, BY WATER YEAR (WY)

MEAN	321.0	395.5	499.9	595.6	709.2	938.5	948.9	717.5	517.1	358.0	271.4	250.8
MAX	1652	1132	1276	2058	1657	2497	2424	2354	1521	1079	712	784
(WY)	1955	1973	1983	1993	1959	1982	1950	1943	1996	1951	1958	1958
MIN	75.9	95.9	122	122	108	301	363	222	101	94.0	73.0	58.5
(WY)	1965	1965	1964	1963	1963	1964	1946	1958	1934	1934	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1932 - 2002	
ANNUAL TOTAL	237168		299893			
ANNUAL MEAN	649.8		821.6		542.5	
HIGHEST ANNUAL MEAN					1005	1950
LOWEST ANNUAL MEAN					197	1964
HIGHEST DAILY MEAN	3700	Feb 10	4160	May 13	6010	Feb 24 1985
LOWEST DAILY MEAN	68	Aug 9	126	Sep 14	7.0	Aug 11 1964
ANNUAL SEVEN-DAY MINIMUM	102	Aug 8	133	Sep 11	50	Sep 21 1941
MAXIMUM PEAK FLOW			4510	May 13	6360	Feb 24 1985
MAXIMUM PEAK STAGE			9.57	May 13	11.94	Mar 14 1982
INSTANTANEOUS LOW FLOW					7.0	Aug 11 1964
ANNUAL RUNOFF (CFSM)	1.09		1.38		0.91	
ANNUAL RUNOFF (INCHES)	14.85		18.78		12.41	
10 PERCENT EXCEEDS	1270		1490		1120	
50 PERCENT EXCEEDS	513		793		391	
90 PERCENT EXCEEDS	219		175		157	

e Estimated

04100500 ELKHART RIVER AT GOSHEN, IN--Continued



04101000 ST. JOSEPH RIVER AT ELKHART, IN

LOCATION.--Lat 41°41'30", long 85°58'30", in SW$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1660	4970	4510	e3100	6240	4500	4710	4180	4460	2320	1490	1230
2	1810	5170	4510	e3050	6350	4450	4880	4070	4230	2170	1720	1200
3	1770	5060	4590	e3000	5670	5090	5670	3850	4040	2060	1890	1060
4	1740	5110	4490	e3000	5390	5290	5940	3710	4270	1960	1690	1020
5	2150	5020	4460	e3050	5270	5080	5660	3610	4340	1880	1480	1070
6	2520	4800	4420	e3100	5340	5030	5400	3600	4490	1840	1510	1040
7	2590	4710	4290	e3150	5330	5380	5270	3600	4390	1710	1370	1060
8	2630	4530	4140	3180	5160	5600	5460	3720	4230	1650	1420	1020
9	2650	4060	4070	3160	5130	6150	6130	4170	3980	2030	1360	994
10	2590	4170	3990	3150	5100	6760	6580	4400	3780	2190	1320	913
11	2470	4120	3840	3130	4950	7060	6330	4300	3780	2220	1200	971
12	3010	3970	3740	3180	4930	6580	6150	6680	3640	2090	1180	968
13	3620	3790	3720	3240	4940	6590	6140	10200	3450	1940	1080	980
14	4430	3750	3640	3250	4910	6520	6040	9580	3480	1780	1180	965
15	4970	3690	4160	3280	4760	6430	5940	8990	3400	1670	1230	995
16	5550	3610	4260	3210	4570	6210	5800	8790	3220	1510	1610	994
17	6080	3440	4530	3160	4470	5920	5730	9030	3230	1610	1670	933
18	6370	3400	4960	3130	4320	5590	5490	8800	3200	1490	1660	900
19	6340	3460	4900	3060	4270	5390	5140	8130	3020	1550	1670	1050
20	6340	3380	4860	2990	4410	5150	5360	7830	2900	1510	1810	1180
21	6090	3270	4740	2980	4800	4940	5640	7520	2760	1470	1660	1180
22	6000	3210	4720	2880	4930	4750	5500	7040	2750	1460	1600	1160
23	6000	3160	4660	2930	4900	4700	5250	6650	2640	1520	1670	1110
24	6120	3060	4530	2990	4880	4560	5010	6380	2490	1400	1850	1110
25	6290	3200	4540	2960	4870	4480	4820	6060	2540	1360	1710	1070
26	6140	3270	e4150	2970	4840	4390	4620	5920	2450	1250	1740	1110
27	5960	3460	e3800	2900	4650	4310	4330	5530	2540	1250	1670	1080
28	5700	3500	e3600	2880	4590	4280	4520	4940	2700	1290	1500	1080
29	5500	3610	e3400	2890	---	4390	4490	5140	2550	1430	1420	1070
30	5350	4060	e3250	3330	---	4630	4330	4970	2380	1600	1390	1110
31	5130	---	e3150	4420	---	4790	---	4630	---	1580	1330	---
TOTAL	135570	118010	130620	96700	139970	164990	162330	186020	101330	52790	47080	31623
MEAN	4373	3934	4214	3119	4999	5322	5411	6001	3378	1703	1519	1054
MAX	6370	5170	4960	4420	6350	7060	6580	10200	4490	2320	1890	1230
MIN	1660	3060	3150	2880	4270	4280	4330	3600	2380	1250	1080	900
CFSM	1.30	1.17	1.25	0.93	1.48	1.58	1.61	1.78	1.00	0.51	0.45	0.31
IN.	1.50	1.30	1.44	1.07	1.55	1.82	1.79	2.05	1.12	0.58	0.52	0.35

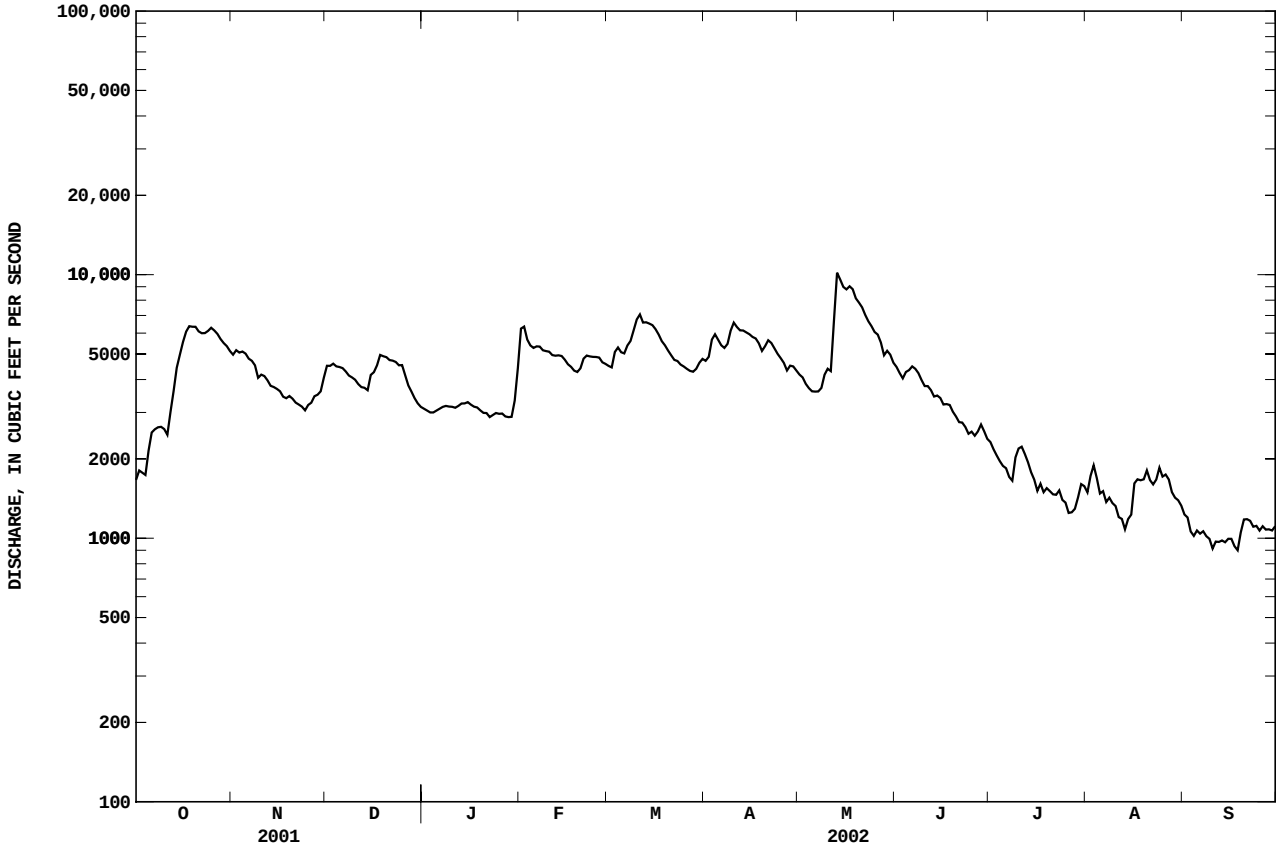
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2002, BY WATER YEAR (WY)

MEAN	2216	2637	3195	3585	3932	5085	5193	4137	3281	2363	1960	1885
MAX	5752	5883	5795	9270	7039	10760	12690	7725	7535	4409	4180	3855
(WY)	1987	1993	1991	1993	1968	1982	1950	1956	1989	1968	1981	1981
MIN	791	856	958	1127	1120	1679	2633	1911	1280	898	737	721
(WY)	1964	1965	1964	1964	1963	1964	1958	1958	1988	1988	1964	1964

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1948 - 2002	
ANNUAL TOTAL	1329770		1367033			
ANNUAL MEAN	3643		3745		3285	
HIGHEST ANNUAL MEAN					5264	1950
LOWEST ANNUAL MEAN					1283	1964
HIGHEST DAILY MEAN	9480	Feb 11	10200	May 13	18500	Mar 21 1982
LOWEST DAILY MEAN	1040	Aug 15	900	Sep 18	336	Aug 5 1964
ANNUAL SEVEN-DAY MINIMUM	1150	Aug 9	962	Sep 12	561	Aug 2 1964
MAXIMUM PEAK FLOW			11200	May 13	18800	Feb 27 1985
MAXIMUM PEAK STAGE			24.06	May 13	27.91	Mar 21 1982
ANNUAL RUNOFF (CFSM)	1.08		1.11		0.97	
ANNUAL RUNOFF (INCHES)	14.68		15.09		13.24	
10 PERCENT EXCEEDS	5950		6070		5820	
50 PERCENT EXCEEDS	3420		3780		2800	
90 PERCENT EXCEEDS	1700		1250		1390	

e Estimated

04101000 ST. JOSEPH RIVER AT ELKHART, IN--Continued



04101370 JUDAY CREEK NEAR SOUTH BEND, IN

LOCATION.--Lat 41°43'43", long 85°15'46", in NW$^1/_4$SE$^1/_4$ 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 poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e5.4	e15	21	e16	31	17	24	23	23	13	8.0	5.6
2	e4.5	e14	23	16	31	18	26	24	22	12	9.9	5.6
3	e4.0	e13	23	16	24	25	28	22	25	12	8.9	5.7
4	e5.0	e12	21	16	21	26	28	22	25	12	8.2	5.3
5	9.5	e12	20	16	21	24	26	22	24	11	8.2	5.1
6	11	e11	20	16	21	22	25	23	23	11	7.8	4.9
7	9.6	e11	19	16	20	25	25	23	23	11	7.6	4.7
8	8.6	e10	18	15	19	30	28	24	22	10	7.3	4.5
9	7.9	e10	17	15	18	35	31	30	22	15	6.9	4.3
10	7.4	e9.8	17	16	19	33	29	30	22	13	6.7	4.5
11	7.2	e9.6	17	16	18	29	27	30	23	11	6.5	4.2
12	12	e9.4	17	15	18	26	27	72	22	11	6.1	4.5
13	14	9.2	17	14	17	24	25	73	21	10	6.5	4.5
14	23	9.5	18	14	17	24	25	51	21	9.5	8.5	4.4
15	25	9.4	22	14	17	27	25	43	20	9.3	7.9	4.4
16	29	9.5	22	14	17	25	24	41	20	9.1	9.0	4.6
17	34	9.2	24	14	16	25	23	44	20	8.8	8.9	4.5
18	28	9.1	24	14	17	25	22	40	19	8.5	8.0	4.5
19	24	9.6	23	14	16	24	22	36	18	8.4	8.6	5.3
20	22	10	22	14	18	26	26	34	18	8.4	8.4	6.3
21	20	10	21	13	18	26	25	32	17	8.3	7.8	7.0
22	19	11	20	13	19	25	24	30	17	7.9	8.0	6.0
23	20	11	19	13	18	25	23	29	16	8.2	9.0	5.9
24	21	11	19	12	18	24	23	32	16	8.4	8.4	5.7
25	20	12	19	12	18	24	23	29	17	8.7	8.0	5.4
26	18	12	18	12	18	24	22	27	17	8.5	7.7	5.3
27	18	12	18	12	18	23	23	27	16	8.8	7.2	5.3
28	17	12	18	12	17	24	26	27	14	8.4	6.7	4.9
29	e16	13	17	12	---	25	24	26	14	9.9	6.3	5.0
30	e16	18	e17	14	---	27	23	25	13	9.6	6.2	4.8
31	e15	---	e17	20	---	26	---	24	---	8.5	5.9	---
TOTAL	491.1	334.3	608	446	540	783	752	1015	590	309.2	239.1	152.7
MEAN	15.84	11.14	19.61	14.39	19.29	25.26	25.07	32.74	19.67	9.974	7.713	5.090
MAX	34	18	24	20	31	35	31	73	25	15	9.9	7.0
MIN	4.0	9.1	17	12	16	17	22	22	13	7.9	5.9	4.2

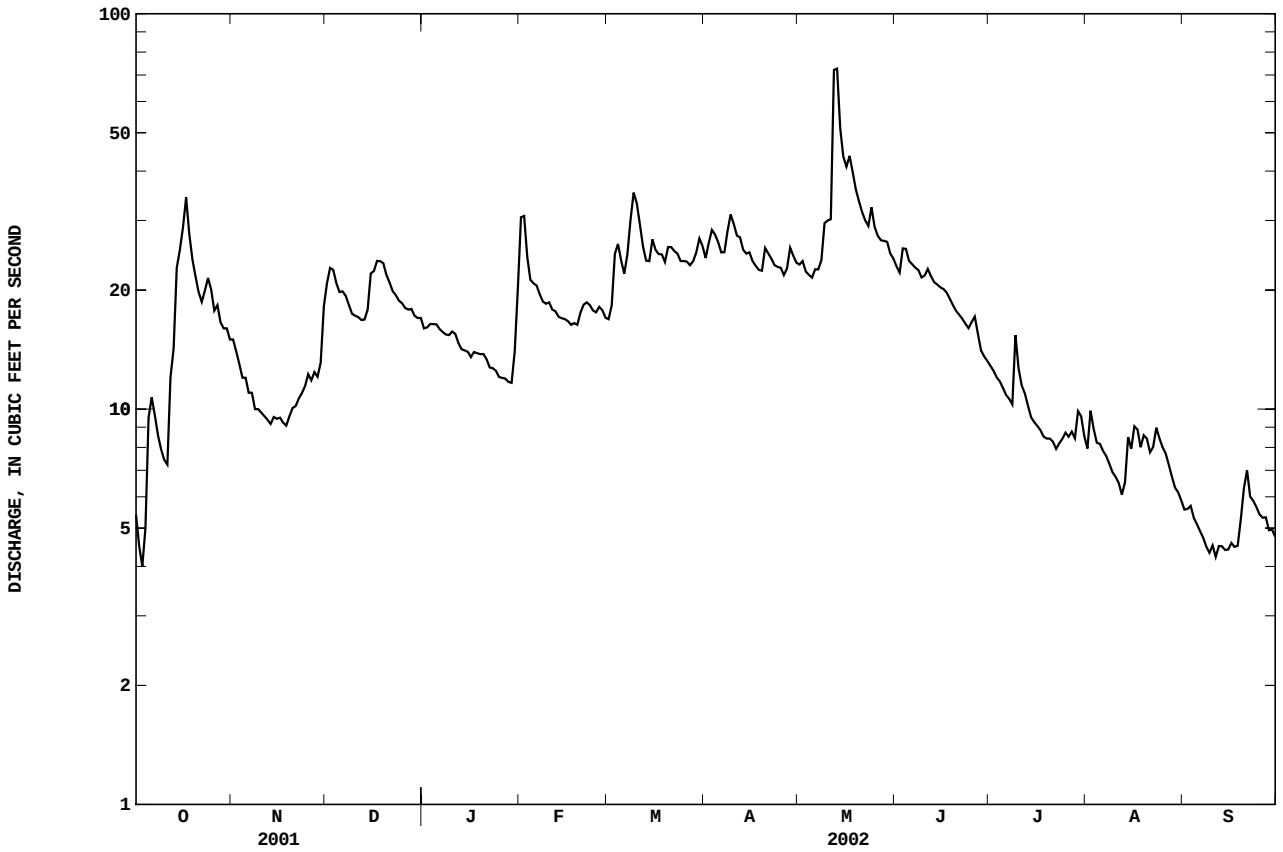
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2002, BY WATER YEAR (WY)

MEAN	13.97	16.90	16.37	19.73	20.50	23.62	26.76	23.05	22.17	15.51	14.43	11.59
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	4.19	3.32	4.49	7.82	10.6	12.8	15.3	11.3	11.0	7.18	6.25	4.01
(WY)	2000	2000	2000	2000	2000	2000	2001	2001	2001	2001	2001	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1993 - 2002	
ANNUAL TOTAL	4391.2		6260.4			
ANNUAL MEAN	12.03		17.15		18.70	
HIGHEST ANNUAL MEAN					27.7	1993
LOWEST ANNUAL MEAN					10.1	2001
HIGHEST DAILY MEAN	34	Oct 17	73	May 13	163	Jun 9 1993
LOWEST DAILY MEAN	2.6	Aug 15	4.0	Oct 3	2.6	Aug 15 2001
ANNUAL SEVEN-DAY MINIMUM	3.5	Aug 9	4.4	Sep 9	3.0	Nov 12 1999
MAXIMUM PEAK FLOW			93	May 12	226	Jun 9 1993
MAXIMUM PEAK STAGE			2.94	May 12	4.62	Jan 7 2001
10 PERCENT EXCEEDS	19		27		31	
50 PERCENT EXCEEDS	11		17		17	
90 PERCENT EXCEEDS	5.1		6.3		7.6	

e Estimated

04101370 JUDAY CREEK NEAR SOUTH BEND, IN--Continued



04177720 FISH CREEK AT HAMILTON, IN

LOCATION.--Lat 41°31'55", long 84°54'12", in SE$^1/_4$SW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	28	141	14	323	23	105	29	22	8.0	5.3	1.9
2	2.8	30	92	13	260	27	158	35	19	6.6	4.4	2.2
3	3.1	28	65	13	172	98	293	30	22	4.6	3.6	2.2
4	3.2	25	52	12	122	71	191	26	25	4.3	3.4	1.7
5	18	22	43	12	85	53	127	25	28	3.4	3.3	1.5
6	25	19	38	13	64	46	89	25	29	3.0	2.8	1.4
7	17	18	32	13	53	52	68	28	24	3.1	2.3	1.6
8	13	19	27	13	46	49	97	30	21	3.2	2.2	1.6
9	10	16	24	13	41	116	241	46	20	13	2.3	1.6
10	11	15	21	14	39	174	186	41	18	16	2.4	1.9
11	26	13	19	14	38	107	125	34	16	7.4	2.5	2.1
12	146	13	19	15	35	78	98	324	15	5.2	2.6	1.6
13	134	12	26	15	30	65	123	448	13	4.5	2.9	1.4
14	163	13	61	15	27	54	104	281	14	4.1	3.6	1.4
15	163	14	113	15	25	49	83	177	14	3.7	4.0	1.7
16	221	14	80	15	25	42	68	132	11	3.5	4.3	1.7
17	284	13	166	15	23	35	60	121	9.8	3.4	4.1	1.7
18	178	13	184	14	21	32	53	93	9.1	3.1	3.3	1.7
19	118	14	122	13	22	29	47	74	8.5	2.9	4.1	2.5
20	81	13	83	12	31	28	60	63	8.1	2.9	3.6	6.6
21	63	11	61	12	38	27	54	53	31	2.8	2.9	6.5
22	66	11	49	12	35	22	51	44	48	3.1	3.1	3.8
23	89	10	47	13	29	20	42	39	31	3.5	3.9	2.5
24	103	11	40	16	26	20	37	37	23	2.6	3.5	2.1
25	132	25	32	15	26	e21	36	37	20	2.4	2.9	2.0
26	89	22	27	14	32	e22	29	39	19	9.5	2.7	2.0
27	64	21	24	14	29	e24	28	34	15	18	2.6	4.9
28	49	20	22	14	25	e28	39	30	12	13	2.3	4.2
29	41	39	20	15	---	47	36	28	10	12	2.1	3.1
30	35	148	17	65	---	152	32	26	8.9	12	2.1	2.9
31	31	---	15	173	---	152	---	25	---	7.5	2.0	---
TOTAL	2382.0	670	1762	636	1722	1763	2760	2454	564.4	192.3	97.1	74.0
MEAN	76.84	22.33	56.84	20.52	61.50	56.87	92.00	79.16	18.81	6.203	3.132	2.467
MAX	284	148	184	173	323	174	293	448	48	18	5.3	6.6
MIN	2.8	10	15	12	21	20	28	25	8.1	2.4	2.0	1.4
CFSM	2.05	0.60	1.52	0.55	1.64	1.52	2.45	2.11	0.50	0.17	0.08	0.07
IN.	2.36	0.66	1.75	0.63	1.71	1.75	2.74	2.43	0.56	0.19	0.10	0.07

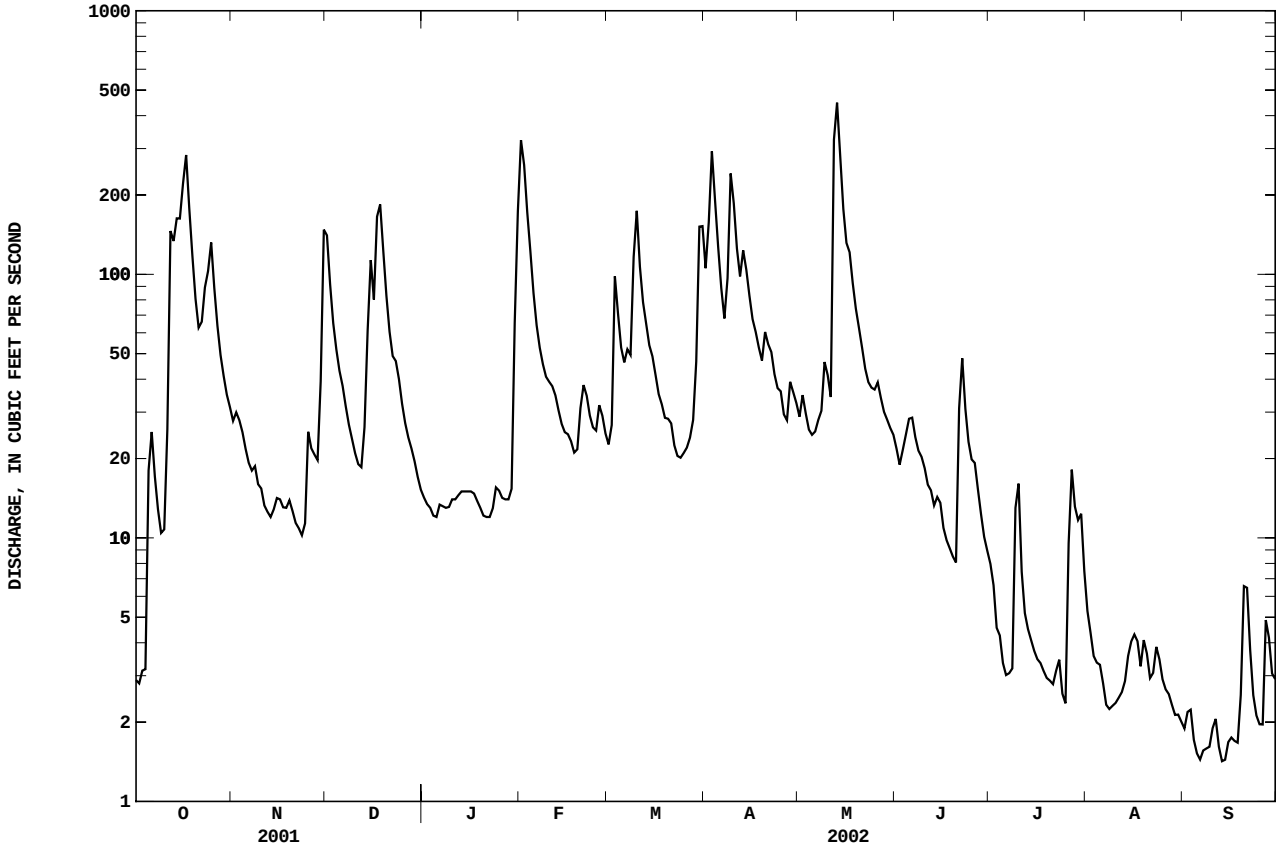
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	14.62	27.67	37.10	37.76	50.38	68.85	62.15	40.37	30.17	14.69	12.70	10.90
MAX	76.8	117	91.3	161	130	219	112	174	118	64.3	45.2	47.1
(WY)	2002	1993	1991	1993	2001	1982	1978	1996	1981	1992	1996	1981
MIN	2.14	2.46	4.69	5.96	7.84	21.6	18.7	8.24	2.05	2.02	1.89	1.88
(WY)	1995	1972	2000	1977	1979	2000	1971	1985	1988	1988	1970	1988

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1970 - 2002	
ANNUAL TOTAL	13431.8		15076.8			
ANNUAL MEAN	36.80		41.31		33.84	
HIGHEST ANNUAL MEAN					54.7	1993
LOWEST ANNUAL MEAN					17.8	1972
HIGHEST DAILY MEAN	580	Feb 10	448	May 13	1220	May 17 1996
LOWEST DAILY MEAN	1.3	Aug 15	1.4	Sep 6	0.52	Aug 31 1971
ANNUAL SEVEN-DAY MINIMUM	1.7	Aug 9	1.6	Sep 12	0.82	Aug 26 1971
MAXIMUM PEAK FLOW			530	May 12	1510	May 17 1996
MAXIMUM PEAK STAGE			9.01	May 12	14.49	May 17 1996
ANNUAL RUNOFF (CFSM)	0.98		1.10		0.90	
ANNUAL RUNOFF (INCHES)	13.32		14.96		12.26	
10 PERCENT EXCEEDS	87		117		80	
50 PERCENT EXCEEDS	19		22		16	
90 PERCENT EXCEEDS	2.7		2.7		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 NE$^1/_4$SE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	115	488	e54	832	76	373	90	58	19	17	8.0
2	9.1	109	430	e52	916	77	317	93	51	17	14	7.8
3	8.9	113	254	e50	657	225	639	95	49	15	13	7.6
4	9.3	108	184	e48	414	284	768	82	64	14	13	7.5
5	16	97	148	e46	282	296	468	72	79	13	12	7.2
6	46	88	127	e47	213	168	310	67	88	12	11	7.0
7	71	81	112	e48	160	155	227	72	88	12	11	6.9
8	50	76	98	e49	137	185	221	75	66	12	11	6.6
9	35	74	88	e50	124	229	504	100	54	e13	10	6.5
10	29	68	79	52	122	432	698	134	46	e38	10	6.5
11	44	65	72	51	129	515	479	115	40	23	10	6.4
12	287	59	67	49	124	292	316	380	36	17	10	6.4
13	451	56	75	49	108	208	303	1360	35	15	9.8	6.1
14	583	55	138	48	93	171	355	1060	34	14	10	6.2
15	540	56	321	48	84	144	342	632	35	13	11	6.3
16	652	56	358	49	80	127	240	415	32	13	11	6.4
17	728	55	409	47	77	109	189	325	28	12	12	6.5
18	754	52	499	e44	71	97	169	278	25	12	11	6.2
19	492	52	445	e42	66	89	149	217	23	12	11	6.2
20	308	52	272	e39	75	83	161	174	21	12	11	7.2
21	235	48	190	e37	114	79	181	147	22	11	10	10
22	260	46	149	e35	141	73	174	125	62	11	10	9.5
23	286	45	133	40	113	64	146	107	60	11	10	7.9
24	347	44	124	42	94	60	123	96	42	11	10	6.6
25	446	61	e100	49	85	e63	111	89	35	10	10	6.3
26	405	88	e87	47	86	e66	99	98	38	12	9.9	5.9
27	311	82	e79	45	91	e70	88	88	31	37	9.3	6.7
28	215	76	e72	44	82	e80	93	79	26	34	8.8	8.0
29	171	132	e66	45	---	103	109	83	23	26	8.5	7.6
30	144	364	e62	125	---	342	101	74	20	29	8.2	6.8
31	127	---	e57	394	---	557	---	66	---	22	8.1	---
TOTAL	8069.9	2473	5783	1865	5570	5519	8453	6888	1311	522	331.6	210.8
MEAN	260.3	82.43	186.5	60.16	198.9	178.0	281.8	222.2	43.70	16.84	10.70	7.027
MAX	754	364	499	394	916	557	768	1360	88	38	17	10
MIN	8.9	44	57	35	66	60	88	66	20	10	8.1	5.9
CFSM	2.66	0.84	1.90	0.61	2.03	1.82	2.88	2.27	0.45	0.17	0.11	0.07
IN.	3.06	0.94	2.20	0.71	2.11	2.09	3.21	2.61	0.50	0.20	0.13	0.08

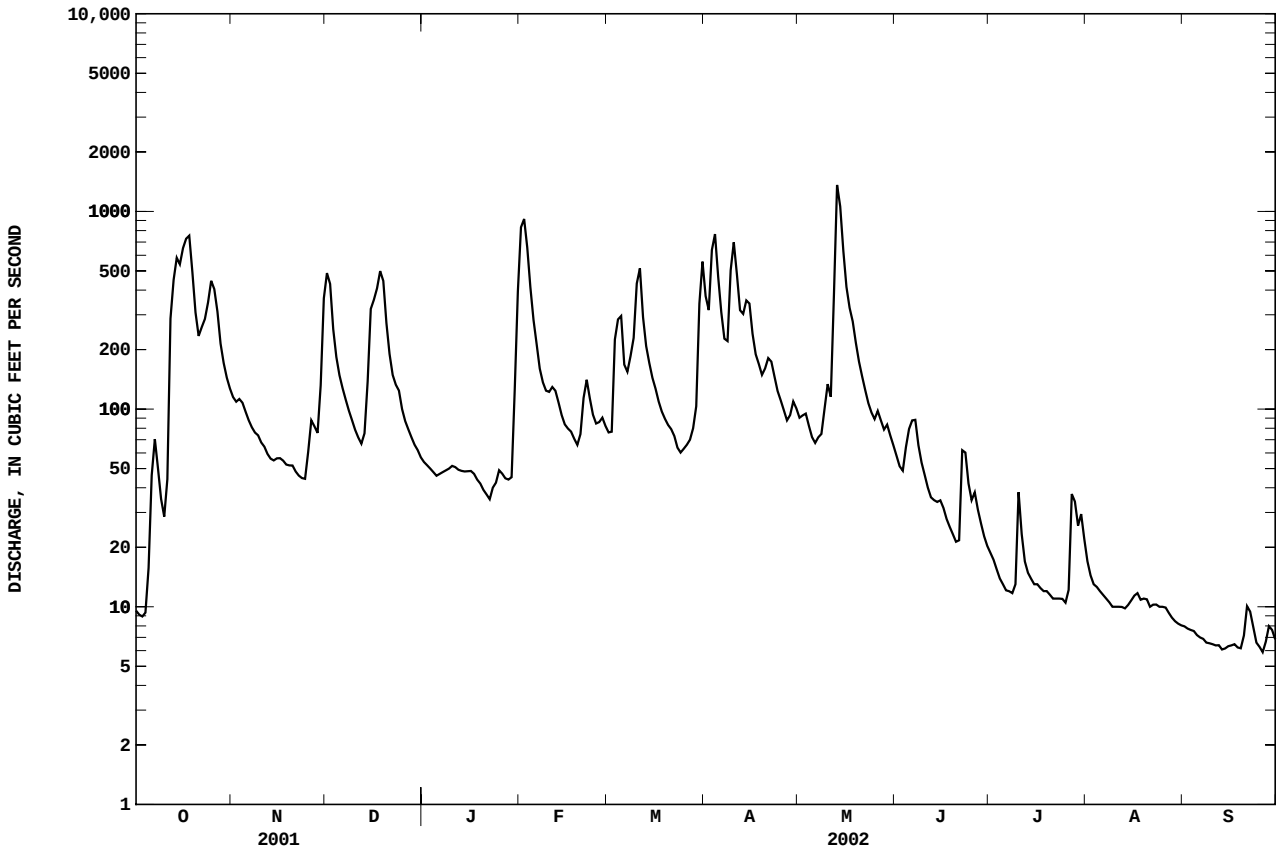
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

MEAN	80.95	48.36	76.71	82.34	186.3	123.7	208.8	119.1	91.18	22.34	34.51	18.74
MAX	260	82.4	187	189	384	179	306	222	221	40.8	110	49.2
(WY)	2002	2002	2002	1999	2001	2002	1999	2002	2000	2000	1998	2000
MIN	5.73	7.33	19.1	21.4	44.4	66.8	103	61.2	25.6	14.2	7.82	4.32
(WY)	2000	2000	2000	2000	2000	2000	2000	1998	1998	1999	1999	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1998 - 2002	
ANNUAL TOTAL	43429.2		46996.3			
ANNUAL MEAN	119.0		128.8		91.31	
HIGHEST ANNUAL MEAN					129	2002
LOWEST ANNUAL MEAN					62.9	2000
HIGHEST DAILY MEAN	1350	Feb 10	1360	May 13	1360	May 13 2002
LOWEST DAILY MEAN	6.8	Aug 15	5.9	Sep 26	3.6	Sep 12 1999
ANNUAL SEVEN-DAY MINIMUM	7.1	Aug 10	6.3	Sep 13	3.8	Sep 10 1999
MAXIMUM PEAK FLOW			1690	May 13	1690	May 13 2002
MAXIMUM PEAK STAGE			11.60	May 13	11.60	May 13 2002
ANNUAL RUNOFF (CFSM)	1.21		1.31		0.93	
ANNUAL RUNOFF (INCHES)	16.49		17.84		12.66	
10 PERCENT EXCEEDS	306		356		233	
50 PERCENT EXCEEDS	65		67		38	
90 PERCENT EXCEEDS	8.6		9.4		8.3	

e Estimated

04177810 FISH CREEK NEAR ARTIC, IN--Continued



04177810 FISH CREEK NEAR ARTIC, IN--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	9.6	30	0.76	115	34	10.4	488	40	52.9
2	9.1	34	0.83	109	31	9.1	430	27	31.2
3	8.9	40	0.97	113	17	5.3	254	21	14.7
4	9.3	41	1.0	108	17	5.0	184	17	8.3
5	16	33	1.4	97	9.0	2.5	148	19	7.5
6	46	34	4.1	88	11	2.7	127	21	7.3
7	71	30	5.7	81	16	3.4	112	21	6.3
8	50	17	2.4	76	20	4.2	98	23	6.0
9	35	17	1.6	74	15	3.0	88	18	4.2
10	29	21	1.6	68	12	2.2	79	12	2.6
11	44	29	4.0	65	19	3.4	72	11	2.1
12	287	117	91.0	59	23	3.6	67	17	3.1
13	451	61	73.0	56	23	3.5	75	19	3.9
14	583	44	69.2	55	25	3.7	138	44	20.4
15	540	28	40.3	56	21	3.2	321	79	67.3
16	652	40	70.6	56	27	4.1	358	38	37.2
17	728	29	56.7	55	22	3.3	409	61	67.7
18	754	23	48.0	52	24	3.3	499	38	51.4
19	492	16	20.6	52	28	3.9	445	25	29.4
20	308	17	14.5	52	19	2.7	272	17	13.0
21	235	21	13.3	48	24	3.2	190	12	6.1
22	260	45	32.2	46	27	3.3	149	11	4.4
23	286	57	46.4	45	26	3.2	133	13	4.6
24	347	43	39.9	44	31	3.7	124	10	3.4
25	446	52	63.3	61	33	5.6	e100	10	2.7
26	405	29	31.2	88	31	7.3	e87	10	2.5
27	311	16	13.7	82	25	5.5	e79	11	2.3
28	215	11	6.2	76	27	5.6	e72	11	2.2
29	171	9.0	4.2	132	42	16.9	e66	12	2.1
30	144	9.0	3.7	364	79	75.8	e62	12	2.0
31	127	16	5.4	---	---	---	e57	13	1.9
TOTAL	8069.9	---	767.76	2473	---	212.6	5783	---	470.7

DAY	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	e54	13	1.9	832	55	121	76	14	2.9
2	e52	14	1.9	916	30	74.8	77	15	3.4
3	e50	14	1.9	657	22	38.7	225	84	53.5
4	e48	14	1.9	414	20	22.1	284	77	58.7
5	e46	15	1.8	282	18	14.0	296	45	37.3
6	e47	15	1.9	213	17	9.8	168	17	8.0
7	e48	16	2.0	160	15	6.7	155	12	5.2
8	e49	16	2.1	137	15	5.4	185	16	8.0
9	e50	17	2.2	124	12	4.0	229	107	77.9
10	52	17	2.4	122	13	4.4	432	133	153
11	51	18	2.4	129	12	4.2	515	99	141
12	49	18	2.5	124	10	3.2	292	44	35.1
13	49	21	2.8	108	10	2.9	208	35	19.8
14	48	21	2.7	93	11	2.7	171	30	13.7
15	48	17	2.2	84	10	2.3	144	25	9.6
16	49	17	2.2	80	10	2.2	127	18	6.2
17	47	15	1.9	77	12	2.4	109	17	5.1
18	e44	15	1.8	71	12	2.2	97	13	3.5
19	e42	16	1.8	66	12	2.2	89	13	3.2
20	e39	17	1.8	75	12	2.5	83	17	3.8
21	e37	19	1.9	114	24	7.6	79	16	3.4
22	e35	20	1.9	141	29	11.1	73	19	3.7
23	40	20	2.2	113	16	5.0	64	18	3.1
24	42	17	2.0	94	14	3.6	60	21	3.5
25	49	18	2.4	85	20	4.6	e63	23	4.0
26	47	13	1.7	86	15	3.4	e66	25	4.5
27	45	13	1.5	91	12	3.0	e70	26	4.9
28	44	18	2.2	82	12	2.7	e80	18	3.8
29	45	21	2.6	---	---	---	103	22	6.7
30	125	72	28.2	---	---	---	342	66	63.0
31	394	105	106	---	---	---	557	52	78.7
TOTAL	1865	---	194.7	5570	---	368.7	5519	---	828.2

04177810 FISH CREEK NEAR ARTIC, IN--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	373	32	32.6	90	9.0	2.1	58	48	7.5
2	317	82	80.4	93	12	3.0	51	57	7.9
3	639	126	211	95	12	3.1	49	70	9.3
4	768	83	176	82	10	2.3	64	99	17.3
5	468	54	69.7	72	14	2.6	79	80	17.1
6	310	42	35.4	67	18	3.3	88	70	16.8
7	227	41	25.2	72	50	9.8	88	60	14.4
8	221	68	46.6	75	47	9.4	66	65	11.4
9	504	115	153	100	55	15.2	54	72	10.4
10	698	76	144	134	56	20.3	46	80	10.0
11	479	43	58.6	115	38	12.0	40	76	8.2
12	316	34	28.5	380	176	199	36	88	8.5
13	303	36	29.4	1360	142	525	35	77	7.2
14	355	36	35.0	1060	72	214	34	69	6.4
15	342	30	28.6	632	41	71.4	35	74	6.9
16	240	24	15.3	415	36	39.7	32	69	5.9
17	189	23	11.5	325	33	28.7	28	75	5.6
18	169	21	9.5	278	26	19.9	25	66	4.5
19	149	20	7.9	217	24	14.3	23	87	5.5
20	161	30	13.0	174	21	10.1	21	76	4.4
21	181	25	12.0	147	19	7.7	22	84	4.9
22	174	15	7.0	125	25	8.3	62	95	15.6
23	146	9.0	3.4	107	41	11.9	60	49	8.2
24	123	10	3.3	96	42	10.8	42	38	4.4
25	111	15	4.5	89	25	6.1	35	34	3.2
26	99	12	3.3	98	46	12.2	38	43	4.4
27	88	10	2.4	88	31	7.4	31	46	3.8
28	93	10	2.4	79	49	10.7	26	55	3.9
29	109	8.0	2.2	83	92	20.9	23	56	3.5
30	101	7.0	1.8	74	59	11.8	20	55	3.0
31	---	---	---	66	58	10.2	---	---	---
TOTAL	8453	---	1253.5	6888	---	1323.2	1311	---	240.1

DAY	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	19	62	3.1	17	94	4.3	8.0	138	3.0
2	17	56	2.6	14	68	2.6	7.8	116	2.4
3	15	64	2.7	13	62	2.2	7.6	102	2.1
4	14	74	2.8	13	64	2.2	7.5	106	2.1
5	13	72	2.6	12	60	2.0	7.2	165	3.2
6	12	75	2.4	11	63	2.0	7.0	121	2.3
7	12	67	2.2	11	68	2.0	6.9	107	2.0
8	12	67	2.1	11	59	1.7	6.6	88	1.6
9	e13	75	2.6	10	68	1.9	6.5	107	1.9
10	e38	81	8.3	10	69	1.9	6.5	70	1.2
11	23	38	2.4	10	96	2.6	6.4	91	1.6
12	17	47	2.1	10	86	2.3	6.4	113	2.0
13	15	84	3.4	9.8	96	2.5	6.1	70	1.2
14	14	67	2.5	10	92	2.5	6.2	78	1.3
15	13	83	2.9	11	86	2.5	6.3	82	1.4
16	13	73	2.5	11	105	3.2	6.4	98	1.7
17	12	78	2.6	12	69	2.2	6.5	105	1.8
18	12	72	2.4	11	78	2.3	6.2	94	1.6
19	12	55	1.7	11	91	2.7	6.2	65	1.1
20	12	78	2.4	11	94	2.8	7.2	55	1.1
21	11	103	3.1	10	121	3.3	10	81	2.3
22	11	85	2.5	10	93	2.6	9.5	126	3.2
23	11	81	2.4	10	77	2.2	7.9	65	1.4
24	11	61	1.8	10	60	1.7	6.6	59	1.1
25	10	54	1.5	10	81	2.2	6.3	60	1.0
26	12	59	2.1	9.9	71	1.9	5.9	55	0.88
27	37	98	9.8	9.3	87	2.2	6.7	73	1.3
28	34	49	4.5	8.8	91	2.2	8.0	54	1.2
29	26	29	2.0	8.5	73	1.7	7.6	63	1.3
30	29	44	3.5	8.2	75	1.7	6.8	64	1.2
31	22	68	4.0	8.1	118	2.6	---	---	---
TOTAL	522	---	93.5	331.6	---	72.7	210.8	---	51.48
YEAR	46996.3		5877.14						

e Estimated

04178000 ST. JOSEPH RIVER NEAR NEWVILLE, IN

LOCATION.--Lat 41°23'08", long 84°48'06", in SW$^1/_4$SW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	870	1820	e295	2370	542	2050	586	513	135	91	41
2	86	770	1830	e275	3040	536	1990	571	458	123	92	39
3	83	702	1740	e265	3580	1080	2300	551	418	114	81	37
4	84	626	1600	e260	3760	1360	2490	530	415	105	71	35
5	134	558	1430	e250	3300	1320	2470	496	440	98	64	35
6	320	530	1090	e240	2600	1340	2360	456	511	91	59	33
7	355	508	811	e235	2110	1370	2120	432	551	86	56	33
8	342	475	663	e232	1740	1340	1840	433	553	81	53	32
9	258	401	567	e228	1420	1340	2010	546	491	83	51	30
10	208	350	499	e228	1130	1630	2150	656	420	96	49	30
11	248	369	444	e232	964	1730	2210	689	366	99	47	30
12	1290	356	402	e238	914	1770	2220	1230	322	94	47	30
13	1780	333	398	e242	897	1750	2400	2120	292	89	45	30
14	1980	296	572	e248	851	1710	2200	4360	281	82	45	28
15	2340	241	1290	e250	760	1550	1960	6200	274	77	48	28
16	2870	220	1410	e244	661	1280	1800	5210	264	72	48	29
17	3670	212	1790	e242	589	1020	1710	3730	266	68	52	29
18	3750	206	2140	e238	541	830	1590	2760	240	66	54	29
19	3500	200	2180	e229	507	712	1410	2200	214	63	61	31
20	3140	204	2030	e220	498	632	1210	1860	195	61	67	40
21	2730	226	1810	e211	569	572	1090	1600	180	59	65	53
22	2530	233	1570	e210	669	523	1020	1370	180	57	60	52
23	2380	227	1200	e214	750	482	988	1140	222	56	101	59
24	2190	222	875	219	748	440	971	964	264	54	72	64
25	2240	253	711	233	691	424	909	826	226	54	58	56
26	2120	282	583	272	622	416	793	746	201	75	57	49
27	1850	330	e480	279	584	405	682	685	197	103	59	51
28	1580	347	e430	264	564	448	606	622	223	162	56	52
29	1340	532	e380	258	---	524	572	607	185	163	51	50
30	1150	1410	e350	531	---	1350	589	601	153	154	47	52
31	997	---	e320	1420	---	1930	---	561	---	106	44	---
TOTAL	47637	12489	33415	9002	37429	32356	48710	45338	9515	2826	1851	1187
MEAN	1537	416.3	1078	290.4	1337	1044	1624	1463	317.2	91.16	59.71	39.57
MAX	3750	1410	2180	1420	3760	1930	2490	6200	553	163	101	64
MIN	83	200	320	210	498	405	572	432	153	54	44	28
CFSM	2.52	0.68	1.77	0.48	2.19	1.71	2.66	2.40	0.52	0.15	0.10	0.06
IN.	2.91	0.76	2.04	0.55	2.28	1.97	2.97	2.76	0.58	0.17	0.11	0.07

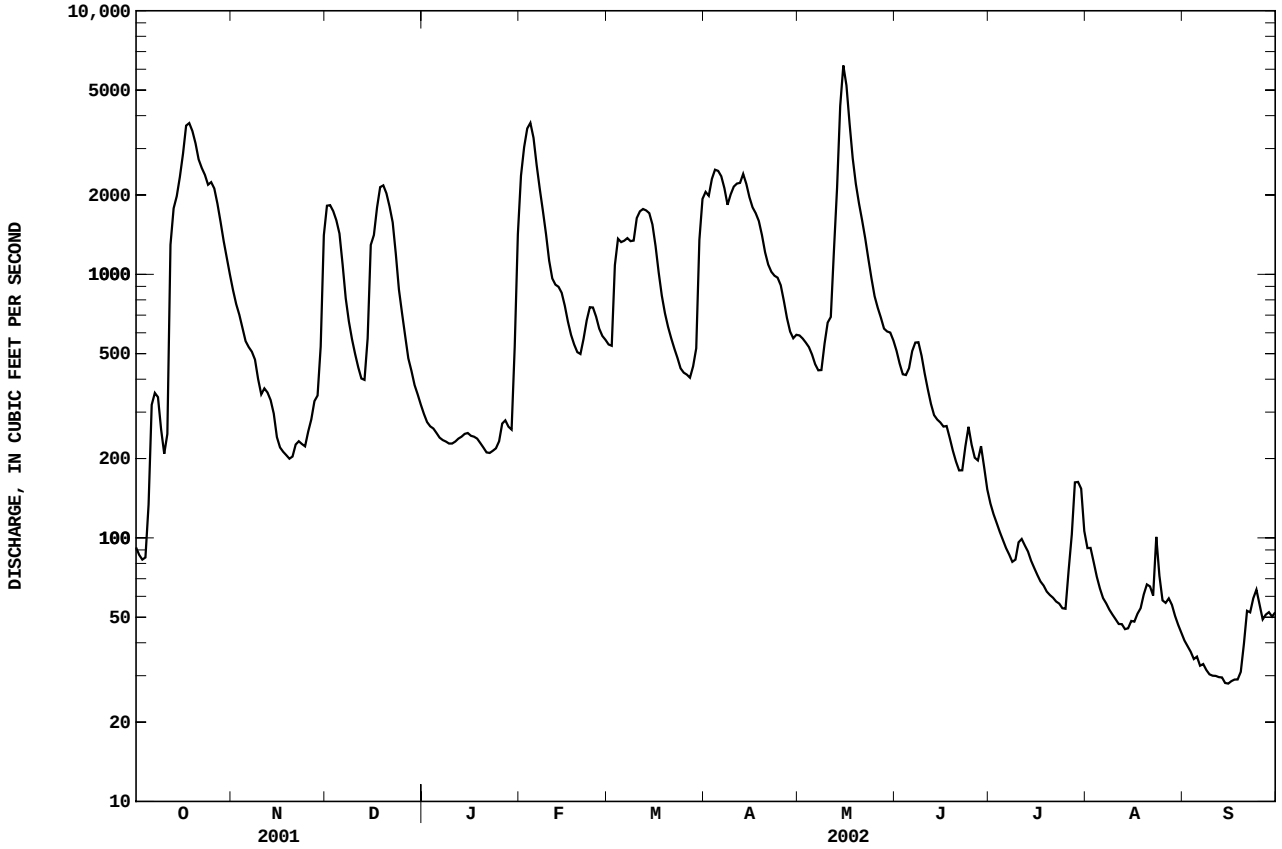
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2002, BY WATER YEAR (WY)

MEAN	202.7	375.1	588.2	658.7	872.4	1188	1076	651.2	421.8	236.4	151.3	137.7
MAX	1537	1756	2085	2545	2302	3512	3102	2499	1864	1045	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	321	148	51.4	32.2	29.1	20.3
(WY)	1964	1965	1964	1963	1963	1964	1971	1988	1988	1988	1967	1963

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1947 - 2002	
ANNUAL TOTAL	262665		281755			
ANNUAL MEAN	719.6		771.9		543.4	
HIGHEST ANNUAL MEAN					1008	1950
LOWEST ANNUAL MEAN					132	1964
HIGHEST DAILY MEAN	6070	Feb 13	6200	May 15	9790	May 18 1996
LOWEST DAILY MEAN	56	Sep 7	28	Sep 14	14	Sep 10 1964
ANNUAL SEVEN-DAY MINIMUM	59	Aug 11	29	Sep 12	15	Sep 10 1964
MAXIMUM PEAK FLOW			6340	May 15	10400	May 18 1996
MAXIMUM PEAK STAGE			15.65	May 15	17.96	Mar 17 1982
ANNUAL RUNOFF (CFSM)	1.18		1.27		0.89	
ANNUAL RUNOFF (INCHES)	16.02		17.18		12.10	
10 PERCENT EXCEEDS	1770		2120		1490	
50 PERCENT EXCEEDS	380		424		240	
90 PERCENT EXCEEDS	79		52		50	

e Estimated

04178000 ST. JOSEPH RIVER NEAR NEWVILLE, IN--Continued



04179520 CEDAR CREEK AT 18TH STREET AT AUBURN, IN

LOCATION.--Lat 41°21'36", long 85°02'57", in NW1/4SE1/4 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.--87.3 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	95	422	e48	934	65	316	68	45	20	16	6.5
2	9.6	94	262	e47	605	79	416	89	42	18	14	6.4
3	e9.0	90	179	e46	393	296	687	79	50	17	12	7.3
4	e7.0	82	136	e45	287	185	402	66	55	15	10	7.0
5	e26	74	112	45	204	120	e270	62	68	14	11	6.4
6	e50	69	97	46	155	102	e190	60	64	12	10	6.3
7	20	66	87	44	125	129	e140	59	55	12	9.6	5.9
8	13	61	78	43	109	122	e150	81	48	12	9.2	5.3
9	8.8	57	70	43	98	345	e400	161	44	20	8.4	5.6
10	e10	54	63	44	94	459	e360	140	41	36	8.0	5.9
11	e90	50	58	44	92	272	e260	122	38	21	7.7	7.1
12	717	47	58	44	87	209	e190	746	36	16	7.8	7.1
13	481	45	79	43	78	169	311	769	34	13	9.6	6.2
14	577	45	225	44	72	141	234	461	35	12	12	6.0
15	500	43	386	44	69	120	180	314	33	11	10	7.1
16	775	43	250	43	66	104	144	227	30	11	11	6.9
17	731	39	576	44	62	91	120	202	28	13	11	6.7
18	447	38	499	41	60	80	105	161	27	13	9.5	7.8
19	316	38	313	39	65	72	95	129	25	19	19	11
20	235	36	217	38	87	70	117	110	23	22	12	19
21	190	34	162	38	113	65	123	95	27	17	9.5	13
22	323	33	132	38	101	59	121	84	29	14	11	7.7
23	430	32	127	38	87	56	102	75	25	13	24	6.5
24	435	36	111	42	77	55	90	69	23	11	15	6.0
25	557	101	95	41	73	58	81	70	e20	11	11	5.5
26	332	80	84	42	80	60	71	73	e60	12	9.8	5.6
27	229	69	76	41	77	63	71	62	38	50	8.8	12
28	176	66	71	42	69	68	88	57	29	36	8.3	6.4
29	143	202	65	49	---	131	82	55	23	29	8.1	5.4
30	119	587	e56	208	---	580	74	52	20	35	7.7	e5.2
31	107	---	e50	585	---	530	---	49	---	22	6.8	---
TOTAL	8071.8	2406	5196	2039	4419	4955	5990	4847	1115	577	337.8	220.8
MEAN	260.4	80.20	167.6	65.77	157.8	159.8	199.7	156.4	37.17	18.61	10.90	7.360
MAX	775	587	576	585	934	580	687	769	68	50	24	19
MIN	7.0	32	50	38	60	55	71	49	20	11	6.8	5.2
CFSM	2.89	0.89	1.86	0.73	1.75	1.77	2.21	1.73	0.41	0.21	0.12	0.08
IN.	3.33	0.99	2.14	0.84	1.82	2.04	2.47	2.00	0.46	0.24	0.14	0.09

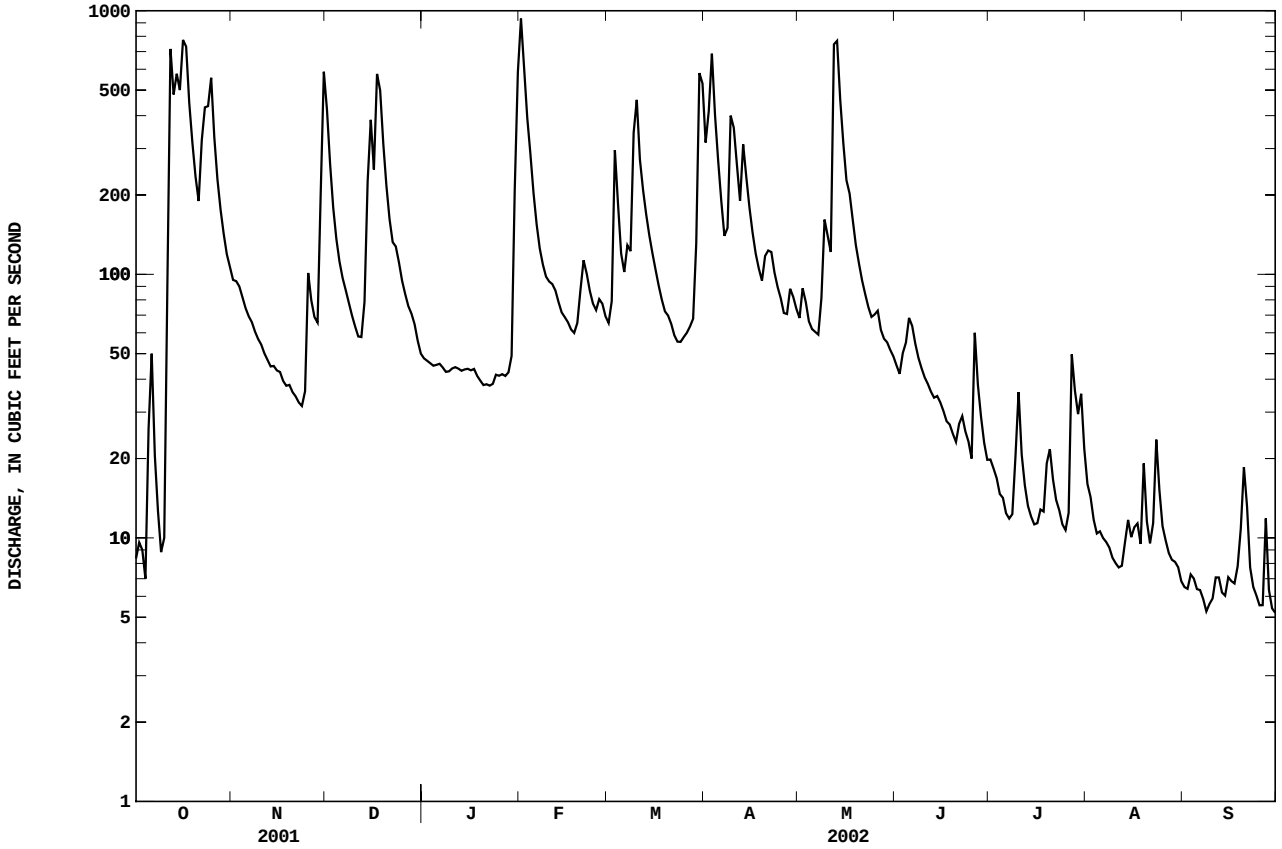
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	260.3	80.27	167.6	65.87	157.9	158.5	199.7	156.2	37.20	18.74	10.95	7.420
MAX	260	80.3	168	65.9	158	159	200	156	37.2	18.7	10.9	7.42
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002
MIN	260	80.3	168	65.9	158	159	200	156	37.2	18.7	10.9	7.42
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS	FOR 2002 WATER YEAR		WATER YEARS 2001 - 2002	
ANNUAL TOTAL	40174.4			
ANNUAL MEAN	110.1		110.0	
HIGHEST ANNUAL MEAN			110	2002
LOWEST ANNUAL MEAN			110	2002
HIGHEST DAILY MEAN	934	Feb 1	934	Feb 1 2002
LOWEST DAILY MEAN	5.2	Sep 30	5.3	Sep 8 2002
ANNUAL SEVEN-DAY MINIMUM	6.1	Sep 4	6.1	Sep 4 2002
MAXIMUM PEAK FLOW	1080	Oct 16	1080	Oct 16 2001
MAXIMUM PEAK STAGE	7.90	Oct 16	7.90	Oct 16 2001
ANNUAL RUNOFF (CFSM)	1.22		1.22	
ANNUAL RUNOFF (INCHES)	16.57		16.57	
10 PERCENT EXCEEDS	313		312	
50 PERCENT EXCEEDS	58		56	
90 PERCENT EXCEEDS	8.6		8.3	

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 NW1/4NW1/4 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 good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	298	1760	e143	2700	214	1210	299	155	82	60	28
2	27	278	958	e134	2400	220	1010	414	139	80	52	27
3	27	269	652	e127	1380	789	1820	377	149	77	48	26
4	25	243	475	e120	942	714	1290	308	208	67	42	27
5	63	219	382	115	688	465	868	275	192	60	40	27
6	276	204	323	117	543	363	674	258	215	57	40	27
7	158	192	278	113	446	398	543	265	172	54	38	26
8	97	179	243	106	393	406	574	348	146	51	36	24
9	72	163	218	108	347	707	1720	827	129	66	34	23
10	60	153	195	110	333	1590	1430	756	119	96	34	25
11	127	148	177	112	319	928	904	526	110	70	31	23
12	1350	137	165	107	298	650	740	1640	103	58	31	22
13	1910	130	223	106	273	521	1280	2540	96	53	33	23
14	1480	126	469	102	248	443	993	1500	95	49	43	23
15	1820	124	1380	105	238	386	726	923	106	48	50	21
16	1650	120	851	100	229	340	572	666	88	47	42	25
17	2640	114	1430	100	226	301	476	555	82	46	43	23
18	1640	109	1900	93	204	284	413	493	87	46	39	24
19	1020	107	1080	90	200	273	365	395	80	44	67	30
20	714	103	716	87	240	252	413	332	73	83	63	51
21	541	98	517	87	348	236	489	289	81	53	46	80
22	987	94	410	84	319	215	546	255	91	48	40	43
23	1320	89	384	91	275	206	428	231	76	46	74	33
24	1520	89	345	94	257	202	360	211	70	43	66	30
25	1840	284	289	93	239	209	326	195	68	40	49	27
26	1310	278	246	92	244	207	288	251	327	40	43	27
27	797	213	224	88	246	e220	272	213	218	60	39	50
28	582	212	209	88	220	e250	459	184	143	93	34	53
29	454	482	184	97	---	352	416	199	108	107	33	35
30	379	1650	e165	333	---	1440	340	196	91	137	32	31
31	333	---	e150	1310	---	2060	---	173	---	82	31	---
TOTAL	25245	6905	16998	4652	14795	15841	21945	16094	3817	1983	1353	934
MEAN	814.4	230.2	548.3	150.1	528.4	511.0	731.5	519.2	127.2	63.97	43.65	31.13
MAX	2640	1650	1900	1310	2700	2060	1820	2540	327	137	74	80
MIN	25	89	150	84	200	202	272	173	68	40	31	21
CFSM	3.02	0.85	2.03	0.56	1.96	1.89	2.71	1.92	0.47	0.24	0.16	0.12
IN.	3.48	0.95	2.34	0.64	2.04	2.18	3.02	2.22	0.53	0.27	0.19	0.13

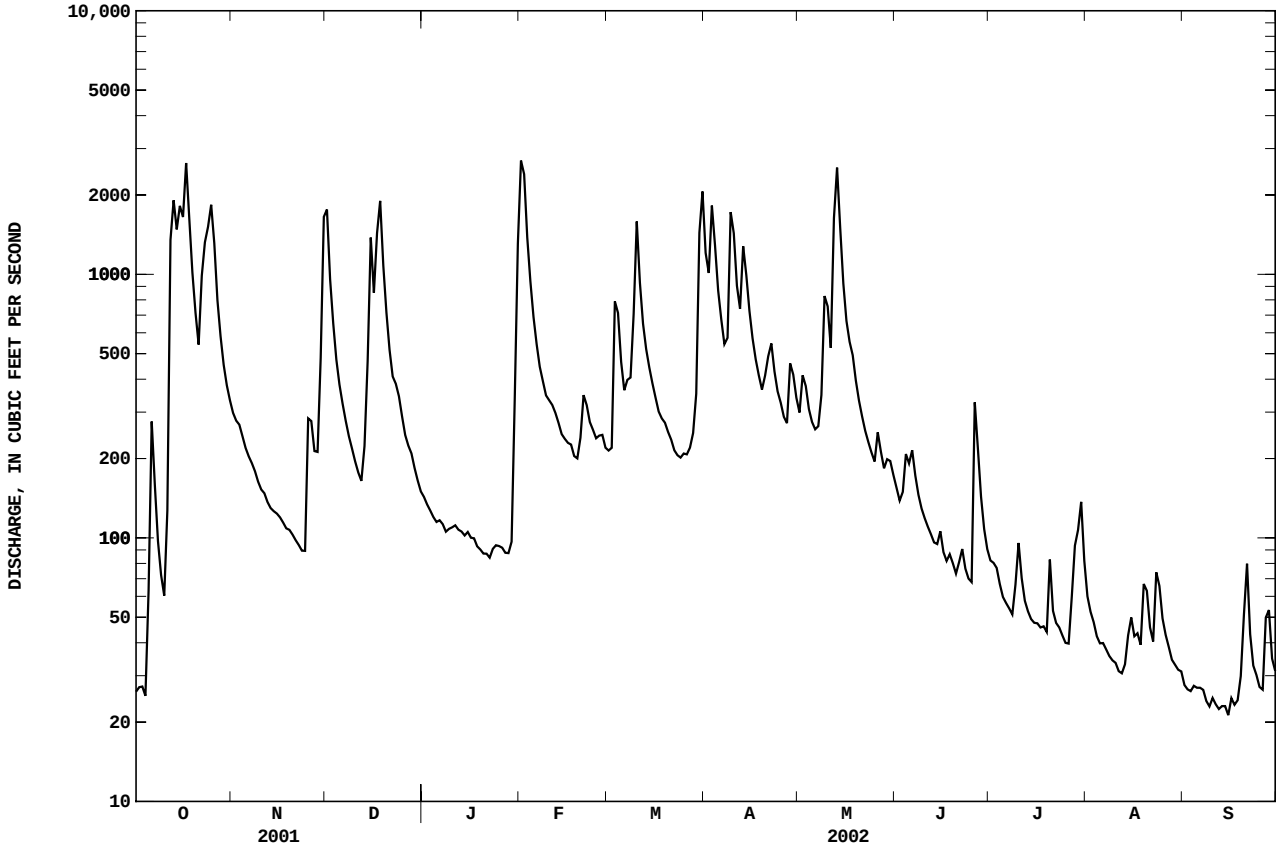
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2002, BY WATER YEAR (WY)

MEAN	122.9	183.0	281.5	317.6	406.2	504.5	472.4	285.9	214.4	120.5	85.31	86.02
MAX	814	936	908	1393	1290	1724	1130	947	1046	515	331	477
(WY)	2002	1993	1967	1950	1959	1982	1950	1956	1981	1986	1997	1972
MIN	19.8	24.0	24.7	25.9	28.5	146	139	68.6	44.0	35.1	22.0	20.9
(WY)	1965	1965	1964	1963	1963	1957	1971	1958	1988	1953	1964	1964

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1947 - 2002	
ANNUAL TOTAL	118272		130562			
ANNUAL MEAN	324.0		357.7		256.1	
HIGHEST ANNUAL MEAN					485	1950
LOWEST ANNUAL MEAN					85.3	1964
HIGHEST DAILY MEAN	3610	Feb 10	2700	Feb 1	5220	Dec 31 1990
LOWEST DAILY MEAN	20	Aug 15	21	Sep 15	13	Oct 3 1949
ANNUAL SEVEN-DAY MINIMUM	25	Aug 12	23	Sep 9	18	Sep 27 1949
MAXIMUM PEAK FLOW			2950	Feb 1	5580	Dec 30 1990
MAXIMUM PEAK STAGE			8.30	Feb 1	13.38	Dec 30 1990
ANNUAL RUNOFF (CFSM)	1.20		1.32		0.95	
ANNUAL RUNOFF (INCHES)	16.30		17.99		12.89	
10 PERCENT EXCEEDS	898		989		601	
50 PERCENT EXCEEDS	151		195		115	
90 PERCENT EXCEEDS	32		34		32	

e Estimated

04180000 CEDAR CREEK NEAR CEDARVILLE, IN--Continued



04180500 ST. JOSEPH RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 41°10'41", long 85°03'19", in NW$^1/_4$NE$^1/_4$ 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, 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	1250	4580	e505	7010	796	3870	898	732	277	165	76
2	153	1200	3320	e480	6430	800	3870	1280	575	265	125	73
3	141	994	2820	e460	5210	2430	4990	920	575	247	156	75
4	116	864	2380	e440	4840	2230	4410	840	710	246	140	74
5	198	924	2080	e430	4650	1850	3820	842	608	208	120	70
6	673	746	1820	e425	4220	1780	3570	692	664	176	104	75
7	664	603	1320	e420	3460	1780	3280	700	717	213	84	80
8	397	791	983	e415	2830	1910	3130	823	667	180	94	82
9	394	696	1040	e410	2210	2460	4810	1650	664	188	92	70
10	311	500	752	418	1640	3860	4530	1650	606	249	67	60
11	423	493	619	454	1430	2900	3490	1280	487	242	70	54
12	4040	493	738	442	1370	2550	3410	4020	497	211	72	48
13	4480	541	712	438	1180	2480	4590	5460	430	203	83	47
14	3900	527	1260	436	1130	2300	4510	4370	411	206	98	45
15	4690	372	3610	445	1130	2200	3460	5050	403	162	91	46
16	5370	425	2600	437	960	1910	2880	6470	382	149	83	46
17	6670	372	4330	431	926	1500	2490	6540	388	167	93	45
18	5790	364	5400	425	745	1180	2230	4800	372	158	110	39
19	4720	356	3990	420	739	1050	2090	3900	405	167	123	45
20	4160	347	3450	394	794	896	1720	2910	323	228	150	81
21	3840	331	2870	357	964	825	1640	2250	286	174	124	150
22	4510	335	2520	381	993	767	1790	1940	304	174	104	104
23	4980	375	2090	387	961	731	1390	1640	302	131	163	109
24	5020	368	1650	392	1000	675	1460	1280	317	166	195	98
25	5320	528	1200	384	1050	631	1170	1190	380	107	144	94
26	4420	646	933	387	925	639	1200	1090	622	134	88	122
27	3180	550	935	427	843	649	1030	866	579	192	86	136
28	2630	554	e720	440	820	691	1130	897	369	242	115	194
29	2090	1000	e640	433	---	919	1120	827	333	593	119	137
30	1820	4300	e600	798	---	3590	877	818	338	524	87	103
31	1460	---	e550	3550	---	5090	---	789	---	319	81	---
TOTAL	86707	21845	62512	16661	60460	54069	83957	68682	14446	6898	3426	2478
MEAN	2797	728.2	2017	537.5	2159	1744	2799	2216	481.5	222.5	110.5	82.60
MAX	6670	4300	5400	3550	7010	5090	4990	6540	732	593	195	194
MIN	116	331	550	357	739	631	877	692	286	107	67	39
CFSM	2.64	0.69	1.90	0.51	2.04	1.65	2.64	2.09	0.45	0.21	0.10	0.08
IN.	3.04	0.77	2.19	0.58	2.12	1.90	2.95	2.41	0.51	0.24	0.12	0.09

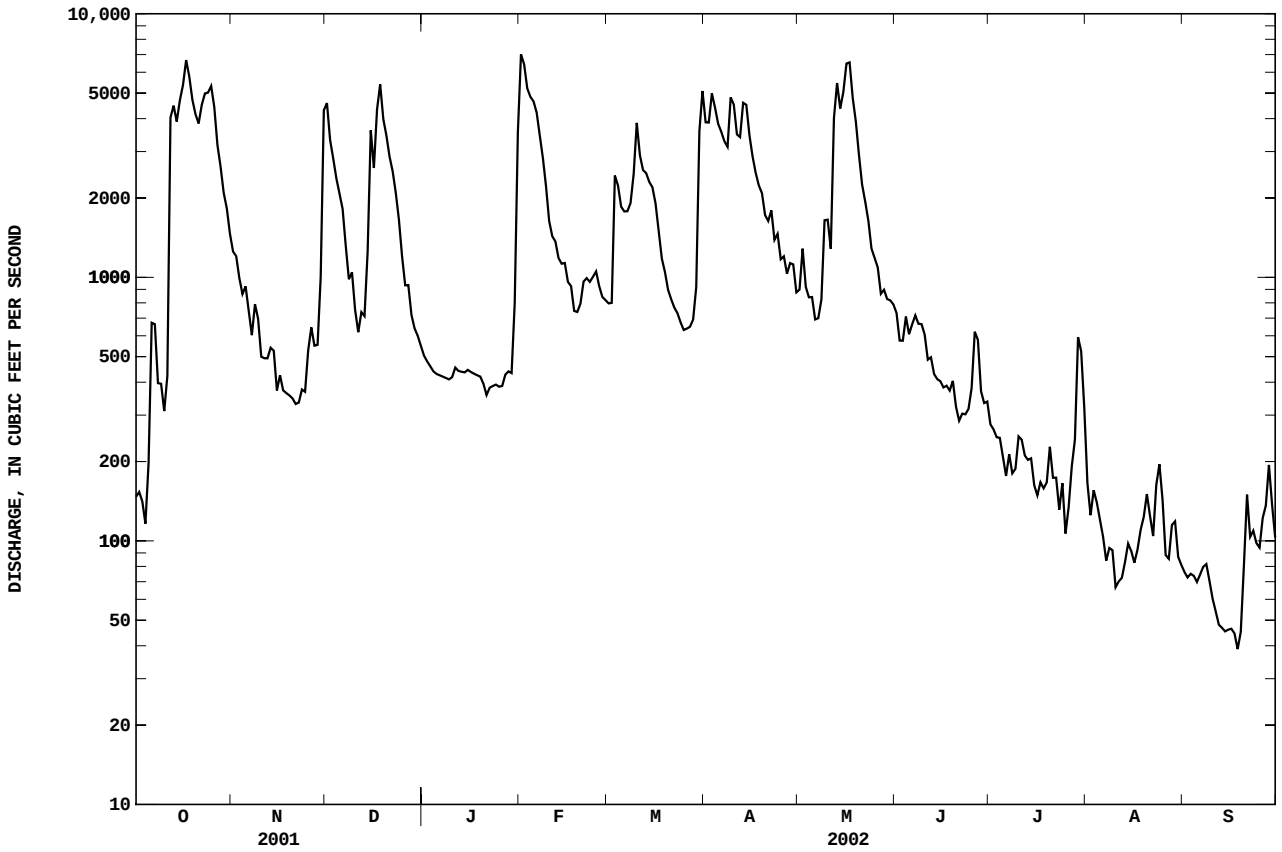
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

MEAN	613.5	942.8	1185	1373	1719	1869	1859	1147	994.7	452.2	360.5	354.3
MAX	2797	3330	2421	4615	3728	3612	3071	3675	2915	1413	1157	1258
(WY)	2002	1993	1991	1993	2001	1985	1999	1996	1989	1986	1998	1997
MIN	78.6	98.8	162	145	310	689	607	272	153	122	111	81.5
(WY)	1995	2000	2000	2000	1995	2000	1986	1988	1988	1988	2002	1994

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1984 - 2002	
ANNUAL TOTAL	466599		482141			
ANNUAL MEAN	1278		1321		1068	
HIGHEST ANNUAL MEAN					1532	1993
LOWEST ANNUAL MEAN					642	1995
HIGHEST DAILY MEAN	7710	Feb 10	7010	Feb 1	13100	Feb 26 1985
LOWEST DAILY MEAN	74	Aug 7	39	Sep 18	39	Sep 18 2002
ANNUAL SEVEN-DAY MINIMUM	130	Aug 11	45	Sep 13	45	Sep 13 2002
MAXIMUM PEAK FLOW			7220	Feb 1	13400	Jan 5 1993
MAXIMUM PEAK STAGE			12.54	Feb 1	18.40	Jan 5 1993
ANNUAL RUNOFF (CFSM)	1.21		1.25		1.01	
ANNUAL RUNOFF (INCHES)	16.37		16.92		13.69	
10 PERCENT EXCEEDS	3500		4030		2720	
50 PERCENT EXCEEDS	646		664		515	
90 PERCENT EXCEEDS	181		98		145	

e Estimated

04180500 ST. JOSEPH RIVER NEAR FORT WAYNE, IN--Continued



04181500 ST. MARYS RIVER AT DECATUR, IN

LOCATION.--Lat 40°50'55", long 84°56'16", in SW¼SW¼ sec.27, T.28 N., R.14 E., Adams County, Hydrologic Unit 04100004, (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 fair, 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	338	2630	e110	4160	380	4940	895	831	63	37	27
2	30	248	1620	e104	4260	583	4430	975	788	55	32	27
3	29	215	1420	e100	4050	2800	3960	644	564	43	28	27
4	32	194	1430	e98	3960	1880	2830	491	319	37	27	25
5	84	174	1210	e96	3520	914	1560	440	1740	35	27	24
6	305	158	780	97	2310	758	1320	332	1110	33	26	24
7	545	145	442	99	1110	614	1290	260	321	31	25	23
8	460	136	291	96	590	453	1130	258	190	30	25	23
9	357	125	227	96	367	622	2050	454	151	28	24	23
10	232	119	187	103	287	1370	1760	520	124	28	24	24
11	204	107	161	103	286	734	1200	505	110	32	25	25
12	1500	100	143	99	340	662	1390	1320	202	32	25	25
13	1700	92	153	101	386	598	1560	2580	152	28	32	24
14	1500	86	707	109	377	473	1360	2820	106	28	37	24
15	2170	81	2350	115	324	378	1400	1940	94	28	31	24
16	2510	79	1450	113	266	367	1620	2100	106	26	31	24
17	3440	75	3070	115	228	384	1810	2350	96	25	29	26
18	2840	71	4050	e100	197	346	1640	1950	86	24	26	27
19	1900	71	3810	e95	220	332	1230	1230	79	24	43	30
20	1410	71	3300	e94	752	312	750	650	72	25	38	52
21	1080	69	2910	e93	1060	282	443	363	64	25	54	49
22	939	67	2270	e92	635	242	327	252	57	25	47	48
23	1020	65	1430	102	439	233	253	207	53	77	70	40
24	1830	65	818	104	343	225	249	184	48	100	125	45
25	3240	75	453	100	285	213	251	224	44	73	102	40
26	3170	82	312	103	303	e190	207	462	42	47	e70	34
27	2000	87	e230	119	394	e174	191	239	42	39	e57	53
28	1480	87	e175	132	371	e240	1820	532	48	35	e50	61
29	1270	246	e150	144	---	864	1740	950	71	51	e43	61
30	906	2220	e130	580	---	3960	942	714	64	55	34	67
31	547	---	e120	2450	---	5330	---	783	---	43	31	---
TOTAL	38765	5748	38429	6062	31820	26913	45653	27624	7774	1225	1275	1026
MEAN	1250	191.6	1240	195.5	1136	868.2	1522	891.1	259.1	39.52	41.13	34.20
MAX	3440	2220	4050	2450	4260	5330	4940	2820	1740	100	125	67
MIN	29	65	120	92	197	174	191	184	42	24	24	23
CFSM	2.01	0.31	2.00	0.31	1.83	1.40	2.45	1.43	0.42	0.06	0.07	0.06
IN.	2.32	0.34	2.30	0.36	1.91	1.61	2.73	1.65	0.47	0.07	0.08	0.06

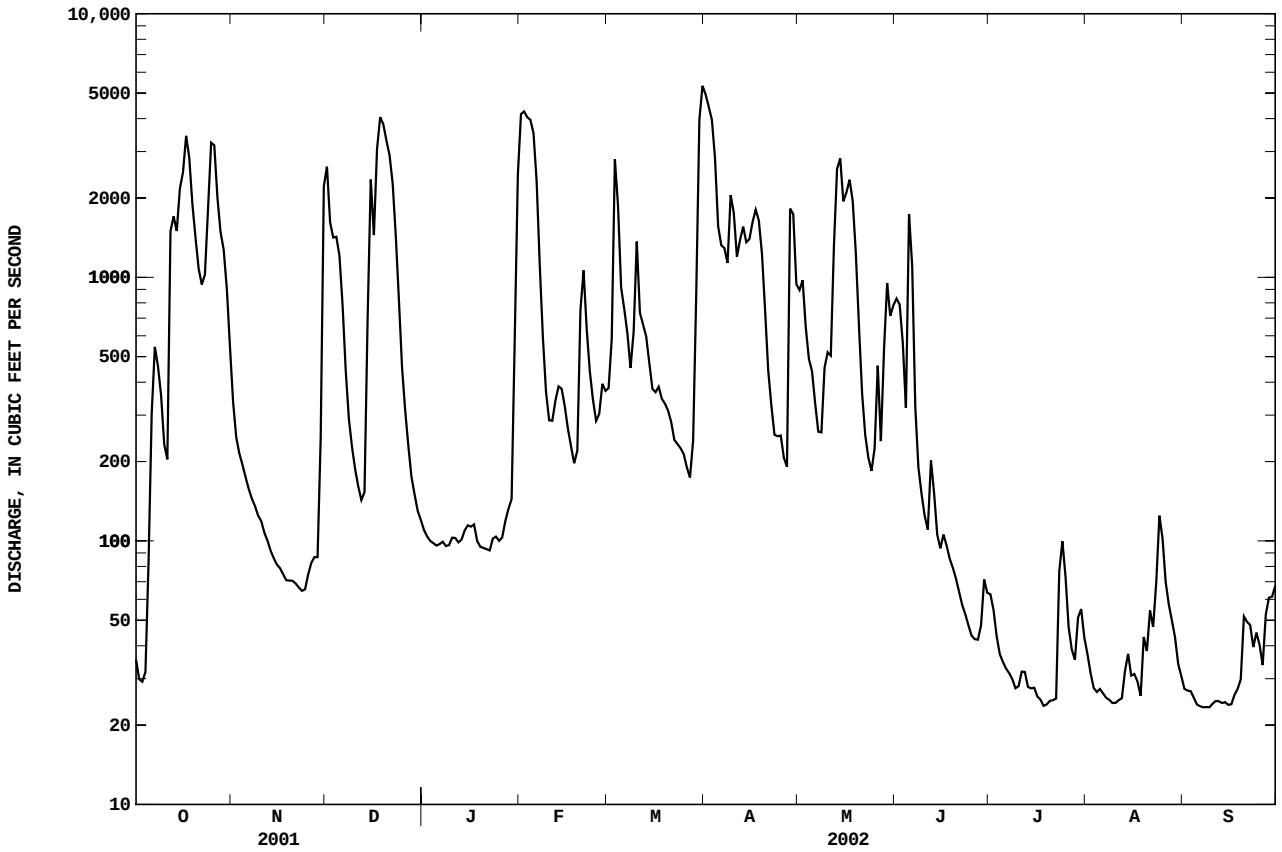
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2002, BY WATER YEAR (WY)

MEAN	141.8	302.4	562.4	718.6	882.6	1075	955.8	498.1	446.9	318.2	138.3	105.6
MAX	1250	1988	2079	3834	2546	3263	3409	1920	2075	2674	848	1225
(WY)	2002	1993	1991	1950	1950	1978	1957	1996	1981	1992	1998	1992
MIN	7.52	13.7	12.8	21.0	30.5	125	79.3	55.6	28.1	20.6	15.5	12.6
(WY)	1964	1965	1964	1961	1964	1981	1966	1988	1988	1965	1963	1963

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1947 - 2002	
ANNUAL TOTAL	193686		232314			
ANNUAL MEAN	530.6		636.5		506.3	
HIGHEST ANNUAL MEAN					879	1993
LOWEST ANNUAL MEAN					140	1966
HIGHEST DAILY MEAN	4050	Dec 18	5330	Mar 31	10600	Feb 15 1950
LOWEST DAILY MEAN	29	Oct 3	23	Sep 7	5.4	Oct 18 1960
ANNUAL SEVEN-DAY MINIMUM	34	Aug 8	24	Sep 4	6.2	Oct 12 1963
MAXIMUM PEAK FLOW			5480	Mar 31	11300	Feb 10 1959
MAXIMUM PEAK STAGE			19.98	Mar 31	24.40	Mar 14 1982
ANNUAL RUNOFF (CFSM)	0.85		1.02		0.82	
ANNUAL RUNOFF (INCHES)	11.60		13.92		11.08	
10 PERCENT EXCEEDS	1630		1940		1500	
50 PERCENT EXCEEDS	150		190		130	
90 PERCENT EXCEEDS	43		28		23	

e Estimated

04181500 ST. MARYS RIVER AT DECATUR, IN--Continued



04182000 ST. MARYS RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 40°59'16", long 85°06'43", in A. LaFontaine Reserve, T.29 N., R.12 E., Allen County, Hydrologic Unit 04100004, (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.

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. Period of record computations do not include 1934 water year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	476	3340	e190	5470	462	6500	962	874	75	54	40
2	40	337	2180	e180	5410	577	6000	1250	869	73	46	37
3	36	277	1560	e170	4950	3230	5280	912	726	65	40	36
4	35	246	1530	e166	4550	2840	4030	597	471	55	36	36
5	98	221	1390	e160	4210	1260	2140	525	1470	47	34	34
6	371	198	1020	160	3180	932	1460	436	2140	44	33	32
7	491	180	631	161	1580	822	1420	345	710	42	33	32
8	462	167	410	159	845	635	1350	360	347	40	32	32
9	386	155	303	156	519	780	2360	630	239	39	31	32
10	291	145	247	158	384	1600	2300	662	191	38	30	33
11	459	136	209	158	356	1040	1430	600	163	37	29	32
12	2730	124	183	147	380	777	1450	2000	189	40	29	34
13	2480	115	189	143	426	730	2050	2920	259	41	31	33
14	2000	108	736	145	444	613	1670	3400	170	38	37	34
15	2730	103	2810	154	408	490	1470	2440	132	37	46	37
16	3740	99	2040	144	346	437	1630	2100	119	37	42	36
17	4500	97	3550	136	291	450	1850	2460	130	37	40	33
18	3720	92	4740	e128	250	424	1810	2270	119	35	39	36
19	2460	90	4590	e122	235	393	1450	1560	103	37	44	38
20	1680	90	3960	e118	969	375	987	902	92	37	61	49
21	1290	89	3330	e115	1530	351	610	510	83	36	54	90
22	1490	86	2730	e112	972	304	440	342	74	36	69	69
23	1530	84	1820	110	626	270	335	268	68	50	92	60
24	2060	83	1110	123	478	265	283	235	64	102	177	52
25	3150	160	646	120	390	263	295	322	59	105	167	54
26	3570	125	425	115	373	242	269	879	62	75	113	51
27	2630	118	340	119	474	206	234	463	189	54	83	54
28	1690	115	e280	139	482	312	1530	497	63	46	69	74
29	1430	320	e240	173	---	856	2300	1260	63	51	58	77
30	1120	2590	e220	1190	---	4400	1210	900	84	165	50	75
31	740	---	e204	3300	---	6000	---	831	---	82	44	---
TOTAL	49454	7226	46963	8671	40528	32336	56143	33838	10322	1696	1743	1362
MEAN	1595	240.9	1515	279.7	1447	1043	1871	1092	344.1	54.71	56.23	45.40
MAX	4500	2590	4740	3300	5470	6000	6500	3400	2140	165	177	90
MIN	35	83	183	110	235	206	234	235	59	35	29	32
CFSM	2.09	0.32	1.99	0.37	1.90	1.37	2.46	1.43	0.45	0.07	0.07	0.06
IN.	2.41	0.35	2.29	0.42	1.98	1.58	2.74	1.65	0.50	0.08	0.09	0.07

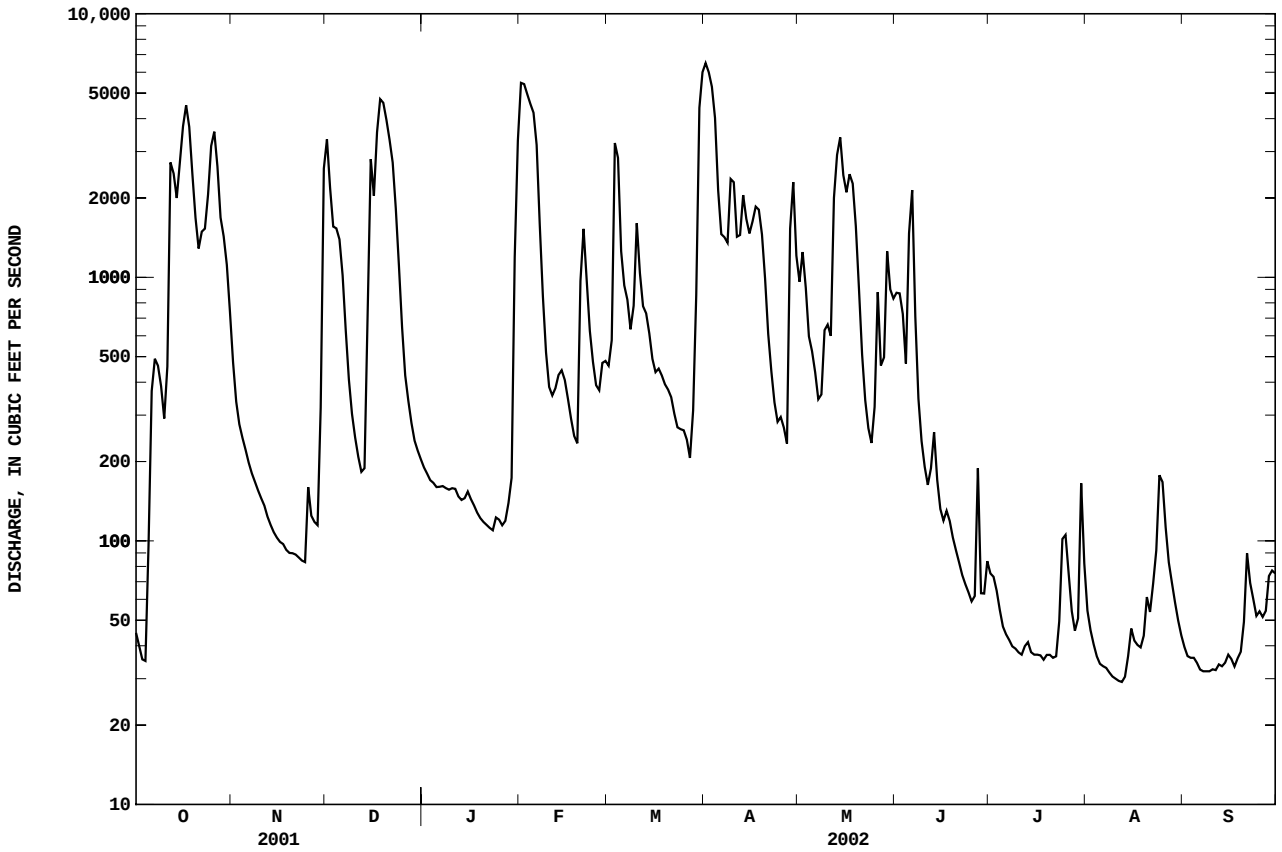
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

MEAN	166.1	324.5	628.0	858.6	1039	1305	1151	649.8	526.4	345.7	159.3	114.2
MAX	1594	2612	2349	4897	3404	4070	4119	3866	2545	2708	1134	1453
(WY)	2002	1973	1978	1950	1959	1978	1957	1943	1981	1992	1998	1992
MIN	8.28	16.9	16.7	21.3	45.4	87.0	90.7	59.9	34.3	11.9	13.9	11.6
(WY)	1964	1965	1964	1977	1964	1941	1946	1931	1988	1936	1932	1944

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1931 - 2002	
ANNUAL TOTAL	252468		290282			
ANNUAL MEAN	691.7		795.3		613.8	
HIGHEST ANNUAL MEAN					1093	1950
LOWEST ANNUAL MEAN					174	1966
HIGHEST DAILY MEAN	5020	Feb 10	6500	Apr 1	13000	May 19 1943
LOWEST DAILY MEAN	33	Aug 14	29	Aug 11	3.4	Oct 19 1934
ANNUAL SEVEN-DAY MINIMUM	39	Aug 9	31	Aug 7	4.9	Oct 15 1934
MAXIMUM PEAK FLOW			6560	Apr 1	13600	Feb 11 1959
MAXIMUM PEAK STAGE			13.49	Apr 1	19.66	Mar 14 1982
ANNUAL RUNOFF (CFSM)	0.91		1.04		0.81	
ANNUAL RUNOFF (INCHES)	12.33		14.17		10.94	
10 PERCENT EXCEEDS	2290		2460		1740	
50 PERCENT EXCEEDS	183		246		146	
90 PERCENT EXCEEDS	52		37		25	

e Estimated

04182000 ST. MARYS RIVER NEAR FORT WAYNE, IN--Continued



04182810 SPY RUN CREEK AT FORT WAYNE, IN

LOCATION.--Lat 41°06'18", long 85°09'12", in SW$^1/_4$SW$^1/_4$ sec.26, T.31 N., R.12 E., Allen County, Hydrologic Unit 04100004, (FORT WAYNE WEST, IN quadrangle), on right bank 50 ft upstream from Sherman Boulevard bridge in Fort Wayne, 0.4 mi north of Goshen Avenue on Sherman Boulevard, 0.95 mi southwest of intersection of State Road 3 and State Roads 14/37, and at mile 2.2.

DRAINAGE AREA.--14.0 mi^2.

PERIOD OF RECORD.--October 1983 to December 2001 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 760.00 ft above National Geodetic Vertical Datum of 1929, (levels by City of Fort Wayne).

REMARKS.--Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 14, 1982 reached a stage of 10.75 ft, present site and datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

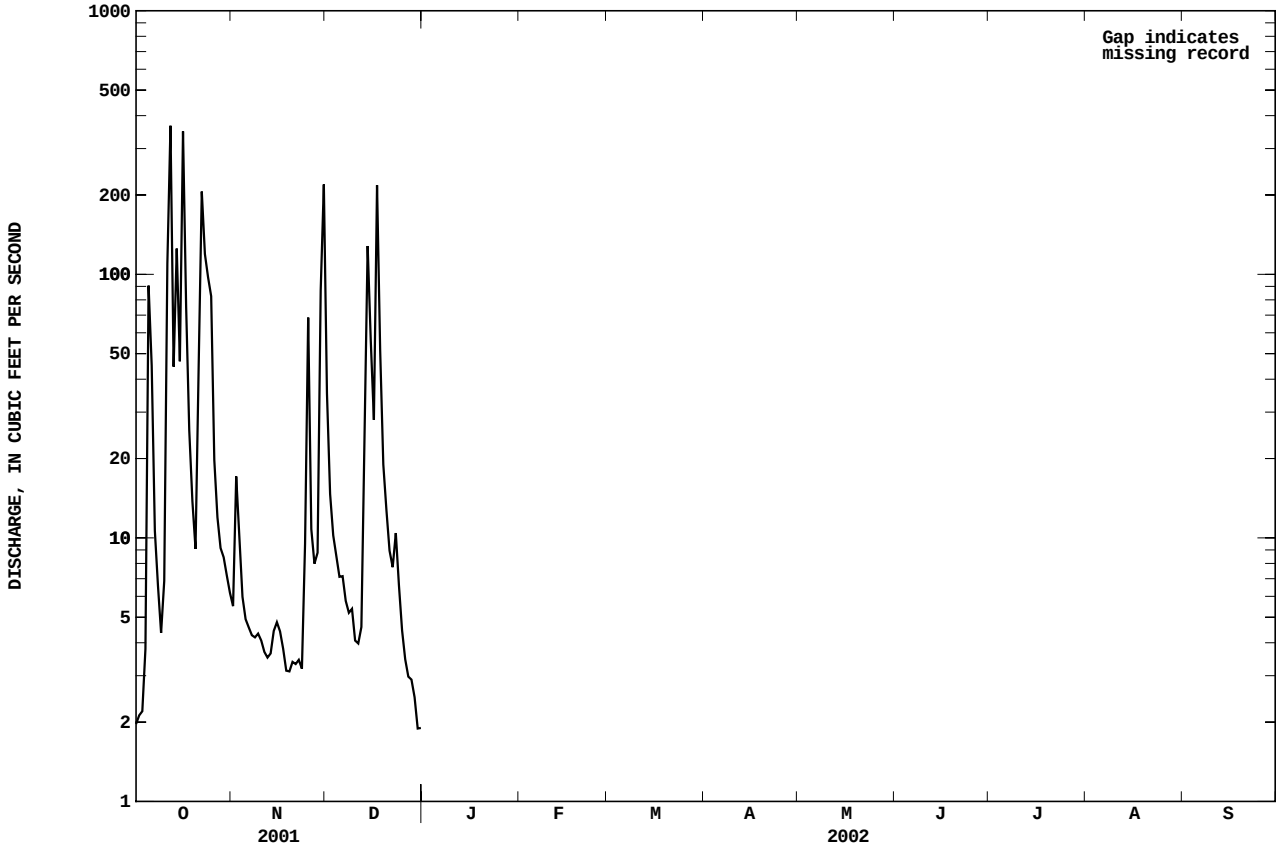
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	5.5	35	---	---	---	---	---	---	---	---	---
2	2.1	17	15	---	---	---	---	---	---	---	---	---
3	2.2	10	10	---	---	---	---	---	---	---	---	---
4	3.8	6.0	8.5	---	---	---	---	---	---	---	---	---
5	91	4.9	7.1	---	---	---	---	---	---	---	---	---
6	45	4.6	7.2	---	---	---	---	---	---	---	---	---
7	11	4.3	5.8	---	---	---	---	---	---	---	---	---
8	6.6	4.2	5.2	---	---	---	---	---	---	---	---	---
9	4.4	4.3	5.4	---	---	---	---	---	---	---	---	---
10	6.9	4.1	4.1	---	---	---	---	---	---	---	---	---
11	110	3.7	4.0	---	---	---	---	---	---	---	---	---
12	366	3.5	4.6	---	---	---	---	---	---	---	---	---
13	45	3.6	24	---	---	---	---	---	---	---	---	---
14	125	4.4	128	---	---	---	---	---	---	---	---	---
15	47	4.8	56	---	---	---	---	---	---	---	---	---
16	349	4.4	28	---	---	---	---	---	---	---	---	---
17	75	3.8	218	---	---	---	---	---	---	---	---	---
18	26	3.1	52	---	---	---	---	---	---	---	---	---
19	14	3.1	19	---	---	---	---	---	---	---	---	---
20	9.1	3.4	13	---	---	---	---	---	---	---	---	---
21	44	3.3	8.9	---	---	---	---	---	---	---	---	---
22	206	3.4	7.7	---	---	---	---	---	---	---	---	---
23	119	3.2	10	---	---	---	---	---	---	---	---	---
24	98	9.5	6.6	---	---	---	---	---	---	---	---	---
25	83	69	4.5	---	---	---	---	---	---	---	---	---
26	20	11	3.5	---	---	---	---	---	---	---	---	---
27	12	8.0	3.0	---	---	---	---	---	---	---	---	---
28	9.2	8.8	2.9	---	---	---	---	---	---	---	---	---
29	8.4	87	2.5	---	---	---	---	---	---	---	---	---
30	7.2	219	1.9	---	---	---	---	---	---	---	---	---
31	6.2	---	1.9	---	---	---	---	---	---	---	---	---
TOTAL	1954.1	524.9	703.3	---	---	---	---	---	---	---	---	---
MEAN	63.04	17.50	22.69	---	---	---	---	---	---	---	---	---
MAX	366	219	218	---	---	---	---	---	---	---	---	---
MIN	2.0	3.1	1.9	---	---	---	---	---	---	---	---	---
CFSM	4.50	1.25	1.62	---	---	---	---	---	---	---	---	---
IN.	5.19	1.39	1.87	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

MEAN	14.01	18.51	18.84	18.72	24.16	24.60	25.33	18.07	17.34	16.88	10.63	12.05
MAX	63.0	61.3	66.2	48.9	64.6	46.6	58.8	46.9	53.3	48.3	23.3	39.8
(WY)	2002	1993	1991	1993	1990	1984	1999	1997	2000	1986	1998	1993
MIN	2.79	3.37	3.03	3.76	5.32	6.24	8.20	4.15	2.16	3.85	4.10	3.94
(WY)	1988	2000	1990	1984	1989	2001	2000	1988	1988	1991	1984	1988

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1984 - 2002	
ANNUAL TOTAL	8110.7		3182.3			
ANNUAL MEAN	22.22		34.59		18.20	
HIGHEST ANNUAL MEAN					34.6	2002
LOWEST ANNUAL MEAN					11.5	1987
HIGHEST DAILY MEAN	384	Apr 6	366	Oct 12	748	Feb 22 1990
LOWEST DAILY MEAN	1.3	Jul 15	1.9	Dec 30	0.93	Jul 9 1990
ANNUAL SEVEN-DAY MINIMUM	1.8	Jan 1	2.9	Dec 25	1.1	Jan 15 1994
MAXIMUM PEAK FLOW			828	Oct 16	1370	Feb 22 1990
MAXIMUM PEAK STAGE			8.98	Oct 16	10.74	Jul 22 1997
ANNUAL RUNOFF (CFSM)	1.59		2.47		1.30	
ANNUAL RUNOFF (INCHES)	21.55		8.46		17.66	
10 PERCENT EXCEEDS	51		106		35	
50 PERCENT EXCEEDS	6.2		7.4		5.6	
90 PERCENT EXCEEDS	2.4		3.1		2.5	

04182810 SPY RUN CREEK AT FORT WAYNE, IN--Continued



04182900 MAUMEE RIVER AT FORT WAYNE, IN

LOCATION.--Lat 41°04'55", long 85°06'53", in SE$^1/_4$NE$^1/_4$ sec. 1, T.30 N., R.12 E., Allen County, Hydrologic Unit 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, 20.98 ft, Jan. 25, 1999; minimum gage height, 0.75 ft, Sept. 29, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 17.61 ft, Feb. 1; minimum gage height, 0.83 ft, Aug. 27.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.31	4.25	9.40	2.00	17.47	3.16	14.99	---	---	1.58	1.58	1.21
2	1.41	3.91	10.05	2.10	16.53	4.53	15.40	---	---	1.88	1.17	1.07
3	1.18	3.22	10.45	2.08	14.99	12.16	15.19	---	---	1.39	1.46	1.03
4	1.36	3.00	10.76	1.98	14.20	8.55	12.55	---	---	1.31	1.44	1.01
5	2.18	3.38	7.07	1.90	13.52	6.60	10.03	---	---	1.54	1.55	1.00
6	2.79	2.60	5.88	1.84	11.61	5.83	9.15	---	---	1.29	1.36	0.99
7	3.21	2.38	4.24	1.81	8.98	5.76	8.57	---	---	1.63	1.06	0.98
8	2.36	2.69	3.42	1.81	7.18	5.50	9.95	---	---	1.44	1.01	1.06
9	2.19	2.51	3.30	1.74	6.10	9.02	12.82	---	---	1.17	1.35	1.04
10	2.04	2.06	2.74	1.74	4.57	9.98	11.21	---	---	1.38	1.13	1.06
11	5.89	2.04	2.36	1.81	4.56	7.61	9.12	---	---	1.50	1.04	0.98
12	14.21	2.05	2.57	1.83	4.61	6.93	11.21	---	---	1.50	1.09	0.99
13	11.16	1.98	2.67	1.95	3.86	6.67	11.64	---	---	1.33	1.13	0.98
14	11.87	2.00	8.71	1.71	3.27	6.16	10.60	---	---	1.47	1.45	1.00
15	12.41	1.77	11.69	1.81	3.55	5.85	8.91	---	---	1.30	1.45	0.99
16	16.94	1.75	8.48	1.81	3.15	4.67	8.52	---	---	1.13	1.19	0.97
17	16.47	1.74	15.37	1.80	3.10	4.45	8.40	---	---	1.12	1.11	0.95
18	14.42	1.73	15.26	1.80	2.60	3.58	---	---	---	1.16	1.14	0.93
19	11.75	1.70	13.60	1.73	2.89	3.47	---	---	2.97	1.62	1.56	0.93
20	10.22	1.62	12.05	1.77	5.57	3.14	---	---	1.97	1.60	1.38	1.87
21	9.40	1.66	10.69	1.72	5.88	2.94	---	---	1.73	1.15	1.49	1.74
22	11.97	1.63	9.34	1.16	4.50	2.82	---	---	1.72	1.91	2.76	1.16
23	12.27	1.69	7.66	2.04	3.88	2.61	---	---	1.83	1.25	1.87	1.12
24	13.12	1.81	5.92	2.08	3.63	2.58	---	---	1.84	1.44	1.70	1.14
25	13.94	2.22	4.52	2.03	3.06	2.49	---	---	2.48	1.42	1.56	1.06
26	12.74	2.38	3.44	2.02	3.40	2.46	---	---	11.07	1.31	1.42	1.11
27	10.01	2.14	3.09	2.17	3.31	2.60	---	---	3.78	1.67	0.86	2.05
28	8.02	2.15	2.64	2.19	3.23	3.04	---	---	2.08	1.42	0.90	1.22
29	7.16	5.14	2.50	3.73	---	8.07	---	---	2.23	3.85	0.94	1.20
30	6.02	9.99	2.13	6.86	---	14.72	---	---	2.18	2.33	1.24	1.26
31	4.64	---	2.10	---	---	15.92	---	---	---	1.73	1.22	---
TOTAL	254.66	79.19	214.10	---	183.20	183.87	---	---	---	47.82	41.61	34.10
MEAN	8.21	2.64	6.91	---	6.54	5.93	---	---	---	1.54	1.34	1.14
MAX	16.94	9.99	15.37	---	17.47	15.92	---	---	---	3.85	2.76	2.05
MIN	1.18	1.62	2.10	---	2.60	2.46	---	---	---	1.12	0.86	0.93

04183000 MAUMEE RIVER AT NEW HAVEN, IN

LOCATION.--Lat 41°05'06", long 85°01'20", in SE$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e190	1960	9420	e780	13100	1510	11300	2180	1930	492	324	200
2	e180	2020	7040	e760	13300	1620	10600	3860	1790	418	224	149
3	e230	1640	4940	e740	11700	5340	11200	2670	1620	380	160	122
4	218	1360	4370	e720	10300	6540	10100	1890	1660	376	215	108
5	486	1450	3910	e690	9670	3770	7260	1800	1740	279	582	106
6	1390	1380	3320	e650	8550	3070	5590	1520	3540	207	315	103
7	1500	1060	2320	663	6110	2780	5110	1290	2120	175	172	100
8	1380	1100	1720	642	4260	2810	5120	1580	1480	292	111	103
9	987	1210	1600	625	3140	3560	7700	2510	1180	201	128	108
10	932	908	1410	621	2440	5860	8130	2840	1140	244	197	94
11	1240	795	1100	643	1920	4860	5800	2130	801	246	122	144
12	8390	769	1100	665	1960	3680	5300	7070	761	230	114	123
13	8990	777	1230	657	1950	3450	8000	9500	934	195	122	125
14	7020	757	2210	715	1780	3220	7070	8860	778	193	172	119
15	8270	698	6740	611	1740	2890	5690	8120	765	242	263	101
16	10300	537	6130	666	1560	2680	4900	8460	534	182	213	106
17	12700	574	8170	658	1470	2160	4620	9730	564	133	145	106
18	11600	549	11200	635	1340	1890	4410	8400	752	217	128	106
19	8990	530	10100	621	1220	1660	3930	6500	535	155	366	106
20	6670	516	8620	616	1920	1580	3460	4440	478	288	354	366
21	5800	543	7070	602	2980	1430	2440	3290	474	247	235	529
22	7080	438	6060	440	2540	1320	2740	2550	408	202	504	244
23	7980	492	4640	441	1970	1240	1880	2120	336	402	1260	148
24	8140	532	3340	591	1750	1190	2080	1810	389	158	687	228
25	9330	806	2400	585	1760	1150	1710	1980	484	188	476	143
26	9290	1010	e1660	560	1620	1120	1690	2700	1110	156	370	147
27	7210	934	e1360	582	1570	1090	1620	1880	6420	160	197	584
28	5120	845	e1160	656	1570	1290	2840	1890	1180	301	92	442
29	3980	1330	e1030	839	---	2090	4050	3190	726	752	88	148
30	3390	7050	e930	2490	---	7610	2780	2350	679	1090	93	162
31	2820	---	e840	7540	---	11000	---	1930	---	648	119	---
TOTAL	161803	34570	127140	28704	115190	95460	159120	121040	37308	9449	8548	5370
MEAN	5219	1152	4101	925.9	4114	3079	5304	3905	1244	304.8	275.7	179.0
MAX	12700	7050	11200	7540	13300	11000	11300	9730	6420	1090	1260	584
MIN	180	438	840	440	1220	1090	1620	1290	336	133	88	94
CFSM	2.65	0.59	2.09	0.47	2.09	1.57	2.70	1.99	0.63	0.15	0.14	0.09
IN.	3.06	0.65	2.40	0.54	2.18	1.81	3.01	2.29	0.71	0.18	0.16	0.10

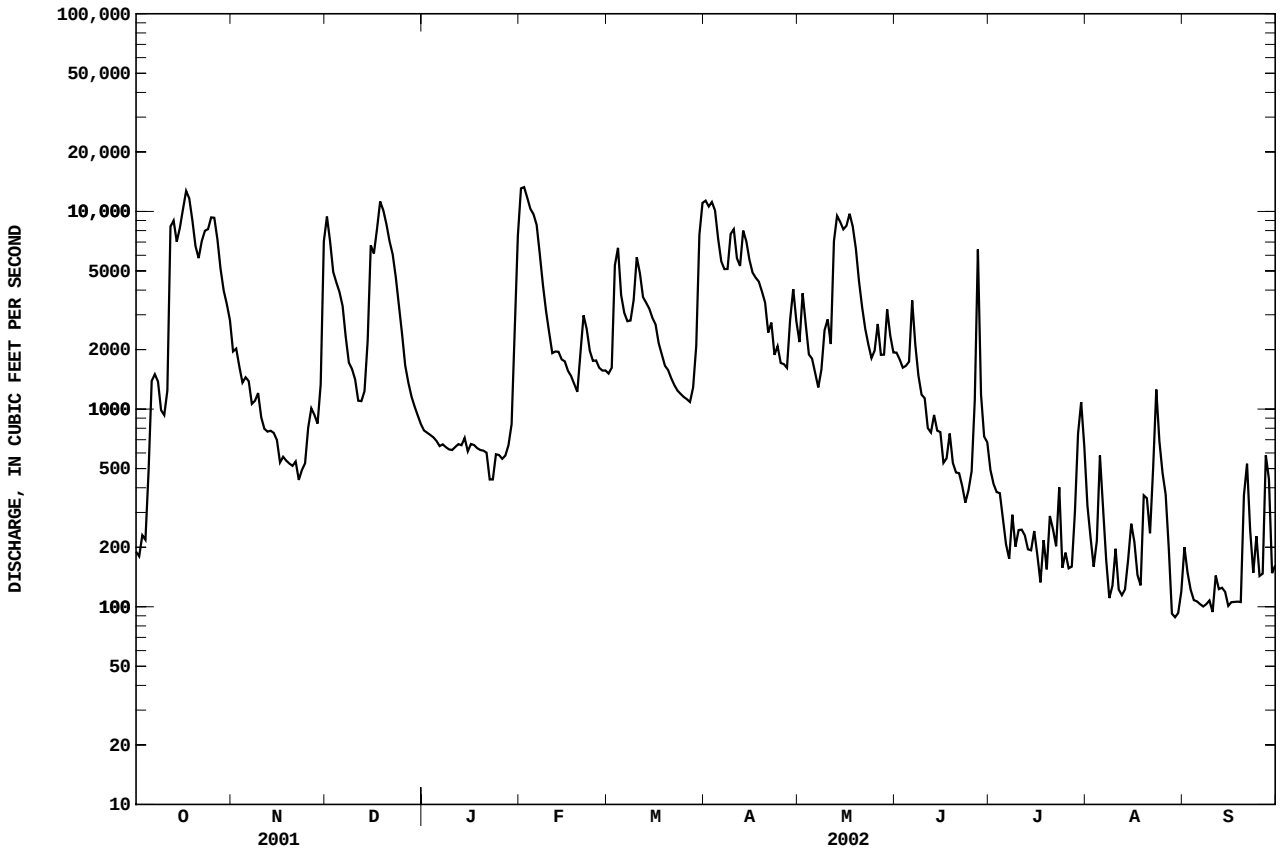
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

MEAN	640.6	1228	2088	1952	2748	3681	3460	1945	1647	997.4	570.5	518.7
MAX	5220	6523	6292	7203	7649	11460	7955	6914	6480	3988	2461	2737
(WY)	2002	1993	1968	1993	1976	1982	1957	1996	1981	1992	1998	1992
MIN	62.3	102	96.4	119	161	1181	789	382	122	197	99.1	91.2
(WY)	1964	1965	1964	1963	1964	1981	1971	1988	1988	1964	1962	1963

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1957 - 2002	
ANNUAL TOTAL	822736		903702			
ANNUAL MEAN	2254		2476		1783	
HIGHEST ANNUAL MEAN					2975	1993
LOWEST ANNUAL MEAN					669	1963
HIGHEST DAILY MEAN	13000	Feb 11	13300	Feb 2	26300	Mar 17 1982
LOWEST DAILY MEAN	113	Aug 13	88	Aug 29	48	Oct 6 1963
ANNUAL SEVEN-DAY MINIMUM	137	Aug 12	103	Sep 4	55	Oct 4 1963
MAXIMUM PEAK FLOW			13900	Feb 1	26600	Mar 17 1982
MAXIMUM PEAK STAGE			18.17	Feb 1	25.49	Mar 17 1982
ANNUAL RUNOFF (CFSM)	1.15		1.26		0.91	
ANNUAL RUNOFF (INCHES)	15.56		17.09		12.32	
10 PERCENT EXCEEDS	6550		7650		4830	
50 PERCENT EXCEEDS	1100		1240		777	
90 PERCENT EXCEEDS	275		157		156	

e Estimated

04183000 MAUMEE RIVER AT NEW HAVEN, IN--Continued



05515000 KANKAKEE RIVER NEAR NORTH LIBERTY, IN

LOCATION.--Lat 41°33'50", long 86°29'50", in NW$^1/_4$NE$^1/_4$ sec.23, T.36 N., R.1 W., St. Joseph County, Hydrologic Unit 07120001, (NORTH LIBERTY, IN quadrangle), on left bank at upstream side of bridge on county highway named "New Road", 2.7 mi upstream from Little Kankakee River, 4 mi northwest of North Liberty, and at mile 126.9.

DRAINAGE AREA.--174 mi^2, of which 58.2 mi^2 does not contribute directly to surface runoff.

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

REVISED RECORDS.--WSP 1915: 1952, 1956-59. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 680.04 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to June 26, 1956, nonrecording gage on downstream side of bridge; June 26, 1956 to Sept. 3, 1996, water-stage recorder on left bank at downstream side of bridge, all at same datum

REMARKS.--Records good except for estimated daily discharges and those above 300 ft^3/s (backwater), which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	171	212	134	374	149	186	179	187	114	95	73
2	81	204	192	132	349	155	205	176	182	116	110	75
3	78	229	182	132	275	214	272	166	178	108	117	73
4	78	206	172	131	232	219	242	161	180	102	107	70
5	102	189	164	131	205	201	220	158	176	100	99	70
6	140	178	159	131	192	191	206	160	171	101	89	65
7	128	170	154	129	182	220	195	158	167	94	82	63
8	116	165	150	129	177	293	199	159	165	94	74	61
9	109	161	147	130	176	426	272	182	162	107	71	60
10	105	158	144	130	176	453	259	195	164	111	70	61
11	106	154	141	135	169	352	232	187	164	100	69	62
12	159	150	140	139	172	299	215	e400	162	96	65	62
13	202	146	142	137	161	270	203	e580	158	96	63	62
14	352	145	147	134	158	246	193	e520	156	92	73	64
15	356	147	171	131	156	228	185	e380	151	90	82	66
16	331	143	172	128	152	211	178	e350	146	88	82	70
17	431	139	179	129	150	201	174	e370	146	79	86	68
18	369	139	193	127	147	196	168	e350	142	77	85	65
19	288	141	184	127	148	188	162	e320	138	76	86	71
20	236	141	174	127	163	185	186	292	136	79	88	81
21	205	140	165	127	181	180	205	260	128	81	84	84
22	190	137	159	123	177	177	207	242	125	82	84	80
23	201	135	161	124	171	176	192	223	119	89	85	80
24	212	135	159	122	164	171	183	231	120	89	91	79
25	308	141	153	125	160	169	181	227	122	86	96	78
26	272	135	150	122	161	168	169	213	144	89	92	78
27	231	136	148	121	158	165	168	207	141	101	90	80
28	209	134	144	120	152	171	197	203	136	102	81	78
29	195	140	141	119	---	178	197	213	126	101	78	76
30	182	192	139	136	---	208	189	206	119	109	76	77
31	175	---	136	211	---	198	---	197	---	104	73	---
TOTAL	6230	4701	4974	4073	5238	6858	6040	7865	4511	2953	2623	2132
MEAN	201.0	156.7	160.5	131.4	187.1	221.2	201.3	253.7	150.4	95.26	84.61	71.07
MAX	431	229	212	211	374	453	272	580	187	116	117	84
MIN	78	134	136	119	147	149	162	158	119	76	63	60
CFSM	1.15	0.90	0.92	0.76	1.08	1.27	1.16	1.46	0.86	0.55	0.49	0.41
IN.	1.33	1.01	1.06	0.87	1.12	1.47	1.29	1.68	0.96	0.63	0.56	0.46

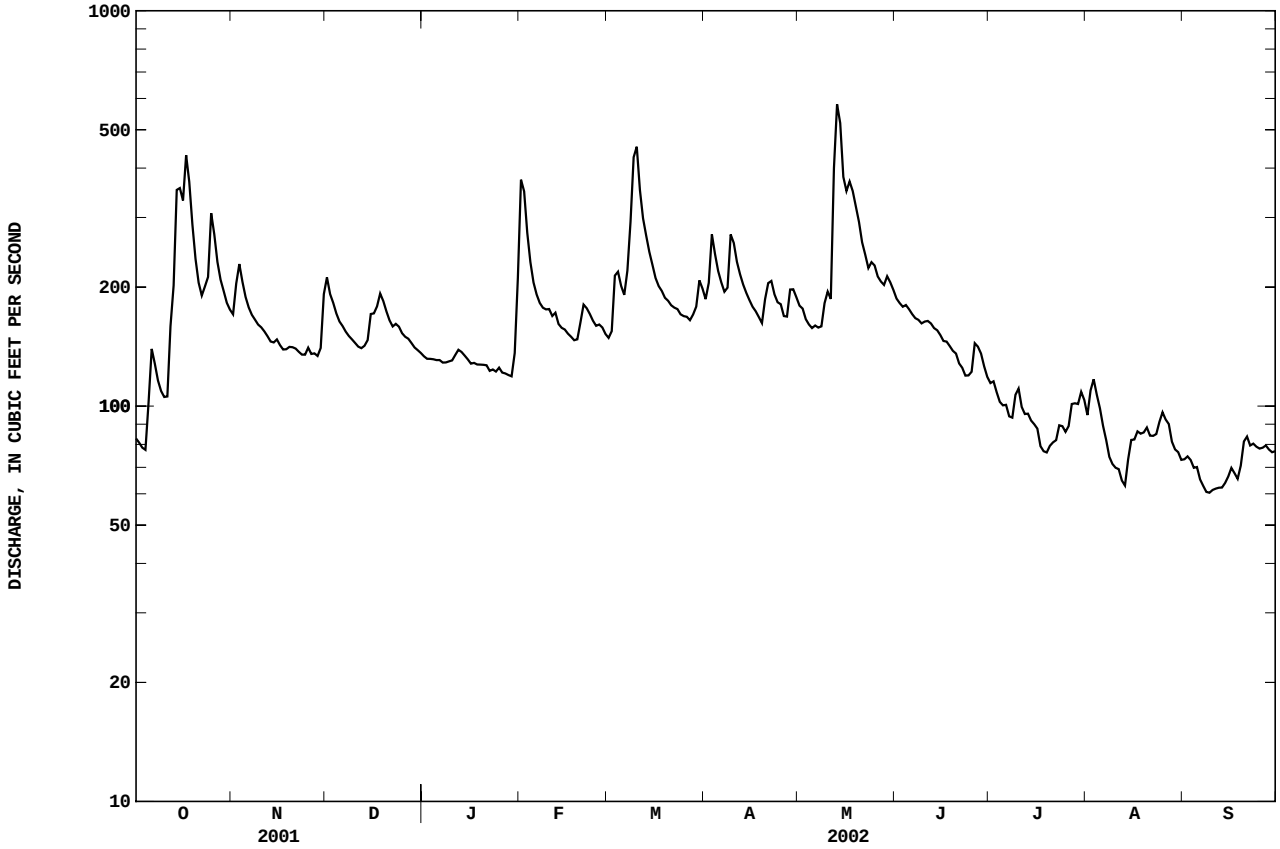
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)

MEAN	136.4	154.8	166.8	166.8	179.7	221.1	212.1	180.1	159.3	127.5	107.0	104.3
MAX	333	303	341	367	298	471	310	335	410	390	273	222
(WY)	1994	1991	1991	1991	1991	1982	1985	1996	1996	1996	1995	1993
MIN	70.1	67.3	77.5	78.0	76.3	112	112	98.4	84.0	64.2	63.1	64.4
(WY)	1954	1965	1961	1961	1963	1957	1987	1958	1971	1971	1964	1953

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1951 - 2002	
ANNUAL TOTAL	56823		58198			
ANNUAL MEAN	155.7		159.4		159.3	
HIGHEST ANNUAL MEAN					245	1991
LOWEST ANNUAL MEAN					95.4	1964
HIGHEST DAILY MEAN	684	Feb 10	e580	May 13	903	Mar 17 1982
LOWEST DAILY MEAN	55	Aug 14	60	Sep 9	44	Aug 4 1988
ANNUAL SEVEN-DAY MINIMUM	62	Aug 9	62	Sep 7	51	Sep 7 1964
MAXIMUM PEAK FLOW			unknown		908	Mar 17 1982
MAXIMUM PEAK STAGE			c7.00	May 13	9.04	Jun 27 1968
ANNUAL RUNOFF (CFSM)	0.89		0.92		0.92	
ANNUAL RUNOFF (INCHES)	12.15		12.44		12.44	
10 PERCENT EXCEEDS	219		231		258	
50 PERCENT EXCEEDS	143		150		138	
90 PERCENT EXCEEDS	79		78		83	

e Estimated
c Backwater

05515000 KANKAKEE RIVER NEAR NORTH LIBERTY, IN--Continued



05515500 KANKAKEE RIVER AT DAVIS, IN

LOCATION.--Lat 41°24'00", long 86°42'04", in SE$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	282	649	785	472	1200	586	843	811	e688	436	289	e217
2	302	712	736	465	1250	598	860	769	648	413	326	e212
3	297	824	685	459	1130	750	1100	747	e623	396	351	e223
4	297	790	658	461	987	844	1080	712	e604	379	331	218
5	345	731	625	475	893	811	981	690	e601	364	321	209
6	427	690	608	458	820	762	897	677	e593	349	296	206
7	443	662	579	455	780	854	839	676	e579	347	282	200
8	416	632	565	442	735	981	831	670	e556	337	254	196
9	400	620	549	449	715	1150	1000	728	e543	361	247	196
10	375	594	535	471	696	1300	1050	826	e523	390	237	204
11	381	574	519	468	672	1210	974	790	e519	368	229	202
12	476	558	519	459	646	1110	907	1260	519	332	234	201
13	645	553	540	457	625	1040	860	1740	506	320	232	195
14	968	549	555	455	599	952	824	1650	499	303	256	196
15	1160	558	657	454	579	915	788	1480	506	303	268	197
16	1120	556	689	445	575	861	757	1360	496	296	271	203
17	1250	533	680	438	567	816	730	1320	484	288	279	203
18	1220	524	743	435	562	796	715	1270	480	287	273	205
19	1080	531	724	428	583	759	680	1160	470	294	278	217
20	941	541	675	430	651	732	766	1060	458	285	283	239
21	819	526	631	427	734	712	933	977	451	275	277	243
22	740	521	610	424	718	677	937	907	441	289	293	236
23	730	518	609	429	695	672	878	854	425	354	285	227
24	797	520	597	435	668	665	826	824	415	344	280	234
25	938	516	575	421	634	653	793	798	432	318	282	233
26	976	511	548	422	628	648	766	783	562	312	268	228
27	871	506	533	435	619	655	732	746	554	326	250	234
28	781	499	521	438	606	664	845	e723	508	346	e244	227
29	729	508	510	448	---	726	909	811	490	345	e225	229
30	692	634	495	539	---	875	858	805	461	338	222	230
31	671	---	489	819	---	899	---	e756	---	317	223	---
TOTAL	21569	17640	18744	14313	20567	25673	25959	29380	15634	10412	8386	6460
MEAN	695.8	588.0	604.6	461.7	734.5	828.2	865.3	947.7	521.1	335.9	270.5	215.3
MAX	1250	824	785	819	1250	1300	1100	1740	688	436	351	243
MIN	282	499	489	421	562	586	680	670	415	275	222	195
CFSM	1.30	1.09	1.13	0.86	1.37	1.54	1.61	1.76	0.97	0.63	0.50	0.40
IN.	1.49	1.22	1.30	0.99	1.42	1.78	1.80	2.04	1.08	0.72	0.58	0.45

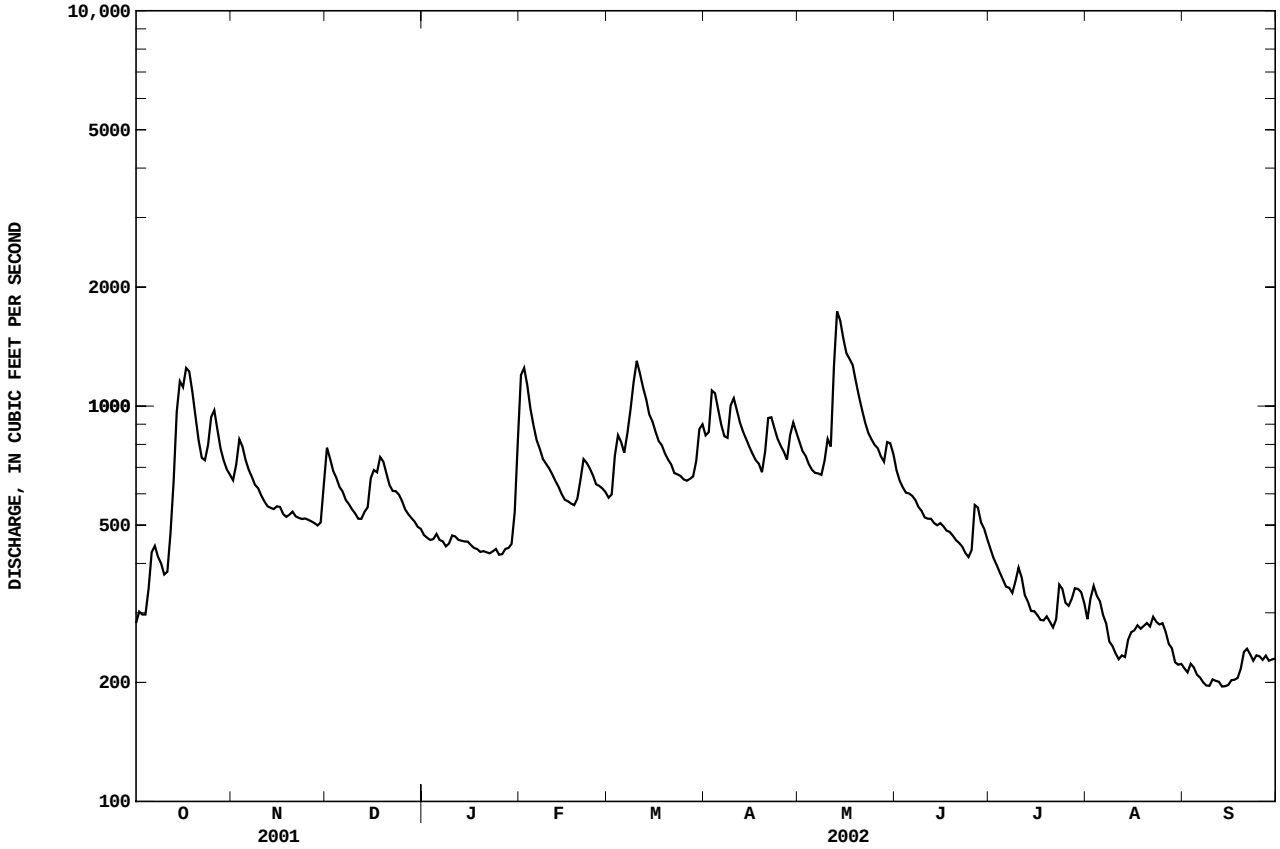
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2002, BY WATER YEAR (WY)

MEAN	412.2	477.3	519.4	546.2	588.4	719.8	740.6	630.6	534.0	426.8	360.7	345.2
MAX	1162	988	1191	1275	990	1376	1218	1067	1076	983	804	718
(WY)	1955	1991	1928	1993	1991	1985	1982	1983	1996	1996	1996	1972
MIN	198	230	236	235	236	325	420	296	248	205	174	179
(WY)	1964	1965	1964	1963	1964	1934	1987	1934	1934	1934	1941	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1926 - 2002	
ANNUAL TOTAL	202507		214737			
ANNUAL MEAN	554.8		588.3		524.3	
HIGHEST ANNUAL MEAN					823	1991
LOWEST ANNUAL MEAN					293	1964
HIGHEST DAILY MEAN	1670	Feb 10	1740	May 13	1920	Mar 20 1982
LOWEST DAILY MEAN	234	Aug 14	195	Sep 13	154	Aug 30 1941
ANNUAL SEVEN-DAY MINIMUM	252	Aug 9	199	Sep 8	156	Aug 28 1941
MAXIMUM PEAK FLOW			1810	May 13	1920	Mar 20 1982
MAXIMUM PEAK STAGE			12.80	May 13	13.79	Jul 19 1996
ANNUAL RUNOFF (CFSM)	1.03		1.10		0.98	
ANNUAL RUNOFF (INCHES)	14.03		14.88		13.27	
10 PERCENT EXCEEDS	806		937		890	
50 PERCENT EXCEEDS	522		556		452	
90 PERCENT EXCEEDS	295		241		277	

e Estimated

05515500 KANKAKEE RIVER AT DAVIS, IN--Continued



05516500 YELLOW RIVER AT PLYMOUTH, IN

LOCATION.--Lat 41°20'25", long 86°18'16", in SE$^1/_4$NW$^1/_4$ 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	334	896	e154	1650	253	511	418	223	118	116	57
2	60	381	628	e150	2150	268	635	399	211	112	135	56
3	59	540	421	e146	2200	729	1200	363	204	106	161	58
4	64	434	350	e144	1760	950	1450	320	207	102	117	59
5	108	359	311	e148	1180	598	1120	295	251	99	99	57
6	237	317	287	151	620	439	618	282	306	92	89	56
7	202	289	265	148	439	781	453	275	249	96	83	56
8	143	272	242	139	377	894	483	291	219	99	76	57
9	119	256	227	146	343	1030	980	503	202	112	73	56
10	106	245	213	147	329	1340	1200	633	195	127	70	56
11	105	230	203	145	311	1400	878	472	255	105	69	53
12	413	213	196	144	291	908	546	1290	248	97	66	52
13	817	205	214	146	266	578	496	2130	199	92	67	53
14	1010	205	271	142	243	488	441	2770	190	86	73	53
15	1300	206	650	143	239	426	393	2570	199	81	74	57
16	1530	204	551	136	232	373	350	1970	195	79	72	78
17	1650	195	557	135	219	331	327	1550	174	77	72	76
18	1770	190	857	128	204	311	317	1350	165	76	67	77
19	1600	191	688	126	217	286	301	998	153	82	84	77
20	1100	188	466	126	376	279	621	632	145	103	84	86
21	618	180	375	124	635	264	1070	470	138	81	70	83
22	550	176	329	121	499	244	1080	406	134	85	76	68
23	781	168	320	122	384	234	785	367	130	149	76	59
24	1130	169	297	126	332	227	537	339	126	119	70	54
25	1340	184	264	124	302	225	494	313	142	90	65	52
26	1460	182	241	120	295	222	421	300	229	84	67	50
27	1170	178	229	120	283	223	381	276	182	290	64	e48
28	661	174	218	120	261	256	671	263	151	315	63	e47
29	475	183	201	125	---	427	732	254	134	215	61	e46
30	400	528	e164	338	---	830	509	252	123	190	59	e45
31	360	---	e158	1060	---	822	---	239	---	144	58	---
TOTAL	21398	7576	11289	5344	16637	16636	20000	22990	5679	3703	2476	1782
MEAN	690.3	252.5	364.2	172.4	594.2	536.6	666.7	741.6	189.3	119.5	79.87	59.40
MAX	1770	540	896	1060	2200	1400	1450	2770	306	315	161	86
MIN	59	168	158	120	204	222	301	239	123	76	58	45
CFSM	2.35	0.86	1.24	0.59	2.02	1.83	2.27	2.52	0.64	0.41	0.27	0.20
IN.	2.71	0.96	1.43	0.68	2.11	2.10	2.53	2.91	0.72	0.47	0.31	0.23

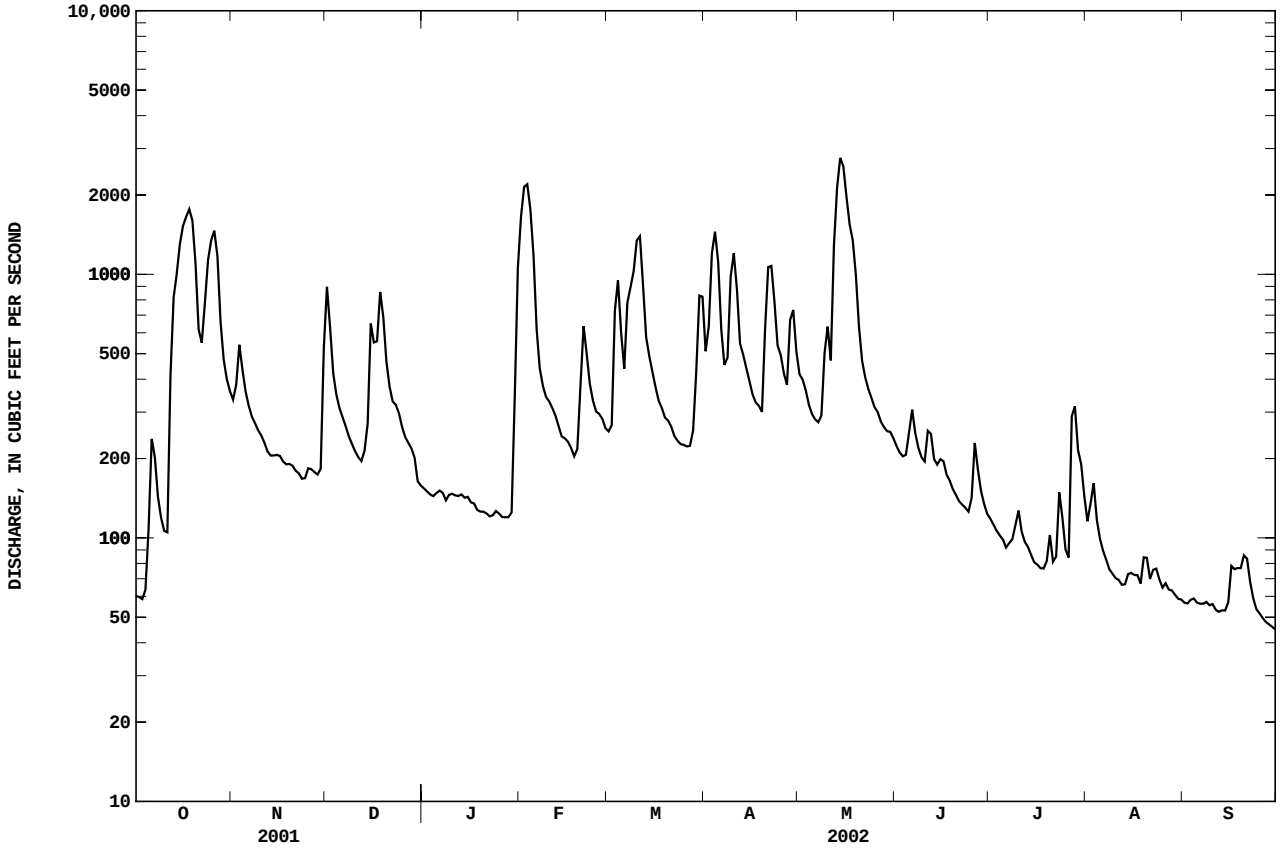
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)

MEAN	155.2	190.5	268.8	307.3	386.6	523.6	500.6	302.6	259.8	174.4	108.5	91.68
MAX	1583	689	733	1244	1132	1586	1190	1098	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002	
ANNUAL TOTAL	124401		135510			
ANNUAL MEAN	340.8		371.3		271.7	
HIGHEST ANNUAL MEAN					453	1993
LOWEST ANNUAL MEAN					119	1957
HIGHEST DAILY MEAN	3070	Feb 12	2770	May 14	5310	Oct 13 1954
LOWEST DAILY MEAN	59	Sep 6	45	Sep 30	13	Dec 3 1964
ANNUAL SEVEN-DAY MINIMUM	62	Sep 28	49	Sep 24	15	Dec 2 1964
MAXIMUM PEAK FLOW			2840	May 14	5390	Oct 12 1954
MAXIMUM PEAK STAGE			13.73	May 14	17.13	Oct 12 1954
ANNUAL RUNOFF (CFSM)	1.16		1.26		0.92	
ANNUAL RUNOFF (INCHES)	15.74		17.15		12.56	
10 PERCENT EXCEEDS	791		925		677	
50 PERCENT EXCEEDS	203		223		132	
90 PERCENT EXCEEDS	85		67		39	

e Estimated

05516500 YELLOW RIVER AT PLYMOUTH, IN--Continued



05517000 YELLOW RIVER AT KNOX, IN

LOCATION.--Lat 41°18'10", long 86°37'14", in SW$^1/_4$SW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	528	707	e300	1220	464	1030	737	494	267	247	99
2	111	515	911	e288	1570	460	841	654	469	248	230	99
3	105	573	764	e280	2040	612	1060	617	450	229	247	96
4	105	659	593	e272	2270	944	1300	558	441	216	269	88
5	136	565	520	e280	1970	1050	1500	504	471	206	210	84
6	206	499	478	281	1440	825	1360	474	554	192	176	84
7	322	453	446	278	925	778	914	458	554	185	161	86
8	278	424	420	270	719	998	745	448	488	180	152	87
9	217	402	394	263	637	1120	913	527	451	182	143	87
10	187	381	372	269	590	1240	1170	743	422	208	135	85
11	176	365	352	268	562	1380	1310	796	422	215	126	84
12	236	345	342	267	532	1470	1130	959	487	187	122	81
13	582	323	345	267	504	1190	843	1550	456	167	120	79
14	885	316	376	266	468	875	772	2150	411	150	125	78
15	1010	315	517	263	442	772	689	2800	400	144	134	77
16	1150	312	777	260	433	702	624	2880	402	141	136	79
17	1380	303	728	253	419	635	569	2490	388	139	136	90
18	1530	292	798	251	398	590	534	1990	371	139	135	101
19	1610	288	944	240	396	556	508	1670	355	140	137	109
20	1580	286	843	236	487	532	512	1380	334	144	171	117
21	1280	280	658	234	711	516	832	1020	318	164	165	147
22	873	270	568	232	834	489	1110	842	310	151	150	137
23	802	263	527	230	716	463	1160	763	298	166	144	116
24	936	258	506	235	613	448	968	706	285	227	153	103
25	1120	265	471	236	556	446	751	664	289	191	140	94
26	1270	276	430	231	531	445	687	631	e520	156	133	93
27	1350	274	406	225	516	440	620	598	e500	149	126	88
28	1280	267	388	224	490	448	703	567	384	406	116	87
29	879	274	e360	229	---	520	927	550	327	423	107	81
30	666	363	e330	283	---	796	926	531	287	349	102	79
31	579	---	e310	679	---	1040	---	516	---	305	101	---
TOTAL	22955	10934	16581	8390	22989	23244	27008	31773	12338	6366	4749	2815
MEAN	740.5	364.5	534.9	270.6	821.0	749.8	900.3	1025	411.3	205.4	153.2	93.83
MAX	1610	659	944	679	2270	1470	1500	2880	554	423	269	147
MIN	105	258	310	224	396	440	508	448	285	139	101	77
CFSM	1.70	0.84	1.23	0.62	1.89	1.72	2.07	2.36	0.95	0.47	0.35	0.22
IN.	1.96	0.94	1.42	0.72	1.97	1.99	2.31	2.72	1.06	0.54	0.41	0.24

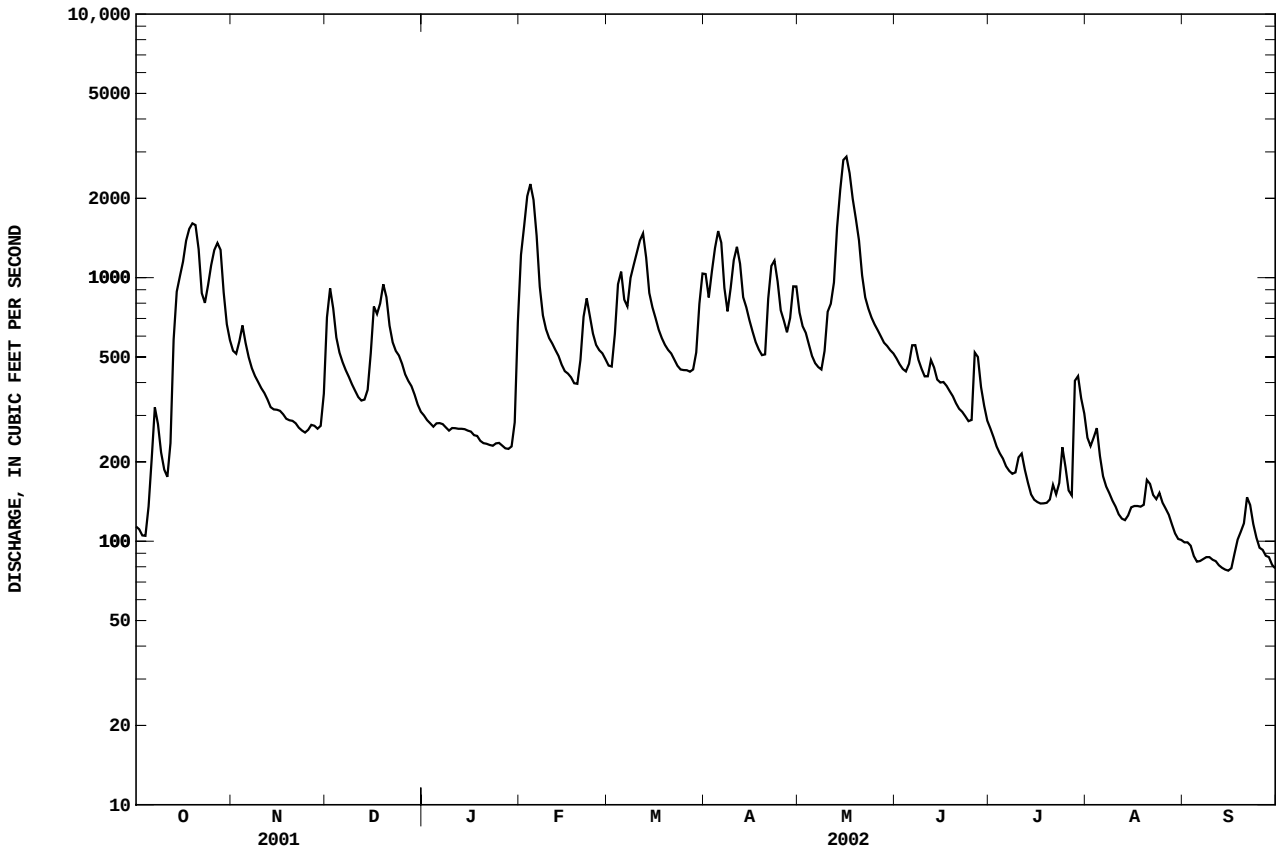
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2002, BY WATER YEAR (WY)

MEAN	259.5	299.5	389.1	445.8	533.1	717.6	720.9	508.7	421.9	287.8	206.3	176.9
MAX	1939	883	1070	1580	1289	2127	1714	1154	1113	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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1944 - 2002	
ANNUAL TOTAL	171670		190142			
ANNUAL MEAN	470.3		520.9		413.1	
HIGHEST ANNUAL MEAN					661	1950
LOWEST ANNUAL MEAN					180	1964
HIGHEST DAILY MEAN	3240	Feb 13	2880	May 16	5600	Oct 15 1954
LOWEST DAILY MEAN	105	Oct 3	77	Sep 15	47	Jan 2 1999
ANNUAL SEVEN-DAY MINIMUM	114	Sep 28	80	Sep 10	50	Jan 21 1963
MAXIMUM PEAK FLOW			2970	May 15	5660	Oct 15 1954
MAXIMUM PEAK STAGE			10.19	May 15	13.75	Oct 15 1954
ANNUAL RUNOFF (CFSM)	1.08		1.20		0.95	
ANNUAL RUNOFF (INCHES)	14.68		16.26		12.90	
10 PERCENT EXCEEDS	895		1110		889	
50 PERCENT EXCEEDS	339		411		269	
90 PERCENT EXCEEDS	155		119		113	

e Estimated

05517000 YELLOW RIVER AT KNOX, IN--Continued



05517500 KANKAKEE RIVER AT DUNNS BRIDGE, IN

LOCATION.--Lat 41°13'10", long 86°58'07", in NE$^1/_4$SE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	512	2090	e1600	e1300	2320	1570	2410	2460	2020	1060	748	437
2	514	2030	e1860	e1310	2720	1560	2480	2330	1900	989	732	426
3	513	2090	e2010	e1320	2940	1710	2560	2190	1810	917	766	413
4	505	2140	e1850	e1310	3080	1940	2740	2070	1750	884	783	352
5	563	2120	e1710	e1260	3170	2170	2890	1940	1720	862	737	333
6	702	1990	e1620	e1250	3160	2230	2960	1860	1750	808	672	326
7	789	1870	e1540	e1250	3020	2170	2930	1790	1760	781	619	391
8	804	1770	e1480	e1260	2700	2280	2760	1750	1700	768	569	359
9	781	e1670	e1430	e1270	2360	2540	2660	1790	1610	767	543	357
10	757	e1620	e1380	e1270	2140	2760	2760	1920	1570	816	511	343
11	752	e1550	e1370	e1230	2010	2900	2850	2080	1530	828	493	369
12	863	e1490	e1310	e1230	1910	2990	2900	2500	1520	781	472	366
13	1150	e1430	e1310	e1210	1820	3020	2830	3200	1560	732	471	366
14	1780	e1440	e1320	e1190	1730	2950	2660	3510	1500	696	504	364
15	2390	e1400	e1410	e1170	1660	2750	2490	3750	1460	652	540	367
16	2700	e1370	e1660	e1160	1600	2520	2300	3950	1420	632	560	370
17	2980	e1350	e1810	e1140	1560	2330	2160	4110	1380	616	561	356
18	3120	e1330	e1910	e1110	1510	2190	2050	4160	1320	604	568	371
19	3180	e1320	e2030	e1090	1490	2090	1970	4160	1280	619	583	403
20	3190	e1300	e2090	e1100	1600	2020	1930	4080	1220	614	616	449
21	3160	e1280	e1970	e1090	1800	1940	2050	3920	1190	601	610	483
22	3040	e1210	e1870	e1070	1960	1840	2330	3660	1140	590	593	485
23	2800	e1210	e1790	1030	1990	1770	2520	3360	1090	684	605	466
24	2670	e1200	e1740	1040	1890	1720	2570	3100	1050	729	596	464
25	2800	e1200	e1660	1020	1800	1700	2480	2840	1030	720	574	438
26	2910	e1220	e1600	1020	1740	1660	2310	2610	1170	671	553	423
27	2940	e1220	e1540	990	1670	1620	2170	2430	1390	648	525	425
28	2940	e1200	e1490	989	1620	1620	2210	2260	1350	720	490	416
29	2850	e1190	e1420	1010	---	1680	2350	2180	1220	912	466	406
30	2590	e1320	e1370	1110	---	1900	2480	2180	1120	895	454	440
31	2300	---	e1330	1570	---	2200	---	2120	---	834	446	---
TOTAL	59545	45620	50480	36369	58970	66340	74760	86260	43530	23430	17960	11964
MEAN	1921	1521	1628	1173	2106	2140	2492	2783	1451	755.8	579.4	398.8
MAX	3190	2140	2090	1570	3170	3020	2960	4160	2020	1060	783	485
MIN	505	1190	1310	989	1490	1560	1930	1750	1030	590	446	326
CFSM	1.42	1.12	1.20	0.87	1.56	1.58	1.84	2.06	1.07	0.56	0.43	0.29
IN.	1.64	1.26	1.39	1.00	1.62	1.83	2.06	2.37	1.20	0.64	0.49	0.33

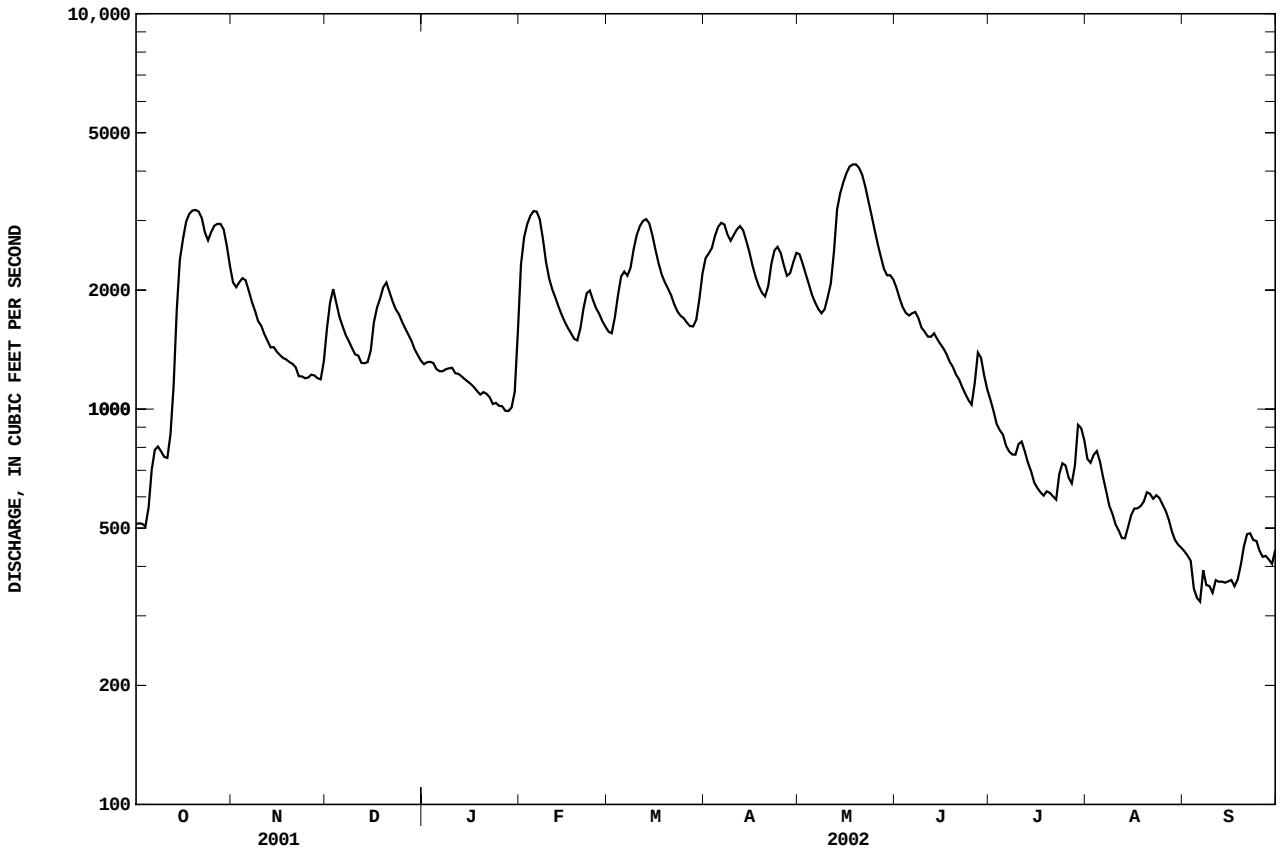
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)

MEAN	944.0	1138	1360	1470	1607	2073	2202	1767	1467	1100	840.5	727.1
MAX	3378	2562	2816	3845	2874	4229	4376	3231	3360	2622	2316	1924
(WY)	1955	1973	1983	1991	1968	1985	1950	1983	1996	1996	1990	1993
MIN	350	398	447	449	391	719	1082	767	657	419	371	360
(WY)	1964	1965	1964	1963	1963	1957	1958	1958	1988	1988	1964	1964

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002	
ANNUAL TOTAL	519689		575228			
ANNUAL MEAN	1424		1576		1390	
HIGHEST ANNUAL MEAN					2161	1991
LOWEST ANNUAL MEAN					618	1964
HIGHEST DAILY MEAN	3900	Feb 16	4160	May 18	5850	Mar 23 1982
LOWEST DAILY MEAN	389	Sep 6	326	Sep 6	280	Jan 25 1963
ANNUAL SEVEN-DAY MINIMUM	435	Sep 3	352	Sep 4	283	Jan 24 1963
MAXIMUM PEAK FLOW			4180	May 19	5870	Mar 23 1982
MAXIMUM PEAK STAGE			11.87	May 19	13.38	Mar 23 1982
ANNUAL RUNOFF (CFSM)	1.05		1.17		1.03	
ANNUAL RUNOFF (INCHES)	14.30		15.83		13.97	
10 PERCENT EXCEEDS	2660		2840		2640	
50 PERCENT EXCEEDS	1320		1490		1150	
90 PERCENT EXCEEDS	582		492		535	

e Estimated

05517500 KANKAKEE RIVER AT DUNNS BRIDGE, IN--Continued



05517530 KANKAKEE RIVER NEAR KOUTS, IN

LOCATION.--Lat 41°15'14", long 87°02'02", in SW$^1/_4$NE$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	573	2240	1640	e1370	2410	1570	2380	2510	2020	1010	728	416
2	585	2190	1910	1400	2810	1560	2480	2380	1890	969	720	418
3	573	2260	2040	1390	3010	1720	2590	2240	e1780	896	737	423
4	577	2280	1920	1380	3150	1950	2750	2100	e1750	870	746	345
5	629	2260	1790	1360	3230	2160	2890	1950	e1710	843	686	299
6	781	2140	1720	1320	3220	2240	2940	1880	e1740	792	644	301
7	857	1990	1650	1330	3110	2220	2920	1790	e1760	735	605	372
8	892	1920	1590	1350	2820	2350	2780	1750	e1700	728	567	324
9	877	1810	1500	e1360	2460	2640	2740	1780	e1610	727	528	336
10	861	1730	1460	e1360	2230	2840	2780	1900	e1570	802	480	341
11	840	1640	1460	e1310	2080	2940	2850	2050	e1520	823	469	386
12	951	1580	1390	e1310	1970	3020	2910	2660	1520	758	431	369
13	1200	1530	1380	e1290	1850	3030	2840	3460	1540	731	446	364
14	1860	1540	1390	e1280	1770	2980	2700	3650	1520	691	490	342
15	2480	1470	1480	e1260	1690	2810	2540	3800	1430	649	518	332
16	2780	1450	e1710	e1240	1610	2570	2360	3940	1410	628	541	366
17	3100	1430	e1880	e1220	1560	2380	2190	4070	1360	599	540	329
18	3200	1420	e2000	e1190	1530	2230	2070	4140	1290	575	519	379
19	3230	1400	e2080	e1160	1530	2140	2000	4150	1250	556	556	418
20	3220	1390	2120	e1180	1630	2050	1930	4090	1180	559	624	453
21	3190	1370	2020	e1170	1830	1980	2040	3970	1140	556	624	479
22	3100	1290	1900	e1160	1980	1870	2300	3740	1130	561	594	471
23	2900	1290	1830	1130	2010	1800	2480	3460	1080	620	603	442
24	2780	1280	1780	1140	1900	1720	2540	3200	1000	670	585	461
25	2980	1280	1720	1110	1810	1700	2480	2940	988	676	548	436
26	3040	1320	1640	1120	1760	1650	2320	2700	1090	648	518	438
27	3030	1300	1580	1070	1670	1620	2180	2500	1340	642	530	444
28	3020	1290	1540	1060	1630	1620	2240	2300	1330	707	481	440
29	2920	1280	1480	1080	---	1680	2380	2200	1160	879	438	375
30	2710	1420	e1420	1170	---	1900	2510	2190	1060	895	426	429
31	2430	---	e1380	1620	---	2170	---	2150	---	838	405	---
TOTAL	62166	48790	52400	38890	60260	67110	75110	87640	42868	22633	17327	11728
MEAN	2005	1626	1690	1255	2152	2165	2504	2827	1429	730.1	558.9	390.9
MAX	3230	2280	2120	1620	3230	3030	2940	4150	2020	1010	746	479
MIN	573	1280	1380	1060	1530	1560	1930	1750	988	556	405	299
CFSM	1.46	1.18	1.23	0.91	1.56	1.57	1.82	2.05	1.04	0.53	0.41	0.28
IN.	1.68	1.32	1.42	1.05	1.63	1.81	2.03	2.37	1.16	0.61	0.47	0.32

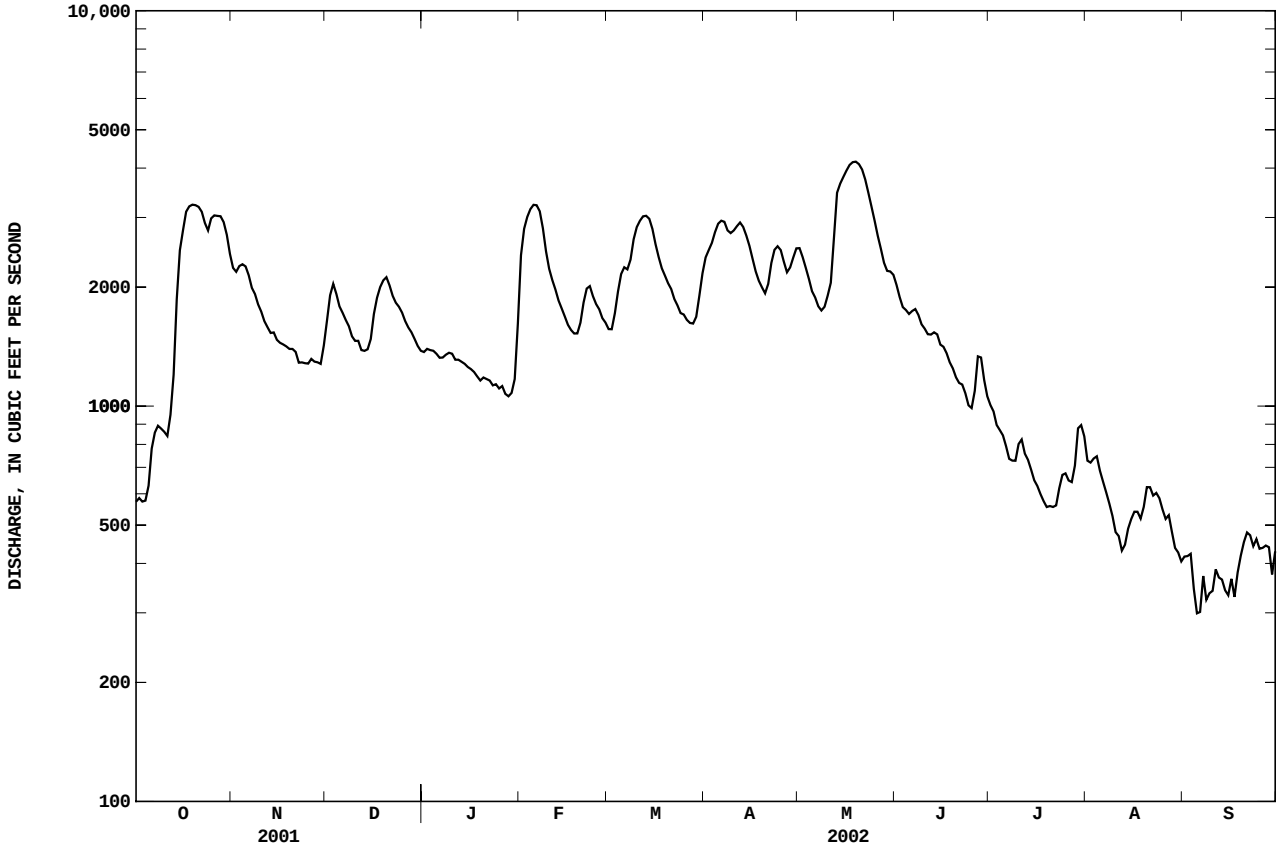
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2002, BY WATER YEAR (WY)

MEAN	1009	1255	1545	1524	1679	2317	2401	1891	1713	1203	933.2	803.4
MAX	2770	2392	2889	3787	2784	4613	4229	3255	3403	2642	2432	2014
(WY)	1991	1991	1991	1991	2001	1985	1985	1983	1996	1996	1990	1993
MIN	461	437	704	634	718	1089	1144	1113	619	411	398	350
(WY)	2000	2000	1979	1977	1978	1996	1987	1992	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1975 - 2002	
ANNUAL TOTAL	544170		586922			
ANNUAL MEAN	1491		1608		1521	
HIGHEST ANNUAL MEAN					2160	1991
LOWEST ANNUAL MEAN					927	2000
HIGHEST DAILY MEAN	3940	Feb 16	4150	May 19	6410	Mar 24 1982
LOWEST DAILY MEAN	435	Sep 6	299	Sep 5	281	Sep 12 1999
ANNUAL SEVEN-DAY MINIMUM	480	Sep 3	331	Sep 4	306	Sep 11 1999
MAXIMUM PEAK FLOW			4170	May 18	6420	Mar 24 1982
MAXIMUM PEAK STAGE			12.84	May 18	14.52	Mar 24 1982
ANNUAL RUNOFF (CFSM)	1.08		1.17		1.11	
ANNUAL RUNOFF (INCHES)	14.71		15.87		15.02	
10 PERCENT EXCEEDS	2780		2900		2880	
50 PERCENT EXCEEDS	1390		1530		1290	
90 PERCENT EXCEEDS	625		480		595	

e Estimated

05517530 KANKAKEE RIVER NEAR KOUTS, IN--Continued



05517890 COBB DITCH NEAR KOUTS, IN

LOCATION.--Lat 41°20'19", long 87°04'30", in NW1/4SE1/4 sec. 2, T.33 N., R.6 W., Porter County, Hydrologic Unit 07120001, (KOUTS, IN quadrangle), on left bank 15 ft upstream from bridge on County Road 50 West, 1.6 mi upstream from mouth, 3 mi northwest of Kouts, and 6.5 mi northeast of Hebron.

DRAINAGE AREA.--30.3 mi^2.

PERIOD OF RECORD.--July 1968 to current year. Prior to October 1971, published as State Ditch near Kouts.

GAGE.--Water-stage recorder. Datum of gage is 652.00 ft above National Geodetic Vertical Datum of 1929 (Indiana Department of Highways bench mark). Prior to Oct. 19, 1978, water-stage recorder at site 1.4 mi downstream at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	25	32	e17	182	e23	31	47	24	18	14	10
2	11	52	26	e16	94	e24	78	47	24	16	16	10
3	11	45	23	e16	60	e37	89	42	24	14	15	11
4	11	35	22	e16	51	e40	48	38	23	16	14	9.9
5	15	31	21	17	39	e31	41	36	24	16	14	9.4
6	17	28	20	17	33	e30	40	37	23	14	13	8.6
7	14	26	20	17	30	76	35	39	22	15	13	7.7
8	13	25	20	17	27	240	51	38	21	14	12	8.7
9	12	24	20	17	27	193	171	95	21	23	10	9.5
10	12	23	23	17	30	115	73	67	22	28	11	8.8
11	13	22	20	17	31	67	54	76	22	24	12	8.8
12	30	21	19	17	31	54	44	496	22	24	11	8.8
13	28	21	19	17	28	47	38	303	22	22	11	9.5
14	170	21	20	17	26	42	35	120	22	20	11	9.4
15	80	20	22	16	25	38	33	86	22	19	11	9.4
16	113	20	22	16	23	34	32	71	21	20	11	9.6
17	106	20	35	16	22	35	35	78	21	20	12	9.5
18	48	20	35	16	22	36	33	58	21	20	11	9.7
19	37	20	27	16	23	33	32	48	19	19	13	10
20	31	19	24	16	88	31	71	40	19	17	13	11
21	29	19	22	16	64	29	80	36	20	17	12	11
22	28	19	21	15	40	28	72	32	20	17	12	10
23	32	19	23	16	32	27	52	30	19	17	12	10
24	50	19	23	16	31	27	48	30	19	17	12	10
25	111	19	24	15	31	28	48	29	20	17	12	10
26	50	18	e19	15	29	30	41	27	22	15	12	10
27	37	18	e18	15	27	29	45	25	20	14	11	10
28	31	18	e19	15	e23	31	122	25	19	15	9.4	10
29	34	19	e18	15	---	32	64	26	19	15	8.8	10
30	29	36	e17	33	---	42	52	25	18	15	9.6	10
31	27	---	e17	125	---	34	---	24	---	14	9.8	---
TOTAL	1241	722	691	627	1169	1563	1688	2171	635	552	368.6	290.3
MEAN	40.03	24.07	22.29	20.23	41.75	50.42	56.27	70.03	21.17	17.81	11.89	9.677
MAX	170	52	35	125	182	240	171	496	24	28	16	11
MIN	11	18	17	15	22	23	31	24	18	14	8.8	7.7
CFSM	1.32	0.79	0.74	0.67	1.38	1.66	1.86	2.31	0.70	0.59	0.39	0.32
IN.	1.52	0.89	0.85	0.77	1.44	1.92	2.07	2.67	0.78	0.68	0.45	0.36

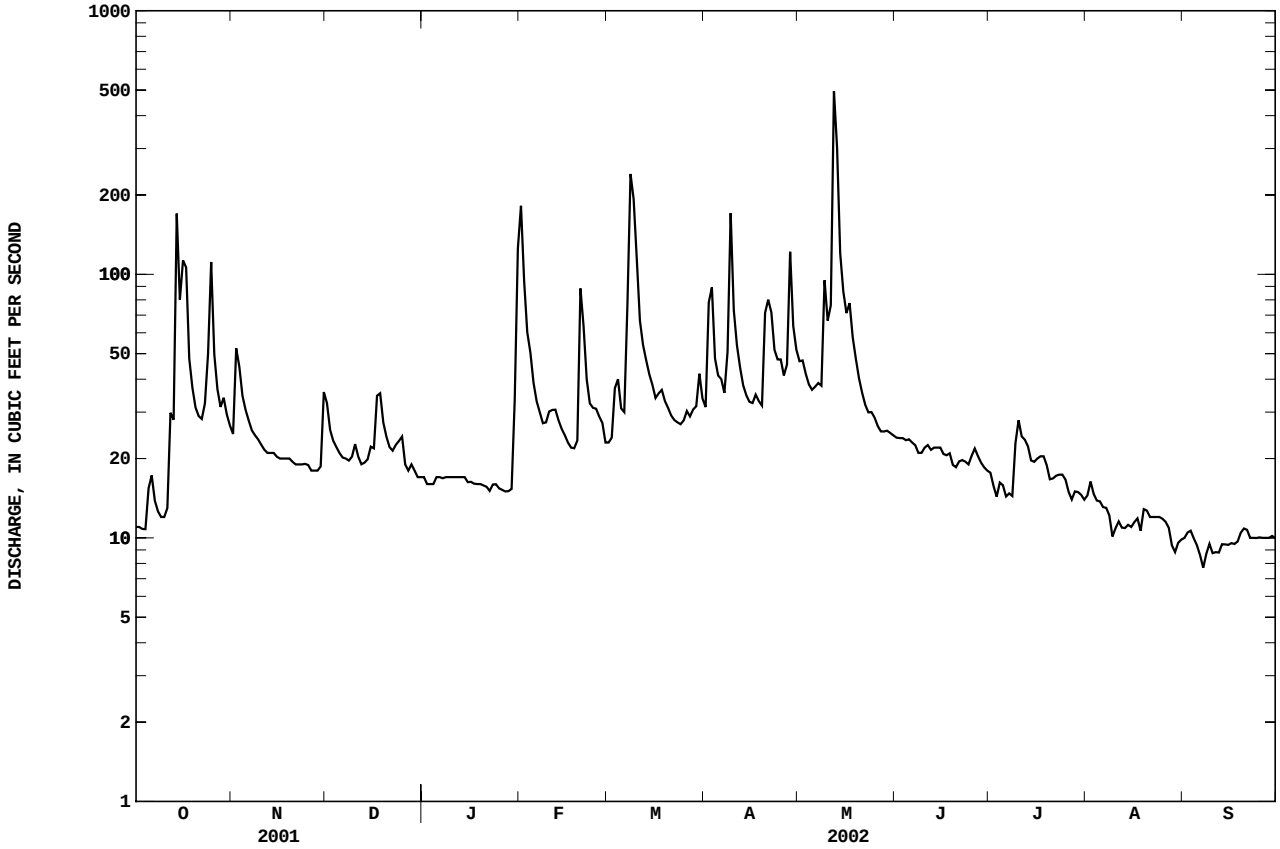
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

MEAN	21.47	30.04	31.63	32.71	39.63	51.43	49.29	41.25	38.98	26.61	20.87	18.06
MAX	67.8	112	88.9	86.8	82.8	142	103	89.4	121	77.7	99.0	60.6
(WY)	1991	1986	1991	1993	1997	1982	1975	1974	1997	1996	1990	1993
MIN	9.35	9.62	9.70	10.5	10.6	17.8	19.7	14.9	14.6	12.0	9.45	9.68
(WY)	2000	2000	2001	2000	1978	2000	2001	1980	1988	1988	2001	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1969 - 2002	
ANNUAL TOTAL	8589.2		11717.9			
ANNUAL MEAN	23.53		32.10		33.44	
HIGHEST ANNUAL MEAN					53.1	1991
LOWEST ANNUAL MEAN					19.3	1977
HIGHEST DAILY MEAN	327	Feb 9	496	May 12	955	Nov 28 1990
LOWEST DAILY MEAN	6.0	Aug 15	7.7	Sep 7	6.0	Aug 15 2001
ANNUAL SEVEN-DAY MINIMUM	7.7	Aug 9	8.7	Sep 6	7.7	Aug 9 2001
MAXIMUM PEAK FLOW			585	May 12	1160	Nov 28 1990
MAXIMUM PEAK STAGE			13.70	May 12	17.95	Mar 29 1985
ANNUAL RUNOFF (CFSM)	0.78		1.06		1.10	
ANNUAL RUNOFF (INCHES)	10.55		14.39		15.00	
10 PERCENT EXCEEDS	34		54		57	
50 PERCENT EXCEEDS	19		22		21	
90 PERCENT EXCEEDS	10		11		13	

e Estimated

05517890 COBB DITCH NEAR KOUTS, IN--Continued



05518000 KANKAKEE RIVER AT SHELBY, IN

LOCATION.--Lat 41°10'58", long 87°20'25", in SW1/4NE1/4 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	626	3190	2020	e1480	2930	2180	2920	3340	2980	1170	812	446
2	616	3100	2220	e1500	3400	2170	3150	3320	2790	1110	814	464
3	627	3170	2390	e1530	3560	2330	3450	3170	2620	1040	896	468
4	610	3130	2410	e1560	3650	2490	3570	3000	2500	966	887	458
5	655	3070	2280	e1600	3710	2700	3630	2830	2410	964	831	386
6	808	2960	2190	e1630	3750	2810	3710	2680	2360	893	719	362
7	920	2780	2120	e1650	3740	2940	3720	2590	2310	826	656	367
8	961	2610	2040	1630	3630	3180	3730	2480	2250	793	597	392
9	963	2470	1940	1590	3400	3540	3840	2490	2170	828	550	358
10	950	2350	1860	1590	3120	3770	3890	2620	2090	875	478	381
11	929	2220	1820	1590	2900	3840	3840	2680	2050	913	455	437
12	1070	2120	1780	1530	2740	3870	3820	3570	2020	863	442	479
13	1440	2000	1750	1530	2610	3880	3780	4760	1980	806	422	459
14	2280	1950	1740	1510	2470	3870	3690	4990	1990	770	454	445
15	3190	1880	1810	1500	2370	3790	3550	4960	1920	704	534	424
16	3460	1850	1960	1480	2260	3620	3380	4950	1840	668	545	431
17	3860	1810	2210	1460	2180	3420	3190	4910	1790	637	576	419
18	3970	1800	2400	1440	2120	3220	3000	5020	1680	618	556	460
19	4000	1740	2460	1410	2100	3080	2870	5090	1590	583	594	576
20	3990	1740	2530	1380	2230	2950	2750	5080	1510	570	722	621
21	3940	1720	2530	1410	2490	2800	2760	5030	1400	556	753	662
22	3910	1660	2460	1400	2570	2680	2910	4900	1350	572	780	636
23	3840	1620	2400	1380	2630	2570	3080	4720	1310	591	765	609
24	3770	1630	2340	1380	2590	2470	3170	4480	1200	645	720	592
25	4020	1610	2280	1350	2490	2410	3230	4230	1110	661	692	612
26	4180	1630	2200	1360	2430	2350	3160	3980	1160	674	621	583
27	4080	1620	2130	1320	2320	2290	3050	3720	1430	676	588	586
28	3960	1600	2070	1290	2240	2270	3160	3480	1580	716	570	588
29	3850	1610	1970	1290	---	2320	3270	3280	1460	935	517	576
30	3680	1740	e1850	1450	---	2530	3310	3170	1280	1020	477	531
31	3440	---	e1650	1960	---	2720	---	3080	---	950	464	---
TOTAL	78595	64380	65810	46180	78630	91060	100580	118600	56130	24593	19487	14808
MEAN	2535	2146	2123	1490	2808	2937	3353	3826	1871	793.3	628.6	493.6
MAX	4180	3190	2530	1960	3750	3880	3890	5090	2980	1170	896	662
MIN	610	1600	1650	1290	2100	2170	2750	2480	1110	556	422	358
CFSM	1.43	1.21	1.19	0.84	1.58	1.65	1.88	2.15	1.05	0.45	0.35	0.28
IN.	1.64	1.35	1.38	0.97	1.64	1.90	2.10	2.48	1.17	0.51	0.41	0.31

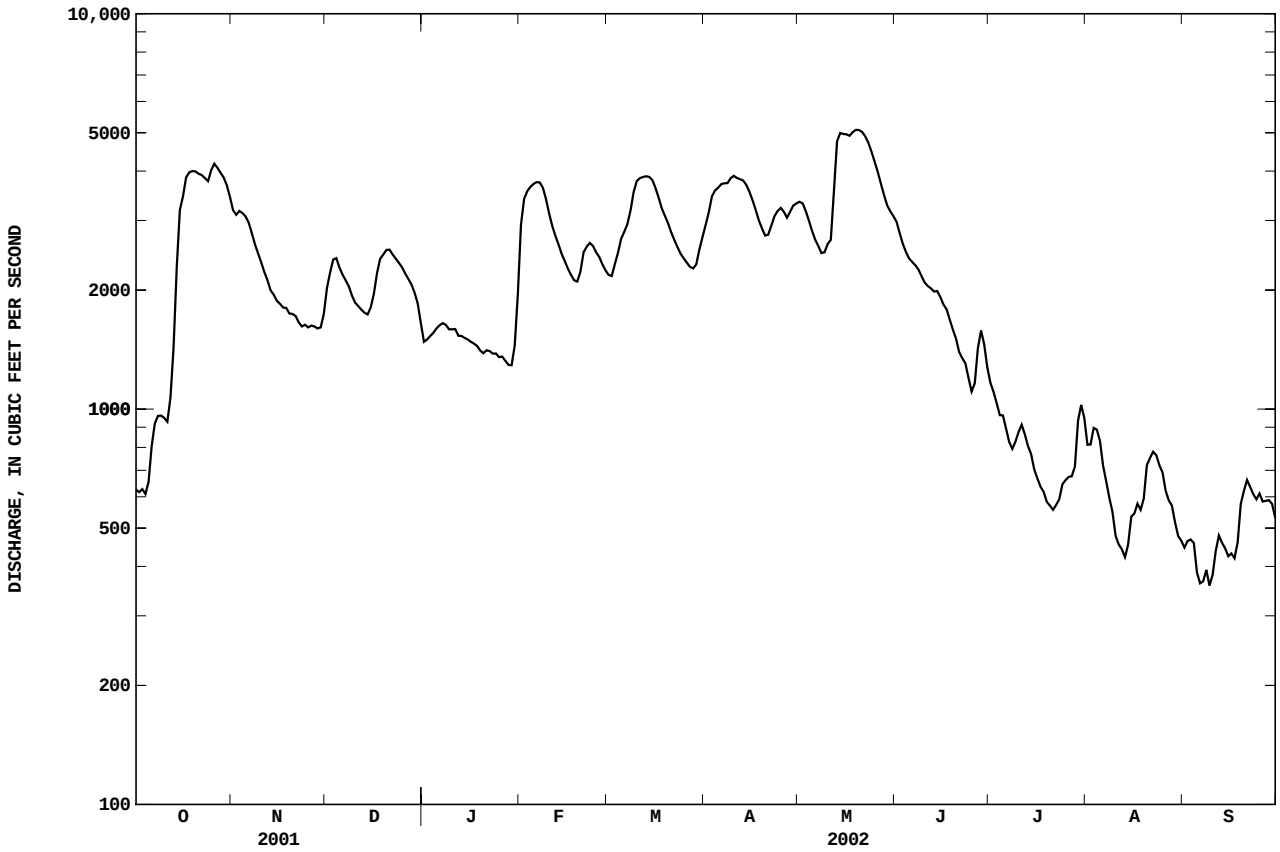
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2002, BY WATER YEAR (WY)

MEAN	1083	1341	1622	1815	1989	2555	2770	2312	1833	1282	971.5	867.5
MAX	3529	3413	4502	4867	3658	5570	5365	4409	4347	3228	3058	2843
(WY)	1991	1973	1928	1991	1950	1985	1982	1943	1981	1996	1990	1993
MIN	455	500	540	460	462	848	1226	789	569	441	402	356
(WY)	1954	2000	1964	1940	1963	1934	1925	1934	1934	1988	1988	1941

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1924 - 2002	
ANNUAL TOTAL	661151		758853			
ANNUAL MEAN	1811		2079		1701	
HIGHEST ANNUAL MEAN					2767	1993
LOWEST ANNUAL MEAN					775	1964
HIGHEST DAILY MEAN	4570	Feb 16	5090	May 19	7650	Mar 26 1982
LOWEST DAILY MEAN	476	Aug 15	358	Sep 9	260	Jan 13 1954
ANNUAL SEVEN-DAY MINIMUM	503	Aug 9	383	Sep 5	298	Aug 2 1988
MAXIMUM PEAK FLOW			5110	May 19	7650	Mar 26 1982
MAXIMUM PEAK STAGE			11.72	May 19	12.98	Mar 24 1982
ANNUAL RUNOFF (CFSM)	1.02		1.17		0.96	
ANNUAL RUNOFF (INCHES)	13.83		15.87		12.99	
10 PERCENT EXCEEDS	3690		3770		3360	
50 PERCENT EXCEEDS	1680		2000		1370	
90 PERCENT EXCEEDS	659		576		630	

e Estimated

05518000 KANKAKEE RIVER AT SHELBY, IN--Continued



05519000 SINGLETON DITCH AT SCHNEIDER, IN

LOCATION.--Lat 41°12'44", long 87°26'44", in SW¼NW¼ sec.22, T.32 N., R.9 W., Lake County, Hydrologic Unit 07120001, (SCHNEIDER, IN quadrangle), on left bank 15 ft upstream from bridge on Ackerman Avenue, 0.5 mi upstream from Bruce Ditch, 1.5 mi downstream from Cedar Creek, 1.6 mi north of Schneider, and at mile 10.1.

DRAINAGE AREA.--123 mi^2.

PERIOD OF RECORD.--July 1948 to December 2001 (discontinued).

REVISED RECORDS.--WSP 1915: 1956-59. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 623.67 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1949, nonrecording gage at same site at datum 2.00 ft higher. Oct. 1, 1949, to Aug. 13, 1951, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e15	84	145	---	---	---	---	---	---	---	---	---
2	e14	175	111	---	---	---	---	---	---	---	---	---
3	e14	250	97	---	---	---	---	---	---	---	---	---
4	e13	164	88	---	---	---	---	---	---	---	---	---
5	e13	131	82	---	---	---	---	---	---	---	---	---
6	e31	114	78	---	---	---	---	---	---	---	---	---
7	33	102	74	---	---	---	---	---	---	---	---	---
8	29	93	70	---	---	---	---	---	---	---	---	---
9	28	86	67	---	---	---	---	---	---	---	---	---
10	27	82	64	---	---	---	---	---	---	---	---	---
11	24	75	61	---	---	---	---	---	---	---	---	---
12	32	70	58	---	---	---	---	---	---	---	---	---
13	51	66	59	---	---	---	---	---	---	---	---	---
14	229	65	63	---	---	---	---	---	---	---	---	---
15	252	63	77	---	---	---	---	---	---	---	---	---
16	191	62	82	---	---	---	---	---	---	---	---	---
17	194	59	108	---	---	---	---	---	---	---	---	---
18	144	58	155	---	---	---	---	---	---	---	---	---
19	115	58	126	---	---	---	---	---	---	---	---	---
20	96	58	111	---	---	---	---	---	---	---	---	---
21	82	57	97	---	---	---	---	---	---	---	---	---
22	75	57	85	---	---	---	---	---	---	---	---	---
23	78	54	e81	---	---	---	---	---	---	---	---	---
24	103	53	e76	---	---	---	---	---	---	---	---	---
25	344	57	e73	---	---	---	---	---	---	---	---	---
26	239	54	e72	---	---	---	---	---	---	---	---	---
27	161	54	e69	---	---	---	---	---	---	---	---	---
28	127	52	e67	---	---	---	---	---	---	---	---	---
29	108	52	e66	---	---	---	---	---	---	---	---	---
30	95	100	e65	---	---	---	---	---	---	---	---	---
31	88	---	e64	---	---	---	---	---	---	---	---	---
TOTAL	3045	2505	2591	---	---	---	---	---	---	---	---	---
MEAN	98.23	83.50	83.58	---	---	---	---	---	---	---	---	---
MAX	344	250	155	---	---	---	---	---	---	---	---	---
MIN	13	52	58	---	---	---	---	---	---	---	---	---
CFSM	0.80	0.68	0.68	---	---	---	---	---	---	---	---	---
IN.	0.92	0.76	0.78	---	---	---	---	---	---	---	---	---

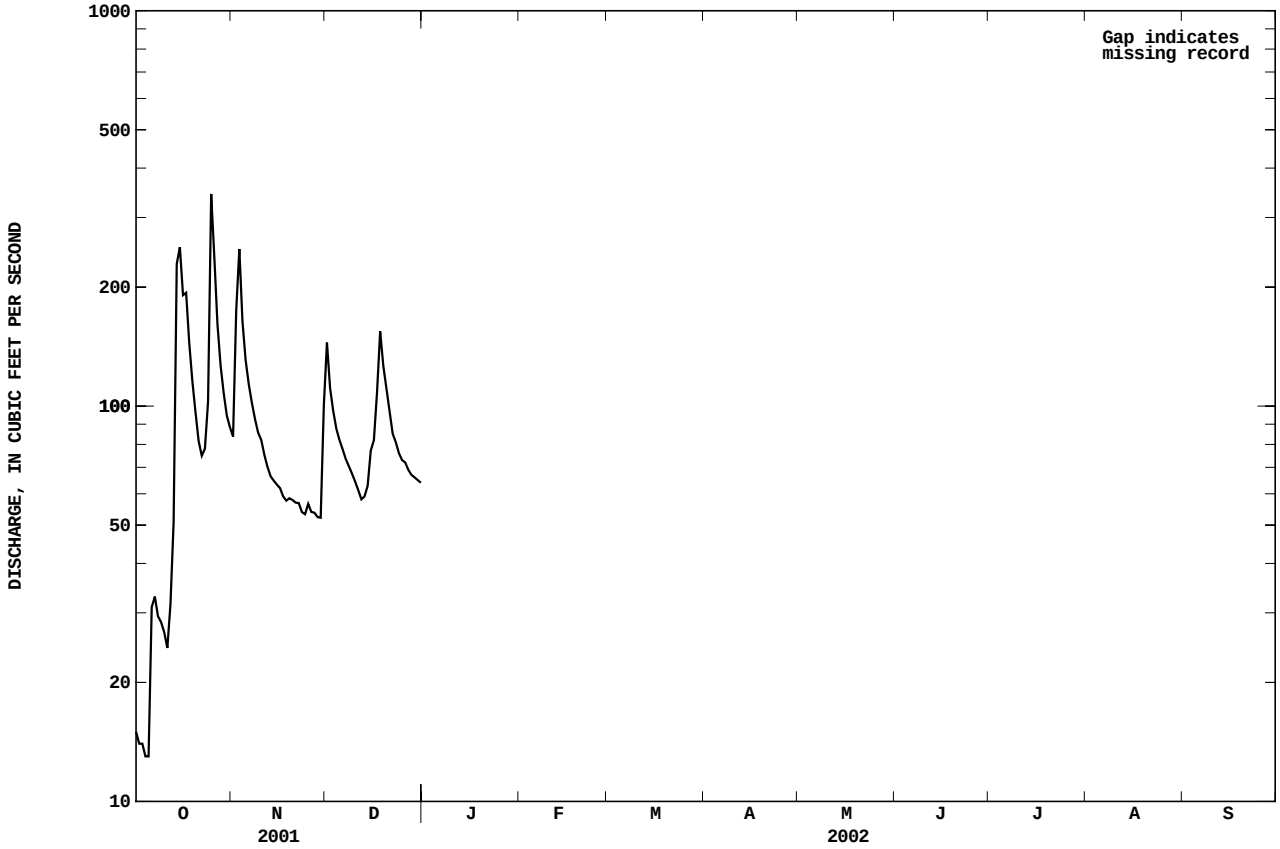
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)

MEAN	59.55	84.90	110.4	126.7	152.8	206.7	209.3	143.5	126.6	71.53	48.99	45.18
MAX	295	471	457	475	486	634	477	421	481	321	237	308
(WY)	1994	1986	1991	1993	1959	1982	1950	1974	1997	1996	1990	1993
MIN	7.54	11.8	8.13	17.5	15.6	34.3	48.6	30.6	26.3	10.6	7.09	7.78
(WY)	1964	1957	1964	1977	1964	1957	1963	1958	1988	1988	1964	1964

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002	
ANNUAL TOTAL	30089		8141			
ANNUAL MEAN	82.44		88.49		115.1	
HIGHEST ANNUAL MEAN					227	1993
LOWEST ANNUAL MEAN					24.0	1964
HIGHEST DAILY MEAN	1200	Feb 25	344	Oct 25	2990	Mar 5 1976
LOWEST DAILY MEAN	12	Sep 15	13	Oct 4	3.6	Sep 7 1964
ANNUAL SEVEN-DAY MINIMUM	14	Aug 9	19	Oct 1	3.8	Sep 4 1964
MAXIMUM PEAK FLOW			387	Oct 25	3550	Mar 5 1976
MAXIMUM PEAK STAGE			4.08	Oct 25	12.54	Nov 28 1990
ANNUAL RUNOFF (CFSM)	0.67		0.72		0.94	
ANNUAL RUNOFF (INCHES)	9.10		2.46		12.71	
10 PERCENT EXCEEDS	146		163		253	
50 PERCENT EXCEEDS	57		74		61	
90 PERCENT EXCEEDS	17		30		19	

e Estimated

05519000 SINGLETON DITCH AT SCHNEIDER, IN--Continued



05521000 IROQUOIS RIVER AT ROSEBUD, IN

LOCATION.--Lat 41°02'00", long 87°10'49", in NW1/4SW1/4 sec.24, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, (PARR, IN quadrangle), on right bank 100 ft downstream from bridge on county road 700W, 0.5 mi north of Rosebud, 0.5 mi downstream from the confluence of Swain and Dexter Ditches, 1.5 mi upstream from Davisson Ditch, 2 mi east of Parr, and at mile 93.5.

DRAINAGE AREA.--35.6 mi^2.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 1338: 1950-53. WSP 1728: 1959-60(M). WSP 1915: 1949-60. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 661.47 ft above National Geodetic Vertical Datum of 1929 (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1953, nonrecording gage on downstream side of county road bridge at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	39	55	e20	178	35	58	55	35	14	22	6.8
2	2.8	44	42	e19	108	46	106	67	34	14	72	6.7
3	2.8	44	36	e18	79	100	124	54	32	12	57	7.0
4	3.4	39	32	e17	61	71	83	46	31	11	32	5.9
5	8.7	35	30	e17	48	52	68	42	40	12	24	5.7
6	12	32	29	e17	42	60	57	42	44	11	20	5.4
7	9.7	30	27	e18	38	92	53	39	37	12	16	5.9
8	8.9	29	25	e19	35	84	73	38	35	10	14	5.3
9	8.0	27	24	19	33	120	133	44	33	21	13	4.9
10	7.8	26	23	19	34	109	87	45	31	17	12	4.8
11	8.0	24	22	18	32	71	68	62	35	13	11	5.3
12	39	23	22	18	32	60	59	315	36	11	10	5.8
13	52	22	24	18	29	57	52	297	32	10	9.5	6.2
14	181	23	32	18	28	51	49	188	31	9.6	9.5	5.3
15	131	23	45	17	28	47	46	132	29	8.8	9.1	5.4
16	131	22	40	17	27	42	42	107	28	8.3	8.8	5.1
17	108	20	55	17	25	41	39	117	26	8.9	8.7	4.8
18	76	20	62	16	24	39	37	91	25	7.8	8.6	5.5
19	61	21	50	16	41	37	36	76	24	8.1	22	8.4
20	50	19	41	16	124	37	36	68	23	7.4	23	9.1
21	43	19	36	16	91	34	36	60	22	7.1	16	6.6
22	128	18	34	15	62	32	37	54	22	20	15	5.1
23	140	17	36	16	51	31	32	50	21	33	13	3.9
24	136	18	33	16	45	31	34	46	20	15	11	3.5
25	192	17	30	15	42	31	36	44	20	12	10	3.7
26	120	16	29	15	41	31	33	40	19	11	9.9	5.3
27	83	17	27	15	40	30	47	39	17	10	9.6	4.0
28	65	15	27	15	38	36	129	38	17	12	11	3.5
29	55	19	26	16	---	73	83	40	16	40	8.3	3.4
30	47	60	e24	26	---	107	63	38	14	72	7.7	3.3
31	42	---	e22	158	---	73	---	37	---	35	7.1	---
TOTAL	1954.9	778	1040	677	1456	1760	1836	2411	829	494.0	520.8	161.6
MEAN	63.06	25.93	33.55	21.84	52.00	56.77	61.20	77.77	27.63	15.94	16.80	5.387
MAX	192	60	62	158	178	120	133	315	44	72	72	9.1
MIN	2.8	15	22	15	24	30	32	37	14	7.1	7.1	3.3
CFSM	1.77	0.73	0.94	0.61	1.46	1.59	1.72	2.18	0.78	0.45	0.47	0.15
IN.	2.04	0.81	1.09	0.71	1.52	1.84	1.92	2.52	0.87	0.52	0.54	0.17

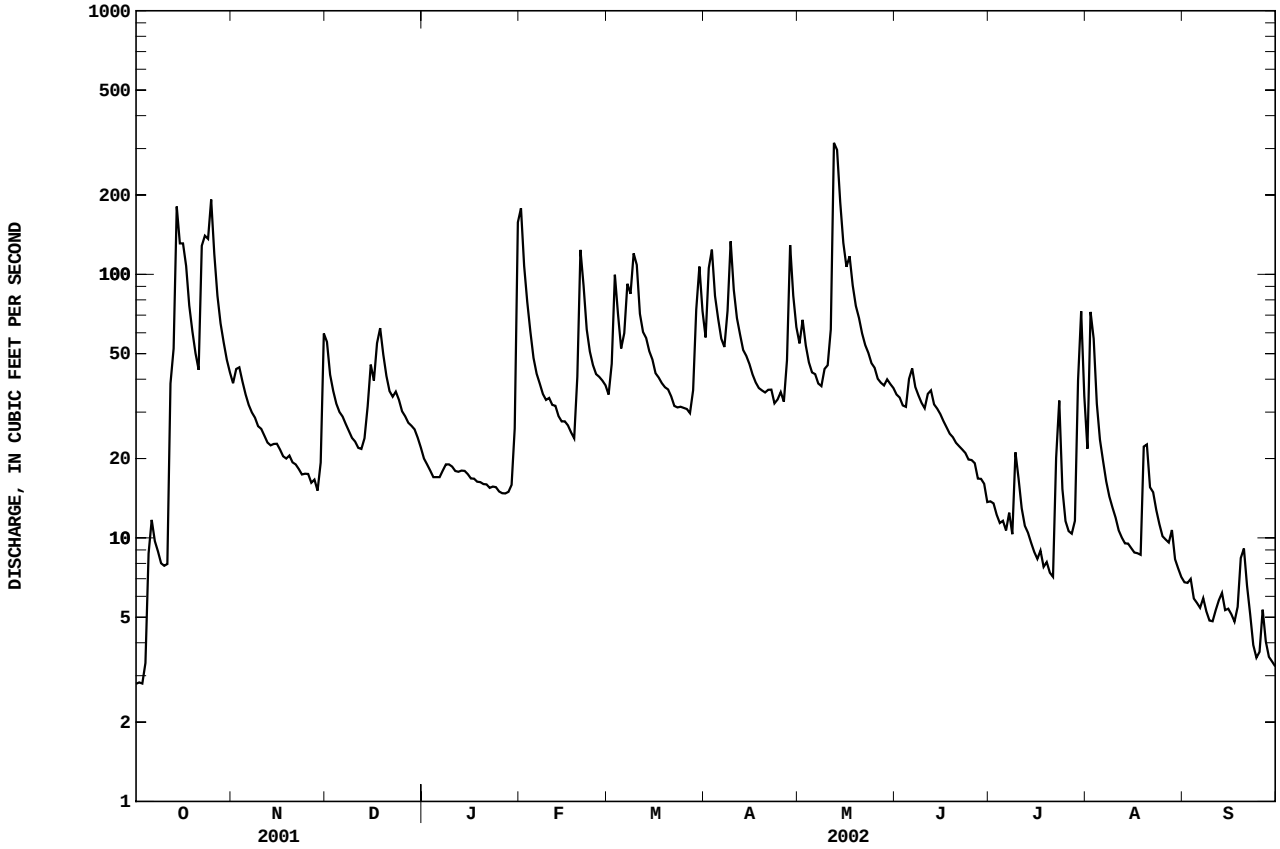
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)

MEAN	15.79	19.07	27.54	29.90	37.89	49.78	51.15	40.27	33.79	18.29	10.43	11.76
MAX	106	68.5	96.8	113	91.1	149	141	111	111	63.2	52.1	88.9
(WY)	1994	1993	1991	1950	1959	1982	1950	1974	1981	1996	1972	1993
MIN	1.19	1.80	2.43	3.52	3.13	7.69	17.2	10.2	5.47	3.08	1.97	1.53
(WY)	1965	1965	1964	1963	1964	1957	1986	1958	1988	1988	1964	1964

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002	
ANNUAL TOTAL	10520.2		13918.3			
ANNUAL MEAN	28.82		38.13		28.73	
HIGHEST ANNUAL MEAN					61.7	1993
LOWEST ANNUAL MEAN					6.38	1964
HIGHEST DAILY MEAN	261	Feb 25	315	May 12	621	Dec 30 1990
LOWEST DAILY MEAN	2.4	Sep 14	2.8	Oct 1	0.50	Oct 11 1964
ANNUAL SEVEN-DAY MINIMUM	2.8	Sep 12	3.8	Sep 24	0.77	Oct 11 1964
MAXIMUM PEAK FLOW			400	May 12	656	Dec 30 1990
MAXIMUM PEAK STAGE			5.60	May 12	8.86	Feb 10 1959
ANNUAL RUNOFF (CFSM)	0.81		1.07		0.81	
ANNUAL RUNOFF (INCHES)	10.99		14.54		10.97	
10 PERCENT EXCEEDS	56		77		63	
50 PERCENT EXCEEDS	22		29		17	
90 PERCENT EXCEEDS	4.0		7.8		4.3	

e Estimated

05521000 IROQUOIS RIVER AT ROSEBUD, IN--Continued



05522500 IROQUOIS RIVER AT RENSSELAER, IN

LOCATION.--Lat 40°56'00", long 87°07'44", in NW1/4SE1/4 sec.29, T.29 N., R.6 W., Jasper County, Hydrologic Unit 07120002, (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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	325	438	e113	1220	241	520	433	170	46	88	22
2	24	334	371	e110	1200	266	491	453	151	48	99	21
3	22	359	300	e106	988	564	757	426	143	45	263	e25
4	25	337	250	e105	739	578	770	357	134	43	195	e22
5	40	301	219	e104	513	470	618	296	199	40	100	e17
6	74	259	203	e105	371	411	484	258	262	38	62	16
7	64	236	199	e106	298	540	396	240	218	35	45	16
8	49	225	177	e108	250	560	406	221	181	32	38	18
9	43	199	160	e110	225	657	688	356	159	39	34	18
10	41	191	149	103	219	811	726	421	145	53	34	24
11	42	183	140	98	211	688	598	412	149	40	32	18
12	186	161	132	96	206	529	474	1160	194	35	29	17
13	311	160	150	95	184	447	394	1710	172	33	27	18
14	861	161	199	95	164	396	345	1780	156	30	26	17
15	1080	161	348	94	157	354	318	1650	147	28	24	16
16	1120	156	324	88	152	319	286	1390	135	26	24	18
17	1100	143	375	85	138	281	239	1230	117	26	24	17
18	944	142	469	e84	125	257	220	1030	106	24	22	17
19	743	141	426	e83	206	230	208	797	96	24	30	18
20	551	134	347	e82	650	222	190	604	89	27	73	24
21	405	130	284	e81	799	205	195	475	84	28	79	26
22	740	126	246	78	676	176	208	393	79	27	61	22
23	1010	120	250	79	510	178	198	344	75	55	47	20
24	e1200	118	241	83	396	167	183	310	71	44	40	17
25	e1300	118	193	79	331	168	191	274	68	33	37	16
26	1230	111	184	78	306	168	177	242	e84	29	34	18
27	1020	110	177	79	279	167	212	214	e100	29	30	18
28	770	105	170	79	254	180	609	200	e72	28	28	16
29	567	112	135	81	---	336	667	195	54	40	27	17
30	437	337	e125	140	---	646	543	196	50	174	25	16
31	364	---	e118	710	---	662	---	183	---	199	23	---
TOTAL	16387	5695	7499	3537	11767	11874	12311	18250	3860	1398	1700	565
MEAN	528.6	189.8	241.9	114.1	420.2	383.0	410.4	588.7	128.7	45.10	54.84	18.83
MAX	1300	359	469	710	1220	811	770	1780	262	199	263	26
MIN	22	105	118	78	125	167	177	183	50	24	22	16
CFSM	2.60	0.94	1.19	0.56	2.07	1.89	2.02	2.90	0.63	0.22	0.27	0.09
IN.	3.00	1.04	1.37	0.65	2.16	2.18	2.26	3.34	0.71	0.26	0.31	0.10

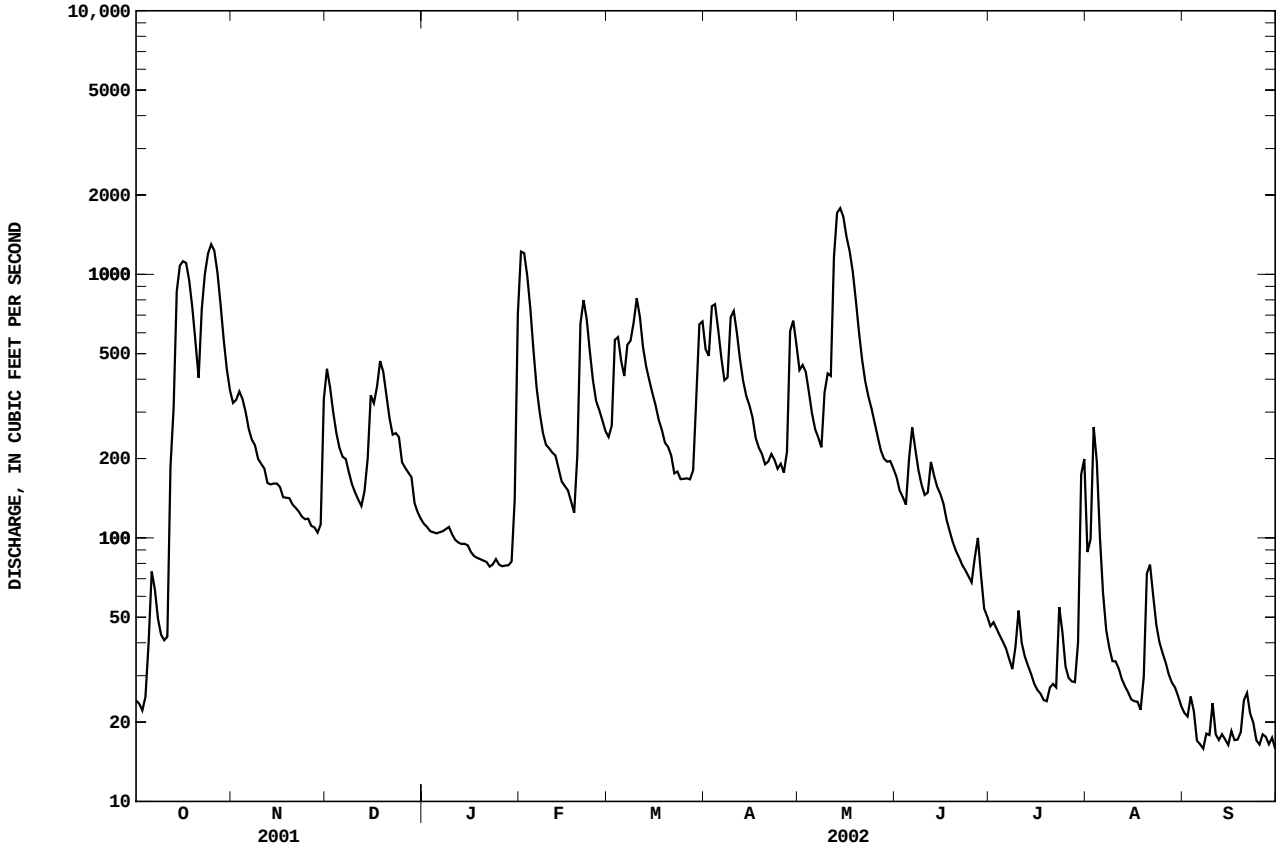
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2002, BY WATER YEAR (WY)

MEAN	93.77	120.5	178.1	203.7	256.5	333.2	340.8	249.8	212.4	105.0	53.26	64.17
MAX	921	561	559	774	660	935	886	766	863	613	238	641
(WY)	1994	1993	1991	1950	1997	1982	1950	1974	1958	1996	1990	1993
MIN	5.77	7.75	7.04	14.5	13.9	40.8	87.8	47.6	22.9	12.5	4.61	5.26
(WY)	1965	1965	1964	1963	1964	1957	1986	1958	1988	1964	1964	1964

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1949 - 2002	
ANNUAL TOTAL	79443		94843			
ANNUAL MEAN	217.7		259.8		183.7	
HIGHEST ANNUAL MEAN					415	1993
LOWEST ANNUAL MEAN					29.7	1964
HIGHEST DAILY MEAN	1390	Feb 26	1780	May 14	2500	Jun 11 1958
LOWEST DAILY MEAN	21	Sep 5	16	Sep 6	2.2	Sep 9 1964
ANNUAL SEVEN-DAY MINIMUM	23	Sep 2	17	Sep 24	2.8	Sep 9 1964
MAXIMUM PEAK FLOW			1790	May 14	2550	Jun 10 1958
MAXIMUM PEAK STAGE			13.65	May 14	16.54	Jun 10 1958
ANNUAL RUNOFF (CFSM)	1.07		1.28		0.90	
ANNUAL RUNOFF (INCHES)	14.56		17.38		12.30	
10 PERCENT EXCEEDS	477		659		459	
50 PERCENT EXCEEDS	129		164		92	
90 PERCENT EXCEEDS	29		24		17	

e Estimated

05522500 IROQUOIS RIVER AT RENSSELAER, IN--Continued



05524500 IROQUOIS RIVER NEAR FORESMAN, IN

LOCATION.--Lat 40°52'14", long 87°18'24", in NE$^1/_4$SE$^1/_4$ 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 and those below 60 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	859	823	e190	1830	547	1900	1220	440	139	236	48
2	33	760	744	e180	2180	553	1670	1160	400	134	731	48
3	29	736	631	e171	2060	990	1630	1190	375	119	1080	55
4	27	657	532	e166	1780	1080	1630	1010	343	107	660	47
5	44	575	464	e170	1440	1010	1490	803	521	103	386	45
6	129	495	435	e171	1140	900	1280	660	656	96	254	41
7	148	447	406	e175	867	1040	1020	626	574	86	145	40
8	106	421	373	e180	652	1090	916	606	484	74	130	e39
9	79	389	333	e182	539	1200	1350	844	424	162	112	42
10	67	366	311	e170	502	1480	1460	1060	389	311	104	42
11	70	352	283	e160	480	1430	1400	975	396	171	93	44
12	347	316	273	e150	464	1300	1270	1830	631	113	82	e40
13	753	305	323	e140	420	1100	1090	3560	586	92	75	e39
14	1280	310	426	e134	372	944	874	3990	584	81	75	e39
15	2200	312	735	e125	364	841	732	3680	545	70	72	e37
16	2410	308	726	e118	347	702	666	3270	464	61	72	39
17	2420	285	782	e116	317	604	609	2970	391	55	70	39
18	2200	276	949	e115	290	539	568	2630	335	51	61	38
19	1870	285	960	e114	451	493	541	2280	295	49	193	40
20	1570	270	859	e113	1130	503	493	1890	264	57	409	47
21	1270	255	700	e112	1520	481	490	1550	245	56	246	53
22	1310	250	585	e111	1560	400	532	1200	234	52	143	49
23	1720	240	571	161	1350	402	487	976	227	204	103	45
24	2070	236	522	180	1110	396	464	802	212	149	86	40
25	2510	247	434	176	945	395	525	680	192	81	78	39
26	2550	226	382	164	769	384	474	607	278	68	71	38
27	2280	218	363	174	654	399	530	556	316	62	64	41
28	1880	210	357	180	590	439	1280	524	238	63	64	e39
29	1570	220	299	186	---	720	1500	513	178	146	60	e40
30	1290	571	213	293	---	1330	1450	509	156	685	53	40
31	1050	---	e199	1000	---	1820	---	484	---	489	49	---
TOTAL	35316	11397	15993	5777	26123	25512	30321	44655	11373	4186	6057	1273
MEAN	1139	379.9	515.9	186.4	933.0	823.0	1011	1440	379.1	135.0	195.4	42.43
MAX	2550	859	960	1000	2180	1820	1900	3990	656	685	1080	55
MIN	27	210	199	111	290	384	464	484	156	49	49	37
CFSM	2.54	0.85	1.15	0.42	2.08	1.83	2.25	3.21	0.84	0.30	0.44	0.09
IN.	2.93	0.94	1.33	0.48	2.16	2.11	2.51	3.70	0.94	0.35	0.50	0.11

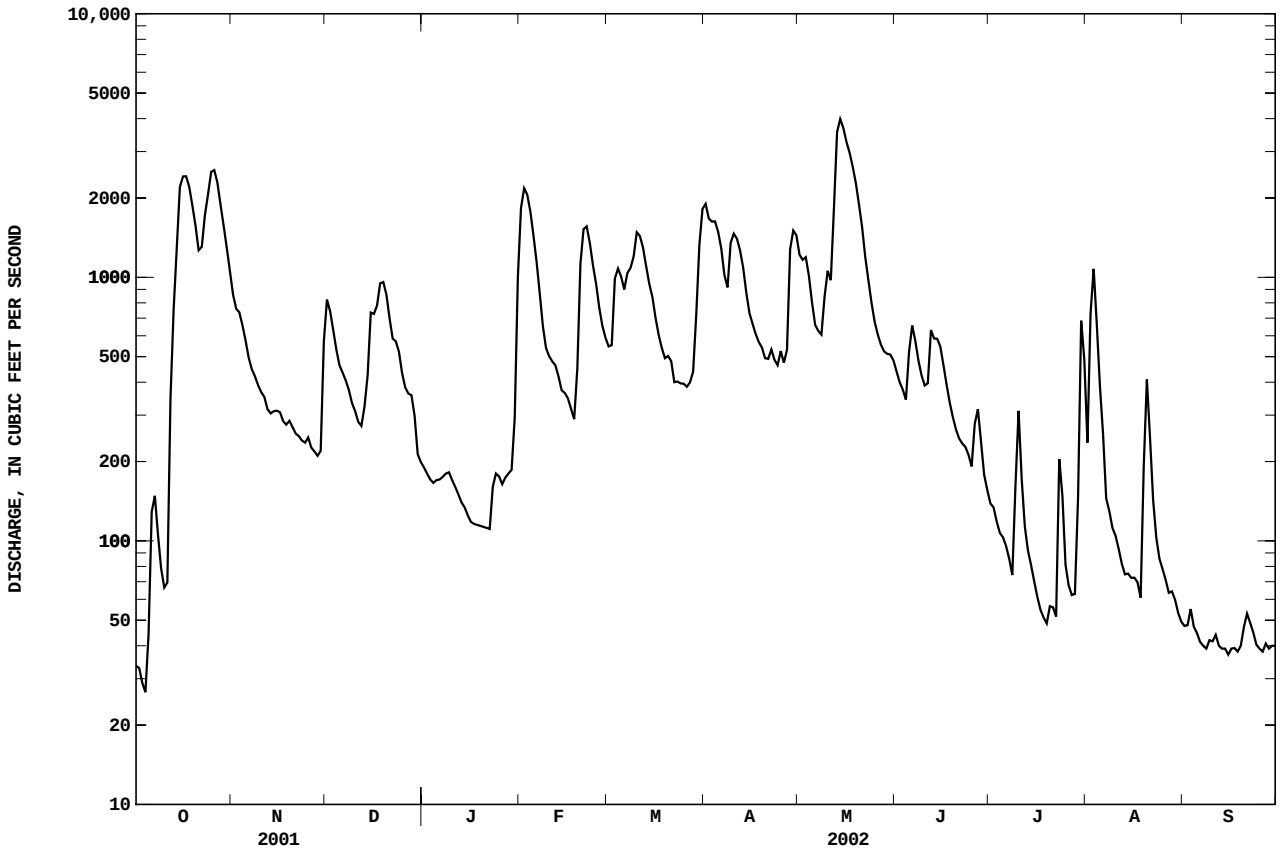
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2002, BY WATER YEAR (WY)

MEAN	191.4	253.1	392.6	431.3	571.0	741.1	761.0	570.8	488.9	261.2	104.5	134.5
MAX	1792	1218	1274	1736	1490	2266	1672	1440	2314	1099	435	1387
(WY)	1994	1993	1968	1993	1968	1982	1950	2002	1958	1993	1990	1993
MIN	9.70	16.1	15.3	27.0	31.4	81.7	199	108	39.8	17.7	12.2	11.1
(WY)	1957	1965	1964	1963	1964	1957	1986	1958	1988	1988	1988	1964

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1950 - 2002	
ANNUAL TOTAL	165630		217983			
ANNUAL MEAN	453.8		597.2		407.2	
HIGHEST ANNUAL MEAN					891	1993
LOWEST ANNUAL MEAN					77.6	1964
HIGHEST DAILY MEAN	2550	Oct 26	3990	May 14	5930	Jun 14 1958
LOWEST DAILY MEAN	27	Oct 4	27	Oct 4	6.3	Sep 10 1964
ANNUAL SEVEN-DAY MINIMUM	33	Sep 28	39	Sep 12	8.0	Sep 5 1964
MAXIMUM PEAK FLOW			4230	May 13	5930	Jun 14 1958
MAXIMUM PEAK STAGE			c19.46	Oct 26	24.42	Jun 14 1958
ANNUAL RUNOFF (CFSM)	1.01		1.33		0.91	
ANNUAL RUNOFF (INCHES)	13.72		18.06		12.32	
10 PERCENT EXCEEDS	1190		1480		1080	
50 PERCENT EXCEEDS	265		389		195	
90 PERCENT EXCEEDS	47		52		29	

e Estimated
c Backwater

05524500 IROQUOIS RIVER NEAR FORESMAN, IN--Continued



05536179 HART DITCH AT DYER, IN

LOCATION.--Lat 41°30'28", long 87°30'36",in NE1/4NE1/4 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 except those for Sept. 10-30, which are poor. Low-flow affected by sewage effluent.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

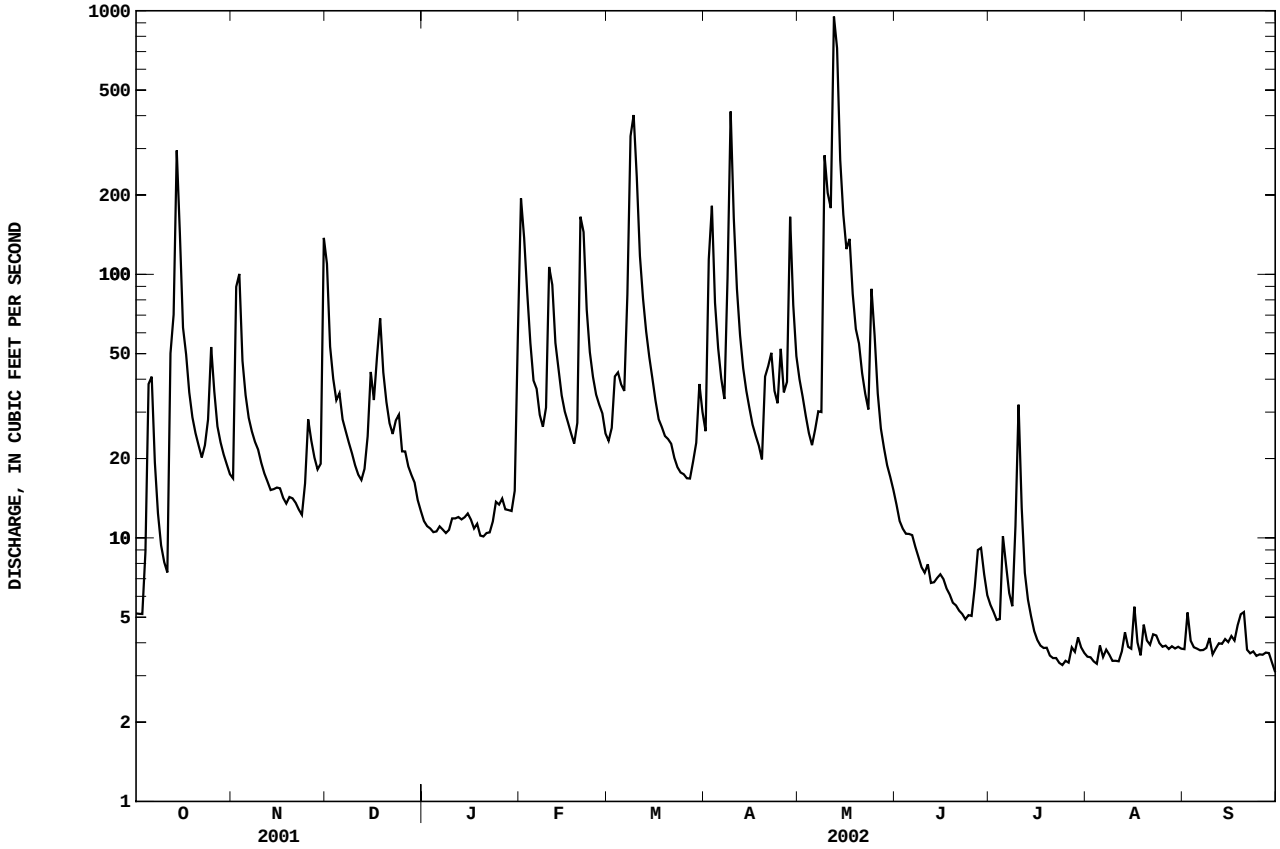
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	17	110	12	194	23	25	40	13	5.6	3.5	3.8
2	5.2	90	53	11	138	26	114	34	12	5.2	3.5	5.2
3	5.1	100	40	11	85	41	182	29	11	4.9	3.4	4.1
4	8.9	47	33	11	55	42	78	25	10	4.9	3.3	3.8
5	38	35	35	11	40	38	52	22	10	10	3.9	3.8
6	41	29	28	11	37	36	40	26	10	7.9	3.5	3.7
7	19	25	25	11	29	84	34	30	9.3	6.2	3.8	3.8
8	12	23	23	10	26	335	97	30	8.5	5.5	3.6	3.8
9	9.4	22	21	11	31	402	415	283	7.7	11	3.4	4.2
10	8.1	19	19	12	107	234	164	204	7.4	32	3.4	3.6
11	7.4	18	17	12	91	117	88	178	7.9	13	3.4	3.8
12	50	16	17	12	55	81	59	950	6.7	7.4	3.7	4.0
13	70	15	18	12	44	61	44	722	6.8	5.8	4.4	4.0
14	295	15	24	12	35	48	36	272	7.1	5.0	3.9	4.1
15	143	16	43	12	30	40	31	169	7.3	4.4	3.8	4.0
16	63	15	33	12	27	33	27	125	7.0	4.1	5.5	4.2
17	50	14	49	11	25	28	24	136	6.4	3.9	4.0	4.1
18	36	14	68	11	23	26	22	84	6.1	3.8	3.6	4.7
19	29	14	42	10	27	24	20	62	5.7	3.8	4.7	5.1
20	25	14	33	10	165	24	41	55	5.5	3.6	4.1	5.2
21	22	14	27	10	145	23	45	42	5.3	3.5	3.9	3.8
22	20	13	25	10	73	20	50	35	5.1	3.5	4.3	3.6
23	22	12	28	12	51	19	36	31	4.9	3.4	4.3	3.7
24	28	16	29	14	41	18	32	88	5.1	3.3	4.0	3.6
25	53	28	21	13	35	17	52	59	5.1	3.4	3.9	3.6
26	36	23	21	14	32	17	36	35	6.5	3.4	3.9	3.6
27	26	20	19	13	30	17	39	26	9.0	3.8	3.8	3.7
28	23	18	17	13	25	20	165	22	9.2	3.7	3.9	3.7
29	21	19	16	13	---	23	76	19	7.3	4.2	3.8	3.4
30	19	138	14	15	---	38	49	17	6.1	3.8	3.9	3.1
31	17	---	13	59	---	30	---	15	---	3.7	3.8	---
TOTAL	1207.3	859	961	411	1696	1985	2173	3865	229.0	187.7	119.9	118.8
MEAN	38.95	28.63	31.00	13.26	60.57	64.03	72.43	124.7	7.633	6.055	3.868	3.960
MAX	295	138	110	59	194	402	415	950	13	32	5.5	5.2
MIN	5.1	12	13	10	23	17	20	15	4.9	3.3	3.3	3.1
CFSM	1.04	0.76	0.82	0.35	1.61	1.70	1.93	3.32	0.20	0.16	0.10	0.11
IN.	1.19	0.85	0.95	0.41	1.68	1.96	2.15	3.82	0.23	0.19	0.12	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

MEAN	23.44	44.74	36.14	48.87	60.99	67.31	58.69	57.17	55.09	20.02	19.61	14.81
MAX	113	195	106	136	183	169	138	140	182	92.9	74.1	106
(WY)	1994	1991	1991	1993	1997	1991	1999	1996	1993	1996	1998	1993
MIN	2.77	3.55	4.92	4.44	8.23	7.00	16.6	7.48	4.21	4.46	3.87	2.41
(WY)	1996	2000	1990	2000	2000	2000	2001	1992	1992	1991	2002	1994

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1990 - 2002	
ANNUAL TOTAL	10548.7		13812.7			
ANNUAL MEAN	28.90		37.84		42.09	
HIGHEST ANNUAL MEAN					76.6	1993
LOWEST ANNUAL MEAN					19.1	2000
HIGHEST DAILY MEAN	680	Feb 9	950	May 12	2580	Nov 28 1990
LOWEST DAILY MEAN	4.1	Jul 18	3.1	Sep 30	0.61	Oct 23 1995
ANNUAL SEVEN-DAY MINIMUM	4.4	Aug 8	3.4	Jul 20	0.95	Sep 17 1994
MAXIMUM PEAK FLOW			1120	May 12	3010	Nov 28 1990
MAXIMUM PEAK STAGE			9.35	May 12	15.33	Nov 28 1990
ANNUAL RUNOFF (CFSM)	0.77		1.01		1.12	
ANNUAL RUNOFF (INCHES)	10.44		13.67		15.21	
10 PERCENT EXCEEDS	52		82		98	
50 PERCENT EXCEEDS	15		17		13	
90 PERCENT EXCEEDS	4.9		3.8		4.0	

05536179 HART DITCH AT DYER, IN--Continued



05536190 HART DITCH AT MUNSTER, IN

LOCATION.--Lat 41°33'40", long 87°28'50", in SE$^1/_4$NW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	37	278	26	468	56	61	89	41	21	14	11
2	17	281	115	25	298	90	285	80	38	20	14	60
3	14	231	88	24	164	123	408	68	37	20	13	19
4	67	96	74	23	110	108	162	58	36	26	13	12
5	378	71	78	23	77	91	113	52	38	29	18	11
6	168	58	67	25	73	104	90	83	35	24	14	11
7	80	52	55	24	63	237	83	71	32	20	13	11
8	50	49	49	23	61	926	392	98	31	19	13	10
9	37	45	46	24	78	1180	1220	867	28	37	13	9.9
10	31	42	43	26	182	679	487	569	28	67	12	11
11	27	40	40	28	163	279	211	605	34	36	12	12
12	289	37	39	29	99	172	134	e2500	27	26	12	11
13	433	35	52	29	81	128	101	e1510	27	21	24	10
14	1090	44	74	30	67	101	85	e580	66	19	14	11
15	541	38	94	30	63	86	74	e350	34	16	13	12
16	237	37	82	29	65	78	65	e260	27	16	35	12
17	134	34	132	28	53	67	60	e280	25	15	21	12
18	87	33	153	27	48	62	54	e220	23	17	14	19
19	69	42	101	26	75	57	50	e180	21	25	31	27
20	54	38	74	25	370	58	138	145	23	17	17	33
21	44	35	54	27	321	54	131	101	20	15	14	15
22	45	33	49	29	144	48	121	85	20	14	28	13
23	99	32	65	30	101	46	91	73	20	14	20	12
24	124	69	59	33	85	44	103	279	19	13	17	12
25	151	66	43	31	73	45	119	151	42	13	13	10
26	88	53	43	33	76	45	84	99	54	14	12	9.7
27	64	48	39	31	70	45	127	78	85	24	12	10
28	52	43	37	30	60	50	324	66	35	16	11	9.9
29	47	57	34	30	---	69	162	59	28	26	11	13
30	43	442	30	45	---	82	107	51	24	19	12	11
31	42	---	28	151	---	68	---	41	---	15	12	---
TOTAL	4620	2218	2215	994	3588	5278	5642	9748	998	674	492	440.5
MEAN	149.0	73.93	71.45	32.06	128.1	170.3	188.1	314.5	33.27	21.74	15.87	14.68
MAX	1090	442	278	151	468	1180	1220	2500	85	67	35	60
MIN	14	32	28	23	48	44	50	41	19	13	11	9.7
CFSM	2.11	1.05	1.01	0.45	1.81	2.41	2.66	4.45	0.47	0.31	0.22	0.21
IN.	2.43	1.17	1.17	0.52	1.89	2.78	2.97	5.13	0.53	0.35	0.26	0.23

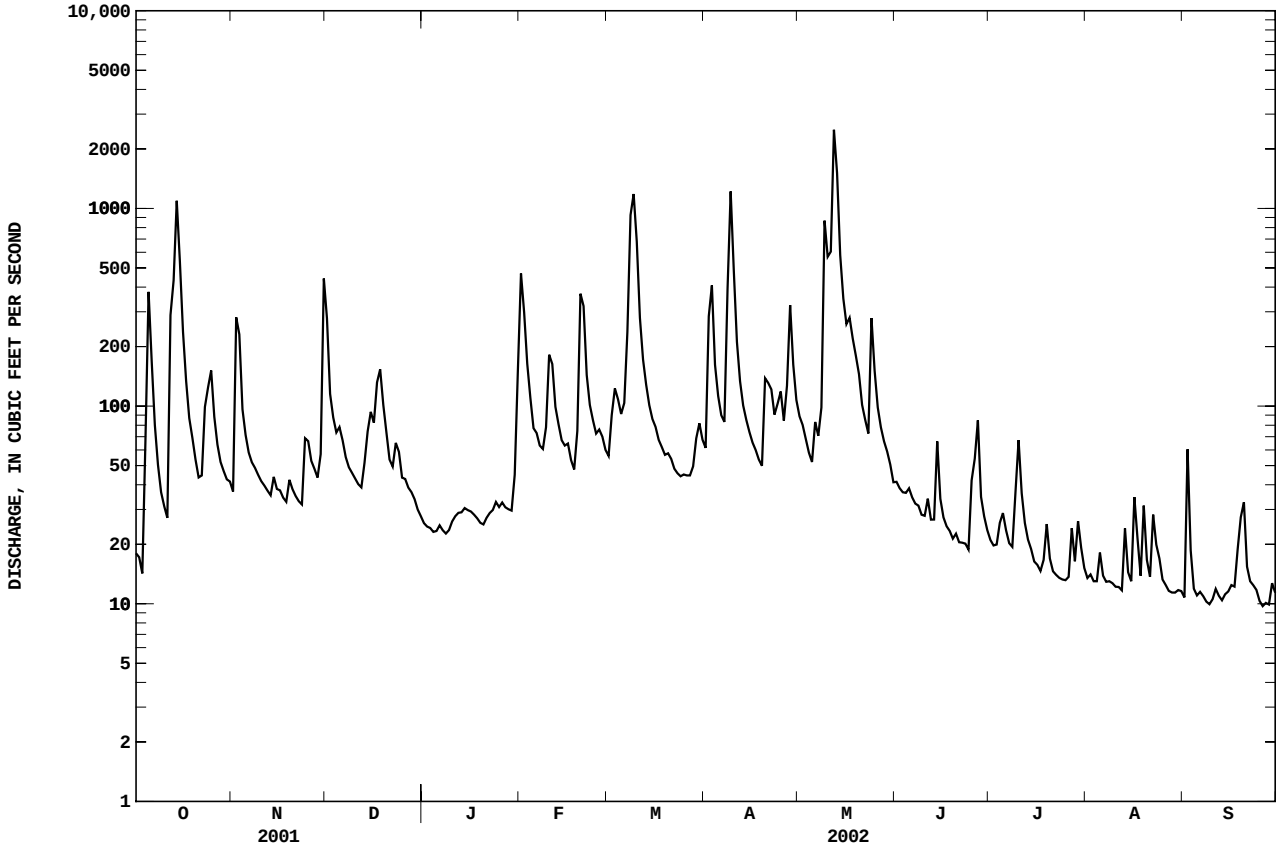
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2002, BY WATER YEAR (WY)

MEAN	33.45	51.45	64.45	68.45	89.96	136.3	133.0	104.3	74.90	36.97	30.20	28.09
MAX	282	287	279	335	479	429	430	373	423	335	156	219
(WY)	1955	1986	1983	1999	1997	1979	1999	1996	1993	1996	1998	1993
MIN	3.95	3.54	3.07	3.77	6.32	19.1	19.2	11.9	8.78	6.11	4.73	3.91
(WY)	1965	1972	1964	1977	1963	1957	1946	1958	1965	1965	1964	1956

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1943 - 2002	
ANNUAL TOTAL	28124		36907.5			
ANNUAL MEAN	77.05		101.1		70.82	
HIGHEST ANNUAL MEAN					160	1993
LOWEST ANNUAL MEAN					19.2	1964
HIGHEST DAILY MEAN	1250	Feb 10	e2500	May 12	2600	Nov 28 1990
LOWEST DAILY MEAN	12	Jul 11	9.7	Sep 26	1.6	Dec 24 1963
ANNUAL SEVEN-DAY MINIMUM	13	Jul 11	11	Sep 7	1.7	Sep 3 1964
MAXIMUM PEAK FLOW			unknown		3010	Nov 28 1990
MAXIMUM PEAK STAGE			c7.84	May 12	8.72	Nov 28 1990
ANNUAL RUNOFF (CFSM)	1.09		1.43		1.00	
ANNUAL RUNOFF (INCHES)	14.80		19.42		13.61	
10 PERCENT EXCEEDS	133		215		151	
50 PERCENT EXCEEDS	42		44		24	
90 PERCENT EXCEEDS	16		13		6.1	

e Estimated
c Backwater

05536190 HART DITCH AT MUNSTER, IN--Continued



05536195 LITTLE CALUMET RIVER AT MUNSTER, IN

LOCATION.--Lat 41°34'38", long 87°31'17", in SE$^1/_4$NW$^1/_4$ 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	39	136	e23	155	41	34	39	23	21	18	19
2	30	117	91	e22	134	57	118	35	22	21	17	29
3	28	133	71	e21	98	88	163	27	21	21	16	21
4	39	92	60	e20	75	77	99	21	21	22	16	18
5	167	72	56	e20	54	75	72	17	23	28	20	17
6	114	62	57	e22	51	71	58	38	21	26	16	17
7	80	56	48	21	44	114	52	30	20	23	13	16
8	64	52	44	20	41	224	132	48	19	23	14	17
9	53	49	40	20	47	308	334	201	18	30	13	19
10	46	47	38	22	89	240	228	185	18	45	12	15
11	42	46	36	23	99	137	123	166	20	36	12	13
12	133	44	35	25	71	105	91	701	19	29	12	14
13	154	42	41	26	58	84	69	656	17	25	18	13
14	312	47	51	27	49	70	54	375	39	24	17	12
15	224	46	62	28	43	56	44	228	25	23	12	12
16	129	45	61	29	45	51	36	178	19	22	20	12
17	96	44	78	30	40	44	31	153	17	22	23	20
18	75	43	90	29	55	40	25	120	17	21	14	14
19	60	47	74	27	49	37	25	96	15	28	23	12
20	48	47	63	25	128	38	93	79	16	23	17	26
21	39	46	54	25	137	35	84	65	15	21	14	18
22	36	45	50	27	94	31	80	53	15	21	21	14
23	79	44	55	28	73	29	59	44	15	21	18	24
24	79	68	52	31	61	29	56	88	15	19	17	15
25	102	63	e47	31	53	31	63	69	33	19	16	14
26	76	52	e44	32	55	31	39	51	39	19	21	21
27	59	48	e38	33	51	30	53	41	50	25	20	17
28	50	43	e33	32	44	32	125	35	28	22	19	16
29	46	50	e29	31	---	39	85	32	24	25	19	12
30	42	151	e26	38	---	52	53	29	23	24	19	12
31	41	---	e24	79	---	42	---	23	---	19	25	---
TOTAL	2575	1780	1684	867	1993	2338	2578	3923	667	748	532	499
MEAN	83.06	59.33	54.32	27.97	71.18	75.42	85.93	126.5	22.23	24.13	17.16	16.63
MAX	312	151	136	79	155	308	334	701	50	45	25	29
MIN	28	39	24	20	40	29	25	17	15	19	12	12
CFSM	0.92	0.66	0.60	0.31	0.79	0.84	0.95	1.41	0.25	0.27	0.19	0.18
IN.	1.06	0.74	0.70	0.36	0.82	0.97	1.07	1.62	0.28	0.31	0.22	0.21

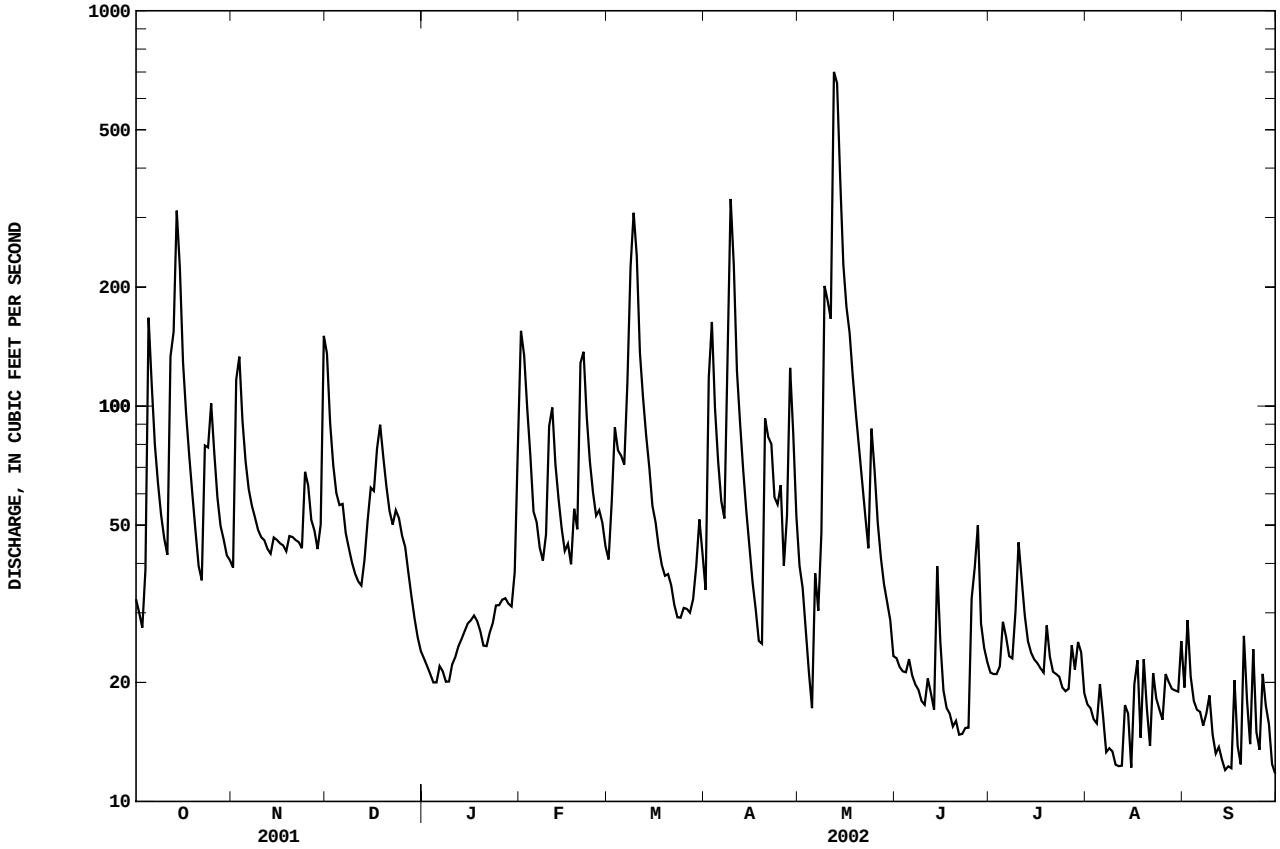
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2002, BY WATER YEAR (WY)

MEAN	35.47	58.55	73.19	63.68	84.26	125.8	127.3	94.33	71.88	39.80	36.91	39.44
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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1959 - 2002	
ANNUAL TOTAL	20588		20184			
ANNUAL MEAN	56.41		55.30		70.74	
HIGHEST ANNUAL MEAN					121	1973
LOWEST ANNUAL MEAN					23.5	1964
HIGHEST DAILY MEAN	525	Feb 10	701	May 12	1160	Apr 28 1959
LOWEST DAILY MEAN	14	Jul 14	12	Aug 10	1.9	Aug 16 1964
ANNUAL SEVEN-DAY MINIMUM	14	Jul 14	13	Sep 10	2.2	Sep 2 1964
MAXIMUM PEAK FLOW			811	May 13	1510	Apr 28 1959
MAXIMUM PEAK STAGE			15.35	May 13	17.03	Nov 28 1990
ANNUAL RUNOFF (CFSM)	0.63		0.61		0.79	
ANNUAL RUNOFF (INCHES)	8.51		8.34		10.68	
10 PERCENT EXCEEDS	95		114		177	
50 PERCENT EXCEEDS	44		38		32	
90 PERCENT EXCEEDS	23		17		8.8	

e Estimated

05536195 LITTLE CALUMET RIVER AT MUNSTER, IN--Continued



05536357 GRAND CALUMET RIVER AT HOHMAN AVE AT HAMMOND, IN

LOCATION.--Lat 41°37'28", long 87°31'04", in NE1/4NW1/4sec. 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	4.9	13	3.9	16	9.1	5.8	3.1	2.9	e4.0	e8.0	0.44
2	2.1	14	10	4.3	10	14	13	3.7	3.2	e3.0	e7.4	2.2
3	2.2	7.1	9.2	4.7	8.9	16	8.1	4.9	5.3	e2.0	e5.2	0.60
4	12	5.2	8.8	3.6	9.0	12	5.7	2.5	5.7	e5.0	e4.0	0.76
5	43	5.9	8.3	4.0	8.4	11	5.1	2.5	2.3	e11	e12	0.71
6	16	5.7	9.9	5.2	8.8	12	4.6	4.2	1.1	e7.0	10	1.1
7	12	5.7	7.8	4.7	8.4	15	5.5	2.1	0.78	e5.0	6.8	0.58
8	6.6	6.1	7.2	3.5	9.2	17	16	2.9	0.97	e3.2	5.3	0.75
9	5.6	5.6	6.4	3.7	11	e14	16	38	2.1	e7.0	5.9	0.41
10	4.8	5.9	7.2	3.6	13	e12	22	22	2.4	e16	5.8	0.60
11	5.5	5.7	6.0	3.0	12	e12	7.2	30	2.9	e11	5.5	2.0
12	38	4.8	6.4	3.9	11	e11	8.2	166	2.9	e6.0	5.5	0.80
13	38	5.5	7.8	4.4	10	10	7.4	95	2.3	e4.1	4.6	1.3
14	80	7.4	11	4.2	9.4	9.8	4.9	40	4.6	e3.5	5.3	0.28
15	21	5.8	7.5	4.2	9.4	9.2	6.2	14	3.3	e3.0	5.4	0.53
16	19	6.0	5.9	4.0	9.2	8.4	5.8	14	2.4	e4.0	6.1	1.8
17	17	4.8	15	4.5	8.8	8.3	7.6	13	1.7	e3.3	5.0	1.7
18	10	4.3	8.8	4.0	8.7	7.9	6.4	9.4	2.9	e2.8	3.3	1.3
19	8.2	8.6	8.3	3.9	13	7.9	7.3	5.9	2.6	e11	3.9	1.1
20	6.6	5.5	7.8	4.1	19	8.4	22	5.2	2.8	e7.0	3.3	4.8
21	5.6	4.8	6.5	4.5	13	7.7	12	4.5	4.4	e5.0	1.0	2.5
22	5.8	4.2	7.0	4.0	12	7.7	11	2.8	7.1	e6.0	11	2.9
23	28	3.4	8.7	4.3	9.9	7.0	8.4	3.0	8.4	e5.0	0.77	1.4
24	28	15	6.6	4.2	9.1	6.7	8.0	15	11	e5.6	1.9	1.1
25	20	9.8	4.9	3.5	9.2	7.5	11	7.0	16	e4.4	0.71	0.39
26	11	5.8	4.3	3.5	12	7.4	4.7	3.8	e18	e3.6	2.0	0.95
27	9.5	6.2	5.7	4.0	9.7	6.8	6.9	3.1	e13	e10	1.8	0.38
28	7.7	6.2	5.4	4.1	9.1	6.9	13	3.5	e7.0	e7.2	1.4	0.81
29	7.1	8.0	4.9	4.8	---	8.6	7.5	3.4	e4.0	e9.0	0.94	1.1
30	6.9	29	4.2	8.2	---	6.8	4.5	3.0	e5.0	e7.4	0.55	1.4
31	5.6	---	4.3	13	---	6.1	---	3.4	---	e5.7	0.41	---
TOTAL	486.6	216.9	234.8	139.5	297.2	304.2	271.8	530.9	149.05	187.8	140.78	36.69
MEAN	15.70	7.230	7.574	4.500	10.61	9.813	9.060	17.13	4.968	6.058	4.541	1.223
MAX	80	29	15	13	19	17	22	166	18	16	12	4.8
MIN	2.1	3.4	4.2	3.0	8.4	6.1	4.5	2.1	0.78	2.0	0.41	0.28

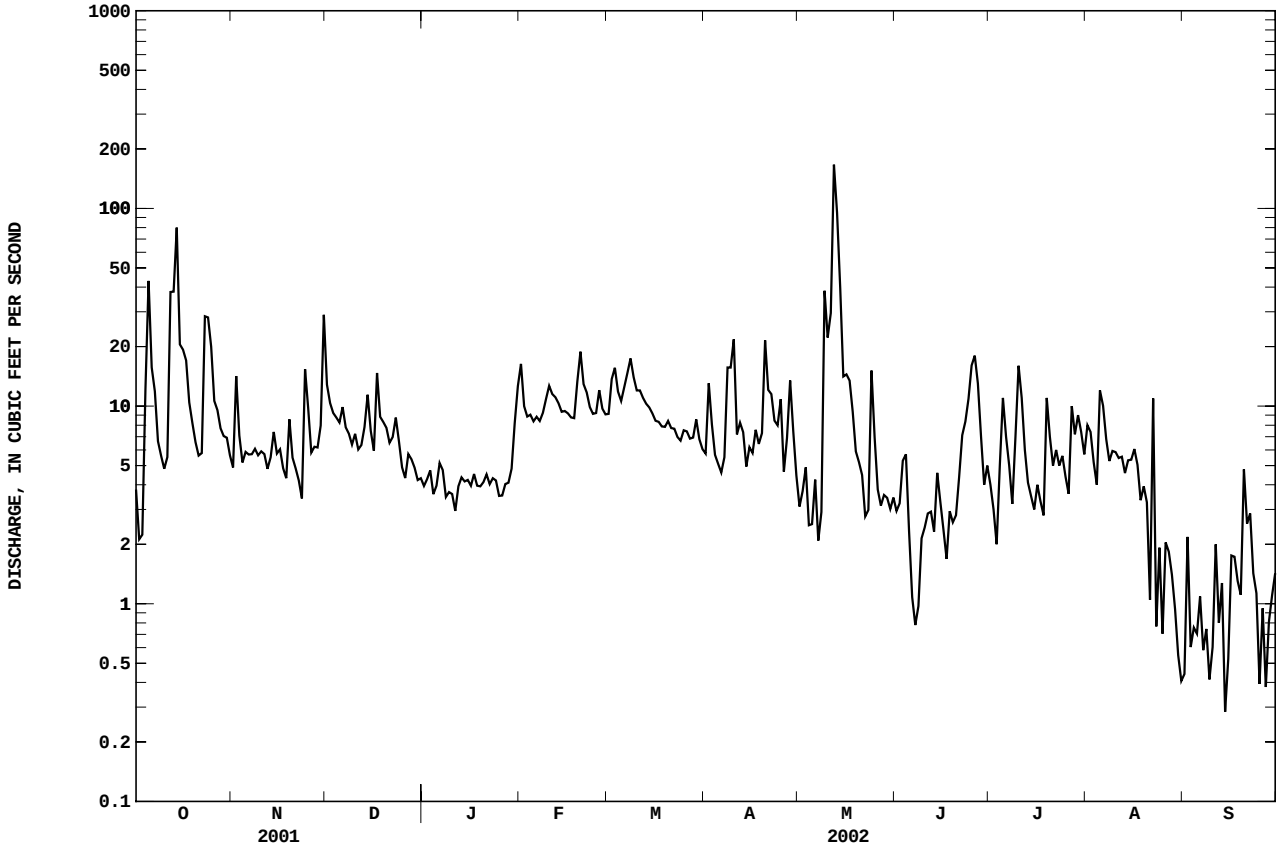
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)

MEAN	33.41	31.57	27.74	27.24	31.50	36.05	39.73	42.03	44.14	47.57	38.07	33.95
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	8.64	6.28	4.92	4.50	6.24	8.44	9.06	9.98	5.83	18.1	5.25	1.22
(WY)	2000	2000	2001	2002	2000	2000	2002	2001	2002	1999	2002	2002

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1991 - 2002	
ANNUAL TOTAL	4541.06		2996.22			
ANNUAL MEAN	12.44		8.209		38.49	
HIGHEST ANNUAL MEAN					76.2	1997
LOWEST ANNUAL MEAN					11.8	2001
HIGHEST DAILY MEAN	80	Oct 14	166	May 12	464	Feb 21 1997
LOWEST DAILY MEAN	0.96	Sep 15	0.28	Sep 14	0.28	Sep 14 2002
ANNUAL SEVEN-DAY MINIMUM	2.5	Sep 11	0.70	Sep 3	0.70	Sep 3 2002
MAXIMUM PEAK FLOW			188	May 12	701	Feb 21 1997
MAXIMUM PEAK STAGE			6.10	May 12	8.76	Jul 18 1996
10 PERCENT EXCEEDS	22		14		78	
50 PERCENT EXCEEDS	10		5.9		31	
90 PERCENT EXCEEDS	5.0		1.8		8.6	

e Estimated

05536357 GRAND CALUMET RIVER AT HOHMAN AVE AT HAMMOND, IN--Continued



Special study and miscellaneous sites

STREAMS TRIBUTARY TO OHIO RIVER BASIN

Wabash River basin

Streamflow was measured at the Westfield Sewage Treatment Plant. Measurements were made to check the discharge rating curve developed at the request of the Westfield Sewage Treatment Plant. They were collected in cooperation with the City of Westfield Utilities.

Stream	Tributary to	Location	Measurement date	Discharge (ft^3/s)
Cool Creek	White River	Lat 40°02'20"N, long 86°06'57"W, at the Sewage Treatment Plant , on E 171 St southeast of Westfield, Washington Township Hamilton County, IN. Drainage area 7.23mi^2	06-27-02 06-27-02	228 207

Streamflow was measured near the Public Service Indiana's Cayuga power plant coolant water pumping station. Measurements were made to determine discharge at this non-continuous gaging site. They were collected in cooperation with the Public Service Indiana, through the Indiana Department of Natural Resources.

Stream	Location	Measurement date	Discharge (ft^3/s)
Wabash River	Lat 39°55'34"N, long 87°25'34"W, at the Public Service Indiana's Cayuga power plant southeast of Cayuga, Vermillion County, IN. Drainage area 10,004mi^2	08-06-02 08-13-02	2820 1900

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

2 Number of lakes in designated county

Figure 8.--Number of lakes by county having water-level records for water-year 2002.

04100030 ADAMS LAKE NEAR WOLCOTTVILLE, IN

LOCATION.--Lat 41°33'15", long 86°19'11", in NE$^1/_4$NE$^1/_4$NW$^1/_4$ sec.25, T.36 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (WOLCOTTVILLE, IN quadrangle). The gage is on the east side of the lake on a dredged inlet, at the public access site, and 3.1 mi northeast of Wolcottville.

SURFACE AREA.--308 acres.

DRAINAGE AREA.--5.62 mi^2.

PERIOD OF RECORD.--1946 to October 1, 2002 (discontinued).

DATUM OF GAGE.--949.90 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1976.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the southwest wall of the dam on the outlet channel about 500 ft downstream from the lake.

ESTABLISHED LEGAL LEVEL.--3.59 ft gage datum or 953.49 ft above National Geodetic Vertical Datum of 1929 as decreed on December 17, 1949, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 3.59 ft gage datum or 953.49 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest "V" notch weir.

INLET AND OUTLET.--One inlet enters on the east side from Blackman Lake 2.3 mi upstream. The other inlet enters on the northeastern shore from Eve Lake. The outlet flows from the lake on the southern shore and into Little Elkhart Creek 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.32 ft June 15, 1981; minimum stage, 2.12 ft Jan. 8, 1954.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.35	3.91	3.94	4.10	4.32	4.19	4.49	4.26	4.36	3.76	3.61	3.25
10	3.30	3.86	3.92	3.94	4.25	4.34	4.60	4.30	4.29	3.70	3.49	3.20
15	3.64	3.84	3.98	3.92	4.16	4.34	4.66	4.88	4.16	3.60	3.45	3.10
20	3.78	3.82	4.12	3.91	4.17	4.28	4.57	4.71	4.04	3.61	3.42	3.17
25	3.93	3.82	4.10	3.87	4.15	4.24	4.44	4.52	3.97	3.52	3.42	3.09
EOM	3.90	3.92	4.10	4.12	4.18	4.29	4.36	4.38	3.87	3.69	3.32	3.09

WTR YR 2002 MEAN 3.95 MAX 4.90 MIN 3.08

STREAMS TRIBUTARY TO LAKE ERIE

04177680 BALL LAKE NEAR HAMILTON, IN

LOCATION.--Lat 41°32'12", long 84°56'18", in SE$^1/_4$SW$^1/_4$NE$^1/_4$ sec.32, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003 (HAMILTON, IN quadrangle). The gage is on the northeastern shore of the lake, south of the bridge over the outlet, and 1.3 mi west of Hamilton.

SURFACE AREA.--87 acres.

DRAINAGE AREA.--11.6 mi^2.

PERIOD OF RECORD.--1961 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--889.81 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the Indiana Department of Natural Resources in February 1972.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed near the recording gage and a high-water staff gage is attached to the control dam.

ESTABLISHED LEGAL LEVEL.--4.95 ft gage datum or 894.76 ft above National Geodetic Vertical Datum of 1929 as decreed on September 20, 1974, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with movable boards.

INLET AND OUTLET.--Fish Creek flows through the lake, entering at the western end and leaving at the northeastern end. Fish Creek empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.02 ft Dec. 26, 1965; minimum stage, 3.96 ft Oct. 19-31, Nov. 1-12, 1978.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.78	4.75	4.78	4.77	4.95	4.88	4.94	4.78	4.78	4.67	4.66	4.65
10	4.73	4.74	4.74	4.72	4.79	5.08	5.07	4.83	4.71	4.74	4.65	4.66
15	4.99	4.74	5.01	4.73	4.77	4.82	4.90	5.19	4.70	4.67	4.67	4.66
20	4.84	4.74	4.87	4.72	4.82	4.77	4.85	---	4.68	4.67	4.67	4.75
25	5.02	4.80	4.77	4.73	4.78	4.77	4.80	4.81	4.71	4.66	4.67	4.66
EOM	4.78	5.22	4.77	5.49	4.75	5.08	4.81	4.74	4.69	4.69	4.65	4.70

05517200 BASS LAKE AT BASS LAKE, IN

LOCATION.--Lat 41°12'28", long 86°36'07", in NW$^1/_4$NW$^1/_4$SW$^1/_4$ sec.24, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001 (BASS LAKE, IN quadrangle). The gage is on the southern shore of the lake, just north of the junction of U.S. Highway 35 and State Highway 10, at the town of Bass Lake.

SURFACE AREA.--1,400 acres.

DRAINAGE AREA.--5.18 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--699.83 ft above National Geodetic Vertical Datum of 1929, as corrected from the unadjusted elevations.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in two sections is at the site.

ESTABLISHED LEGAL LEVEL.--13.65 ft gage datum or 713.65 ft above National Geodetic Vertical Datum of 1929 as decreed on August 10, 1948, by the Starke County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 13.65 ft gage datum or 713.48 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

INLET AND OUTLET.--Several small unnamed ditches enter the lake at various locations. The outlet flows from the western shore, into Cedar Lake Ditch, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.03 ft June 18, 1981; minimum stage, 10.52 ft Nov. 12, 13, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.04	13.45	13.47	13.49	13.66	13.83	14.09	14.07	14.07	13.81	13.57	13.19
10	12.95	13.42	13.43	13.48	13.70	13.89	14.15	14.08	14.03	13.75	13.44	13.15
15	13.29	13.39	13.50	13.47	13.62	13.94	14.14	14.21	13.93	13.61	13.36	13.08
20	13.32	13.36	13.54	13.45	13.72	13.89	14.12	14.18	13.86	13.54	13.44	13.11
25	13.44	13.38	13.53	13.43	13.78	13.91	14.06	14.10	13.97	13.55	13.39	13.02
EOM	13.41	13.45	13.50	13.67	13.77	13.99	14.09	14.06	13.89	13.60	13.27	12.95

WTR YR 2002 MEAN 13.63 MAX 14.31 MIN 12.94

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100260 BEAR LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°19'07", long 85°30'49", in SW$^1/_4$NW$^1/_4$ sec.17, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is on the southern shore of the lake on a dredged channel, at the end of the gravel lane to the Merry Lea Nature Center, 1.1 mi southwest of the town of Wolflake.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--6.98 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--889.90 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1974-75.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well on the west side of the dredged channel.

ESTABLISHED LEGAL LEVEL.--4.60 ft gage datum or 894.60 ft above National Geodetic Vertical Datum of 1929 as decreed on September 23, 1959, by the Noble County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.60 ft gage datum or 894.50 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

INLET AND OUTLET.--There are two inlets to the lake, one enters on the southwest shore from High Lake, 0.6 mi upstream, and the other enters from the northeast. The outlet, Carrol Creek, leaves the lake on the southeast tip, flows into Muncie Lake, 3.1 mi downstream, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.25 ft Dec. 30, 1942 (before dredging of the outlet channel). Maximum stage, 6.61 ft Apr. 12, 1944 (after dredging); minimum stage, 2.90 ft Oct. 31, Nov. 1-3, 7-17, 1952, Oct. 22-24, 29-31, Nov. 1-3, 6, 7, 1966.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.18	4.50	4.59	4.28	4.62	4.38	4.67	4.47	4.53	4.05	3.78	3.80
10	4.25	4.39	4.44	4.24	4.43	4.61	4.73	4.56	4.43	4.01	3.68	3.72
15	5.02	4.35	4.54	4.24	4.32	4.49	4.82	4.93	4.33	3.88	3.70	3.65
20	4.80	4.35	4.67	4.23	4.36	4.40	4.72	4.69	4.29	3.81	3.83	3.75
25	4.85	4.59	4.51	4.23	4.33	4.37	4.61	4.53	4.23	3.77	3.90	3.71
EOM	4.56	4.79	4.30	4.65	4.33	4.57	4.57	4.55	4.17	3.86	3.86	3.71

WTR YR 2002 MEAN 4.32 MAX 5.07 MIN 3.61

03331010 BIG CHAPMAN LAKE NEAR WARSAW, IN

LOCATION.--Lat 41°16'53", long 85°46'47", in NW1/4SE1/4SW1/4 sec.25, T.33 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the southeastern shore of the lake, at the public access site, 4.9 mi northeast of Warsaw.

SURFACE AREA.--581 acres.

DRAINAGE AREA.--4.17 mi^2.

PERIOD OF RECORD.--1945-68, 1971, 1976 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--820.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder and an electric tape gage (ETG) are installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.75 ft gage datum or 827.75 ft above 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, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.70	7.89	7.94	7.61	8.01	7.92	7.92	7.58	7.58	7.33	7.34	7.16
10	7.66	7.83	7.94	7.58	7.93	8.00	8.01	7.68	7.51	7.32	7.24	7.15
15	8.12	7.67	8.09	7.60	7.88	7.87	7.94	7.93	7.51	7.23	7.22	7.08
20	8.00	7.70	8.16	7.63	8.00	7.76	7.81	7.76	7.47	---	7.28	7.22
25	7.96	7.76	8.08	7.70	7.94	7.73	7.65	7.68	7.52	7.28	7.30	7.14
EOM	7.77	7.95	7.75	8.24	7.96	7.85	7.64	7.57	7.42	7.36	7.22	7.12

WABASH RIVER BASIN

03330040 BIG LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°16'33", long 85°30'43", in NW1/4SE1/4NW1/4 sec.32, T.33 N., R.9 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is at the head of the outlet channel, approximately 20 feet north of the control structure and 4 mi southwest of the town of Wolflake.

SURFACE AREA.--228 acres.

DRAINAGE AREA.--8.89 mi^2.

PERIOD OF RECORD.--1943-74, 1978 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--890.00 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.--8.40 ft gage datum or 898.40 ft above National Geodetic Vertical Datum of 1929 as decreed on July 18, 1956, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--The main inlet enters from Crooked Lake to the east. Three other inlets flow from Crane Lake to the east, Green Lake to the north, and Sell Brook to the south. The outlet leaves the lake at the extreme west end and forms the headwaters of the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.76 ft Apr. 4, 1950; minimum stage, 7.11 ft Sept. 26, 27, 1999.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.11	8.29	8.36	8.23	8.47	8.36	8.50	8.27	8.24	8.02	7.85	7.67
10	8.18	8.28	8.25	8.23	8.30	8.60	8.60	8.40	8.18	8.01	7.74	7.61
15	9.05	8.23	8.48	8.23	8.22	8.38	8.52	8.69	8.14	7.92	7.80	7.53
20	8.46	8.18	8.52	8.23	8.29	8.27	8.44	8.35	8.12	7.87	7.83	7.62
25	8.79	8.28	8.30	8.24	8.28	8.28	8.34	8.24	8.10	7.81	7.83	7.55
EOM	8.32	8.55	8.23	8.66	8.25	8.61	8.37	8.23	8.08	7.91	7.74	7.57

WTR YR 2002 MEAN 8.20 MAX 9.06 MIN 7.50

04099600 BIG LONG LAKE NEAR STROH, IN

LOCATION.--Lat 41°33'17", long 85°13'47", in NE$^1/_4$NW$^1/_4$NW$^1/_4$ sec.26, T.36 N., R.11 E., Lagrange County, Hydrologic Unit 04050001 (STROH, IN quadrangle). The gage is on the northeast shore near the east end of the Shady Nook Addition in the vicinity of the Shady Nook Tavern, 2.4 mi southwest of Stroh.

SURFACE AREA.--388 acres.

DRAINAGE AREA.-- 4.77 mi^2.

PERIOD OF RECORD.--1954 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--950.00 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.--6.21 ft gage datum or 956.21 ft above National Geodetic Vertical Datum of 1929 as decreed on July 22, 1965, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed sill and removable boards.

INLET AND OUTLET.--The one inlet is a small ditch that enters at the extreme western tip. The outlet flows from the extreme northern tip, northeastward to Mud and Little Turkey Lakes, thence to Turkey Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.49 ft Mar. 31, 1978; minimum stage, 4.58 ft Nov. 27, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.59	6.28	6.45	6.34	6.57	6.51	6.47	6.25	6.33	6.01	5.76	5.36
10	5.54	6.26	6.44	6.31	6.48	6.54	6.50	6.33	6.28	6.00	5.64	5.30
15	5.92	6.26	6.53	6.30	6.42	6.40	6.47	6.57	6.23	5.90	5.59	5.21
20	6.10	6.25	6.59	6.29	6.47	6.31	6.39	6.39	6.18	5.83	5.55	5.31
25	6.24	6.28	6.49	6.29	6.51	6.29	6.31	6.31	6.17	5.74	5.53	5.22
EOM	6.25	6.41	6.40	6.61	6.51	6.37	6.28	6.25	6.10	5.82	5.44	5.23

WTR YR 2002 MEAN 6.14 MAX 6.73 MIN 5.19

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100140 BIXLER LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°26'13", long 85°15'10", in NE$^1/_4$NE$^1/_4$NE$^1/_4$ sec.4, T.34 N., R.11 E., Noble County, Hydrologic Unit 04050001 (KENDALLVILLE, IN quadrangle). The gage is on the south bank of the outlet channel on the southwest shore of the lake and 0.7 mi southeast of City Hall in Kendallville.

SURFACE AREA.--120 acres.

DRAINAGE AREA.--5.28 mi^2.

PERIOD OF RECORD.--1946 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--960.10 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1974-75.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is bolted to a concrete pier 20 ft upstream from the control dam.

ESTABLISHED LEGAL LEVEL.--3.65 ft gage datum or 963.65 ft above National Geodetic Vertical Datum of 1929 as decreed on April 25, 1952, by the Noble County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 3.65 ft gage datum or 963.75 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed deep-notch concrete dam with two flood gates.

INLET AND OUTLET.--Riddle Ditch enters the lake from the north, Sherman Ditch from the east, Shaffer Ditch from the southeast, and an unnamed ditch from the southwest. The outlet leaves at the southwest corner and flows into Henderson Lake 1.9 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.26 ft Feb. 24, 1985; minimum stage, 1.24 ft Jan. 13-15, 18, 1954.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.60	3.58	3.95	3.97	4.61	4.29	4.49	3.75	3.68	3.88	3.44	3.49
10	3.63	3.49	3.93	3.93	4.40	4.68	4.36	4.01	3.68	3.83	3.25	3.43
15	4.51	3.43	4.29	3.92	4.27	4.43	3.96	4.40	3.59	3.67	3.27	3.26
20	4.30	3.33	4.51	3.86	4.24	4.29	3.42	3.64	3.53	3.59	3.34	3.26
25	4.34	3.36	4.31	3.85	4.22	4.21	3.34	3.48	3.92	3.47	3.72	3.19
EOM	3.68	3.87	4.09	4.59	4.18	4.64	3.60	3.57	4.04	3.50	3.61	3.17

WTR YR 2002 MEAN 3.86 MAX 4.96 MIN 3.16

03327600 BLUE LAKE NEAR CHURUBUSCO, IN

LOCATION.--Lat 41°14'14", long 85°21'35", in SW$^1/_4$SE$^1/_4$SW$^1/_4$ sec.10, T.32 N., R.10 E., Whitley County, Hydrologic Unit 05120104 (CHURUBUSCO, IN quadrangle). The gage is located at the public access site, on the south side of the lake, west of the boat ramp, approximately 2.3 mi west of Churubusco.

SURFACE AREA.--239 acres.

DRAINAGE AREA.--3.58 mi^2.

PERIOD OF RECORD.--1946-68, 1976 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--840.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-in diameter stilling well. An auxiliary staff gage is located 145 ft east of gage.

ESTABLISHED LEGAL LEVEL.--10.28 ft gage datum or 850.28 ft above National Geodetic Vertical Datum of 1929 as decreed on July 23, 1948, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--A concrete dam with a fixed crest is located in the outlet channel about 300 ft downstream from the lake.

INLET AND OUTLET.--Maloney Ditch enters at the eastern tip of the lake. The outlet flows from the lake at the northwest end and joins Carter Creek (Blue River) 0.2 mi downstream. Carter Creek eventually flows into Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.80 ft Dec. 10, 1966; minimum stage, 7.64 ft Nov. 19, 20, 1952.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.44	10.71	11.40	---	---	---	10.95	10.75	11.14	10.88	10.66	10.32
10	10.48	10.72	11.37	---	---	11.43	11.00	10.95	11.11	10.80	10.53	10.26
15	11.29	10.74	11.21	---	---	11.02	10.85	11.34	11.11	10.70	10.51	10.19
20	11.21	10.76	---	---	---	10.75	10.70	11.07	11.06	10.69	10.53	10.35
25	11.43	10.86	---	---	---	10.76	10.60	11.06	11.02	10.60	10.50	10.27
EOM	10.91	11.37	---	---	---	10.99	10.68	11.06	10.98	10.74	10.39	10.30

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099250 BOWER LAKE NEAR PLEASANT LAKE, IN

LOCATION.--Lat 41°36'03", long 85°03'24", in SW$^1/_4$SW$^1/_4$SE$^1/_4$ sec.5, T.36 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ASHLEY, IN quadrangle). The gage is located at the public access site on the northwestern edge of the lake, 3.9 mi southwest of Angola.

SURFACE AREA.--25 acres.

DRAINAGE AREA.--84.6 mi^2.

PERIOD OF RECORD.--1946-1970, 1977 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--940.00 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 bridge over the outlet.

ESTABLISHED LEGAL LEVEL.--8.50 ft gage datum or 948.50 ft above National Geodetic Vertical Datum of 1929, as decreed on October 28, 1959, by Steuben County Circuit Court. Golden Lake near Pleasant Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel or the outlet of Golden Lake.

INLET AND OUTLET.--Pigeon Creek flows through the lake, entering at the southern shore and leaving at the western end to flow into Golden Lake and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.13 ft Mar. 22, 1982; minimum stage, 7.88 ft Sept. 14, 15, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.32	9.55	9.94	8.88	11.84	9.99	11.67	9.42	9.82	8.70	8.42	8.17
10	8.39	9.19	9.28	8.81	10.35	11.12	11.67	9.63	9.66	8.80	8.30	8.15
15	10.84	8.98	9.77	8.82	9.80	10.57	11.34	13.62	9.36	8.62	8.42	8.11
20	11.56	8.84	10.65	8.76	9.52	9.74	10.43	12.04	9.10	8.56	8.40	8.29
25	10.82	8.98	9.72	8.79	9.57	9.38	9.98	10.46	9.09	8.47	8.32	8.21
EOM	10.06	9.88	9.12	10.40	9.42	10.40	9.68	9.72	8.86	8.51	8.23	8.25

WTR YR 2002 MEAN 9.52 MAX 13.62 MIN 8.11

04099810 CASS LAKE NEAR SHIPSHEWANA, IN

LOCATION.--Lat 41°41'42", long 85°38'18", in SW$^1/_4$NW$^1/_4$NW$^1/_4$ sec.5, T.37 N, R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the northeast shore of the lake, at the beach area in the Foxwood Hills Addition, and 3.3 mi northwest of Shipshewana.

SURFACE AREA.--89 acres.

DRAINAGE AREA.--0.68 mi^2.

PERIOD OF RECORD.--1971 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--840.95 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.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--A small unnamed ditch enters on the northwestern shore. The outlet leaves the lake at the southwest and flows into Mather Ditch 1.0 mi downstream. Mather Ditch eventually empties into the Little Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.89 ft June 14, 1993; minimum stage, 1.80 ft May 15, 1971.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.88	3.11	3.11	3.04	3.17	3.13	3.19	3.10	3.21	2.89	2.84	2.67
10	2.85	3.05	3.08	3.03	3.15	3.19	3.22	3.18	3.16	2.88	2.77	2.65
15	3.09	3.04	3.15	3.03	3.11	3.17	3.17	3.26	3.12	2.80	2.76	2.62
20	3.11	3.02	3.15	3.01	3.15	3.14	3.18	3.19	3.08	2.78	2.77	2.68
25	3.14	3.03	3.12	3.01	3.15	3.13	3.12	3.15	3.07	2.81	2.77	2.65
EOM	3.10	3.14	3.05	3.28	3.14	3.15	3.13	3.17	2.99	2.84	2.71	2.64

WTR YR 2002 MEAN 3.02 MAX 3.42 MIN 2.62

ILLINOIS RIVER BASIN

05518700 CEDAR LAKE AT CEDAR LAKE, IN

LOCATION.--Lat 41°21'58", long 87°25'36", in NE$^1/_4$SW$^1/_4$SW$^1/_4$ sec.26, T.34 N., R.9 W., Lake County, Hydrologic Unit 07120001 (LOWELL, IN quadrangle). The gage is on the south bank of outlet channel on the east shore of the lake, upstream from the first bridge over the outlet, and 0.5 mi east of the town of Cedar Lake.

SURFACE AREA.--781 acres.

DRAINAGE AREA.--8.14 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--690.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

INLET AND OUTLET.--Several small ditches enter the lake at various points. The outlet, Cedar Creek, flows from the lake on the eastern shore of the center lobe, into Dalecarlia Lake, 1.5 mi downstream, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.30 ft May 15, 1970; minimum stage not determined, below 1.22 ft during July, Aug., Sept., Oct. 1988, and Sept. 1991.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.23	2.63	2.73	2.82	3.12	3.09	3.06	3.00	2.97	2.68	2.31	2.15
10	2.20	2.61	2.71	2.82	3.09	3.32	3.19	3.43	2.90	2.69	2.19	2.16
15	2.53	2.60	2.76	2.82	3.02	3.22	3.11	3.74	2.85	2.57	2.15	2.08
20	2.51	2.60	2.81	2.83	3.11	3.09	3.03	3.43	2.78	2.51	2.27	2.23
25	2.66	2.61	2.83	2.83	3.08	3.02	3.03	3.23	2.73	2.40	2.30	2.16
EOM	2.55	2.70	2.81	3.10	3.04	3.00	3.07	3.08	2.75	2.39	2.21	2.12

WTR YR 2002 MEAN 2.75 MAX 3.97 MIN 2.06

03331160 CENTER LAKE AT WARSAW, IN

LOCATION.--Lat 41°15'02", long 85°51'32", in NE$^1/_4$SW$^1/_4$SW$^1/_4$ sec.5, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the northwestern side of the lake, mounted on a sea wall behind the house at 300 Gilliam Drive, 0.8 mi north of the court house, Warsaw.

SURFACE AREA.--120 acres.

DRAINAGE AREA.--0.73 mi^2.

PERIOD OF RECORD.--1943-1968, 1971 to Oct. 1, 2002 (discontinued).

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 attached to the control dam at the outlet.

ESTABLISHED LEGAL LEVEL.--3.86 ft gage datum or 803.86 ft above National Geodetic Vertical Datum of 1929 as decreed on December 3, 1963, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam at the western end of the lake.

INLET AND OUTLET.--The one inlet flows through a 24-inch diameter tile from Pike Lake and enters the lake on the southeastern side. The outlet flows from the western shore and joins Walnut Creek 0.65 mi downstream, which in turn flows into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.24 ft Oct. 15, 1954; minimum stage, 0.17 ft Oct. 4, 1955.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.60	6.16	5.20	5.65	5.96	5.12	5.66	5.22	5.07	4.53	---	4.18
10	4.62	5.53	5.12	5.08	5.70	5.36	6.04	5.09	4.88	4.38	---	4.15
15	5.54	5.22	5.31	4.96	5.39	5.54	6.33	6.29	4.88	4.27	4.29	4.09
20	6.32	5.00	5.81	4.92	5.30	5.29	5.95	6.46	4.82	4.25	4.38	4.20
25	7.01	4.91	5.66	4.78	5.21	5.06	5.64	5.94	4.64	---	4.34	4.16
EOM	6.69	5.04	5.66	5.28	5.12	5.14	5.52	5.37	4.79	---	4.23	4.16

STREAMS TRIBUTARY TO LAKE ERIE

04177200 CLEAR LAKE AT CLEAR LAKE, IN

LOCATION.--Lat 41°44'52", long 84°50'25", in SW$^1/_4$SW$^1/_4$ sec.17, T.38 N., R.15 E., Steuben County, Hydrologic Unit 04100003 (CLEAR LAKE, IN-OH-MI quadrangle). The gage is on the northern shore of the lake, at the channel between Clear and Round Lakes, and 4.75 mi northeast of Fremont.

SURFACE AREA.--800 acres.

DRAINAGE AREA.--6.86 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--1030.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch stilling well. An auxiliary staff gage is attached to the north end of the upstream culvert.

ESTABLISHED LEGAL LEVEL.--7.38 ft gage datum or 1037.38 ft above National Geodetic Vertical Datum of 1929 as decreed on June 1, 1950, by the Steuben County Circuit Court. Round Lake at Clear Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam with an auxiliary slide gate at the outlet of Round Lake.

INLET AND OUTLET.--Two unnamed ditches enter the lake on the southern shore. The outlet is a short channel connecting Clear and Round Lakes. The outlet of Round Lake flows from the northeast end and eventually into the West Branch of the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.24 ft May 20, 1943 (from high-water mark); maximum recorded stage, 8.58 ft Jan. 5, 1993; minimum stage, 6.24 ft Sept. 30, 1962.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.89	8.03	8.05	7.93	8.23	8.08	8.20	8.04	8.08	7.78	7.61	7.51
10	7.88	7.97	7.99	7.93	8.14	8.20	8.28	8.04	8.02	7.78	7.51	7.47
15	8.19	7.95	8.06	7.94	8.07	8.12	8.31	8.51	7.97	7.70	7.56	7.41
20	8.21	7.93	8.10	7.94	8.10	8.06	8.24	8.32	7.90	7.66	7.60	7.54
25	8.21	7.94	8.04	7.95	8.06	8.02	8.08	8.16	7.91	7.61	7.64	7.46
EOM	8.09	8.06	7.95	8.31	8.06	8.07	8.06	8.06	7.85	7.66	7.58	7.49

WTR YR 2002 MEAN 7.95 MAX 8.53 MIN 7.38

05515240 CLEAR LAKE AT LAPORTE, IN

LOCATION.--Lat 41°37'25", long 86°43'11", in NE$^1/_4$SE$^1/_4$SE$^1/_4$ sec.26, T.37 N., R.3 W., LaPorte County, Hydrologic Unit 07120001 (LAPORTE EAST, IN quadrangle). The gage is on the northeast shore of the lake, 100 ft south of the entrance to Fox Memorial Park, in LaPorte.

SURFACE AREA.--106 acres.

DRAINAGE AREA.--0.65 mi^2.

PERIOD OF RECORD.--1942-49, 1952-75, 1979 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--790.00 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 attached to the north wingwall of the inlet culvert on the west side of the lake.

ESTABLISHED LEGAL LEVEL.--8.20 ft gage datum or 798.20 ft above National Geodetic Vertical Datum of 1929 as decreed on August 31, 1949, by the LaPorte County Circuit Court.

LAKE-LEVEL CONTROL.--During periods of high water, water may be released through the main sewer system of the city of LaPorte and diverted into the Kankakee River.

INLET AND OUTLET.--A small ditch enters on the west shore. There is no outlet during periods of low and medium water levels. When water levels are high, water may flow from the lake into the city sewer system.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.36 ft June 6, 1993; minimum stage, 3.98 ft Nov. 27, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.69	8.28	8.23	8.07	8.19	8.38	8.48	8.59	8.77	8.32	8.02	7.42
10	7.51	8.22	8.14	8.08	8.16	8.51	8.58	8.71	8.69	8.23	7.87	7.37
15	8.06	8.20	8.16	8.05	8.14	8.47	8.55	8.94	8.60	8.10	7.79	7.34
20	8.14	8.18	8.16	8.03	8.22	8.44	8.65	8.92	8.49	7.99	7.76	7.33
25	8.30	8.16	8.15	8.00	8.20	8.42	8.62	8.92	8.56	8.04	7.69	7.32
EOM	8.24	8.23	8.09	8.21	8.23	8.43	8.65	8.86	8.42	7.99	7.48	7.31

WTR YR 2002 MEAN 8.19 MAX 8.99 MIN 7.31

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097850 CROOKED LAKE AT CROOKED LAKE, IN

LOCATION.--Lat 41°40'14", long 85°02'04", in NE$^1/_4$NW$^1/_4$NE$^1/_4$ sec.16, T.37 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is on an inlet channel on the lower eastern shore of the lake, 3.1 mi northwest of Angola.

SURFACE AREA.--828 acres.

DRAINAGE AREA.--10.4 mi^2.

PERIOD OF RECORD.--1946-70, 1972 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--980.26 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1977-78.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed between the Second and Third Basins under County Road 400 West.

ESTABLISHED LEGAL LEVEL.--8.17 ft gage datum or 988.17 ft above National Geodetic Vertical Datum of 1929 as decreed on June 17, 1948, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.17 ft gage datum or 988.43 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest dam with an adjustable gate at the western end of the Third Basin.

INLET AND OUTLET.--The principal inlets enter the lake from the south, from Loon and Buck Lakes, and the southeast, from Center Lake. Another ditch enters from the east. The outlet flows from the western end of the Third Basin into Lake Gage 1.4 mi downstream and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.30 ft May 19, 1996; minimum stage, 7.05 ft Nov. 13-15, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.57	8.77	8.66	8.51	8.80	8.66	8.77	8.80	9.15	8.63	8.31	8.13
10	8.55	8.66	8.59	8.47	8.77	8.77	8.87	8.93	9.07	8.58	8.20	8.09
15	8.95	8.61	8.62	8.44	8.70	8.75	8.87	9.42	9.01	8.49	8.18	8.01
20	9.03	8.56	8.69	8.41	8.71	8.67	8.87	9.34	8.91	8.41	8.26	8.08
25	9.05	8.57	8.65	8.39	8.68	8.61	8.78	9.17	8.83	8.32	8.28	8.00
EOM	8.86	8.67	8.56	8.70	8.66	8.62	8.75	9.09	8.74	8.37	8.20	8.01

WTR YR 2002 MEAN 8.64 MAX 9.46 MIN 7.98

04100470 DEWART LAKE NEAR LEESBURG, IN

LOCATION.--Lat 41°22'27", long 85°47'07", in NW1/4SW1/4NW1/4 sec.25, T.34 N., R.6 E., Kosciusko County, Hydrologic Unit 04050001 (LEESBURG, IN quadrangle). The gage is on the west shore of the lake, 0.1 mi east of County Road 300 East at the public access site, and 4.5 mi northeast of Leesburg.

SURFACE AREA.--551 acres.

DRAINAGE AREA.--8.05 mi^2.

PERIOD OF RECORD.--1945 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--859.897 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.70 ft gage datum or 867.70 ft above National Geodetic Vertical Datum of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 7.70 ft gage datum or 867.597 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

INLET AND OUTLET.--Cable Run enters the lake on the southeastern tip, and an unnamed ditch enters on the eastern shore. The outlet, Hammond Ditch, flows from the lake on the northwestern shore and into Wabee Lake 2.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.58 ft Aug. 25, 2001; minimum stage, 3.95 ft Dec. 21-24, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.83	8.99	8.85	8.71	9.07	8.93	9.10	8.97	8.99	8.79	8.42	8.26
10	8.73	8.90	8.80	8.71	8.98	9.08	9.16	9.00	8.92	8.82	---	8.19
15	9.10	8.85	8.89	8.70	8.89	9.05	9.13	9.21	8.91	8.71	8.38	8.12
20	9.09	8.79	8.97	8.67	8.92	8.97	9.13	9.14	8.89	8.65	8.40	8.15
25	9.18	8.78	8.89	8.68	8.92	8.92	9.07	9.03	8.93	8.59	8.43	8.08
EOM	9.02	8.88	8.77	9.01	8.91	8.98	9.06	8.96	8.87	8.53	8.34	8.05

WABASH RIVER BASIN

03331320 DIAMOND LAKE NEAR SILVER LAKE, IN

LOCATION.--Lat 41°06'23", long 85°56'05", in SW1/4NW1/4SE1/4 sec.26, T.31 N., R.5 E., Kosciusko County, Hydrologic Unit 05120106 (SILVER LAKE, IN quadrangle). The gage is on the inlet channel on the northern shore of the lake, 2.2 mi northwest of the town of Silver Lake.

SURFACE AREA.--79 acres.

DRAINAGE AREA.--3.92 mi^2.

PERIOD OF RECORD.--1954-72, 1975 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--849.90 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1976.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by Yellow Creek Lake, 0.3 mi downstream.

INLET AND OUTLET.--There are two inlets. One enters from the north and east from Hill Lake, one enters from the southeast. The one outlet flows from the western shore and into Yellow Creek Lake, 0.3 mi downstream. Yellow Creek Lake flows into Yellow Creek, which eventually discharges into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.47 July 9, 1964; minimum stage, 9.78 ft Sept. 18-19, 23, 27- 30, Oct. 10-12, 1988.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.82	11.07	11.00	10.74	11.24	10.98	11.20	11.19	11.24	10.70	10.65	10.48
10	10.93	10.91	10.87	10.75	10.97	11.25	11.45	11.21	11.09	10.64	10.55	10.45
15	11.76	10.87	11.14	10.77	10.88	11.03	11.51	11.54	11.02	10.57	10.56	10.40
20	11.48	10.83	11.29	10.73	10.97	10.91	11.12	11.29	10.92	10.56	10.65	10.49
25	11.85	10.84	11.00	10.75	10.91	10.88	10.99	11.11	10.84	10.60	10.63	10.41
EOM	11.23	11.14	10.81	11.55	10.87	11.32	11.08	11.36	10.79	10.75	10.54	10.42

WTR YR 2002 MEAN 10.95 MAX 11.97 MIN 10.38

04100350 DIAMOND LAKE NEAR WAWAKA, IN

LOCATION.--Lat 41°26'15", long 85°31'05",in NE$^1/_4$NW$^1/_4$NW$^1/_4$, sec.5, T.34 N., R.9 E., Noble County, Hydrologic Unit 04050001 (LIGONIER, IN quadrangle). The gage is located on the southeastern edge of the lake at a public access site, 2.5 mi southwest of the town of Wawaka.

SURFACE AREA.--105 acres.

DRAINAGE AREA.--4.80 mi^2.

PERIOD OF RECORD.--1946 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--870.00 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 mounted on a piling driven into the lake bed on the northern edge of the lake.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by a riffle at the head of the outlet channel.

INLET AND OUTLET.--Willets Ditch enters at the southwestern tip of the lake from Eagle Lake, 0.6 mi upstream. One unnamed ditch enters the lake from the south. The outlet flows from the lake at the southeastern edge and joins the South Branch of the Elkhart River 0.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.83 ft Mar. 20, 1982; minimum stage, 2.29 ft Oct. 17, 1946.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	5.99	5.57	5.26	5.85	5.35	5.72	5.30	5.43	4.82	4.49	4.28
10	---	5.70	5.50	5.47	5.58	5.63	5.85	5.36	5.32	4.79	4.41	4.24
15	---	5.51	5.55	5.54	5.40	5.59	5.73	5.91	5.20	4.64	4.41	4.17
20	5.62	5.41	5.71	5.34	5.38	5.41	5.55	5.88	5.06	4.58	4.42	4.29
25	6.29	5.42	5.61	5.22	5.36	5.27	5.43	5.65	5.07	4.51	4.42	4.20
EOM	6.21	5.57	5.40	5.56	5.31	5.39	5.39	5.43	4.96	4.55	4.34	4.23

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100370 ENGLE LAKE NEAR LIGONIER, IN

LOCATION.--Lat 41°26'08", long 85°34'30", in SE$^1/_4$NW$^1/_4$NW$^1/_4$ sec.2, T.34 N., R.8 E., Noble County, Hydrologic Unit 04050001 (LIGONIER, IN quadrangle). The gage is located at a public access site on the eastern side of the lake, 2.2 mi south of the town of Ligonier.

SURFACE AREA.--48 acres.

DRAINAGE AREA.--4.19 mi^2.

PERIOD OF RECORD.--1956-67, 1977 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--870.00 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.--8.90 ft gage datum or 878.90 ft above National Geodetic Vertical Datum of 1929 as decreed on October 23, 1984, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel at low water and the first culvert downstream at higher stages.

INLET AND OUTLET.--Sparta Lake Ditch feeds the lake from the south, flowing from Sparta Lake. The outlet flows from the northern shore through Indian Lake and into the Elkhart River 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage 10.53 ft Mar. 29, 1985; minimum stage, 7.48 ft Nov. 17, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.30	8.84	8.80	8.65	8.98	8.79	9.06	8.87	9.28	8.52	8.19	7.87
10	8.36	8.77	8.72	8.67	8.79	9.14	9.11	8.96	8.89	8.57	8.08	7.83
15	8.99	8.74	8.82	8.68	8.71	8.88	8.99	9.13	8.79	8.42	8.05	7.80
20	8.91	8.72	8.92	8.63	8.76	8.79	8.96	9.03	8.77	---	8.06	7.95
25	8.99	8.71	8.81	8.63	8.76	8.79	8.93	8.96	9.26	8.25	8.04	7.90
EOM	8.83	8.83	8.71	9.54	8.75	8.95	8.92	8.90	8.69	8.27	7.93	7.95

04099670 FISH LAKE NEAR PLATO, IN

LOCATION.--Lat 41°37'27", long 85°19'56", in SW$^1/_4$NE$^1/_4$NE$^1/_4$ sec.35, T.37 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (WOLCOTTVILLE, IN quadrangle). The gage is on the northeast bank of the outlet channel, approximately 15 ft downstream of the lake on the northwest side, and 1.2 mi south of Plato.

SURFACE AREA.--100 acres.

DRAINAGE AREA.--10.6 mi^2.

PERIOD OF RECORD.--1945 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--930.75 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the U.S. Geological Survey, 1966.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is mounted on a tree stump on the northern bank of the outlet channel at the same site.

ESTABLISHED LEGAL LEVEL.--6.50 ft gage datum or 936.50 ft above National Geodetic Vertical Datum of 1929 as decreed on May 7, 1959, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 6.50 ft gage datum or 937.25 ft above National Geodetic Vertical Datum of 1929. Royer Lake has the same established level as Fish Lake near Plato and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--One inlet enters at the extreme southern tip from Royer Lake 700 ft upstream. The other enters on the north shore of the east lobe from Grass Lake, approximately 1.4 mi upstream. The outlet, East Fly Creek, flows from the lake on the northwest shore and joins Fly Creek, which empties into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.23 ft June 14, 15, 1981; minimum stage, 5.32 ft Nov. 17-20, 1953.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.47	6.86	6.99	6.67	7.52	7.07	7.44	7.10	7.31	6.51	6.38	---
10	6.50	6.73	6.87	6.63	7.20	7.49	7.52	7.26	7.13	6.55	6.32	---
15	6.93	6.66	6.93	6.64	7.01	7.24	7.30	8.52	6.93	6.48	---	---
20	6.97	6.63	7.11	6.61	7.00	7.05	7.30	7.68	6.77	6.42	---	---
25	7.13	6.73	6.95	6.63	7.02	6.96	7.21	7.26	6.68	6.36	---	---
EOM	6.95	6.96	6.78	7.33	6.98	7.11	7.16	7.10	6.58	6.44	---	---

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099760 FISH LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°45'25", long 85°38'54", in NW$^1/_4$NW$^1/_4$SE$^1/_4$ sec.7, T.38 N.,R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the northwest shore of the lake, on the north side of the outlet channel, 4.8 mi northwest of Scott.

SURFACE AREA.--139 acres.

DRAINAGE AREA.--6.21 mi^2.

PERIOD OF RECORD.--1954-69, 1978 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--809.84 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1975.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the dam at the same site.

ESTABLISHED LEGAL LEVEL.--4.42 ft gage datum or 814.42 ft above National Geodetic Vertical Datum of 1929 as decreed on September 11, 1959, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.42 ft gage datum or 814.26 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed concrete sill with removable boards.

INLET AND OUTLET.--The inlet, Fetch Ditch, enters on the southeastern shore. The outlet flows from the lake at the lower west shore and empties into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.61 ft Feb. 26, 1985; minimum stage, 1.54 ft Nov. 26, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	5.03	4.72	4.87	4.54	4.15	3.55
10	---	---	4.26	---	---	---	5.11	4.77	4.84	4.53	3.99	3.44
15	---	---	4.38	---	---	5.04	5.06	5.23	4.73	4.43	3.91	3.32
20	---	---	---	---	---	4.96	5.07	5.03	4.68	4.35	3.88	3.26
25	---	---	---	---	---	4.94	4.88	4.87	4.66	4.27	3.82	3.14
EOM	---	---	---	---	---	4.97	4.78	4.82	4.63	4.19	3.68	3.07

05517700 FLINT LAKE NEAR VALPARAISO, IN

LOCATION.--Lat 41°30'41", long 87°02'23", in NE$^1/_4$SW$^1/_4$ sec.6, T.35 N., R.5 W., Porter County, Hydrologic Unit 07120001 (CHESTERTON, IN quadrangle). The gage is on the southeast shore of the lake, at the outlet and the Valparaiso Water Works, 3.2 mi northeast of Valparaiso.

SURFACE AREA.--86 acres.

DRAINAGE AREA.--3.80 mi^2, revised.

PERIOD OF RECORD.--1946 to Oct. 1, 2002 (discontinued). From Jan. 1, 1911, to Aug. 14, 1946, readings of the lake level were taken approximately once per week by Water Works personnel. These data are available upon request.

DATUM OF GAGE.--780.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed inside the Valparaiso Water Works. An auxiliary staff gage is located lakeward of the concrete block pumping station.

ESTABLISHED LEGAL LEVEL.--17.66 ft gage datum or 797.66 ft above National Geodetic Vertical Datum of 1929 as decreed on August 19, 1963, by the Porter County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel and two 30-inch corrugated metal pipes under the road, 600 ft downstream.

INLET AND OUTLET.--There are three inlets. One drains Long Lake to the northwest and another drains Loomis Lake to the west and Listenberger drain enters from the south. The outlet flows from the lake at the southeast corner and into the West Branch of Crooked Creek approximately 5.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 21.18 ft July 2, 1983 as recorded by the Valparaiso Water Company; minimum stage, 12.59 ft Dec. 29, 1948.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.64	20.01	19.60	19.34	19.58	19.67	19.77	19.64	19.63	19.07	18.74	18.53
10	19.62	19.86	19.53	19.32	19.55	20.02	19.99	19.86	19.52	18.97	18.64	18.47
15	20.22	19.74	19.53	19.30	19.46	19.90	19.76	20.27	19.42	18.89	18.60	18.37
20	20.23	19.70	19.53	19.28	19.62	19.81	19.77	20.12	19.28	18.82	18.66	18.61
25	20.24	19.64	19.47	19.28	19.61	19.67	19.76	20.01	19.25	18.81	18.65	18.56
EOM	20.07	19.68	19.38	19.69	19.58	19.59	19.78	19.77	19.18	18.78	18.55	18.53

WTR YR 2002 MEAN 19.43 MAX 20.53 MIN 18.36

WABASH RIVER BASIN

03330160 GILBERT LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat 41°19'50", long 85°35'48", in NE$^1/_4$NE$^1/_4$SE$^1/_4$ sec.9, T.33 N., R.8 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is at the extreme west end of the lake on the east side of County Road 925 West, approximately 400 ft south of Gilbert Lake Road, and 0.4 mi north of Washington Center.

SURFACE AREA.--28 acres.

DRAINAGE AREA.--0.37 mi^2.

PERIOD OF RECORD.--1954-59, 1961 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--884.85 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1974-75.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is driven into the lake bed approximately 100 ft south of the primary gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level is controlled by the outlet through the swamp, east of the lake.

INLET AND OUTLET.--The lake has no inlet. The outlet leaves from the southeastern side and flows into Stump Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.81 ft Dec. 4-5, 1987; minimum stage, 3.53 ft Nov. 1, 1963.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.10	4.80	4.85	4.79	4.90	4.99	4.90	4.81	4.81	4.78	4.85	5.34
10	5.15	4.82	4.85	4.80	4.94	4.98	4.91	4.85	4.73	4.85	4.76	5.36
15	5.28	4.85	4.91	4.85	4.93	4.96	4.86	4.84	4.77	4.80	4.80	5.36
20	5.01	4.86	4.86	4.86	5.02	4.95	4.92	4.80	4.77	4.79	5.01	5.50
25	4.81	4.90	4.84	4.92	4.96	4.97	4.83	4.81	4.82	4.82	5.26	5.49
EOM	4.73	4.96	4.79	5.15	4.94	4.97	4.84	4.77	4.81	4.87	5.31	5.55

WTR YR 2002 MEAN 4.93 MAX 5.55 MIN 4.72

04100110 HACKENBURG LAKE NEAR WOLCOTTVILLE, IN

LOCATION.--Lat 41°33'25", long 85°26'17", in NE$^1/_4$SW$^1/_4$SW$^1/_4$ sec.24, T.36 N., R.9 E., Lagrange County, Hydrologic Unit 04050001 (OLIVER LAKE, IN quadrangle). The gage is on the north shore of the outlet channel at the bridge on County Road 75 West, and 4.2 mi northwest of Wolcottville.

SURFACE AREA.--42 acres.

DRAINAGE AREA.--55.4 mi^2.

PERIOD OF RECORD.--1945 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--890.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch diameter stilling well. An auxiliary staff gage is bolted to the downstream side of the bridge at the same site.

ESTABLISHED LEGAL LEVEL.--7.36 ft gage datum or 897.36 ft above National Geodetic Vertical Datum of 1929 as decreed on February 2, 1954, by the Lagrange County Circuit Court. Witmer, Westler, Dallas, and Messick Lakes, all near Wolcottville, have the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with removable stop logs located at the outlet of Messick Lake.

INLET AND OUTLET.--One inlet enters on the north shore from Oliver Lake 1.6 mi upstream. The other inlet enters on the east shore from Dallas Lake 0.5 mi upstream, which is part of a chain of lakes including Westler and Witmer Lakes. The outlet flows from the lake on the southwest shore and into Messick Lake about 0.5 mi downstream. Messick Lake empties into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.17 ft Apr. 7, 1978; minimum stage, 6.34 ft Oct. 10, 1953.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	8.28	---	---	---	---	8.68	8.06	8.27	7.41	7.47	7.37
10	---	8.02	---	---	---	---	8.93	8.08	8.13	7.45	7.40	7.34
15	---	7.80	---	---	---	8.55	8.94	9.32	7.85	7.40	7.42	7.33
20	8.38	7.63	---	---	---	8.36	8.74	9.35	7.65	7.47	7.44	7.42
25	8.56	7.75	---	---	---	8.16	8.45	8.90	7.59	7.45	7.44	7.40
EOM	8.46	8.05	---	---	---	8.21	8.26	8.43	7.49	7.50	7.40	7.44

STREAMS TRIBUTARY TO LAKE ERIE

04177700 HAMILTON LAKE AT HAMILTON, IN

LOCATION.--Lat 41°32'10", long 84°54'45", in SW$^1/_4$SW$^1/_4$NW$^1/_4$ sec.34, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003 (HAMILTON, IN quadrangle). The gage is on the eastern shore of the southern lobe at the outlet, in the town of Hamilton.

SURFACE AREA.--802 acres.

DRAINAGE AREA.--16.5 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

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, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.59	8.60	8.69	8.63	8.79	8.69	8.87	8.60	8.67	8.44	8.36	8.32
10	8.57	8.57	8.60	8.63	8.65	8.86	8.96	8.65	8.61	8.50	8.29	8.29
15	8.92	8.57	8.78	8.62	8.59	8.67	8.79	9.00	8.56	8.42	8.30	8.23
20	8.79	8.56	8.79	8.61	8.63	8.61	8.70	8.76	8.54	8.36	8.33	8.36
25	8.80	8.60	8.64	8.58	8.62	8.59	8.63	8.72	8.64	8.28	8.36	8.34
EOM	8.64	8.86	8.63	9.00	8.58	8.82	8.63	8.64	8.55	8.40	8.34	8.41

WTR YR 2002 MEAN 8.60 MAX 9.39 MIN 8.22

04099860 HEATON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°44'14", long 85°54'42", in NW1/4NE1/4NE1/4 sec.23, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001 (ELKHART, IN quadrangle). The gage is on the east bank of the inlet on the north shore of the lake, 4.7 mi northeast of the main Post Office in Elkhart.

SURFACE AREA.--87 acres.

DRAINAGE AREA.--9.33 mi^2.

PERIOD OF RECORD.--1946-53, 1970-75, 1977 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--760.00 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.--7.30 ft gage datum or 767.30 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 a fixed-crest concrete dam.

INLET AND OUTLET.--The one inlet enters the lake at the extreme northern point of the lake. The outlet, Puterbaugh Creek, flows from the west end of the lake and enters the St. Joseph River approximately 4.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.73 ft Feb. 26, 1985; minimum stage, 4.55 ft Nov. 12-18, 1971.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.41	8.29	---	8.17	8.24	---	8.25	8.18	---	7.98	7.18	6.44
10	7.47	---	8.16	8.17	---	---	8.32	8.24	---	7.98	6.93	6.27
15	7.96	---	8.21	8.10	---	8.30	8.25	8.68	8.19	7.86	6.87	6.10
20	7.96	---	8.21	8.06	---	8.25	8.22	---	8.16	7.67	6.87	6.19
25	8.26	---	8.17	8.05	---	8.22	8.20	---	8.15	7.44	6.76	6.00
EOM	8.18	---	8.17	8.26	---	8.25	8.21	---	8.11	7.30	6.59	5.83

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100258 HIGH LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°18'51", long 85°31'49", in SW1/4NE1/4SW1/4 sec.18, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is on a dredged channel on the west shore of the east lobe, 2.1 mi southwest of Wolflake.

SURFACE AREA.--123 acres.

DRAINAGE AREA.--4.43 mi^2.

PERIOD OF RECORD.--1961-68, 1970 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--890.00 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 lake bed at the same site.

ESTABLISHED LEGAL LEVEL.--6.35 ft gage datum or 896.35 ft above National Geodetic Vertical Datum of 1929 as decreed on February 25, 1963, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete, fixed-crest dam with a rectangular notch.

INLET AND OUTLET.--The one inlet, Beal Branch, enters the lake on the southeast shore. The outlet flows from the east side of the north lobe, through Bear Lake, 0.6 mi downstream, into Carrol Creek, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.70 ft June 28, 1968; minimum stage, 5.30 ft Nov. 15, 25-28, 1964, Oct. 13, 26-31, Nov. 1-3, 1966.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.72	6.84	7.00	6.97	7.09	7.01	7.18	6.85	6.83	6.52	6.51	6.50
10	6.76	6.78	6.89	6.90	6.94	7.19	7.18	6.96	6.76	6.52	6.41	6.46
15	7.18	6.76	---	6.78	6.87	7.06	7.13	7.15	6.71	6.45	6.48	6.36
20	7.01	6.75	7.10	6.77	6.95	6.98	7.07	6.90	6.68	6.41	6.60	6.51
25	7.11	7.00	6.97	6.78	6.96	6.91	6.93	6.82	6.64	6.42	6.65	6.46
EOM	6.87	7.17	6.97	7.20	6.94	7.17	6.90	6.83	6.58	6.56	6.56	6.48

03331300 HILL LAKE NEAR SILVER LAKE, IN

LOCATION.--Lat 41°06'16",long 85°54'35", in SE$^1/_4$NE$^1/_4$SE$^1/_4$ sec.25, T.31 N., R.5 E., Kosciusko County, Hydrologic Unit 05120106 (SILVER LAKE, IN quadrangle). The gage is located on the northern shore of the southwestern lobe of the lake, 2.5 mi northwest of the town of Silver Lake.

SURFACE AREA.--67 acres.

DRAINAGE AREA.--0.85 mi^2.

PERIOD OF RECORD.--1952 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--860.00 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 located on the southernmost tip of the lake. The staff is mounted on a board driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--11.50 ft gage datum or 871.50 ft above National Geodetic Vertical Datum of 1929 as decreed on September 10, 1959, by the Koscuisko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed sill with removable boards.

INLET AND OUTLET.--There are no surface inlets. The one outlet flows from the western edge of the lake and empties into Diamond Lake 1.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.54 ft July 21, 1963; minimum stage, 9.86 ft Jan. 18, 19, 1954.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.32	---	11.47	11.45	11.57	11.48	11.53	11.51	11.49	11.21	11.14	11.02
10	11.44	---	11.41	11.41	11.45	11.57	11.66	11.50	11.39	11.15	11.05	10.96
15	11.76	---	11.54	11.41	11.40	11.48	11.69	11.63	11.34	11.06	11.07	10.91
20	11.57	---	11.59	11.38	11.46	11.42	11.49	11.51	11.31	11.06	11.13	10.96
25	11.76	---	11.47	11.37	11.43	11.42	11.40	11.42	11.30	11.08	11.13	10.90
EOM	---	---	11.45	11.71	11.43	11.57	11.48	11.55	11.27	11.17	11.07	10.89

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099500 HOGBACK LAKE NEAR ANGOLA, IN

LOCATION.--Lat 41°37'39", long 85°04'59", in SE$^1/_4$SE$^1/_4$SE$^1/_4$ sec.25, T.37 N., R.12 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is on the northeast shore, 0.5 mi south of the Tri-State Airport, on County Road 500 West, and 4.4 mi southwest of Angola.

SURFACE AREA.--146 acres.

DRAINAGE AREA.--103 mi^2.

PERIOD OF RECORD.--1946-73, 1977 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--940.00 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 in one section is attached to a tree at the same site.

ESTABLISHED LEGAL LEVEL.--8.50 ft gage datum or 948.50 ft above National Geodetic Vertical Datum of 1929 as decreed on October 28, 1959, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel (Pigeon Creek).

INLET AND OUTLET.--There are three inlets to the lake. One unnamed ditch enters from the north. A small tributary enters on the eastern tip from Silver Lake, 0.7 mi upstream. Pigeon Creek flows through the lake, entering at the southeastern shore from Golden Lake, 1.2 mi upstream and leaving at the north end of the western lobe. Pigeon Creek joins Turkey Creek to become Pigeon River and eventually empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.07 ft Mar. 22, 1982; minimum stage, 7.24 ft Sept. 9, 10, 1953.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.71	9.81	10.20	9.68	11.95	9.90	11.74	9.71	10.00	8.96	8.73	8.57
10	8.79	9.48	9.61	9.21	10.59	11.00	11.70	9.83	9.89	8.97	8.66	8.54
15	10.67	9.31	9.78	9.18	10.08	10.81	11.49	13.56	9.57	8.87	8.71	8.53
20	11.71	9.19	10.78	9.15	9.78	10.02	10.65	12.25	9.35	8.80	8.76	8.63
25	10.80	9.22	10.02	9.14	9.85	9.69	10.21	10.68	9.30	8.75	8.69	8.63
EOM	10.28	9.74	9.68	10.09	9.72	10.35	9.94	9.98	9.12	8.80	8.61	8.66

WTR YR 2002 MEAN 9.77 MAX 13.61 MIN 8.52

04097680 JIMMERSON LAKE AT NEVADA MILLS, IN

LOCATION.--Lat 41°43'31", long 85°04'55", in SW$^1/_4$NW$^1/_4$ sec.30, T.38 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is at the extreme west end of the lake on the abutment of the concrete spillway structure and dam in the town of Nevada Mills, 4.6 mi east of Orland.

SURFACE AREA.--434 acres.

DRAINAGE AREA.--51.6 mi^2.

PERIOD OF RECORD.--1937-44, 1946 to Oct. 1, 2002 (discontinued). (Lake level readings were made once a week by employees of Northern Indiana Public Service Company from 1937 to 1944.)

DATUM OF GAGE.--960.27 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources in June 1972.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well attached to the control structure. An auxiliary staff gage is bolted to the same wall.

ESTABLISHED LEGAL LEVEL.--4.66 ft gage datum or 964.66 ft above 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 4.66 ft gage datum or 964.93 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam.

INLET AND OUTLET.--Crooked Creek flows through the lake, entering from Lake James at the extreme southeast end, and leaving from the northwest. Crooked Creek flows through Tamarack Lake and becomes Fawn River, which eventually empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.22 ft May 27, 1943; minimum stage, 3.71 ft Feb. 16, 17, 1948.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.90	5.27	5.26	5.10	5.54	5.30	5.46	5.25	5.38	4.85	4.69	4.70
10	4.92	5.16	5.18	5.05	5.39	5.44	5.56	5.29	5.30	4.81	4.62	4.64
15	5.32	5.11	5.26	5.06	5.30	5.40	5.53	6.01	5.19	4.73	4.65	4.63
20	5.48	5.07	5.32	5.04	5.30	5.30	5.52	5.85	5.10	4.70	4.77	4.72
25	5.43	5.10	5.25	5.05	5.28	5.25	5.37	5.56	5.02	4.66	4.80	4.69
EOM	5.36	5.24	5.14	5.41	5.27	5.28	5.31	5.39	4.94	4.73	4.75	4.72

WTR YR 2002 MEAN 5.14 MAX 6.01 MIN 4.62

WABASH RIVER BASIN

03331438 KING LAKE NEAR DELONG, IN

LOCATION.--Lat 41°07'48", long 86°25'23", in NW$^1/_4$SW$^1/_4$SE$^1/_4$ sec.16, T.31 N., R.1 E., Fulton County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is located on the northern shore of the lake, on the lake access road, 0.6 mi southwest of Delong.

SURFACE AREA.--18 acres.

DRAINAGE AREA.--1.98 mi^2.

PERIOD OF RECORD.--1970-72, 1975 to Oct. 1, 2002 (discontinued).

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.--Not established.

LAKE-LEVEL CONTROL.--The lake level is normally controlled by the outlet channel bed. At high stages the control changes to the outlet culvert under old State Highway 17. The culvert is located about 700 ft north of the lake.

INLET AND OUTLET.--The inlet is an unnamed ditch which enters the lake from the southeastern side. The outlet exits the lake on the northern side and flows north approximately 1.5 mi to the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.69 ft June 14, 1981; minimum stage, 3.60 ft Oct. 23-26, 28-31, Nov. 1, 2, 1974.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.83	6.88	6.99	6.97	6.79	6.71	6.85	6.56	6.04	5.75	5.51	5.28
10	5.79	6.88	6.97	6.88	6.58	7.06	6.84	6.57	6.00	5.69	5.40	5.20
15	6.30	6.91	7.02	6.89	6.51	6.71	6.63	6.86	6.07	5.55	5.35	5.13
20	6.64	6.92	7.03	6.88	6.74	6.53	6.52	6.62	6.00	5.51	5.52	5.17
25	6.99	6.92	6.98	6.85	6.68	6.47	6.52	6.33	5.91	5.43	5.47	5.10
EOM	6.83	7.01	6.97	7.13	6.66	6.82	6.64	6.11	5.85	5.54	5.37	5.07

WTR YR 2002 MEAN 6.33 MAX 7.22 MIN 5.07

04100390 KNAPP LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat. 41°20'36", long 85°36'17", in SW$^1/_4$NE$^1/_4$SW$^1/_4$ sec.4, T.33 N., R.8 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is at a public access site on the east side of the lake, and 5.8 mi west of the town of Wolflake.

SURFACE AREA.--88 acres.

DRAINAGE AREA.--6.02 mi^2.

PERIOD OF RECORD.--1946-74, 1976 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--870.00 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.--8.25 ft gage datum or 878.25 ft above National Geodetic Vertical Datum of 1929 as decreed on October 7, 1954, by the Noble County Circuit Court. Harper Lake, Moss Lake, and Hindman Lake, all near Washington Center, have the same established level as Knapp Lake and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel.

INLET AND OUTLET.--There are three inlets. The outlet of Little Knapp Lake enters at the southeastern corner, the outlet of Harper Lake enters at the southernmost tip, and Galloway Ditch enters on the eastern shore. The outlet flows from the lake on the western shore, through a series of lakes, into Turkey Creek and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.10 ft June 27, 1968; minimum stage, 6.14 ft Mar. 26, 1994.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.27	7.81	7.59	7.17	8.18	7.73	8.27	7.74	8.18	7.32	7.55	7.55
10	7.31	7.53	7.43	7.11	7.71	8.35	8.38	8.00	7.98	7.29	7.18	7.29
15	8.90	7.40	7.70	7.09	7.46	7.98	8.17	8.80	7.79	7.17	7.17	7.15
20	8.58	7.31	8.08	7.06	7.53	7.72	7.96	8.53	7.66	7.13	7.37	7.29
25	8.54	7.32	7.67	7.06	7.56	7.60	7.86	8.39	7.58	7.16	7.48	7.34
EOM	7.93	7.71	7.34	8.09	7.53	8.02	7.84	8.22	7.49	7.42	7.51	7.31

WTR YR 2002 MEAN 7.68 MAX 9.06 MIN 7.05

ILLINOIS RIVER BASIN

05515600 KOONTZ LAKE AT KOONTZ LAKE, IN

LOCATION.--Lat 41°24'42", long 86°29'18", in SW$^1/_4$SE$^1/_4$NE$^1/_4$ sec.11, T.34 N., R.1 W., Starke County, Hydrologic Unit 07120001 (WALKERTON, IN quadrangle). The gage is on the western tip of the lake, at the control dam on State Highway 23, at the town of Koontz Lake.

SURFACE AREA.--346 acres.

DRAINAGE AREA.--6.25 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--710.12 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.--4.56 ft gage datum or 714.56 ft above National Geodetic Vertical Datum of 1929 as decreed on September 15, 1948, by the Starke County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.56 ft gage datum or 714.68 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--Lawrence Pontius Ditch and Rose Ditch enter the lake on the south shore of the east lobe. The outlet flows from the lake at the western tip and into Robbins Ditch 1400 ft downstream. Robbins Ditch empties into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.10 ft Oct. 11, 1954; minimum stage, 3.10 ft Oct. 12, 1970.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.51	4.59	4.59	4.56	4.67	4.63	4.74	4.63	4.59	4.46	4.49	4.36
10	4.47	4.55	4.55	4.56	4.59	4.74	4.76	4.66	4.56	4.52	4.40	4.32
15	4.72	4.55	4.62	4.55	4.56	4.66	4.67	4.83	4.55	4.45	4.39	4.27
20	4.63	4.54	4.61	4.56	4.64	4.61	4.75	4.71	4.52	4.43	4.44	4.39
25	4.65	4.55	4.55	4.53	4.63	4.63	4.67	4.65	4.62	4.48	4.46	4.35
EOM	4.57	4.63	4.55	4.84	4.60	4.69	4.69	4.63	4.52	4.50	4.40	4.34

WTR YR 2002 MEAN 4.57 MAX 5.08 MIN 4.25

05517800 LAKE ELIZA NEAR BEATRICE, IN

LOCATION.--Lat 41°25'55", long 87°10'33", in SW$^1/_4$NE$^1/_4$NW$^1/_4$ sec.1, T.34 N., R.7 W., Porter County, Hydrologic Unit 07120001 (PALMER, IN quadrangle). The gage is on the east bank of a boat channel off the northernmost end of the lake, south of the bridge over the channel, and at the town of Lake Eliza.

SURFACE AREA.--45 acres.

DRAINAGE AREA.--1.70 mi^2.

PERIOD OF RECORD.--1954-74, 1976 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--735.00 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 attached to the bridge piling.

ESTABLISHED LEGAL LEVEL.--3.70 ft gage datum or 738.70 ft above National Geodetic Vertical Datum of 1929 as decreed on February 7, 1982, by the Porter County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a reinforced concrete dam with fixed crest.

INLET AND OUTLET.--Two small inlets enter the lake from the northwest and the northeast. The outlet flows from the lake on the south side through a dredged channel, forms the head waters of Wolf Creek, and eventually joins the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.24 ft June 14, 1981; minimum stage, 2.45 ft Oct. 13-15, 1988.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.72	4.39	4.85	4.09	4.38	4.32	4.73	4.31	4.29	3.90	3.54	3.30
10	3.70	4.38	4.49	4.10	4.47	5.23	4.94	4.81	4.22	3.86	3.44	3.25
15	4.49	4.39	4.49	4.10	4.18	5.10	4.85	4.99	4.17	3.74	3.40	3.18
20	4.65	4.44	4.54	4.10	4.65	4.66	4.83	4.47	4.06	3.66	3.44	3.30
25	4.72	4.45	4.25	4.11	4.58	4.37	4.65	4.40	4.08	3.56	3.42	3.23
EOM	4.42	4.64	4.12	4.62	4.62	4.26	4.52	4.34	4.03	3.54	3.32	3.19

WTR YR 2002 MEAN 4.19 MAX 5.82 MIN 3.16

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097950 LAKE GAGE AT PANAMA, IN

LOCATION.--Lat 41°42'32", long 85°06'53", in SE$^1/_4$SE$^1/_4$NW$^1/_4$ sec.35, T.38 N., R.12 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is at the bridge over the outlet on the northern tip of the lake, 0.4 mi northwest of Panama, and 3.3 mi southeast of Orland.

SURFACE AREA.--332 acres.

DRAINAGE AREA.--17.3 mi^2.

PERIOD OF RECORD.--1946 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--950.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch diameter stilling well at the downstream side of the bridge. An auxiliary staff gage is at the same site.

ESTABLISHED LEGAL LEVEL.--4.25 ft gage datum or 954.25 ft above National Geodetic Vertical Datum of 1929 as decreed on July 3, 1947, by the Steuben County Circuit Court. Lime Lake at Panama has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and one adjustable gate at the outlet of Lime Lake.

INLET AND OUTLET.--The one inlet flows into the lake on the extreme eastern shore from the Third Basin of Crooked Lake, 1.4 mi upstream. The outlet flows from the northern tip into Lime Lake approximately 600 ft downstream, then eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.55 ft Apr. 25, 1950; minimum stage, 3.41 ft Nov. 13, 15-20, 1953.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.56	4.97	4.82	4.69	4.92	4.90	4.83	4.66	4.97	4.39	4.37	4.32
10	4.49	4.88	4.76	4.69	4.91	4.95	4.92	4.61	4.82	4.43	4.29	4.30
15	4.80	4.82	4.86	4.67	4.87	4.88	4.93	5.09	4.71	4.36	4.31	4.27
20	4.92	4.77	4.86	4.64	4.94	4.80	5.03	5.32	4.57	4.35	4.38	4.35
25	5.05	4.81	4.80	4.64	4.87	4.72	4.91	5.25	4.43	4.33	4.42	4.29
EOM	5.00	4.91	4.71	5.00	4.89	4.75	4.87	4.97	4.41	4.40	4.36	4.32

WTR YR 2002 MEAN 4.71 MAX 5.33 MIN 4.26

04092990 LAKE GEORGE AT HOBART, IN

LOCATION.--Lat 41°32'07", long 87°15'30", in NW$^1/_4$NW$^1/_4$NW$^1/_4$ sec.32, T.36 N., R.7 W., Lake County, Hydrologic Unit 04040001 (GARY, IN quadrangle). The gage is on the northeast end of the lake, 70 ft northwest of the dam and 400 ft upstream of the Ridge Road bridge, in Hobart.

SURFACE AREA.--282 acres.

DRAINAGE AREA.--124 mi^2.

PERIOD OF RECORD.--1947 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--600.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in a steel shelter over an 18-inch diameter clay stilling well.

ESTABLISHED LEGAL LEVEL.--2.23 ft gage datum or 602.23 ft above National Geodetic Vertical Datum of 1929 as decreed on September 18, 1959, by the Lake County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

INLET AND OUTLET.--The two principal inlets are Turkey Creek, entering from the extreme southwestern tip, and Deep River, entering on the northeastern shore of the southern lobe. Three unnamed tributaries enter from the northwest, south, and southeast. The outlet, Deep River, flows from the lake at the northeast end and eventually joins the Calumet River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.14 ft Oct. 11, 1954; minimum stage, below .08 ft Aug. 2, 1997 (while the lake was being drained).

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.58	2.43	2.30	2.10	2.64	2.65	2.77	2.32	2.18	2.04	1.99	2.02
10	2.10	2.20	2.18	2.13	2.61	3.67	3.21	3.50	2.12	2.16	1.98	1.98
15	3.04	2.18	2.33	2.14	2.34	2.36	2.38	3.31	2.18	2.02	2.03	1.98
20	2.33	2.22	2.38	2.11	2.87	2.34	2.74	2.68	2.08	2.02	2.12	2.36
25	2.74	2.18	2.31	2.15	2.48	2.24	2.68	2.71	2.04	2.00	2.02	2.02
EOM	2.23	2.63	2.14	2.84	2.37	2.39	2.80	2.30	2.05	2.02	1.99	2.01

WTR YR 2002 MEAN 2.34 MAX 5.27 MIN 1.96

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097550 LAKE GEORGE AT JAMESTOWN, IN

LOCATION.--Lat 41°44'58", long 85°01'01", in SE$^1/_4$NW$^1/_4$SE$^1/_4$ sec.15, T.38 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ANGOLA WEST, IN quadrangle). The gage is 25 ft east of the outlet dam on the southwest end of the lake at Jamestown, 8.0 mi north of Angola.

SURFACE AREA.--488 acres.

DRAINAGE AREA.--14.7 mi^2.

PERIOD OF RECORD.--1946 to October 1, 2002 (discontinued).

DATUM OF GAGE.--980.00 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.--5.28 ft gage datum or 985.28 ft above National Geodetic Vertical Datum of 1929 as decreed on October 12, 1945, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

INLET AND OUTLET.--The inlet flows from Silver Lake, 0.8 mi upstream, and enters on the north shore. The outlet flows from the southwest end of the lake and forms Crooked Creek. Crooked Creek flows into Mud Lake 0.8 mi downstream, then enters Snow Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.28 ft May 12, 2002; minimum stage, 4.20 ft Dec. 6, 7, 1946; Oct. 23-31, 1948.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.81	5.90	5.88	5.81	5.98	5.91	5.95	5.89	5.97	5.69	5.58	5.61
10	5.72	5.85	5.86	5.80	5.93	5.98	5.99	5.91	5.91	5.72	5.50	5.58
15	5.90	5.83	5.92	5.81	5.89	5.95	5.96	6.15	5.90	5.65	5.53	5.52
20	6.01	5.81	5.91	5.80	5.93	5.90	6.04	6.08	5.85	5.60	5.59	5.56
25	6.02	5.84	5.87	5.81	5.92	5.91	5.94	6.01	5.82	5.58	5.67	5.51
EOM	5.92	5.92	5.81	6.11	5.90	5.91	5.92	5.95	5.76	5.61	5.63	5.56

WTR YR 2002 MEAN 5.83 MAX 6.28 MIN 5.49

03331380 LAKE MANITOU AT ROCHESTER, IN

LOCATION.--Lat 41°03'00", long 86°10'06", NW$^1/_4$SW$^1/_4$NW$^1/_4$ sec.14, T.30 N., R.3 E., Fulton County, Hydrologic Unit 05120106 (ROCHESTER, IN quadrangle). The gage is located at the public access site on the eastern side of the lake, and 2.6 mi southeast of the courthouse in Rochester.

SURFACE AREA.--1,158 acres.

DRAINAGE AREA.--44.2 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--770.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder is installed in a aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located at the northwest end of the lake at the fish hatchery.

ESTABLISHED LEGAL LEVEL.--8.41 ft gage datum or 778.41 ft above National Geodetic Vertical Datum of 1929 as decreed on September 27, 1948, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by a concrete dam and the gate of a feeder canal at the lake outlet.

INLET AND OUTLET.--Rain Creek is the main inlet and enters at the southeastern edge of the lake. The other inlet is located on the eastern shore of the lake at the site of the gage. The outlet is Mill Creek, which exits at the northwestern tip of the lake and flows 3.5 mi to the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.87 ft Aug. 19, 1990; minimum stage, 6.48 ft Nov. 14, 25-27, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.45	9.56	9.55	9.44	9.83	9.99	10.03	9.82	9.63	9.30	9.32	9.17
10	9.41	9.53	9.47	9.44	9.87	10.25	10.17	9.85	9.51	9.30	9.24	9.15
15	10.06	9.50	9.67	9.44	9.89	10.01	10.05	10.09	9.46	9.26	9.23	9.11
20	9.78	9.48	9.76	9.42	10.03	9.92	9.83	9.81	9.41	9.30	9.35	9.19
25	10.05	9.49	9.57	9.43	9.94	9.90	9.78	9.68	9.39	9.28	9.30	9.17
EOM	9.61	9.65	9.47	9.87	9.92	10.21	9.93	9.60	9.36	9.41	9.21	9.20

WTR YR 2002 MEAN 9.60 MAX 10.34 MIN 9.10

03331440 LAKE MAXINKUCKEE AT CULVER, IN

LOCATION.--Lat 41°11'48", long 86°25'00", in NE$^1/_4$SE$^1/_4$NW$^1/_4$ sec.28, T.32 N., R.1 E., Marshall County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is on the lower west side of the lake, at the public access site, 1.4 mi south of the center of Culver.

SURFACE AREA.--1,864 acres.

DRAINAGE AREA.--13.7 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--730.00 ft above 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 attached to the upstream side of the north abutment of the outlet dam.

ESTABLISHED LEGAL LEVEL.--3.12 ft gage datum or 733.12 ft above 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, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.12	3.50	3.45	3.42	3.70	3.74	3.95	3.83	3.83	3.54	3.35	3.02
10	3.04	3.46	3.44	3.41	3.66	3.85	4.01	3.81	3.73	3.50	3.20	2.96
15	3.38	3.44	3.49	3.41	3.60	3.84	4.01	4.13	3.63	3.32	3.11	2.89
20	3.43	3.44	3.56	3.40	3.66	3.79	3.96	4.09	3.53	3.34	3.24	2.94
25	3.57	3.40	3.51	3.40	3.67	3.76	3.86	3.98	3.63	3.26	3.20	2.87
EOM	3.50	3.46	3.44	3.60	3.69	3.80	3.89	3.87	3.61	3.28	3.14	2.86

WTR YR 2002 MEAN 3.52 MAX 4.16 MIN 2.86

05516200 LAKE OF THE WOODS NEAR BREMEN, IN

LOCATION.--Lat 41°25'04", long 86°13'44", in SW$^1/_4$NW$^1/_4$NW$^1/_4$ sec.7, T.34 N., R.3 E., Marshall County, Hydrologic Unit 07120001 (BREMEN, IN quadrangle). The gage is on the southwest shore of the lake, at the public fishing site, and 4.7 mi southwest of Bremen.

SURFACE AREA.--416 acres.

DRAINAGE AREA.--9.45 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, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.14	3.57	3.53	3.29	3.88	3.63	3.82	3.60	4.04	3.89	3.98	3.80
10	3.12	3.42	3.45	3.26	3.59	3.99	3.83	3.60	4.02	3.88	3.87	3.76
15	3.82	3.35	3.50	3.26	3.42	3.72	3.68	4.26	4.03	3.81	3.84	3.67
20	3.98	3.32	3.63	3.23	3.47	3.52	3.84	3.95	4.00	3.81	3.91	3.41
25	3.96	3.33	3.50	3.23	3.50	3.42	3.86	4.07	3.97	3.94	3.92	3.21
EOM	3.63	3.49	3.35	3.79	3.50	3.58	3.82	4.06	3.93	3.98	3.85	3.08

WTR YR 2002 MEAN 3.67 MAX 4.43 MIN 2.99

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099580 LAKE OF THE WOODS NEAR HELMER, IN

LOCATION.--Lat 41°32'30", long 85°11'42", in SE$^1/_4$SE$^1/_4$SE$^1/_4$ sec.25, T.36 N., R.11 E., Lagrange County, Hydrologic Unit 04050001 (STROH, IN quadrangle). The gage is on the west shore of Duck Pond, a basin connecting Lake of the Woods and McClish Lake, approximately 100 ft south of the bridge over the channel, and 1.5 mi northwest of Helmer.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--5.25 mi^2.

PERIOD OF RECORD.--1951-74, 1977 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--940.00 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.--11.09 ft gage datum or 951.09 ft above National Geodetic Vertical Datum of 1929 as decreed on July 21, 1960, by the Lagrange County Circuit Court. McClish Lake near Helmer has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed sill.

INLET AND OUTLET.--There are four inlets to the lake. Spectacle Lake drains into the west shore, Maumee Ditch enters from the south, Goose Pond flows through a short channel to the southwest shore, and McClish Lake drains into the lake on the southeast shore. The outlet flows to the north from the east end of the lake and through Taylor, Mud, and Little Turkey Lakes to Turkey Creek, thence into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.00 ft Dec. 24, 25, 1967; minimum stage, 9.81 ft Nov. 17-20, 1953.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.27	11.69	11.73	11.66	12.03	11.79	12.10	11.71	11.68	11.27	11.10	10.83
10	11.27	11.61	11.58	11.55	11.84	12.14	12.14	11.83	11.57	11.27	11.01	10.78
15	12.02	11.56	11.71	11.57	11.73	12.01	12.04	12.33	11.49	11.18	10.99	10.71
20	11.88	11.53	11.80	11.57	11.74	11.81	11.86	11.94	11.41	11.12	11.00	10.82
25	11.95	11.57	11.66	11.58	11.74	11.71	11.74	11.79	11.39	11.05	10.98	10.76
EOM	11.75	11.82	11.66	11.93	11.74	11.91	11.75	11.64	11.33	11.13	10.90	10.79

WTR YR 2002 MEAN 11.55 MAX 12.53 MIN 10.69

04097520 LAKE PLEASANT NEAR NEVADA MILLS, IN

LOCATION.--Lat 41°45'18", long 85°06'10", in NW1/4SW1/4NW1/4 sec.13, T.38 N., R.12 E., Steuben County, Hydrologic Unit 04050001 (KINDERHOOK, MI-IN quadrangle). The gage is at a bridge over a boat channel on the south shore of the lake, 2.3 mi northwest of Nevada Mills.

SURFACE AREA.--424 acres.

DRAINAGE AREA.--3.18 mi^2.

PERIOD OF RECORD.--1954-69, 1971, 1976 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--960.40 ft above National Geodetic Vertical Datum of 1929 as corrected on the basis of levels of Indiana Department of Natural Resources, 1977-78.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the southwest bridge abutment at the site.

ESTABLISHED LEGAL LEVEL.--1.10 ft gage datum or 961.50 ft above National Geodetic Vertical Datum of 1929 as decreed on April 11, 1986, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a metal plate welded across the bottom of a corrugated metal pipe.

INLET AND OUTLET.--The one inlet enters the lake on the west side. The outlet flows from the northern shore, enters Michigan, and eventually empties into Prairie River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 2.04 ft Mar. 17, 1980; minimum stage, -0.14 ft Nov. 6-14, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.20	1.38	1.37	1.36	1.55	1.41	1.45	1.31	1.43	1.07	0.86	0.70
10	1.17	1.32	1.34	1.32	1.49	1.48	1.48	1.35	1.38	1.08	0.75	0.64
15	1.44	1.30	1.39	1.32	1.43	1.45	1.45	1.61	1.37	1.00	0.71	0.58
20	1.48	1.27	1.41	1.30	1.44	1.40	1.46	1.56	1.29	0.95	0.74	0.59
25	1.47	1.31	1.36	1.28	1.44	1.36	1.38	1.44	1.24	0.90	0.86	0.54
EOM	1.40	1.41	1.35	1.61	1.43	1.39	1.34	1.40	1.16	0.93	0.77	0.54

WTR YR 2002 MEAN 1.24 MAX 1.69 MIN 0.53

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100160 LITTLE LONG LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°27'49", long 85°15'27", in SE1/4NW1/4NE1/4 sec.28, T.35 N., R.11 E., Noble County, Hydrologic Unit 04050001 (KENDALLVILLE, IN quadrangle). The gage is on the south side of the lake at the bridge over the dredged channel in Wakeville Village, 1.6 mi northeast of City Hall in Kendallville.

SURFACE AREA.--71 acres.

DRAINAGE AREA.--4.55 mi^2.

PERIOD OF RECORD.--1954 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--950.00 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 in one section is attached to the west wingwall on the south side of the bridge.

ESTABLISHED LEGAL LEVEL.--4.50 ft gage datum or 954.50 ft above National Geodetic Vertical Datum of 1929 as decreed on March 26, 1970. Round Lake at Kendallville has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

INLET AND OUTLET.--The one inlet enters on the east side from Round Lake. The outlet, Waterhouse Ditch, flows from the lake at the southwest end and into Henderson Lake Ditch, thence into Sylvan Lake 4.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.75 ft Jan. 31, 1969; minimum stage, 3.33 ft Nov. 17, 18, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.68	4.78	4.85	4.76	4.97	4.84	5.08	4.78	4.79	4.59	4.51	4.47
10	4.69	4.72	4.76	4.71	4.83	5.06	5.13	4.94	4.73	4.55	4.40	4.41
15	5.12	4.71	4.95	4.71	4.77	4.87	4.99	5.15	4.66	4.45	4.44	4.34
20	4.95	4.70	4.97	4.69	4.83	4.78	4.87	4.87	4.65	4.52	4.54	4.39
25	5.07	4.78	4.82	4.70	4.79	4.78	4.79	4.77	4.80	4.47	4.65	4.32
EOM	4.82	5.00	4.76	5.17	4.77	5.04	4.81	4.73	4.69	4.56	4.54	4.35

WTR YR 2002 MEAN 4.75 MAX 5.51 MIN 4.30

03328100 LONG LAKE AT LAKETON, IN

LOCATION.--Lat 40°59'09", long 85°50'18", in NE$^1/_4$NW$^1/_4$NE$^1/_4$ sec.10, T.29 N., R.6 E., Wabash County, Hydrologic Unit 05120104 (NORTH MANCHESTER SOUTH, IN quadrangle). The gage is located on the north shore of the lake, 0.3 mi west of Crill Road, and 0.8 mi north of Laketon.

SURFACE AREA.--48 acres.

DRAINAGE AREA.--0.55 mi^2.

PERIOD OF RECORD.--1946-51, 1959 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--740.00 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, driven into the lake bed, is located 50 ft lakeward of the primary gage.

ESTABLISHED LEGAL LEVEL.--11.19 ft gage datum or 751.19 ft above National Geodetic Vertical Datum of 1929 as decreed on July 26, 1951, by the Wabash County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an 18-inch corrugated metal pipe draining into a clay tile.

INLET AND OUTLET.--Two tile ditches flow into the lake. The outlet flows from the west end of the lake, joins the outlet of Mud Lake, continues through Round Lake, then into Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.66 ft Mar. 22, 1982; minimum stage, 8.68 ft Dec. 1-3, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.68	12.44	12.21	12.17	12.33	12.28	12.44	12.42	12.40	11.69	11.34	10.89
10	11.65	12.35	12.13	12.15	12.32	12.37	12.53	12.46	12.28	11.60	11.20	10.80
15	12.08	12.29	12.20	12.05	12.27	12.38	12.64	12.71	12.17	11.49	11.15	10.71
20	12.19	12.22	12.34	11.99	12.32	12.33	12.53	12.68	12.01	11.43	11.19	10.83
25	12.55	12.15	12.29	11.94	12.30	12.32	12.42	12.57	11.87	11.41	11.12	10.73
EOM	12.47	12.27	12.24	12.29	12.27	12.42	12.44	12.44	11.74	11.42	10.99	10.71

WTR YR 2002 MEAN 12.00 MAX 12.73 MIN 10.67

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099200 LONG LAKE AT MOONLIGHT, IN

LOCATION.--Lat 41°35'01", long 85°01'43", in NE$^1/_4$NE$^1/_4$NE$^1/_4$ sec.16, T.36 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ASHLEY, IN quadrangle). The gage is located on the northern shore, 0.4 mi east of the lake outlet and 2.5 mi north of Steubenville.

SURFACE AREA.--92 acres.

DRAINAGE AREA.--67.9 mi^2.

PERIOD OF RECORD.--1946 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--940.10 ft above National Geodetic Vertical Datum of 1929 as corrected on the basis of levels of Indiana Department of Natural Resources, 1977.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located near the gage in two sections. One section is mounted on a post which is driven into the lake bed. The other section is mounted to a tree near the gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by the downstream channel.

INLET AND OUTLET.--Pigeon Creek flows into Long Lake at the eastern end of the lake and exits at the western end.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.42 ft Mar. 22, 1982; minimum stage, 8.58 ft Sept. 22 and 23, 1994.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.01	10.04	10.41	9.37	12.30	10.78	12.39	9.94	10.58	9.12	8.99	8.84
10	9.03	9.68	9.75	9.37	10.92	12.15	12.48	10.28	10.14	9.21	8.94	8.81
15	11.85	9.48	10.70	9.38	10.33	11.08	11.94	14.31	9.77	9.07	9.08	8.81
20	12.04	9.38	11.21	9.29	10.11	10.33	11.02	12.38	9.49	9.05	8.98	8.98
25	11.65	9.69	10.17	9.38	10.14	9.94	10.56	10.94	9.47	9.02	8.94	8.85
EOM	10.59	10.86	9.57	11.55	9.96	11.39	10.27	10.25	9.24	9.07	8.87	8.87

WTR YR 2002 MEAN 10.12 MAX 14.34 MIN 8.80

03331460 LOST LAKE AT CULVER, IN

LOCATION.--Lat 41°12'01", long 86°25'19", in NE$^1/_4$NW$^1/_4$NW$^1/_4$ sec.28, T.32 N., R.1 E., Marshall County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is on the northern shore of the lake at the east end of West 19th Road (lake access road), 1.1 mi south of the center of Culver.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--14.2 mi^2.

PERIOD OF RECORD.--1954-64, 1963-74, 1976 to current year. (Formerly published as Hawks Lake near Culver.)

DATUM OF GAGE.--720.00 ft above 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, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.57	12.62	12.07	11.96	12.20	12.26	12.43	12.29	12.29	12.07	12.03	12.16
10	12.64	12.64	11.97	11.96	12.17	12.37	12.50	12.36	12.24	12.04	12.23	12.27
15	12.63	12.73	12.03	11.95	12.16	12.37	12.47	12.36	12.21	12.00	12.57	12.22
20	12.13	11.98	12.05	11.94	12.25	12.34	12.31	12.32	12.14	12.15	12.55	12.30
25	12.72	11.97	12.03	11.94	12.24	12.31	12.27	12.32	12.34	12.61	11.97	12.20
EOM	12.45	12.07	11.98	12.16	12.22	12.36	12.30	12.28	12.26	12.15	12.07	12.17

WTR YR 2002 MEAN 12.25 MAX 12.82 MIN 11.85

WABASH RIVER BASIN

03328400 LUKENS LAKE NEAR DISKO, IN

LOCATION.--Lat 40°58'09", long 85°56'06", in SW$^1/_4$NW$^1/_4$NE$^1/_4$ sec.14, T.29 N., R.5 E., Wabash County, Hydrologic Unit 05120104 (ROANN, IN quadrangle). The gage is 25 ft north of the outlet on the southwest side of the lake, 4.1 mi north of Roann.

SURFACE AREA.--46 acres.

DRAINAGE AREA.--1.76 mi^2.

PERIOD OF RECORD.--1948-49, 1959 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--760.00 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 in one section is driven into the lake bed about 5 ft upstream from the outlet culvert.

ESTABLISHED LEGAL LEVEL.--3.60 ft gage datum or 763.60 ft above the sea level as decreed on March 29, 1978, by the Wabash County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by two 18-inch corrugated metal culverts at the outlet.

INLET AND OUTLET.--The principal inlet is a tile drain from McColley Lake, 0.5 mi to the north. The outlet flows from the southwestern shore, into Bolley Ditch 0.7 mi downstream, thence into Squirrel Creek, and eventually into Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.10 ft May 16, 1968; minimum stage, 2.32 ft Oct. 12, 1983.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.07	4.23	4.06	3.79	4.08	3.88	4.03	4.06	3.93	3.49	3.27	3.06
10	3.98	4.22	4.07	3.78	4.03	4.01	4.12	---	3.81	3.45	3.18	3.00
15	4.34	4.09	4.19	3.75	3.93	3.98	4.10	4.15	3.78	3.35	3.19	2.98
20	4.18	3.92	4.23	3.74	3.98	3.94	4.02	4.06	3.70	3.29	3.24	3.08
25	4.26	3.87	4.02	3.72	3.91	4.01	4.08	4.04	3.62	3.27	3.21	3.05
EOM	4.17	4.08	3.87	4.19	3.87	4.11	4.17	3.99	3.58	3.31	3.13	3.05

04100280 MUNCIE LAKE NEAR BURR OAK, IN

LOCATION.--Lat 41°19'37", long 85°27'28", in NE$^1/_4$SW$^1/_4$SW$^1/_4$ sec.11, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001 (MERRIAM, IN quadrangle). The gage is on the southwest shore of the lake, just north of the gravel road on the Addis farm, and 1.3 mi northwest of Burr Oak.

SURFACE AREA.--47 acres.

DRAINAGE AREA.--42.8 mi^2.

PERIOD OF RECORD.--1954 to Oct. 1, 2002 (discontinued).

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.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--There are three inlets to the lake. Forker Creek flows into the lake from the east, Brown Ditch from the southeast, and Carrol Creek from the west. The outlet flows from the northwest shore into Williams Lake, then into the South Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.47 ft Mar. 24, 25, 1978, Feb. 25, 26, 1985; minimum stage, 1.88 ft Aug. 8, 1988.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.93	4.20	4.81	3.25	5.96	4.20	5.82	4.11	4.25	3.33	2.95	2.93
10	3.01	3.67	3.95	3.22	4.64	5.45	5.93	4.67	4.06	3.25	2.89	2.90
15	6.60	3.43	4.72	3.21	3.81	4.77	5.65	6.32	3.81	3.13	2.96	2.91
20	6.12	3.29	5.71	3.13	3.71	3.95	5.07	5.11	3.65	3.07	3.03	3.07
25	6.54	3.56	4.53	3.13	3.74	3.60	4.63	4.29	3.55	3.00	3.04	2.99
EOM	4.99	4.97	3.56	5.03	3.62	5.47	4.49	4.13	3.53	3.06	2.96	3.00

WTR YR 2002 MEAN 4.04 MAX 6.94 MIN 2.71

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099700 NORTH TWIN LAKE NEAR HOWE, IN

LOCATION.--Lat 41°43'45", long 85°27'49", in SE$^1/_4$SW$^1/_4$SW$^1/_4$ sec.23, T.38 N., R.9 E., Lagrange County, Hydrologic Unit 04050001 (LAGRANGE, IN quadrangle). The gage is in the channel between North and South Twin Lakes, 100 ft upstream from the county road bridge, and 2.2 mi northwest of Howe.

SURFACE AREA.--135 acres.

DRAINAGE AREA.--1.54 mi^2.

PERIOD OF RECORD.--1953 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--840.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A staff gage is attached to the east concrete retaining wall of the control dam.

ESTABLISHED LEGAL LEVEL.--3.56 ft gage datum or 843.56 ft above National Geodetic Vertical Datum of 1929 as decreed on September 11, 1959, by the Lagrange County Circuit Court. South Twin Lake near Howe has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--Prior to October 1, 1982, the low water control was a fixed-crest dam with removable boards at the upstream end of the channel between the two lakes. At high stages the outlet channel of South Twin Lake was the control. After October 1, 1982, a concrete dam with a fixed crest was installed in the outlet of South Twin Lake. This is now the control structure for both North and South Twin Lakes, although the original structure is still in place.

INLET AND OUTLET.--There are two inlets to the lake. One enters at the southeast shore from Still Lake 0.9 mi upstream, and the other, which drains the adjacent marsh land, enters on the northwest shore. The outlet flows from the southwest shore and into South Twin Lake approximately 200 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.20 ft Feb. 26, 1985; minimum stage, 2.97 ft Aug. 20, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.49	3.62	3.56	3.60	3.60	3.56	3.60	3.70	3.74	3.45	---	---
10	3.52	3.64	3.56	3.62	3.60	3.60	3.64	3.76	3.68	---	---	3.42
15	3.56	3.62	3.54	3.60	3.58	3.60	3.64	3.86	3.66	---	---	---
20	3.64	3.60	3.50	3.60	3.58	3.58	3.68	3.84	3.56	---	---	---
25	3.68	3.60	3.48	---	3.56	3.58	3.70	3.80	3.54	---	---	---
EOM	3.64	3.58	3.46	3.58	3.56	3.60	3.70	3.76	3.45	---	---	3.38

03331400 NYONA LAKE NEAR GREENOAK, IN

LOCATION.--Lat 40°57'40", long 86°11'20", in SE$^1/_4$SE$^1/_4$NE$^1/_4$ sec.16, T.29 N., R.3 E., Fulton County, Hydrologic Unit 05120106 (MACY, IN quadrangle). The gage is on the northwest shore of the southern lobe of the lake, at the public access site, and 2.4 mi south of Greenoak.

SURFACE AREA.--104 acres.

DRAINAGE AREA.--7.59 mi^2.

PERIOD OF RECORD.--1946 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--790.00 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.--3.91 ft gage datum or 793.91 ft above National Geodetic Vertical Datum of 1929 as decreed on September 27, 1948, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest.

INLET AND OUTLET.--The lake is fed by two small ditches entering from the east and northeast. The outlet flows from the lake at the southwest corner and into Mud Creek, which eventually joins the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.13 ft Aug. 18, 1990; minimum stage, 2.98 ft Oct. 12-19, 25, 26, 1953.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.87	4.28	4.14	4.07	4.18	4.18	---	4.35	3.88	4.11	3.89	4.18
10	3.83	4.22	4.03	4.12	4.18	4.19	4.43	4.18	3.96	4.08	4.17	4.19
15	4.40	4.17	4.28	4.14	4.19	4.19	4.50	3.90	3.95	4.13	4.15	4.20
20	4.02	4.12	4.27	4.13	4.18	4.19	4.60	4.06	4.04	4.13	4.10	3.92
25	4.33	4.11	4.18	4.15	4.18	---	4.56	4.06	4.06	4.14	4.13	4.15
EOM	4.30	4.36	4.09	4.17	4.19	---	4.34	4.05	4.08	3.87	4.17	4.13

03371700 OGLE LAKE NEAR NASHVILLE, IN

LOCATION.--Lat 39°09'35", long 86°14'54", in NE$^1/_4$SE$^1/_4$NE$^1/_4$ sec.1, T.8 N., R.2 E., Brown County, Hydrologic Unit 05120208 (NASHVILLE, IN quadrangle). The gage is on the dam, near the concrete intake structure of the Water Treatment Plant on the west side of the lake, 3.3 mi south of Nashville.

SURFACE AREA.--20 acres.

DRAINAGE AREA.--1.03 mi^2.

PERIOD OF RECORD.--1954 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--710.00 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.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete flood spillway with a fixed crest.

INLET AND OUTLET.--Two ditches enter the lake, one from the east and one from the southeast. The outlet flows into Upper Schooner Creek, which joins Lower Schooner Creek, then flows into the North Fork of Salt Creek. The North Fork of Salt Creek empties into Monroe Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.80 ft June 23, 1960; minimum stage, -2.70 ft Feb. 12, 13, 1977.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.74	4.55	4.61	4.56	4.62	4.66	4.65	4.61	4.58	4.30	3.54	2.76
10	3.66	4.54	4.60	4.57	4.62	4.74	4.66	4.71	4.54	4.20	3.33	2.65
15	4.52	4.52	4.72	4.56	4.58	4.70	4.73	4.69	4.53	4.03	3.20	2.59
20	4.59	4.51	4.66	4.56	4.66	4.79	4.63	4.58	4.42	3.98	3.16	2.74
25	4.72	4.56	4.61	4.59	4.64	4.81	4.78	4.62	4.29	3.86	3.07	2.64
EOM	4.57	4.80	4.58	4.93	4.65	4.65	4.68	4.60	4.41	3.69	2.94	2.71

WTR YR 2002 MEAN 4.27 MAX 5.29 MIN 2.51

04100100 OLIVER LAKE NEAR VALENTINE, IN

LOCATION.--Lat 41°34'37", long 85°24'44", in SE$^1/_4$SW$^1/_4$NE$^1/_4$ sec.18, T.36 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (OLIVER LAKE, IN quadrangle). The gage is at the public access site on the northwest side of the lake, and 1.6 mi southwest of Valentine.

SURFACE AREA.--362 acres.

DRAINAGE AREA.--11.1 mi^2.

PERIOD OF RECORD.--1945 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--889.78 ft above National Geodetic Vertical Datum of 1929 as corrected on the basis of levels of Indiana Department of Natural Resources, 1975-76.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxillary staff gage is attached to the dam in the outlet.

ESTABLISHED LEGAL LEVEL.--9.45 ft gage datum or 899.45 ft above National Geodetic Vertical Datum of 1929 as decreed on September 29, 1952, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 9.45 ft gage datum or 899.23 ft above National Geodetic Vertical Datum of 1929. Martin and Olin Lakes near Valentine have the same established level as Oliver Lake and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed sill and dam with movable boards.

INLET AND OUTLET.--The lake has several inlets. Dove Creek enters on the northwest, the outlet of Holsinger Hole on the north, Hart Ditch on the east, and the channel between Oliver and Olin Lakes on the southeast shore. The Oliver Lake outlet flows from the southwest lobe of the lake, through a wetland, into Hackenburg Lake 1.6 mi downstream, and eventually into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.77 ft June 14, 1981; minimum stage, 8.42 ft Jan. 18, 19, and Feb. 3-5, 1961.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.51	9.62	9.69	9.48	9.80	9.63	9.76	9.55	9.69	9.37	9.43	9.28
10	9.49	9.57	9.60	9.50	9.63	9.82	9.80	9.64	9.56	9.39	9.34	9.23
15	9.80	9.57	9.66	9.52	9.57	9.64	9.68	10.35	9.51	9.34	9.33	9.19
20	9.68	9.56	9.67	9.51	9.66	9.59	9.66	9.96	9.47	9.38	9.34	9.26
25	9.79	9.77	9.58	9.52	9.62	9.57	9.58	9.65	9.46	9.33	9.37	9.21
EOM	9.64	9.84	9.50	10.00	9.60	9.68	9.58	9.61	9.41	9.49	9.32	9.25

WTR YR 2002 MEAN 9.56 MAX 10.59 MIN 9.18

WABASH RIVER BASIN

03331180 PALESTINE LAKE AT PALESTINE, IN

LOCATION.--Lat 41°10'48", long 85°56'54", in NE$^1/_4$NE$^1/_4$SW$^1/_4$ sec.33, T.32 N., R.5 E., Kosciusko County, Hydrologic Unit 05120106 (BURKET, IN quadrangle). The gage is near the extreme northwestern corner of the lake, at the public access site, in the town of Palestine.

SURFACE AREA.--290 acres.

DRAINAGE AREA.--32.4 mi^2.

PERIOD OF RECORD.--1954 to October 1, 2002 (discontinued).

DATUM OF GAGE.--815.00 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.--1.62 ft gage datum or 816.62 ft above National Geodetic Vertical Datum of 1929 as decreed on August 5, 1965, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an old mill dam of stone and concrete (fixed crest) at the west lobe of the far northern shore.

INLET AND OUTLET.--There are four inlets to the lake. Magee Ditch enters from the north, Williamson Ditch from the west and the confluence of Adams and Sloan Ditches from the southeast. Trimble Creek flows through the lake, entering on the extreme southeastern end, leaving at the northwestern lobe and flowing into the Tippecanoe River 7.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.35 ft June 13, 1981; minimum stage, below -0.90 ft, lake drained, 1988.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	1.90	2.05	2.03	2.14	2.03	1.97	1.83	1.79	1.76
10	---	---	1.94	1.90	1.96	2.33	2.32	2.11	1.93	1.83	1.77	1.71
15	---	---	2.14	1.90	1.93	2.03	2.18	2.18	1.91	1.79	1.80	1.69
20	---	---	2.10	1.88	2.02	2.00	2.07	2.04	1.91	1.80	1.83	1.79
25	---	---	1.96	1.89	1.98	2.00	2.03	1.99	1.91	1.76	1.83	1.77
EOM	---	---	1.90	2.51	1.95	2.35	2.07	1.97	1.84	1.84	1.79	1.77

03331040 PIKE LAKE AT WARSAW, IN

LOCATION.--Lat 41°15'44", long 85°51'00", in NE$^1/_4$NW$^1/_4$NE$^1/_4$ sec.5, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the extreme northwestern point of the lake at the bridge over the outlet, 1.6 mi north of Warsaw.

SURFACE AREA.--203 acres.

DRAINAGE AREA.--41.5 mi^2.

PERIOD OF RECORD.--1954 to Oct. 1, 2002 (discontinued).

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 attached to the upstream abutment of the control structure.

ESTABLISHED LEGAL LEVEL.--5.64 ft gage datum or 805.64 ft above National Geodetic Vertical Datum of 1929 as decreed on December 12, 1963, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and removable boards.

INLET AND OUTLET.--The one inlet, Deeds Creek, flows from Little Chapman Lake 3.4 mi upstream, and enters the lake on the lower northern shore. The outlet flows to the west from the extreme northern end of the lake through Lones Ditch and enters the Tippecanoe River 0.9 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.79 ft Oct. 15, 1954; minimum stage, 3.71 ft Sept. 21, 22, 1955.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.97	6.19	5.49	5.72	6.25	5.80	6.44	6.10	6.03	5.75	5.69	5.63
10	4.90	5.78	5.47	5.12	5.96	6.49	6.96	6.36	5.93	5.74	5.65	5.69
15	6.83	5.48	5.78	5.00	5.67	5.99	6.82	7.23	5.95	5.69	5.68	5.64
20	7.23	5.16	6.15	4.95	5.67	5.75	6.44	6.95	5.86	5.69	5.74	5.76
25	7.63	5.04	5.87	4.93	5.51	5.55	6.18	6.35	5.84	5.71	5.69	5.67
EOM	6.70	5.49	5.80	5.93	5.47	6.25	6.10	6.08	5.81	5.77	5.63	5.68

WTR YR 2002 MEAN 5.88 MAX 7.64 MIN 4.84

ILLINOIS RIVER BASIN

05515220 PINE LAKE AT LAPORTE, IN

LOCATION.--Lat 41°37'01", long 86°44'58", in NE$^1/_4$SE$^1/_4$NW$^1/_4$ sec.34, T.37 N., R.3 W., LaPorte County, Hydrologic Unit 07120001 (LAPORTE EAST, IN quadrangle). The gage is at the highway bridge over the channel connecting Pine and Stone Lakes, on Waverly Beach Road, in LaPorte.

SURFACE AREA.--564 acres.

DRAINAGE AREA.--10.7 mi^2.

PERIOD OF RECORD.--1946-75, 1980 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--780.00 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1964, the datum of the gage was 790.00 ft. All levels given below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed at the same site.

ESTABLISHED LEGAL LEVEL.--16.20 ft gage datum or 796.20 ft above National Geodetic Vertical Datum of 1929, as decreed on August 31, 1949, by the LaPorte County Circuit Court. Stone Lake at LaPorte has the same established level and hence the same lake levels during the periods of record when the channel between the two lakes is open and flowing, water years 1946-63 and 1968-85.

LAKE-LEVEL CONTROL.--Pine and Stone Lakes form a closed basin; however, there is a capability of pumping water from the lakes into the Little Kankakee River during times of high water.

INLET AND OUTLET.--Kabelin Ditch enters Pine Lake from the northwest through a large drain tile. Pine Lake is connected to Stone Lake by a channel on the southern tip.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 20.98 ft June 2, 3, 1993; minimum stage, 9.00 ft Nov. 14, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.65	17.14	17.09	17.00	17.16	17.40	17.55	17.72	17.97	17.68	17.38	16.97
10	16.59	17.11	17.04	17.02	17.13	17.54	17.67	17.81	17.93	17.58	17.23	16.91
15	16.95	17.09	17.05	17.00	17.10	17.53	17.66	18.03	17.89	17.45	17.19	16.80
20	17.01	17.06	17.07	16.99	17.22	17.51	17.75	18.03	17.81	17.37	17.17	16.79
25	17.14	17.04	17.06	16.99	17.24	17.49	17.74	18.04	17.85	17.42	17.13	16.70
EOM	17.06	17.08	17.01	17.15	17.26	17.50	17.76	18.02	17.78	17.37	17.02	16.64

WTR YR 2002 MEAN 17.31 MAX 18.08 MIN 16.50

05515800 RIDDLES LAKE NEAR LAKEVILLE, IN

LOCATION.--Lat 41°30'19", long 86°15'31", in NW$^1/_4$NE$^1/_4$ sec.11, T.35 N., R.2 E., St. Joseph County, Hydrologic Unit 07120001 (LAKEVILLE, IN quadrangle). The gage is on the east side of the lake, about 1.4 mi southeast of Lakeville.

SURFACE AREA.--77 acres.

DRAINAGE AREA.--11.7 mi^2.

PERIOD OF RECORD.--1946-71, 1976 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--810.00 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 attached to a wingwall of the control dam.

ESTABLISHED LEGAL LEVEL.--7.50 ft gage datum or 817.50 ft above National Geodetic Vertical Datum of 1929 as decreed on July 3, 1953, by the St. Joseph County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel and concrete dam with a fixed crest. Boards may be added to raise the water level.

INLET AND OUTLET.--Heston Ditch flows through the lake, entering on the northern shore and leaving on the southern. The outflow eventually enters Yellow River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.49 ft Apr. 5, 1950; minimum stage, 6.40 ft July 25-31, Aug. 1- 9, 22-31, Sept. 1-30, 1971.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.97	7.12	---	---	7.28	7.24	7.30	7.14	7.16	6.95	7.12	6.90
10	6.94	7.09	---	---	7.21	7.42	7.35	7.26	7.12	6.94	7.06	6.86
15	7.21	7.10	---	---	7.17	7.26	7.18	7.37	7.13	6.86	7.03	6.79
20	7.13	7.07	---	---	7.33	7.18	7.33	7.22	7.08	6.93	7.03	6.85
25	7.17	7.09	---	---	7.21	7.16	7.26	7.15	7.08	7.08	7.01	6.81
EOM	7.09	---	---	---	7.18	7.25	7.20	7.12	7.04	7.23	6.94	6.79

WABASH RIVER BASIN

03330300 RIDINGER LAKE NEAR PIERCETON, IN

LOCATION.--Lat 41°15'07", long 85°39'34", in SW$^1/_4$SW$^1/_4$SE$^1/_4$ sec.1, T.32 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (NORTH WEBSTER, IN quadrangle). The gage is on the inlet channel, attached to the Adams Road bridge, 0.4 mi upstream from the lake and 4.4 mi northeast of Pierceton.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--34.6 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--840.00 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 attached to the right downstream wingwall of the bridge. An auxiliary staff gage in two sections is at the control dam.

ESTABLISHED LEGAL LEVEL.--3.12 ft gage datum or 843.12 ft above National Geodetic Vertical Datum of 1929, as decreed on April 11, 1949, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and a sluice-way with a steel gate for controlling high water. The dam is located in the outlet, 300 ft downstream from the lake.

INLET AND OUTLET.--Grassy Creek flows through the lake, entering at the southwestern end. Grassy Creek is formed 1.5 mi upstream by the outlet of Robinson Lake and Cedar Lake Branch. Grassy Creek leaves the lake at the northwestern end and flows into Big Barbee Lake, 3.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.01 ft Feb. 24, 1985; minimum stage, 1.35 ft Jan. 17-19, 1944.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.94	2.83	2.95	2.86	3.11	2.97	3.18	2.91	2.84	2.54	2.53	2.53
10	2.83	2.76	2.80	2.69	2.87	3.61	3.45	3.18	2.69	2.55	2.50	2.49
15	4.18	2.74	3.39	2.69	2.76	2.95	3.15	3.36	2.67	2.53	2.53	2.48
20	3.25	2.72	3.22	2.66	3.03	2.81	3.13	2.95	2.60	2.53	2.57	2.62
25	3.77	3.00	2.88	2.66	2.87	2.80	2.95	2.82	2.66	2.53	2.53	2.48
EOM	2.94	3.80	2.86	4.27	2.79	3.61	3.07	2.82	2.57	2.59	2.49	2.49

WTR YR 2002 MEAN 2.89 MAX 4.76 MIN 2.48

03330460 SAWMILL LAKE NEAR NORTH WEBSTER, IN

LOCATION.--Lat 41°17'22", long 85°42'52", in NE$^1/_4$SW$^1/_4$NE$^1/_4$ sec.28, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (NORTH WEBSTER, IN quadrangle). The gage is near the southeastern corner of the county road bridge over the channel between Big Barbee Lake and Little Barbee Lake, 2.6 mi southwest of North Webster.

SURFACE AREA.--36 acres.

DRAINAGE AREA.--51.8 mi^2.

PERIOD OF RECORD.--1945-1970, 1972 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--830.00 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 attached to the stilling well.

ESTABLISHED LEGAL LEVEL.--7.50 ft gage datum or 837.50 ft above National Geodetic Vertical Datum of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court. All lakes in the Barbee Chain have the same established level and hence the same lake levels for the period of record. The lakes are as follows: Kuhn, Big Barbee, Little Barbee, Irish, Banning, Sechrist and Sawmill.

LAKE-LEVEL CONTROL.--The level of the lakes is controlled by a concrete dam with a fixed crest, located 600 ft upstream of the County Road 500 North bridge over the outlet of Sawmill Lake.

INLET AND OUTLET.--There are four inlets to the Barbee Chain. Grassy Creek flows into Big Barbee Lake at the southeastern side. The outlet of Heron Lake flows into Kuhn Lake from the north. Puntney Ditch enters Little Barbee Lake from the south. The outlet from Shoe Lake flows into Banning Lake on the northeastern shore. The outlet, Grassy Creek, leaves Sawmill Lake at the northwestern tip and flows into Tippecanoe Lake 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.53 ft Mar. 20, 1982; minimum stage, 5.45 ft Jan. 29-31, Feb. 1-28, Mar. 1, 2, 1978.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.41	7.87	7.84	7.47	8.24	7.77	8.21	7.84	7.81	7.30	7.29	7.21
10	7.44	7.59	7.62	7.45	7.81	8.13	8.34	7.99	7.64	7.31	7.19	7.18
15	8.85	7.52	7.83	7.45	7.60	7.89	8.26	8.91	7.54	7.25	7.19	7.13
20	8.84	7.47	8.20	7.43	7.62	7.65	8.07	8.54	7.42	7.24	7.30	7.24
25	8.93	7.49	7.82	7.44	7.67	7.58	7.93	8.12	7.45	7.24	7.33	7.16
EOM	8.27	7.84	7.56	7.96	7.61	8.04	7.95	7.91	7.39	7.33	7.24	7.17

WTR YR 2002 MEAN 7.70 MAX 9.09 MIN 7.11

03331120 SHERBURN LAKE NEAR PIERCETON, IN

LOCATION.--Lat 41°09'40", long 85°44'43", in SE$^1/_4$SE$^1/_4$SE$^1/_4$ sec.4, T.31 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (PIERCETON, IN quadrangle). The gage is at the extreme northern end of the lake on the outlet channel just south of County Road 500 South, 3.4 mi southwest of Pierceton.

SURFACE AREA.--15 acres.

DRAINAGE AREA.--5.51 mi^2.

PERIOD OF RECORD.--1954 to Oct. 1, 2002 (discontinued). (Formerly published as Johnson Lake near Pierceton.)

DATUM OF GAGE.--870.00 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1980, the datum of the gage was 880.00 ft. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed just south of the western lobe of the lake, 400 ft south of County Road 500 South on the first drive west of the outlet.

ESTABLISHED LEGAL LEVEL.--11.00 ft gage datum or 881.00 ft above National Geodetic Vertical Datum of 1929 as decreed on December 19, 1974, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the invert of the culvert under the first east-west road north of the lake.

INLET AND OUTLET.--The one inlet flows from Sellers Lake 0.35 mi upstream. The outlet flows from the northern shore through Wyland Ditch and into Winona Lake 6.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.34 ft Dec. 30, 1990; minimum stage, 8.60 ft Sept. 27, 1999.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.11	10.19	10.38	9.59	11.10	10.54	11.04	10.54	9.71	9.16	9.29	8.96
10	9.40	9.89	9.94	9.52	10.28	11.50	11.39	10.65	9.49	9.15	9.09	8.91
15	11.88	9.55	10.77	9.51	9.73	10.66	11.05	11.47	9.48	9.04	9.05	8.86
20	11.18	9.51	11.28	9.30	10.18	10.15	10.19	10.66	9.31	9.05	9.22	8.98
25	12.03	9.86	10.45	9.37	10.15	9.88	10.02	9.99	9.21	9.40	9.14	8.96
EOM	10.63	10.51	9.86	11.62	9.99	11.48	10.58	10.10	9.25	9.58	9.02	8.99

WTR YR 2002 MEAN 9.98 MAX 12.25 MIN 8.85

04099740 SHIPSHEWANA LAKE NEAR SHIPSHEWANA, IN

LOCATION.--Lat 41°40'53", long 85°36'03", in SE$^1/_4$NE$^1/_4$NE$^1/_4$ sec.9, T.37 N., R.8 E., Lagrange County, Hydrologic Unit 04050001 (SHIPSHEWANA, IN quadrangle). The gage is on the south shore of the lake at the public access site, 1.1 mi northwest of Shipshewana.

SURFACE AREA.--202 acres.

DRAINAGE AREA.--6.74 mi^2.

PERIOD OF RECORD.--1951 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--850.00 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 attached to a wingwall of the control dam at the extreme eastern end of the lake.

ESTABLISHED LEGAL LEVEL.--2.04 ft gage datum or 852.04 ft above National Geodetic Vertical Datum of 1929 as decreed on March 8, 1956, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a sheet piling dam with a fixed crest at three elevations.

INLET AND OUTLET.--The principal inlet enters on the southern shore from Cotton Lake 2.0 mi upstream. Another small ditch enters on the western shore. The outlet is on the extreme eastern tip of the lake and flows to the northeast through Page Ditch, which empties into Pigeon River, 6.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.33 ft Mar. 20, 1982; minimum stage, 1.39 ft Sept. 19-22, 1955.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.41	2.49	2.46	2.40	2.73	2.55	2.58	2.47	2.70	2.28	2.30	2.12
10	2.37	2.44	2.42	2.39	2.64	2.62	2.64	2.55	2.65	2.30	2.21	2.10
15	2.58	2.42	2.48	2.39	2.55	2.58	2.57	2.91	2.56	2.24	2.22	2.05
20	2.60	2.39	2.51	2.38	2.57	2.51	2.61	2.81	2.46	2.20	2.22	2.09
25	2.60	2.40	2.47	2.38	2.53	2.47	2.53	2.68	2.41	2.23	2.25	2.05
EOM	2.51	2.48	2.43	2.67	2.51	2.50	2.52	2.57	2.36	2.30	2.18	2.05

WTR YR 2002 MEAN 2.44 MAX 3.01 MIN 2.05

WABASH RIVER BASIN

03330380 SHOE LAKE NEAR OSWEGO, IN

LOCATION.--Lat 41°18'32", long 85°45'10", in SE$^1/_4$SW$^1/_4$SE$^1/_4$ sec.18, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the extreme western end of the lake on County Road 475 East, 2.0 mi southeast of Oswego.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--0.34 mi^2.

PERIOD OF RECORD.--1946-52, 1972-74, 1977 to October 1, 2002 (discontinued).

DATUM OF GAGE.--830.00 ft above National Geodetic Vertical Datum of 1929. Prior to 1972, the datum of the gage was 840.00 ft above sea level. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--11.57 ft gage datum or 841.57 ft above National Geodetic Vertical Datum of 1929 as decreed on October 18, 1948, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by removable boards placed in wooden support posts in the outlet channel, upstream of the culvert under County Road 450 North.

INLET AND OUTLET.--There is no inlet except for small drainage ditches. The outlet leaves the lake at the southeastern end and flows into Banning Lake 0.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.99 ft May 16-18, 2002; minimum stage, 10.46 ft Sept. 9, 10, 2000.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.93	12.37	12.42	12.24	12.35	12.27	12.53	12.72	12.92	12.60	12.22	11.81
10	11.88	12.36	12.35	12.24	12.30	12.32	12.64	12.79	12.88	12.53	12.09	11.72
15	12.17	12.36	12.38	12.23	12.24	12.31	12.67	12.96	12.84	12.42	12.02	11.63
20	12.22	12.36	12.38	12.20	12.30	12.31	12.65	12.89	12.79	12.33	12.04	11.71
25	12.32	12.37	12.32	12.19	12.27	12.35	12.66	12.88	12.76	12.27	12.05	11.62
EOM	12.33	12.47	12.26	12.42	12.26	12.44	12.71	12.87	12.70	12.31	11.92	11.56

WTR YR 2002 MEAN 12.35 MAX 12.99 MIN 11.56

03327650 SHRINER LAKE AT TRI-LAKES, IN

LOCATION.--Lat 41°14'37", long 85°26'24", in SE$^1/_4$SW$^1/_4$NW$^1/_4$ sec.12, T.32 N., R.9 E., Whitley County, Hydrologic Unit 05120104 (COLUMBIA CITY, IN quadrangle). The gage is at the head of outlet channel at the east end of the lake, 6.2 mi northeast of Columbia City.

SURFACE AREA.--111 acres.

DRAINAGE AREA.--0.94 mi^2.

PERIOD OF RECORD.--1943-74, 1976-78, 1980 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--900.19 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 in one section is attached to the concrete head wall at the outlet.

ESTABLISHED LEGAL LEVEL.--7.04 ft gage datum or 907.04 ft above National Geodetic Vertical Datum of 1929 as decreed on May 22, 1949, by the Whitley County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 7.04 ft gage datum or 907.23 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam in the outlet channel 300 ft downstream of the lake.

INLET AND OUTLET.--A ditch from Catfish Lake, 650 ft upstream, enters at the extreme western end of the lake. Two small ditches enter on the southern shore. The outlet is a dredged channel at the eastern edge of the lake that empties into Round Lake 930 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.26 ft Dec. 31, 1990; minimum stage, 5.44 ft Dec. 9-11, 23-30, 1944.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.66	7.06	6.95	6.74	7.10	6.92	7.21	7.00	7.00	6.63	6.35	6.12
10	6.67	6.90	6.86	6.73	6.96	7.11	7.30	7.07	6.91	6.58	6.23	6.07
15	7.41	6.82	7.02	6.70	6.86	7.04	7.28	7.30	6.86	6.47	6.28	5.99
20	7.21	6.76	7.11	6.67	6.88	6.97	7.14	7.12	6.80	6.40	6.30	6.07
25	7.37	6.77	6.94	6.67	6.85	6.95	7.04	7.06	6.76	6.31	6.29	5.97
EOM	7.14	7.05	6.81	7.14	6.83	7.16	7.05	6.97	6.72	6.41	6.19	5.99

WTR YR 2002 MEAN 6.79 MAX 7.47 MIN 5.96

03328350 SILVER LAKE AT SILVER LAKE, IN

LOCATION.--Lat 41°04'49", long 85°54'29", in SE$^1/_4$SE$^1/_4$NE$^1/_4$ sec.1, T.30 N., R.5 E., Kosciusko County, Hydrologic Unit 05120104 (SILVER LAKE, IN quadrangle). The gage is located at the outlet channel on the east side of the lake, on the upstream side of the control structure and 1.1 mi northwest of the town of Silver Lake.

SURFACE AREA.--102 acres.

DRAINAGE AREA.--6.31 mi^2.

PERIOD OF RECORD.--1947 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--859.85 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1974.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to the dam.

ESTABLISHED LEGAL LEVEL.--1.73 ft gage datum or 861.73 ft above National Geodetic Vertical Datum of 1929 as decreed on September 20, 1948, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 1.73 ft gage datum or 861.58 ft above National Geodetic Vertical Datum of 1929. North Little Lake at Silver Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--The outlet from North Little Lake enters from the north and two ditches enter from the east and southeast. The outlet leaves from the western side and flows into South Little Lake, then into Silver Creek, which joins Eel River 12 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.80 ft Dec. 10, 1966; minimum stage, -0.20 ft Sept. 21, 1959.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.59	1.63	1.62	1.62	1.68	1.63	1.69	1.68	1.70	1.41	1.44	1.35
10	1.60	1.60	1.57	1.62	1.61	1.80	1.82	1.72	1.59	1.37	1.35	1.30
15	1.95	1.59	1.74	1.60	1.56	1.64	1.75	1.77	1.55	1.30	1.40	1.22
20	1.74	1.56	1.74	1.59	1.66	1.59	1.63	1.67	1.51	1.30	1.47	1.35
25	1.92	1.57	1.62	1.52	1.62	1.59	1.61	1.63	1.48	1.40	1.47	1.30
EOM	1.67	1.79	1.62	2.09	1.59	1.83	1.69	1.64	1.46	1.53	1.40	1.30

WTR YR 2002 MEAN 1.59 MAX 2.14 MIN 1.20

04099880 SIMONTON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°45'05", long 85°57'28", in NE$^1/_4$NE$^1/_4$NW$^1/_4$ sec.16, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001 (ELKHART, IN quadrangle). The gage is on the southern shore between the two large lobes of the lake, at the public access site, 4.5 mi north of the main Post Office in Elkhart.

SURFACE AREA.--303 acres.

DRAINAGE AREA.--7.44 mi^2.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--770.00 ft above 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, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.67	3.00	2.98	2.93	2.99	3.01	2.97	---	---	2.71	2.45	2.18
10	2.64	2.97	2.95	2.92	2.97	3.02	3.01	---	---	2.75	2.33	2.10
15	2.90	2.98	2.99	2.91	2.94	3.01	2.98	---	2.91	2.64	2.34	2.01
20	2.95	2.96	2.97	2.90	3.00	2.98	2.96	---	2.88	2.59	2.40	2.11
25	2.98	2.95	2.96	2.89	2.98	2.96	2.92	---	2.88	2.50	2.38	2.04
EOM	2.95	3.02	2.94	3.06	2.98	2.98	2.93	---	2.83	2.49	2.27	2.01

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100300 SKINNER LAKE NEAR ALBION, IN

LOCATION.--Lat 41°24"12", long 85°22'37", in SE$^1/_4$SE$^1/_4$NW$^1/_4$ sec.16, T.34 N., R.10 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is on the upstream side of the bridge over the outlet channel on the northwest lobe of the lake, and 2.5 mi northeast of Albion.

SURFACE AREA.--125 acres.

DRAINAGE AREA.--14.0 mi^2.

PERIOD OF RECORD.--1945-72, 1976 to October 1, 2002 (discontinued).

DATUM OF GAGE.--920.00 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 channel bed at the same site.

ESTABLISHED LEGAL LEVEL.--7.74 ft gage datum or 927.74 ft above National Geodetic Vertical Datum of 1929, as decreed on August 31, 1955, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--Rimmell Branch enters the lake on the southern shore, a small ditch enters on the southeast tip, and the outlet channel of Sweet Lake flows into the lake from the northeast. The outlet, Croft Ditch, flows from the lake on the south shore of the northwest lobe, and into the South Branch of the Elkhart River 5.6 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.60 ft Apr. 5, 1950; minimum stage, 6.14 ft Oct. 16, 17, 1946.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.84	7.94	7.98	7.88	8.09	8.03	8.23	7.95	7.99	7.78	7.73	7.64
10	7.84	7.93	7.91	7.85	7.97	8.44	8.45	8.21	7.91	7.79	7.66	7.60
15	8.45	7.87	8.28	7.86	7.93	8.01	8.18	8.32	7.86	7.75	7.69	7.55
20	8.07	7.85	8.13	7.84	8.02	7.94	8.16	8.01	7.85	7.78	7.76	7.69
25	8.34	7.93	7.95	7.86	7.96	7.93	7.98	7.95	7.85	7.73	7.74	7.64
EOM	7.97	8.42	7.92	8.81	7.93	8.44	8.01	7.90	7.83	7.76	7.69	7.69

WTR YR 2002 MEAN 7.96 MAX 9.54 MIN 7.53

03330140 SMALLEY LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat 41°18'52", long 85°35'04", in SW$^1/_4$NW$^1/_4$SE$^1/_4$ sec.15, T.33 N., R.8 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is located at the public access site on the south side of the outlet channel, 300 ft upstream from the first bridge over the outlet, and 0.9 mi southeast of Washington Center.

SURFACE AREA.--69 acres.

DRAINAGE AREA.--27.1 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

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 24-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a riffle in the outlet channel 500 ft below the lake.

INLET AND OUTLET.--The Tippecanoe River flows through the lake, entering at the south end from Big Lake, 4.2 mi upstream, and flowing from the lake at the northwestern end into Baugher Lake, 1.2 mi downstream. Another inlet enters on the north shore from Gilbert Lake 0.9 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.00 ft Mar. 24, 1978; minimum stage, 1.10 ft Aug. 7, 1963.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.78	3.18	3.49	2.33	4.00	3.04	4.12	3.01	2.34	1.96	2.12	2.29
10	2.95	2.93	2.93	2.30	2.91	3.91	4.31	3.29	2.17	2.14	1.91	2.36
15	5.09	2.69	3.60	2.28	2.55	3.28	4.30	4.50	2.03	2.23	1.87	2.39
20	4.30	2.54	4.11	2.22	2.64	2.72	3.80	3.35	1.93	2.32	2.05	2.59
25	4.72	3.10	3.10	2.20	2.76	2.56	3.52	2.63	1.84	2.29	2.17	2.53
EOM	3.47	3.83	2.55	3.53	2.61	3.92	3.48	2.54	1.80	2.27	2.24	2.58

WTR YR 2002 MEAN 2.88 MAX 5.18 MIN 1.77

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099780 STONE LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°44'32", long 85°39'03", in SE$^1/_4$SE$^1/_4$SW$^1/_4$ sec.18, T.38 N., R.8 E., Lagrange County, Hydrologic Unit 04050001 (MIDDLEBURY, IN quadrangle). The gage is on the southeast shore of the lake approximately 200 ft west of the intersection of County Road 1150 West and the lake access road, and 5.4 mi northeast of Middlebury.

SURFACE AREA.--152 acres.

DRAINAGE AREA.--1.51 mi^2.

PERIOD OF RECORD.--1954-71, 1975-76, 1978 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--810.00 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.--8.76 ft gage datum or 818.76 ft above National Geodetic Vertical Datum of 1929 as decreed on July 28, 1966, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete sill.

INLET AND OUTLET.--The inlet enters on the eastern end of the south shore from Brokesha Lake 0.2 mi upstream. The outlet flows from the lake at the northern shore.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.60 ft Apr. 16-30, 1969; minimum stage, 5.34 ft Nov. 26, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.92	7.50	7.51	7.53	7.78	7.93	8.01	8.02	8.53	8.22	7.66	7.04
10	7.33	7.46	7.50	7.53	7.76	8.07	8.11	8.14	8.52	8.32	7.40	7.01
15	7.62	7.46	7.61	7.51	7.75	7.92	8.03	8.31	8.43	8.16	7.26	6.94
20	7.49	7.45	7.63	7.52	7.92	7.89	8.21	8.32	8.36	8.11	7.26	6.96
25	7.57	7.43	7.59	7.52	7.82	7.87	8.06	8.33	8.43	8.02	7.22	7.17
EOM	7.46	7.73	7.55	8.12	7.83	7.98	8.05	8.35	8.33	7.80	7.11	7.08

WTR YR 2002 MEAN 7.76 MAX 8.55 MIN 6.94

04100180 SYLVAN LAKE AT ROME CITY, IN

LOCATION.--Lat 41°29'53", long 85°22'38", in SE$^1/_4$SE$^1/_4$SW$^1/_4$ sec.9, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is on the lake outlet on the extreme western end of the lake, and at the northern edge of Rome City.

SURFACE AREA.--669 acres.

DRAINAGE AREA.--33.8 mi^2.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--907.00 ft above 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 north downstream wall of the footbridge.

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, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.15	9.47	9.53	9.31	9.97	9.53	10.10	9.41	9.45	9.11	9.04	9.01
10	9.14	9.35	9.41	9.27	9.64	9.79	10.13	9.61	9.34	9.11	8.99	8.99
15	9.91	9.29	9.56	9.27	9.47	9.71	9.95	10.27	9.25	9.05	9.03	8.98
20	9.91	9.27	9.80	9.26	9.46	9.52	9.72	9.92	9.20	9.07	9.10	9.15
25	9.89	9.31	9.57	9.25	9.45	9.44	9.51	9.55	9.26	9.02	9.14	9.09
EOM	9.62	9.52	9.38	9.68	9.44	9.71	9.47	9.38	9.21	9.09	9.06	9.12

WTR YR 2002 MEAN 9.42 MAX 10.34 MIN 8.98

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100460 SYRACUSE LAKE AT SYRACUSE, IN

LOCATION.--Lat 41°25'26", long 85°44'59", in SW$^1/_4$SW$^1/_4$ sec.5, T.34 N., R.7 E., Kosciusko County, Hydrologic Unit 04050001 (LAKE WAWASEE, IN quadrangle). The gage is at the southwestern end of the lake, on the south abutment of the dam, and just west of the State Road 13 bridge in the town of Syracuse.

SURFACE AREA.--414 acres.

DRAINAGE AREA.--38.2 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--849.85 ft above National Geodetic Vertical Datum of 1929 as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

GAGE.--A water-stage recorder is installed in a concrete shelter over a stilling well in the south abutment of the control structure. Two auxiliary staff gages are at the site. One is attached to the upstream side of the south abutment and the other is bolted to the seawall just west of the bridge over the outlet.

ESTABLISHED LEGAL LEVEL.--8.87 ft gage datum or 858.87 ft above National Geodetic Vertical Datum of 1929 as decreed on September 20, 1948, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.87 ft gage datum or 858.72 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with two steel lift gates.

INLET AND OUTLET.--The one inlet is the outlet channel from Lake Wawasee on the southern shore of the lake. The outlet, Turkey Creek, flows from the lake at the southwest end and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.15 ft Jan. 27, 28, 1950; minimum stage, 7.00 ft Nov. 19-21, 1953.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.64	8.97	8.83	8.79	9.03	9.10	9.00	8.62	9.05	8.84	8.64	8.40
10	8.55	8.93	8.75	8.65	9.07	9.16	9.07	8.61	9.07	8.88	8.54	8.32
15	8.87	8.89	8.80	8.57	9.13	9.13	9.02	8.87	8.98	8.79	8.52	8.27
20	8.97	8.86	8.89	8.49	9.17	9.05	8.99	8.88	8.94	8.76	8.53	8.35
25	9.04	8.77	8.86	8.49	9.16	8.97	8.85	8.87	8.97	8.69	8.54	8.28
EOM	9.01	8.81	8.79	8.82	9.16	8.90	8.76	8.92	8.94	8.70	8.48	8.26

WTR YR 2002 MEAN 8.81 MAX 9.18 MIN 8.26

03330480 TIPPECANOE LAKE AT OSWEGO, IN

LOCATION.--Lat 41°19'15", long 85°47'20", in NW$^1/_4$NE$^1/_4$NE$^1/_4$ sec.14, T.33 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the south side of the dam at the extreme southwest end of the lake, in the outlet channel, at Oswego.

SURFACE AREA.--768 acres.

DRAINAGE AREA.--113 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--830.00 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 attached to the upstream side of the south abutment of the dam.

ESTABLISHED LEGAL LEVEL.--6.40 ft gage datum or 836.40 ft above National Geodetic Vertical Datum of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court. James Lake at Oswego and Oswego Lake at Oswego have the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with multiple slide gates on the outlet channel of the lake.

INLET AND OUTLET.--The lake has two principal inlets. The Tippecanoe River flows from Webster Lake, enters James Lake, and flows into Tippecanoe Lake on the eastern side. The outlet from the Barbee Chain of Lakes enters from the southeast. The outlet, the Tippecanoe River, leaves the lake on the southwestern side.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.43 ft May 21, 1943; minimum stage, 4.90 ft Feb. 13-17, 1963.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.68	7.13	6.70	6.14	7.17	6.39	7.33	6.71	6.48	6.70	6.69	6.61
10	6.57	6.61	6.59	5.90	7.10	6.66	7.54	6.87	6.57	6.55	6.60	6.57
15	7.45	6.27	6.50	5.83	6.79	6.89	7.60	7.75	6.69	6.59	6.58	6.50
20	7.92	6.09	7.02	5.77	6.50	6.71	7.44	7.64	6.60	6.59	6.67	6.62
25	7.88	6.00	7.10	5.78	6.41	6.42	7.26	7.17	6.69	6.59	6.58	6.62
EOM	7.56	6.27	6.61	6.14	6.34	6.51	7.09	6.61	6.66	6.66	6.66	6.62

WTR YR 2002 MEAN 6.73 MAX 7.92 MIN 5.75

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100320 UPPER LONG LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°21'33", long 85°29'09", in NE$^1/_4$NE$^1/_4$SE$^1/_4$ sec.33, T.34 N., R.9 E., Noble County, Hydrologic Unit 04050001 (MERRIAM, IN quadrangle). The gage is on the northeast shore of the lake, at the northernmost boat slip, and 1.8 mi north-northeast of the town of Wolflake.

SURFACE AREA.--86 acres.

DRAINAGE AREA.--2.08 mi^2.

PERIOD OF RECORD.--1956 to Oct. 1, 2002 (discontinued).

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 staff gage is also located in the boat slip.

ESTABLISHED LEGAL LEVEL.--11.19 ft gage datum or 891.19 ft above National Geodetic Vertical Datum of 1929 as decreed on February 20, 1968, by Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by a fixed-sill concrete dam.

INLET AND OUTLET.--There is one inlet that enters the lake from the eastern side. The outlet flows to the north through Dollar Lake, and eventually into the South Branch Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.40 ft June 27, 1968; minimum stage, 9.95 ft May 11, 1970.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.44	11.54	11.55	11.41	11.86	11.82	11.52	11.49	11.64	11.37	11.39	11.36
10	11.49	11.48	11.47	11.41	11.74	12.08	11.60	11.59	11.56	11.42	11.34	11.36
15	11.91	11.47	11.63	11.42	11.63	11.68	11.54	11.74	11.53	11.38	11.40	11.34
20	11.68	11.46	11.65	11.40	11.71	11.41	11.55	11.62	11.49	11.39	11.48	11.48
25	11.81	11.64	11.49	11.41	11.72	11.40	11.45	11.60	11.46	11.38	11.45	11.40
EOM	11.57	11.77	11.42	11.87	11.70	11.54	11.47	11.62	11.42	11.42	11.38	11.40

WTR YR 2002 MEAN 11.53 MAX 12.12 MIN 11.31

03276800 VERSAILLES LAKE NEAR VERSAILLES, IN

LOCATION.--Lat 39°04'50", long 85°14'02", in NE$^1/_4$NE$^1/_4$SW$^1/_4$ sec.6, T.7 N., R.12 E., Ripley County, Hydrologic Unit 05090203 (MILAN, IN quadrangle). The gage is on the eastern side of the lake, on the downstream side of the bridge over Falling Timber Creek in Versailles State Park.

SURFACE AREA.--232 acres.

DRAINAGE AREA.--168 mi^2.

PERIOD OF RECORD.--1958 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--760.74 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A water-stage recorder installed in an aluminum shelter over a 12-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete spillway dam with a movable gate.

INLET AND OUTLET.--The inlets are Laughery Creek, Falling Timber Creek, and Cedar Creek. The outlet is Laughery Creek, which flows southeasterly and empties into the Ohio River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 36.43 ft Jan. 21, 1959, as determined by the U.S. Geological Survey from high-water marks during an indirect measurement of discharge; minimum stage, 18.05 ft Apr. 12, 1970.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.28	29.31	29.54	29.47	29.48	29.53	29.41	32.18	30.86	29.16	28.98	29.00
10	29.25	29.27	29.50	29.46	29.43	29.63	29.54	32.18	29.41	29.17	28.85	28.91
15	29.86	29.26	29.89	29.49	29.36	29.54	29.98	29.68	29.50	29.13	28.81	28.83
20	29.38	29.28	29.70	29.30	29.66	30.85	29.90	29.42	29.30	29.13	29.20	28.84
25	30.35	29.30	29.73	29.70	29.40	29.99	32.18	29.87	29.25	29.10	29.14	28.80
EOM	29.35	30.92	29.52	30.38	29.44	29.49	32.18	29.50	29.21	29.06	29.07	29.22

WTR YR 2002 MEAN 29.69 MAX 33.89 MIN 28.79

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100220 WALDRON LAKE NEAR COSPERVILLE, IN

LOCATION.--Lat 41°29'34", long 85°26'55", in SE$^1/_4$NW$^1/_4$NE$^1/_4$ sec.14, T.35 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is on a dredged channel at the public 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, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.75	6.50	6.40	5.81	7.30	6.57	7.54	6.52	6.86	5.64	5.70	5.56
10	5.76	6.10	6.16	5.63	7.11	7.11	7.86	6.62	6.66	5.50	5.59	5.46
15	6.55	5.81	6.34	5.57	6.74	7.11	7.80	8.03	6.40	5.60	5.58	5.36
20	6.89	5.60	6.80	5.48	6.54	6.83	7.46	8.09	6.20	5.63	5.67	5.47
25	7.06	5.80	6.60	5.44	6.49	6.52	7.09	7.62	6.13	5.68	5.71	5.62
EOM	6.81	6.23	6.16	6.33	6.42	6.85	6.82	7.00	5.98	5.76	5.64	5.69

WTR YR 2002 MEAN 6.33 MAX 8.15 MIN 5.33

05517600 WAUHOB LAKE NEAR VALPARAISO, IN

LOCATION.--Lat 41°32'02", long 87°02'42", in NW1/4NW1/4NW1/4 sec.31, T.36 N., R.5 W., Porter County, Hydrologic Unit 07120001 (CHESTERTON, IN quadrangle). The gage is on the northwest shore of the lake, 4.7 mi north of Valparaiso.

SURFACE AREA.--21 acres.

DRAINAGE AREA.--0.40 mi^2.

PERIOD OF RECORD.--1946 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--790.00 ft above National Geodetic Vertical Datum of 1929.

GAGE.--A staff gage in one section is driven into the lake bed, 75 ft from Arthur J. Knoblich's cottage. An auxiliary staff gage is 20 ft lakeward of the main gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The lake has one inlet entering on the northeast side from Mink Lake 0.3 mi upstream. The outlet flows from the southeast shore, southwesterly through a swamp to Canada Lake 0.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.40 Mar. 22, 23, 1998; minimum stage, 6.58 ft Sept. 17, 1964.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.27	10.92	10.47	10.20	10.43	10.54	10.67	10.72	10.61	10.05	9.66	9.34
10	10.31	10.78	10.41	10.21	10.40	10.90	10.84	10.82	10.50	9.95	9.54	9.24
15	10.79	10.64	10.39	10.18	10.34	10.80	10.82	11.26	10.40	9.83	9.48	9.18
20	11.10	10.58	10.38	10.16	10.39	10.69	10.80	11.12	10.30	9.74	9.48	9.16
25	11.10	10.50	10.34	10.15	10.45	10.60	10.77	11.00	10.17	9.77	9.48	9.25
EOM	10.93	10.49	10.26	10.30	10.45	10.58	10.81	10.79	10.15	9.70	9.38	9.20

WTR YR 2002 MEAN 10.31 MAX 11.26 MIN 9.14

WABASH RIVER BASIN

03330240 WEBSTER LAKE AT NORTH WEBSTER, IN

LOCATION.--Lat 41°19'09", long 85°41'20", in NE1/4SW1/4NW1/4 sec.14, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106 (NORTH WEBSTER, IN quadrangle). The gage is on the southwest side of the lake at the outlet, 0.3 mi northeast of the intersection of State Road 13 and County Road 550 North and approximately 0.6 mi southeast of the center of North Webster.

SURFACE AREA.--774 acres.

DRAINAGE AREA.--49.2 mi^2.

PERIOD OF RECORD.--1943 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--839.93 ft above National Geodetic Vertical Datum of 1929, as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxillary staff gage in one section is bolted to the southeast face of the concrete wall of the approach channel to the control dam.

ESTABLISHED LEGAL LEVEL.--12.75 ft gage datum or 852.75 ft above National Geodetic Vertical Datum of 1929 as decreed July 2, 1945, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 12.75 ft gage datum or 852.68 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete notch dam with seven adjustable gates at the head of the outlet channel. North of this dam is another which used to serve as a mill race. This dam has one metal gate.

INLET AND OUTLET.--The Tippecanoe River flows through Webster Lake, entering at the southeast end and leaving at the southwest side. The Tippecanoe River enters James Lake, 2.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.15 ft Feb. 11, 1984; minimum stage, 9.79 ft (during repair of the dam) Oct. 5, 1962.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.33	13.11	13.27	13.01	13.41	12.44	13.42	13.34	13.25	13.15	13.19	13.14
10	13.36	13.13	13.03	12.88	13.11	12.91	13.31	13.19	13.27	13.21	13.12	13.10
15	13.51	12.99	13.11	12.84	12.56	13.30	13.35	13.44	13.18	13.18	13.13	13.05
20	13.39	13.07	13.43	12.83	12.42	13.11	13.11	13.29	13.24	13.15	13.22	13.13
25	13.23	13.09	13.03	12.43	12.46	13.11	13.03	13.14	13.30	13.12	13.29	13.08
EOM	13.17	13.27	13.00	12.79	12.47	13.23	12.99	13.35	13.13	13.23	13.19	13.09

WTR YR 2002 MEAN 13.11 MAX 13.58 MIN 12.38

05514770 WHARTON LAKE NEAR SOUTH BEND, IN

LOCATION.--Lat 41°36'11", long 86°18'36", in NW$^1/_4$SW$^1/_4$NW$^1/_4$ sec.4, T.36 N., R.2 E., St. Joseph County, Hydrologic Unit 07120001 (LAKEVILLE, IN quadrangle). The gage is on the east side of the lake, in a channel west of a storage shed at the Calvert Rod and Gun Club property, and 5.7 mi northwest of Lakeville.

SURFACE AREA.--18 acres (measured on U.S. Geological Survey topographic map, scale 1:24000).

DRAINAGE AREA.--1.85 mi^2.

PERIOD OF RECORD.--1960-76, 1982 to Oct. 1, 2002 (discontinued).

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.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a 48-inch round concrete tile in the outlet channel.

INLET AND OUTLET.--The one inlet enters the lake on the southeastern shore and drains the immediately surrounding area. The outlet flows from the lake on the western shore, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.51 ft Jan. 8, 9, 10, 1989; minimum stage, 4.90 ft Oct. 2, 1991.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.25	7.08	7.00	6.88	7.28	7.27	7.40	7.09	7.01	6.24	6.14	---
10	6.19	6.98	6.95	7.00	7.16	7.58	7.42	7.18	6.88	6.20	5.85	---
15	6.97	6.96	7.08	6.95	7.03	7.27	7.20	7.57	6.91	5.95	5.77	---
20	6.97	6.95	7.07	6.85	7.18	7.13	7.19	7.24	6.77	6.07	5.74	---
25	7.07	6.95	6.96	6.92	7.13	7.09	7.16	7.19	6.65	5.96	5.67	---
EOM	6.94	7.11	6.92	7.59	7.11	7.36	7.22	7.01	6.47	6.12	---	---

WABASH RIVER BASIN

03331140 WINONA LAKE AT WARSAW, IN

LOCATION.--Lat 41°13'34", long 85°50'46", in NW$^1/_4$NE$^1/_4$SE$^1/_4$ sec.17, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (WARSAW, IN quadrangle). The gage is on the western side of the lake, 20 ft east of the dam on the northern side of the outlet channel, 1.0 mi south of Warsaw.

SURFACE AREA.--562 acres.

DRAINAGE AREA.--32.1 mi^2.

PERIOD OF RECORD.--1943-78, 1980 to Oct. 1, 2002 (discontinued).

DATUM OF GAGE.--800.10 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1977, the datum of the gage was 810.10 ft above NGVD of 1929 as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the stilling well.

ESTABLISHED LEGAL LEVEL.--11.06 ft gage datum or 811.06 ft above National Geodetic Vertical Datum of 1929 as decreed on June 17, 1949, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 11.06 ft gage datum or 811.16 ft above National Geodetic Vertical Datum of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam with steel lift gates.

INLET AND OUTLET.--There are three inlets to the lake. Wyland Ditch enters on the eastern shore from Sherburn Lake 6.7 mi upstream. Keefer-Evans Ditch enters on the southeastern shore and Paterson Ditch on the southwestern shore. The outlet, Eagle Creek, flows from the western lobe of the lake into Walnut Creek 1.4 mi downstream, thence into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.31 ft June 14, 1981; minimum stage, 9.40 ft Feb. 15, 1982.

LAKE LEVEL, in FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.03	10.07	10.02	9.89	10.30	10.09	10.29	10.88	11.15	10.95	10.95	10.82
10	11.06	9.94	9.94	9.87	10.04	10.35	10.45	11.19	11.16	10.94	10.85	10.80
15	11.48	9.91	10.14	9.87	9.96	10.14	10.33	11.48	11.20	10.87	10.87	10.79
20	11.13	9.89	10.28	9.83	10.03	10.01	10.15	11.09	11.12	10.88	10.97	10.93
25	11.44	9.88	10.05	9.83	10.03	10.00	10.06	10.99	11.06	10.92	10.92	10.86
EOM	10.65	10.07	9.97	10.32	9.97	10.38	10.17	11.23	11.00	11.02	10.85	10.85

WTR YR 2002 MEAN 10.54 MAX 11.63 MIN 9.83

For many years, records of the water-surface elevations of many of the lakes in Indiana have been collected by the Geological Survey under cooperative agreement with the Indiana Department of Natural Resources. Basic data for a few selected lakes have been published in WSP 1363, entitled "Hydrology of Indiana Lakes." Records which have not been published are available in the files of the District Office of the Geological Survey in Indianapolis, Indiana. In general, the records before 1976 were based on once-daily readings of a staff gage by a local observer and consist of daily, monthly, and yearly mean water-surface elevations. Starting in 1976, water-stage recorders were installed at many stations which had previously been nonrecording gages. Discharge measurements, made at the outflow, are also available in some instances.

The lakes for which records have been collected are listed by downstream order number in the following table. The established level, sometimes referred to as the legal level, is that elevation set by the courts to which the average level of the lake is to be held; it is normally set at about the average level that has prevailed for a number of years prior to the establishment of the level. Surface area and capacity of the lake is that surface area and capacity at the established level. Depth contour maps are only those surveyed by the Water Resources Division of the Geological Survey. The inclusive years that records of stage have been collected at a lake are shown in the last column. If records are still being collected on a current basis, there is no closing date shown.

Lakes in the Ohio River basin for which records are available

Station number	Lake	County	Drainage (square miles)	Surface area (acres)	Established level*	Capacity (acre-feet)	Contour map available	Records available
			LAUGHERY CREEK BASIN					
03276800	Versailles Lake near Versailles	Ripley	168.0	232	-------	------	-	1957-
			BAYOU DRAIN BASIN					
03322300	Hovey Lake near Mount Vernon	Posey	6.36	253	-------	------	-	1950-69
			WABASH RIVER BASIN					
03327550	Everett Lake at Levert	Allen	1.07	43	835.13	650	+	1946-66
03327600	Blue Lake near Churubusco	Whitley	3.58	239	850.28	5,010	+	1946-69, 1976-
03327650	Shriner Lake at Tri-Lakes	Whitley	.94	111	907.04	------	-	1943-
03327700	Cedar Lake at Tri-Lakes	Whitley	.79	131	901.90	------	-	1943-49
03327750	Round Lake at Tri-Lakes	Whitley	3.36	125	901.90	------	-	1943-53
03327800	Wilson Lake near Larwill	Whitley	.46	29	865.39	390	+	1946-52
03327850	Little Wilson Lake near Larwill	Whitley	.52	8	865.39	130	+	1946-52
03328100	Long Lake at Laketon	Wabash	.55	48	751.19	760	+	1946-51, 1959-
03328250	North Little Lake at Silver Lake [b]	Kosciusko	2.89	12	861.73	170	+	1947-
03328350	Silver Lake at Silver Lake	Kosciusko	6.31	102	861.73	1,520	+	1947-
03328400	Lukens Lake near Disko	Wabash	1.76	46	763.60	1,010	+	1948-49, 1959-
03330020	Crooked Lake near Wolflake	Noble	1.51	206	905.69	9,040	+	1943-53
03330040	Big Lake near Wolflake	Noble	8.89	228	898.18	5,630	+	1943-75 1976-
03330060	Goose Lake near Lorane	Whitley	1.51	84	910.96	2,180	+	1945-53
03330080	Loon Lake at Ormas	Whitley	11.1	222	895.14	5,730	+	1943-66
03330100	New Lake near Etna	Whitley	.29	50	903.91	880	+	1945-53
03330120	Old Lake near Etna	Whitley	2.81	32	898.07	620	+	1949-66
03330140	Smalley Lake near Washington Center	Noble	27.1	69	--------	1,520	+	1943-
03330160	Gilbert Lake near Washington Center	Noble	.37	28	--------	490	+	1954-
03330180	Horseshoe Lake 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-
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-
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-
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-
03330480	Tippecanoe Lake at Oswego	Kosciusko	113	768	836.40	28,380	+	1943-
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	+	1945-72, 1976-
03331020	Little Chapman Lake near Warsaw [e]	Kosciusko	7.13	77	827.75	1,990	+	1945-72, 1976-
03331040	Pike Lake at Warsaw	Kosciusko	41.5	203	805.64	2,830	+	1954-
03331060	Fish Lake near Warsaw	Kosciusko	4.93	15	845.52	------	-	1951-66
03331080	Muskellunge Lake near Warsaw	Kosciusko	11.8	32	842.67	300	+	1943-53, 1959-71
03331100	Carr Lake near Claypool	Kosciusko	2.27	79	848.88	1,340	+	1947-53
03331120	Sherburn Lake near Pierceton [3]	Kosciusko	5.51	15	881.00	230	+	1954-
03331140	Winona Lake at Warsaw	Kosciusko	32.1	562	811.06	16,680	+	1943-

Lakes in the Ohio River basin for which records are available--Continued

Station number	Lake	County	Drainage (square miles)	Surface area (acres)	Established level*	Capacity (acre-feet)	Contour map available	Records available
	WABASH RIVER BASIN--Continued							
03331160	Center Lake at Warsaw	Kosciusko	0.73	120	803.86	2,060	+	1945-
03331180	Palestine Lake at Palestine	Kosciusko	32.4	290	--------	1,170	+	1954-
03331200	Crystal Lake near Atwood	Kosciusko	.45	76	789.69	930	+	1945-51
03331220	Hoffman Lake at Atwood	Kosciusko	8.07	180	785.85	3,160	+	1945-53
03331240	Beaver Dam Lake near Silver Lake	Kosciusko	2.83	146	868.95	3,280	+	1947-53
03331260	Loon Lake near Silver Lake	Kosciusko	3.59	40	865.74	670	+	1947-53
03331280	McClures Lake near Silver Lake	Kosciusko	1.29	32	865.85	410	+	1945-52
03331300	Hill Lake near Silver Lake	Kosciusko	.85	67	871.50	1,300	+	1952-
03331320	Diamond Lake near Silver Lake	Kosciusko	3.92	79	--------	1,280	+	1954-
03331340	Yellow Creek Lake near Silver Lake	Kosciusko	11.1	151	860.50	4,730	+	1945-53
03331360	Rock Lake near Akron	Kosciusko	2.74	56	847.29	360	+	1946-66
03331370	Town Lake near Akron	Fulton	2.77	23	--------	220	+	1949-50
03331380	Lake Manitou at Rochester	Fulton	44.2	1,158	778.41	10,165	+	1943-
03331390	Zink Lake near Rochester	Fulton	1.11	19	810.68	------	-	1952-55
03331400	Nyona Lake near Greenoak	Fulton	7.59	104	793.91	1,340	+	1946-
03331420	South Mud Lake near Fulton	Fulton	4.53	94	793.42	1,020	+	1946-66
03331438	King Lake near Delong	Fulton	1.98	18	--------	180	+	1971-
03331440	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-

Lakes in the St. Lawrence River basin for which records are available

	STREAMS TRIBUTARY TO LAKE MICHIGAN							
04092500	Wolf Lake at Hammond [5]	Lake	5.72	999	--------	------	-	1946-49
04092990	Lake George at Hobart	Lake	124	282	602.23	------	-	1946-
04097520	Lake Pleasant near Nevada Mills	Steuben	3.18	24	961.50	3,490	+	1954-69, 1971, 1976-
04097550	Lake George at Jamestown	Steuben	[a]14.7	488	985.28	------	-	1946-
04097596	Marsh Lake near Fremont	Steuben	14.9	-----	--------	------	-	1967-69
04097600	Little Otter Lake near Fremont	Steuben	15.7	34	965.18	740		1946-53
04097640	Big Otter Lake near Fremont	Steuben	21.3	69	965.18	1,780	+	1946-53
04097650	Snow Lake at Lake James	Steuben	[a]40.2	310	964.96	7,998	+	1943-49
04097660	Lake James at Lake James	Steuben	[a]47.8	1,034	964.96	33,585	+	1943-49
04097680	Jimmerson Lake at Nevada Mills [6]	Steuben	[a]51.6	434	964.66	4,394	+	1946-
04097780	Loon Lake near Angola	Steuben	2.13	138	1,011.98	630	+	1954-66
04097850	Crooked Lake at Crooked Lake	Steuben	10.4	828	988.17	10,555	+	1946-
04097950	Lake Gage at Panama	Steuben	[a]17.3	332	954.25	10,140	+	1946-
04097960	Lime Lake at Panama [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-
04099250	Bower Lake near Pleasant Lake	Steuben	[a]84.6	25	948.50	280	+	1946-71, 1976-
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-
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-
04099600	Big Long Lake near Stroh	Lagrange	4.77	388	956.2	------	-	1954-
04099620	Pretty Lake near Stroh	Lagrange	2.89	184	965.50	4,720	+	1949-53, 1963-65
04099640	Little Turkey Lake at Elmira	Lagrange	56.5	135	925.72	1,550	+	1945-66
04099660	Royer Lake near Plato [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-
04099700	North Twin Lake near Howe	Lagrange	1.54	135	843.56	2,120	+	1953-
04099710	South Twin Lake near Howe [j]	Lagrange	2.22	116	843.56	3,600	+	1953-70

Lakes in the St. Lawrence River basin for which records are available

Station Number	Lake	County	Drainage (square miles)	Surface area (acres)	Established level*	Capacity (acre-feet)	Contour map available	Records available
	STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued							
04099740	Sheepshank Lake near Sheepshank	Lagrange	[a]6.74	202	852.04	1,350	+	1951-
04099760	Fish Lake near Scott	Lagrange	[a]6.21	139	814.42	2,560	+	1954-73, 1976-
04099780	Stone Lake near Scott	Lagrange	1.51	152	818.76	2,060	+	1954-73, 1976-
04099800	Emma Lake near Emma	Lagrange	13.6	42	880.87	700	+	1954-66
04099810	Cases Lake near Sheepshank	Lagrange	.68	89	--------	873	+	1970-
04099820	Hunter Lake near Middlebrow	Elkhart	.51	99	856.90	1,120	+	1946-53
04099840	Wolf Lake near Gashing	Elkhart	[a]1.29	100	813.00	------	-	1947-57
04099860	Heating Lake near Elkhart	Elkhart	9.33	87	767.30	640	+	1946-53, 1969-74, 1976-
04099880	Simonton Lake near Elkhart	Elkhart	7.44	303	772.19	1,560	+	1946-
04099950	Indiana Lake near Bristol	Elkhart	.62	122	759.73	3,400	+	1946-53
04100010	Cree Lake near Kendallville	Noble	4.85	58	945.23	910	+	1949-66
04100020	Blackman Lake near Wolcottville	Lagrange	.98	67	974.20	1,210	+	1953-59
04100030	Adams Lake near Wolcottville	Lagrange	5.62	308	953.59	7,690	+	1946-
04100040	Atwood Lake near Wolcottville	Lagrange	1.23	170	899.99	1,560	+	1948-53
04100050	Witmer 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-
04100110	Hackenburg Lake near Wolcottville	Lagrange	55.4	42	897.36	510	+	1945-
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-
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-
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-
04100260	Bear Lake near Wolflake	Noble	6.98	136	894.60	3,030	+	1943-
04100280	Muncie Lake near Burr Oak	Noble	42.8	47	--------	580	+	1954-
04100290	Silver Lake near Wolflake	Noble	.28	34	--------	220	+	1953-63
04100300	Skinner Lake near Albion	Noble	14.0	125	927.74	1,750	+	1945-72, 1977-
04100310	Pleasant Lake near Wolflake	Noble	.29	20	--------	540	+	1952-53
04100320	Upper Long Lake near Wolflake	Noble	2.08	86	891.19	1,900	+	1956-
04100330	Lower Long Lake near Albion	Noble	4.35	66	889.81	1,560	+	1946-52
04100340	Eagle Lake near Kimmel	Noble	3.22	81	--------	1,050	+	1946-48
04100350	Diamond Lake near Wawaka	Noble	4.80	105	--------	2,580	+	1946-
04100360	Sparta Lake at Kimmel	Noble	.69	31	888.50	170	+	1946-51
04100370	Engle Lake near Ligonier	Noble	[a]4.19	48	878.90	670	+	1956-71, 1977-
04100380	Harper Lake near Washington Center [p]	Noble	2.76	11	878.25	160	+	1946-
04100390	Knapp Lake near Washington Center	Noble	6.02	88	878.25	3,040	+	1946-
04100400	Moss Lake near Washington Center [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-
04100470	Dewart Lake near Leesburg	Kosciusko	[a]8.05	551	867.70	9,000	+	1945-
04100480	Wabee Lake near Milford	Kosciusko	[a]14.6	187	829.79	4,750	+	1946-53
	STREAMS TRIBUTARY TO LAKE ERIE							
04177200	Clear Lake at Clear Lake	Steuben	6.86	800	1,037.38	24,990	+	1943-
04177210	Round Lake at Clear Lake [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-
04177700	Hamilton Lake at Hamilton	Steuben	16.5	802	898.83	16,600	+	1943-
04179200	Indian Lake near Corunna	DeKalb	3.76	56	--------	1,220	+	1957
04179300	Cedar lake near Waterloo	DeKalb	23.4	28	896.76	230	+	1943-56

Lakes in the Upper Mississippi River basin for which records are available--Continued

Station Number	Lake	County	Drainage (square miles)	Surface area (acres)	Established level*	Capacity (acre-feet)	Contour map available	Records available
		ILLINOIS RIVER BASIN						
05514740	Saugany Lake near Rolling Prairie	LaPorte	[a]2.34	74	781.21	2,190	+	1946-50
05514741	Hudson Lake at Hudson Lake	LaPorte	7.92	432	763.09	5,060	+	1946-76 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-
05514900	Silver Lake near Rolling Prairie	LaPorte	1.72	54	795.20	------	-	1946-66
05515200	Upper Fish Lake near Stillwell	LaPorte	[a]9.65	139	688.22	1,040	+	1946-53
05515210	Lower Fish Lake near Stillwell	LaPorte	[a]10.4	134	688.22	870	+	1946-53
05515220	Pine Lake at LaPorte	LaPorte	[a]10.7	564	796.20	------	-	1946-75 1980-
05515230	Stone Lake at LaPorte [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-
05515600	Koontz Lake at Koontz Lake	Starke	[a]6.25	346	714.56	3,170	+	1943-
05515800	Riddles Lake near Lakeville	St. Joseph	[a]11.7	77	817.50	640	+	1946-73, 1976-
05516200	Lake of the Woods near Bremen	Marshall	[a]9.45	416	803.85	6,810	+	1945-
05516600	Pretty Lake near Plymouth	Marshall	.85	97	787.36	2,140	+	1954-66 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-
05517600	Wauhob Lake near Valparaiso	Porter	.40	21	--------	------	-	1946-
05517650	Long Lake near Valparaiso	Porter	1.31	65	797.66	520	+	1947-52
05517670	Spectacle Lake near Valparaiso	Porter	.53	62	812.82	540	+	1946-53
05517700	Flint Lake near Valparaiso	Porter	2.62	86	797.66	------	-	1946-
05517800	Lake Eliza near Beatrice	Porter	1.70	45	738.70	------	-	1954-74, 1976-
05518700	Cedar Lake at Cedar Lake	Lake	8.14	781	--------	6,750	+	1943-
05518800	Dalecarlia Lake near Creston	Lake	20.1	193	--------	------	-	1947-52
05521300	Ringneck Lake near Medaryville	Jasper	1.94	1,400	--------	------	-	1949-55
05525700	J.C. Murphy Lake near Morocco	Newton	13.0	1,515	--------	------	-	1952-61

+ Depth contour maps available for sale by Indiana Department of Natural Resources, State Office Building, Indianapolis, Indiana.
* Elevation, in feet, above mean sea level.

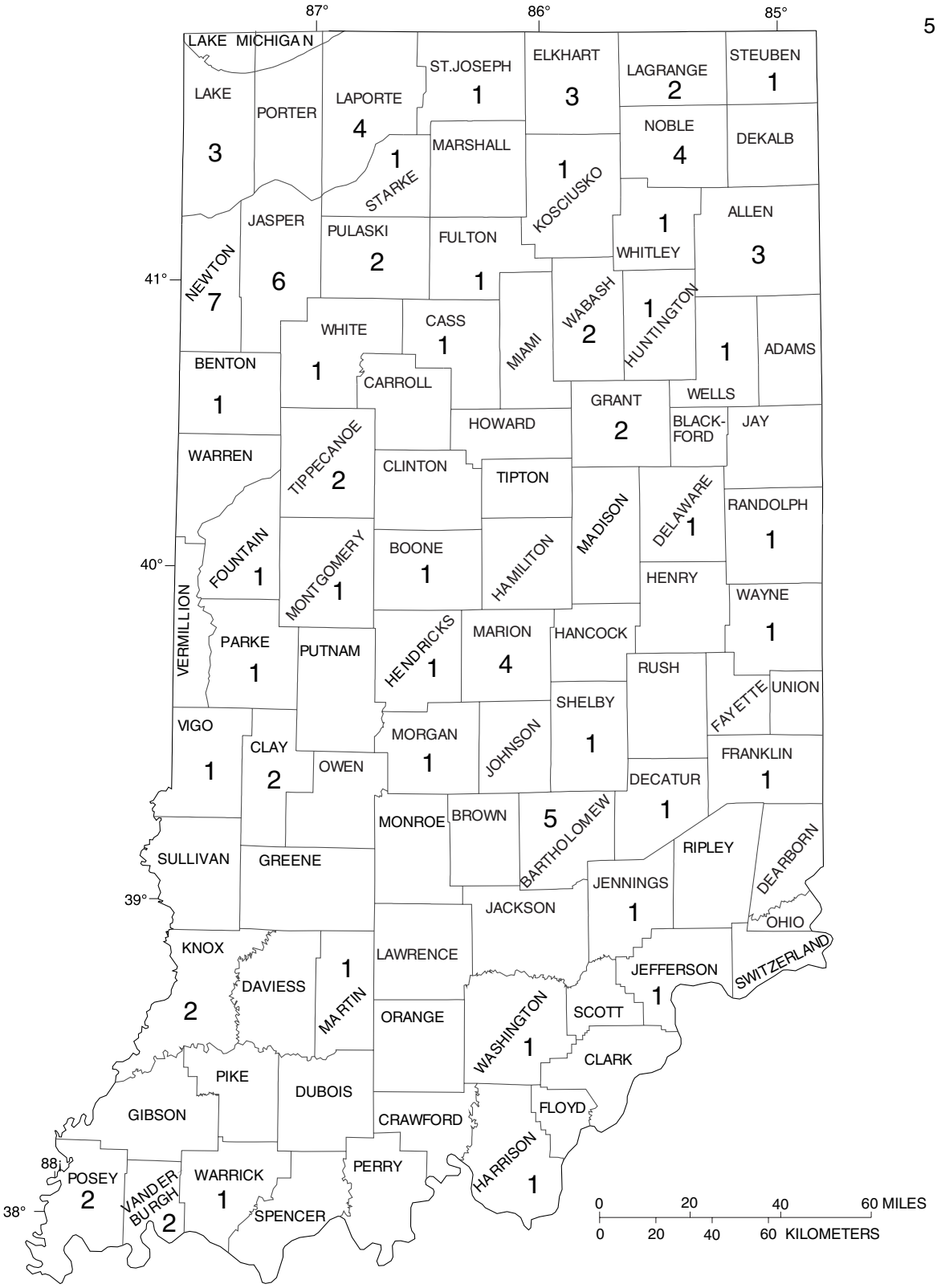
[1] Formerly published as Rider Lake at Wilmot.
[2] Formerly published as Chapman Lake near Warsaw.
[3] Formerly published as Johnson Lake near Pierceton.
[4] Formerly published as Hawks Lake near Culver.
[5] Same as Wolf Lake at Chicago, Illinois WRD District.
[6] Formerly published as Jimerson Lake at Nevada Mills.
[7] Formerly published as Sanford Lake near Cosperville.
[8] Formerly published as Duley Lake near Cromwell, and Druely Lake near Cromwell, and Druley Lake near Cromwell.
[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



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

2 Number of ground-water wells in designated county

Figure 9.--Number of ground-water wells by county having water-level records for water-year 2002.

ALLEN COUNTY

410426084495201. Local number, AL 5.
LOCATION.--Lat 41°04'26", long 84°49'52", in NW$^1/_4$NE$^1/_4$SE$^1/_4$ sec.9, T.30 N., R.15 E., Allen County, Hydrologic Unit 04100005, (WOODBURN SOUTH, IN-OH quadrangle), 1.3 mi west of Edgerton.
Owner: Noel Gerig.

AQUIFER.--Limestone of Salina Formation of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 4 in., depth 97 ft, cased to 40 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of floor of shelter, 0.00 ft above land-surface datum.

REMARKS.--Water level affected by quarry operations until 1980. Quarry operations resumed in 1997.

PERIOD OF RECORD.--July 1962 to December 1971, January 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.04 ft below land-surface datum, July 8, 9, 1962; lowest, 38.41 ft below land-surface datum, May 4, 1967.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

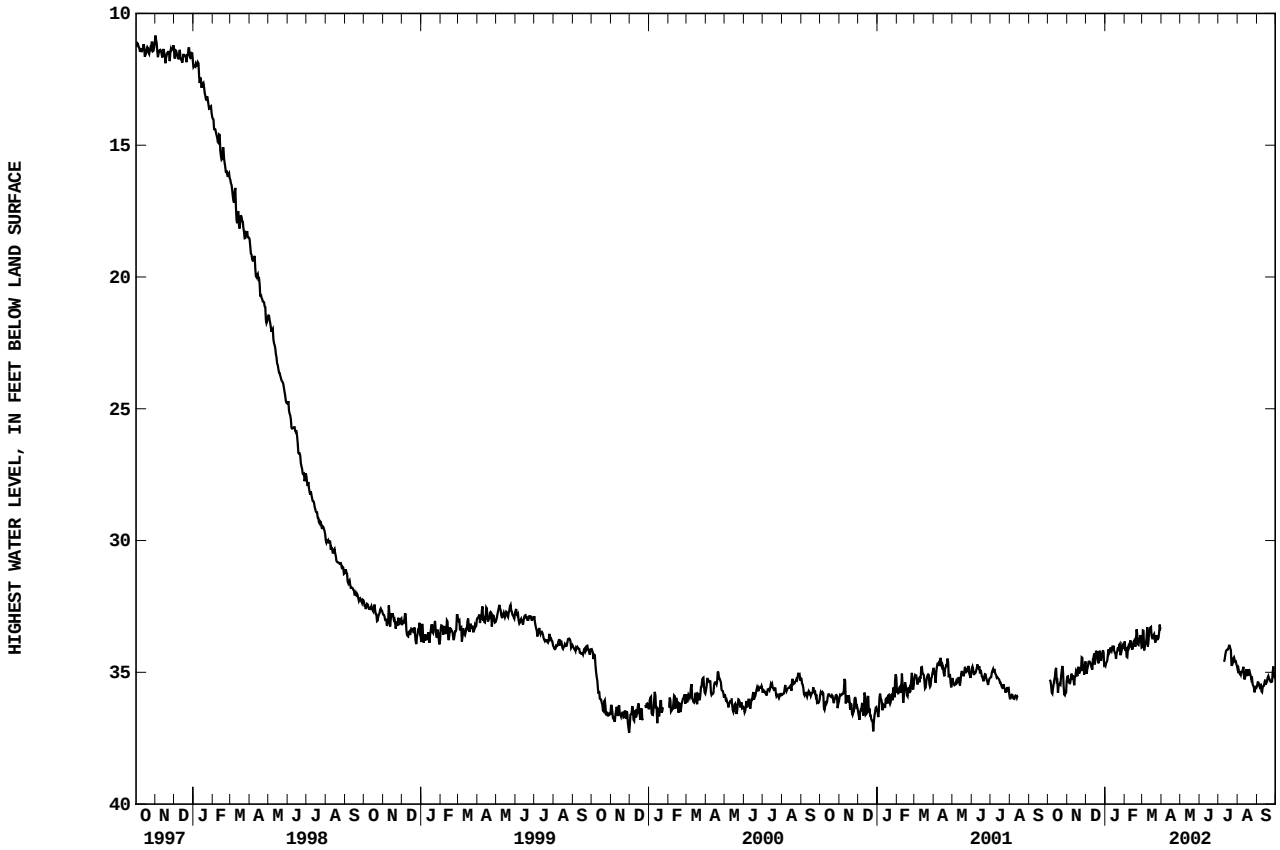
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.34	35.45	34.60	34.31	34.43	34.03	---	---	---	---	35.02	35.54
10	35.46	35.11	34.83	34.12	33.79	34.02	---	---	---	34.60	34.79	35.56
15	35.35	34.94	34.70	34.18	33.84	33.28	---	---	---	34.14	34.88	35.46
20	35.43	35.05	34.53	34.20	33.37	33.55	---	---	---	34.09	34.96	35.24
25	34.95	34.45	34.57	34.35	33.71	33.78	---	---	---	34.47	35.47	35.35
EOM	35.31	34.59	34.74	33.95	34.06	33.39	---	---	---	34.79	35.58	35.12
MIN	---	34.43	34.16	33.93	33.37	33.19	---	---	---	---	34.79	34.78

WTR YR 2002 HIGH 33.19 MAR 29

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.82	35.87	35.19	34.87	34.97	34.56	---	---	---	---	35.59	35.97
10	36.03	35.59	35.27	34.59	34.37	34.67	---	---	---	35.13	35.63	35.96
15	35.96	35.49	35.33	34.90	34.36	33.96	---	---	---	34.24	35.58	35.86
20	35.95	35.50	35.04	34.80	34.03	34.15	---	---	---	34.52	35.55	35.86
25	35.83	35.31	35.01	34.76	34.10	34.33	---	---	---	34.89	36.03	35.86
EOM	36.03	35.21	35.19	34.65	34.50	34.04	---	---	---	35.41	36.02	35.47
MAX	---	36.04	35.51	35.27	34.97	34.67	---	---	---	---	36.27	36.29

WTR YR 2002 LOW 36.37 OCT 28



ALLEN COUNTY

410932084561101. Local number, AL 6.
LOCATION.--Lat 41°09'32", long 84°56'11", in SW$^1/_4$SW$^1/_4$NE$^1/_4$ 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, 7.79 ft below land-surface datum, May 13, 2002; lowest, 15.10 ft below land-surface datum, Nov. 26, 1994.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

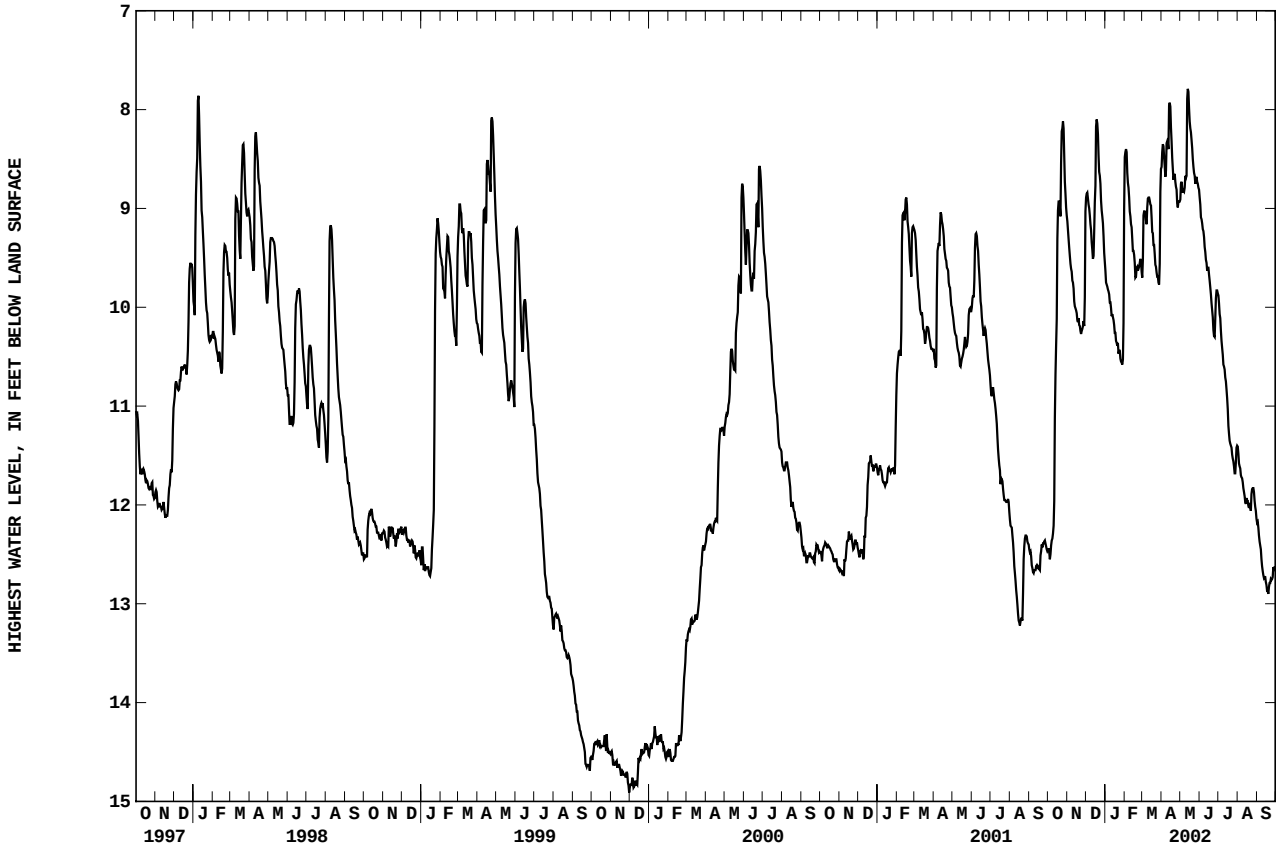
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.50	9.48	8.96	9.82	8.64	9.03	8.48	8.84	9.15	10.24	11.63	12.37
10	12.21	9.75	9.34	10.01	9.08	8.90	8.32	8.69	9.44	10.60	11.83	12.67
15	10.12	10.03	8.94	10.18	9.43	8.97	7.97	7.99	9.60	10.92	11.93	12.78
20	8.99	10.18	8.25	10.39	9.60	9.37	8.71	8.39	9.96	11.38	12.00	12.83
25	8.12	10.22	8.92	10.52	9.55	9.69	8.81	8.75	10.30	11.56	11.83	12.75
EOM	9.07	9.03	9.54	9.01	9.64	8.60	8.93	8.81	9.86	11.40	12.14	12.63
MIN	8.12	9.03	8.10	9.01	8.40	8.60	7.93	7.79	8.89	9.88	11.41	12.17

WTR YR 2002 HIGH 7.79 MAY 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.66	9.62	9.08	9.93	8.79	9.14	8.61	8.93	9.28	10.37	11.77	12.48
10	12.35	9.86	9.42	10.12	9.17	8.99	8.38	8.88	9.59	10.66	11.94	12.72
15	10.39	10.11	9.23	10.33	9.51	9.09	8.27	8.15	9.73	11.05	12.00	12.92
20	9.12	10.28	8.53	10.49	9.69	9.52	8.83	8.51	10.07	11.47	12.09	12.92
25	8.23	10.28	9.07	10.59	9.65	9.77	9.01	8.82	10.49	11.64	11.90	12.79
EOM	9.17	9.90	9.66	10.16	9.72	8.83	9.02	8.91	10.00	11.54	12.26	12.67
MAX	12.67	10.39	9.66	10.68	9.83	9.89	9.18	9.03	10.49	11.76	12.26	13.03

WTR YR 2002 LOW 13.03 SEP 18



ALLEN COUNTY

410335085190701. Local number, AL 8.
LOCATION.--Lat 41°03'35", long 85°19'07", in SE$^1/_4$SW$^1/_4$SW$^1/_4$ 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 current year. Records for WY1988, WY1989, WY1990 published as AL 7.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.70 ft below land-surface datum, Apr. 26, 1989; lowest, unknown, but greater than 76.48 ft below land-surface datum, July 10, 12, 15, 16, 18, 19, 31, Aug. 1, 2, 3, 1999. Recorder was unable to record below this water level, which occured on numerous occasions between Aug. 3, and Sept. 24, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

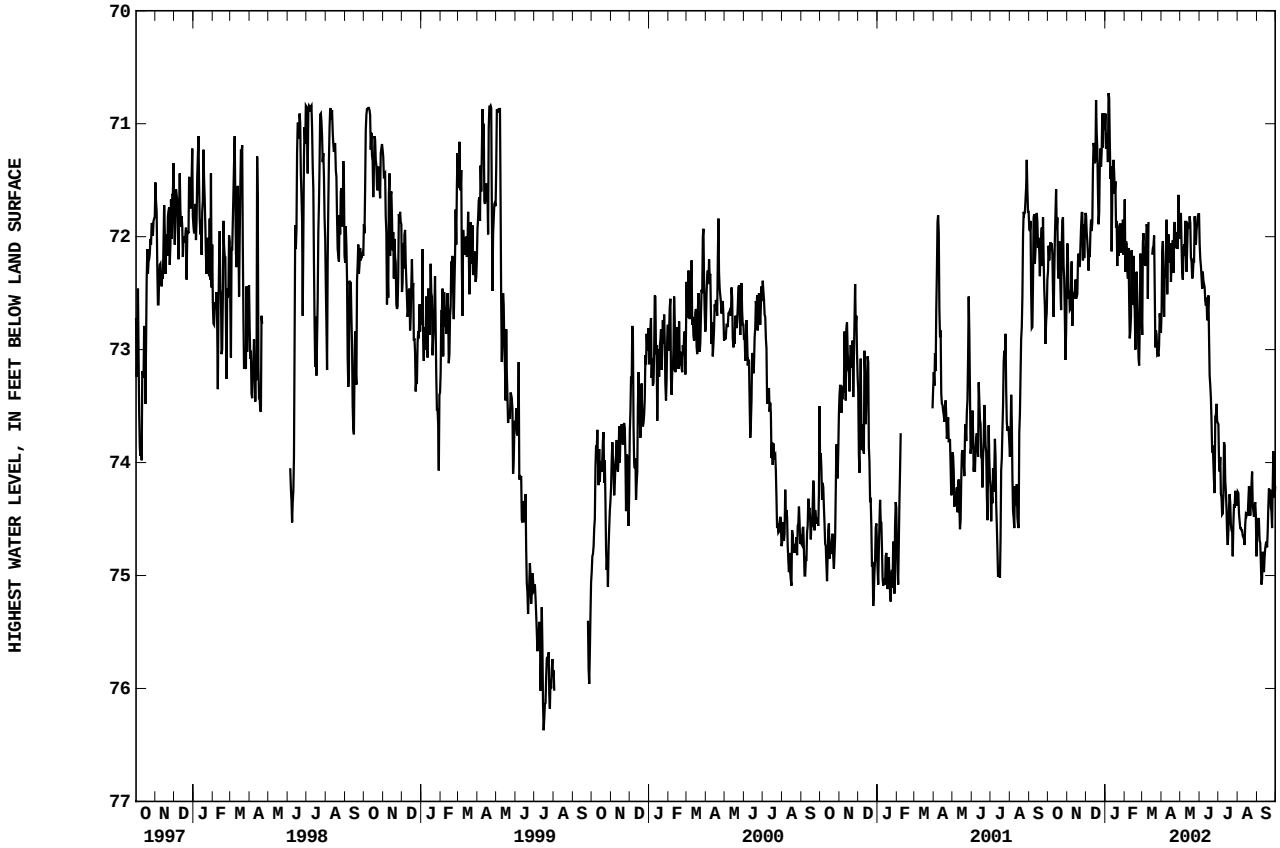
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	72.05	72.65	72.30	71.34	72.27	72.10	72.71	72.38	72.46	74.28	74.58	74.69
10	72.71	72.49	71.95	71.38	72.83	72.55	72.51	72.17	72.57	73.82	74.66	74.79
15	71.94	72.55	71.35	71.43	72.17	---	72.06	71.93	72.52	74.64	74.47	74.72
20	72.22	72.26	71.60	72.26	72.31	71.99	72.32	72.37	73.64	74.36	74.32	74.23
25	71.83	71.79	71.38	71.89	72.81	73.04	72.10	71.96	74.27	74.54	74.38	74.58
EOM	72.42	71.79	71.05	72.03	72.68	72.85	71.96	71.80	73.65	74.38	74.83	74.21
MIN	71.58	71.79	70.79	70.73	71.67	---	71.63	71.79	72.07	73.66	74.08	73.90

WTR YR 2002 HIGH 70.73 JAN 6

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	72.73	73.33	72.92	71.95	72.84	72.84	73.02	72.90	73.10	74.73	75.21	75.06
10	73.04	73.05	72.36	72.35	73.13	73.10	72.96	73.00	73.25	74.36	75.25	75.27
15	72.72	73.25	71.99	72.42	72.81	---	72.94	72.58	73.03	75.50	75.00	75.08
20	72.90	73.11	72.49	72.82	73.05	72.95	72.77	72.90	74.14	74.97	75.00	74.56
25	72.75	72.87	71.94	72.65	73.21	73.71	72.66	72.44	74.61	75.08	74.94	75.02
EOM	73.31	72.47	71.83	72.77	73.04	73.13	72.51	72.44	74.39	74.81	75.41	74.65
MAX	73.81	73.38	72.94	73.04	73.73	---	73.17	73.05	74.72	75.50	75.41	75.66

WTR YR 2002 LOW 75.66 SEP 8



391627085534401. Local number, BA 4.
LOCATION.--Lat 39°16'27", long 85°53'44", in NE$^1/_4$NE$^1/_4$NE$^1/_4$ 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

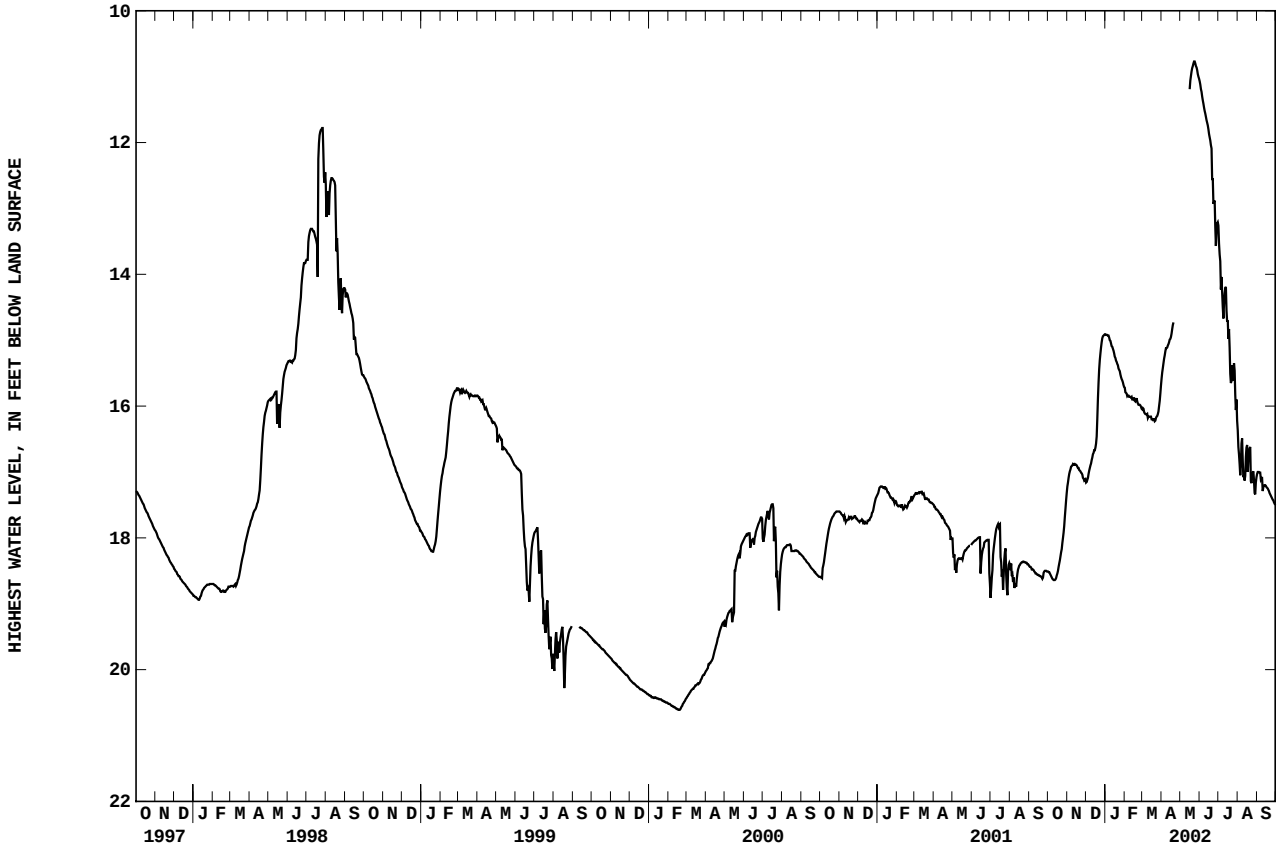
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.56	16.99	17.03	14.93	15.85	16.11	15.28	---	11.30	14.23	17.05	17.01
10	18.64	16.88	16.82	15.05	15.86	16.18	15.11	---	11.56	14.45	17.08	17.29
15	18.57	16.89	16.67	15.20	15.88	16.16	14.98	---	11.80	14.72	16.63	17.21
20	18.34	16.97	15.88	15.36	15.88	16.20	14.73	10.87	12.09	15.51	16.64	17.29
25	18.00	17.04	15.11	15.52	15.98	16.15	---	10.80	12.88	15.56	17.01	17.40
EOM	17.32	17.11	14.91	15.71	16.04	15.69	---	11.03	13.21	16.22	17.08	17.50
MIN	17.32	16.88	14.91	14.91	15.72	15.69	---	---	11.07	13.26	16.37	17.00

WTR YR 2002 HIGH 10.77 MAY 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.58	17.03	17.09	14.94	15.86	16.12	15.35	---	11.36	14.48	17.18	17.01
10	18.64	16.90	16.87	15.09	15.89	16.19	15.14	---	11.61	14.87	17.36	17.42
15	18.62	16.90	16.70	15.26	15.91	16.21	14.99	---	11.87	14.92	16.77	17.23
20	18.39	16.98	16.19	15.38	15.93	16.24	14.77	10.92	12.59	15.74	16.69	17.32
25	18.08	17.09	15.20	15.56	15.99	16.17	---	10.84	13.28	15.91	17.21	17.42
EOM	17.43	17.16	14.92	15.72	16.05	15.81	---	11.07	13.26	16.37	17.16	17.52
MAX	18.65	17.32	17.17	15.72	16.05	16.25	---	---	13.82	16.37	17.77	17.52

WTR YR 2002 LOW 18.65 OCT 12



390950085553501. Local number, BA 8.
LOCATION.--Lat 39°09'50", long 85°55'35", in NE$^1/_4$NW$^1/_4$SW$^1/_4$ sec.1, T.8 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, (COLUMBUS, IN quadrangle), on property of Meadows Metal Products Co., 4 mi south of Columbus.
Owner: Meadows Metal Products Co., Inc.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 49 ft, casing length unknown.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 615.48 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

REMARKS.--Water levels may be affected by nearby water-supply well fields.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.24 ft below land-surface datum, May 24-25, 2002; lowest, 24.13 ft below land-surface datum, Dec. 27, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

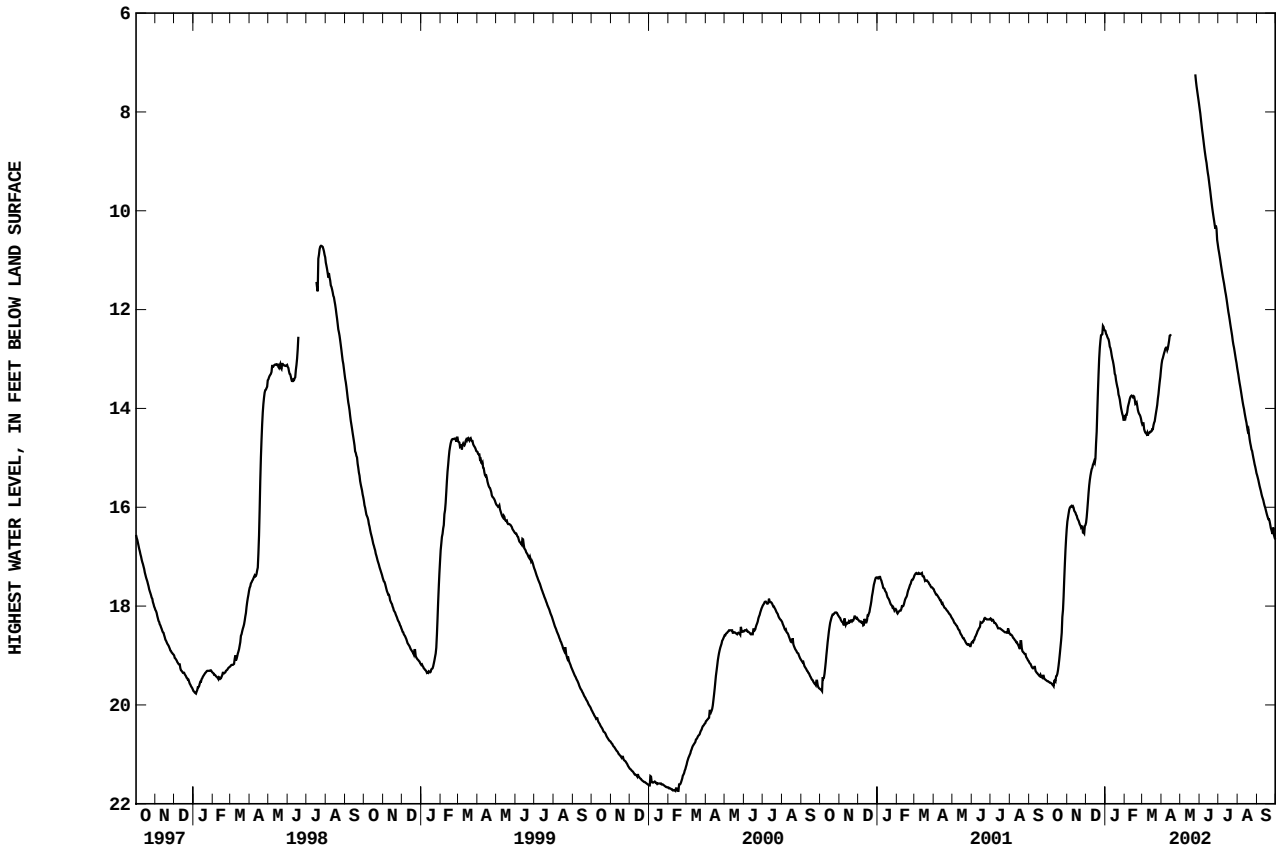
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.55	16.01	15.71	12.58	14.07	14.46	12.88	---	8.37	11.09	13.56	15.57
10	19.62	15.98	15.23	12.84	13.77	14.55	12.82	---	8.87	11.47	13.95	15.82
15	19.41	16.15	15.10	13.19	13.75	14.47	12.52	---	9.31	11.87	14.29	16.06
20	18.96	16.31	13.65	13.56	13.88	14.29	---	---	9.83	12.29	14.62	16.24
25	18.08	16.39	12.52	13.91	14.13	13.93	---	7.24	10.28	12.71	14.93	16.51
EOM	16.44	16.36	12.42	14.23	14.28	13.22	---	7.84	10.68	13.17	15.31	16.65
MIN	16.44	15.97	12.33	12.43	13.74	13.22	---	---	7.94	10.77	13.25	15.35

WTR YR 2002 HIGH 7.24 MAY 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.56	16.05	15.88	12.61	14.15	14.49	12.93	---	8.47	11.17	13.64	15.62
10	19.62	16.01	15.29	12.92	13.81	14.57	12.87	---	8.97	11.55	14.01	15.86
15	19.44	16.17	15.14	13.30	13.79	14.53	12.53	---	9.41	11.96	14.38	16.11
20	19.09	16.35	14.05	13.61	13.95	14.34	---	---	9.93	12.37	14.70	16.30
25	18.22	16.51	12.63	13.99	14.16	14.01	---	7.37	10.36	12.77	15.00	16.54
EOM	16.63	16.39	12.43	14.25	14.32	13.36	---	7.94	10.77	13.25	15.35	16.69
MAX	19.63	16.59	16.36	14.25	14.32	14.57	---	---	10.77	13.25	15.35	16.69

WTR YR 2002 LOW 19.63 OCT 11



391035085560401. Local number, BA 9.
LOCATION.--Lat 39°10'35", long 85°56'04", in SW$^1/_4$NE$^1/_4$SW$^1/_4$ sec.35, T.9 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, (COLUMBUS, IN quadrangle), at the Bartholomew County Home on the 4-H Fairgrounds, 3.0 mi south of Columbus. Owner: City of Columbus.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 115 ft, cased to 106 ft, screened to 111 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 621.58 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 1.65 ft above land-surface datum.

REMARKS.--Water level affected by pumpage from municipal supply well field.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.40 ft below land-surface datum, May 17, 2002; lowest, 42.01 ft below land-surface datum, Nov. 14, 1992.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

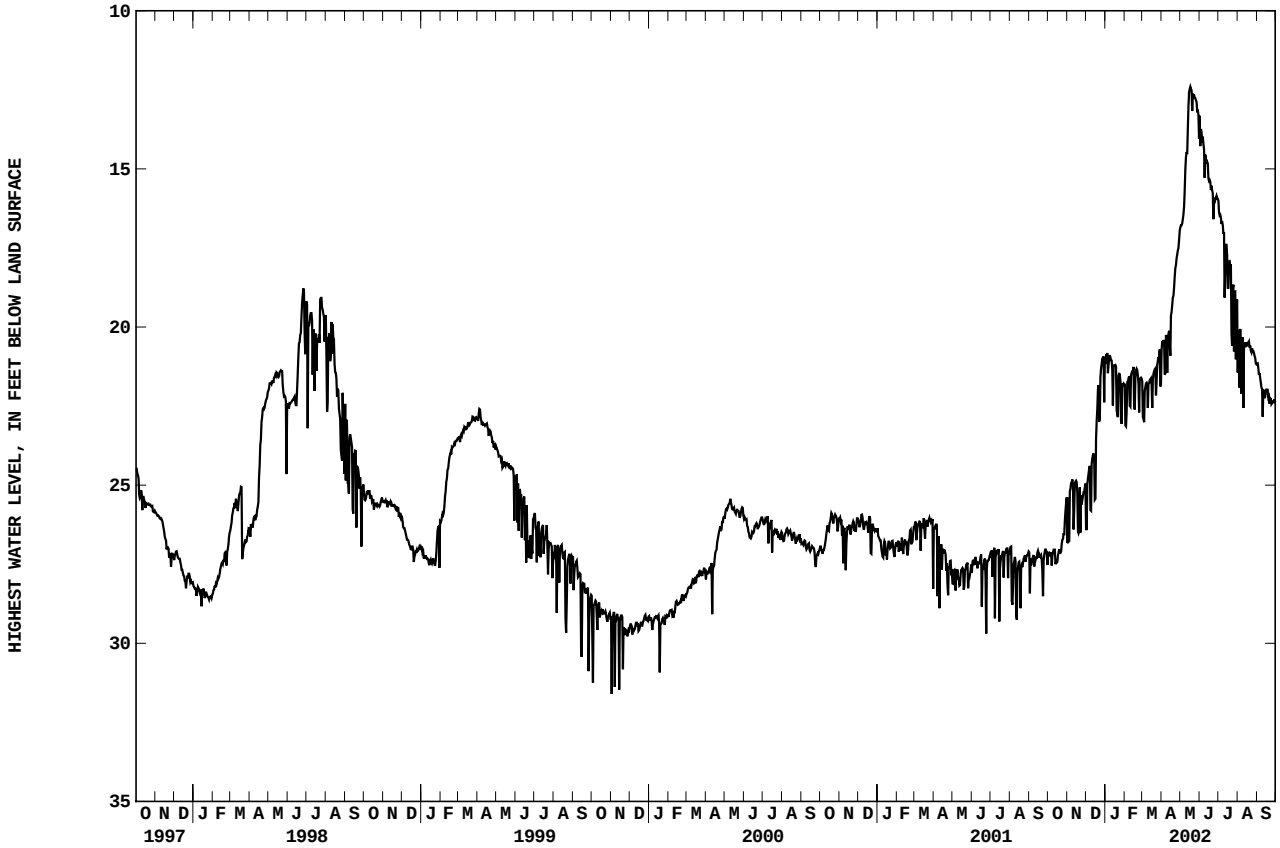
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.25	25.19	24.64	21.46	21.75	22.01	20.48	16.59	14.16	16.54	20.06	21.46
10	27.04	24.98	24.33	21.05	22.52	22.56	21.45	14.64	14.55	17.00	22.56	22.84
15	27.45	24.86	25.46	21.21	21.26	21.62	20.91	12.58	15.31	17.73	20.53	22.06
20	27.13	26.46	21.97	22.77	21.32	21.40	19.01	13.17	15.53	18.21	20.65	22.19
25	26.70	25.47	21.32	21.70	21.70	21.20	17.83	12.76	15.91	18.66	20.76	22.41
EOM	25.39	24.95	21.17	21.83	21.63	21.81	16.96	14.05	15.95	19.13	21.18	22.38
MIN	25.39	24.82	20.93	20.82	21.26	20.71	16.96	12.40	13.32	16.00	20.06	21.15

WTR YR 2002 HIGH 12.40 MAY 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.81	26.78	26.16	22.27	23.19	23.09	21.55	17.65	14.88	17.63	23.87	24.88
10	28.63	26.40	25.81	22.38	22.57	23.14	21.48	15.93	15.67	20.01	24.37	23.99
15	28.86	26.40	25.48	22.64	22.59	22.90	21.01	13.92	16.04	20.48	23.54	24.15
20	28.51	26.66	23.75	22.85	22.60	22.67	20.20	13.68	16.60	20.10	21.54	24.16
25	28.04	26.76	22.66	22.99	22.84	22.51	19.12	13.87	17.04	20.77	21.68	24.34
EOM	27.01	26.51	22.41	23.19	22.85	21.88	18.28	14.20	17.01	23.21	23.11	24.36
MAX	28.93	26.85	26.44	23.23	23.20	23.14	21.81	18.08	17.04	23.21	24.37	24.88

WTR YR 2002 LOW 28.93 OCT 1



BARTHOLOMEW COUNTY

390317085523701. Local number, BA 10.
LOCATION.--Lat 39°03'17", long 85°52'08", in NE$^1/_4$NW$^1/_4$NW$^1/_4$ sec.l6, T.7 N., R.6 E., Bartholomew County, Hydrologic Unit 05120206, (AZALIA, IN quadrangle), 0.8 mi east of State Highway 11 and 1.0 mi southeast of Jonesville.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 85 ft, cased to 80 ft, screened to 85 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 580 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

REMARKS.--Hourly record indicates water level is affected by domestic pumpage. Not significant in monthly-annual report.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.66 ft below land-surface datum, Nov. 17, 1993; lowest, 12.65 ft below land-surface datum, Oct. 29, Nov. 2, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

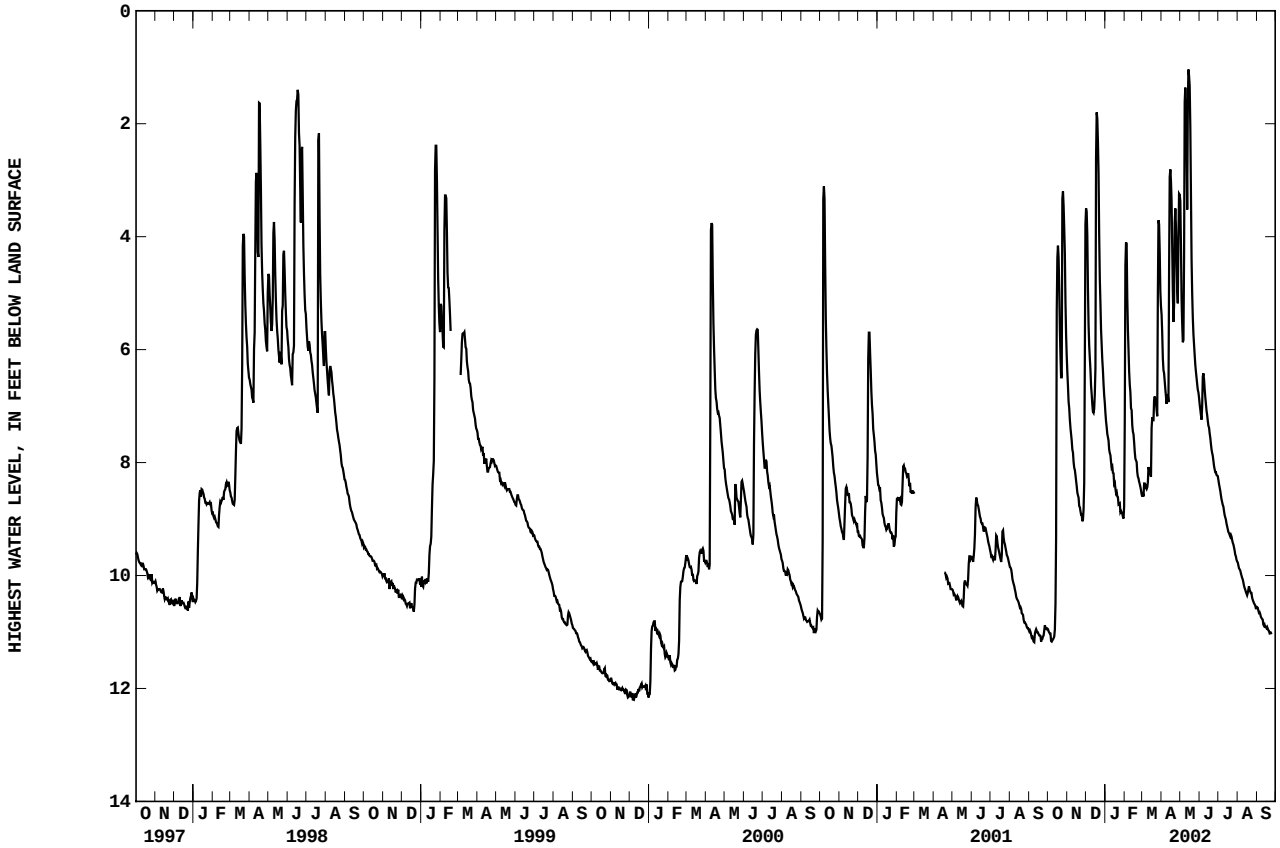
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.03	7.24	5.56	7.55	5.08	8.37	6.42	5.87	7.00	8.58	9.91	10.65
10	11.11	7.82	6.79	7.99	6.76	8.35	6.82	1.72	6.84	8.86	10.12	10.78
15	5.32	8.32	6.79	8.38	7.50	8.25	2.81	1.15	7.35	9.13	10.32	10.91
20	5.64	8.77	2.33	8.60	7.99	6.89	5.51	5.01	7.77	9.31	10.25	10.98
25	3.20	9.04	5.64	8.88	8.38	7.18	4.38	6.27	8.12	9.45	10.43	---
EOM	6.11	3.78	6.94	8.78	8.56	5.23	3.26	6.85	8.24	9.75	10.58	---
MIN	3.20	3.78	1.80	7.12	4.10	3.71	2.81	1.04	6.42	8.31	9.77	---

WTR YR 2002 HIGH 1.04 MAY 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.23	7.39	5.93	7.67	5.64	8.44	6.56	6.10	7.45	8.69	10.05	10.82
10	11.22	8.01	7.03	8.17	7.12	8.72	7.10	2.35	6.99	9.02	10.25	10.88
15	9.33	8.52	7.12	8.50	7.72	8.41	3.01	1.33	7.46	9.21	10.40	11.00
20	6.12	8.83	2.88	8.71	8.20	7.25	5.85	5.45	7.90	9.45	10.39	11.12
25	3.45	9.17	5.95	8.98	8.55	7.38	4.92	6.43	8.25	9.58	10.51	---
EOM	6.45	6.21	7.18	9.06	8.71	5.38	3.37	6.98	8.33	9.79	10.66	---
MAX	11.25	9.17	7.35	9.14	8.83	8.77	7.13	6.98	8.33	9.79	10.66	---

WTR YR 2002 LOW 11.25 OCT 6



390658085572201. Local number, BA 13.
LOCATION.--Lat 39°06'50", long 85°57'17", in SE$^1/_4$SW$^1/_4$SE$^1/_4$ sec.22, T.8 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, (JONESVILLE, IN quadrangle), at the end of farm access road, 0.3 mi north of County Road 600 South at its intersection with Interstate 65.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 55.6 ft, cased to 50.6 ft, screened to 55.6 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 633.91 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.26 ft below land-surface datum, Apr. 30, 1997; lowest, 24.17 ft below land-surface datum, Feb. 16, 1989.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

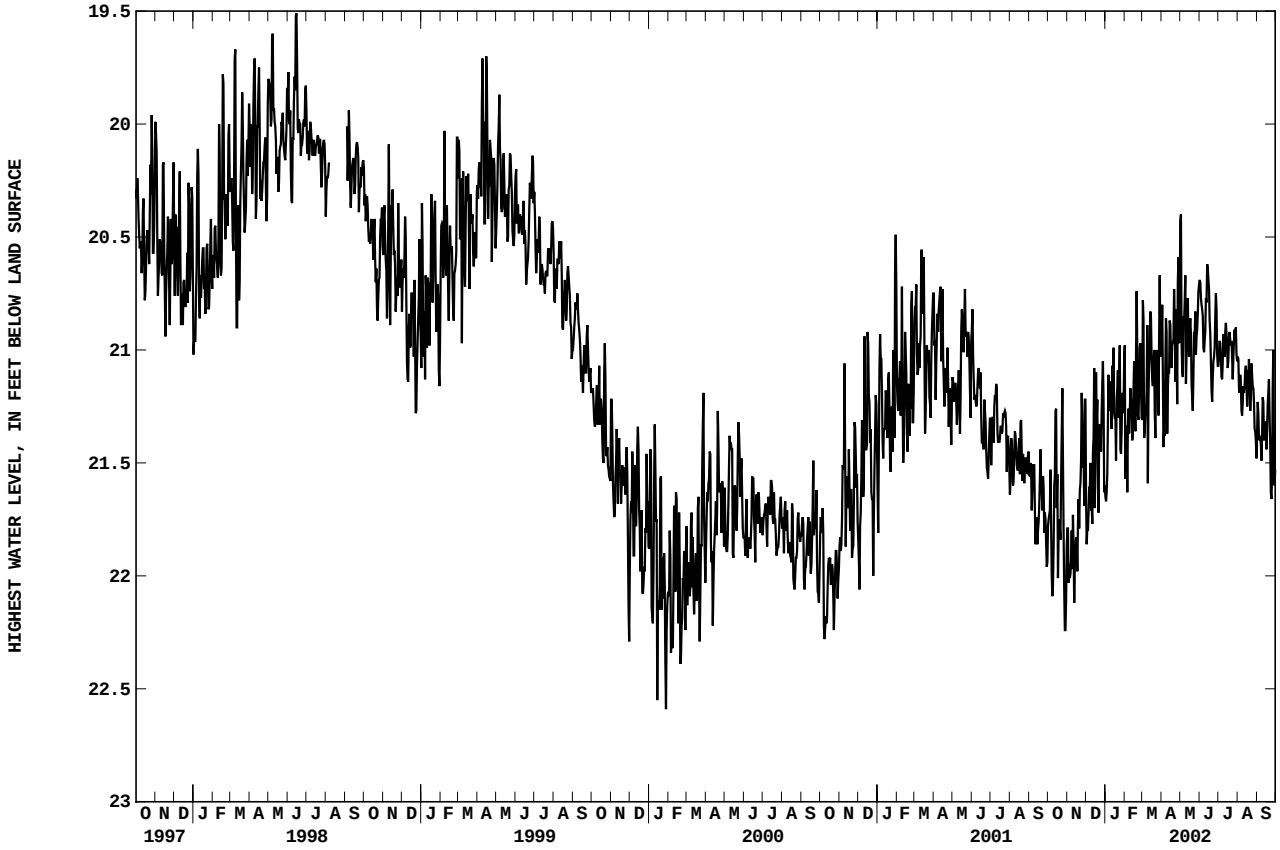
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.53	22.01	21.72	21.32	21.63	21.36	21.36	21.12	20.82	21.03	21.11	21.40
10	21.87	21.73	21.69	21.23	21.17	21.59	21.37	21.15	20.92	20.97	21.16	21.21
15	21.70	21.83	21.70	21.28	21.17	20.86	20.89	21.03	20.69	21.00	21.13	21.36
20	21.79	21.79	21.60	21.17	20.74	21.00	20.95	21.21	21.18	20.96	21.20	21.13
25	21.49	21.30	21.45	21.44	20.99	21.08	20.96	20.83	20.99	21.03	21.16	21.56
EOM	21.87	21.22	21.60	21.05	21.30	21.03	20.79	20.71	21.07	21.05	21.48	21.53
MIN	21.17	21.19	21.05	20.98	20.74	20.67	20.59	20.40	20.62	20.88	21.03	21.00

WTR YR 2002 HIGH 20.40 MAY 2

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.78	22.11	21.89	21.55	21.80	21.51	21.53	21.29	20.89	21.12	21.20	21.51
10	22.04	21.97	21.81	21.35	21.48	21.69	21.54	21.36	21.02	21.07	21.25	21.39
15	21.94	21.95	21.93	21.62	21.35	21.09	21.02	21.17	20.77	21.10	21.25	21.45
20	21.86	21.91	21.74	21.49	21.03	21.32	21.02	21.28	21.31	21.05	21.32	21.29
25	21.81	21.78	21.57	21.59	21.17	21.26	21.28	21.02	21.08	21.15	21.23	21.73
EOM	22.11	21.66	21.68	21.35	21.40	21.19	20.99	20.77	21.15	21.13	21.57	21.64
MAX	22.36	22.19	21.96	21.83	21.80	21.69	21.54	21.37	21.34	21.21	21.57	21.77

WTR YR 2002 LOW 22.36 OCT 28



BENTON COUNTY

402851087213501. Local number, BE 4.
LOCATION.--Lat 40°28'51", long 87°21'35", in SE$^1/_4$NE$^1/_4$SE$^1/_4$ sec.31, T.24 N., R.8 W., Benton County, Hydrologic Unit 05120108, (PINE VILLAGE, IN quadrangle), on north side of county road, 3.6 mi southeast of Boswell.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 310 ft, cased to 300 ft, screened to 305 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 710 ft above 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

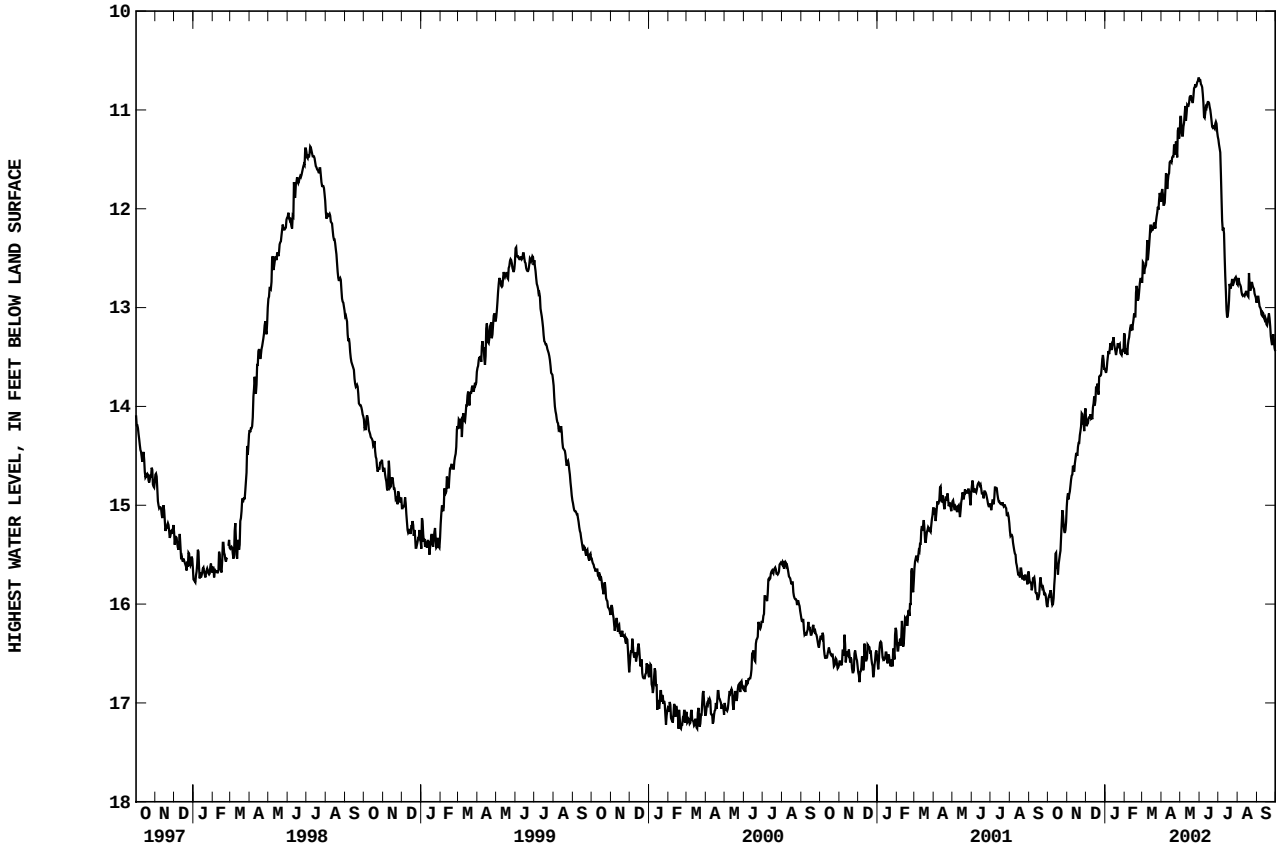
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.86	14.86	14.12	13.49	13.48	12.61	11.96	11.26	10.77	11.65	12.77	12.99
10	15.94	14.60	14.11	13.38	13.20	12.52	11.80	11.11	11.03	12.25	12.87	13.05
15	15.64	14.48	13.99	13.37	13.12	12.17	11.52	10.93	10.92	13.10	12.84	13.12
20	15.50	14.37	13.84	13.40	12.78	12.14	11.47	10.91	11.11	12.80	12.76	13.06
25	15.10	14.08	13.68	13.46	12.76	12.04	11.40	10.74	11.19	12.76	12.78	13.38
EOM	15.02	14.02	13.62	13.26	12.74	11.93	11.24	10.68	11.27	12.76	12.95	13.44
MIN	15.02	14.02	13.48	13.26	12.71	11.84	11.18	10.68	10.70	11.30	12.65	12.89

WTR YR 2002 HIGH 10.68 MAY 30

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.96	14.92	14.19	13.55	13.52	12.67	11.99	11.30	10.84	11.89	12.80	13.02
10	16.00	14.69	14.15	13.44	13.29	12.58	11.84	11.20	11.11	12.48	12.89	13.09
15	15.72	14.55	14.06	13.48	13.17	12.22	11.54	10.98	10.94	13.12	12.88	13.17
20	15.56	14.42	13.88	13.46	12.85	12.19	11.50	10.94	11.17	12.84	12.84	13.12
25	15.20	14.22	13.72	13.51	12.85	12.10	11.48	10.79	11.22	12.81	12.81	13.41
EOM	15.17	14.12	13.66	13.45	12.77	11.95	11.29	10.70	11.30	12.77	12.97	13.46
MAX	16.04	15.02	14.22	13.70	13.52	12.80	11.99	11.30	11.30	13.12	12.97	13.46

WTR YR 2002 LOW 16.04 OCT 8



BOONE COUNTY

400532086183901. Local number, BO 17.
LOCATION.--Lat 40°05'32", long 86°18'39", in SW$^1/_4$SE$^1/_4$NW$^1/_4$ sec.16, T.19 N., R.2 E., Boone County, Hydrologic Unit 05120201, (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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

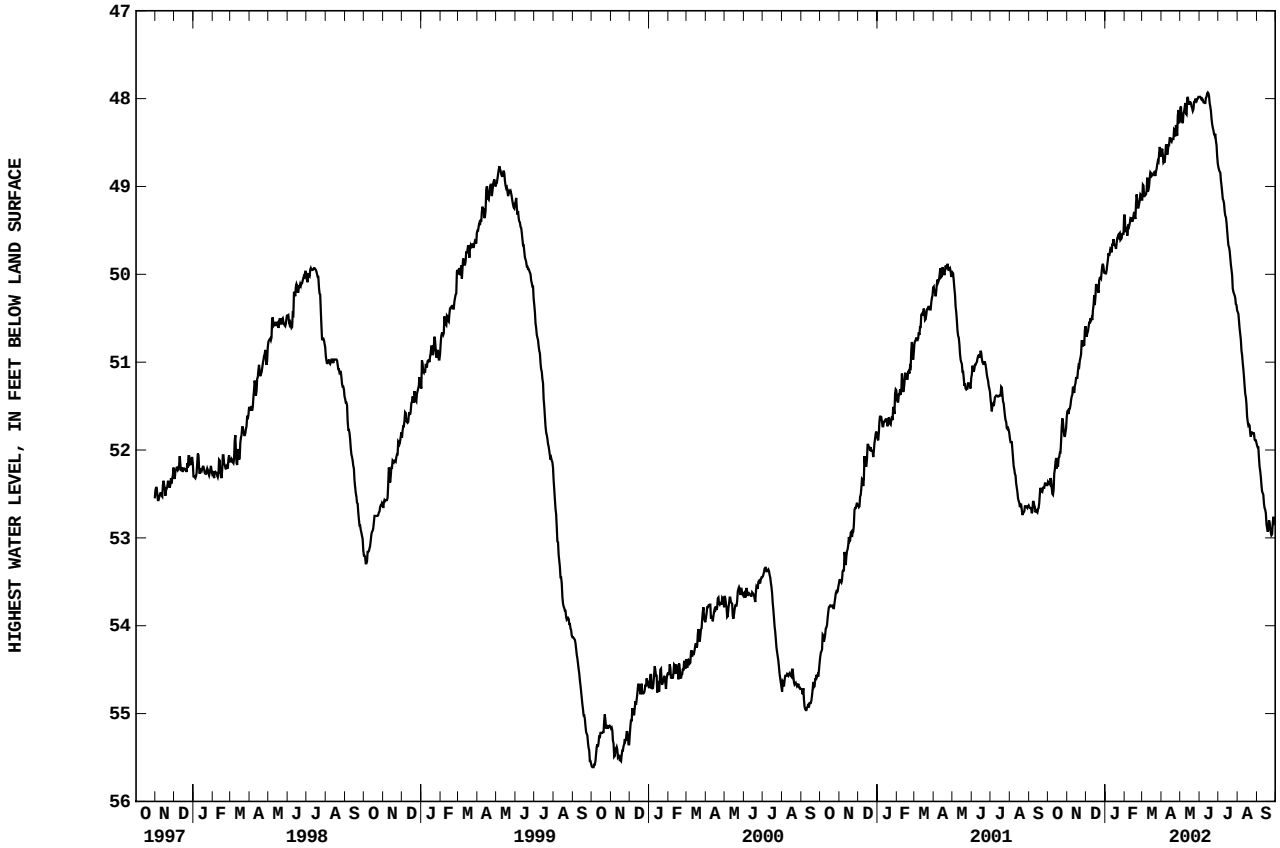
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.32	51.53	50.60	49.83	49.56	49.10	48.72	48.28	48.00	48.93	50.68	52.19
10	52.45	51.28	50.50	49.72	49.37	49.06	48.64	48.17	48.05	49.19	51.08	52.49
15	52.21	51.18	50.35	49.66	49.33	48.85	48.45	48.07	47.94	49.50	51.48	52.72
20	52.03	51.05	50.18	49.59	49.09	48.84	48.46	48.11	48.23	49.81	51.72	52.80
25	51.68	50.76	50.05	49.61	49.16	48.75	48.35	48.00	48.42	50.20	51.81	52.96
EOM	51.63	50.59	49.98	49.33	49.15	48.66	48.26	47.98	48.74	50.41	51.92	52.82
MIN	51.63	50.59	49.88	49.33	49.09	48.55	48.13	47.98	47.93	48.78	50.43	51.95

WTR YR 2002 HIGH 47.93 JUN 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.41	51.56	50.66	49.89	49.63	49.12	48.73	48.30	48.02	48.99	50.75	52.24
10	52.52	51.37	50.57	49.76	49.44	49.14	48.69	48.24	48.08	49.28	51.17	52.51
15	52.26	51.25	50.39	49.76	49.38	48.89	48.48	48.11	47.98	49.59	51.62	52.84
20	52.09	51.08	50.22	49.66	49.20	48.89	48.48	48.15	48.30	49.89	51.81	52.91
25	51.78	50.90	50.08	49.65	49.21	48.82	48.42	48.06	48.56	50.23	51.81	53.00
EOM	51.75	50.68	50.00	49.54	49.16	48.67	48.29	47.98	48.78	50.43	51.95	52.83
MAX	52.54	51.63	50.74	50.04	49.66	49.21	48.73	48.30	48.78	50.43	51.95	53.00

WTR YR 2002 LOW 53.00 SEP 24



CASS COUNTY

403407086175701. Local number, CS 3.
LOCATION.--Lat 40°34'07", long 86°17'57", in NE$^1/_4$NE$^1/_4$SE$^1/_4$ sec.33, T.25 N., R.2 E., Cass County, Hydrologic Unit 05120105, (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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

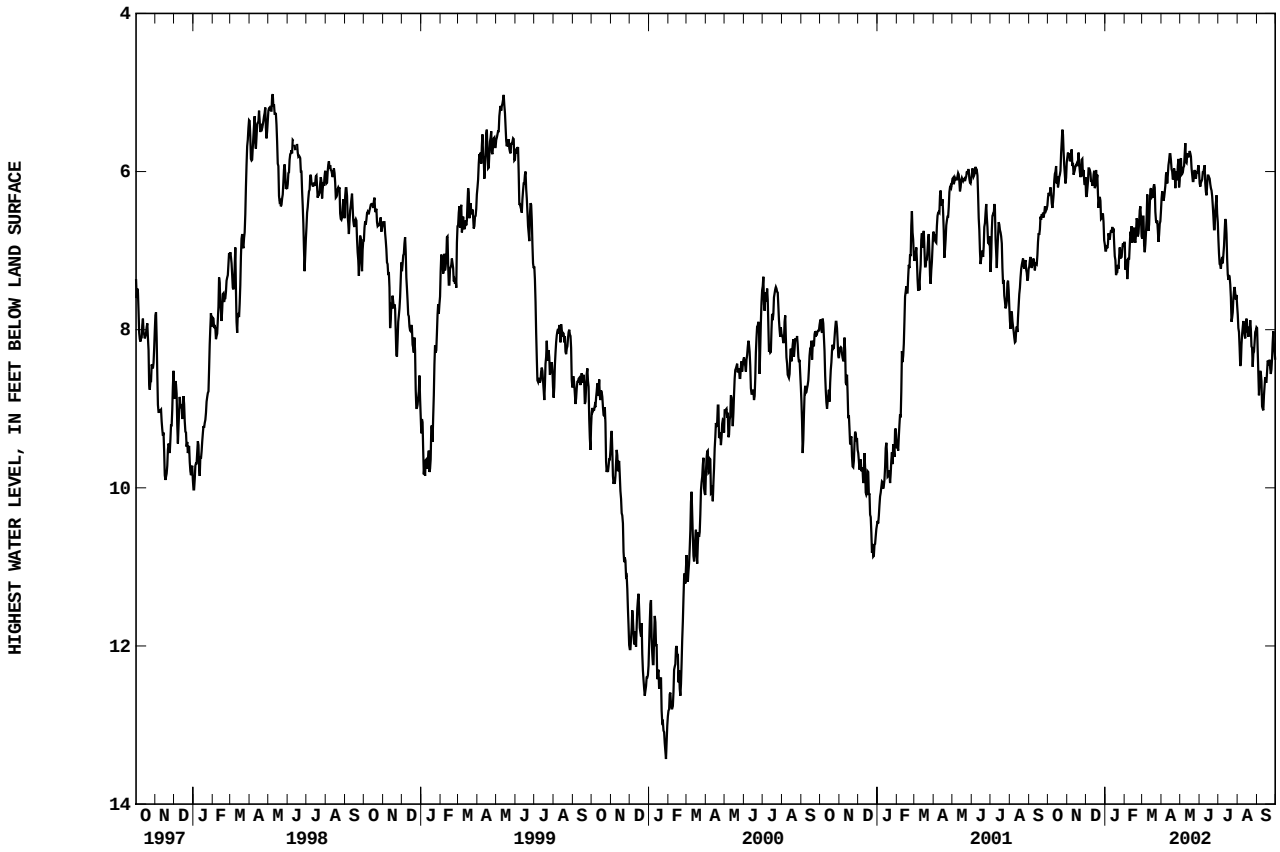
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.20	5.87	5.96	6.92	7.36	7.02	6.33	6.01	6.10	7.23	8.46	8.68
10	6.29	5.89	6.11	6.74	6.76	6.65	6.15	5.88	6.15	6.94	7.89	9.00
15	6.15	5.92	6.21	6.91	6.75	6.21	5.78	5.79	6.05	7.10	7.86	8.66
20	6.04	5.90	6.28	7.27	6.59	6.16	6.08	6.04	6.24	7.43	7.98	8.45
25	5.53	5.84	6.60	7.09	6.49	6.62	6.05	6.04	6.73	7.60	8.47	8.36
EOM	5.89	6.07	6.92	6.90	6.82	6.50	6.11	6.00	6.64	7.69	7.97	8.38
MIN	5.47	5.72	5.96	6.70	6.44	6.16	5.78	5.64	5.92	6.60	7.81	7.98

WTR YR 2002 HIGH 5.47 OCT 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.37	5.90	6.14	7.01	7.43	7.13	6.40	6.14	6.24	7.33	8.57	8.94
10	6.39	6.09	6.24	6.87	6.94	6.90	6.25	6.03	6.34	7.06	8.10	9.19
15	6.26	6.05	6.36	7.20	6.86	6.33	5.89	5.89	6.12	7.31	8.05	8.81
20	6.11	6.04	6.46	7.37	6.79	6.31	6.24	6.21	6.42	7.65	8.08	8.65
25	5.80	6.15	6.69	7.20	6.64	6.88	6.19	6.17	6.85	7.80	8.54	8.57
EOM	6.09	6.35	7.07	7.05	6.95	6.63	6.24	6.24	6.94	7.87	8.07	8.55
MAX	6.51	6.35	7.07	7.40	7.44	7.13	6.50	6.37	6.94	8.13	8.57	9.19

WTR YR 2002 LOW 9.19 SEP 9



CLAY COUNTY

392653087120501. Local number, CY 6.
LOCATION.--Lat 39°26'53", long 87°12'05", in SE$^1/_4$SE$^1/_4$SE$^1/_4$ sec.29, T.12 N., R.7 W., Clay County, Hydrologic Unit 05120111, (STAUNTON, IN quadrangle), 2.8 mi southwest of Staunton and 4.0 mi west of State Highway 59 just north of State Highway 42. Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of the Mansfield Formation, Pennsylvanian Period.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 400 ft, cased to 347 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 653.16 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.40 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 151.36 ft below land-surface datum, Jan. 19, 1988; lowest, 165.28 ft below land-surface datum, June 8, 1992.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

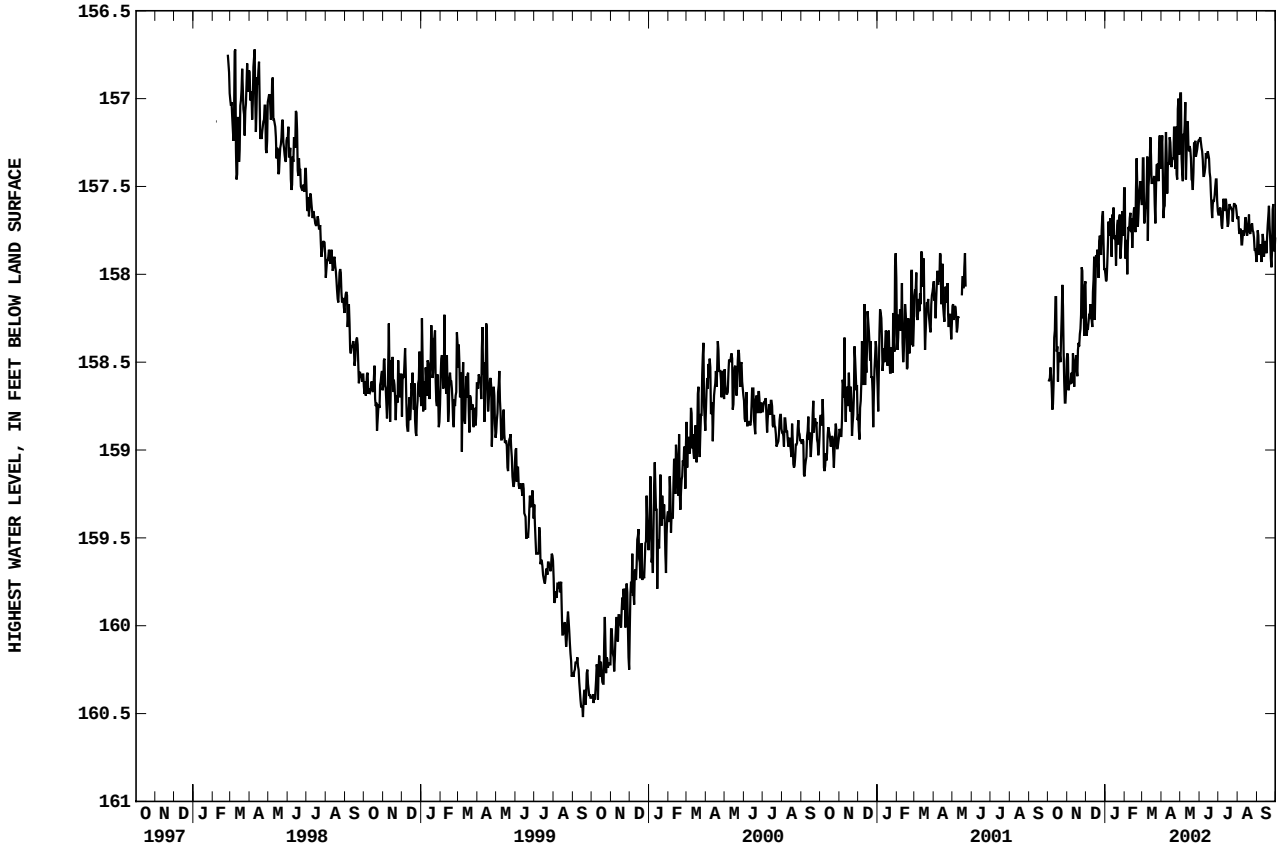
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	158.53	158.62	158.27	157.83	158.00	157.70	157.62	157.47	157.30	157.65	157.74	157.86
10	158.62	158.45	158.26	157.76	157.65	157.81	157.54	157.46	157.39	157.59	157.75	157.77
15	158.44	158.46	158.26	157.80	157.66	157.32	157.25	157.30	157.32	157.68	157.72	157.81
20	158.46	158.41	157.94	157.72	157.34	157.44	157.34	157.47	157.62	157.62	157.76	157.61
25	158.18	157.98	157.89	157.91	157.51	157.38	157.43	157.24	157.55	157.63	157.75	157.86
EOM	158.49	158.04	157.97	157.51	157.60	157.40	157.21	157.24	157.64	157.68	157.93	157.79
MIN	---	157.96	157.64	157.51	157.34	157.21	157.00	156.97	157.22	157.57	157.66	157.60

WTR YR 2002 HIGH 156.97 MAY 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	158.60	158.68	158.37	157.94	158.07	157.71	157.72	157.57	157.43	157.79	157.90	158.06
10	158.74	158.63	158.32	157.91	157.96	157.89	157.73	157.65	157.60	157.81	157.92	157.98
15	158.57	158.58	158.30	157.99	157.74	157.48	157.44	157.47	157.43	157.78	157.84	157.96
20	158.53	158.49	158.04	157.86	157.51	157.64	157.45	157.62	157.80	157.82	157.95	157.76
25	158.43	158.35	157.93	158.00	157.64	157.61	157.64	157.42	157.74	157.81	157.85	158.05
EOM	158.65	158.29	158.10	157.78	157.77	157.49	157.37	157.32	157.70	157.77	158.04	157.96
MAX	---	158.71	158.46	158.19	158.07	157.89	157.73	157.65	157.86	157.90	158.04	158.10

WTR YR 2002 LOW 158.82 OCT 8



CLAY COUNTY

391124087134701. Local number, CY 7.
LOCATION.--Lat 39°11'24", long 87°13'47", in SW$^1/_4$NW$^1/_4$SE$^1/_4$ sec. 30, T.9N., R.7W., Clay County, Hydrologic Unit 05120111, (JASONVILLE, IN quadrangle), 300 ft east of State Highway 159 just south of Coalmont and about 3.6 mi northwest of Jasonville.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 121 ft, cased to 80 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 616.80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.59 ft below land-surface datum, Sept. 4, 5, 1988; lowest, 33.05 ft below land-surface datum, Dec. 26, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

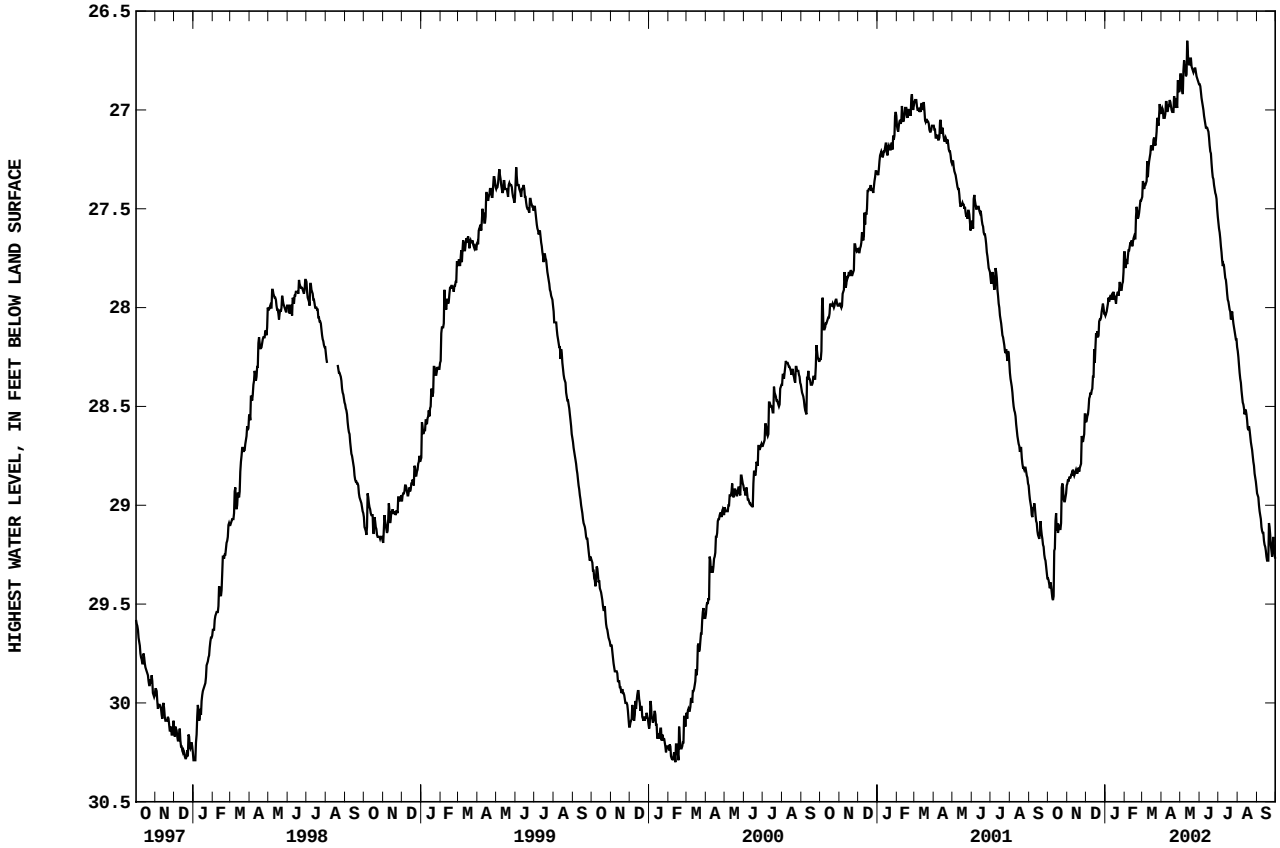
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.39	28.86	28.51	27.98	27.78	27.38	27.04	26.92	26.96	27.69	28.36	29.03
10	29.46	28.82	28.42	27.94	27.67	27.34	27.01	26.83	27.07	27.79	28.49	29.14
15	29.13	28.82	28.28	27.96	27.65	27.18	26.96	26.77	27.11	27.93	28.54	29.23
20	29.12	28.83	28.15	27.93	27.49	27.14	27.01	26.79	27.27	28.02	28.62	29.09
25	28.91	28.66	28.05	27.91	27.49	27.04	26.97	26.79	27.40	28.08	28.75	29.26
EOM	28.90	28.54	28.03	27.72	27.45	27.02	26.90	26.87	27.54	28.20	28.91	29.27
MIN	28.89	28.54	27.98	27.72	27.45	26.97	26.85	26.65	26.87	27.57	28.22	28.94

WTR YR 2002 HIGH 26.65 MAY 12

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.44	28.88	28.55	28.01	27.80	27.40	27.05	26.93	26.99	27.73	28.38	29.06
10	29.51	28.85	28.45	27.98	27.71	27.35	27.03	26.86	27.10	27.82	28.52	29.15
15	29.17	28.85	28.29	27.98	27.67	27.25	26.99	26.80	27.15	27.96	28.57	29.26
20	29.13	28.84	28.16	27.96	27.54	27.17	27.03	26.81	27.31	28.06	28.65	29.29
25	28.97	28.72	28.07	27.94	27.54	27.11	27.00	26.82	27.44	28.11	28.78	29.27
EOM	28.95	28.59	28.06	27.83	27.48	27.03	26.92	26.90	27.57	28.22	28.94	29.29
MAX	29.51	28.91	28.61	28.06	27.83	27.48	27.05	26.93	27.57	28.22	28.94	29.31

WTR YR 2002 LOW 29.51 OCT 10



DECATUR COUNTY

392022085371801. Local number, DC 2.
LOCATION.--Lat 39°20'22", long 85°37'18", in SE$^1/_4$NE$^1/_4$SW$^1/_4$ sec.3, T.10 N., R.8 E., Decatur County, Hydrologic Unit 05120206, (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, 0.12 ft below land-surface datum, Dec. 30, 1991; lowest, 9.25 ft below land-surface datum, Feb. 9-11, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

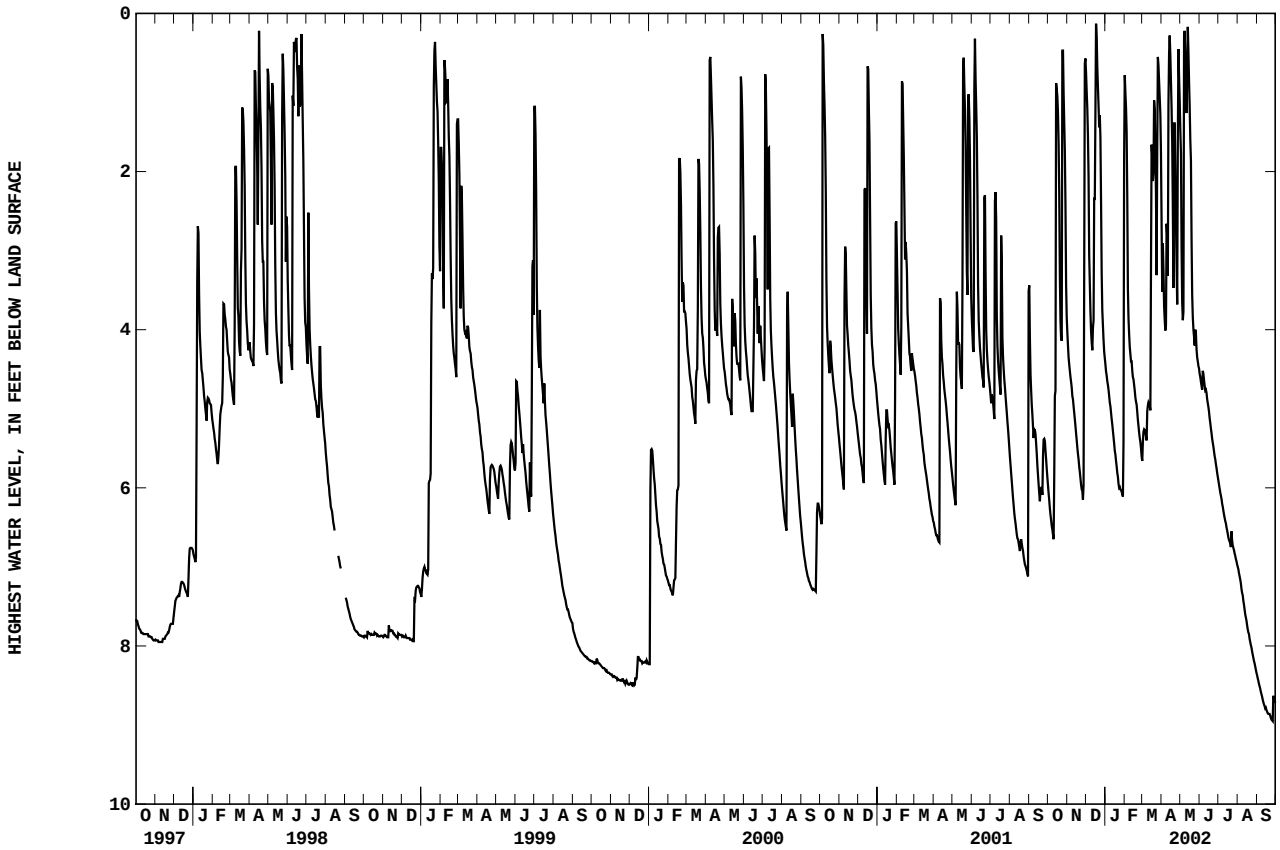
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.34	4.52	2.06	4.70	2.34	5.27	3.70	3.88	4.76	6.10	7.16	8.51
10	6.65	4.88	4.16	5.05	4.31	4.96	2.82	0.92	4.77	6.34	7.43	8.68
15	0.96	5.31	2.36	5.44	4.63	3.22	0.53	0.87	4.98	6.54	7.68	8.78
20	3.32	5.73	0.94	5.81	4.95	1.10	3.47	3.56	5.31	6.70	7.91	8.86
25	0.47	6.04	2.36	6.02	5.37	1.75	3.16	4.00	5.60	6.76	8.11	8.94
EOM	3.84	0.57	4.36	1.81	5.60	1.76	1.11	4.49	5.86	6.97	8.34	8.72
MIN	0.47	0.57	0.13	1.81	0.78	0.55	0.28	0.17	4.52	5.91	7.00	8.37

WTR YR 2002 HIGH 0.13 DEC 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.42	4.60	3.06	4.76	3.48	5.30	3.88	4.02	4.81	6.15	7.21	8.54
10	6.70	4.97	4.26	5.13	4.42	5.03	3.32	1.26	4.83	6.38	7.48	8.71
15	1.25	5.40	2.77	5.53	4.70	5.14	0.86	1.18	5.05	6.59	7.74	8.82
20	3.89	5.80	1.17	5.86	5.04	2.01	3.83	3.84	5.38	6.76	7.96	8.91
25	1.00	6.16	3.28	6.03	5.44	3.82	3.68	4.32	5.65	6.81	8.15	8.96
EOM	4.04	0.76	4.44	5.41	5.66	2.67	1.48	4.56	5.92	7.00	8.38	8.76
MAX	6.71	6.20	4.44	6.15	5.66	5.75	4.22	4.56	5.92	7.00	8.38	8.97

WTR YR 2002 LOW 8.97 SEP 26



DELAWARE COUNTY

400541085213701. Local number, DW 4.
LOCATION.--Lat 40°05'36", long 85°21'38", in NW$^1/_4$SE$^1/_4$SW$^1/_4$ 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, 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

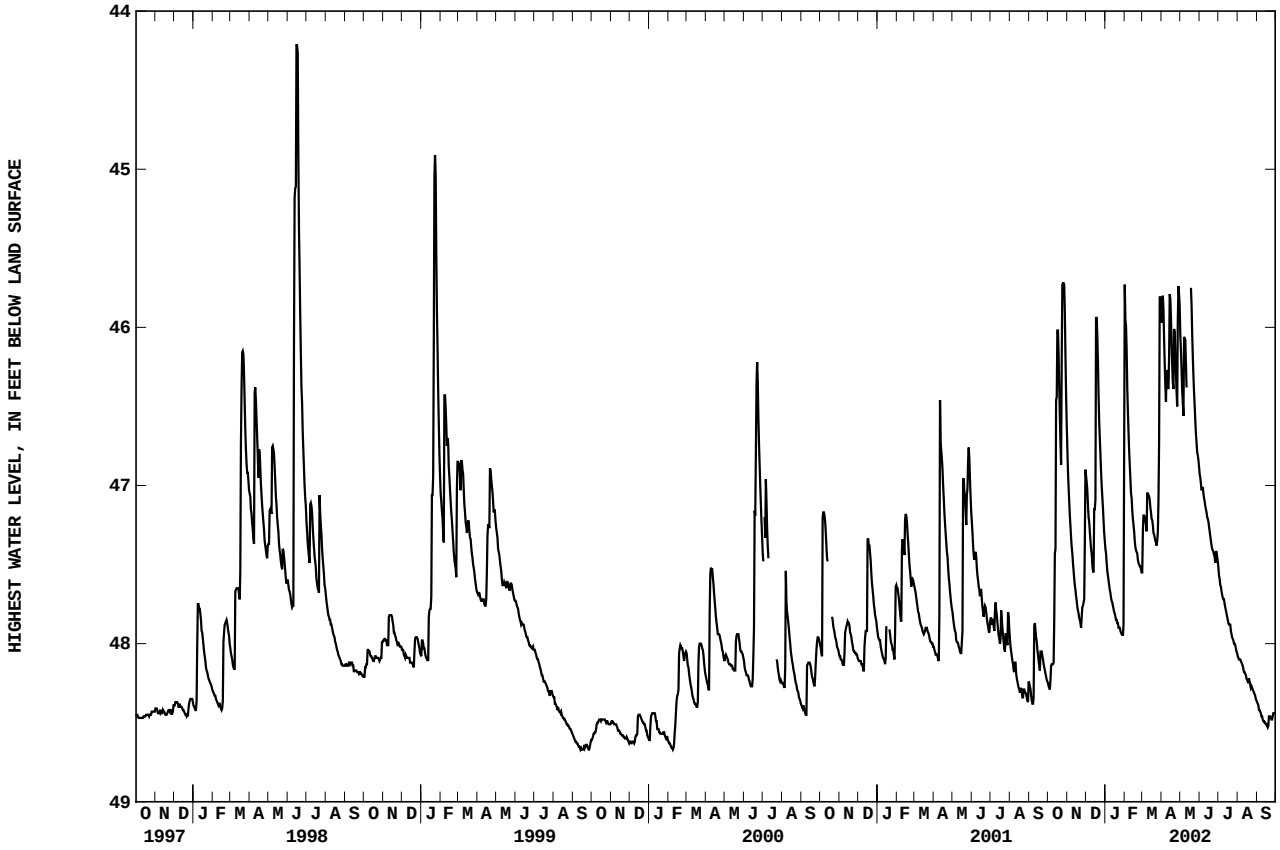
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.23	47.19	47.20	47.57	46.39	47.20	46.08	46.48	47.02	47.64	48.10	48.42
10	48.12	47.49	47.43	47.71	46.96	47.05	46.28	46.23	47.13	47.72	48.16	48.48
15	46.44	47.70	47.15	47.80	47.25	47.17	45.82	---	47.23	47.83	48.22	48.51
20	46.57	47.84	46.22	47.87	47.42	47.31	46.39	46.04	47.38	47.88	48.24	48.46
25	45.72	47.77	46.91	47.92	47.51	47.35	46.41	46.59	47.45	47.98	48.29	48.48
EOM	46.61	46.90	47.35	46.83	47.55	45.87	45.87	46.88	47.48	48.06	48.36	48.44
MIN	45.72	46.77	45.94	46.83	45.73	45.81	45.74	---	46.93	47.52	48.08	48.37

WTR YR 2002 HIGH 45.72 OCT 25

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.31	47.26	47.24	47.60	46.53	47.23	46.23	46.57	47.06	47.68	48.12	48.44
10	48.15	47.54	47.50	47.73	47.05	47.08	46.38	46.38	47.15	47.75	48.19	48.50
15	46.46	47.73	47.16	47.82	47.29	47.23	45.94	---	47.26	47.85	48.23	48.52
20	46.74	47.86	46.43	47.88	47.43	47.33	46.48	46.18	47.40	47.93	48.26	48.53
25	45.73	47.83	47.00	47.93	47.54	47.41	46.50	46.67	47.50	48.03	48.31	48.48
EOM	46.77	47.36	47.40	47.88	47.56	45.97	46.05	46.93	47.52	48.08	48.37	48.45
MAX	48.34	47.93	47.58	47.95	47.56	47.58	46.62	---	47.55	48.08	48.37	48.54

WTR YR 2002 LOW 48.54 SEP 19



413121085481301. Local number, EH 4.
LOCATION.--Lat 41°31'21", long 85°48'13", in SW$^1/_4$SE$^1/_4$SW$^1/_4$ sec.35, T.36 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, (GOSHEN, IN quadrangle), at the southwest corner of Goshen Municipal Airport.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 62 ft, cased to 58 ft, screened to 60 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 818 ft above 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

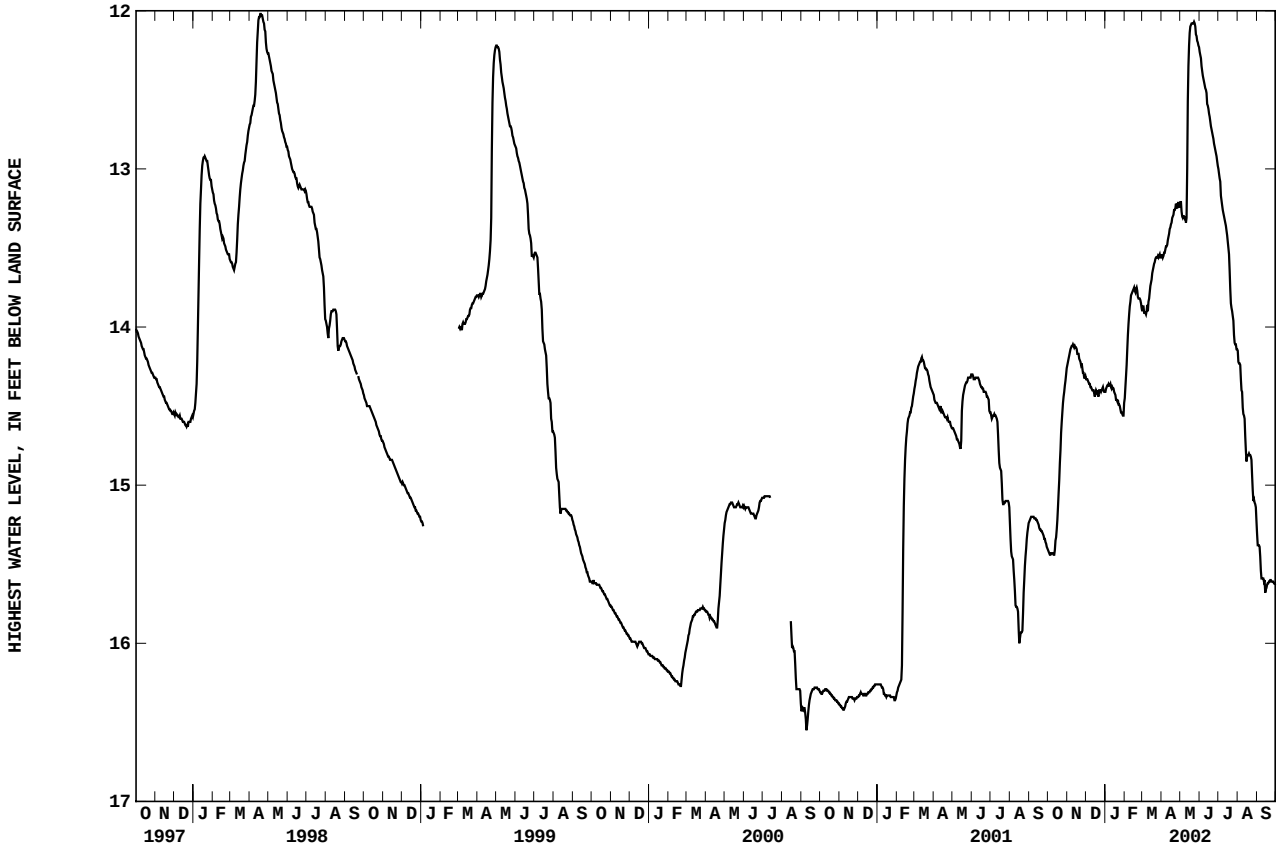
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.44	14.16	14.35	14.37	14.14	13.91	13.53	13.31	12.38	13.17	14.24	15.39
10	15.44	14.11	14.39	14.38	13.84	13.90	13.48	13.34	12.49	13.30	14.55	15.59
15	15.28	14.13	14.44	14.41	13.76	13.72	13.37	12.22	12.62	13.42	14.85	15.66
20	14.86	14.20	14.43	14.47	13.75	13.60	13.29	12.08	12.75	13.76	14.81	15.61
25	14.48	14.26	14.41	14.52	13.82	13.56	13.24	12.10	12.86	13.96	15.03	15.61
EOM	14.26	14.31	14.41	14.48	13.88	13.56	13.24	12.23	12.98	14.14	15.23	15.63
MIN	14.26	14.11	14.33	14.36	13.75	13.54	13.21	12.07	12.26	13.00	14.15	15.31

WTR YR 2002 HIGH 12.07 MAY 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.44	14.18	14.36	14.38	14.24	13.93	13.55	13.32	12.41	13.20	14.33	15.45
10	15.44	14.12	14.40	14.39	13.87	13.92	13.51	13.36	12.50	13.32	14.56	15.59
15	15.33	14.14	14.44	14.44	13.77	13.74	13.38	12.35	12.65	13.46	14.88	15.68
20	14.97	14.21	14.44	14.48	13.77	13.62	13.30	12.09	12.77	13.86	14.82	15.62
25	14.54	14.30	14.42	14.54	13.84	13.57	13.26	12.15	12.88	14.05	15.10	15.61
EOM	14.30	14.33	14.41	14.56	13.90	13.58	13.24	12.26	13.00	14.15	15.31	15.63
MAX	15.45	14.33	14.44	14.57	14.48	13.93	13.57	13.36	13.00	14.15	15.31	15.70

WTR YR 2002 LOW 15.70 SEP 14



ELKHART COUNTY

414514085505001. Local number, EH 7.
LOCATION.--Lat 41°45'14", long 85°50'50", in SW$^1/_4$SE$^1/_4$SW$^1/_4$ sec.9, T.38 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, (BRISTOL, IN quadrangle), on north side of County Road 2, 200 ft east of County Road 21, and 2.7 mi northwest of Bristol. Owner: U.S. Geological Survey.

AQUIFER.--Fine to medium sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 61 ft, cased to 56 ft, screened to 61 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 781 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.70 ft above land-surface datum.

REMARKS.--Water level slightly affected by irrigation pumpage.

PERIOD OF RECORD.--June 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.50 ft below land-surface datum, Feb. 24, 1985; lowest, 12.73 ft below land-surface datum, Aug. 5, 6, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

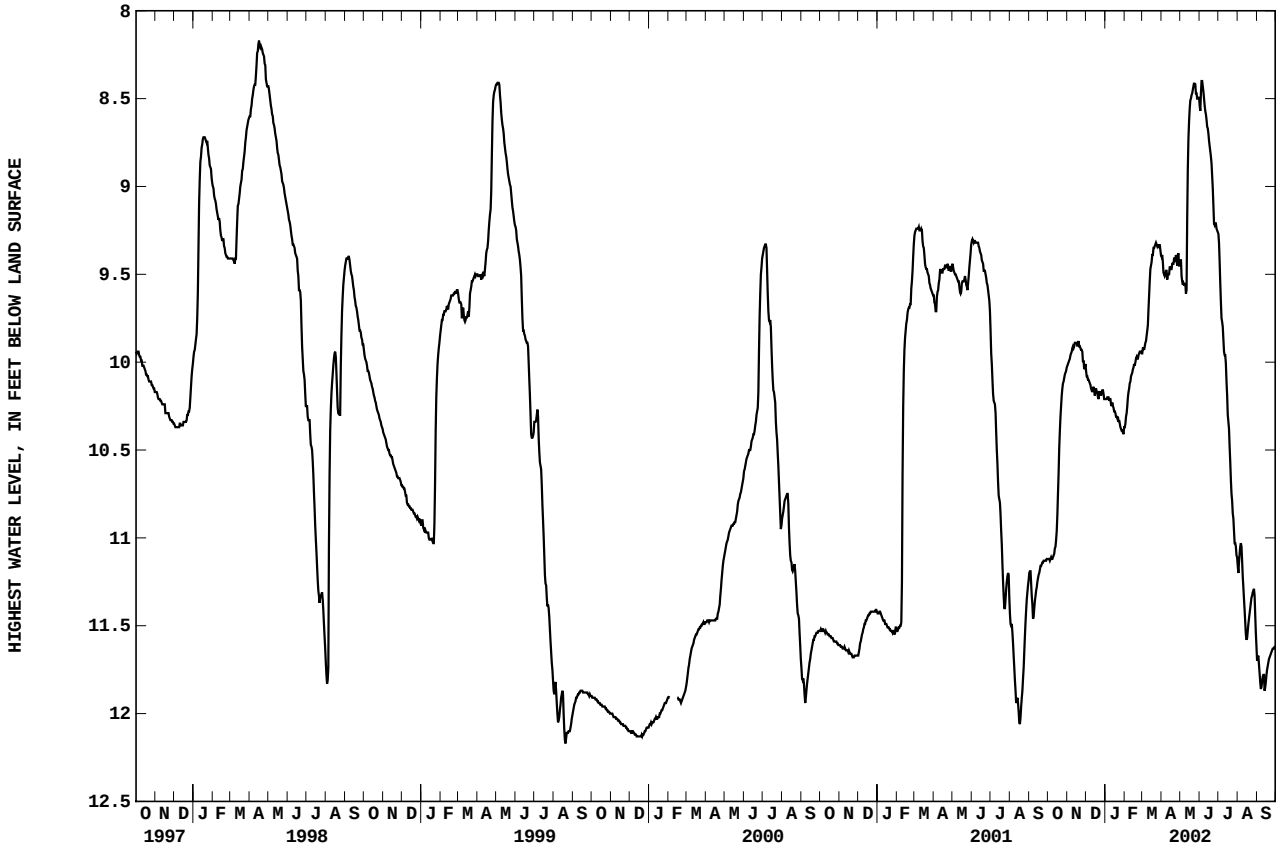
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.12	9.98	10.10	10.20	10.25	9.91	9.50	9.56	8.40	9.66	11.05	11.77
10	11.10	9.91	10.16	10.24	10.11	9.79	9.53	9.61	8.57	9.94	11.28	11.79
15	10.96	9.89	10.19	10.28	10.03	9.45	9.46	8.63	8.70	10.19	11.58	11.82
20	10.39	9.91	10.20	10.32	9.97	9.35	9.44	8.47	8.87	10.57	11.43	11.69
25	10.12	9.94	10.19	10.37	9.94	9.34	9.42	8.42	9.22	10.89	11.31	11.64
EOM	10.03	10.01	10.21	10.37	9.95	9.39	9.45	8.49	9.26	11.11	11.62	11.62
MIN	10.03	9.88	10.05	10.20	9.94	9.32	9.38	8.41	8.40	9.27	11.03	11.62

WTR YR 2002 HIGH 8.40 JUN 4

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.13	9.99	10.11	10.21	10.29	9.93	9.51	9.57	8.43	9.75	11.09	11.82
10	11.11	9.92	10.17	10.25	10.12	9.83	9.56	9.63	8.60	9.97	11.35	11.83
15	11.01	9.89	10.21	10.30	10.04	9.47	9.48	8.73	8.74	10.30	11.61	11.87
20	10.49	9.92	10.21	10.33	9.98	9.36	9.46	8.48	8.94	10.67	11.46	11.71
25	10.15	10.00	10.21	10.38	9.96	9.36	9.45	8.47	9.24	10.96	11.33	11.67
EOM	10.05	10.05	10.22	10.42	9.96	9.41	9.47	8.55	9.29	11.16	11.70	11.65
MAX	11.14	10.06	10.23	10.42	10.42	9.98	9.56	9.63	9.29	11.16	11.70	11.91

WTR YR 2002 LOW 11.91 SEP 13



ELKHART COUNTY

414419085595801. Local number, EH 9.
LOCATION.--Lat 41°44'19", long 85°59'58",in NE$^1/_4$NW$^1/_4$NW$^1/_4$ sec.19, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, (ELKHART, IN quadrangle), on the west side of Iris Avenue, about 6 mi northwest of Elkhart.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in, depth 33.8 ft, cased to 28.8 ft with 5 ft stainless steel screen.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 785.27 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.80 ft above land-surface datum.

REMARKS.--Water level affected by public water supply pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.09 ft below land-surface datum, Jan. 16, 1991; lowest, 22.94 ft below land-surface datum, Aug. 19, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

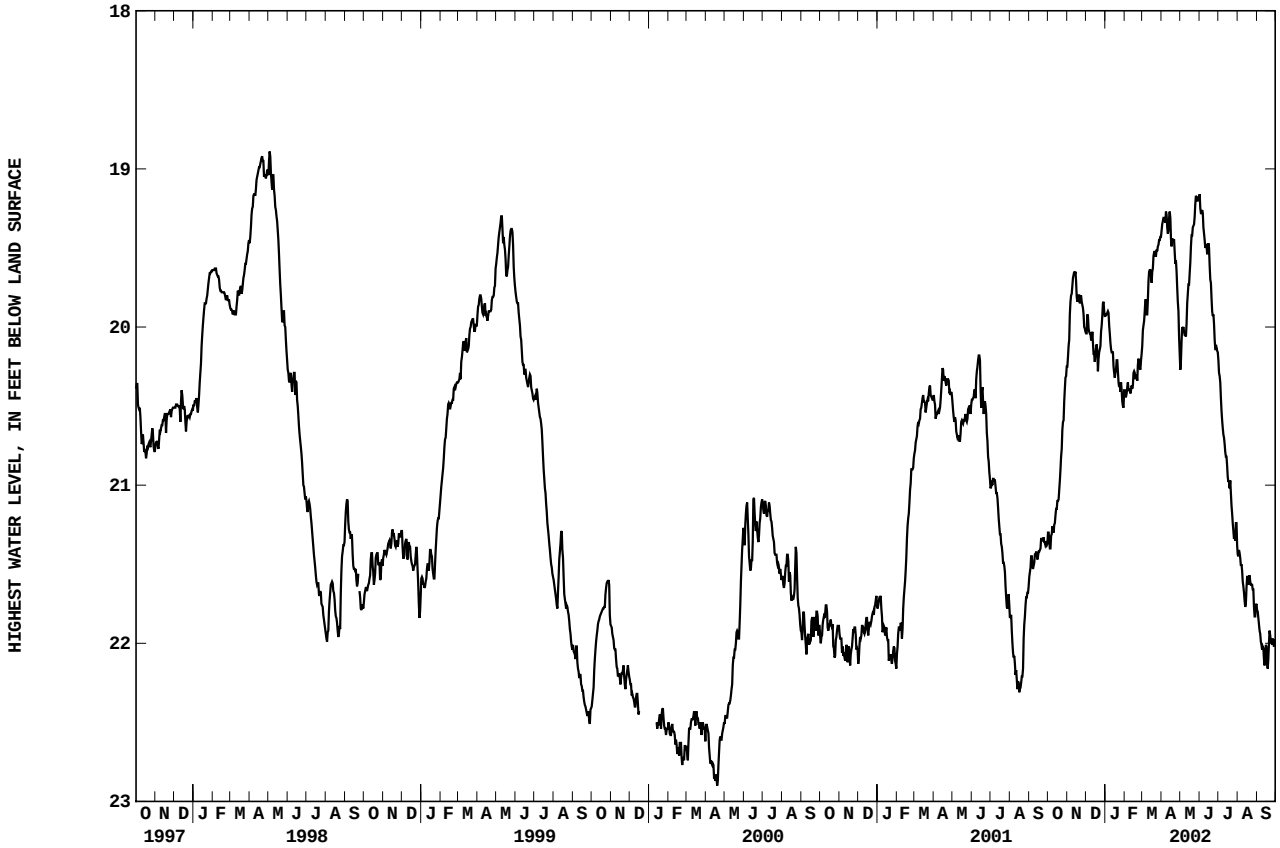
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.40	19.92	20.01	19.90	20.38	19.90	19.31	20.01	19.26	20.45	21.46	21.92
10	21.30	19.69	20.08	20.14	20.42	19.83	19.37	20.06	19.50	20.70	21.64	22.02
15	21.15	19.71	20.22	20.29	20.29	19.65	19.31	19.73	19.47	20.88	21.65	22.01
20	20.97	19.80	20.28	20.21	20.30	19.53	19.45	19.42	19.82	20.97	21.57	22.00
25	20.60	19.86	20.03	20.41	20.26	19.52	19.65	19.22	20.08	21.29	21.66	22.01
EOM	20.25	20.03	19.93	20.40	20.17	19.43	20.17	19.18	20.16	21.38	21.75	21.98
MIN	20.25	19.65	19.84	19.90	20.17	19.43	19.27	19.17	19.16	20.21	21.41	21.79

WTR YR 2002 HIGH 19.16 JUN 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.42	20.08	20.07	19.93	20.52	19.96	19.38	20.08	19.34	20.53	21.51	21.94
10	21.34	19.74	20.13	20.20	20.48	19.92	19.45	20.14	19.57	20.74	21.68	22.06
15	21.18	19.82	20.27	20.35	20.37	19.78	19.44	19.74	19.54	20.95	21.76	22.08
20	21.03	19.90	20.32	20.28	20.36	19.59	19.51	19.47	19.90	21.05	21.61	22.13
25	20.65	19.92	20.12	20.44	20.31	19.57	19.75	19.30	20.14	21.34	21.73	22.05
EOM	20.32	20.06	20.00	20.51	20.21	19.46	20.27	19.21	20.21	21.44	21.79	22.10
MAX	21.43	20.28	20.32	20.57	20.54	20.18	20.27	20.32	20.21	21.44	21.89	22.19

WTR YR 2002 LOW 22.19 SEP 13



FOUNTAIN COUNTY

401200087121701. Local number, FO 3.
LOCATION.--Lat 40°12'00", long 87°12'17", in NW$^1/_4$NW$^1/_4$NW$^1/_4$ sec.10, T.20 N., R.7 W., Fountain County, Hydrologic Unit 05120108, (MELLOTT, IN quadrangle), on the southwest corner of the Union Church property on County Road 520 North, about 6.5 mi southeast of Attica.
Owner: U.S. Geological Survey.

AQUIFER.--Shale and sandstone of the Mississippian Period.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 102 ft, cased to 22 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670.99 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.60 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.97 ft below land-surface datum, May 13, 2002; lowest, 13.53 ft below land-surface datum, Dec. 21, 22, 25-27, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

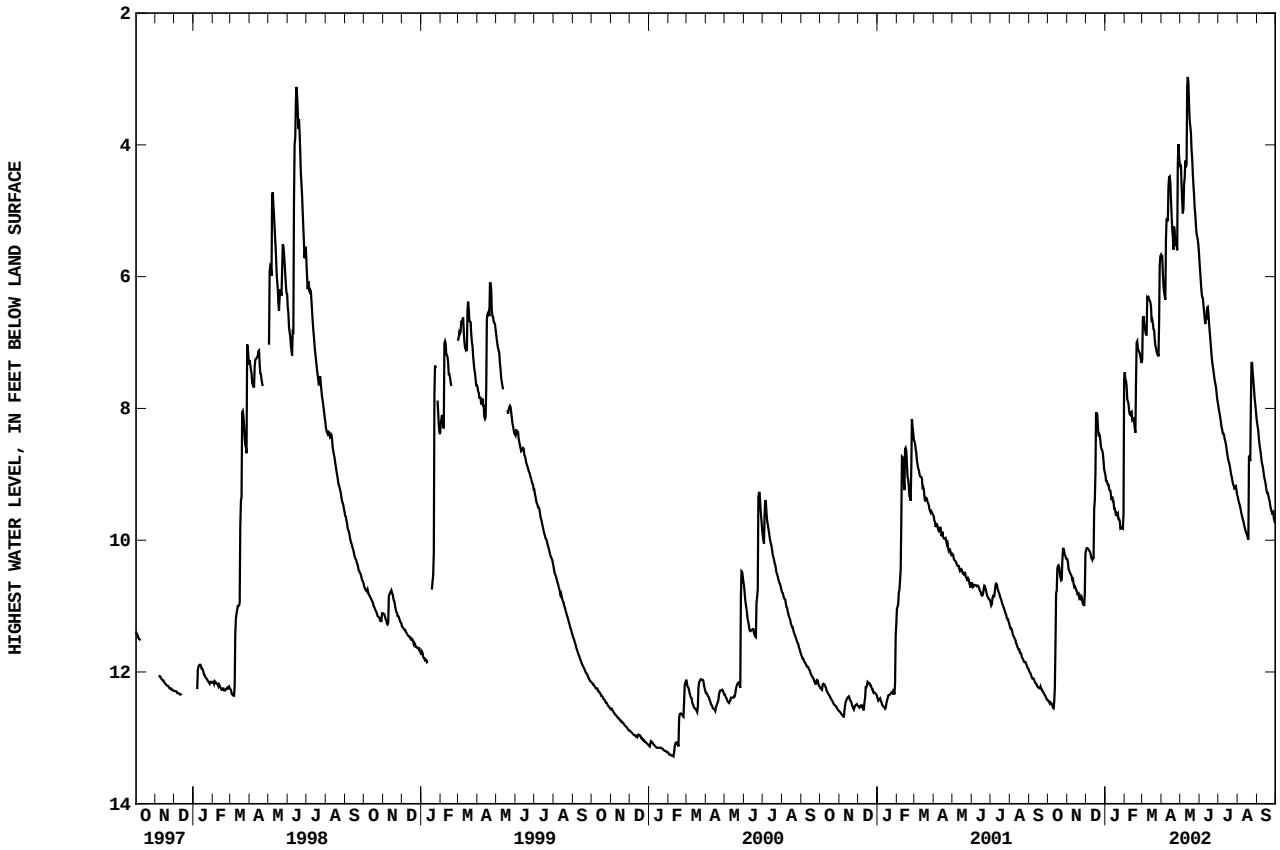
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.46	10.49	10.14	9.16	7.87	6.76	6.23	5.04	6.31	8.21	9.50	8.56
10	12.55	10.59	10.28	9.33	8.10	6.32	5.13	4.34	6.72	8.40	9.71	8.88
15	10.76	10.75	9.40	9.52	8.16	6.45	4.58	3.39	6.56	8.68	9.90	9.17
20	10.51	10.87	8.29	9.62	7.00	6.81	5.59	4.21	7.19	8.92	8.73	9.37
25	10.13	10.91	8.59	9.82	7.16	7.17	5.50	5.06	7.57	9.16	7.47	9.59
EOM	10.28	10.20	8.97	7.55	7.31	5.67	4.28	5.65	7.91	9.31	8.14	9.74
MIN	10.13	10.20	8.07	7.55	6.98	5.67	3.99	2.97	5.82	7.97	7.31	8.22

WTR YR 2002 HIGH 2.97 MAY 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.49	10.51	10.17	9.18	7.91	6.88	6.30	5.17	6.38	8.28	9.55	8.62
10	12.56	10.66	10.31	9.39	8.21	6.41	5.19	4.54	6.81	8.46	9.76	8.94
15	10.81	10.77	9.52	9.60	8.24	6.66	4.83	3.63	6.70	8.74	9.93	9.24
20	10.57	10.89	8.40	9.68	7.62	6.96	5.72	4.43	7.29	8.98	8.80	9.40
25	10.31	11.01	8.62	9.84	7.25	7.24	5.60	5.22	7.63	9.19	7.57	9.60
EOM	10.30	10.79	9.01	9.60	7.37	5.71	4.43	5.82	7.97	9.34	8.22	9.77
MAX	12.57	11.07	10.35	9.87	8.42	7.43	6.41	5.82	7.97	9.34	10.02	9.77

WTR YR 2002 LOW 12.57 OCT 11



392416085004301. Local number, FR 5.
LOCATION.--Lat 39°24'16", long 85°00'43", in SE$^1/_4$NE$^1/_4$NW$^1/_4$ sec.32, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, (BROOKVILLE, IN quadrangle), adjacent to property of Franklin County Conservation Club, 1.0 mi south of Brookville. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 61 ft, cased to 57 ft, screened to 59 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 621.79 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.70 ft above land-surface datum.

PERIOD OF RECORD.--March l968 to October l97l, September l974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, ll.95 ft below land-surface datum, May 24, l968; lowest, 27.32 ft below land-surface datum, Feb. l, l977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

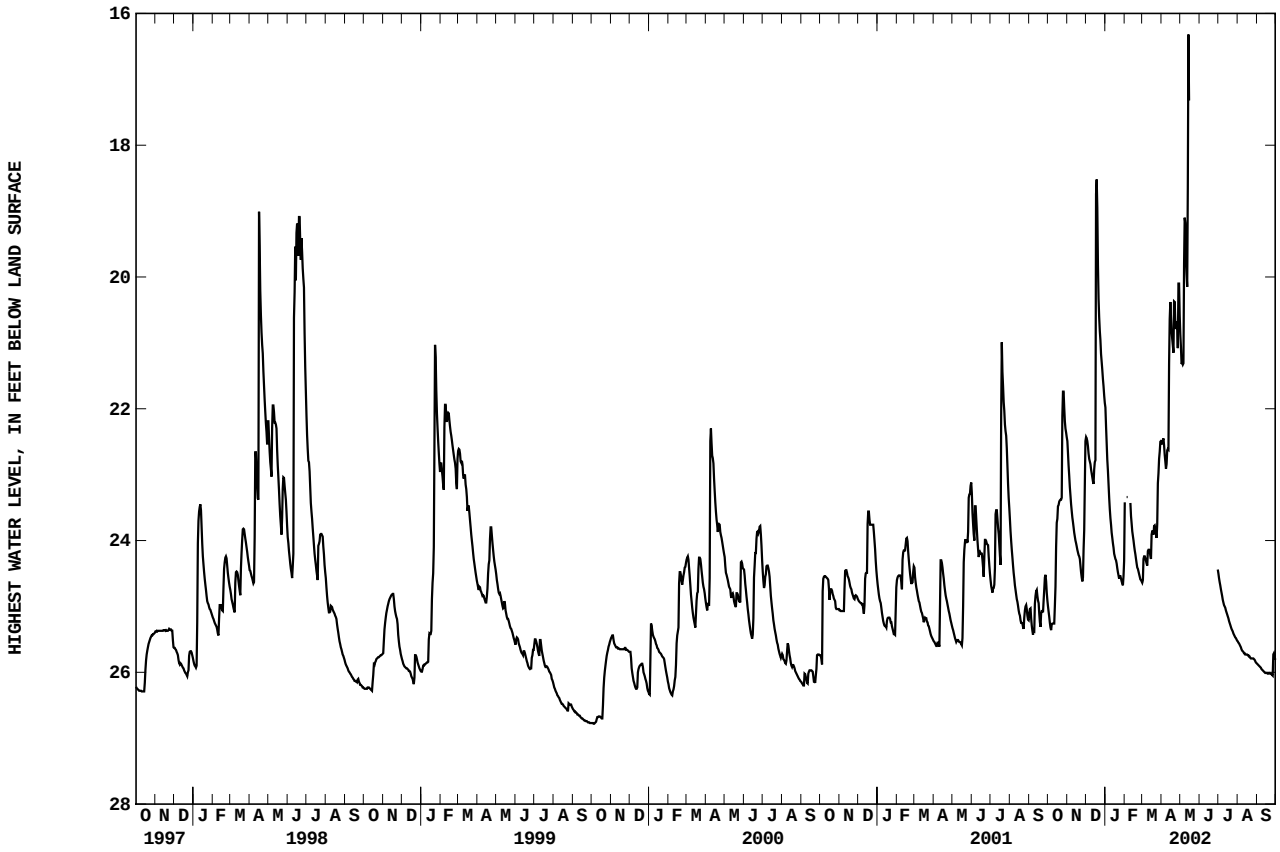
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.32	23.19	22.68	22.94	---	24.24	22.56	21.33	---	24.74	25.60	25.91
10	25.26	23.72	22.98	23.76	23.43	24.16	22.63	19.68	---	24.98	25.69	25.97
15	23.73	24.04	22.81	24.20	24.00	24.28	20.38	17.32	---	25.12	25.73	26.01
20	23.39	24.24	19.82	24.42	24.35	23.78	21.15	---	---	25.28	25.76	26.01
25	21.74	24.62	21.17	24.54	24.55	23.75	20.69	---	---	25.41	25.79	26.04
EOM	22.43	22.49	21.91	24.31	24.62	22.49	20.59	---	24.44	25.52	25.86	25.81
MIN	21.74	22.49	18.52	21.98	---	22.49	20.10	---	---	24.50	25.53	25.71

WTR YR 2002 HIGH 16.32 MAY 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.38	23.32	22.76	23.14	---	24.27	22.70	21.39	---	24.79	25.62	25.92
10	25.26	23.80	23.04	23.88	23.63	24.38	22.84	19.95	---	25.00	25.71	25.98
15	24.10	24.09	22.92	24.24	24.08	24.33	20.64	---	---	25.15	25.74	26.02
20	23.41	24.28	20.33	24.48	24.41	23.95	21.21	---	---	25.31	25.78	26.03
25	22.11	24.64	21.29	24.58	24.59	24.06	20.80	---	---	25.43	25.79	26.05
EOM	22.49	23.15	21.98	24.54	24.64	22.50	20.87	---	24.50	25.53	25.87	25.86
MAX	25.40	24.64	23.15	24.72	---	24.66	23.07	---	---	25.53	25.87	26.05

WTR YR 2002 LOW 26.05 SEP 25



FULTON COUNTY

405829086175801. Local number, FU 7.
LOCATION.--Lat 40°58'29", long 86°17'58", in NW1/4NW1/4SW1/4 sec.10, T.29 N., R.2 E., Fulton County, Hydrologic Unit 05120106, (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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

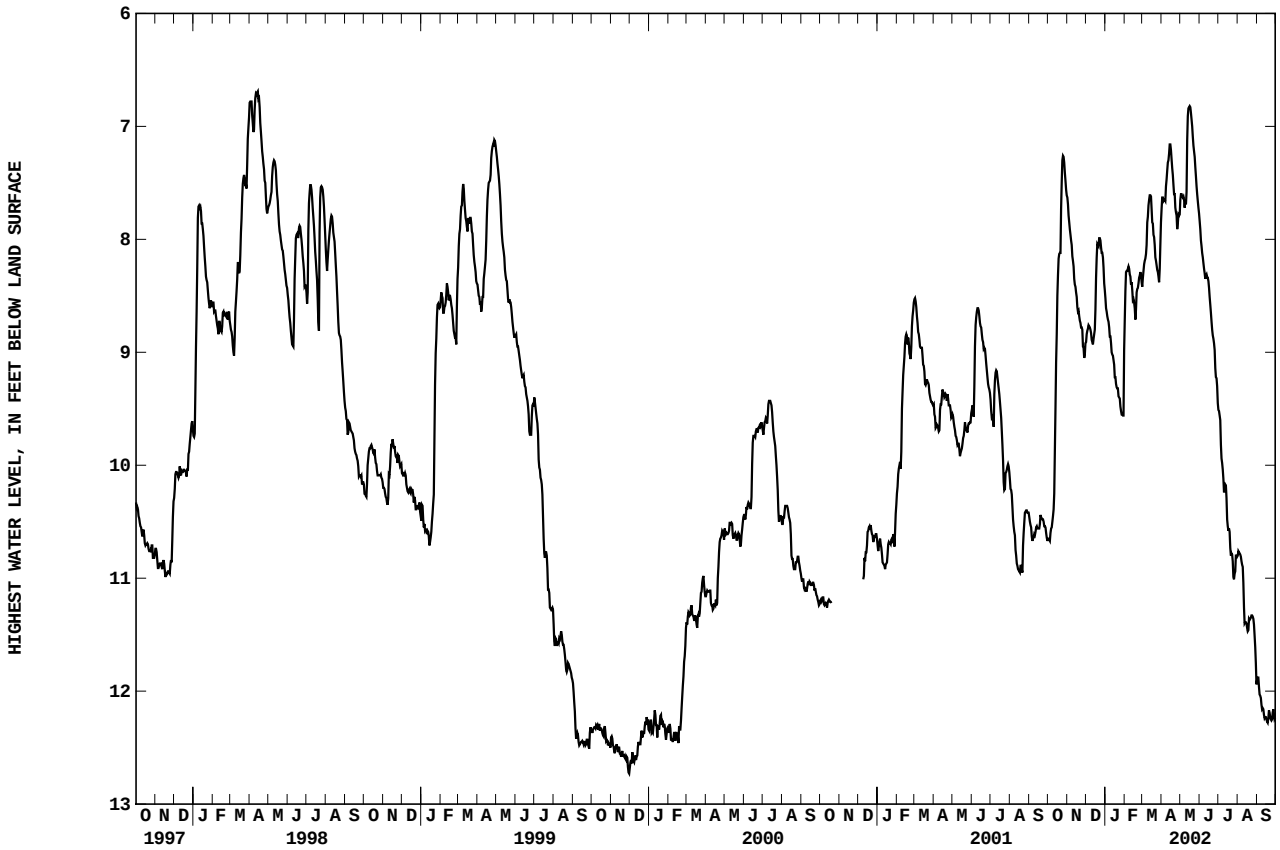
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.60	7.91	8.76	8.71	8.28	8.19	7.65	7.63	8.12	9.82	10.79	12.03
10	10.39	8.19	8.89	8.92	8.33	7.80	7.39	7.69	8.35	10.24	11.04	12.15
15	8.84	8.47	8.80	9.11	8.53	7.62	7.16	6.83	8.37	10.48	11.40	12.23
20	8.12	8.68	8.05	9.32	8.47	7.98	7.52	7.00	8.73	10.73	11.37	12.17
25	7.26	8.80	8.07	9.48	8.32	8.27	7.79	7.36	8.98	10.99	11.34	12.25
EOM	7.61	8.92	8.45	8.98	8.38	7.85	7.78	7.77	9.45	10.81	11.94	12.24
MIN	7.26	7.63	7.99	8.52	8.24	7.61	7.16	6.82	7.84	9.51	10.76	11.88

WTR YR 2002 HIGH 6.82 MAY 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.70	7.96	8.79	8.73	8.31	8.22	7.66	7.66	8.16	9.94	10.81	12.05
10	10.45	8.24	8.91	9.00	8.40	7.85	7.47	7.75	8.37	10.26	11.26	12.16
15	9.09	8.51	8.86	9.23	8.57	7.73	7.21	6.85	8.43	10.55	11.45	12.25
20	8.14	8.73	8.06	9.35	8.62	8.05	7.60	7.09	8.80	10.83	11.39	12.24
25	7.30	8.95	8.12	9.53	8.35	8.33	7.91	7.44	9.14	11.04	11.36	12.28
EOM	7.63	9.02	8.52	9.56	8.42	8.05	7.79	7.84	9.51	10.81	11.99	12.26
MAX	10.70	9.08	8.96	9.58	8.98	8.49	8.01	7.84	9.51	11.04	11.99	12.29

WTR YR 2002 LOW 12.29 SEP 17



402322085481901. Local number, GT 8.
LOCATION.--Lat 40°23'22", long 85°48'19", in NW1/4SW1/4NW1/4 sec.1, T.22 N., R.6 E., Grant County, Hydrologic Unit 05120107, (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, 1.16 ft below land-surface datum, Mar. 21, 1984, Dec. 17, 2001; lowest, 11.01 ft below land-surface datum, Jan. 13, 14, 27, Feb. 5, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

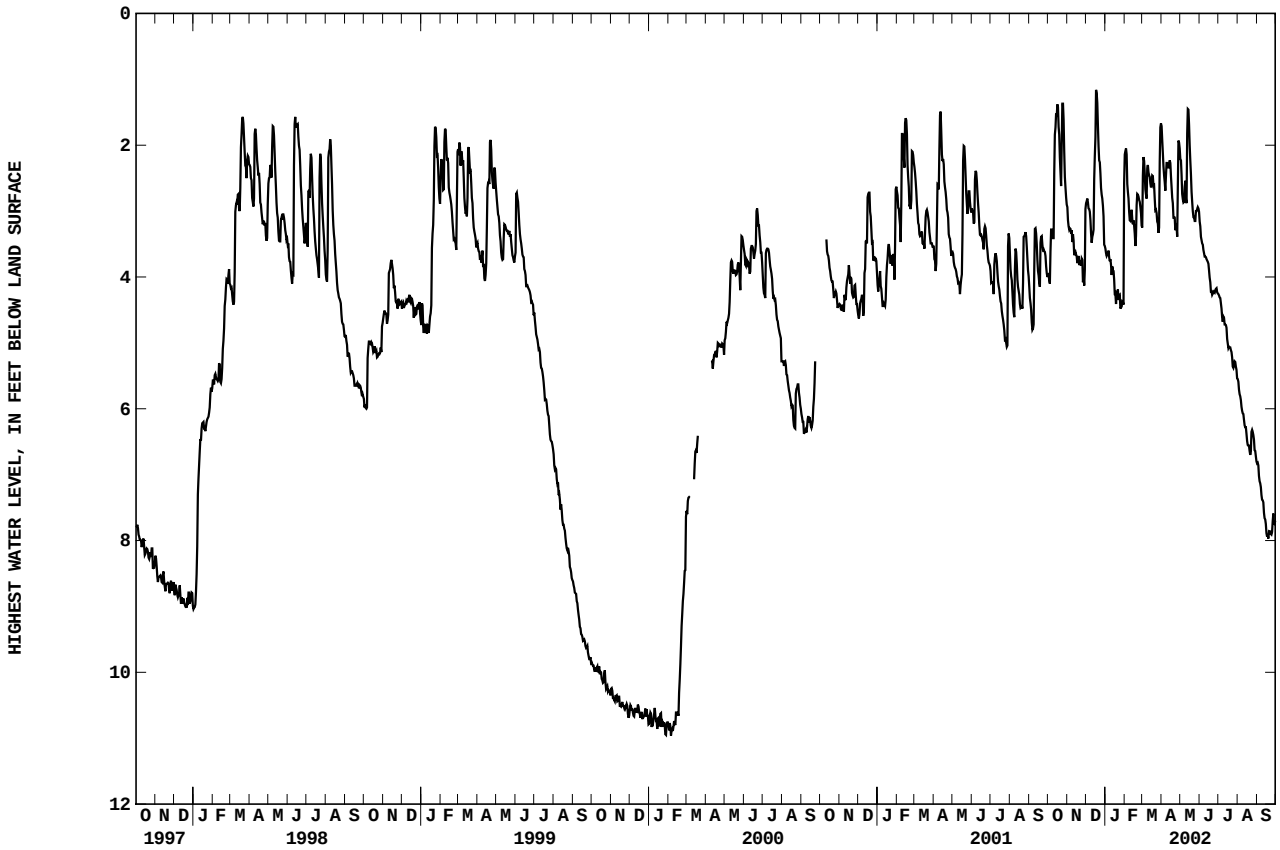
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.61	3.26	2.96	3.66	2.59	2.43	2.46	2.82	3.49	4.40	5.81	7.10
10	3.41	3.35	3.48	3.82	3.15	2.30	2.27	2.82	3.69	4.62	6.08	7.39
15	1.56	3.66	2.17	4.04	3.14	2.64	2.27	1.69	3.80	4.94	6.38	7.75
20	2.19	3.82	1.72	4.25	2.91	2.61	3.10	2.86	4.22	5.07	6.64	7.87
25	1.37	3.74	2.65	4.48	2.86	3.16	3.23	3.15	4.24	5.38	6.35	7.87
EOM	2.90	2.97	3.53	2.57	3.22	1.67	2.05	3.01	4.25	5.54	6.80	7.70
MIN	1.37	2.94	1.16	2.57	2.05	1.67	1.71	1.45	3.16	4.26	5.55	6.82

WTR YR 2002 HIGH 1.16 DEC 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.20	3.44	2.99	3.69	2.71	2.68	2.56	2.95	3.55	4.78	6.02	7.35
10	3.50	3.45	---	3.97	3.28	2.43	2.32	2.98	3.81	5.01	6.44	7.71
15	1.83	3.70	2.52	4.44	3.26	2.83	2.47	2.00	4.03	5.17	6.72	8.01
20	2.41	3.86	2.02	4.36	3.38	2.83	3.26	3.01	4.42	5.46	7.03	8.03
25	1.61	4.10	2.76	4.55	3.03	3.31	3.40	3.44	4.54	5.71	6.72	8.06
EOM	3.02	3.89	---	4.42	3.27	1.74	2.21	3.23	4.64	5.76	7.08	8.03
MAX	4.28	---	---	---	3.62	3.47	3.46	3.44	4.64	5.76	7.08	8.23

WTR YR 2002 LOW 8.23 SEP 19



GRANT COUNTY

403836085374401. Local number, GT 10.
LOCATION.--Lat 40°38'36", long 85°37'44", in NE$^1/_4$SE$^1/_4$SW$^1/_4$ sec.4, T.25 N., R.8 E., Grant County, Hydrologic Unit 05120103, (LA FOUNTAINE, IN quadrangle), 0.20 mi north of intersection of State Highway 9 and County Road 600 North on west side of road. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 198 ft, cased to 193 ft, screened to 198 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 912.16 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of shelf, 3.20 ft above land-surface datum.

REMARKS.--Water level affected by pumpage from water-supply well field.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 107.39 ft below land-surface datum, Apr. 6, 1988; lowest, 124.24 ft below land-surface datum, Feb. 16 - 17, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

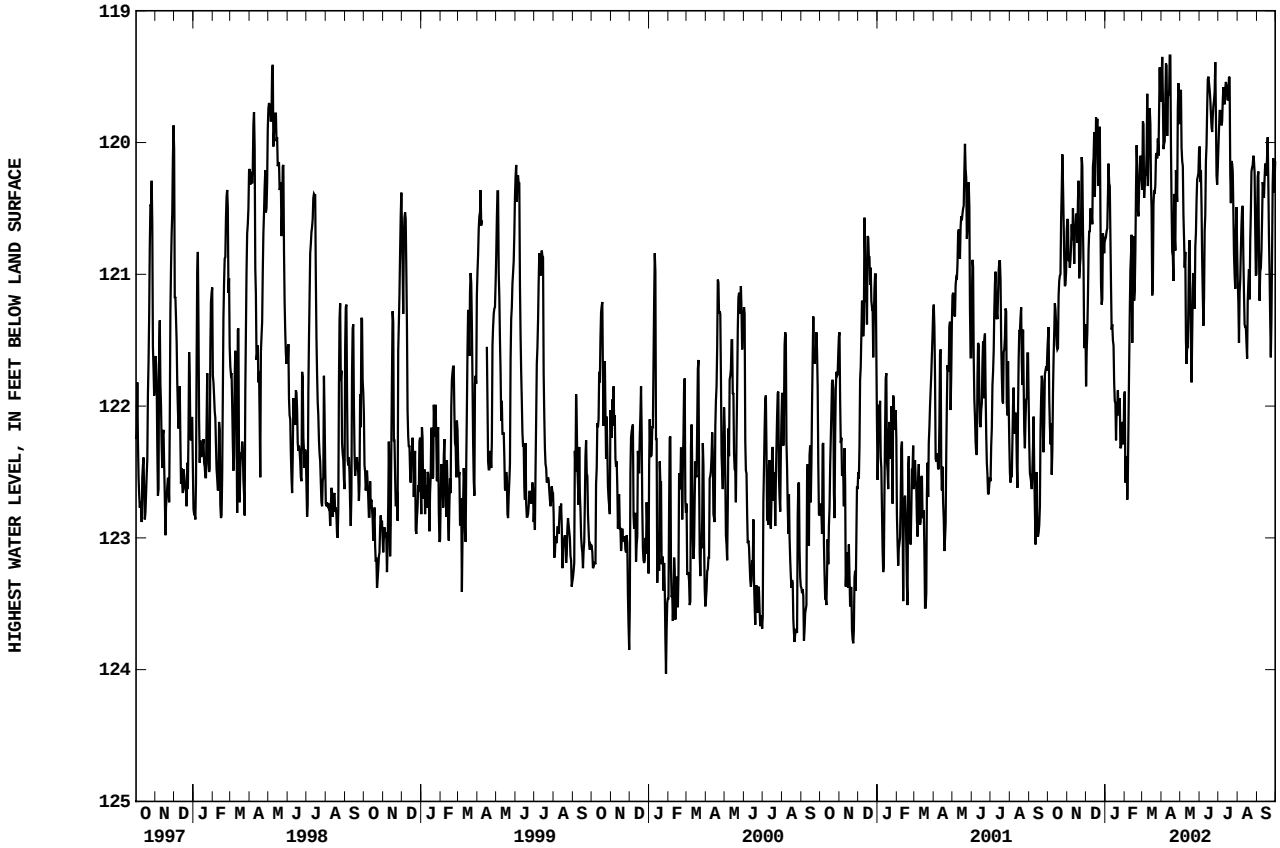
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	122.29	120.95	120.82	120.41	122.71	120.31	120.01	120.18	120.89	119.81	121.04	121.20
10	121.62	120.50	120.55	121.10	120.97	120.33	119.95	121.50	120.55	119.65	120.87	120.30
15	121.54	120.54	120.41	121.82	120.71	120.33	119.34	120.80	119.50	119.64	121.52	120.20
20	121.01	121.03	120.13	122.00	120.02	120.36	121.05	121.46	119.88	120.24	121.19	120.72
25	120.31	120.18	121.08	122.32	120.23	120.12	120.35	120.79	119.61	120.53	120.17	120.84
EOM	120.67	121.38	120.72	121.94	120.26	119.67	119.79	120.06	120.19	120.80	121.00	120.14
MIN	120.09	120.11	119.81	120.16	120.02	119.43	119.34	119.60	119.39	119.50	120.10	119.96

WTR YR 2002 HIGH 119.34 APR 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	122.48	121.03	121.18	120.65	122.97	120.54	120.12	120.63	121.21	119.90	121.44	121.36
10	121.97	120.74	120.70	121.42	121.30	120.53	120.15	121.90	121.03	119.78	121.15	120.58
15	121.91	120.67	120.68	122.32	121.30	120.74	120.02	121.21	119.82	119.72	121.64	120.29
20	121.11	121.33	120.33	122.26	120.36	120.52	121.22	122.06	120.00	120.68	121.64	120.99
25	120.59	120.64	121.28	122.50	120.35	120.26	120.53	121.55	119.74	120.85	120.25	121.35
EOM	120.98	121.86	120.84	122.38	120.36	119.88	120.37	120.23	120.32	121.06	121.53	120.30
MAX	122.85	121.86	122.22	122.50	122.97	121.55	121.49	122.06	121.60	121.29	121.75	121.95

WTR YR 2002 LOW 122.97 FEB 5



382323086044501. Local number, HR 8.
LOCATION.--Lat 38°23'23", long 86°04'45", in NW$^1/_4$NW$^1/_4$NE$^1/_4$ 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, 0.56 ft below land-surface datum, June 7, l990, and Apr. 29, 1996; lowest, 20.29 ft below land-surface datum, Dec. 17, 1992.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

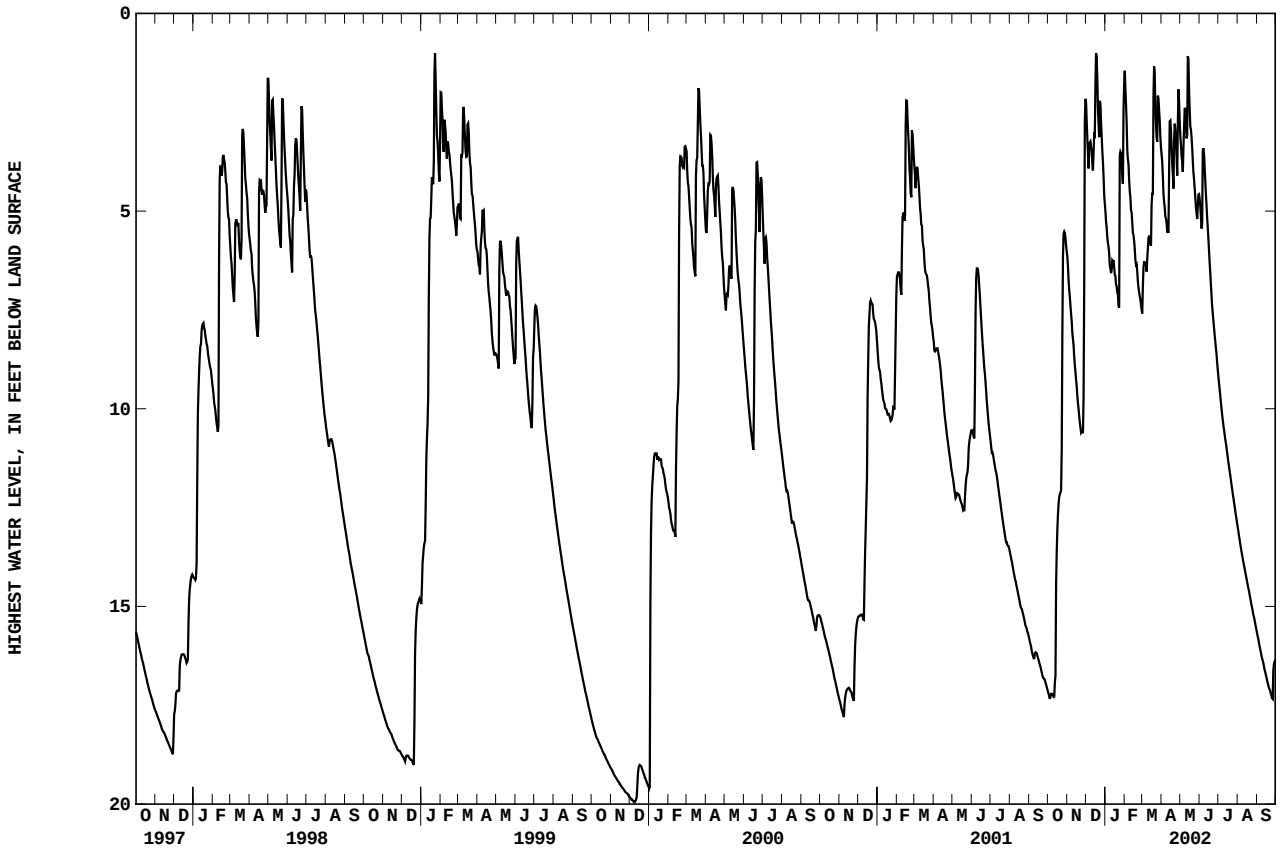
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.28	7.17	3.92	5.81	3.46	6.29	4.77	4.01	5.32	9.84	13.42	16.01
10	17.29	8.24	3.51	6.57	4.65	5.95	5.51	2.76	4.24	10.53	13.88	16.37
15	13.60	9.26	3.09	6.42	5.61	5.88	2.71	1.91	5.71	11.11	14.29	16.73
20	12.16	10.19	2.38	7.06	6.34	1.34	4.43	3.39	7.14	11.68	14.70	17.06
25	6.14	10.55	2.74	3.50	7.15	3.25	3.60	4.66	8.13	12.25	15.12	17.32
EOM	6.02	2.16	4.81	1.79	7.50	3.39	2.72	4.57	9.02	12.90	15.60	16.35
MIN	5.52	2.16	1.00	1.79	1.45	1.34	1.92	1.08	3.41	9.19	13.00	15.68

WTR YR 2002 HIGH 1.00 DEC 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.41	7.40	4.19	5.92	3.69	6.35	4.90	4.24	5.83	10.00	13.51	16.08
10	17.33	8.40	3.80	6.61	4.98	6.20	5.58	3.16	4.57	10.65	13.96	16.43
15	14.42	9.44	3.19	6.66	5.79	6.18	2.94	2.42	6.00	11.23	14.38	16.79
20	12.23	10.34	2.78	7.17	6.53	2.07	4.68	3.73	7.40	11.80	14.79	17.10
25	8.16	10.65	3.11	3.59	7.24	3.69	4.10	4.90	8.30	12.36	15.21	17.37
EOM	6.16	2.75	5.00	2.45	7.59	3.57	3.09	4.69	9.19	13.00	15.68	16.39
MAX	17.41	10.76	5.00	7.50	7.59	7.68	5.69	5.40	9.19	13.00	15.68	17.39

WTR YR 2002 LOW 17.41 OCT 5



HENDRICKS COUNTY

394025086400801. Local number, HD 4.
LOCATION.--Lat 39°40'25", long 86°40'08", in NW$^1/_4$NW$^1/_4$NW$^1/_4$ 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

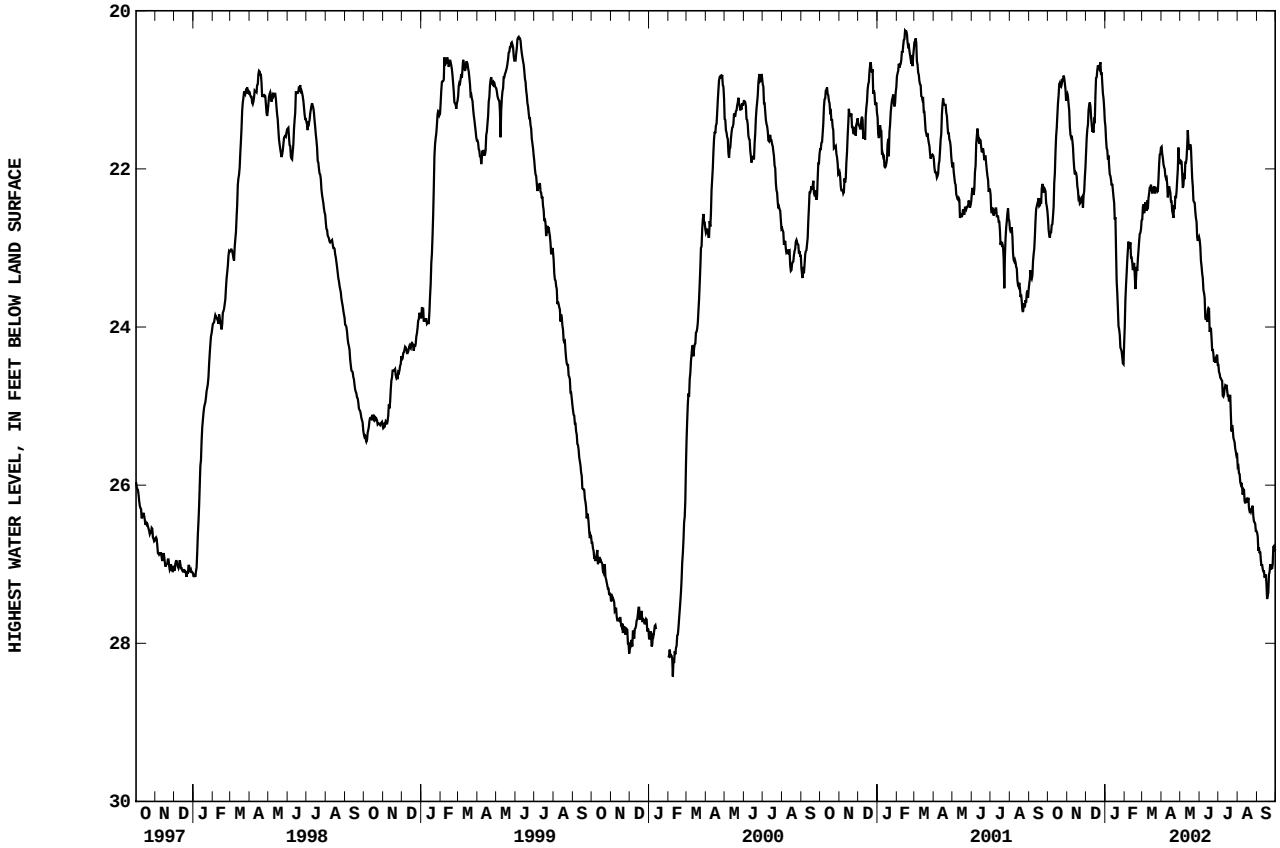
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.80	21.47	21.26	21.88	23.15	22.51	21.98	22.24	23.32	24.65	25.96	26.86
10	22.48	21.72	21.43	22.14	22.93	22.51	22.20	21.92	23.88	24.85	26.05	27.06
15	21.48	22.05	21.39	22.43	23.22	22.20	22.30	21.76	23.76	24.80	26.18	27.13
20	20.91	22.37	20.69	23.57	23.24	22.22	22.62	22.12	24.14	24.87	26.33	27.13
25	20.90	22.35	20.81	24.26	22.82	22.29	22.28	22.54	24.39	25.40	26.26	27.06
EOM	21.07	21.98	21.39	24.21	22.65	21.73	21.89	22.86	24.48	25.62	26.58	26.81
MIN	20.82	21.05	20.65	21.46	22.65	21.73	21.72	21.51	22.90	24.48	25.76	26.60

WTR YR 2002 HIGH 20.65 DEC 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.98	21.68	21.50	21.98	23.33	22.59	22.12	22.39	23.53	24.75	26.16	26.98
10	22.60	21.94	21.64	22.30	23.18	22.68	22.47	22.05	24.18	24.99	26.21	27.18
15	21.70	22.17	21.56	22.72	23.33	22.40	22.49	21.92	23.90	25.02	26.27	27.38
20	21.07	22.58	20.81	23.85	23.41	22.45	22.79	22.26	24.34	25.19	26.49	27.38
25	20.96	22.60	20.92	24.37	22.99	22.54	22.37	22.69	24.57	25.59	26.50	27.19
EOM	21.21	22.11	21.52	24.47	22.79	21.83	22.02	22.92	24.66	25.89	26.78	27.05
MAX	22.98	22.66	22.02	24.62	24.21	22.75	22.80	23.06	24.66	25.89	26.78	27.61

WTR YR 2002 LOW 27.61 SEP 18



404858085284301. Local number, HU 2.
LOCATION.--Lat 40°48'58", long 85°28'43", in SW$^1/_4$SW$^1/_4$SE$^1/_4$ sec.2, T.27 N., R.9 E., Huntington County, Hydrologic Unit 05120101, (MAJENICA, IN quadrangle), on the property of Luther Fusselman, 3.0 mi south of Huntington and 0.5 mi west of State Highway 5.
Owner: U.S. Geoligical Survey.

AQUIFER.--Sand and gravel of the Pleistocene Epoch.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 148 ft, cased to 143 ft, screened to 148 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 819.70 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.30 ft above land-surface datum.

REMARKS.--Water level affected by pumpage from water-supply well field.

PERIOD OF RECORD.--August 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.46 ft below land-surface datum, Dec. 24, 1988; lowest, 73.97 ft below land-surface datum, May 21, 2002.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

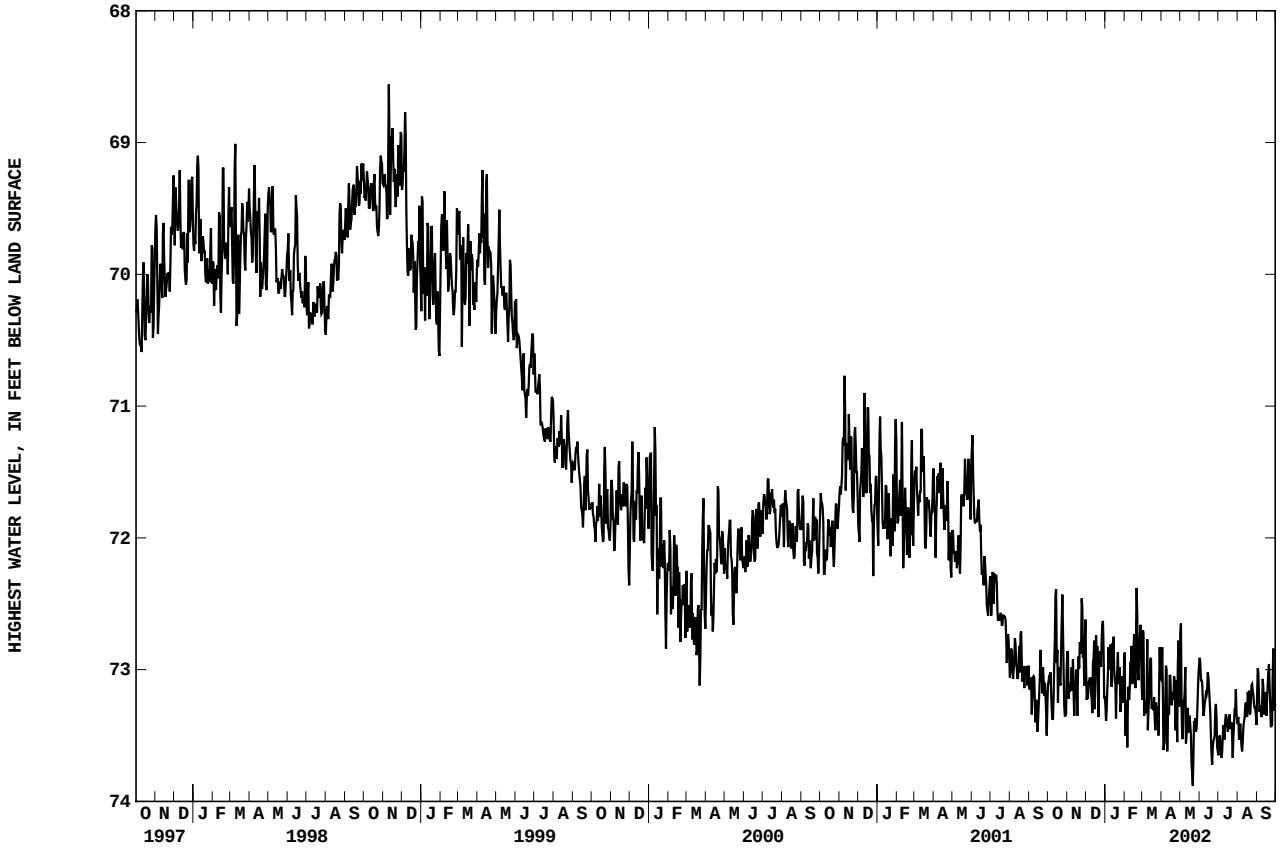
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.02	73.17	73.10	73.03	73.59	73.25	73.57	73.52	73.10	73.61	73.41	73.32
10	73.20	72.92	73.22	72.95	72.94	73.46	73.62	73.56	73.23	73.51	73.44	73.07
15	72.95	73.00	73.30	73.00	72.85	72.91	73.05	73.48	73.06	73.41	73.28	73.25
20	73.09	72.99	73.15	73.00	72.38	73.21	73.23	73.79	73.65	73.44	73.33	72.96
25	72.70	72.53	72.98	73.32	72.77	73.42	73.25	73.37	73.50	73.51	73.16	73.42
EOM	72.99	72.62	73.21	72.90	73.10	73.07	73.20	72.97	73.62	73.39	73.42	73.26
MIN	72.39	72.46	72.63	72.75	72.38	72.70	72.78	72.65	72.91	73.15	73.11	72.84

WTR YR 2002 HIGH 72.38 FEB 20

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.18	73.31	73.31	73.18	73.82	73.48	73.67	73.68	73.25	73.72	73.50	73.39
10	73.38	73.18	73.34	73.13	73.30	73.68	73.79	73.87	73.30	73.62	73.55	73.29
15	73.19	73.17	73.61	73.46	73.04	73.29	73.22	73.66	73.14	73.48	73.36	73.36
20	73.17	73.18	73.36	73.31	72.74	73.48	73.37	73.88	73.76	73.55	73.48	73.12
25	73.00	73.10	73.13	73.46	72.90	73.57	73.55	73.59	73.56	73.71	73.22	73.59
EOM	73.34	72.98	73.27	73.40	73.23	73.28	73.30	73.05	73.71	73.50	73.51	73.36
MAX	73.56	73.47	73.61	73.59	73.82	73.72	73.79	73.97	73.80	73.76	73.69	73.59

WTR YR 2002 LOW 73.97 MAY 21



JASPER COUNTY

410249087011201. Local number, JP 4.
LOCATION.--Lat 41°02'49", long 87°01'12", in SW$^1/_4$NE$^1/_4$SW$^1/_4$ sec.17, T.30 N., R.5 W., Jasper County, Hydrologic Unit 07120002, (GIFFORD, IN quadrangle), on property of William Gehring, Inc., 0.9 mi east of Newland.
Owner: William Gehring, Inc.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 16 in., depth 300 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 676.93 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 0.00 ft above land-surface datum.

REMARKS.--Water level affected by irrigation pumpage.

PERIOD OF RECORD.--July 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.95 ft below land-surface datum, Apr. 9, 1962; lowest, 40.17 ft below land-surface datum, July 25, 1980.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

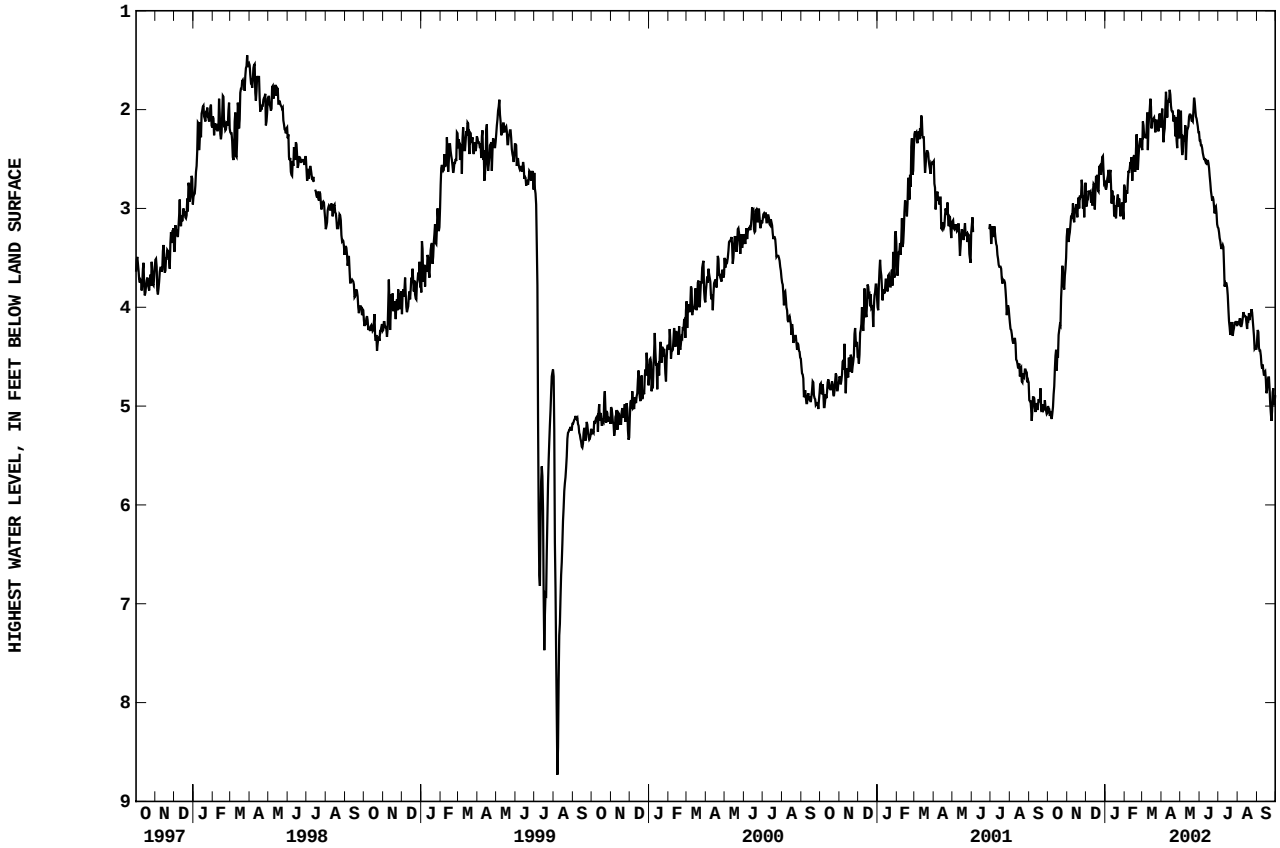
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.05	3.24	2.82	2.67	2.85	2.26	2.24	2.42	2.39	3.38	4.12	4.44
10	4.88	2.95	2.89	2.77	2.53	2.41	2.08	2.51	2.52	3.58	4.05	4.58
15	4.64	2.96	3.01	3.08	2.48	1.97	1.85	2.07	2.54	3.80	4.16	4.73
20	4.18	3.00	2.82	2.90	2.25	2.08	2.12	2.11	2.87	4.28	4.13	4.71
25	3.70	2.78	2.66	3.08	2.32	2.20	2.31	2.00	3.05	4.24	4.13	5.05
EOM	3.29	2.74	2.74	2.76	2.37	2.18	2.27	2.23	3.19	4.19	4.42	4.89
MIN	3.29	2.71	2.47	2.61	2.25	1.89	1.80	1.88	2.31	3.20	4.02	4.23

WTR YR 2002 HIGH 1.80 APR 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.23	3.39	3.02	2.74	3.01	2.27	2.33	2.51	2.49	3.50	4.25	4.59
10	5.03	3.14	3.05	3.01	2.84	2.41	2.26	2.67	2.68	3.84	4.19	4.71
15	4.78	3.14	3.11	3.27	2.62	2.19	1.98	2.25	2.64	3.92	4.28	4.87
20	4.33	3.12	2.89	3.05	2.41	2.26	2.28	2.20	3.01	4.43	4.28	4.84
25	3.80	3.14	2.75	3.22	2.47	2.36	2.45	2.12	3.19	4.39	4.23	5.26
EOM	3.56	3.03	2.90	3.17	2.43	2.31	2.39	2.36	3.24	4.27	4.52	5.05
MAX	5.23	3.48	3.20	3.31	3.21	2.62	2.56	2.67	3.27	4.45	4.52	5.26

WTR YR 2002 LOW 5.26 SEP 25



JASPER COUNTY

410809087580801. Local number, JP 7.
LOCATION.--Lat 41°08'10", long 86°58'08", in SE$^1/_4$SE$^1/_4$NE$^1/_4$ sec.15, T.31 N., R.5 W., Jasper County, Hydrologic Unit 07120002, (SAN PIERRE, IN quadrangle), in northwest corner of intersection of County Roads 850 North and 400 East, 4.0 mi south of Tefft.
Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Middle Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 130 ft, cased to 94 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 699.38 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.75 ft above land-surface datum.

REMARKS.--Water level affected by irrigation pumpage.

PERIOD OF RECORD.--May 1967 to current year. (Semi-annual tape-down readings only September 1971 to May 1978.)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.04 ft below land-surface datum, Apr. 5, 1985; lowest, 18.15 ft below land-surface datum, Aug. 30, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

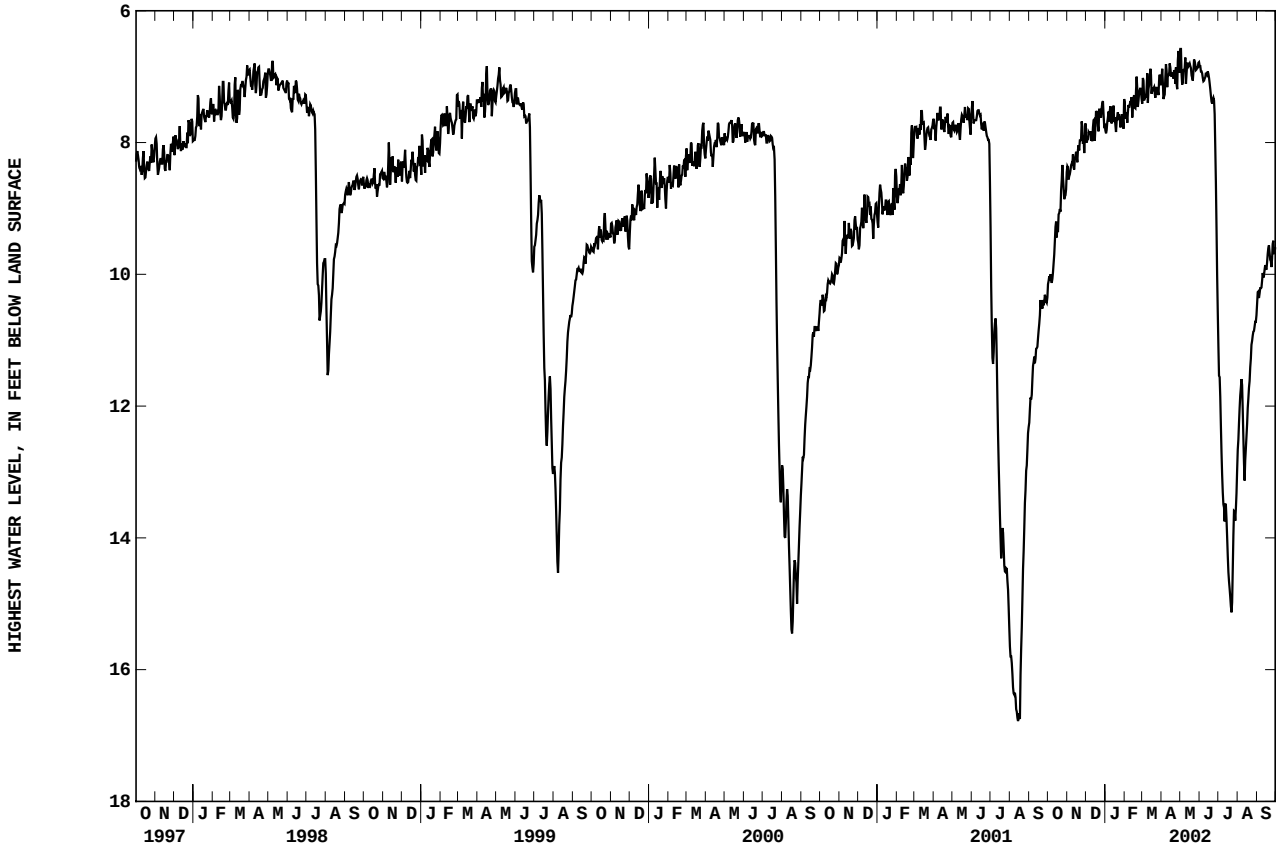
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.00	8.48	7.84	7.62	7.70	7.32	7.30	7.08	6.95	12.31	11.84	10.29
10	9.83	8.18	7.89	7.58	7.37	7.40	7.16	7.11	7.01	13.54	12.47	9.98
15	9.44	8.14	7.97	7.69	7.32	6.97	6.86	6.82	6.96	13.99	12.46	9.91
20	9.01	8.12	7.75	7.60	7.00	7.16	7.03	7.02	7.38	14.90	11.62	9.56
25	8.53	7.76	7.62	7.77	7.20	7.27	7.11	6.82	7.57	13.96	10.93	9.76
EOM	8.45	7.71	7.74	7.34	7.34	7.13	6.91	6.78	10.59	12.98	10.62	9.59
MIN	8.34	7.68	7.37	7.34	7.00	6.88	6.61	6.58	6.84	11.09	10.62	9.49

WTR YR 2002 HIGH 6.58 MAY 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.21	8.66	8.09	7.74	7.84	7.46	7.37	7.20	7.10	12.71	12.05	10.49
10	10.00	8.41	8.06	7.80	7.75	7.56	7.36	7.32	7.19	13.78	12.87	10.18
15	9.63	8.38	8.08	7.94	7.49	7.26	7.01	7.02	7.05	14.27	12.68	10.06
20	9.19	8.28	7.85	7.78	7.22	7.37	7.19	7.15	7.54	15.09	11.84	9.72
25	8.70	8.20	7.73	7.92	7.38	7.45	7.26	6.98	8.08	14.49	11.08	10.00
EOM	8.78	8.04	7.93	7.86	7.52	7.27	7.05	6.90	11.09	13.32	10.79	9.77
MAX	10.40	8.70	8.25	8.07	7.92	7.62	7.40	7.32	11.09	15.31	13.32	10.67

WTR YR 2002 LOW 15.31 JUL 22



JASPER COUNTY

410322087163101. Local number, JP 11.
LOCATION.--Lat 41°03'22", long 87°16'31", in NW$^1/_4$NW$^1/_4$NW$^1/_4$ sec.18, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, (FAIR OAKS, IN quadrangle), on Prudential Life Insurance Company of America property, 3.2 mi north of State Highway 14, and 1.5 mi southwest of Fair Oaks.
Owner: Prudential Insurance Company of America.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 16 in., depth 630 ft, cased to 63 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 697.50 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

REMARKS.--Water level affected by irrigation pumpage.

PERIOD OF RECORD.--March 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.04 ft above land-surface datum, Apr. 3, 1982; lowest, 52.76 ft below land-surface datum, Aug. 17, 2002.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

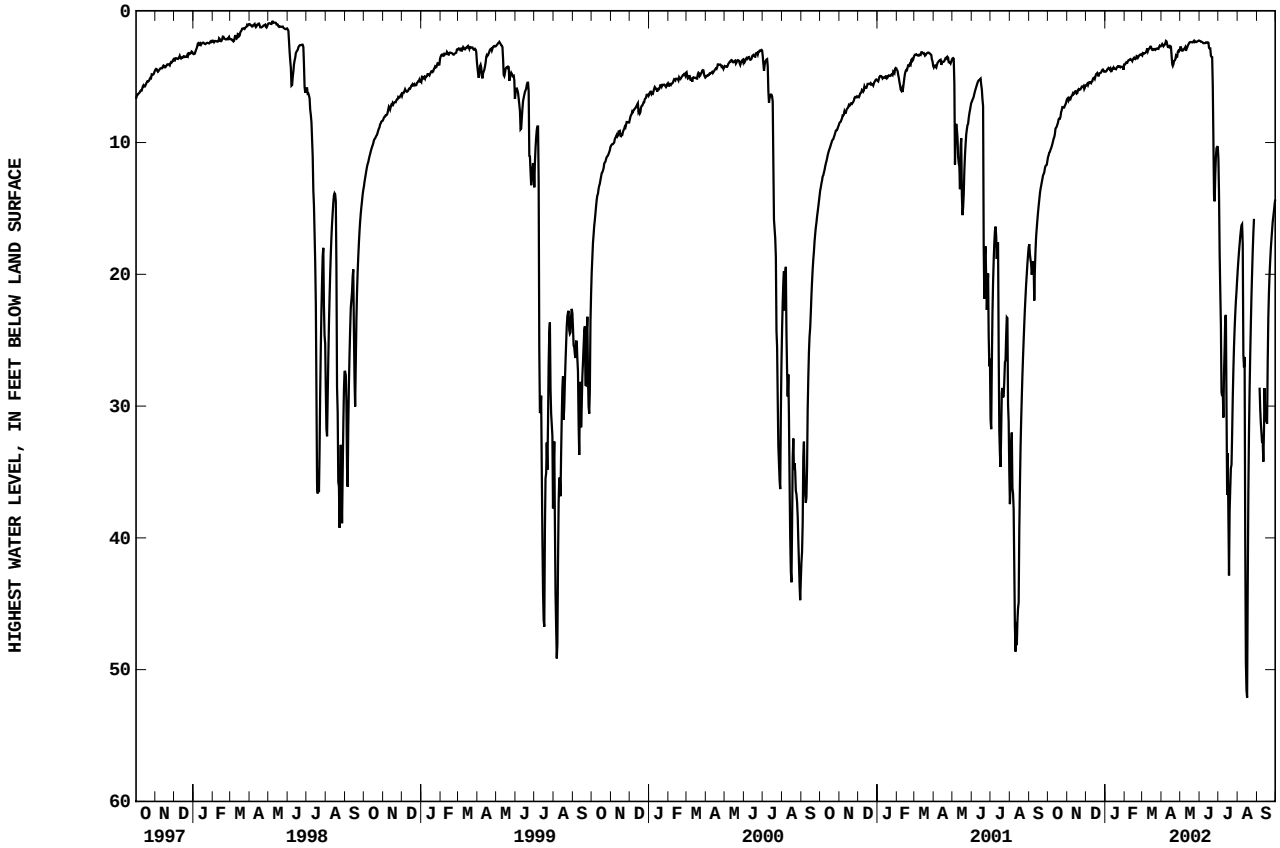
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.55	6.63	5.51	4.39	3.95	3.22	2.62	3.02	2.38	23.89	17.14	28.60
10	9.71	6.26	5.38	4.59	3.66	3.07	2.57	3.04	2.45	27.44	26.08	32.69
15	8.79	6.13	5.17	4.39	3.62	2.73	2.67	2.46	2.42	36.71	51.55	31.20
20	8.19	6.01	4.82	4.25	3.44	2.90	4.05	2.40	3.50	36.24	28.77	21.33
25	7.34	5.77	4.69	4.29	3.36	2.89	3.51	2.34	14.46	27.23	18.26	16.68
EOM	6.77	5.67	4.60	4.08	3.35	2.69	3.00	2.26	10.34	20.47	---	14.32
MIN	6.77	5.67	4.46	4.08	3.31	2.65	2.29	2.26	2.29	11.20	---	---

WTR YR 2002 HIGH 2.26 MAY 31

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.88	6.91	5.73	4.45	4.04	3.29	2.69	3.09	2.44	28.95	17.70	30.24
10	9.92	6.38	5.50	4.68	3.81	3.14	2.78	3.12	2.51	30.87	29.75	34.22
15	8.92	6.38	5.22	4.53	3.69	2.88	2.74	2.57	2.84	38.59	52.13	31.61
20	8.42	6.14	5.03	4.37	3.61	2.99	4.18	2.44	3.55	37.96	31.99	23.29
25	7.38	5.92	4.76	4.33	3.41	2.95	3.56	2.41	15.97	29.43	19.88	17.35
EOM	6.97	5.82	4.67	4.48	3.41	2.75	3.08	2.31	11.20	21.30	---	14.71
MAX	11.39	6.98	5.77	4.70	4.22	3.50	4.23	3.12	16.06	44.70	---	---

WTR YR 2002 LOW 52.76 AUG 17



410145087130401. Local number, JP 12.
LOCATION.--Lat 41°01'45", long 87°13'04", in NW$^1/_4$SW$^1/_4$SW$^1/_4$ sec.22, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, (PARR, IN quadrangle), in Old Union Township school yard, 200 ft east of County Road 900 West, 750 ft north of State Highway 14, and in Parr.
Owner: Prudential Insurance Company of America.

AQUIFER.--Limestone/dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 150 ft, cased to 103 ft, open end.

INSTRUMENTATION.--Water-level recorder, data-collection platform, and incremental encoder.

DATUM.--Elevation of land-surface datum is 692.90 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of well casing, 2.6 ft above land-surface datum.

REMARKS.--Water level affected by irrigation pumpage.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.08 ft below land-surface datum, May 22, 1983; lowest, 53.41 ft below land-surface datum, Aug. 18, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

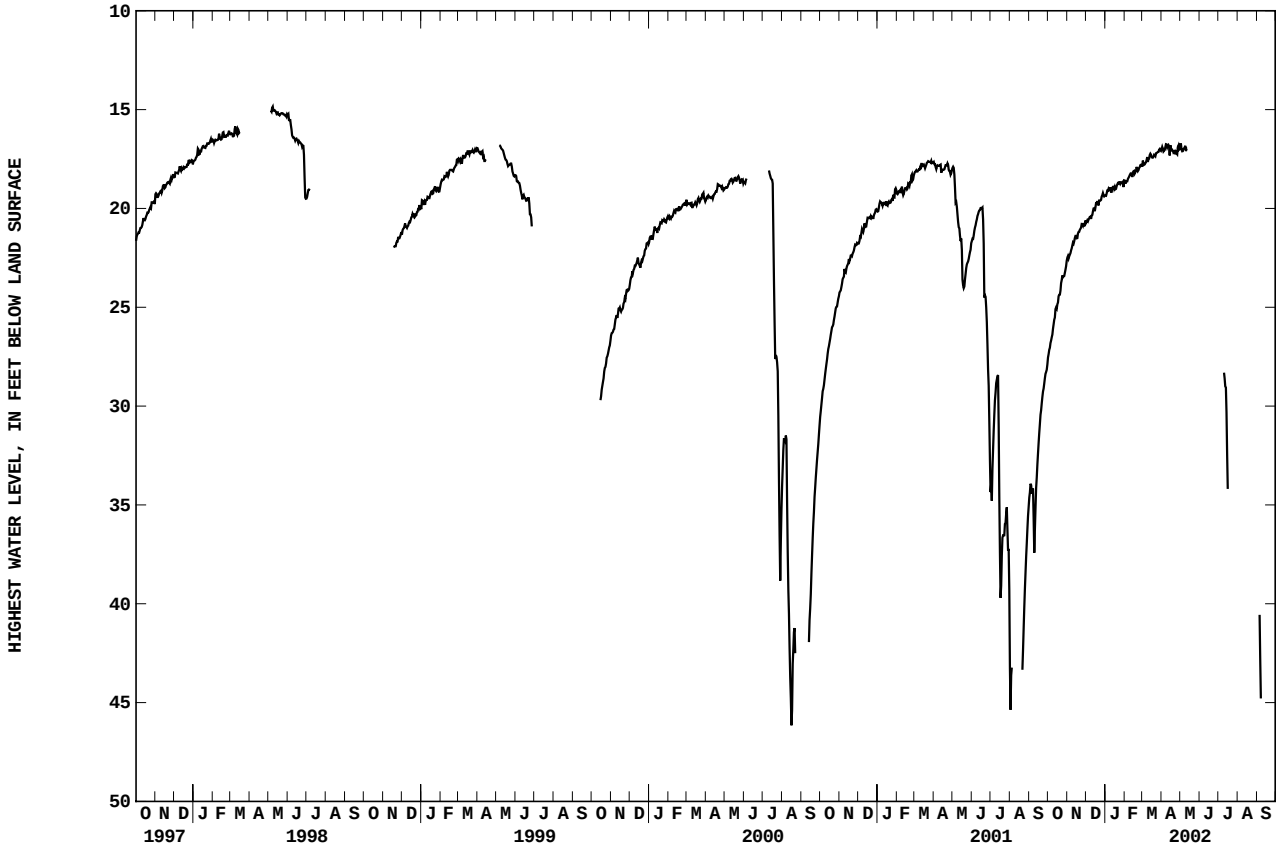
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.81	22.34	20.56	19.11	18.63	17.77	17.08	17.10	---	---	---	40.56
10	25.86	21.73	20.36	19.16	18.25	17.65	16.91	17.10	---	28.31	---	---
15	25.07	21.39	20.14	19.00	18.12	17.28	16.80	---	---	32.46	---	---
20	24.36	21.18	19.75	18.79	17.90	17.29	17.18	---	---	---	---	---
25	23.48	20.80	19.57	18.76	17.91	17.17	17.22	---	---	---	---	---
EOM	22.65	20.61	19.36	18.58	17.81	17.09	17.00	---	---	---	---	---
MIN	22.65	20.61	19.22	18.58	17.79	16.99	16.75	---	---	---	---	---

WTR YR 2002 HIGH 16.75 APR 8

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.41	22.76	21.09	19.33	19.10	18.10	17.29	17.45	---	---	---	42.79
10	26.31	22.16	20.79	19.48	18.53	18.06	17.33	17.63	---	28.77	---	---
15	25.30	22.19	20.48	19.27	18.47	17.79	17.79	---	---	34.45	---	---
20	24.80	21.58	20.18	19.15	18.34	17.71	17.50	---	---	---	---	---
25	23.65	21.34	19.78	19.11	18.16	17.60	17.61	---	---	---	---	---
EOM	23.01	20.97	19.72	19.01	18.17	17.33	17.42	---	---	---	---	---
MAX	27.93	23.20	21.16	19.67	19.13	18.23	17.79	---	---	---	---	---

WTR YR 2002 LOW 45.42 SEP 7



JASPER COUNTY

405902087141501. Local number, JP 13.
LOCATION.--Lat 40°59'02", long 87°14'15", in NW1/4NW1/4NW1/4 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

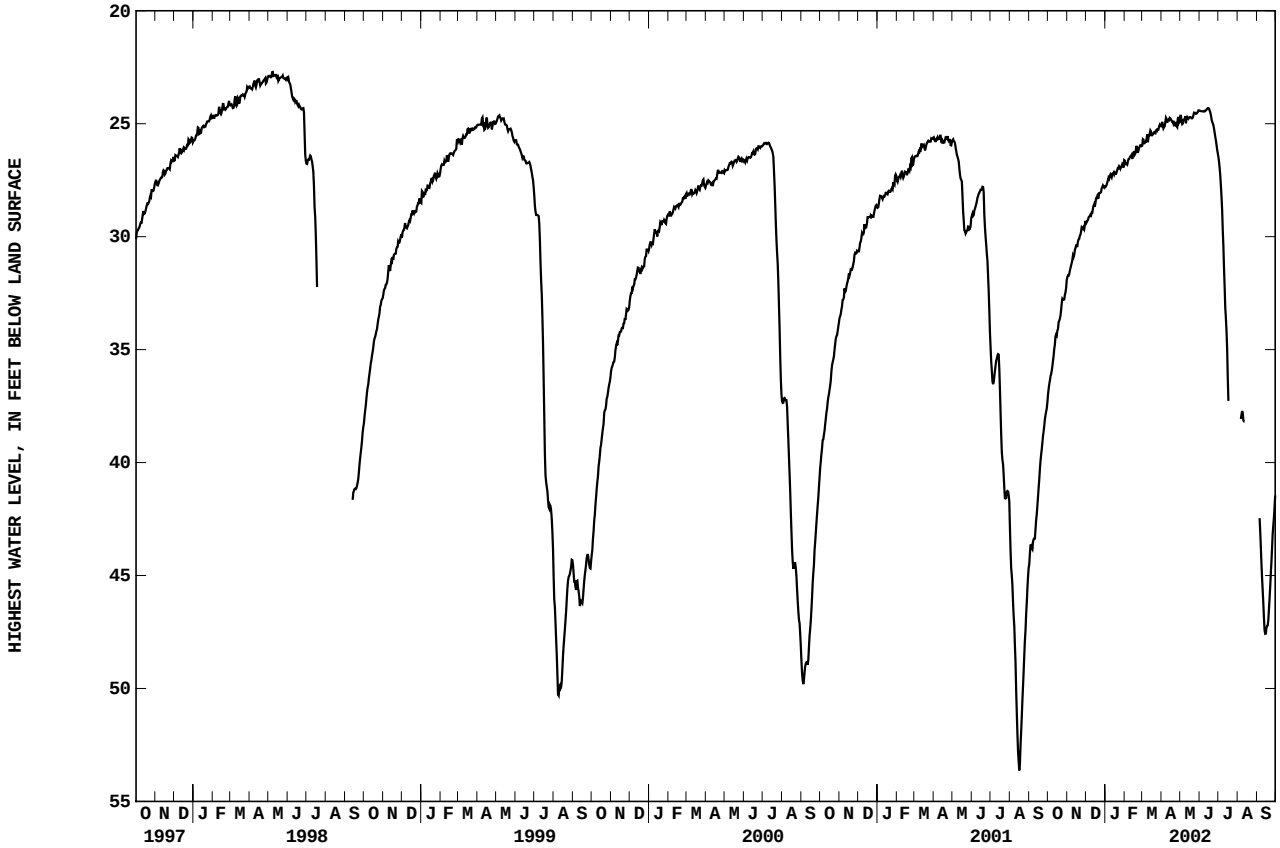
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.19	31.51	29.15	27.50	26.80	25.83	25.14	24.99	24.45	27.75	---	42.46
10	35.27	30.83	28.94	27.31	26.44	25.82	24.95	24.98	24.44	31.41	38.13	45.68
15	34.38	30.40	28.67	27.25	26.30	25.35	24.76	24.73	24.31	34.97	---	47.57
20	33.63	30.10	28.29	27.04	25.98	25.38	25.01	24.76	24.80	---	---	46.48
25	32.79	29.61	28.03	26.99	26.01	25.31	25.11	24.52	25.40	---	---	43.76
EOM	31.93	29.30	27.78	26.61	25.99	25.11	24.90	24.41	26.31	---	---	41.46
MIN	31.93	29.30	27.73	26.61	25.95	25.05	24.70	24.41	24.31	---	---	---

WTR YR 2002 HIGH 24.31 JUN 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.40	31.68	29.31	27.61	26.95	25.95	25.21	25.07	24.49	28.24	---	43.05
10	35.50	31.02	29.08	27.45	26.70	25.92	25.11	25.13	24.51	32.21	38.18	46.25
15	34.49	30.56	28.74	27.37	26.41	25.55	24.85	24.88	24.34	36.21	---	47.66
20	33.74	30.19	28.36	27.16	26.12	25.52	25.15	24.83	24.95	---	---	46.97
25	32.83	29.86	28.12	27.10	26.14	25.42	25.21	24.59	25.61	---	---	44.39
EOM	32.29	29.50	27.93	26.98	26.13	25.20	25.00	24.45	26.47	---	---	41.94
MAX	37.34	31.95	29.56	27.92	27.03	26.15	25.30	25.13	26.47	---	---	---

WTR YR 2002 LOW 47.66 SEP 15



JASPER COUNTY

405550087092301. Local number, JP 15.
LOCATION.--Lat 40°55'50", long 87°09'23",in SE$^1/_4$NW$^1/_4$SW$^1/_4$ sec.30, T.29 N., R.6 W., Jasper County, Hydrologic Unit 07120002, (RENSSELAER, IN quadrangle), at the Peerless Superior Cleaners in the shopping center on the west side of State Highway 231 in Rensselaer.
Owner: Department of Natural Resources

AQUIFER.--Limestone/Dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 8 in., depth 210 ft, cased to 25 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 665 ft above National Geodetic Vertical Datum of 1929 (revised), from topographic map. Measuring point: Top of shelf, 2.00 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

PERIOD OF RECORD.--Sept. 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 101.88 ft below land-surface datum, Sept. 9, 1996; lowest, 123.29 ft below land-surface datum, Sept. 24, 29, 2002.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

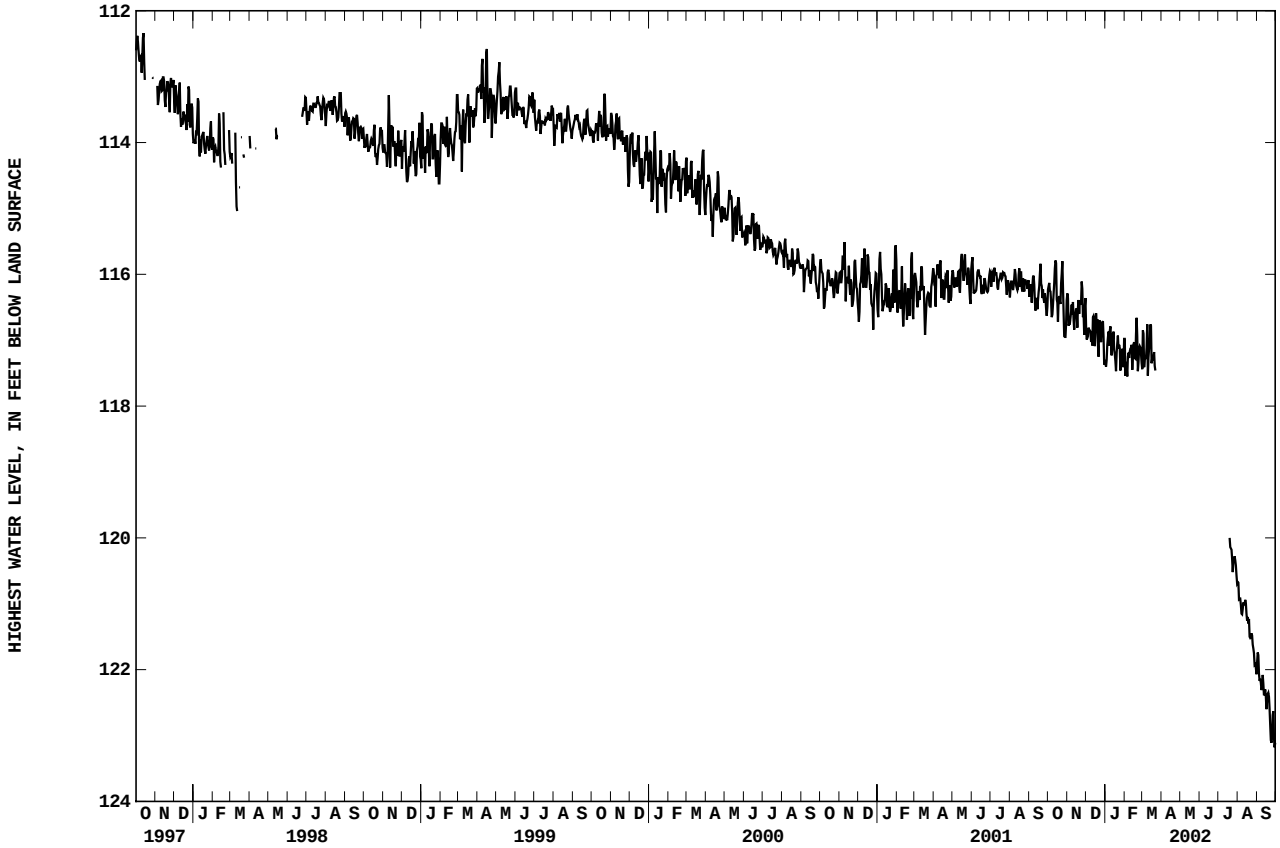
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	116.26	116.75	116.81	116.96	117.55	117.29	---	---	---	---	120.92	122.17
10	116.29	116.42	116.98	116.98	117.13	117.54	---	---	---	---	120.98	122.08
15	116.38	116.52	117.09	117.15	117.06	116.78	---	---	---	---	121.15	122.41
20	116.41	116.60	117.07	117.05	116.66	117.18	---	---	---	120.14	121.50	122.41
25	116.20	116.22	117.03	117.46	117.09	---	---	---	---	120.36	121.62	123.03
EOM	116.39	116.36	117.33	116.98	117.35	---	---	---	---	120.69	122.07	123.11
MIN	115.79	116.11	116.59	116.79	116.66	---	---	---	---	---	120.67	121.74

WTR YR 2002 HIGH 115.79 OCT 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	116.41	116.88	116.99	117.10	117.83	117.56	---	---	---	---	121.02	122.27
10	116.46	116.69	117.11	117.23	117.58	117.81	---	---	---	---	121.08	122.27
15	116.65	116.63	117.37	117.62	117.24	117.35	---	---	---	---	121.26	122.61
20	116.51	116.79	117.27	117.34	116.94	117.45	---	---	---	120.24	121.63	122.59
25	116.58	116.92	117.13	117.55	117.29	---	---	---	---	120.54	121.70	123.25
EOM	116.75	116.79	117.41	117.53	117.49	---	---	---	---	120.77	122.17	123.23
MAX	117.15	117.14	117.45	117.63	117.87	---	---	---	---	---	122.17	123.29

WTR YR 2002 LOW 123.29 SEP 24



JEFFERSON COUNTY

384949085251901. Local number, JF 5.
LOCATION.--Lat 38°49'49", long 85°25'19", in SE$^1/_4$NW$^1/_4$SW$^1/_4$ 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

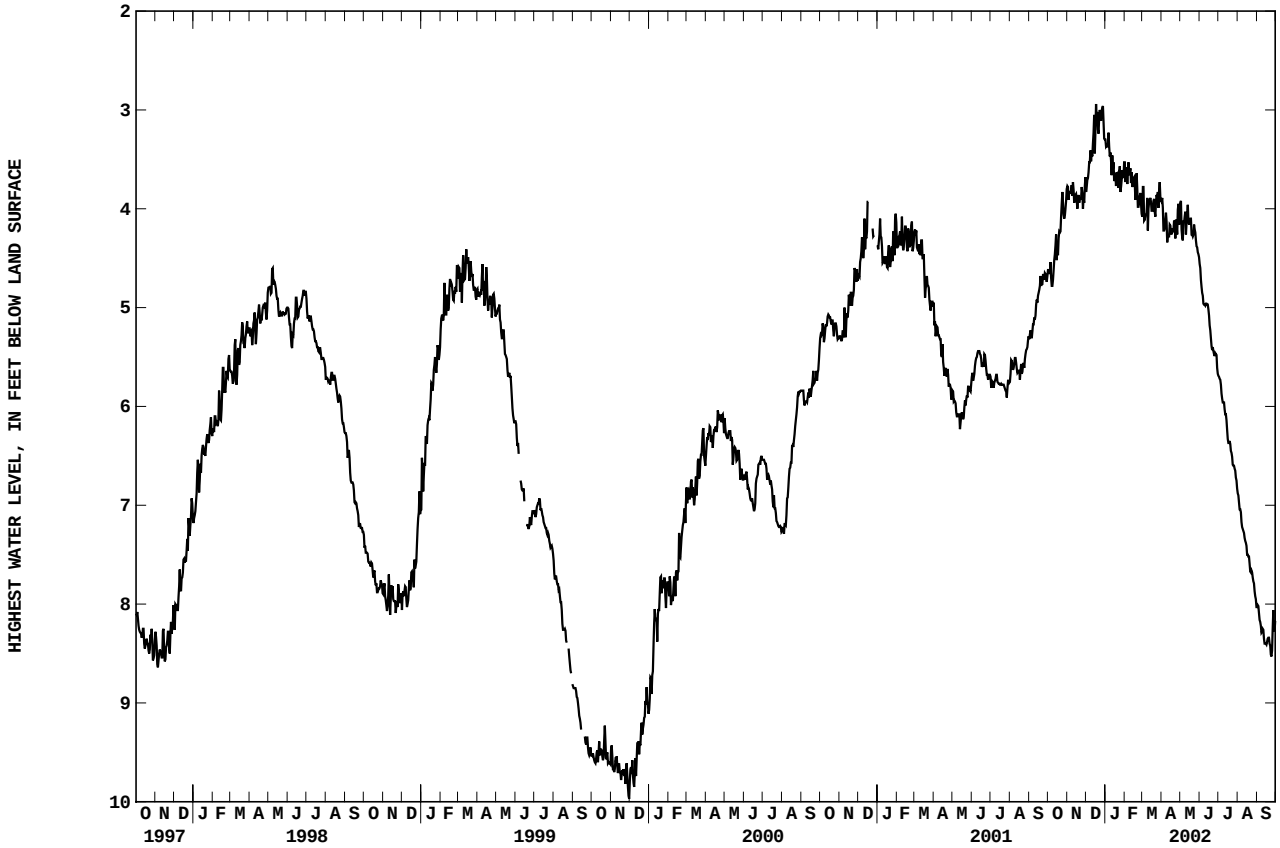
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.54	3.84	3.63	3.37	3.75	4.11	4.22	4.32	4.85	5.78	7.04	8.16
10	4.62	3.73	3.44	3.51	3.59	4.22	4.34	4.26	4.98	5.96	7.26	8.25
15	4.52	3.85	3.44	3.72	3.69	3.93	4.17	4.16	5.02	6.24	7.41	8.40
20	4.24	3.94	3.20	3.65	3.64	3.90	4.22	4.26	5.39	6.38	7.59	8.34
25	3.94	3.84	3.11	3.83	3.87	3.89	4.16	4.24	5.49	6.60	7.73	8.47
EOM	3.80	3.68	3.30	3.53	4.05	3.92	4.08	4.49	5.67	6.83	8.03	8.17
MIN	3.80	3.68	2.94	3.23	3.53	3.73	3.89	3.92	4.56	5.69	6.88	8.01

WTR YR 2002 HIGH 2.94 DEC 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.72	3.91	3.75	3.43	3.81	4.13	4.24	4.38	4.91	5.88	7.15	8.23
10	4.76	3.87	3.57	3.67	3.81	4.29	4.47	4.41	5.12	6.11	7.34	8.33
15	4.66	3.97	3.49	3.83	3.76	4.03	4.31	4.28	5.14	6.34	7.53	8.44
20	4.31	4.00	3.28	3.77	3.79	4.06	4.27	4.32	5.52	6.52	7.70	8.40
25	4.09	4.10	3.17	3.91	4.02	4.06	4.42	4.38	5.63	6.69	7.78	8.56
EOM	3.95	3.87	3.30	3.73	4.17	4.02	4.20	4.57	5.70	6.89	8.10	8.28
MAX	4.87	4.10	3.93	3.91	4.17	4.29	4.47	4.57	5.70	6.89	8.10	8.56

WTR YR 2002 LOW 8.56 SEP 25



JENNINGS COUNTY

385601085365701. Local number, JN 3.
LOCATION.--Lat 38°56'01", long 85°36'57", in SE$^1/_4$SW$^1/_4$NE$^1/_4$ sec.27, T.6 N., R.8 E., Jennings County, Hydrologic Unit 05120207, (VERNON, IN quadrangle), 200 ft west of State Highway 3, 1.6 mi south of Crosley Fish and Game Office and 3.0 mi south of Vernon.
Owner: U.S. Geological Survey.

AQUIFER.--Limestones and dolomites of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 180 ft, cased to 45 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 718 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.64 ft below land-surface datum, Jan. 2l, 1979; lowest, 40.93 ft below land-surface datum, Nov. 30, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

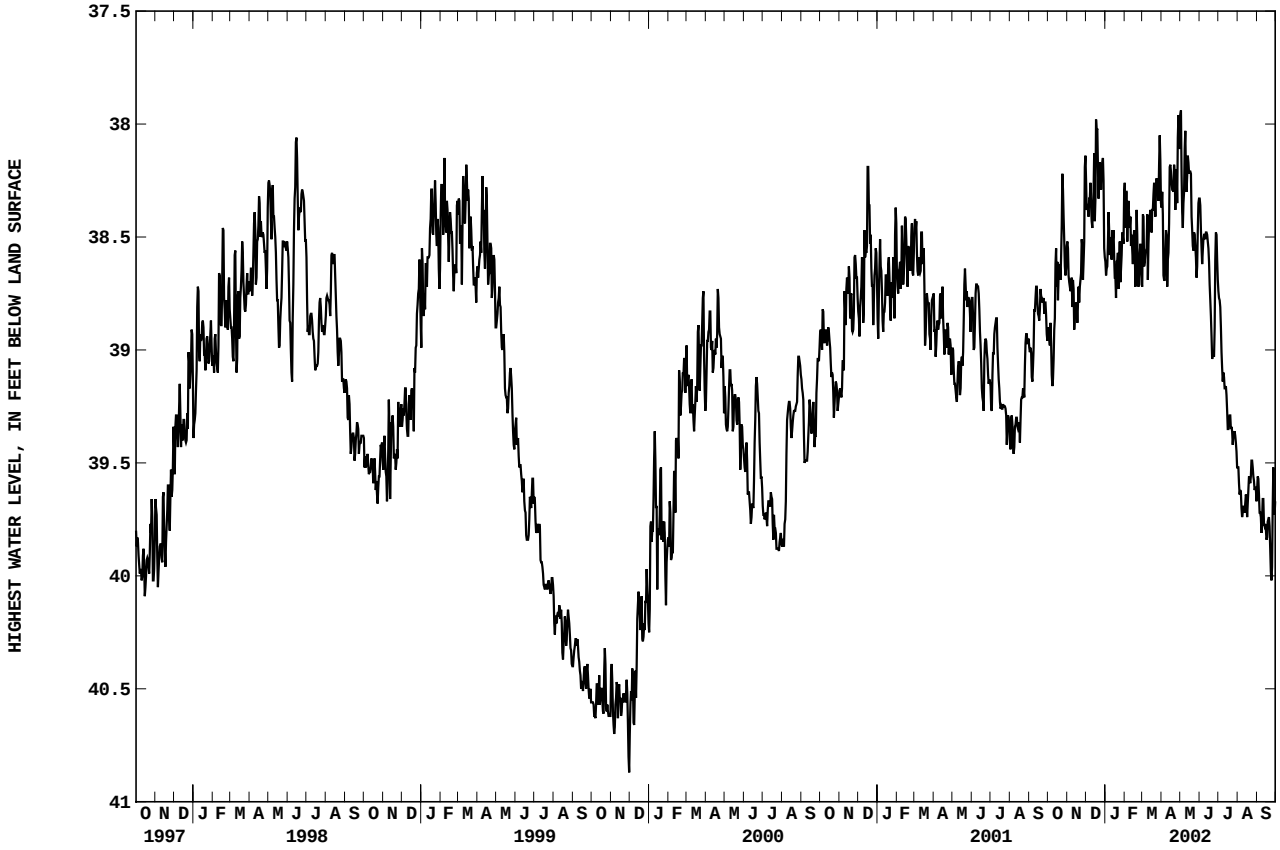
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.88	38.72	38.41	38.53	38.52	38.61	38.69	38.46	38.62	38.90	39.62	39.72
10	39.04	38.69	38.43	38.54	38.41	38.69	38.72	38.22	38.51	39.12	39.69	39.66
15	38.72	38.79	38.43	38.59	38.52	38.39	38.18	38.22	38.55	39.27	39.66	39.79
20	38.63	38.79	38.19	38.61	38.38	38.26	38.30	38.47	38.94	39.29	39.57	39.74
25	38.29	38.54	38.29	38.70	38.57	38.28	38.21	38.54	38.90	39.38	39.52	39.96
EOM	38.54	38.14	38.59	38.31	38.71	38.35	38.10	38.33	38.69	39.52	39.67	39.67
MIN	38.22	38.14	37.98	38.31	38.26	38.05	37.96	37.94	38.33	38.74	39.49	39.52

WTR YR 2002 HIGH 37.94 MAY 2

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	38.99	38.77	38.47	38.63	38.57	38.67	38.75	38.54	38.65	39.01	39.66	39.76
10	39.13	38.81	38.48	38.60	38.54	38.76	38.80	38.39	38.54	39.17	39.73	39.76
15	38.84	38.85	38.57	38.81	38.62	38.48	38.22	38.28	38.62	39.35	39.74	39.85
20	38.69	38.85	38.33	38.75	38.56	38.34	38.32	38.54	39.04	39.36	39.62	39.78
25	38.41	38.81	38.32	38.75	38.66	38.38	38.39	38.59	39.08	39.45	39.56	40.04
EOM	38.65	38.25	38.63	38.54	38.74	38.38	38.16	38.35	38.74	39.55	39.71	39.73
MAX	39.21	38.97	38.63	38.84	38.78	38.82	38.80	38.71	39.09	39.55	39.80	40.06

WTR YR 2002 LOW 40.06 SEP 24



KNOX COUNTY

383247087361001. Local number, KN 7.
LOCATION.--Lat 38°32'47", long 87°36'10", in SE$^1/_4$SE$^1/_4$NW$^1/_4$ 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

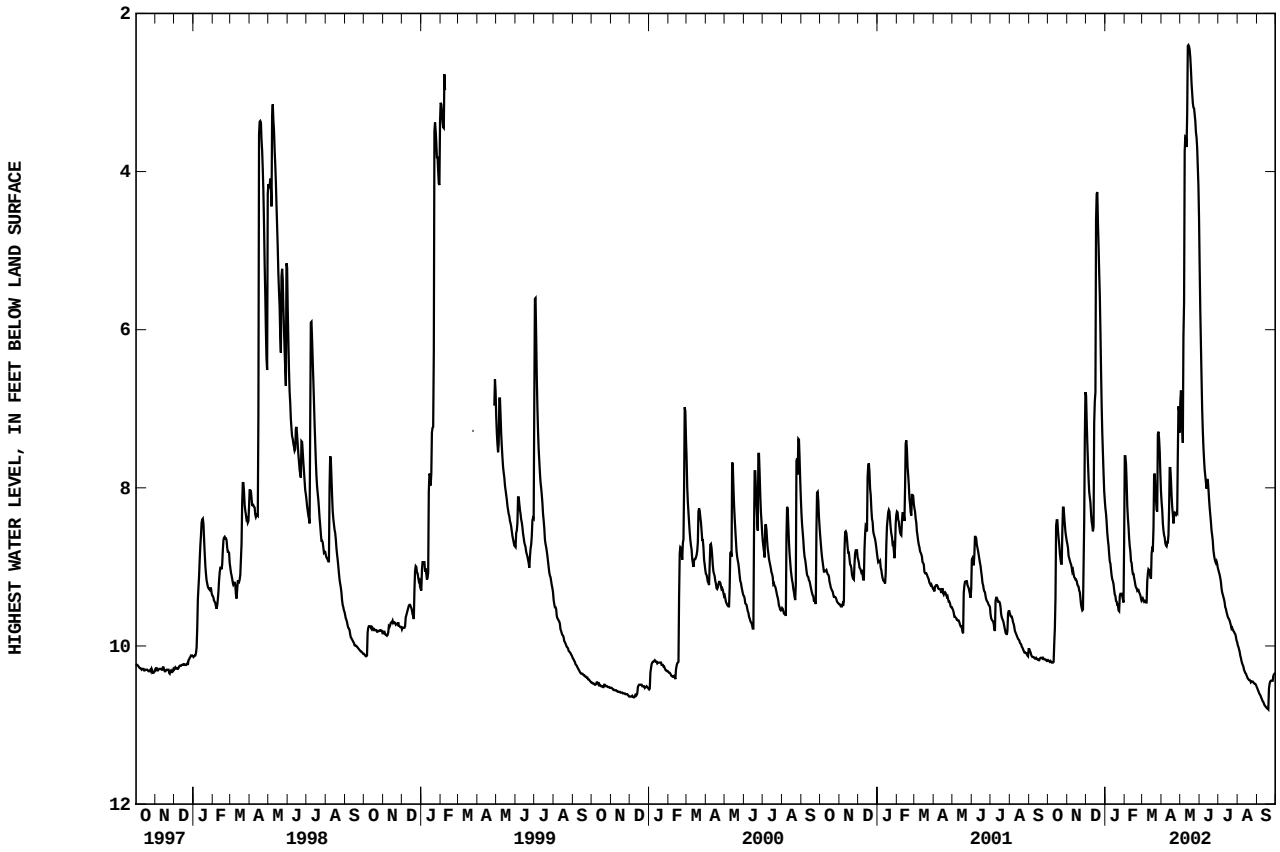
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.19	8.92	7.88	8.66	8.23	9.43	8.60	7.43	7.00	9.19	10.12	10.61
10	10.20	9.04	8.43	9.04	8.81	9.08	8.69	3.57	7.85	9.41	10.26	10.70
15	8.41	9.16	6.91	9.29	9.09	9.15	7.75	2.42	8.01	9.60	10.37	10.77
20	8.83	9.30	4.65	9.48	9.27	7.85	8.45	3.01	8.54	9.71	10.43	10.54
25	8.25	9.55	6.51	9.34	9.34	8.30	8.31	3.36	8.90	9.81	10.45	10.44
EOM	8.67	6.79	8.16	8.69	9.43	8.04	7.30	4.59	9.01	9.95	10.51	10.34
MIN	8.25	6.79	4.26	8.26	7.60	7.29	6.97	2.40	5.22	9.04	9.99	10.34

WTR YR 2002 HIGH 2.40 MAY 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.20	8.95	8.05	8.73	8.38	9.46	8.63	7.59	7.28	9.27	10.15	10.62
10	10.21	9.09	8.48	9.11	8.93	9.18	8.75	3.69	7.93	9.45	10.30	10.71
15	8.48	9.18	7.18	9.35	9.15	9.21	7.90	2.46	8.14	9.63	10.39	10.78
20	8.90	9.32	4.93	9.50	9.30	8.51	8.51	3.13	8.60	9.74	10.44	10.80
25	8.54	9.63	6.97	9.37	9.36	8.48	8.34	3.50	8.93	9.82	10.46	10.44
EOM	8.71	7.37	8.26	9.45	9.45	8.18	7.50	5.22	9.04	9.99	10.53	10.35
MAX	10.22	9.64	8.65	9.58	9.45	9.47	8.78	7.62	9.04	9.99	10.53	10.80

WTR YR 2002 LOW 10.80 SEP 18



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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

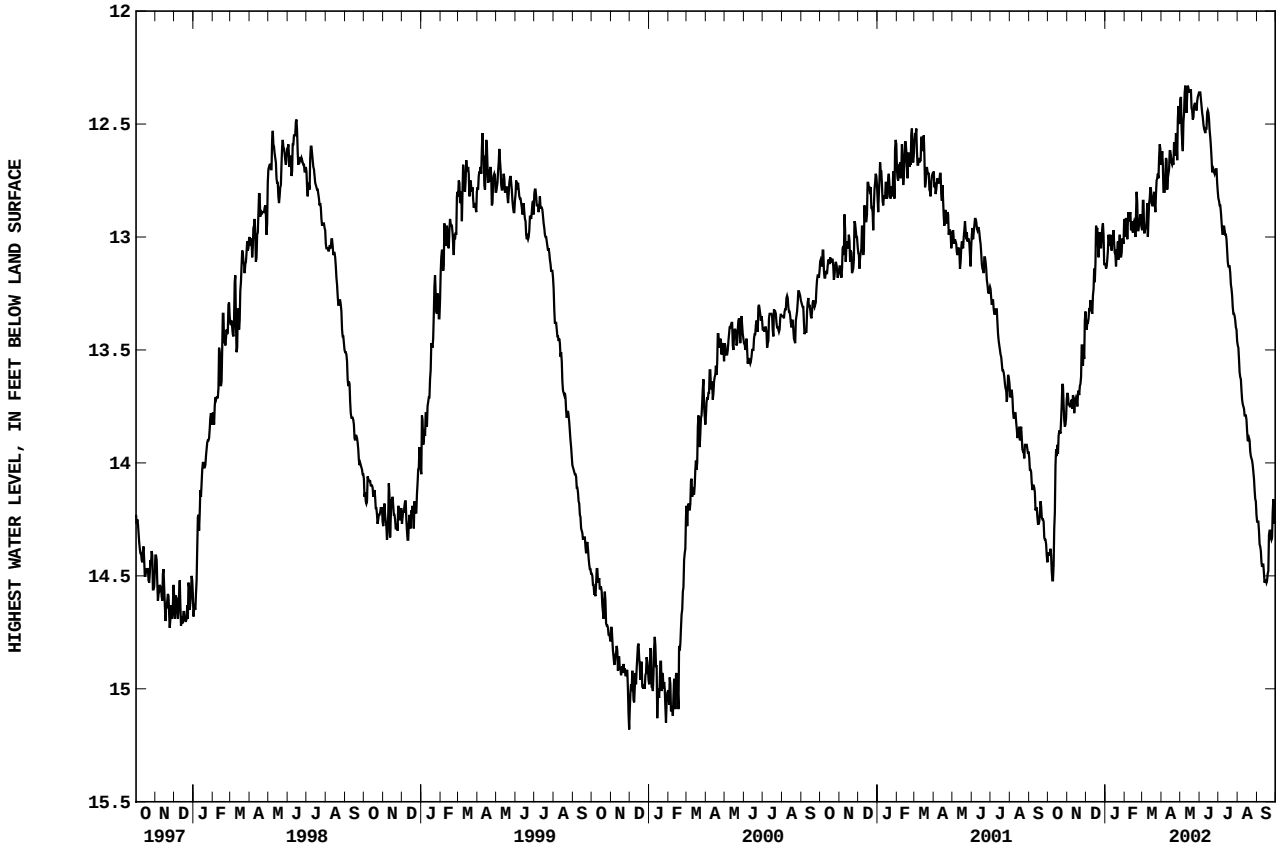
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.38	13.75	13.36	13.06	13.01	12.98	12.80	12.62	12.45	12.89	13.62	14.36
10	14.45	13.70	13.33	13.01	12.89	13.00	12.79	12.42	12.54	12.95	13.75	14.45
15	13.97	13.71	13.20	13.03	12.94	12.79	12.62	12.36	12.45	13.06	13.81	14.52
20	13.86	13.70	13.03	13.06	12.80	12.80	12.68	12.44	12.65	13.16	13.90	14.32
25	13.66	13.48	13.05	13.08	12.92	12.74	12.56	12.41	12.72	13.34	14.01	14.33
EOM	13.72	13.33	13.12	12.93	12.96	12.68	12.48	12.36	12.80	13.46	14.23	14.26
MIN	13.65	13.33	12.94	12.93	12.80	12.59	12.42	12.33	12.36	12.83	13.48	14.16

WTR YR 2002 HIGH 12.33 MAY 9

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.42	13.78	13.41	13.10	13.03	13.00	12.82	12.65	12.48	12.93	13.65	14.40
10	14.53	13.77	13.37	13.06	12.97	13.06	12.83	12.52	12.57	12.99	13.78	14.48
15	14.02	13.75	13.24	13.13	12.98	12.85	12.66	12.40	12.49	13.11	13.86	14.55
20	13.88	13.73	13.10	13.11	12.90	12.86	12.70	12.49	12.71	13.22	13.96	14.49
25	13.74	13.62	13.07	13.13	12.95	12.79	12.67	12.45	12.75	13.36	14.04	14.37
EOM	13.80	13.37	13.16	13.03	13.00	12.70	12.52	12.38	12.83	13.48	14.28	14.30
MAX	14.55	13.81	13.45	13.19	13.04	13.06	12.83	12.65	12.83	13.48	14.28	14.57

WTR YR 2002 LOW 14.57 SEP 17



KOSCIUSKO COUNTY

412556085513401. Local number, KO 9.
LOCATION.--Lat 41°25'56", long 85°51'34", in SW$^1/_4$NE$^1/_4$NW$^1/_4$ sec.5, T.34 N., R.6 E., Kosciusko County, Hydrologic Unit 04050001, (MILFORD, IN quadrangle), on the north edge of property owned by the Dome Pipeline Corporation, on County Road 50 West, 1.5 mi northwest of Milford.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 4 in., depth 102 ft, cased to 99 ft, screened to 102 ft.

INSTRUMENTATION.--Water-stage recorder.

DATUM.--Elevation of land-surface datum is 830.90 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.2 ft above land-surface datum.

REMARKS.--Water level slightly affected by irrigation pumpage.

PERIOD OF RECORD.--October 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.24 ft below land-surface datum, Apr. 8, 9, 1985; lowest, 14.62 ft below land-surface datum, Feb. 21 - 22, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

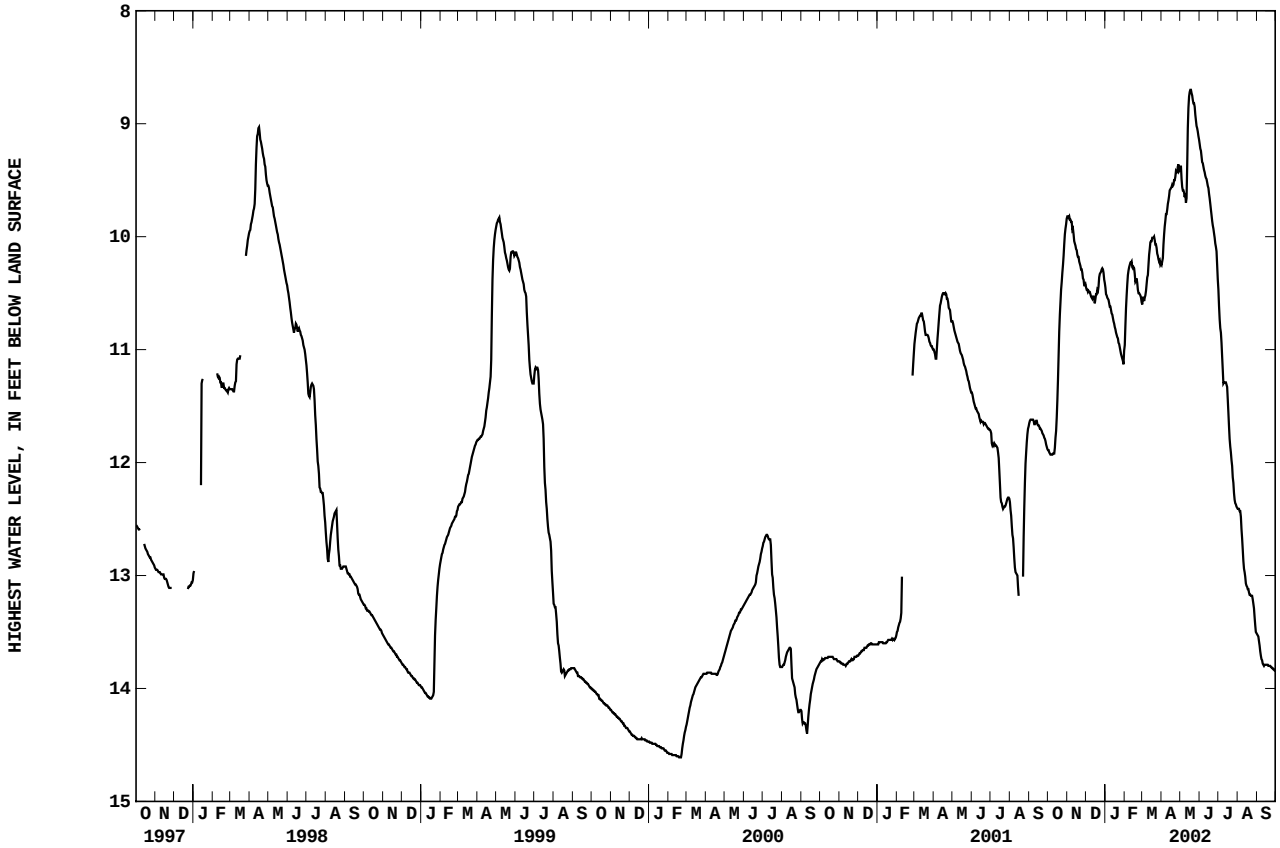
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.93	9.85	10.48	10.55	10.42	10.54	9.98	9.59	9.34	10.85	12.43	13.62
10	11.92	9.93	10.54	10.65	10.23	10.34	9.76	9.70	9.46	11.29	12.87	13.78
15	11.60	10.11	10.59	10.77	10.27	10.04	9.58	8.76	9.57	11.33	13.09	13.79
20	10.69	10.22	10.48	10.89	10.37	10.00	9.54	8.75	9.81	11.86	13.17	13.80
25	10.25	10.32	10.31	11.01	10.51	10.15	9.43	8.92	10.01	12.18	13.21	13.82
EOM	9.84	10.42	10.41	11.01	10.58	10.24	9.41	9.14	10.38	12.40	13.51	13.85
MIN	9.84	9.82	10.28	10.45	10.22	10.00	9.36	8.70	9.18	10.47	12.41	13.52

WTR YR 2002 HIGH 8.70 MAY 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.93	9.86	10.50	10.57	10.52	10.58	10.07	9.61	9.36	10.94	12.48	13.67
10	11.92	9.98	10.55	10.68	10.27	10.39	9.81	9.74	9.48	11.30	12.94	13.79
15	11.72	10.13	10.61	10.81	10.30	10.05	9.59	8.86	9.62	11.44	13.10	13.80
20	10.84	10.24	10.49	10.91	10.41	10.04	9.57	8.79	9.86	11.91	13.17	13.80
25	10.32	10.37	10.32	11.04	10.53	10.19	9.46	8.97	10.06	12.27	13.26	13.82
EOM	9.89	10.45	10.45	11.14	10.60	10.27	9.44	9.18	10.47	12.41	13.52	13.85
MAX	11.94	10.45	10.61	11.15	11.01	10.63	10.28	9.74	10.47	12.41	13.52	13.85

WTR YR 2002 LOW 13.85 SEP 29



414318085200601. Local number, LG 2.
LOCATION.--Lat 41°43'18", long 85°20'06", in SW$^1/_4$SE$^1/_4$NE$^1/_4$ sec.26, T.38 N., R.10 E., Lagrange County, Hydrologic Unit 04050001, (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, 16.93 ft below land-surface datum, Aug. 14, 15, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

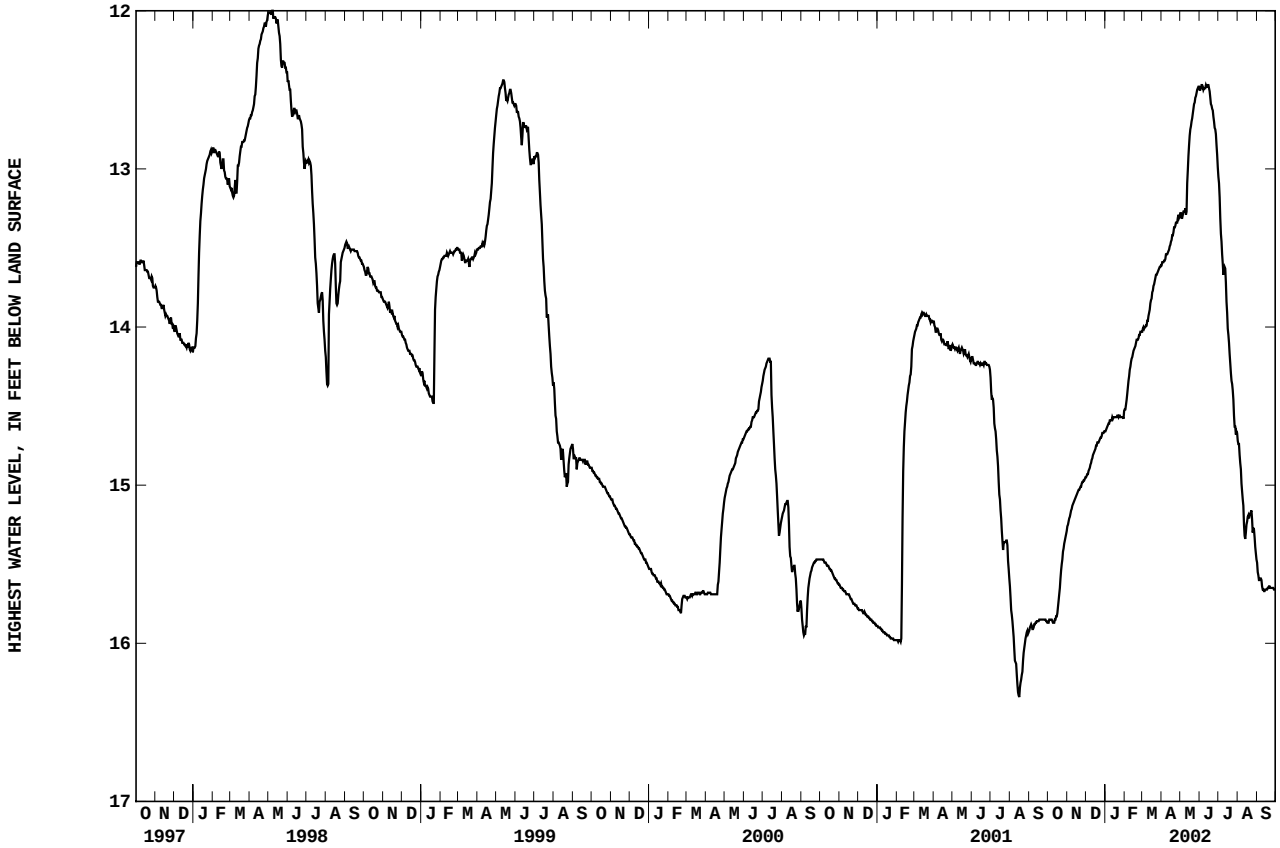
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.85	15.20	14.91	14.62	14.42	14.00	13.58	13.29	12.47	13.41	14.86	15.60
10	15.87	15.12	14.84	14.59	14.25	13.96	13.54	13.29	12.49	13.64	15.13	15.66
15	15.83	15.07	14.78	14.57	14.15	13.83	13.48	12.85	12.47	13.91	15.25	15.66
20	15.65	15.03	14.73	14.56	14.08	13.73	13.40	12.68	12.60	14.23	15.19	15.64
25	15.42	14.98	14.70	14.57	14.05	13.66	13.34	12.55	12.74	14.46	15.30	15.65
EOM	15.29	14.95	14.66	14.53	14.03	13.61	13.30	12.48	12.99	14.67	15.47	15.66
MIN	15.29	14.95	14.66	14.53	14.03	13.61	13.29	12.48	12.47	13.05	14.72	15.49

WTR YR 2002 HIGH 12.47 JUN 4

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.85	15.21	14.93	14.63	14.46	14.01	13.59	13.31	12.49	13.46	14.90	15.60
10	15.87	15.13	14.86	14.59	14.27	13.97	13.57	13.31	12.49	13.67	15.25	15.69
15	15.83	15.08	14.79	14.59	14.17	13.85	13.49	12.92	12.49	14.01	15.30	15.66
20	15.69	15.03	14.74	14.57	14.10	13.74	13.42	12.70	12.62	14.29	15.21	15.65
25	15.47	14.99	14.70	14.58	14.05	13.67	13.36	12.58	12.76	14.56	15.34	15.65
EOM	15.31	14.96	14.66	14.59	14.04	13.62	13.31	12.50	13.05	14.72	15.54	15.67
MAX	15.88	15.29	14.95	14.66	14.54	14.04	13.61	13.33	13.05	14.72	15.54	15.69

WTR YR 2002 LOW 15.88 OCT 3



LAGRANGE COUNTY

414158085253401. Local number, LG 3.
LOCATION.--Lat 41°41'58", long 85°25'34", in SE$^1/_4$SE$^1/_4$SE$^1/_4$ sec.36, T.38 N., R.9 E., Lagrange County, Hydrologic Unit 04050001, (LAGRANGE, IN quadrangle), at northwest corner of intersection of State Highway 9 and County Road 400 North, at edge of woods, and 1.4 mi south of Howe.
Owner: U.S. Geological Survey.

AQUIFER.--Fine to medium sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 40 ft, cased to 35 ft, screened to 40 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.7 ft above land-surface datum.

REMARKS.--Water level slightly affected by irrigation pumpage.

PERIOD OF RECORD.--June 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.48 ft below land-surface datum, Mar. 21, 1982; lowest, 8.82 ft below land-surface datum, Sept. 2, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

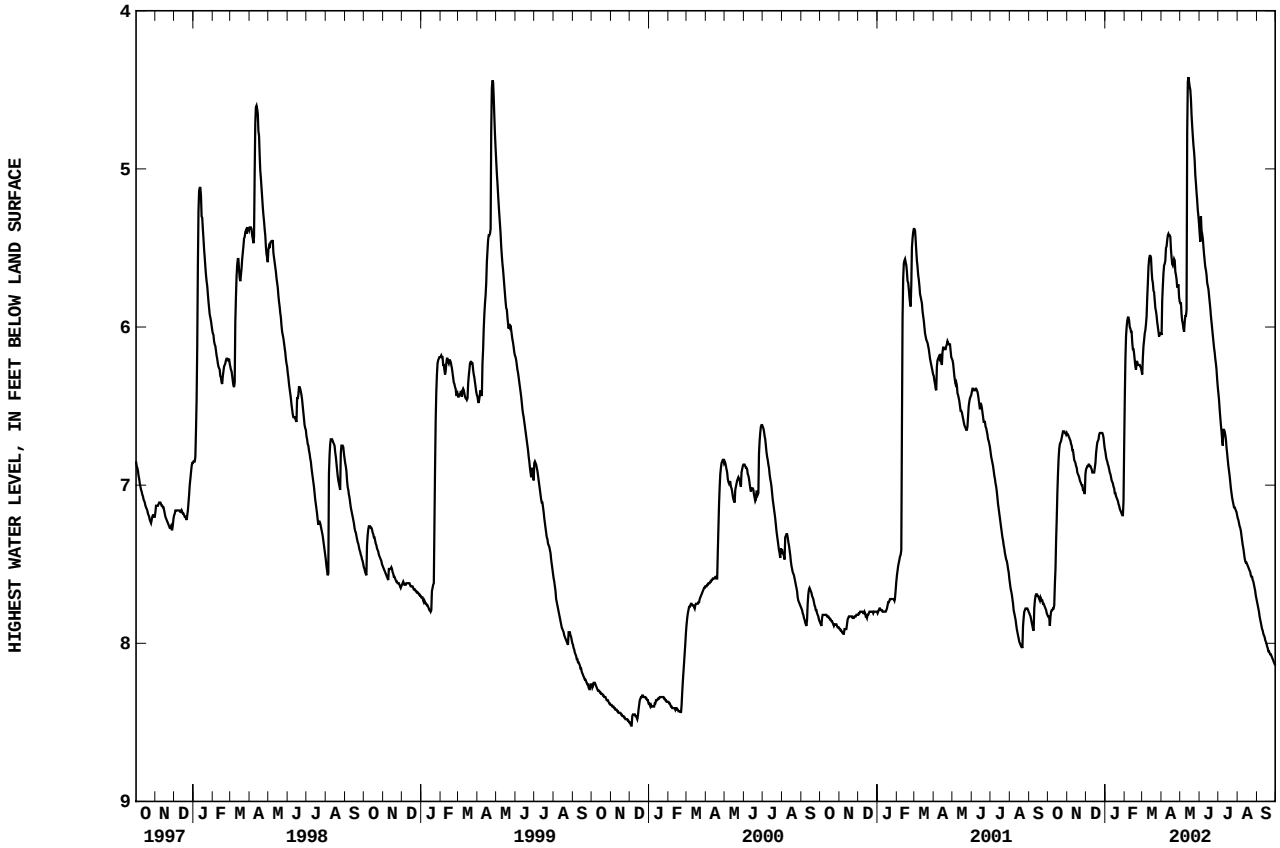
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.83	6.71	6.87	6.87	5.96	6.04	5.61	5.98	5.41	6.62	7.27	7.83
10	7.78	6.78	6.90	6.95	6.01	5.72	5.45	5.93	5.62	6.65	7.40	7.92
15	7.21	6.88	6.89	7.02	6.14	5.56	5.43	4.45	5.76	6.80	7.49	7.99
20	6.74	6.95	6.72	7.09	6.22	5.78	5.59	4.73	5.97	6.98	7.54	8.05
25	6.66	7.00	6.67	7.16	6.24	5.97	5.70	5.04	6.16	7.12	7.60	8.09
EOM	6.67	6.93	6.77	6.77	6.28	6.04	5.84	5.35	6.38	7.19	7.72	8.14
MIN	6.66	6.68	6.67	6.77	5.94	5.55	5.41	4.42	5.30	6.42	7.21	7.74

WTR YR 2002 HIGH 4.42 MAY 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.90	6.73	6.88	6.88	6.00	6.08	5.66	6.01	5.46	6.66	7.29	7.85
10	7.78	6.81	6.92	6.97	6.05	5.81	5.49	5.96	5.65	6.66	7.43	7.94
15	7.35	6.89	6.92	7.05	6.18	5.64	5.51	4.51	5.80	6.84	7.50	8.00
20	6.77	6.97	6.73	7.10	6.27	5.83	5.66	4.79	6.01	7.02	7.55	8.06
25	6.68	7.03	6.68	7.17	6.26	6.01	5.75	5.09	6.20	7.14	7.61	8.10
EOM	6.68	7.05	6.79	7.10	6.30	6.05	5.86	5.41	6.42	7.21	7.74	8.15
MAX	7.90	7.06	6.94	7.21	6.77	6.32	6.07	6.07	6.42	7.21	7.74	8.15

WTR YR 2002 LOW 8.15 SEP 30



LAKE COUNTY

411038087284701. Local number, LK 12.
LOCATION.--Lat 41°10'38", long 87°28'47", in SW$^1/_4$NE$^1/_4$SW$^1/_4$ sec.32, T.32 N., R.9 W., Lake County, Hydrologic Unit 07120001, (SCHNEIDER, IN quadrangle), on the northern edge of Kankakee River State Park, 2.0 mi southwest of Schneider. Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 82 ft, cased to 52 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 630.59 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.55 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.15 ft below land-surface datum, Jan. 12, 1973; lowest, 17.92 ft below land-surface datum, Aug. 27, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

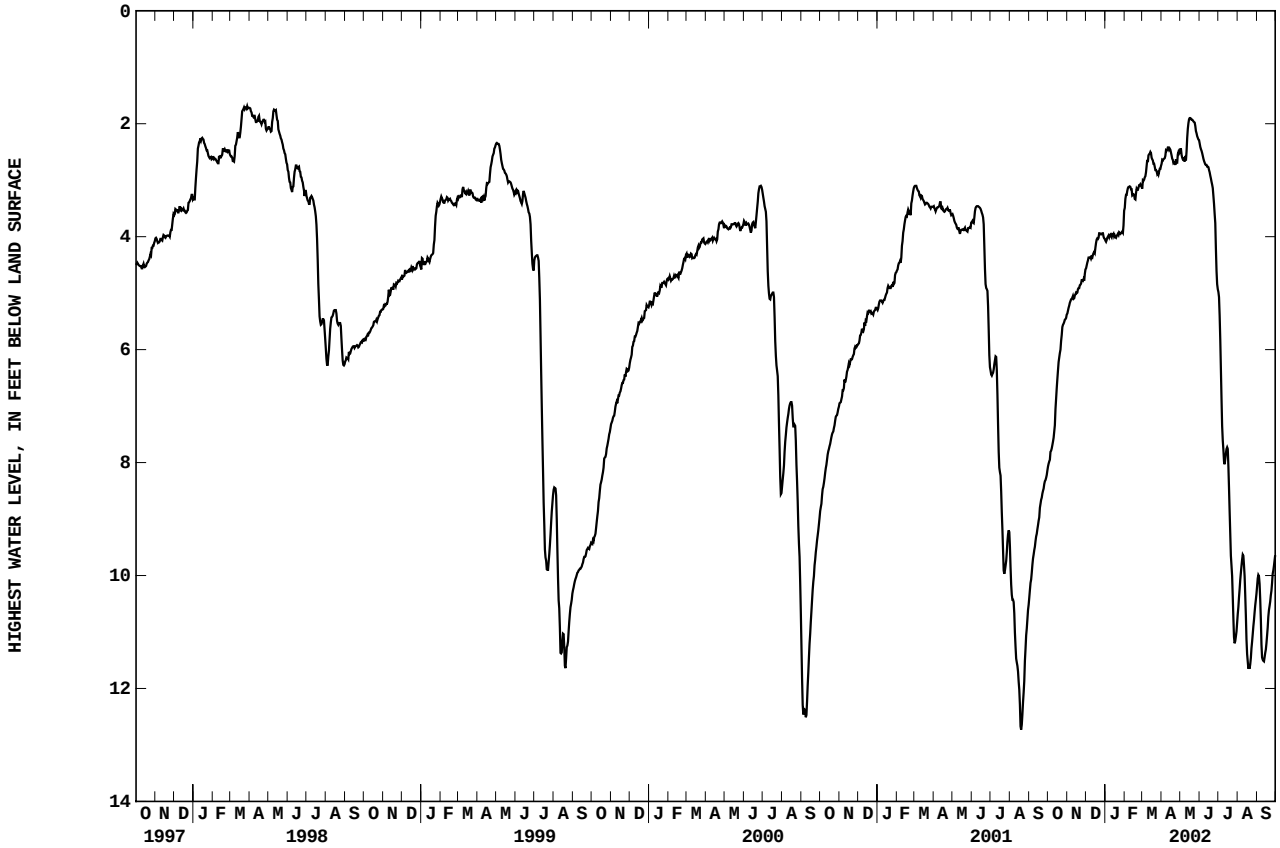
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.81	5.17	4.37	4.00	3.19	2.95	2.62	2.63	2.52	6.35	10.08	10.15
10	7.56	5.05	4.36	3.99	3.12	2.68	2.46	2.65	2.72	7.98	9.65	11.49
15	6.68	4.99	4.29	4.00	3.25	2.52	2.46	1.92	2.77	7.73	11.13	11.31
20	6.06	4.91	4.04	3.97	3.15	2.71	2.70	1.93	3.03	9.26	11.65	10.61
25	5.56	4.77	3.96	3.95	3.09	2.89	2.69	2.04	3.60	10.76	11.04	10.13
EOM	5.38	4.58	4.04	3.54	3.12	2.75	2.51	2.29	4.93	10.84	10.32	9.64
MIN	5.38	4.58	3.94	3.54	3.07	2.50	2.42	1.90	2.35	4.98	9.63	9.64

WTR YR 2002 HIGH 1.90 MAY 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.95	5.24	4.44	4.03	3.26	3.00	2.66	2.70	2.59	6.87	10.24	10.42
10	7.64	5.11	4.39	4.03	3.23	2.72	2.53	2.71	2.77	8.12	9.82	11.57
15	6.87	5.05	4.33	4.04	3.29	2.60	2.52	2.00	2.83	7.78	11.39	11.40
20	6.14	4.95	4.07	4.00	3.23	2.77	2.76	1.98	3.09	9.65	11.70	10.73
25	5.61	4.85	3.99	3.98	3.13	2.92	2.82	2.14	3.76	11.09	11.25	10.30
EOM	5.46	4.66	4.08	3.80	3.16	2.81	2.56	2.35	5.07	10.99	10.44	9.73
MAX	8.15	5.40	4.62	4.14	3.54	3.20	2.82	2.75	5.07	11.23	11.71	11.62

WTR YR 2002 LOW 11.71 AUG 18



LAKE COUNTY

413559087270301. Local number, LK 13.
LOCATION.--Lat 41°35'59", long 87°27'03", in SW$^1/_4$NW$^1/_4$SW$^1/_4$ 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

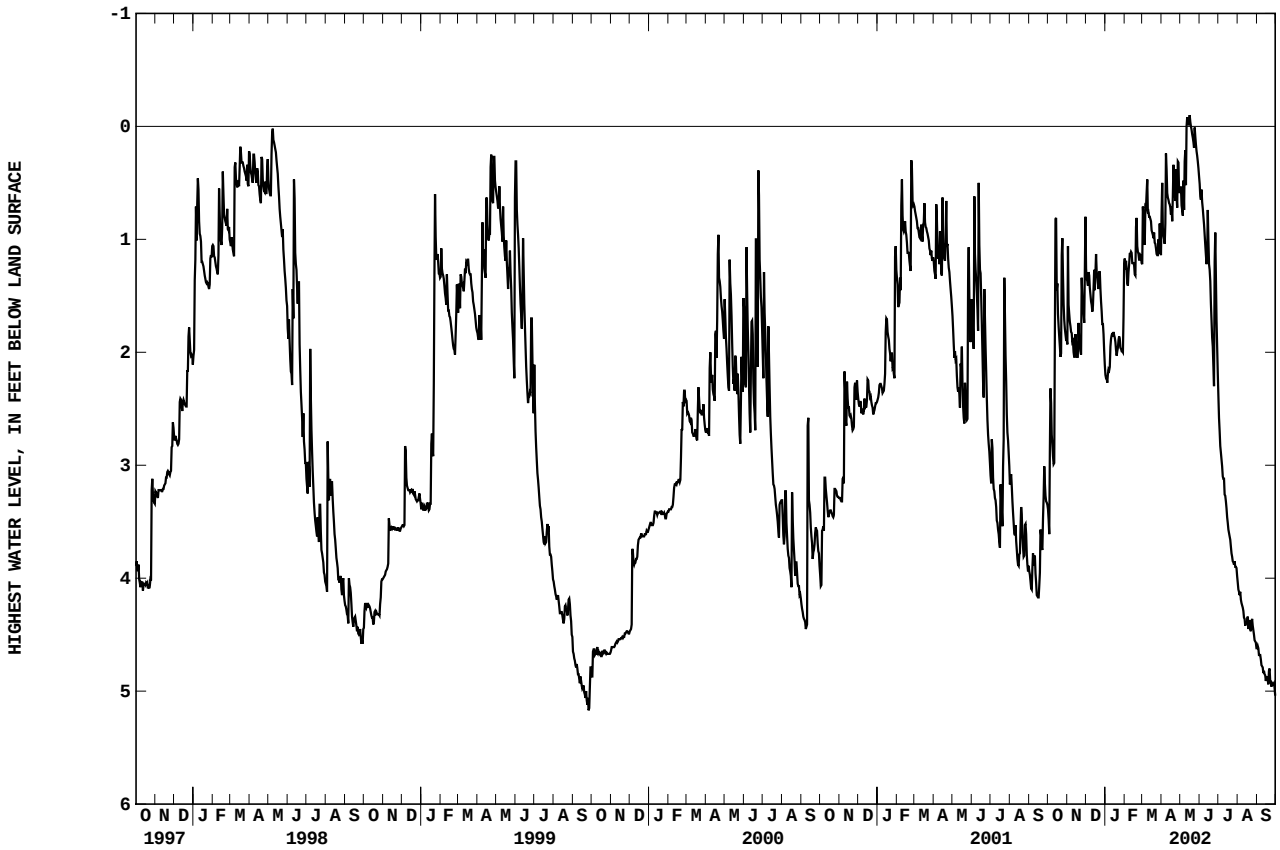
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.32	1.73	1.29	2.19	1.39	1.05	1.00	0.79	0.67	2.89	4.12	4.68
10	2.99	1.90	1.58	1.88	1.13	0.77	0.59	0.52	1.05	3.12	4.29	4.79
15	1.45	1.93	1.45	1.85	1.21	0.84	0.72	-0.01	1.01	3.46	4.39	4.91
20	1.95	1.91	1.39	1.99	0.81	0.94	0.34	0.07	1.72	3.66	4.37	4.82
25	1.32	1.51	1.55	1.96	1.18	1.14	0.62	0.09	1.20	3.86	4.42	4.93
EOM	1.89	0.80	2.11	1.22	1.21	1.14	0.59	0.44	2.19	3.98	4.62	5.04
MIN	0.81	0.80	1.13	1.22	0.81	0.47	0.24	-0.10	0.51	2.39	4.04	4.60

WTR YR 2002 HIGH -0.10 MAY 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.87	1.77	1.45	2.27	1.47	1.10	1.04	0.83	0.74	3.16	4.26	4.84
10	3.01	2.00	1.64	1.97	1.18	0.87	0.63	0.60	1.25	3.39	4.51	4.97
15	1.67	1.98	1.52	1.95	1.27	0.92	0.78	0.03	1.28	3.68	4.60	4.99
20	2.04	1.96	1.44	2.11	1.06	1.04	0.68	0.10	2.06	3.88	4.56	4.95
25	1.57	1.74	1.64	2.01	1.25	1.20	0.72	0.16	2.61	3.98	4.62	5.08
EOM	1.93	1.29	2.20	1.69	1.27	1.16	0.62	0.53	2.55	4.22	4.78	5.13
MAX	3.75	2.08	2.20	2.33	1.49	1.33	1.20	0.83	2.66	4.22	4.78	5.13

WTR YR 2002 LOW 5.13 SEP 30



LAKE COUNTY

411146087204101. Local number, LK 14.
LOCATION.--Lat 41°11'46", long 87°20'41",in SE$^1/_4$SE$^1/_4$NW$^1/_4$ sec.28, T.32 N., R.8 W., Lake County, Hydrologic Unit 07120001, (SHELBY, IN quadrangle), in Shelby on northwest corner of the intersection of Tyler Road and State Highway 55. Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 96.2 ft, cased to 50 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 641 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.-- Water level affected by irrigation pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.70 ft below land-surface datum, May 11, 12, 1998; lowest, 22.86 ft below land-surface datum, July 28, l991.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

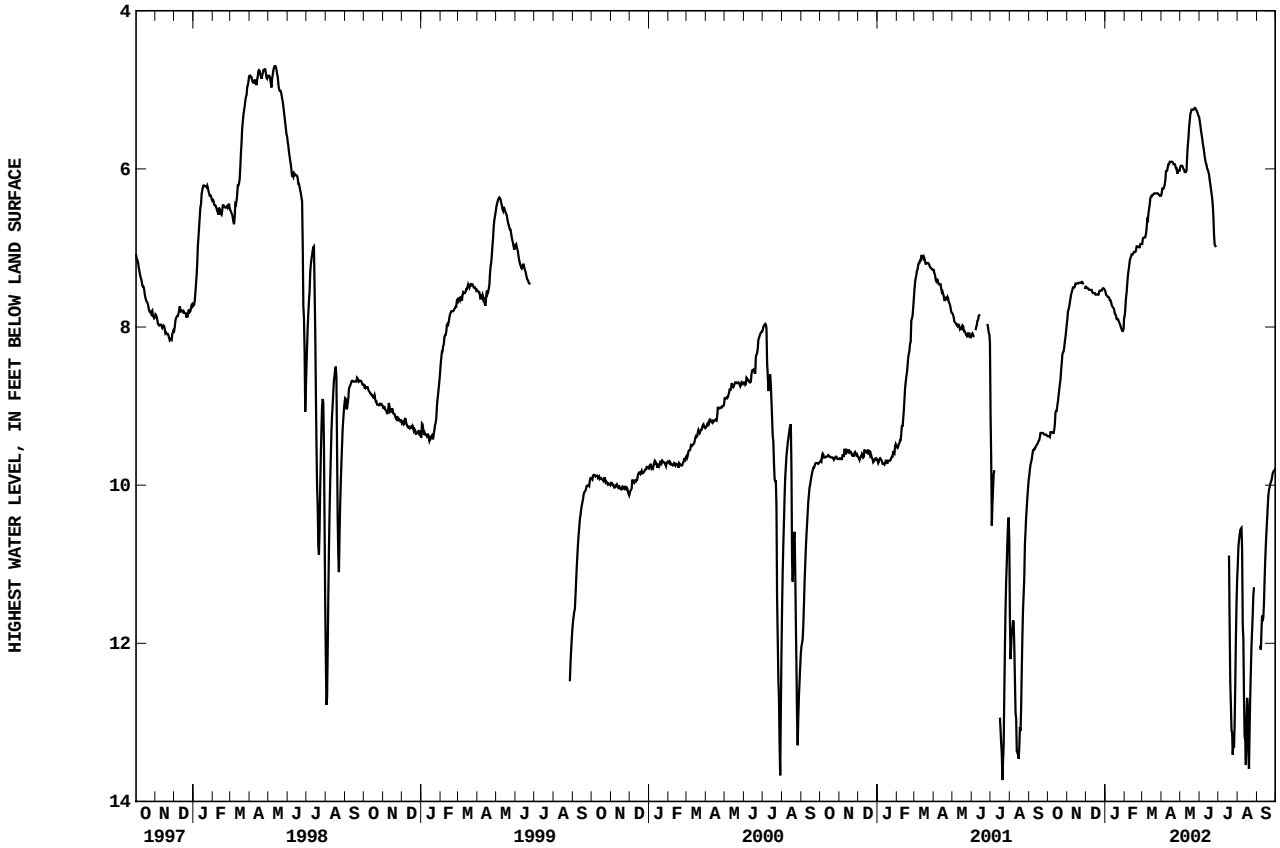
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.33	7.69	7.52	7.62	7.45	6.87	6.23	5.98	5.61	---	10.57	---
10	9.34	7.50	7.53	7.68	7.13	6.65	6.02	6.04	5.89	---	11.95	11.72
15	9.06	7.45	7.57	7.78	7.06	6.35	5.91	5.48	6.04	---	12.98	10.76
20	8.72	7.44	7.59	7.90	6.98	6.31	5.94	5.25	6.31	12.49	13.09	10.06
25	8.32	7.43	7.54	7.98	6.99	6.31	5.99	5.23	6.96	13.25	11.64	9.90
EOM	7.97	7.49	7.53	7.88	6.95	6.34	6.02	5.34	---	11.20	---	9.79
MIN	7.97	---	7.49	7.55	6.95	6.31	5.91	5.23	---	---	---	---

WTR YR 2002 HIGH 5.23 MAY 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.39	7.74	7.53	7.62	7.56	6.87	6.25	6.00	5.68	---	10.63	---
10	9.34	7.53	7.56	7.72	7.16	6.66	6.03	6.05	5.93	---	12.68	12.05
15	9.06	7.45	7.59	7.83	7.08	6.37	5.91	5.61	6.07	---	13.54	10.95
20	8.79	7.44	7.59	7.90	7.03	6.32	5.94	5.25	6.37	12.77	13.59	10.14
25	8.35	7.45	7.54	8.01	6.99	6.31	6.05	5.25	6.97	13.54	11.84	9.94
EOM	8.05	7.52	7.55	8.03	6.95	6.34	6.02	5.39	---	11.51	---	9.81
MAX	9.39	---	7.59	8.06	7.88	6.96	6.34	6.08	---	---	---	---

WTR YR 2002 LOW 13.96 AUG 19



LAPORTE COUNTY

412350086512801. Local number, LP 9.
LOCATION.--Lat 41°23'50", long 86°51'28", in SE$^1/_4$SW$^1/_4$NE$^1/_4$ 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, 8.39 ft below land-surface datum, Dec. 13, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

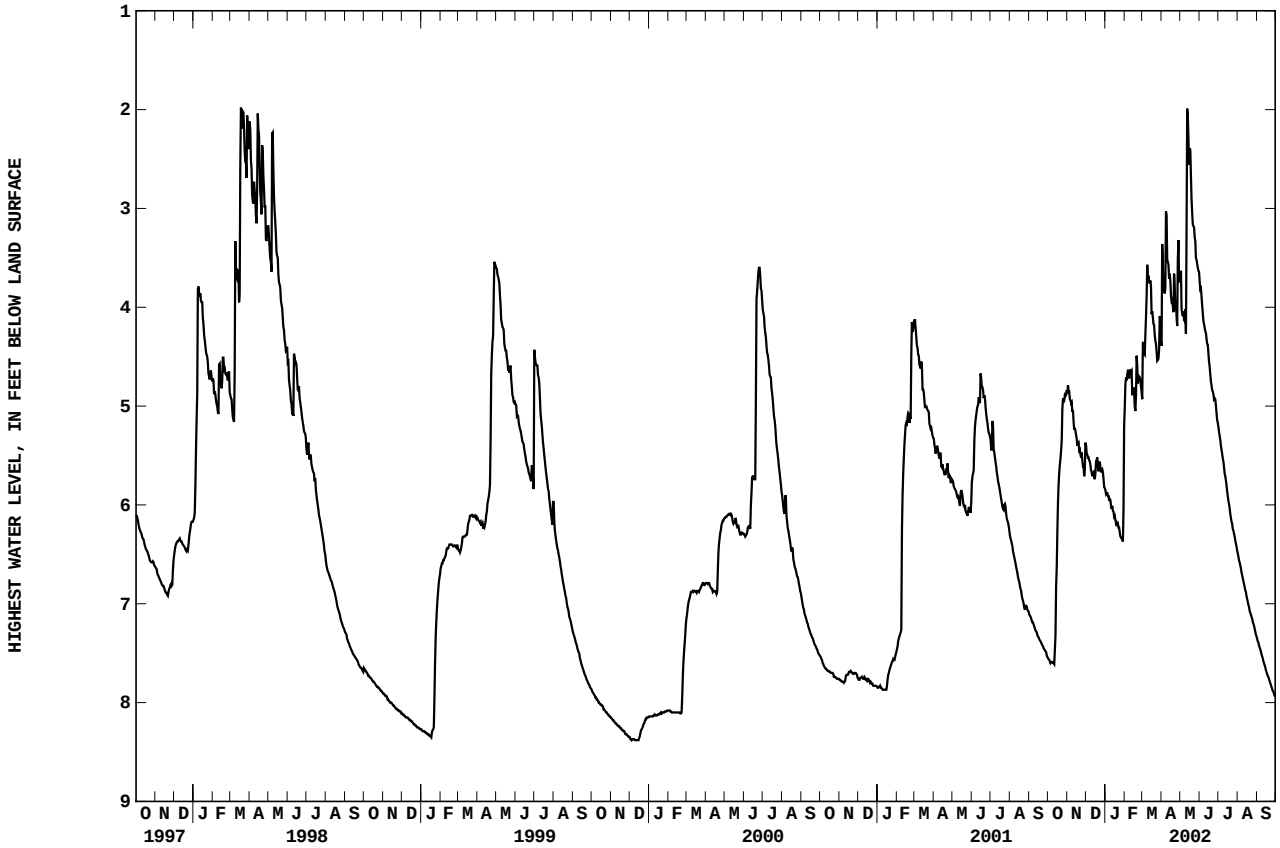
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.60	4.93	5.52	5.91	4.68	4.48	3.82	4.09	3.98	5.40	6.61	7.44
10	7.60	5.04	5.67	6.01	4.64	3.72	3.52	4.27	4.24	5.62	6.77	7.55
15	6.63	5.29	5.74	6.12	4.81	3.79	3.73	2.56	4.47	5.86	6.92	7.67
20	5.59	5.45	5.61	6.20	4.49	4.18	4.05	3.05	4.79	6.09	7.07	7.76
25	4.93	5.55	5.67	6.32	4.71	4.54	4.10	3.33	4.92	6.26	7.18	7.86
EOM	4.84	5.37	5.83	5.20	4.86	4.35	3.74	3.64	5.17	6.46	7.33	7.94
MIN	4.84	4.79	5.40	5.20	4.49	3.57	3.03	1.99	3.74	5.21	6.49	7.35

WTR YR 2002 HIGH 1.99 MAY 12

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.60	4.96	5.56	5.93	4.77	4.57	3.87	4.18	4.09	5.44	6.64	7.46
10	7.61	5.16	5.71	6.04	4.84	3.84	3.60	4.36	4.28	5.68	6.80	7.58
15	6.83	5.33	5.78	6.16	4.95	4.07	3.89	2.66	4.56	5.91	6.95	7.69
20	5.67	5.49	5.67	6.22	4.89	4.33	4.11	3.16	4.84	6.14	7.09	7.78
25	5.03	5.67	5.69	6.34	4.80	4.61	4.19	3.53	5.00	6.29	7.20	7.88
EOM	4.89	5.64	5.85	6.05	4.94	4.40	3.84	3.78	5.21	6.49	7.35	7.96
MAX	7.62	5.75	5.85	6.40	5.20	5.01	4.47	4.36	5.21	6.49	7.35	7.96

WTR YR 2002 LOW 7.96 SEP 30



413139086341401. Local number, LP 10.
LOCATION.--Lat 41°31'40", long 86°34'10", in SE$^1/_4$SW$^1/_4$NE$^1/_4$ sec.31, T.36 N., R.1 W., LaPorte County, Hydrologic Unit 07120001, (STILLWELL, IN quadrangle), 200 ft north of the manager's residence at the Mixsawbah Fish Hatchery and 2.6 mi southeast of Stillwell.
Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 104 ft, cased to 102 ft, screened to 104 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 695 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--August 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.65 ft below land-surface datum, Dec. 29, 1990; lowest, 9.78 ft below land-surface datum, Nov. 16-24, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

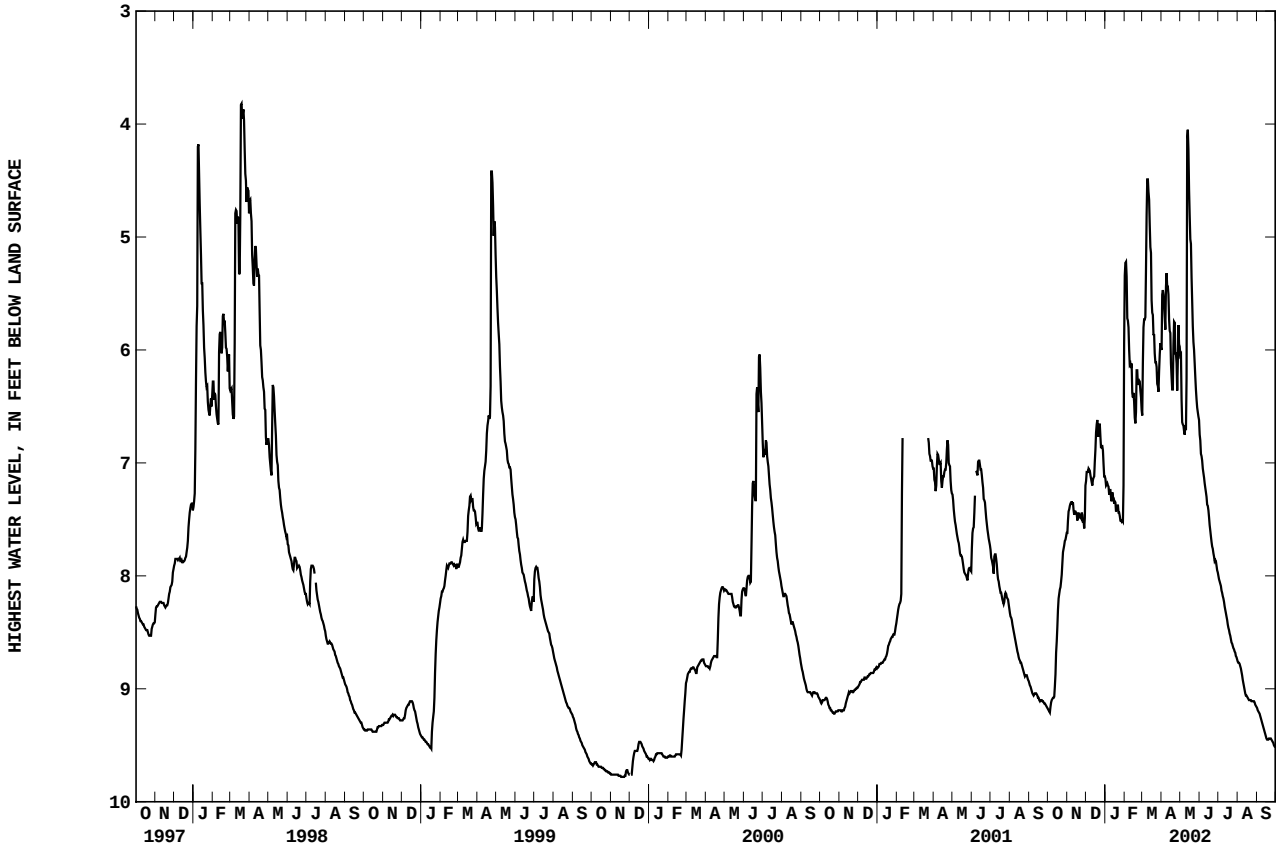
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.16	7.38	7.05	7.20	5.72	5.73	5.60	6.66	6.98	8.09	8.80	9.22
10	9.08	7.35	7.17	7.31	6.12	4.49	5.44	6.71	7.22	8.23	8.95	9.32
15	8.58	7.44	6.99	7.36	6.38	5.14	5.85	4.58	7.42	8.39	9.06	9.42
20	8.12	7.49	6.71	7.41	6.18	5.86	5.95	5.57	7.70	8.53	9.10	9.44
25	7.79	7.46	6.87	7.51	6.28	6.30	6.12	6.24	7.87	8.64	9.11	9.46
EOM	7.62	7.20	7.12	5.94	6.53	5.98	5.97	6.62	7.97	8.74	9.16	9.52
MIN	7.62	7.20	6.62	5.94	5.22	4.49	5.32	4.05	6.75	8.00	8.76	9.17

WTR YR 2002 HIGH 4.05 MAY 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.22	7.41	7.10	7.22	5.74	5.84	5.71	6.74	7.05	8.13	8.82	9.24
10	9.08	7.42	7.20	7.34	6.32	4.60	5.47	6.80	7.26	8.27	8.98	9.34
15	8.68	7.45	7.12	7.44	6.52	5.56	6.12	4.81	7.48	8.43	9.07	9.44
20	8.16	7.52	6.77	7.45	6.55	6.06	6.56	5.79	7.74	8.56	9.10	9.45
25	7.89	7.58	6.89	7.53	6.41	6.38	6.36	6.35	7.89	8.65	9.11	9.47
EOM	7.65	7.49	7.14	7.20	6.58	6.01	6.11	6.75	8.00	8.76	9.17	9.54
MAX	9.22	7.63	7.23	7.56	6.74	6.69	6.56	6.86	8.00	8.76	9.17	9.54

WTR YR 2002 LOW 9.54 SEP 30



LAPORTE COUNTY

412839086533101. Local number, LP 11.
LOCATION.--Lat 41°28'39", long 86°53'31", in SW$^1/_4$SW$^1/_4$SW$^1/_4$ sec.16, T.35 N., R.4 W., LaPorte County, Hydrologic Unit 07120001, (WANATAH, IN quadrangle), in the northeast corner of intersection of U.S. Highway 421 and County Road 900 South. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 100 ft, cased to 95 ft, screened to 100 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 4.1 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--June 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.82 ft below land-surface datum, Dec. 30, 1990; lowest, 10.81 ft below land-surface datum, Feb. 20-23, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

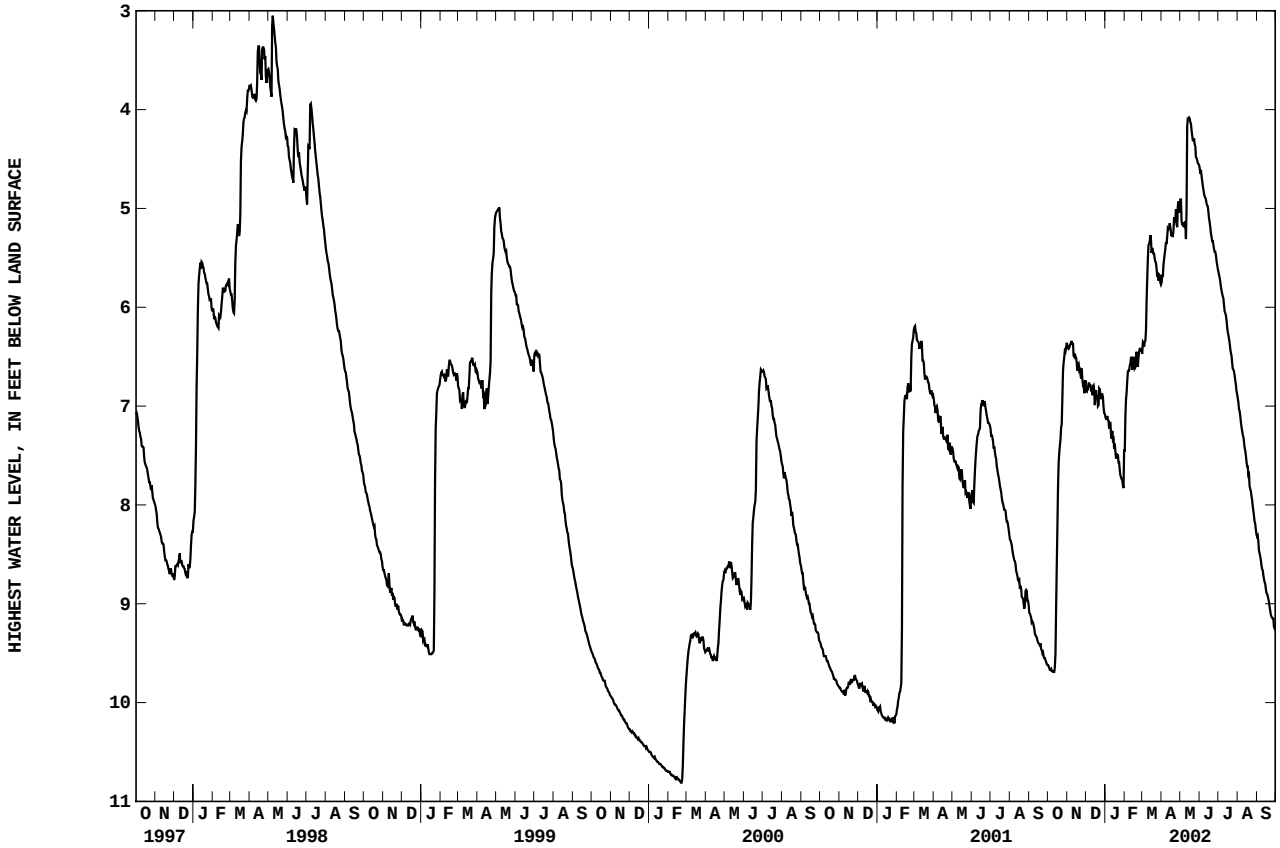
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.67	6.39	6.77	7.14	6.74	6.35	5.51	5.17	4.72	5.79	7.10	8.49
10	9.69	6.36	6.83	7.29	6.57	5.51	5.28	5.31	4.89	5.98	7.31	8.66
15	8.63	6.51	6.99	7.43	6.51	5.32	5.19	4.08	5.04	6.20	7.56	8.85
20	7.40	6.64	7.00	7.52	6.45	5.46	5.22	4.26	5.29	6.42	7.81	8.98
25	6.65	6.72	6.93	7.70	6.42	5.69	5.16	4.37	5.44	6.63	8.01	9.14
EOM	6.36	6.74	7.08	7.44	6.44	5.77	5.02	4.56	5.61	6.88	8.30	9.27
MIN	6.36	6.34	6.77	7.10	6.42	5.27	4.93	4.08	4.59	5.64	6.92	8.31

WTR YR 2002 HIGH 4.08 MAY 15

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.69	6.44	6.85	7.18	6.86	6.45	5.57	5.24	4.79	5.84	7.16	8.52
10	9.70	6.49	6.89	7.33	6.72	5.72	5.39	5.35	4.93	6.05	7.36	8.71
15	9.05	6.56	7.05	7.51	6.61	5.46	5.25	4.14	5.11	6.25	7.61	8.89
20	7.48	6.72	7.03	7.59	6.55	5.55	5.34	4.31	5.33	6.48	7.85	9.03
25	6.93	6.89	6.97	7.76	6.51	5.74	5.20	4.49	5.46	6.66	8.06	9.17
EOM	6.41	6.86	7.11	7.83	6.51	5.81	5.07	4.62	5.64	6.92	8.32	9.29
MAX	9.72	6.96	7.11	7.89	7.60	6.57	5.82	5.35	5.64	6.92	8.32	9.29

WTR YR 2002 LOW 9.72 OCT 11



LAPORTE COUNTY

413434086434701. Local number, LP 12.
LOCATION.--Lat 41°34'34", long 86°43'47", in NE$^1/_4$NE$^1/_4$NW$^1/_4$ sec.14, T.36 N., R.3 W., LaPorte County, Hydrologic Unit 07120001, (LA PORTE EAST, IN quadrangle), on County Road 150 West, at LaPorte Municipal Airport, 1.6 mi south of LaPorte. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 77 ft, cased to 71 ft, screened to 77 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 805 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of floor of shelter, 3.70 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--July 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.96 ft below land-surface datum, Jan. 16, 1991; lowest, 23.53 ft below land-surface datum, Feb. 9-10, 2001.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

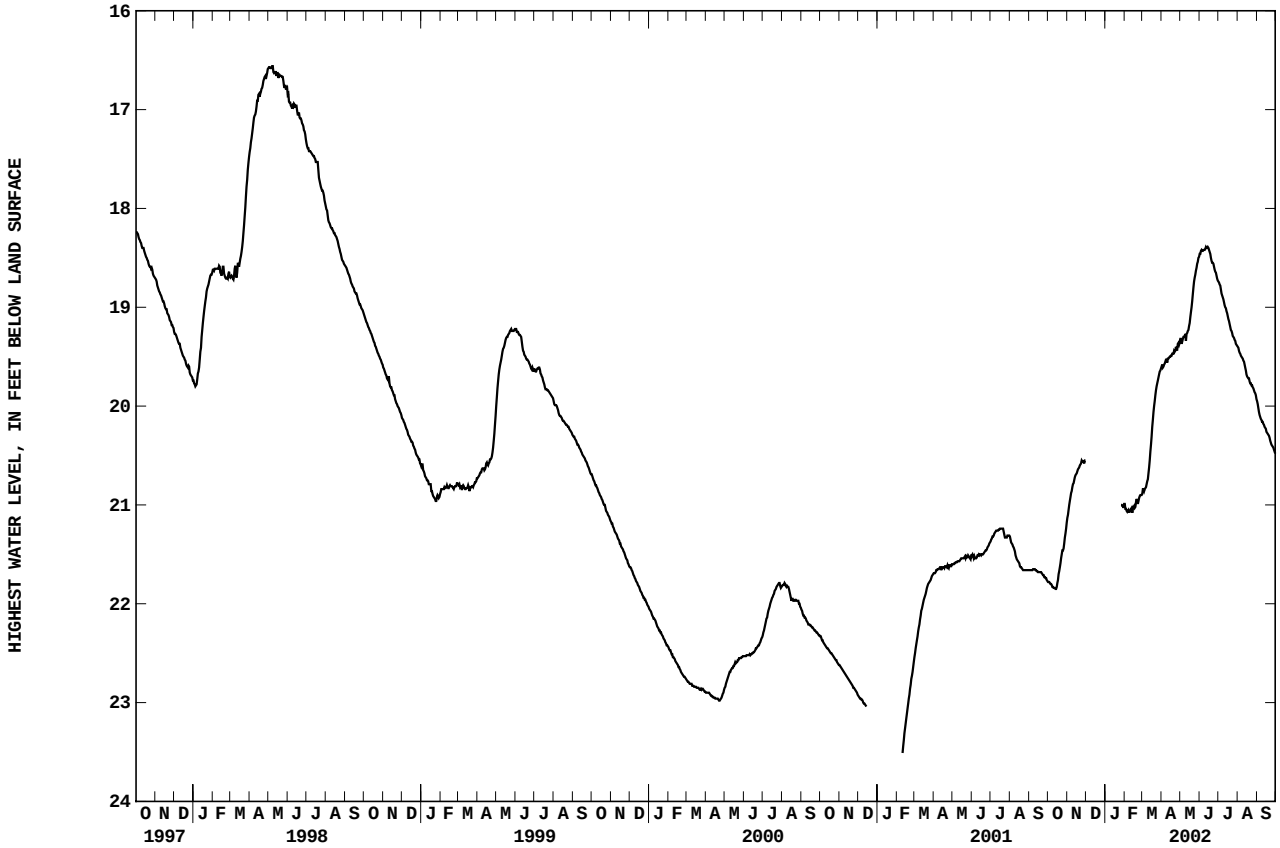
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.80	20.96	---	---	21.07	20.84	19.58	19.32	18.43	18.82	19.47	20.09
10	21.84	20.79	---	---	21.06	20.74	19.56	19.34	18.41	18.95	19.54	20.16
15	21.83	20.69	---	---	21.02	20.39	19.50	19.19	18.40	19.06	19.68	20.23
20	21.63	20.62	---	---	20.94	20.00	19.47	18.94	18.53	19.20	19.75	20.30
25	21.46	20.56	---	---	20.91	19.77	19.43	18.67	18.62	19.30	19.81	20.40
EOM	21.18	20.55	---	20.99	20.90	19.62	19.36	18.49	18.73	19.39	19.93	20.48
MIN	21.18	20.55	---	---	20.90	19.62	19.36	18.49	18.39	18.74	19.40	19.95

WTR YR 2002 HIGH 18.39 JUN 11

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.80	21.00	---	---	21.08	20.86	19.60	19.36	18.45	18.86	19.49	20.11
10	21.84	20.82	---	---	21.10	20.79	19.60	19.36	18.42	18.98	19.55	20.18
15	21.85	20.70	---	---	21.04	20.46	19.50	19.23	18.42	19.09	19.70	20.26
20	21.67	20.63	---	---	20.97	20.06	19.48	19.00	18.55	19.23	19.77	20.32
25	21.46	20.61	---	---	20.94	19.81	19.46	18.70	18.65	19.31	19.82	20.42
EOM	21.24	20.56	---	21.04	20.91	19.64	19.38	18.50	18.74	19.41	19.95	20.49
MAX	21.87	21.18	---	---	21.10	20.92	19.63	19.39	18.74	19.41	19.95	20.49

WTR YR 2002 LOW 21.87 OCT 11



MARION COUNTY

393855086120701. Local number, MA 34.
LOCATION.--Lat 39°38'55", long 86°12'07", in NE$^1/_4$NW$^1/_4$NE$^1/_4$ sec.21, T.14 N., R.3 E., Marion County, Hydrologic Unit 05120201, (MAYWOOD, IN quadrangle), about 0.5 mi northwest of Glenns Valley.
Owner: U.S. Geological Survey.

AQUIFER.--Coarse sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 66 ft, cased to 61 ft, screened to 66 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670.73 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.70 ft above land-surface datum.

REMARKS.--Water level affected by pumpage from water-supply well field.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.55 ft below land-surface datum, Nov. 17, 1993; lowest, 13.86 ft below land-surface datum, Aug. 18, 2001. An artificially created extreme of the lowest water level, 17.32 ft below land-surface datum, June 6-8, 9, 1998 was recorded during underground drainage construction in the vicinity immediately surrounding the well.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

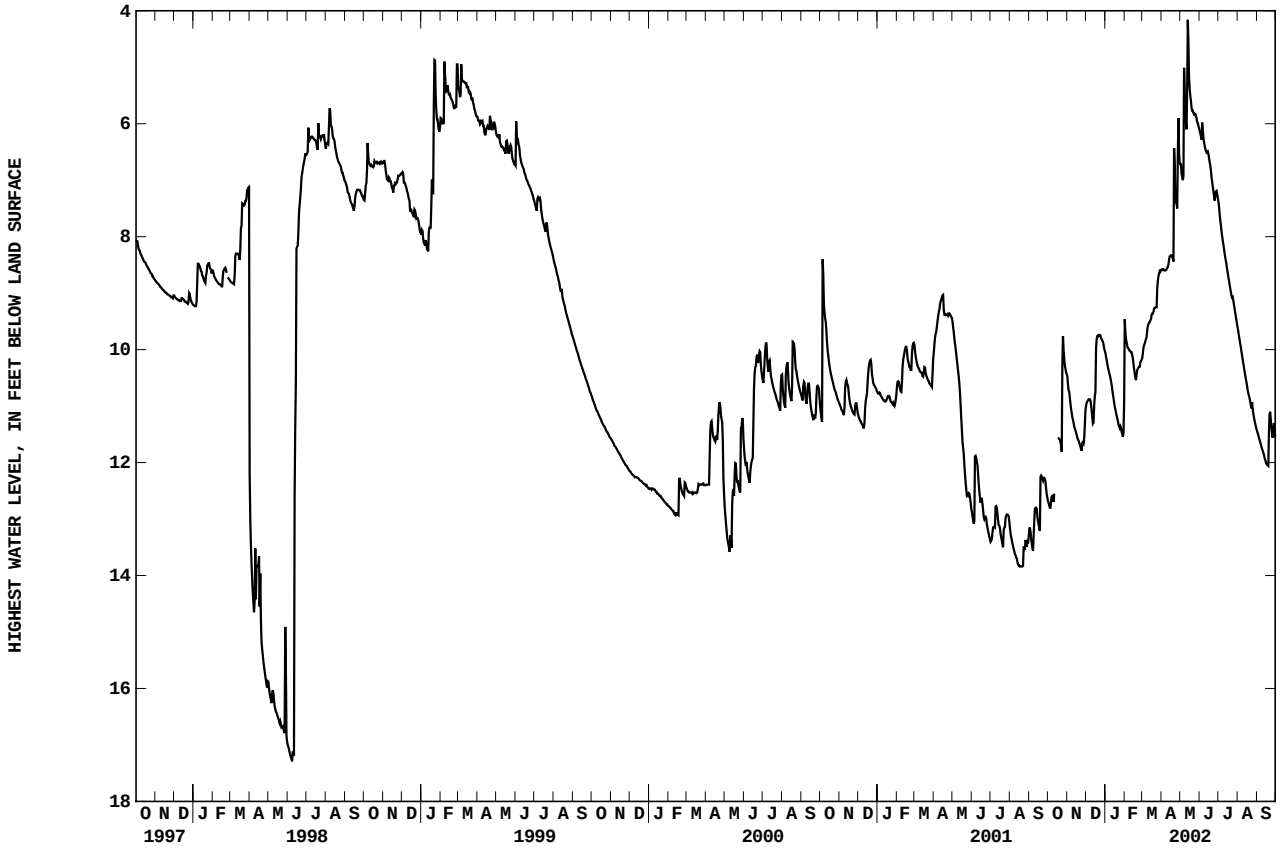
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.80	10.85	10.88	10.31	9.94	9.89	8.59	7.00	5.98	7.80	9.90	11.60
10	12.70	11.24	11.08	10.56	10.03	9.58	8.55	5.98	6.44	8.22	10.25	11.79
15	---	11.47	10.83	10.94	10.26	9.46	8.34	5.20	6.54	8.58	10.58	11.99
20	11.60	11.65	9.75	11.22	10.43	9.27	8.44	5.77	6.95	8.92	10.86	11.44
25	9.76	11.65	9.80	11.36	10.30	8.92	7.42	5.82	7.36	9.14	11.05	11.49
EOM	10.43	11.08	10.02	10.93	10.18	8.59	6.70	6.08	7.31	9.56	11.41	11.55
MIN	---	10.48	9.74	10.06	9.46	8.59	5.90	4.16	5.98	7.38	9.62	11.10

WTR YR 2002 HIGH 4.16 MAY 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.84	10.96	10.90	10.36	9.97	9.92	8.62	7.03	6.38	7.91	9.96	11.64
10	12.74	11.30	11.21	10.62	10.08	9.65	8.59	6.10	6.50	8.30	10.32	11.83
15	---	11.51	10.98	11.01	10.35	9.49	8.36	5.38	6.62	8.66	10.65	12.02
20	11.64	11.69	9.78	11.26	10.56	9.34	8.50	5.83	7.04	8.98	10.93	12.08
25	10.28	11.80	9.81	11.39	10.31	9.27	7.50	5.95	7.41	9.21	11.14	11.56
EOM	10.48	11.36	10.06	11.47	10.20	8.62	6.76	6.14	7.38	9.62	11.44	11.65
MAX	---	11.82	11.38	11.60	10.93	10.18	8.64	7.04	7.41	9.62	11.44	12.08

WTR YR 2002 LOW 12.84 OCT 5



MARION COUNTY

394632086092701. Local number, MA 35.
LOCATION.--Lat 39°46'32", long 86°09'27", in NW$^1/_4$SW$^1/_4$NW$^1/_4$ sec.1, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, (INDIANAPOLIS WEST, IN quadrangle), in the northeast corner of the intersection of Meridian and North Streets in Indianapolis.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 83 ft, cased to 77.5 ft, screened to 83 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 716.40 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.50 ft above land-surface datum.

REMARKS.--Water levels are affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.30 ft below land-surface datum, Mar. 27, 1991; lowest, 38.14 ft below land-surface datum, Sept. 7, 2001.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

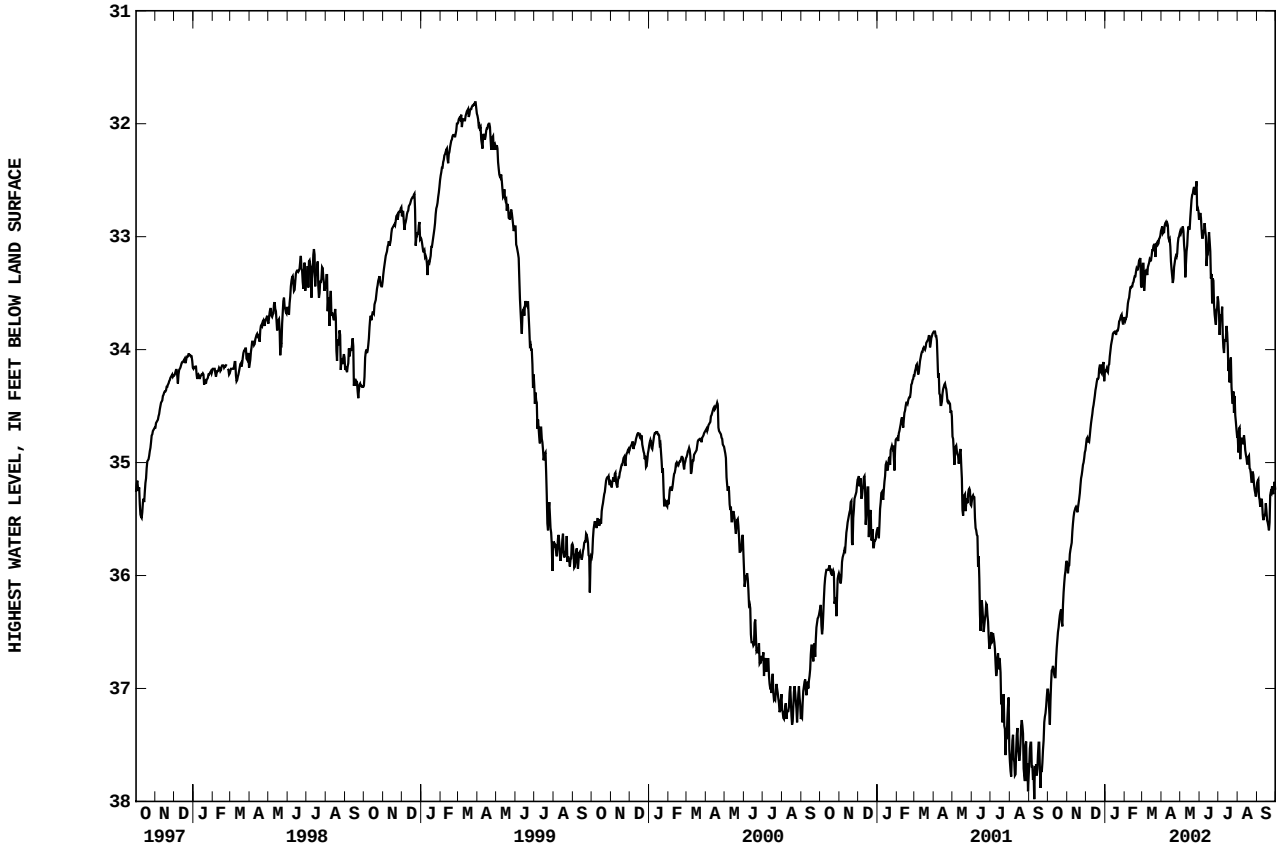
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.11	35.81	34.80	34.20	33.65	33.40	32.96	32.91	33.01	33.69	34.97	35.33
10	36.83	35.54	34.61	33.96	33.45	33.27	32.88	33.24	32.95	34.03	34.83	35.46
15	36.64	35.39	34.41	33.85	33.40	33.21	33.09	32.93	33.05	33.85	34.96	35.36
20	36.35	35.32	34.26	33.83	33.28	33.07	33.37	32.63	33.33	34.12	35.05	35.60
25	36.26	35.07	34.20	33.72	33.20	33.05	33.18	32.63	33.69	34.37	35.08	35.21
EOM	35.87	34.89	34.20	33.72	33.45	32.95	32.97	32.85	33.53	34.77	35.26	35.24
MIN	35.87	34.89	34.11	33.69	33.19	32.95	32.87	32.51	32.79	33.58	34.69	35.15

WTR YR 2002 HIGH 32.51 MAY 27

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.54	35.99	35.13	34.41	33.71	33.69	33.15	33.15	33.29	34.00	35.06	35.60
10	37.14	35.61	34.65	34.01	33.49	33.35	33.09	33.44	33.27	34.16	35.07	35.73
15	36.75	35.64	34.46	33.97	33.59	33.27	33.38	33.15	33.21	34.18	35.24	35.65
20	36.55	35.56	34.50	33.85	33.34	33.13	33.67	32.83	33.60	34.39	35.30	35.83
25	36.45	35.11	34.38	33.75	33.23	33.11	33.32	32.90	33.81	34.61	35.35	35.49
EOM	36.15	34.92	34.34	33.77	33.66	32.99	33.03	33.11	33.75	34.91	35.54	35.59
MAX	37.58	36.25	35.13	34.41	33.87	33.69	33.70	33.49	33.93	34.91	35.56	35.83

WTR YR 2002 LOW 37.58 OCT 4



MARION COUNTY

394732086115501. Local number, MA 37.
LOCATION.--Lat 39°47'32", long 86°11'55", in SE$^1/_4$NE$^1/_4$NE$^1/_4$ sec. 33, T.16N., R.3E., Marion County, Hydrologic Unit 05120201, (INDIANAPOLIS WEST, IN quadrangle), on the South Grove Municipal Golf Course property, west of the 11th fairway and east of White River Parkway in Indianapolis.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene Epoch.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 74 ft, cased to 69 ft, screened to 74 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 690 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 3.35 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

PERIOD OF RECORD.--July 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.22 ft below land-surface datum, Mar. 20, 1991; lowest, 17.04 ft below land-surface datum, Sept. 3, 9-10, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

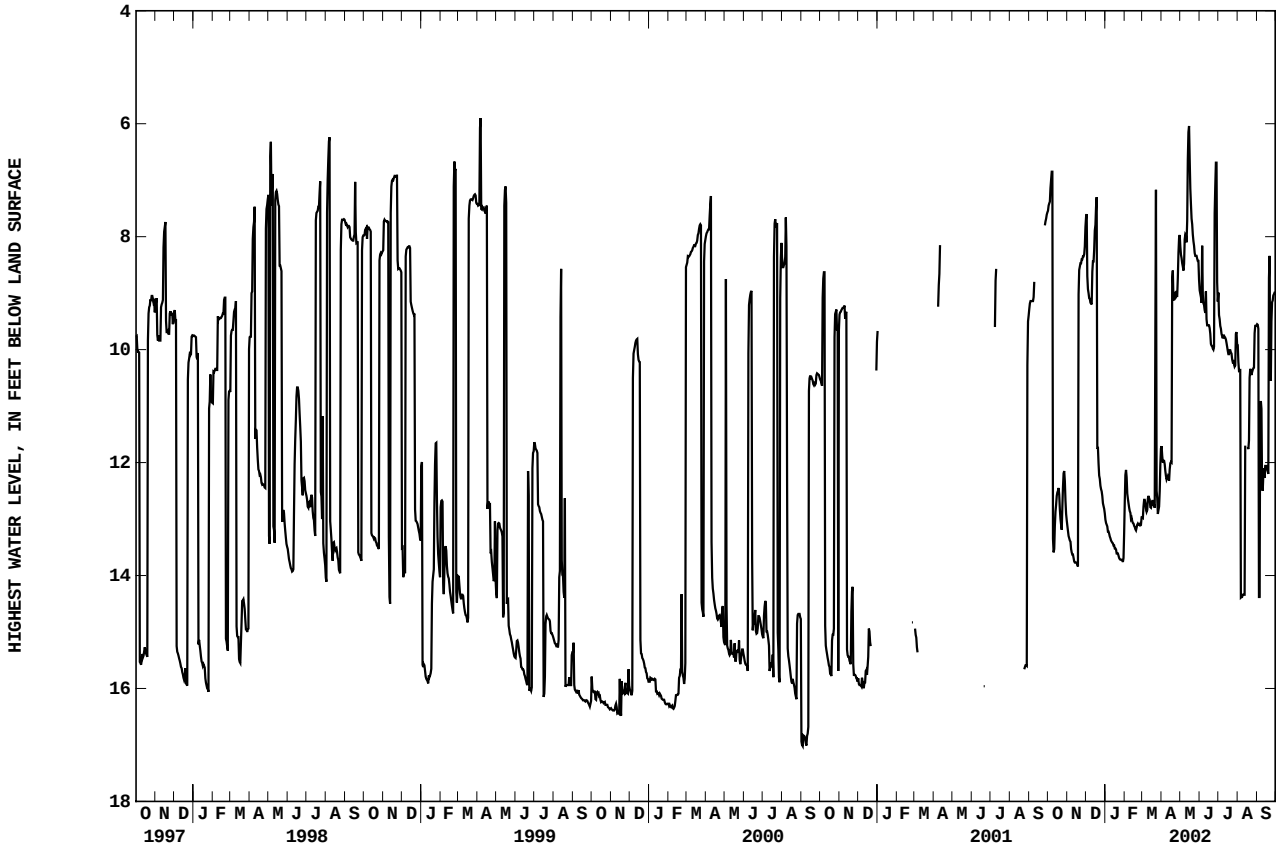
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.14	13.38	9.00	13.22	12.55	12.66	11.97	8.53	8.16	9.63	10.36	14.38
10	13.59	13.63	9.20	13.38	12.89	12.64	12.27	7.98	9.35	9.75	14.34	12.50
15	12.59	13.77	7.89	13.47	13.08	12.80	12.01	6.04	9.57	9.95	---	12.06
20	12.83	8.59	11.74	13.61	13.15	12.75	9.13	7.78	9.93	10.01	10.50	8.73
25	12.43	8.40	12.47	13.72	13.11	12.63	9.05	8.34	7.59	10.21	10.36	9.16
EOM	13.02	7.83	12.90	13.26	12.97	11.75	7.97	8.76	9.15	9.91	9.57	8.99
MIN	6.85	7.83	7.30	13.01	12.13	7.17	7.97	6.04	6.69	8.99	---	8.34

WTR YR 2002 HIGH 6.04 MAY 15

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.38	13.40	9.09	13.23	12.64	12.72	12.03	8.60	9.28	9.72	14.39	14.38
10	13.70	13.69	9.25	13.40	13.01	12.84	12.34	8.10	9.38	9.79	14.38	13.24
15	12.75	13.78	8.23	13.52	13.16	12.83	12.12	6.62	9.57	10.03	---	12.06
20	13.00	9.02	12.02	13.61	13.20	12.80	9.17	7.96	10.11	10.05	11.98	12.32
25	12.79	8.41	12.51	13.74	13.16	12.91	9.08	8.34	9.95	10.26	10.40	9.50
EOM	13.12	8.17	13.01	13.69	13.09	12.03	8.17	8.95	9.33	10.10	9.66	9.16
MAX	13.70	13.84	13.01	13.80	13.26	13.08	12.34	8.95	10.12	10.36	---	14.38

WTR YR 2002 LOW 14.39 AUG 5



MARION COUNTY

393950086124701. Local number, MA 38.
LOCATION.--Lat 39°39'50", long 86°12'47", in SE$^1/_4$SW$^1/_4$SW$^1/_4$ sec. 9, T.14N., R.3E., Marion County, Hydrologic Unit 05120201, (MAYWOOD, IN quadrangle), on Southport Road, west of Highway 37 0.7 mi.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene Epoch.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 64 ft, cased to 59 ft, screened to 64 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 675 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.--Water level affected by pumpage from water-supply well field.

PERIOD OF RECORD.--December 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.43 ft below land-surface datum, June 16, 1998; lowest, 16.14 ft below land-surface datum, Nov. 14, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

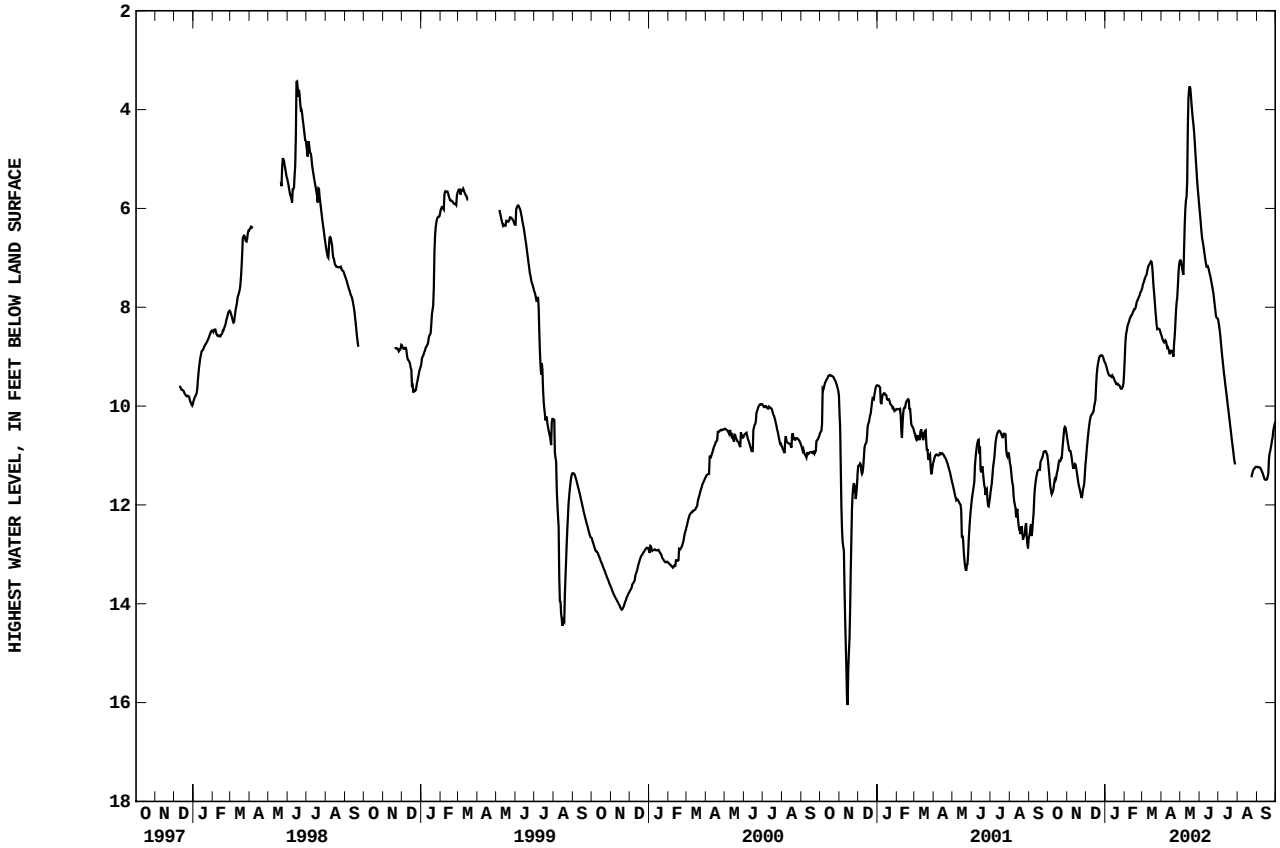
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.65	10.91	10.50	9.32	8.41	7.42	8.71	7.30	6.61	8.71	---	11.24
10	11.65	11.23	10.17	9.40	8.21	7.21	8.82	5.84	7.03	9.35	---	11.36
15	11.37	11.24	9.95	9.46	8.07	7.07	8.91	3.59	7.21	9.87	---	11.49
20	11.12	11.64	9.15	9.56	7.90	7.71	9.00	4.05	7.51	10.41	---	11.07
25	10.74	11.80	8.98	9.63	7.75	8.44	7.91	4.85	7.94	10.94	11.33	10.69
EOM	10.58	11.19	9.11	9.32	7.65	8.54	7.07	5.90	8.23	---	11.23	10.32
MIN	10.42	10.67	8.97	9.14	7.65	7.07	7.07	3.53	6.05	---	---	10.32

WTR YR 2002 HIGH 3.53 MAY 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.72	10.95	10.62	9.35	8.49	7.47	8.73	7.36	6.68	8.85	---	11.25
10	11.72	11.29	10.19	9.41	8.23	7.26	8.84	6.02	7.11	9.44	---	11.40
15	11.46	11.32	10.00	9.50	8.10	7.11	8.96	3.77	7.27	9.98	---	11.50
20	11.13	11.69	9.24	9.58	7.97	7.87	9.08	4.19	7.57	10.51	---	11.37
25	10.89	11.86	8.98	9.65	7.78	8.50	8.09	5.04	8.06	11.05	11.38	10.77
EOM	10.67	11.39	9.14	9.53	7.68	8.58	7.15	6.05	8.28	---	11.24	10.37
MAX	11.80	11.89	11.19	9.66	9.32	8.58	9.10	7.39	8.28	---	---	11.50

WTR YR 2002 LOW 11.89 NOV 24



MARTIN COUNTY

383659086545901. Local number, MT 5.
LOCATION.--Lat 38°36'59", long 86°54'59", in SE$^1/_4$NE$^1/_4$SW$^1/_4$ sec.12, T.2 N., R.5 W., Martin County, Hydrologic Unit 05120208, (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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

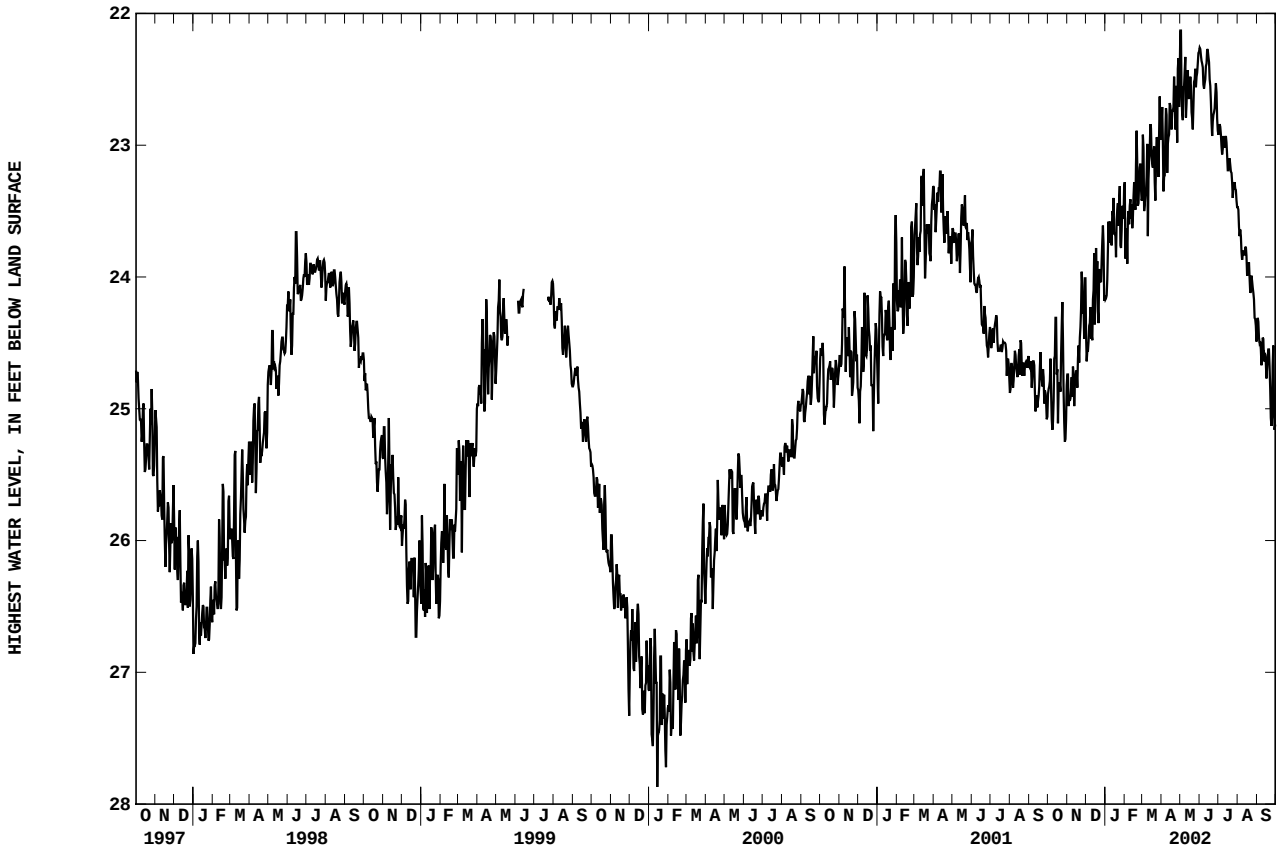
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.62	24.94	24.49	23.79	23.90	23.45	23.24	22.81	22.38	22.92	23.64	24.50
10	24.94	24.68	24.44	23.64	23.41	23.69	23.21	22.79	22.50	22.97	23.80	24.46
15	24.74	24.71	24.36	23.67	23.39	22.87	22.70	22.65	22.33	23.08	23.84	24.65
20	24.82	24.65	24.26	23.49	22.89	23.01	22.71	22.80	22.83	23.15	24.01	24.55
25	24.48	24.07	24.04	23.76	23.17	22.95	22.70	22.42	22.72	23.32	24.08	25.06
EOM	24.82	24.01	24.14	23.32	23.42	22.96	22.46	22.29	22.89	23.47	24.49	25.12
MIN	24.19	23.96	23.61	23.31	22.89	22.63	22.34	22.13	22.26	22.84	23.47	24.31

WTR YR 2002 HIGH 22.13 MAY 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.88	25.02	24.63	24.02	24.06	23.60	23.44	22.96	22.45	23.01	23.73	24.62
10	25.10	24.91	24.53	23.76	23.73	23.82	23.38	23.01	22.60	23.04	23.88	24.60
15	25.01	24.82	24.60	23.97	23.55	23.08	22.83	22.80	22.41	23.20	23.99	24.77
20	24.89	24.76	24.38	23.82	23.14	23.29	22.79	22.89	22.98	23.25	24.14	24.68
25	24.87	24.54	24.16	23.91	23.29	23.14	23.07	22.56	22.82	23.44	24.15	25.22
EOM	25.08	24.44	24.21	23.57	23.53	23.09	22.71	22.35	22.97	23.55	24.58	25.22
MAX	25.35	25.13	24.72	24.31	24.06	23.82	23.44	23.01	23.02	23.55	24.58	25.26

WTR YR 2002 LOW 25.35 OCT 28



400247086482101. Local number, MY 7.
LOCATION.--Lat 40°02'47", long 86°48'21", in NE$^1/_4$NW$^1/_4$SW$^1/_4$ sec.31, T.19 N., R.3 W., Montgomery County, Hydrologic Unit 05120110, (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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

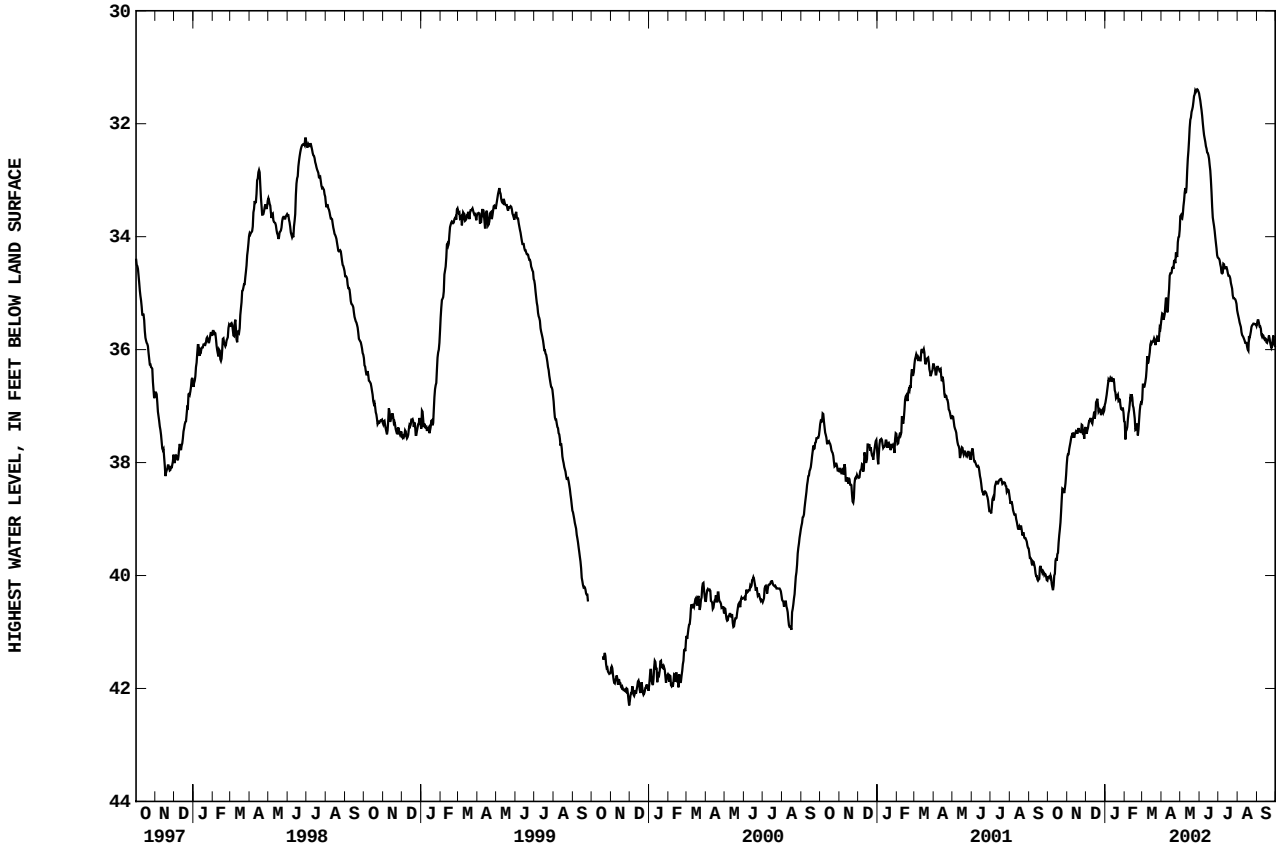
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.00	37.70	37.32	36.62	37.37	36.63	35.43	33.60	31.86	34.54	35.56	35.59
10	40.18	37.47	37.29	36.52	36.84	36.25	35.34	33.23	32.32	34.49	35.78	35.74
15	39.74	37.44	37.22	36.58	37.03	35.87	34.65	32.29	32.56	34.58	35.88	35.81
20	39.18	37.44	36.97	36.82	37.31	35.80	34.57	31.75	33.22	34.74	35.79	35.75
25	38.47	37.34	37.16	36.98	37.08	35.77	34.32	31.41	33.90	35.09	35.56	35.94
EOM	38.04	37.37	36.98	37.27	36.95	35.54	33.88	31.46	34.37	35.30	35.58	35.95
MIN	38.04	37.33	36.87	36.50	36.79	35.54	33.88	31.39	31.53	34.38	35.36	35.48

WTR YR 2002 HIGH 31.39 MAY 28

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.08	37.77	37.40	36.71	37.47	36.69	35.48	33.68	31.99	34.64	35.60	35.63
10	40.26	37.56	37.33	36.58	36.96	36.32	35.37	33.29	32.40	34.56	35.81	35.78
15	39.79	37.49	37.29	36.74	37.12	35.91	34.69	32.48	32.62	34.64	35.95	35.87
20	39.29	37.49	37.10	36.87	37.41	35.86	34.59	31.79	33.47	34.82	35.83	35.83
25	38.50	37.50	37.17	37.07	37.24	35.85	34.37	31.49	34.01	35.12	35.58	36.00
EOM	38.22	37.45	37.08	37.35	36.99	35.64	34.00	31.53	34.38	35.36	35.60	35.98
MAX	40.28	38.04	37.54	37.35	37.67	36.97	35.54	33.88	34.38	35.36	36.06	36.00

WTR YR 2002 LOW 40.28 OCT 9



MORGAN COUNTY

393423086161001. Local number, MG 4.
LOCATION.--Lat 39°34'23", long 86°16'10", in NW$^1/_4$NW$^1/_4$NW$^1/_4$ 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

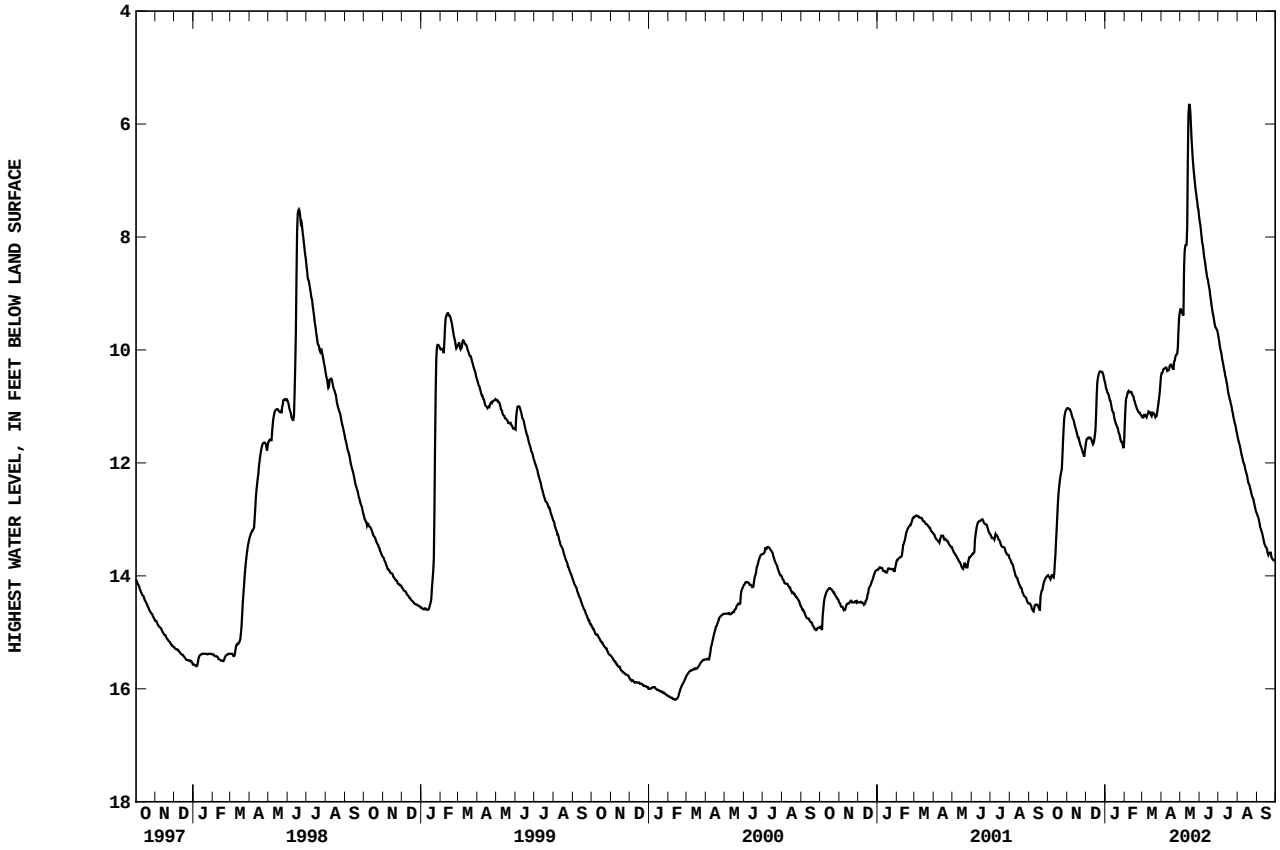
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.06	11.05	11.55	10.77	10.78	11.15	10.33	9.37	8.09	10.02	11.73	13.07
10	14.03	11.22	11.60	10.96	10.74	11.13	10.37	8.15	8.47	10.34	11.99	13.29
15	13.15	11.42	11.52	11.19	10.83	11.15	10.27	5.66	8.82	10.62	12.19	13.49
20	12.31	11.60	10.49	11.37	11.03	11.13	10.35	6.45	9.21	10.90	12.40	13.60
25	11.63	11.78	10.39	11.58	11.11	11.10	10.08	7.12	9.54	11.19	12.62	13.69
EOM	11.04	11.71	10.56	11.63	11.17	10.47	9.34	7.63	9.70	11.49	12.88	13.74
MIN	11.04	11.03	10.38	10.61	10.73	10.47	9.34	5.66	7.72	9.76	11.55	12.91

WTR YR 2002 HIGH 5.66 MAY 15

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.07	11.08	11.57	10.79	10.84	11.15	10.35	9.40	8.15	10.08	11.80	13.14
10	14.06	11.24	11.63	11.02	10.77	11.19	10.40	8.17	8.57	10.39	12.01	13.35
15	13.36	11.46	11.60	11.24	10.89	11.19	10.30	5.84	8.88	10.70	12.23	13.50
20	12.41	11.65	10.58	11.39	11.05	11.16	10.38	6.63	9.28	10.96	12.46	13.69
25	11.91	11.83	10.39	11.62	11.14	11.18	10.10	7.20	9.61	11.24	12.64	13.72
EOM	11.06	11.81	10.61	11.76	11.19	10.61	9.44	7.72	9.76	11.55	12.91	13.77
MAX	14.07	11.89	11.71	11.76	11.63	11.21	10.47	9.42	9.76	11.55	12.91	13.77

WTR YR 2002 LOW 14.07 OCT 5



NEWTON COUNTY

405105087173301. Local number, NE 6.
LOCATION.--Lat 40°51'05", long 87°17'33", in SE$^1/_4$SW$^1/_4$SE$^1/_4$ 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, 7.94 ft below land-surface datum, Mar. 20, 21, 1982; lowest, 18.82 ft below land-surface datum, Oct. 29, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

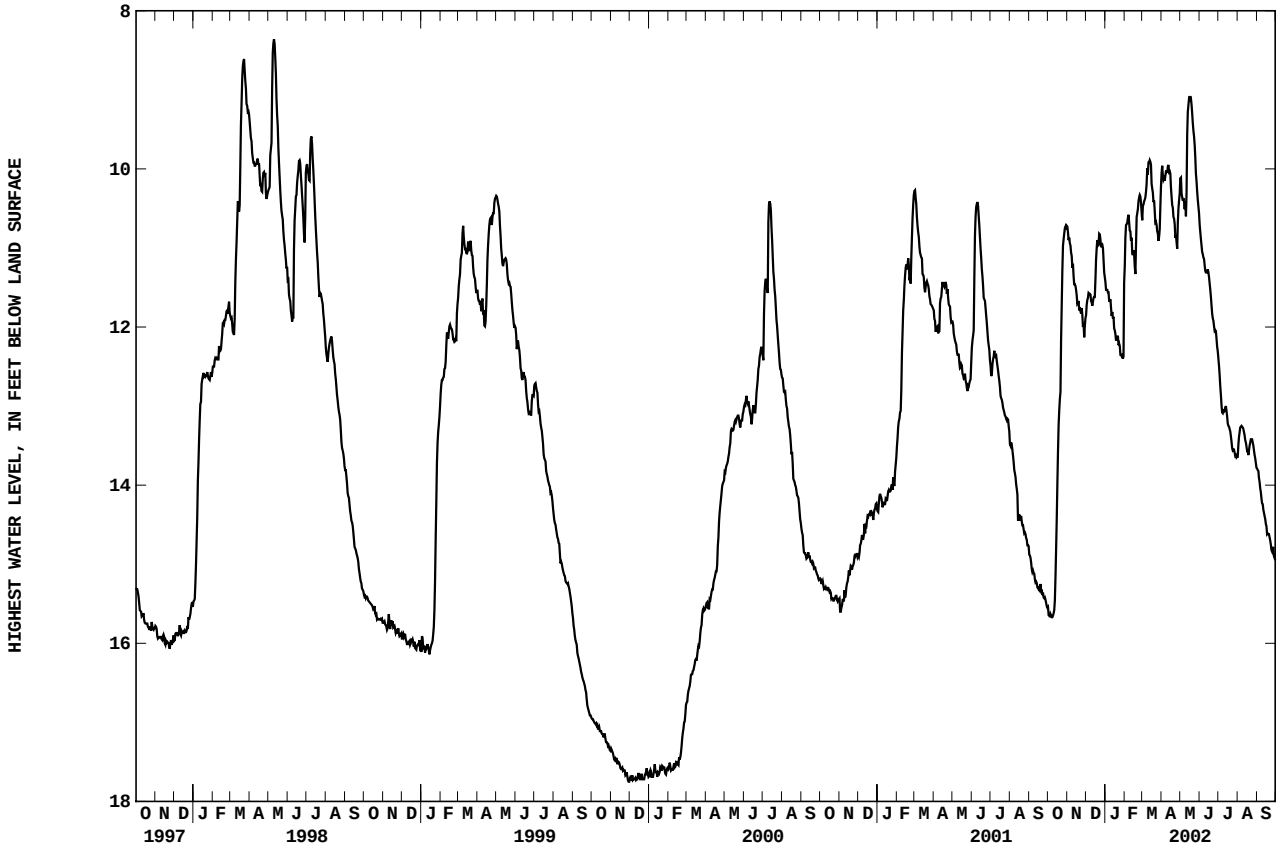
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.63	10.94	11.57	11.56	10.68	10.39	10.12	10.40	11.05	12.86	13.27	13.96
10	15.62	11.20	11.69	11.76	10.79	10.07	10.05	10.60	11.29	13.07	13.29	14.24
15	14.43	11.53	11.62	12.02	11.03	9.95	10.06	9.11	11.31	13.13	13.51	14.49
20	12.91	11.79	10.97	12.16	10.61	10.40	10.61	9.30	11.73	13.32	13.50	14.62
25	10.97	11.84	10.99	12.35	10.33	10.79	10.93	9.86	12.05	13.55	13.46	14.84
EOM	10.72	11.89	11.37	11.44	10.55	10.23	10.31	10.56	12.31	13.64	13.78	14.95
MIN	10.72	10.73	10.82	11.43	10.33	9.89	9.95	9.08	10.71	12.40	13.25	13.79

WTR YR 2002 HIGH 9.08 MAY 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.70	10.97	11.64	11.62	10.77	10.44	10.17	10.44	11.13	13.01	13.33	14.10
10	15.66	11.38	11.75	11.89	11.02	10.14	10.17	10.67	11.37	13.12	13.35	14.31
15	14.81	11.62	11.72	12.16	11.16	10.19	10.24	9.19	11.38	13.22	13.58	14.55
20	13.06	11.82	11.01	12.20	10.97	10.59	10.74	9.45	11.84	13.41	13.56	14.68
25	11.29	12.07	11.05	12.40	10.44	10.92	11.04	10.06	12.10	13.59	13.52	14.87
EOM	10.79	11.99	11.45	12.37	10.65	10.48	10.40	10.71	12.41	13.68	13.82	15.00
MAX	15.70	12.16	11.92	12.46	11.44	10.96	11.08	10.71	12.41	13.69	13.82	15.00

WTR YR 2002 LOW 15.70 OCT 4



NEWTON COUNTY

405959087282901. Local number, NE 7.
LOCATION.--Lat 40°59'59", long 87°28'29", in SE$^1/_4$SW$^1/_4$SE$^1/_4$ sec.32, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120002, (MOROCCO, IN quadrangle), in the Willow Slough Game Preserve, 2.0 mi southwest of Enos.
Owner: State of Indiana.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 136 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 680.83 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.03 ft above land-surface datum.

REMARKS.--Water level affected by irrigation pumpage.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.65 ft below land-surface datum, Apr. 14, 1980; lowest, 97.33 ft below land-surface datum, Aug. 29, 30, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

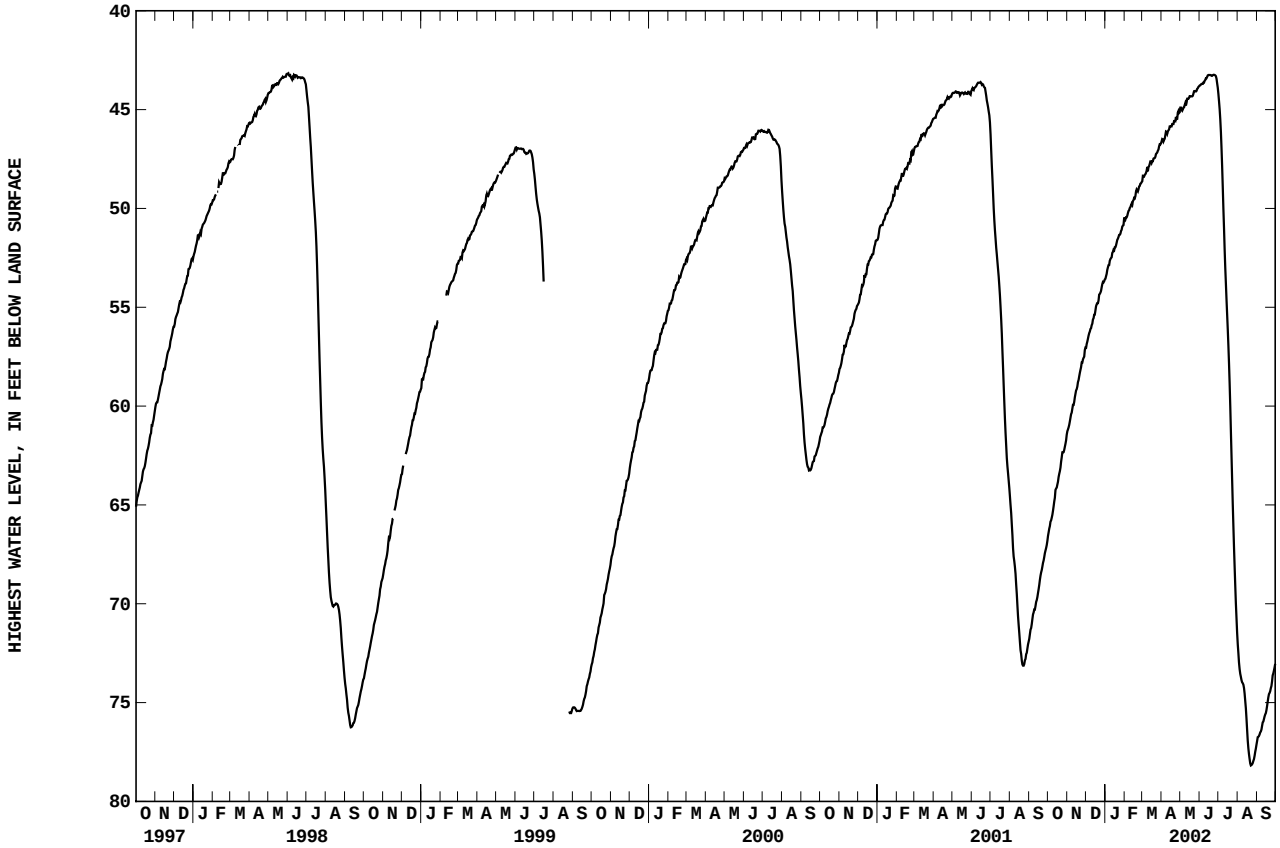
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	65.85	60.78	56.44	52.98	50.37	48.30	46.53	44.99	43.70	46.14	73.54	76.61
10	65.07	59.94	55.91	52.51	49.93	48.12	46.22	44.79	43.50	51.01	74.09	76.00
15	64.12	59.21	55.37	52.12	49.58	47.62	45.85	44.40	43.25	55.37	75.80	75.53
20	63.29	58.50	54.79	51.59	49.04	47.46	45.73	44.33	43.29	60.00	77.85	74.57
25	62.34	57.80	54.17	51.28	48.86	47.17	45.48	44.06	43.25	66.07	78.06	73.92
EOM	61.45	57.04	53.59	50.50	48.67	46.71	45.13	43.82	43.90	71.46	77.13	73.04
MIN	61.45	57.04	53.59	50.50	48.67	46.71	45.07	43.82	43.24	44.21	72.05	73.04

WTR YR 2002 HIGH 43.24 JUN 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	66.07	60.95	56.60	53.11	50.50	48.38	46.61	45.07	43.70	46.95	73.70	76.69
10	65.30	60.13	56.06	52.59	50.03	48.14	46.29	44.87	43.57	52.07	74.26	76.18
15	64.19	59.39	55.45	52.17	49.63	47.70	45.89	44.46	43.27	56.11	76.38	75.60
20	63.43	58.68	54.82	51.73	49.15	47.48	45.75	44.35	43.34	61.25	78.08	74.74
25	62.35	57.83	54.28	51.35	48.91	47.24	45.53	44.09	43.31	67.13	78.13	74.16
EOM	61.73	57.16	53.71	50.84	48.78	46.79	45.17	43.85	44.21	72.05	77.33	73.23
MAX	66.82	61.45	57.07	53.60	50.68	48.74	46.71	45.13	44.21	72.05	78.22	77.13

WTR YR 2002 LOW 78.22 AUG 22



NEWTON COUNTY

410428087231501. Local number, NE 8.
LOCATION.--Lat 41°04'28", long 87°25'44", in NW1/4SW1/4SW1/4 sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, (ENOS, IN quadrangle), in the Beaver Lake Prairie Chicken Refuge, 3.0 mi north of Enos.
Owner: State of Indiana.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 97 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 663.34 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 2.83 ft above land-surface datum.

REMARKS.--Water level affected by irrigation pumpage.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.04 ft below land-surface datum, May 31, 1976; lowest, 98.40 ft below land-surface datum, July 29, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

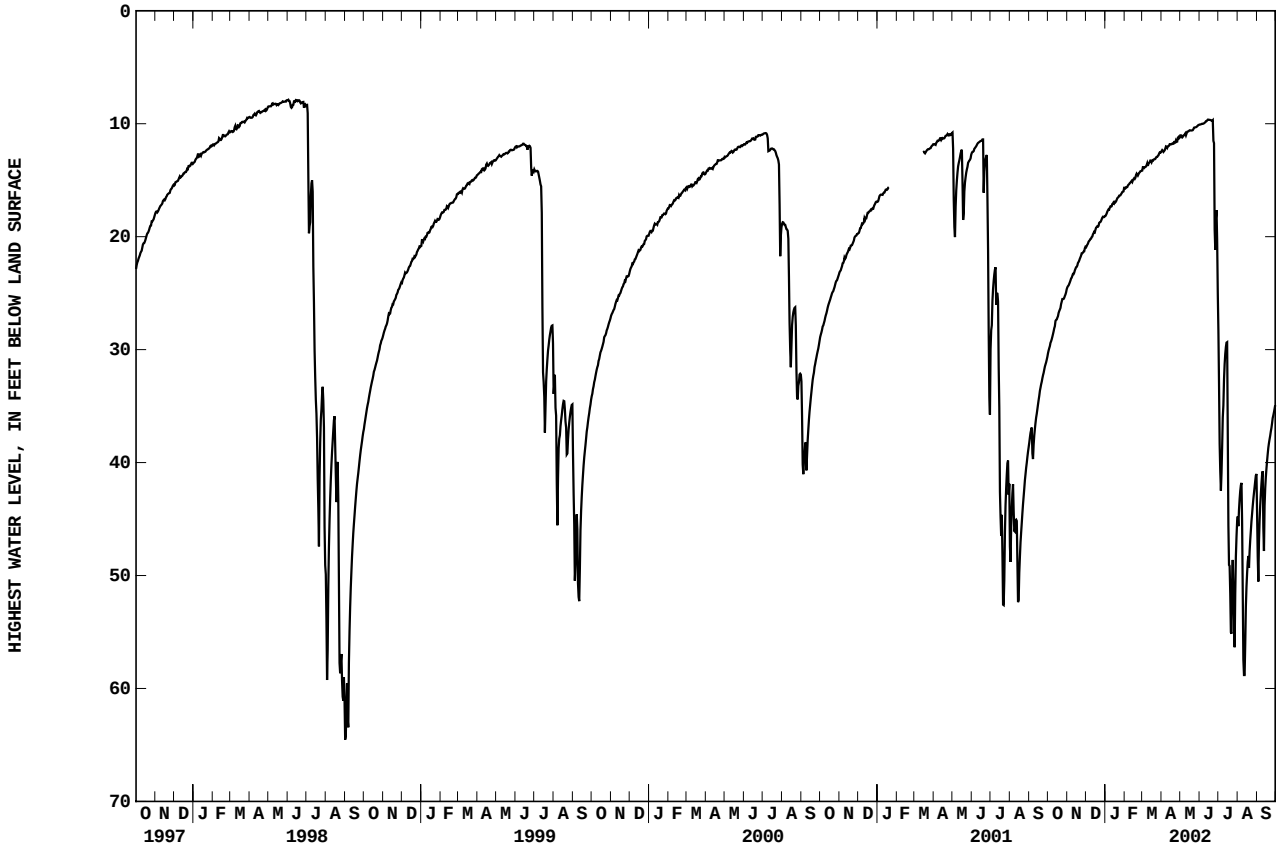
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.40	24.04	20.45	17.67	15.61	13.86	12.42	11.15	10.00	42.49	42.51	45.13
10	28.38	23.30	20.04	17.33	15.21	13.73	12.14	11.03	9.87	32.61	57.43	40.77
15	27.33	22.71	19.61	17.05	14.91	13.28	11.81	10.62	9.64	29.34	51.01	41.28
20	26.45	22.12	19.11	16.60	14.42	13.15	11.77	10.59	9.73	51.63	47.86	38.27
25	25.52	21.46	18.61	16.34	14.30	12.94	11.58	10.32	19.38	51.38	43.85	36.51
EOM	24.65	20.90	18.18	15.67	14.17	12.53	11.23	10.10	25.01	45.25	41.01	34.92
MIN	24.65	20.90	18.18	15.67	14.17	12.53	11.18	10.10	9.64	28.32	41.01	34.92

WTR YR 2002 HIGH 9.64 JUN 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.69	24.20	20.63	17.79	15.74	13.95	12.49	11.24	10.04	44.57	43.23	47.08
10	28.63	23.46	20.17	17.39	15.35	13.79	12.25	11.12	9.94	34.95	60.28	45.73
15	27.43	22.88	19.67	17.12	15.00	13.41	11.86	10.71	9.66	37.45	52.76	42.24
20	26.60	22.27	19.16	16.75	14.56	13.22	11.81	10.62	9.81	55.03	49.32	38.69
25	25.56	21.60	18.72	16.44	14.38	13.01	11.63	10.38	27.49	53.42	44.52	36.93
EOM	24.92	21.03	18.30	15.99	14.28	12.62	11.31	10.13	28.32	46.56	44.55	35.24
MAX	30.63	24.65	21.00	18.22	15.90	14.26	12.55	11.27	28.32	59.76	60.28	51.74

WTR YR 2002 LOW 60.28 AUG 10



NEWTON COUNTY

405959087282902. Local number, NE 9.
LOCATION.--Lat 40°59'59", long 87°28'29", in SE$^1/_4$SW$^1/_4$SE$^1/_4$ sec.32, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120002, (MOROCCO, IN quadrangle), in the Willow Slough Game Preserve, 2.0 mi southwest of Enos.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 45 ft, cased to 42 ft, screened to 45 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 681 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Bottom lip of "Y" in well casing, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year. Fragmentary record prior to March 1981.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.07 ft below land-surface datum, May 3, 1978; lowest, 15.60 ft below land-surface datum, Jan. 17-23, 2001.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

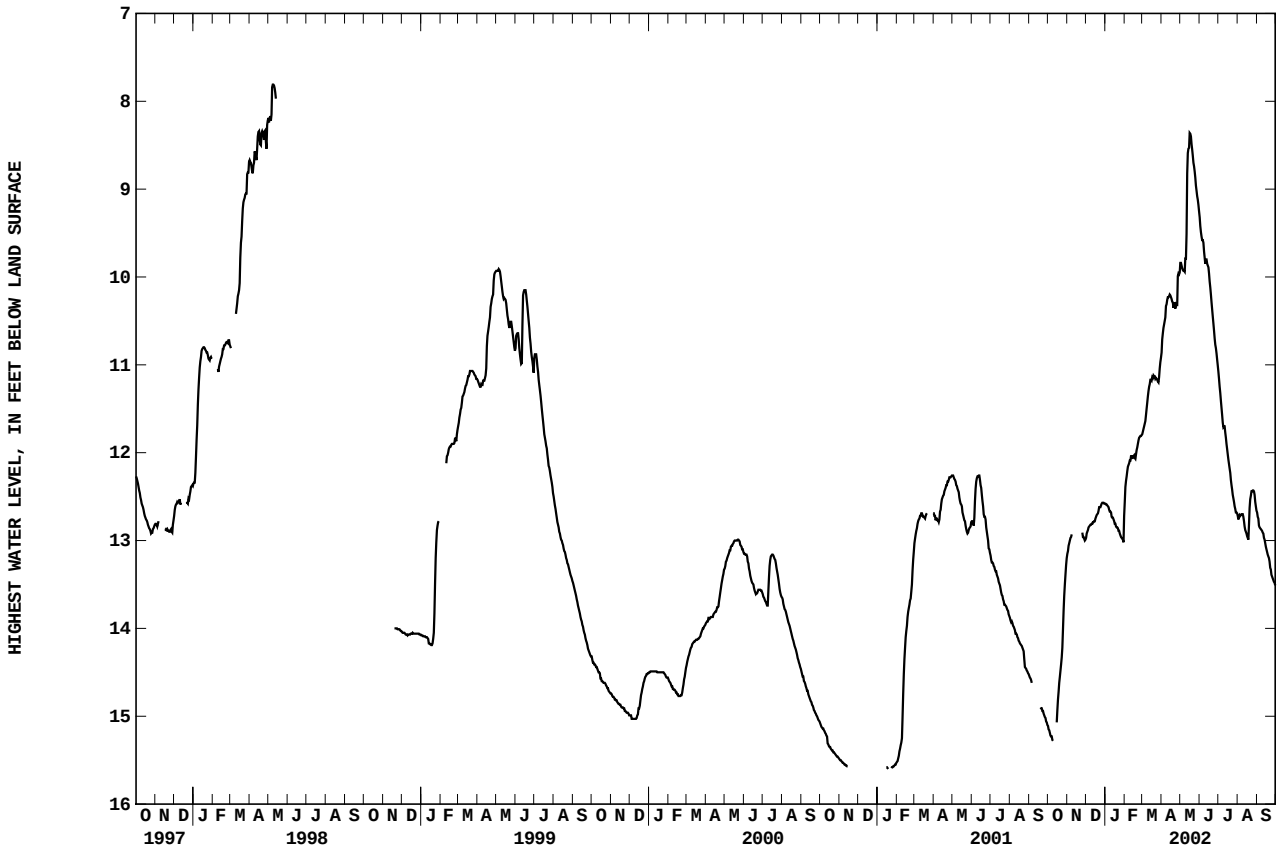
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.22	13.00	12.85	12.61	12.21	11.67	10.54	9.92	9.58	11.41	12.72	12.85
10	---	---	12.81	12.68	12.09	11.36	10.26	9.79	9.85	11.70	12.73	12.91
15	15.07	---	12.78	12.78	12.04	11.17	10.21	8.53	9.89	11.96	12.92	13.07
20	14.55	---	12.69	12.85	11.97	11.13	10.35	8.55	10.29	12.23	12.63	13.20
25	14.01	12.91	12.60	12.94	11.82	11.17	10.32	8.87	10.70	12.52	12.43	13.41
EOM	13.20	12.99	12.58	12.72	11.80	10.92	9.95	9.25	11.01	12.69	12.66	13.51
MIN	---	---	12.57	12.58	11.80	10.92	9.95	8.36	9.32	11.08	12.43	12.68

WTR YR 2002 HIGH 8.36 MAY 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.23	13.03	12.88	12.62	12.27	11.70	10.58	9.94	9.62	11.49	12.73	12.86
10	---	---	12.82	12.73	12.11	11.44	10.31	9.80	9.91	11.71	12.78	12.92
15	15.25	---	12.79	12.81	12.05	11.20	10.23	8.54	9.96	12.02	12.95	13.10
20	14.62	---	12.70	12.86	12.02	11.13	10.38	8.62	10.37	12.31	12.82	13.24
25	14.22	12.96	12.62	12.96	11.84	11.20	10.35	8.96	10.77	12.56	12.44	13.43
EOM	13.28	13.00	12.58	13.02	11.82	10.97	9.97	9.32	11.08	12.72	12.68	13.54
MAX	---	---	13.00	13.02	12.73	11.82	10.92	9.98	11.08	12.72	13.02	13.54

WTR YR 2002 LOW 15.30 OCT 9



NEWTON COUNTY

410428087231502. Local number, NE 10.
LOCATION.--Lat 41°04'28", long 87°25'44", in NW1/4SW1/4SW1/4 sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, (ENOS, IN quadrangle), in the Beaver Lake Prairie Chicken Refuge, 3.0 mi north of Enos.
Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 45 ft, cased to 41 ft, screened to 44 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 662.60 ft above National Geodetic Vertical Datum of 1929. Measuring point: Bottom lip of "Y" in well casing, 2.65 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year. Fragmentary record prior to March 1981.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.03 ft below land-surface datum, Mar. 16, 1982; lowest, 7.23 ft below land-surface datum, Nov. 8-9, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

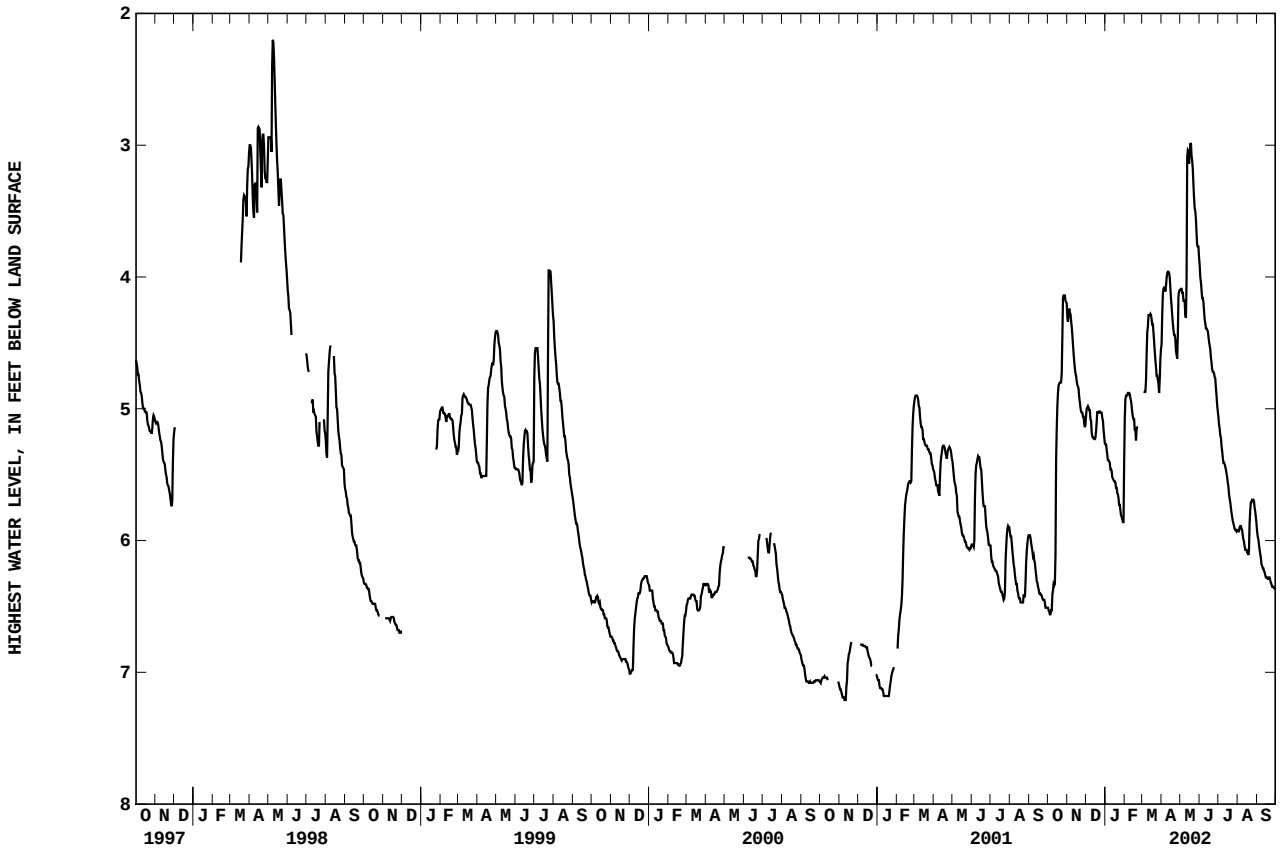
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.56	4.27	4.99	5.39	4.90	4.87	4.08	4.12	4.16	5.22	5.89	6.07
10	6.33	4.51	5.18	5.46	4.92	4.38	3.97	4.31	4.35	5.41	5.99	6.21
15	5.15	4.75	5.23	5.55	5.08	4.29	4.08	3.14	4.45	5.52	6.07	6.28
20	4.80	4.91	5.03	5.64	5.15	4.49	4.40	3.12	4.65	5.71	5.87	6.28
25	4.16	5.03	5.03	5.77	---	4.75	4.59	3.50	4.76	5.87	5.69	6.35
EOM	4.20	5.12	5.26	5.42	---	4.55	4.10	3.85	5.02	5.92	5.87	6.37
MIN	4.14	4.24	4.98	5.27	---	---	3.96	2.99	3.91	5.06	5.69	5.93

WTR YR 2002 HIGH 2.99 MAY 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.56	4.28	5.02	5.39	4.90	4.88	4.09	4.18	4.16	5.28	5.90	6.10
10	6.38	4.58	5.21	5.47	4.94	4.42	4.01	4.32	4.39	5.42	6.03	6.23
15	5.39	4.79	5.23	5.55	5.09	4.32	4.16	3.19	4.49	5.56	6.10	6.28
20	4.81	4.96	5.03	5.65	5.24	4.56	4.44	3.18	4.70	5.76	6.07	6.29
25	4.46	5.06	5.03	5.81	---	4.78	4.62	3.56	4.77	5.89	5.70	6.37
EOM	4.31	5.16	5.27	5.86	---	4.63	4.11	3.91	5.06	5.93	5.93	6.39
MAX	6.57	5.16	5.27	5.86	---	---	4.62	4.32	5.06	5.94	6.17	6.39

WTR YR 2002 LOW 6.57 OCT 3



NEWTON COUNTY

410235087305901. Local number, NE 11.
LOCATION.--Lat 41°02'35", long 87°30'59", in SW$^1/_4$SW$^1/_4$SE$^1/_4$ sec.13, T.30 N., R.10 W., Newton County, Hydrologic Unit 07120001, (LEESVILLE, IN-IL quadrangle), on right-of-way of County Road 300 North, 0.5 mi west of County Road 600 West, and 4.0 mi northwest of Enos.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth of 150 ft, cased to 90 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.30 ft above land-surface datum.

REMARKS.--Water level affected by irrigation pumpage.

PERIOD OF RECORD.--October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.78 ft below land-surface datum, May 6, 1982; lowest recorded, 98.83 ft below land-surface datum, Aug. 5, 6, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

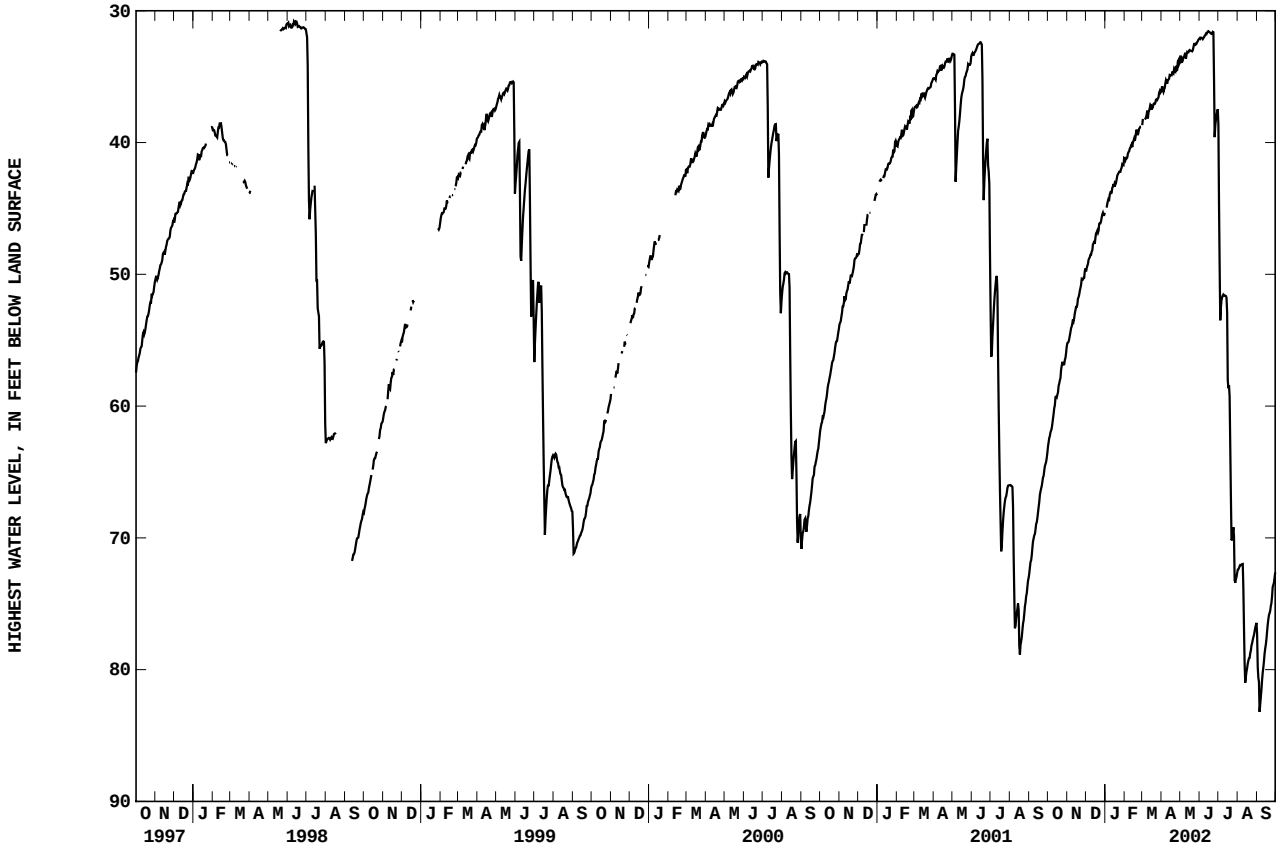
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	61.98	54.64	48.91	44.43	41.13	38.25	35.98	33.75	32.08	52.49	72.06	83.20
10	60.58	53.42	48.28	43.84	40.39	38.17	35.53	33.64	31.86	51.59	73.81	80.22
15	59.34	52.48	47.67	43.36	39.86	37.19	34.89	33.02	31.55	52.91	80.16	78.10
20	58.04	51.54	46.84	42.51	39.02	37.04	34.75	33.08	31.76	63.04	79.11	75.86
25	56.83	50.42	45.98	42.22	38.89	36.77	34.52	32.51	39.59	69.19	77.76	74.42
EOM	55.48	49.56	45.33	41.17	---	36.14	33.93	32.15	37.47	72.67	76.45	72.62
MIN	55.48	49.56	45.33	---	---	---	33.76	32.15	31.55	38.65	71.98	72.62

WTR YR 2002 HIGH 31.55 JUN 15

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	62.28	54.94	49.26	44.65	41.42	38.51	36.16	33.97	32.21	53.65	72.18	83.87
10	60.96	53.72	48.51	43.97	40.76	38.31	35.80	33.78	32.00	51.71	76.83	80.80
15	59.60	52.78	47.84	43.56	40.02	37.50	34.99	33.24	31.63	58.04	80.55	78.39
20	58.31	51.86	46.97	42.85	39.27	37.24	34.83	33.17	31.89	66.78	79.27	76.19
25	56.89	50.82	46.18	42.37	39.06	36.90	34.59	32.72	40.71	69.87	78.03	74.96
EOM	55.95	49.80	45.56	41.72	---	36.33	34.08	32.23	38.65	72.97	77.28	73.02
MAX	63.53	55.48	49.91	---	---	---	36.25	34.05	40.71	74.15	81.67	83.87

WTR YR 2002 LOW 83.87 SEP 5



NEWTON COUNTY

410917087285801. Local number, NE 14.
LOCATION.--Lat 41°09'17", long 87°28'58", in NE$^1/_4$SW$^1/_4$NW$^1/_4$ sec.8, T.31 N., R.9 W., Newton County, Hydrologic Unit 07120001, (SCHNEIDER, IN quadrangle), 100 ft south of wildlife area parking lot in La Salle State Fish and Wildlife Area. Owner: U.S. Geological Survey.

AQUIFER.--Dolomitic limestone of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 82 ft, open end.

INSTRUMENTATION.--Water-level recorder, data-collection platform, and incremental encoder.

DATUM.--Elevation of land-surface datum is 636.62 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.30 ft above land-surface datum.

REMARKS.--Water level affected by irrigation pumpage.

PERIOD OF RECORD.--August 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.18 ft below land-surface datum, Mar. 27, 1991; lowest, 31.19 ft below land-surface datum, Aug. 26, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

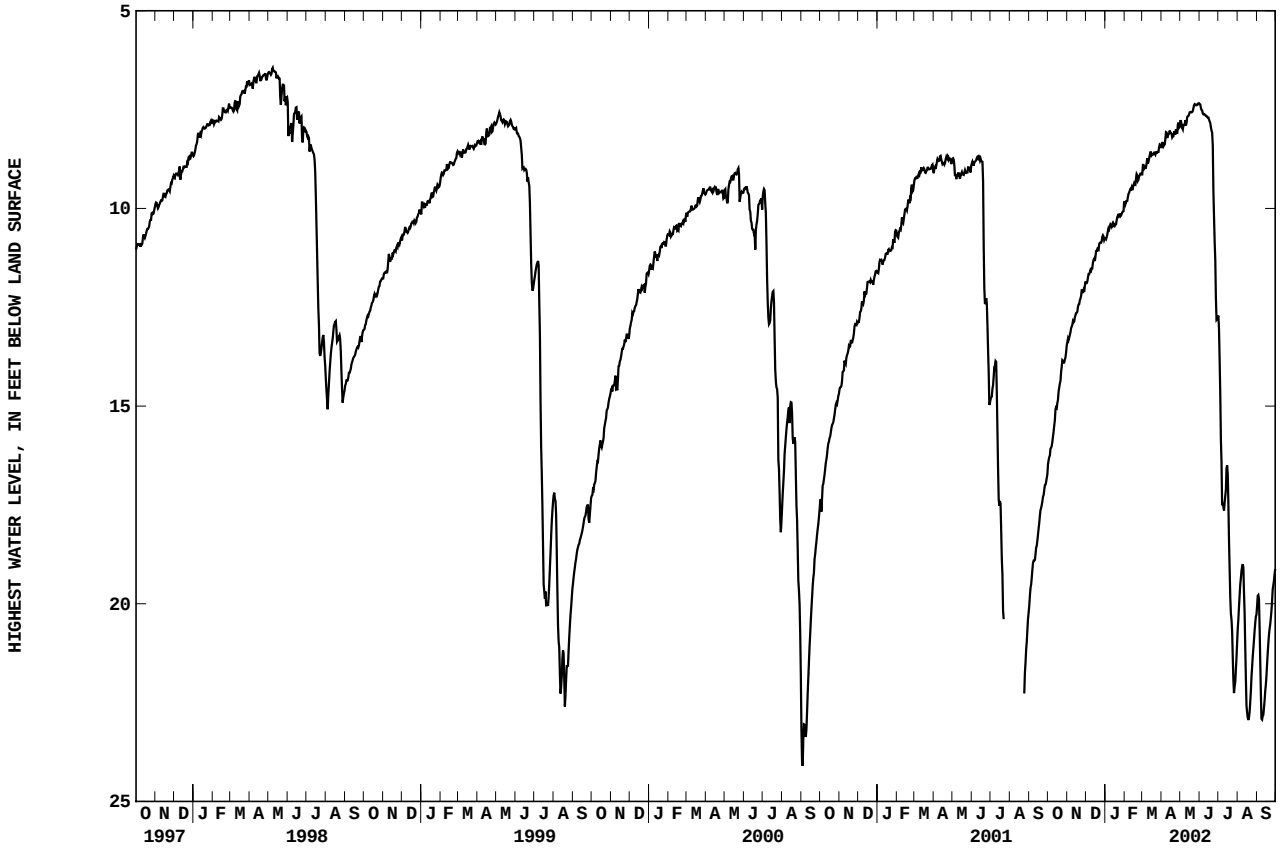
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.08	13.20	11.66	10.57	9.81	8.98	8.40	8.00	7.52	15.86	19.52	20.58
10	15.64	12.85	11.51	10.42	9.51	8.87	8.22	7.90	7.64	17.64	19.08	22.84
15	15.05	12.65	11.33	10.41	9.41	8.58	8.08	7.62	7.70	16.50	22.57	22.05
20	14.43	12.42	11.06	10.22	9.13	8.59	8.17	7.56	8.03	19.83	22.74	20.79
25	13.86	12.07	10.87	10.20	9.16	8.59	8.07	7.37	10.85	21.93	21.34	19.93
EOM	13.47	11.85	10.76	9.84	9.14	8.45	7.94	7.34	12.74	20.98	20.27	19.12
MIN	13.47	11.85	10.68	9.84	9.12	8.38	7.83	7.34	7.36	12.71	19.00	19.12

WTR YR 2002 HIGH 7.34 MAY 30

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.26	13.28	11.77	10.66	9.88	9.02	8.43	8.04	7.64	16.43	19.79	21.41
10	15.77	12.94	11.58	10.47	9.62	8.90	8.24	7.99	7.68	17.76	19.72	22.94
15	15.10	12.72	11.36	10.53	9.48	8.66	8.18	7.69	7.75	16.73	22.75	22.21
20	14.53	12.46	11.08	10.30	9.24	8.63	8.20	7.58	8.10	20.25	22.90	21.01
25	13.90	12.19	11.00	10.30	9.20	8.65	8.11	7.41	11.30	22.33	21.60	20.18
EOM	13.64	11.96	10.81	10.08	9.18	8.56	7.98	7.36	12.91	21.36	20.42	19.25
MAX	16.65	13.47	11.94	10.79	9.96	9.18	8.63	8.04	12.92	22.40	23.00	23.02

WTR YR 2002 LOW 23.02 SEP 8



NOBLE COUNTY

411922085221801. Local number, NO 8.
LOCATION.--Lat 41°19'22", long 85°22'18", in SE$^1/_4$SW$^1/_4$SE$^1/_4$ sec.9, T.33 N., R.10 E., Noble County, Hydrologic Unit 04050001, (EGE, IN quadrangle), near the east edge of Chain O'Lakes State Park, and 5.0 mi south of Albion.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 149 ft, cased to 146 ft, screened to 148 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 928 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of floor of shelter, 2.65 ft above land-surface datum.

PERIOD OF RECORD.--December 1966 to September 1971, August 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.88 ft below land-surface datum, Feb. 14, 1991; lowest, 32.49 ft below land-surface datum, Jan. 18, 1967.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

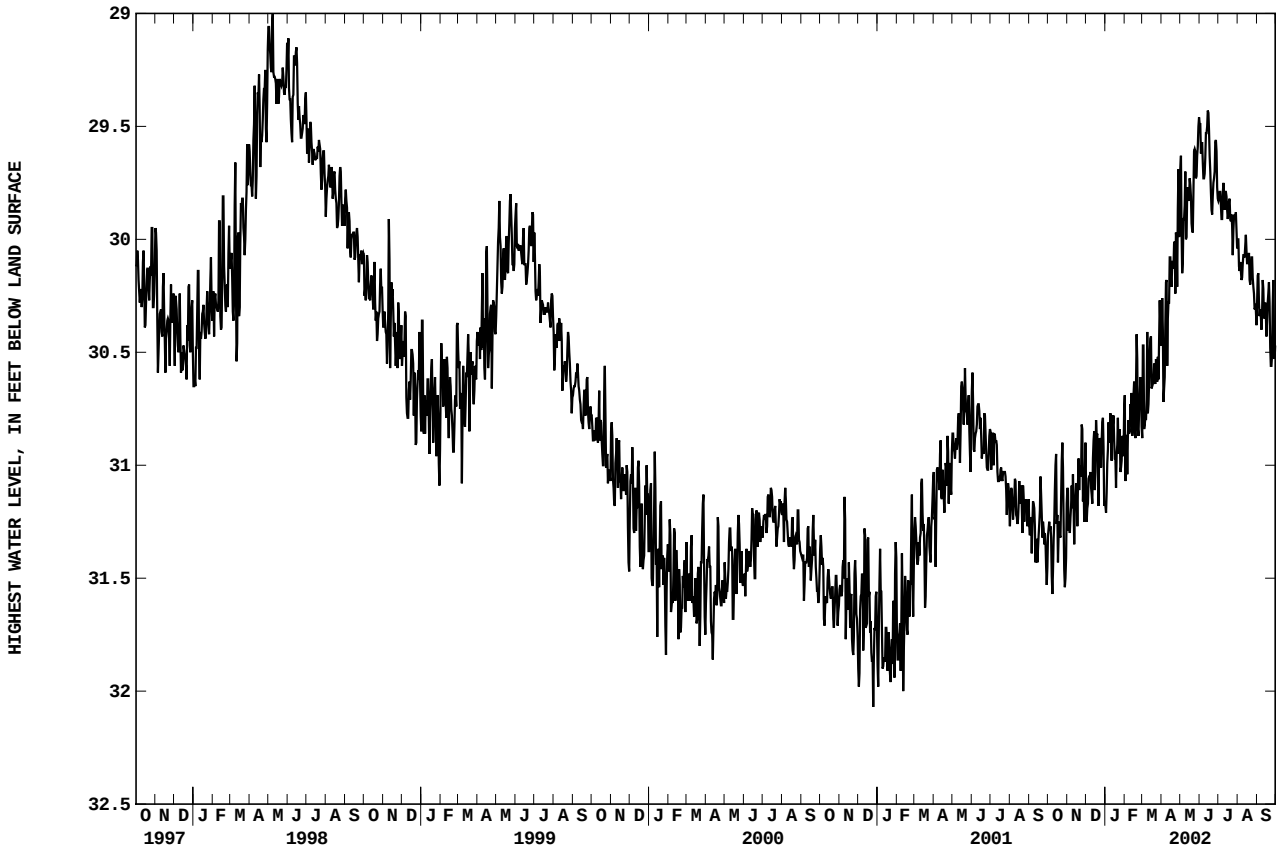
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.27	31.30	31.06	30.93	31.04	30.82	30.66	30.10	29.57	29.85	30.10	30.34
10	31.33	31.04	31.13	30.86	30.73	30.77	30.56	30.00	29.64	29.79	30.07	30.18
15	31.26	31.08	31.11	30.89	30.69	30.43	30.08	29.83	29.44	29.87	30.05	30.33
20	31.31	31.11	31.01	30.91	30.42	30.55	30.13	29.96	29.87	29.91	30.18	30.19
25	31.01	30.84	31.01	31.03	30.69	30.63	30.01	29.61	29.70	29.96	30.17	30.51
EOM	31.17	30.90	31.16	30.76	30.83	30.47	29.96	29.46	29.82	30.04	30.38	30.47
MIN	30.90	30.82	30.79	30.76	30.42	30.27	29.69	29.46	29.43	29.75	29.98	30.15

WTR YR 2002 HIGH 29.43 JUN 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.37	31.36	31.20	30.99	31.18	30.92	30.73	30.20	29.67	29.93	30.14	30.39
10	31.47	31.19	31.23	30.98	30.91	30.99	30.68	30.23	29.71	29.89	30.12	30.33
15	31.46	31.17	31.31	31.19	30.84	30.66	30.18	29.97	29.52	29.91	30.11	30.44
20	31.34	31.18	31.18	31.03	30.65	30.69	30.21	30.00	29.93	29.99	30.28	30.28
25	31.24	31.24	31.06	31.10	30.75	30.73	30.21	29.77	29.75	30.08	30.21	30.64
EOM	31.41	31.09	31.20	31.11	30.88	30.57	30.01	29.53	29.87	30.05	30.42	30.53
MAX	31.65	31.40	31.34	31.33	31.23	31.04	30.77	30.23	29.94	30.11	30.42	30.66

WTR YR 2002 LOW 31.65 OCT 8



413106085232701. Local number, NO 9.
LOCATION.--Lat 41°31'06", long 85°23'27", in NW$^1/_4$NE$^1/_4$SE$^1/_4$ 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, 17.86 ft below land-surface datum, Feb. 17, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

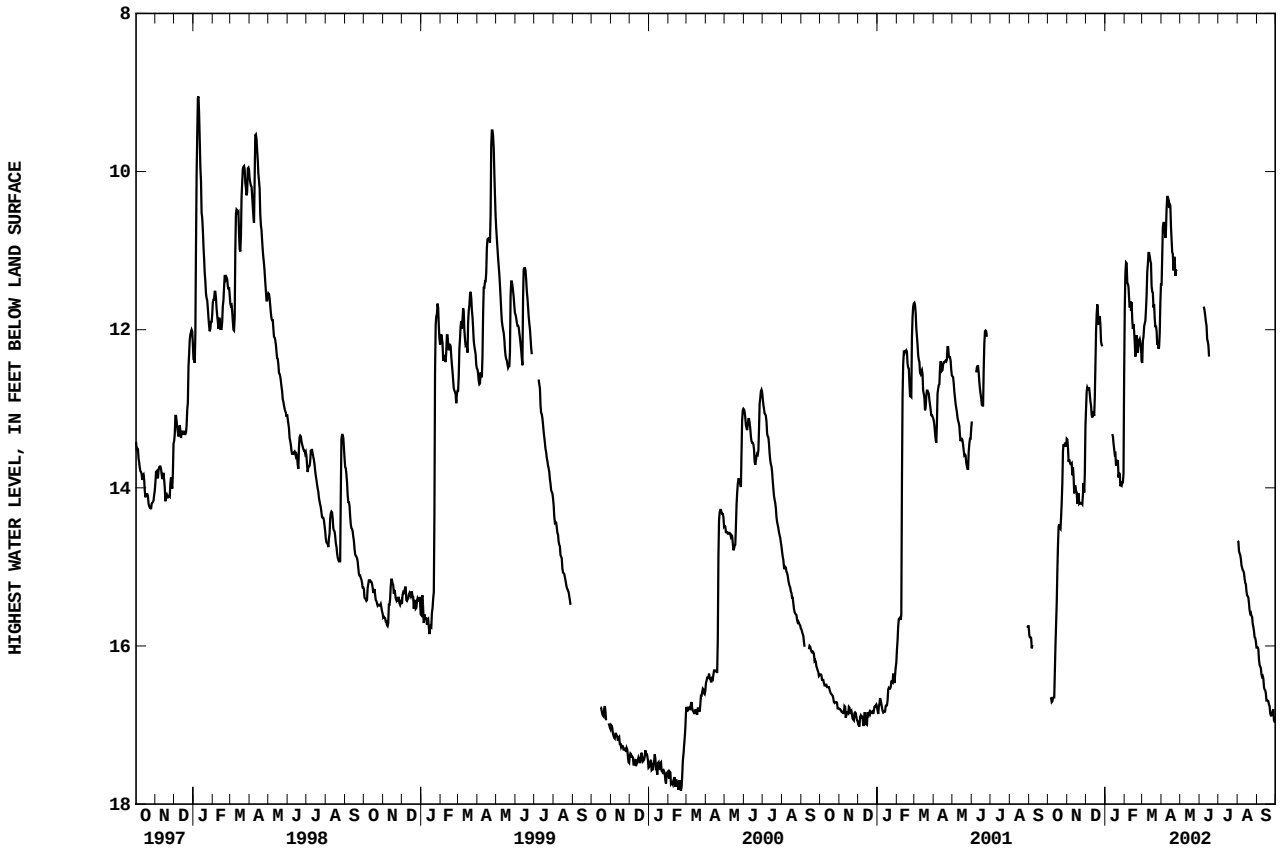
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.65	13.68	12.74	---	11.41	11.92	10.65	---	---	---	14.85	16.24
10	16.65	13.74	13.08	---	11.64	11.17	10.32	---	11.83	---	15.05	16.38
15	15.45	14.04	12.86	13.51	11.93	11.16	10.43	---	12.20	---	15.31	16.60
20	14.51	14.20	11.78	13.67	12.07	11.68	11.25	---	---	---	15.55	16.74
25	13.53	14.21	12.15	13.98	12.12	12.19	11.26	---	---	---	15.72	16.87
EOM	13.38	13.23	---	12.59	12.40	11.43	---	---	---	---	16.02	16.96
MIN	---	13.23	---	---	11.15	11.03	---	---	---	---	14.67	16.02

WTR YR 2002 HIGH 10.32 APR 10

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.70	13.74	12.81	---	11.46	11.97	10.72	---	---	---	14.90	16.26
10	16.67	13.86	13.13	---	11.76	11.27	10.47	---	11.90	---	15.08	16.41
15	15.72	14.06	13.14	13.79	12.04	11.45	10.69	---	12.34	---	15.36	16.69
20	14.54	14.20	11.94	13.77	12.24	11.87	11.30	---	---	---	15.62	16.76
25	13.94	14.31	12.23	14.03	12.22	12.29	11.54	---	---	---	15.76	16.93
EOM	13.48	13.82	---	13.82	12.45	11.66	---	---	---	---	16.05	16.98
MAX	---	14.31	---	---	12.59	12.56	---	---	---	---	16.05	17.03

WTR YR 2002 LOW 17.03 SEP 28



NOBLE COUNTY

412405085154501. Local number, NO 11.
LOCATION.--Lat 41°24'05", long 85°15'45", in NW$^1/_4$NE$^1/_4$SW$^1/_4$ sec.16, T.34 N., R.11 E., Noble County, Hydrologic Unit 04100003, (KENDALLVILLE, IN quadrangle), on the property of Ron Karst on the south side of County Road 350 North, 0.6 mi west of State Highway 3 and about 22 mi north of Fort Wayne.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artsian well, diameter 6 in., depth 216 ft, cased to 211 ft, screened to 216 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,036.94 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.45 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 113.24 ft below land-surface datum, Nov. 6, 1988; lowest, 115.87 ft below land-surface datum, Dec. 25-26, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

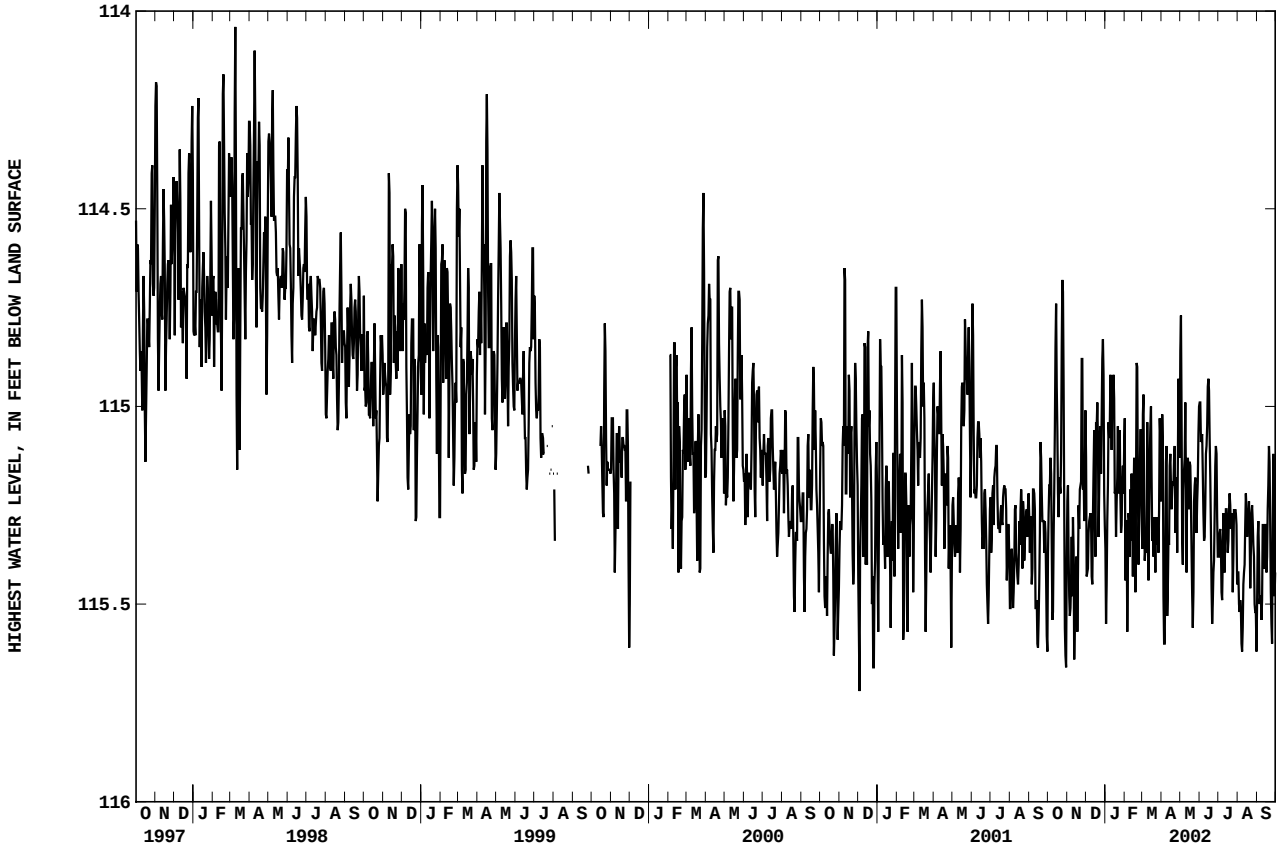
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	115.13	115.53	115.32	115.20	115.57	115.39	115.60	115.40	115.07	115.35	115.49	115.50
10	115.33	115.28	115.43	114.98	115.21	115.26	115.53	115.19	115.25	115.30	115.45	115.30
15	114.95	115.38	115.26	114.98	115.24	115.00	115.12	115.26	114.93	115.30	115.26	115.30
20	115.20	115.31	115.08	115.18	114.89	115.28	115.20	115.48	115.46	115.25	115.31	115.10
25	114.71	114.88	115.17	115.23	115.18	115.35	115.19	115.18	115.27	115.38	115.29	115.60
EOM	115.39	115.01	115.30	115.11	115.26	115.24	115.13	115.00	115.38	115.45	115.62	115.42
MIN	114.68	114.88	114.83	114.92	114.89	114.97	114.93	114.77	114.93	115.22	115.22	115.10

WTR YR 2002 HIGH 114.68 OCT 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	115.25	115.60	115.45	115.29	115.65	115.47	115.63	115.46	115.17	115.47	115.52	115.56
10	115.52	115.48	115.49	115.11	115.38	115.62	115.68	115.55	115.33	115.42	115.56	115.49
15	115.25	115.48	115.61	115.32	115.43	115.18	115.20	115.37	114.97	115.38	115.33	115.42
20	115.23	115.40	115.33	115.27	115.20	115.38	115.29	115.57	115.55	115.34	115.49	115.21
25	114.94	115.21	115.21	115.35	115.29	115.49	115.37	115.29	115.41	115.52	115.37	115.69
EOM	115.66	115.18	115.36	115.42	115.36	115.30	115.17	115.07	115.42	115.48	115.67	115.49
MAX	115.74	115.72	115.62	115.61	115.65	115.63	115.68	115.64	115.60	115.54	115.68	115.69

WTR YR 2002 LOW 115.74 OCT 30



NOBLE COUNTY

412405085154504. Local number, NO 14.
LOCATION.--Lat 41°24'05", long 85°15'45", in NW1/4NE1/4SW1/4 sec.16, T.34 N., R.11 E., Noble County, Hydrologic Unit 04100003, (KENDALLVILLE, IN quadrangle), on the property of Ron Karst on the south side of County Road 350 North, 0.6 mi west of State Highway 3 and about 22 mi north of Fort Wayne.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 145 ft, cased to 140 ft, screened to 145 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,037.24 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 112.21 ft below land-surface datum, Dec. 15, 1987; lowest, 114.93 ft below land-surface datum, Dec. 25, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

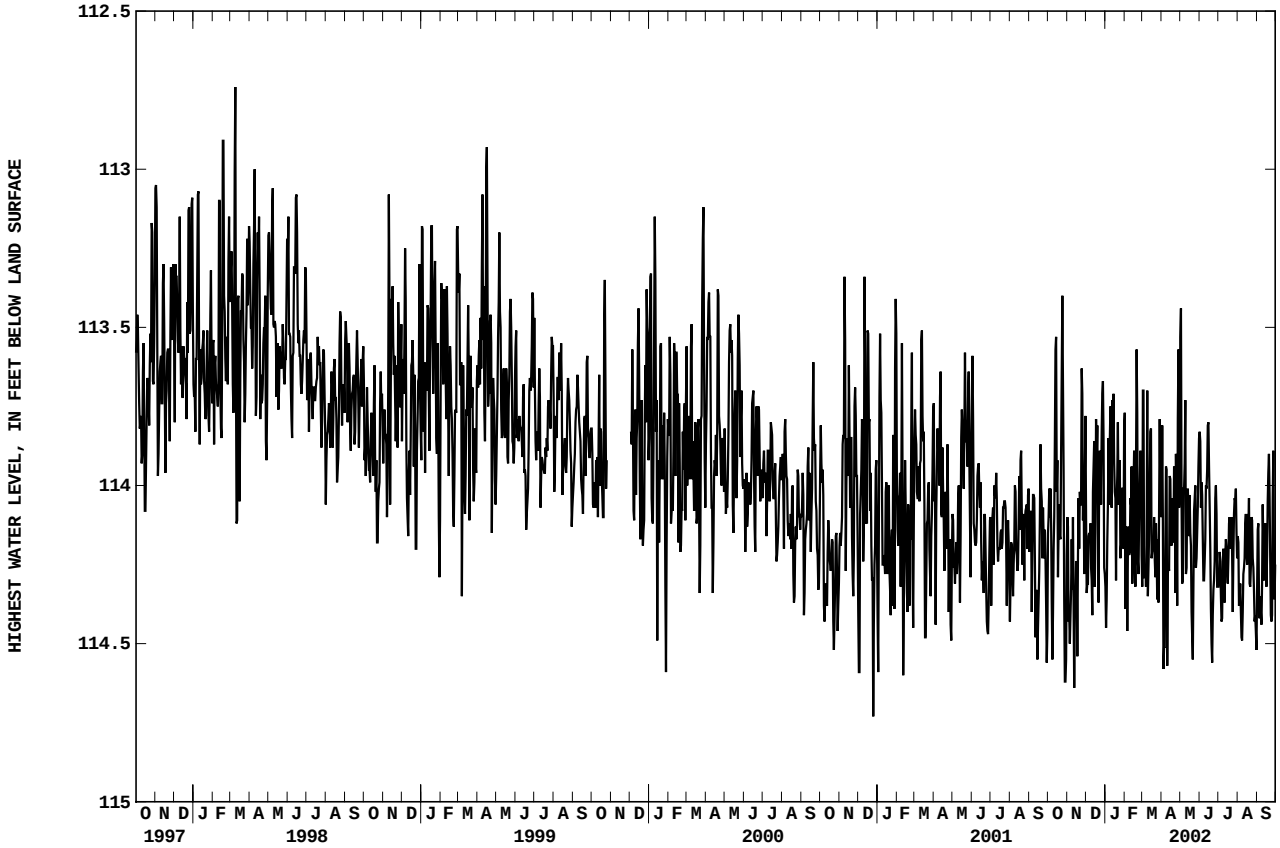
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	114.01	114.50	114.16	114.06	114.46	114.29	114.51	114.30	114.03	114.35	114.31	114.42
10	114.20	114.10	114.30	113.93	114.04	114.35	114.57	114.28	114.17	114.28	114.28	114.06
15	114.02	114.24	114.32	113.93	114.01	113.82	113.98	114.16	113.80	114.27	114.20	114.20
20	114.16	114.20	114.09	113.97	113.57	114.10	114.18	114.48	114.50	114.20	114.31	113.90
25	113.68	113.71	114.06	114.23	114.00	114.36	114.09	114.00	114.24	114.22	114.23	114.41
EOM	114.22	113.78	114.28	113.82	114.22	114.10	114.00	113.85	114.32	114.23	114.52	114.25
MIN	113.40	113.63	113.67	113.71	113.57	113.70	113.57	113.44	113.80	114.01	114.04	113.89

WTR YR 2002 HIGH 113.40 OCT 24

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	114.19	114.61	114.39	114.20	114.70	114.48	114.62	114.46	114.20	114.48	114.40	114.50
10	114.42	114.38	114.44	114.08	114.40	114.67	114.74	114.63	114.29	114.44	114.40	114.31
15	114.31	114.39	114.65	114.41	114.24	114.24	114.17	114.37	113.94	114.36	114.29	114.36
20	114.22	114.39	114.38	114.25	113.94	114.39	114.29	114.58	114.61	114.31	114.46	114.05
25	113.96	114.30	114.17	114.37	114.13	114.51	114.39	114.29	114.36	114.44	114.30	114.63
EOM	114.55	114.10	114.35	114.40	114.32	114.29	114.09	113.97	114.41	114.30	114.64	114.40
MAX	114.77	114.73	114.65	114.66	114.70	114.67	114.74	114.66	114.64	114.53	114.64	114.63

WTR YR 2002 LOW 114.77 OCT 28



PARKE COUNTY

393619087043001. Local number, PA 6.
LOCATION.--Lat 39°36'19", long 87°04'30", in SE$^1/_4$SW$^1/_4$SE$^1/_4$ sec.33, T.14 N., R.6 W., Parke County, Hydrologic Unit 05120111, (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, October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.53 ft below land-surface datum, Apr. 19, 1970; lowest, 16.87 ft below land-surface datum, Oct. 30, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

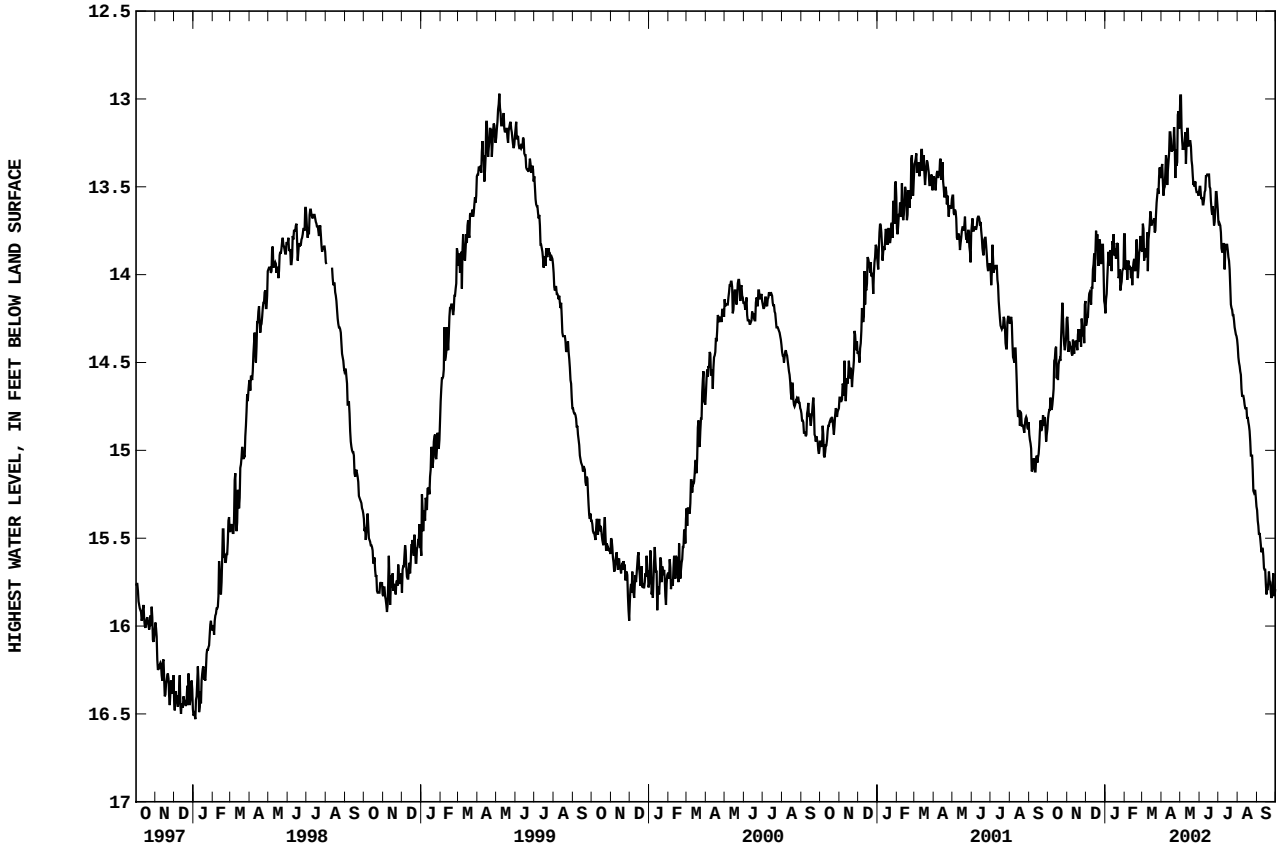
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.70	14.40	14.16	13.94	14.03	13.88	13.51	13.29	13.56	13.76	14.55	15.47
10	14.65	14.37	14.07	13.89	13.96	13.98	13.49	13.37	13.52	13.84	14.69	15.56
15	14.59	14.38	14.04	13.89	13.93	13.67	13.19	13.25	13.43	13.83	14.76	15.76
20	14.48	14.38	13.91	13.83	13.80	13.68	13.28	13.38	13.63	14.07	14.89	15.69
25	14.24	14.30	13.94	14.09	13.85	13.55	13.38	13.47	13.70	14.23	15.11	15.83
EOM	14.25	14.15	14.17	13.77	13.86	13.44	13.12	13.53	13.63	14.37	15.32	15.79
MIN	14.16	14.15	13.75	13.77	13.77	13.39	13.07	12.98	13.43	13.70	14.41	15.34

WTR YR 2002 HIGH 12.98 MAY 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.83	14.45	14.28	14.02	14.09	13.93	13.55	13.32	13.61	13.85	14.61	15.52
10	14.74	14.46	14.18	14.01	14.13	14.03	13.56	13.44	13.59	14.00	14.74	15.61
15	14.67	14.45	14.10	13.97	13.98	13.73	13.25	13.32	13.47	13.87	14.83	15.85
20	14.54	14.41	13.95	13.90	13.92	13.78	13.31	13.45	13.69	14.17	14.95	15.79
25	14.35	14.47	13.97	14.13	13.91	13.64	13.45	13.53	13.76	14.27	15.25	15.88
EOM	14.38	14.29	14.24	13.96	13.91	13.48	13.17	13.58	13.71	14.41	15.37	15.87
MAX	14.90	14.55	14.39	14.27	14.14	14.03	13.59	13.60	13.79	14.41	15.37	15.89

WTR YR 2002 LOW 15.89 SEP 16



POSEY COUNTY

380758087551001. Local number, PY 3.
LOCATION.--Lat 38°07'58", long 87°55'10", in NW1/4NW1/4SW1/4 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

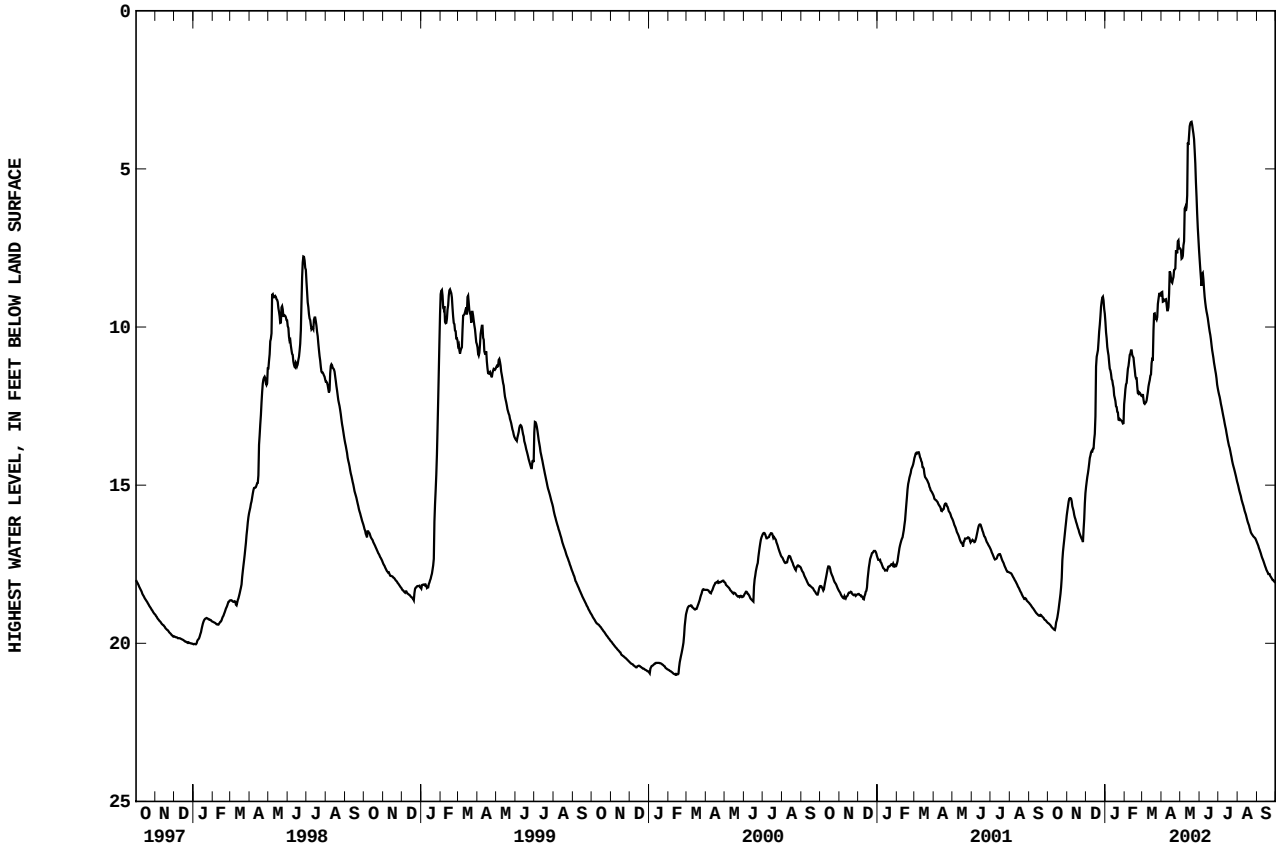
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.43	15.41	14.48	10.78	11.54	12.43	9.14	7.75	8.32	12.43	15.28	17.04
10	19.55	15.74	13.92	11.48	10.84	12.05	9.47	6.33	9.23	12.93	15.65	17.34
15	19.27	16.16	13.38	12.16	10.97	11.50	8.29	3.94	9.87	13.46	16.01	17.62
20	18.60	16.49	10.73	12.68	11.62	9.58	8.42	3.61	10.57	13.92	16.35	17.81
25	17.10	16.72	9.36	12.93	12.08	9.69	7.60	4.83	11.25	14.40	16.59	17.97
EOM	15.96	15.25	9.58	12.44	12.18	8.97	7.51	7.57	11.94	14.89	16.77	18.09
MIN	15.96	15.25	9.04	9.84	10.74	8.92	7.26	3.51	7.88	12.04	14.96	16.82

WTR YR 2002 HIGH 3.51 MAY 19

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.46	15.43	14.62	10.90	11.77	12.51	9.27	7.90	8.92	12.52	15.35	17.10
10	19.57	15.82	13.96	11.65	10.98	12.29	9.59	6.46	9.39	13.04	15.73	17.39
15	19.34	16.22	13.56	12.29	11.19	11.62	8.45	4.33	10.02	13.57	16.09	17.68
20	18.76	16.55	10.97	12.77	11.88	10.10	8.55	3.75	10.73	14.02	16.42	17.87
25	17.38	16.80	9.66	12.99	12.13	10.05	7.69	5.42	11.39	14.47	16.62	18.00
EOM	16.15	15.58	9.84	13.04	12.24	9.06	7.59	7.88	12.05	14.96	16.82	18.13
MAX	19.59	16.82	15.25	13.19	12.44	12.51	9.63	7.92	12.05	14.96	16.82	18.13

WTR YR 2002 LOW 19.59 OCT 12



POSEY COUNTY

380546087474301. Local number, PY 5.
LOCATION.--Lat 38°05'46", long 87°47'43", in NE$^1/_4$NW$^1/_4$NE$^1/_4$ sec. 18, T.5S., R.12W., Posey County, Hydrologic Unit 05120113, (WADESVILLE, IN quadrangle), about 0.5 mi southwest of Wadesville along the west edge of Laurel Hill Cemetary.
Owner: U.S. Geological Survey

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 221 ft, cased to 160 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 460.60 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.60 ft above land-surface datum.

REMARKS.--Water level record may be affected by pumpage.

PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.83 ft below land-surface datum, Mar. 27, 1991; lowest, 151.99 ft below land-surface datum, Sept. 18, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

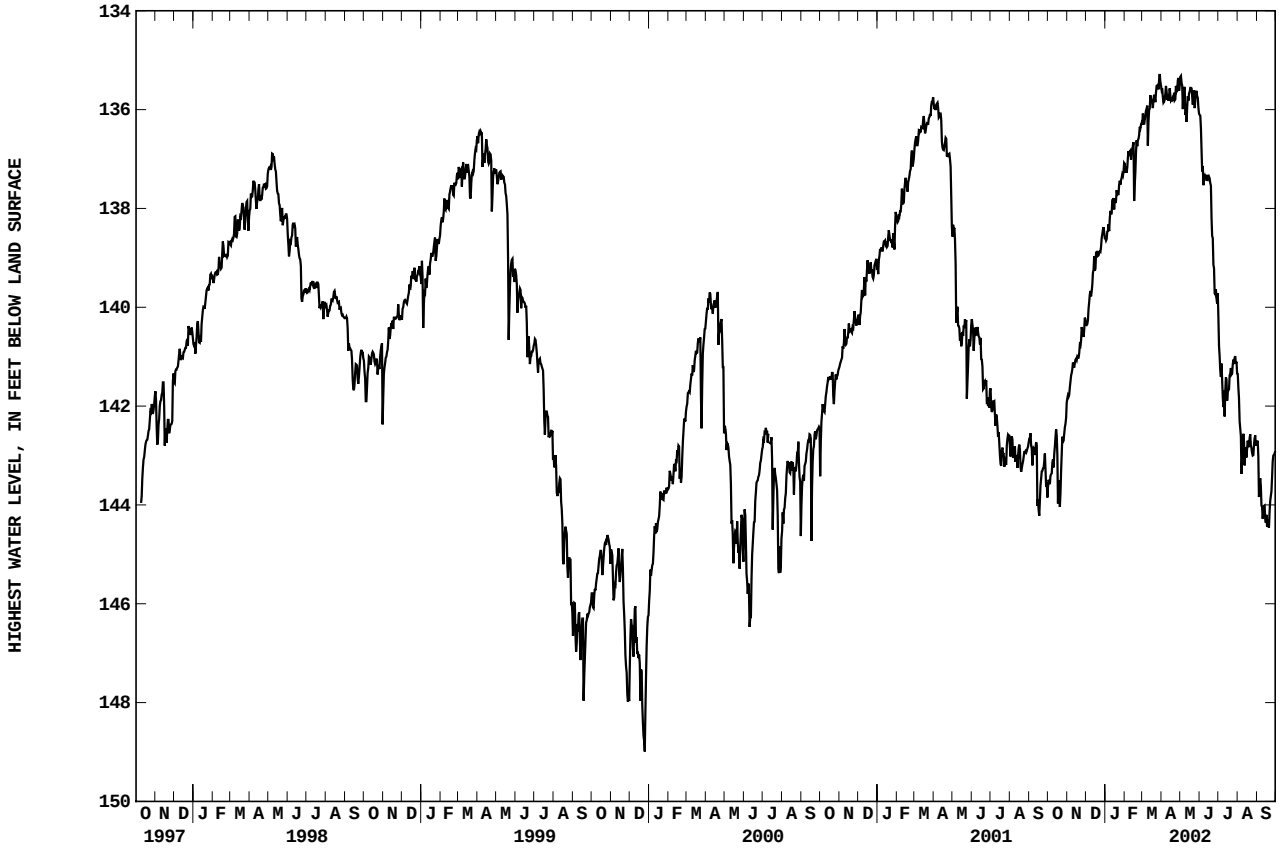
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	143.41	141.62	140.03	138.45	137.17	136.21	135.84	135.99	137.25	141.41	142.45	143.60
10	143.24	141.12	139.68	138.10	136.83	136.73	135.80	136.06	137.40	141.69	142.56	144.28
15	142.60	141.04	139.26	138.02	136.66	135.78	135.71	135.67	137.39	141.89	143.04	144.36
20	144.04	140.93	138.96	137.72	136.62	135.70	135.78	135.74	138.20	141.34	142.65	144.46
25	142.72	140.48	138.78	137.52	136.35	135.51	135.64	135.80	139.72	141.06	143.00	143.44
EOM	141.93	140.25	138.60	137.08	136.27	135.51	135.52	136.08	139.72	141.34	142.75	142.91
MIN	141.93	140.21	138.38	137.08	136.27	135.28	135.36	135.32	136.11	140.21	141.35	142.70

WTR YR 2002 HIGH 135.28 MAR 29

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	143.76	141.96	140.34	138.70	137.51	136.43	136.04	136.31	137.56	142.47	142.91	143.99
10	143.58	141.37	139.99	138.38	137.39	137.65	136.17	138.55	137.66	144.93	143.51	144.62
15	142.99	141.30	139.52	138.26	138.54	135.94	136.02	135.98	137.96	142.19	143.63	144.55
20	144.45	141.21	139.22	137.97	137.01	135.93	136.06	136.48	139.11	141.58	142.91	146.05
25	142.99	140.83	139.10	137.76	136.70	135.79	135.88	136.32	140.40	141.37	143.50	143.86
EOM	142.29	140.58	138.90	137.35	136.59	135.79	135.83	136.28	142.20	141.68	143.05	143.32
MAX	144.67	142.15	140.84	138.95	139.68	138.26	136.42	139.54	143.92	145.97	146.37	146.35

WTR YR 2002 LOW 146.37 AUG 6



PULASKI COUNTY

405916086530701. Local number, PU 6.
LOCATION.--Lat 40°59'16", long 86°53'07", in NW$^1/_4$SE$^1/_4$SW$^1/_4$ sec.4, T.29 N., R.4 W., Pulaski County, Hydrologic Unit 05120106, (FRANCESVILLE, IN quadrangle), on private property at the north edge of Francesville.
Owner: Earl Overmeyer.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 8 in., depth 663 ft, cased to 11 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 678.60 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by pumpage and earthquakes.

PERIOD OF RECORD.--July 1956 to February 1971, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.03 ft below land-surface datum, June 15, 1958; lowest, 27.91 ft below land-surface datum, Apr. 5, 1996.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

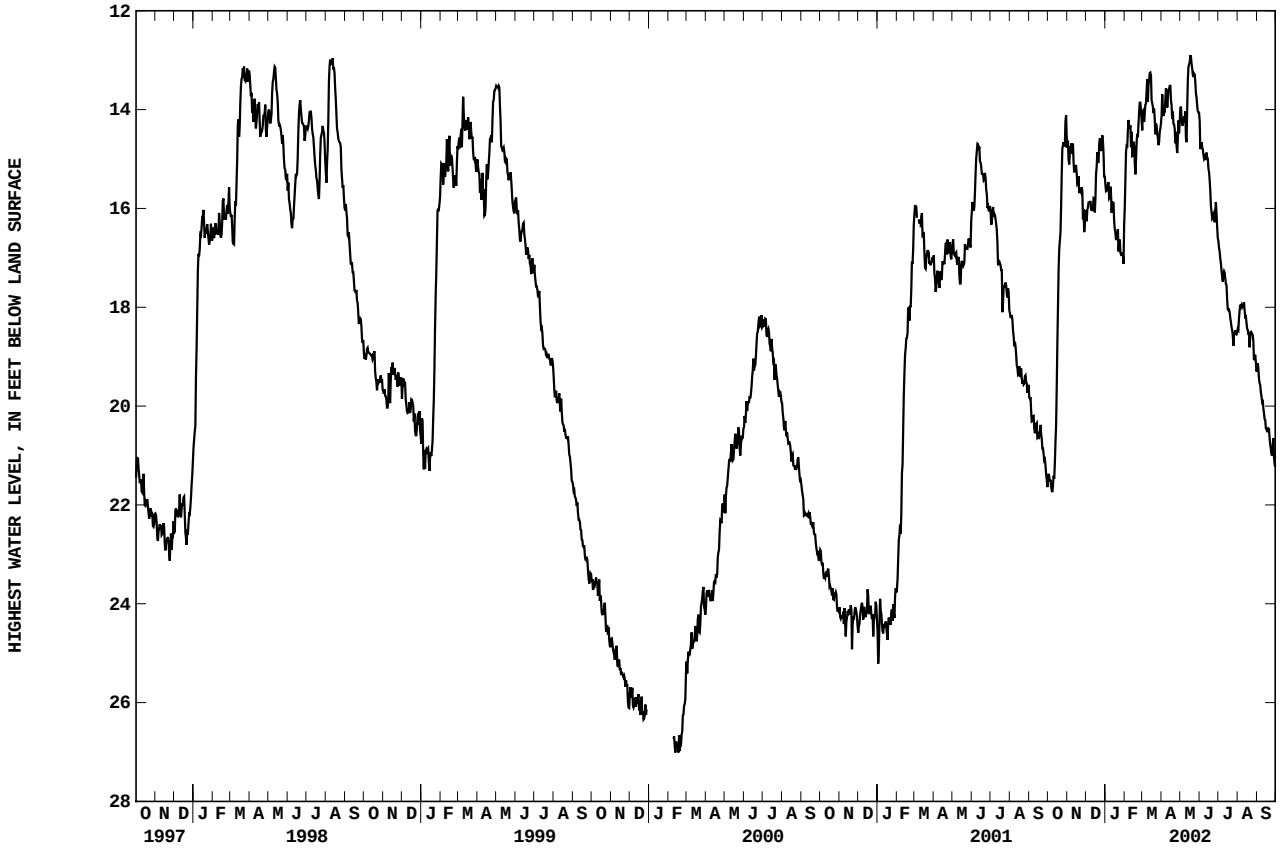
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.49	14.88	15.88	15.50	14.74	14.08	14.03	14.31	14.76	17.11	17.95	19.54
10	21.41	14.69	16.00	15.71	14.32	13.84	13.96	14.58	15.02	17.27	17.98	19.87
15	19.61	15.14	16.08	16.26	14.65	13.32	13.52	13.08	15.19	17.84	18.31	20.45
20	16.65	15.69	15.06	16.62	14.64	13.98	14.29	13.16	16.07	18.21	18.81	20.46
25	14.72	15.65	14.84	16.90	13.86	14.50	14.74	13.44	16.28	18.78	18.56	21.00
EOM	14.55	16.04	15.34	16.34	14.22	14.29	14.26	14.06	16.60	18.52	19.30	21.23
MIN	14.11	14.63	14.52	15.47	13.86	13.25	13.52	12.90	14.22	16.66	17.90	19.13

WTR YR 2002 HIGH 12.90 MAY 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.92	15.27	16.22	15.83	15.05	14.41	14.44	14.64	15.13	17.57	18.28	19.95
10	21.76	15.14	16.38	16.24	14.93	14.13	14.27	15.15	15.53	17.59	18.30	20.32
15	20.48	15.50	16.45	16.89	15.08	13.87	13.98	13.34	15.65	18.34	18.62	20.74
20	17.02	15.98	15.33	16.90	15.03	14.52	14.70	13.58	16.60	18.58	19.23	20.75
25	15.03	16.50	15.05	17.32	14.33	15.05	15.22	13.90	16.73	19.31	19.14	21.32
EOM	16.75	16.52	15.74	17.46	14.60	14.78	14.57	14.50	16.89	18.80	19.62	21.56
MAX	22.05	16.88	16.67	17.51	16.34	15.12	15.30	15.15	16.92	19.31	19.62	21.56

WTR YR 2002 LOW 22.05 OCT 7



PULASKI COUNTY

410739086365201. Local number, PU 7.
LOCATION.--Lat 41°07'39", long 86°36'52", in NE$^1/_4$NE$^1/_4$NW$^1/_4$ sec.23, T.31 N., R.2 W., Pulaski County, Hydrologic Unit 05120106, (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, 11.91 ft below land-surface datum, Dec. 3, 4, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

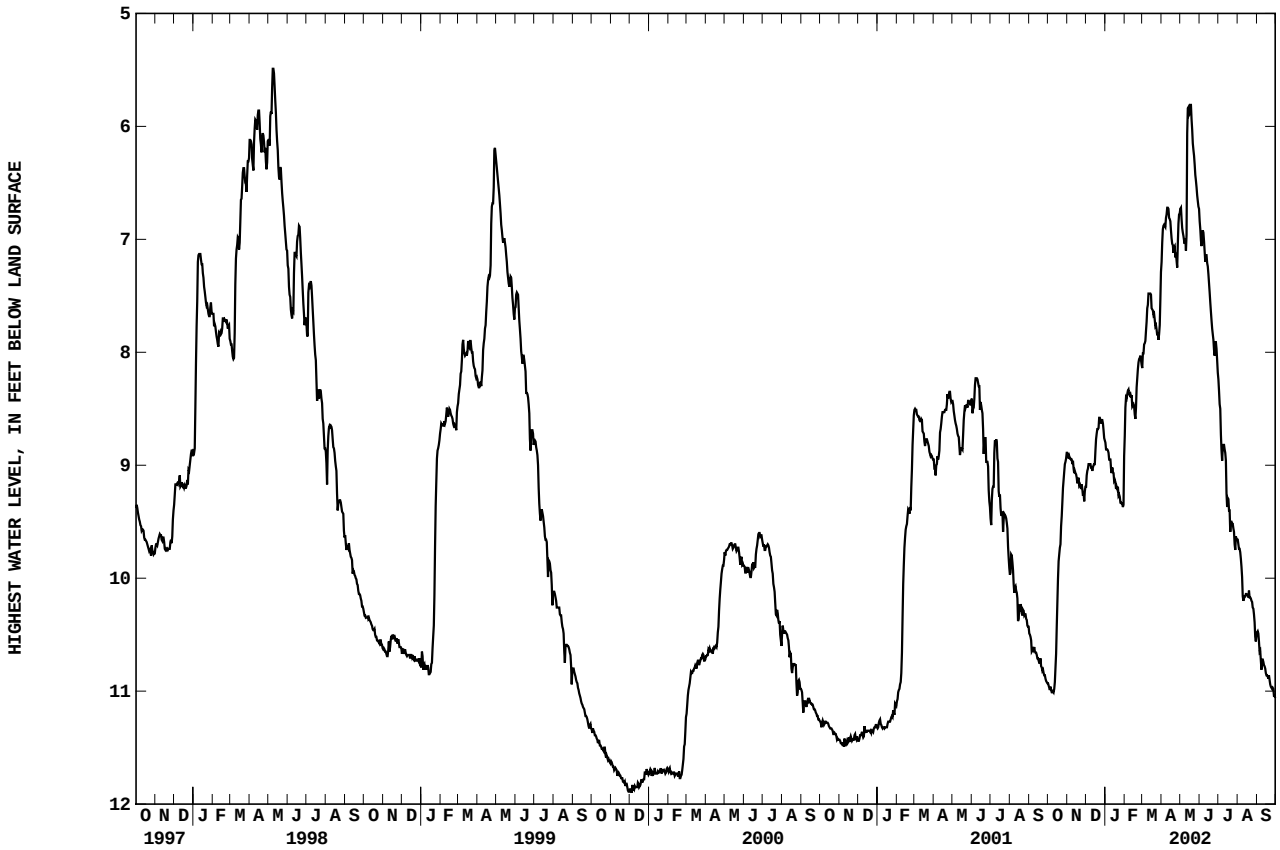
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.96	8.94	8.99	8.87	8.37	7.92	6.87	6.94	6.95	8.73	9.77	10.65
10	11.01	8.96	9.02	9.03	8.37	7.58	6.72	7.10	7.20	8.82	10.20	10.72
15	10.43	9.08	8.99	9.14	8.46	7.49	6.84	5.90	7.31	9.37	10.14	10.84
20	9.73	9.18	8.68	9.21	8.31	7.66	7.12	6.03	7.72	9.59	10.17	10.86
25	9.20	9.21	8.63	9.33	8.05	7.85	7.19	6.43	8.03	9.56	10.26	10.98
EOM	8.89	9.19	8.78	8.92	8.11	7.29	6.77	6.73	8.18	9.66	10.50	11.06
MIN	8.89	8.89	8.58	8.80	8.03	7.29	6.72	5.81	6.84	8.24	9.66	10.47

WTR YR 2002 HIGH 5.81 MAY 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.01	8.95	9.04	8.90	8.43	7.95	6.88	6.98	7.12	8.87	9.83	10.67
10	11.02	9.03	9.05	9.07	8.47	7.68	6.78	7.18	7.24	8.86	10.29	10.74
15	10.67	9.11	9.05	9.21	8.51	7.61	6.92	5.96	7.39	9.44	10.16	10.86
20	9.79	9.21	8.71	9.24	8.49	7.73	7.17	6.15	7.79	9.65	10.19	10.91
25	9.34	9.33	8.64	9.36	8.08	7.89	7.25	6.48	8.13	9.59	10.27	11.00
EOM	8.94	9.23	8.80	9.35	8.14	7.54	6.80	6.84	8.24	9.66	10.60	11.07
MAX	11.04	9.36	9.20	9.40	8.92	8.19	7.30	7.18	8.24	9.90	10.66	11.07

WTR YR 2002 LOW 11.07 SEP 30



401532085085301. Local number, RA 3.
LOCATION.--Lat 40°15'32", long 85°08'53", in NE$^1/_4$NE$^1/_4$SE$^1/_4$ 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, 15.26 ft below land-surface datum, Sept. 28, 2002.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

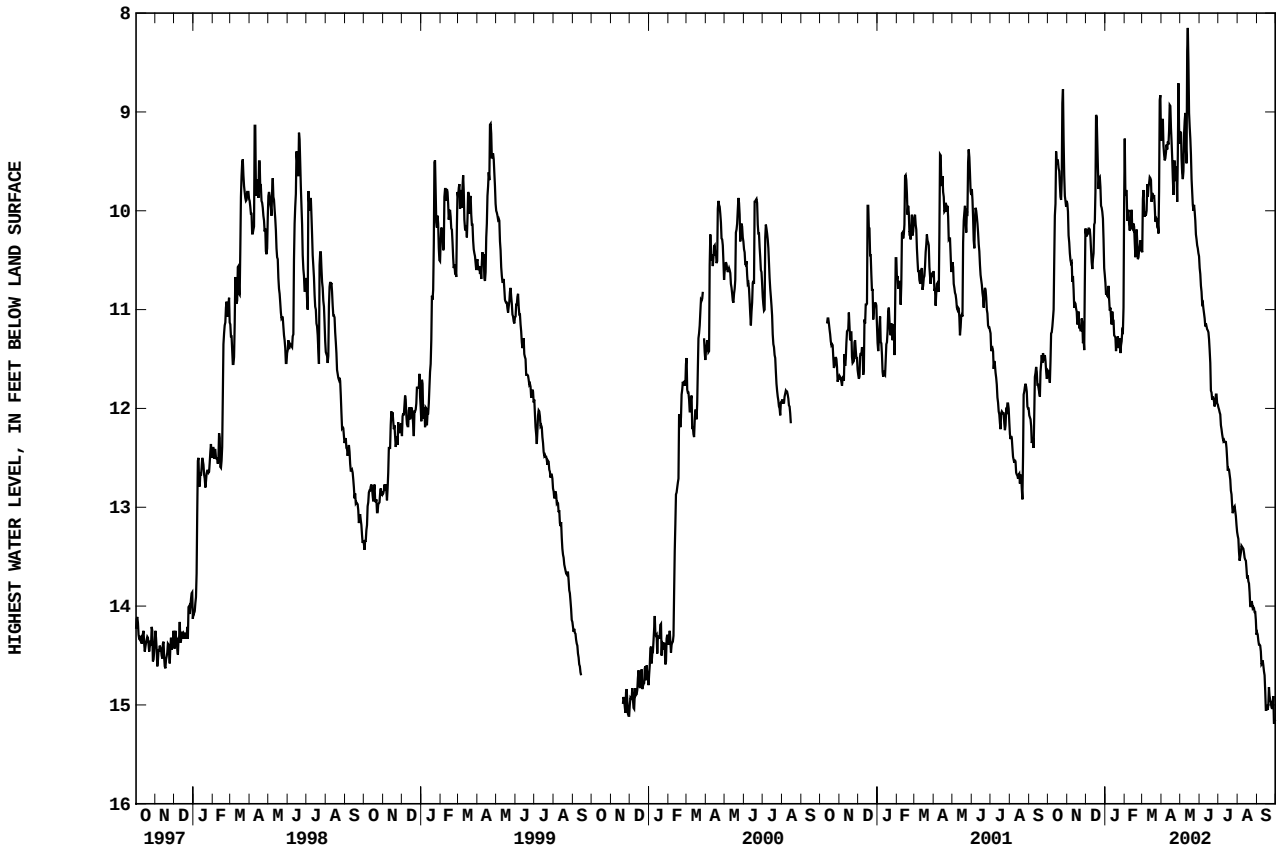
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.53	10.43	10.18	10.87	10.10	10.06	9.43	9.68	10.94	12.17	13.50	14.39
10	11.00	10.66	10.52	11.08	10.13	9.86	9.38	9.39	11.17	12.32	13.42	14.55
15	9.53	10.99	10.12	11.26	10.13	9.69	8.94	9.01	11.23	12.51	13.62	15.05
20	9.74	11.19	9.58	11.32	10.19	9.84	9.84	9.81	11.84	12.72	13.86	14.82
25	8.77	11.13	9.95	11.44	10.36	10.15	9.63	10.10	11.98	13.02	14.02	15.04
EOM	9.90	10.18	10.65	9.92	10.39	9.24	9.32	10.46	11.96	13.25	14.29	15.15
MIN	8.77	9.93	9.03	9.92	9.27	8.83	8.71	8.15	10.58	11.99	13.29	14.27

WTR YR 2002 HIGH 8.15 MAY 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.81	10.50	10.27	10.93	10.16	10.16	9.49	9.77	11.01	12.28	13.62	14.46
10	11.10	10.80	10.60	11.15	10.31	10.00	9.49	9.60	11.25	12.42	13.47	14.63
15	9.73	11.02	10.19	11.48	10.24	9.92	9.16	9.16	11.30	12.67	13.72	15.10
20	9.86	11.30	9.78	11.46	10.32	9.99	10.16	9.94	11.94	12.88	14.03	15.06
25	9.28	11.46	10.03	11.52	10.41	10.28	9.92	10.24	12.04	13.10	14.09	15.09
EOM	9.98	10.73	10.73	10.98	10.56	9.30	9.39	10.58	12.00	13.29	14.34	15.22
MAX	11.81	11.55	10.73	11.60	10.57	10.62	10.16	10.58	12.04	13.29	14.34	15.26

WTR YR 2002 LOW 15.26 SEP 28



413120086055601. Local number, SJ 31.
LOCATION.--Lat 41°31'20", long 86°05'56", in SE$^1/_4$SE$^1/_4$SE$^1/_4$ sec.31, T.36 N., R.4 E., St. Joseph County, Hydrologic Unit 07120001, (WAKARUSA, IN quadrangle), 4 mi west of Wakarusa.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 109 ft, cased to 104 ft, screened to 109 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 830.50 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.71 ft below land-surface datum, Jan. 23, 1991; lowest, 13.29 ft below land-surface datum, Sept. 28, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

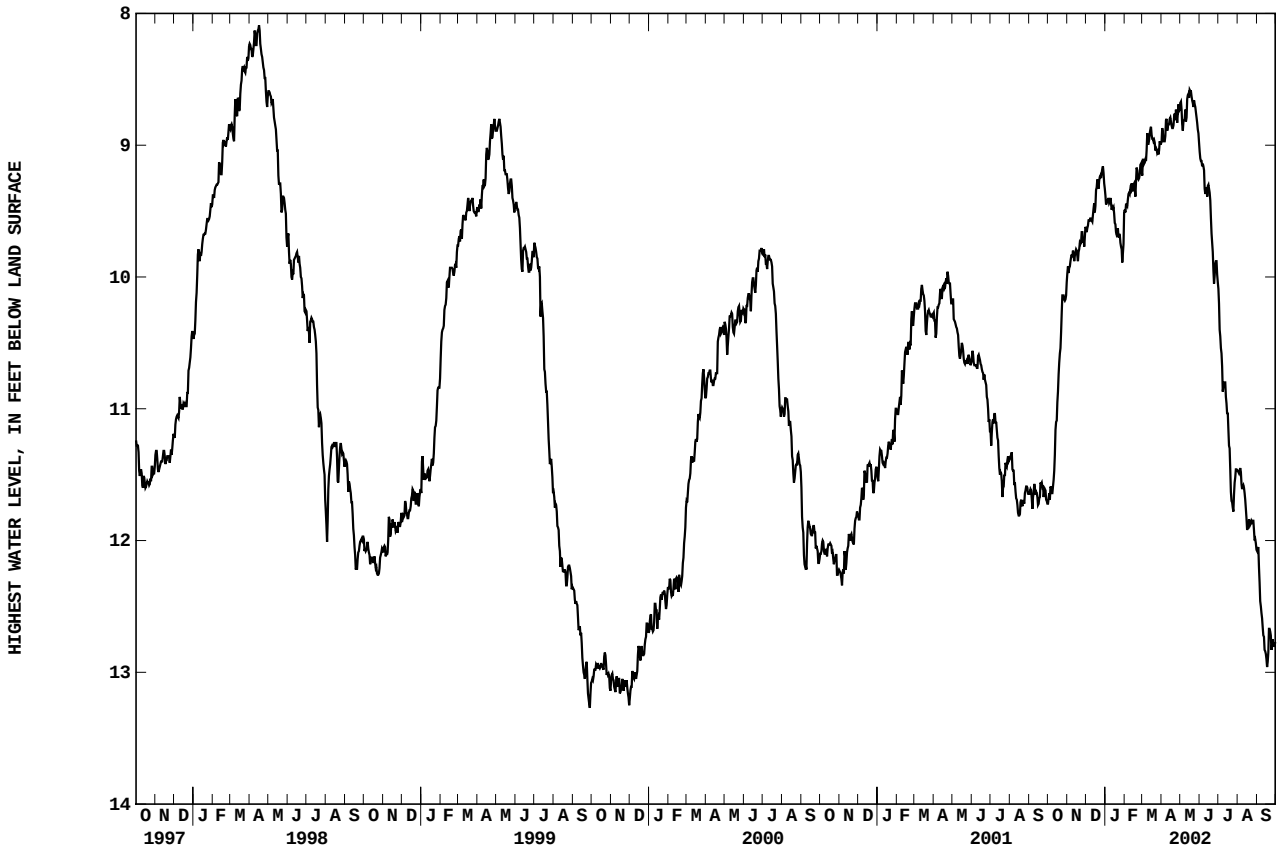
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.59	9.92	9.57	9.42	9.46	9.13	8.97	8.89	9.16	10.54	11.45	12.32
10	11.54	9.80	9.57	9.44	9.33	8.99	8.89	8.82	9.37	10.80	11.58	12.66
15	11.09	9.79	9.51	9.52	9.30	8.86	8.79	8.64	9.30	11.04	11.83	12.86
20	10.58	9.79	9.29	9.67	9.17	8.96	8.85	8.66	9.67	11.46	11.86	12.67
25	10.14	9.66	9.25	9.74	9.22	9.06	8.77	8.71	9.99	11.78	11.85	12.79
EOM	10.04	9.62	9.33	9.51	9.19	8.99	8.73	8.98	10.04	11.47	12.07	12.77
MIN	10.04	9.62	9.16	9.38	9.14	8.86	8.69	8.58	9.05	10.09	11.45	12.05

WTR YR 2002 HIGH 8.58 MAY 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.70	9.96	9.63	9.44	9.51	9.15	8.99	8.91	9.20	10.64	11.49	12.46
10	11.59	9.85	9.60	9.50	9.40	9.05	8.91	8.89	9.43	10.83	11.61	12.74
15	11.13	9.84	9.56	9.62	9.34	8.92	8.82	8.66	9.35	11.11	11.96	12.90
20	10.65	9.83	9.33	9.71	9.28	9.01	8.89	8.69	9.76	11.66	11.90	12.85
25	10.16	9.75	9.27	9.79	9.27	9.09	8.83	8.75	10.21	11.84	11.87	12.85
EOM	10.14	9.70	9.38	9.75	9.23	9.03	8.76	9.08	10.17	11.48	12.10	12.80
MAX	11.81	10.05	9.70	9.92	9.57	9.27	9.01	9.08	10.21	11.84	12.10	13.03

WTR YR 2002 LOW 13.03 SEP 16



SHELBY COUNTY

393943085490901. Local number, SH 2.
LOCATION.--Lat 39°39'43", long 85°49'09", in SW$^1/_4$SW$^1/_4$NW$^1/_4$ 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

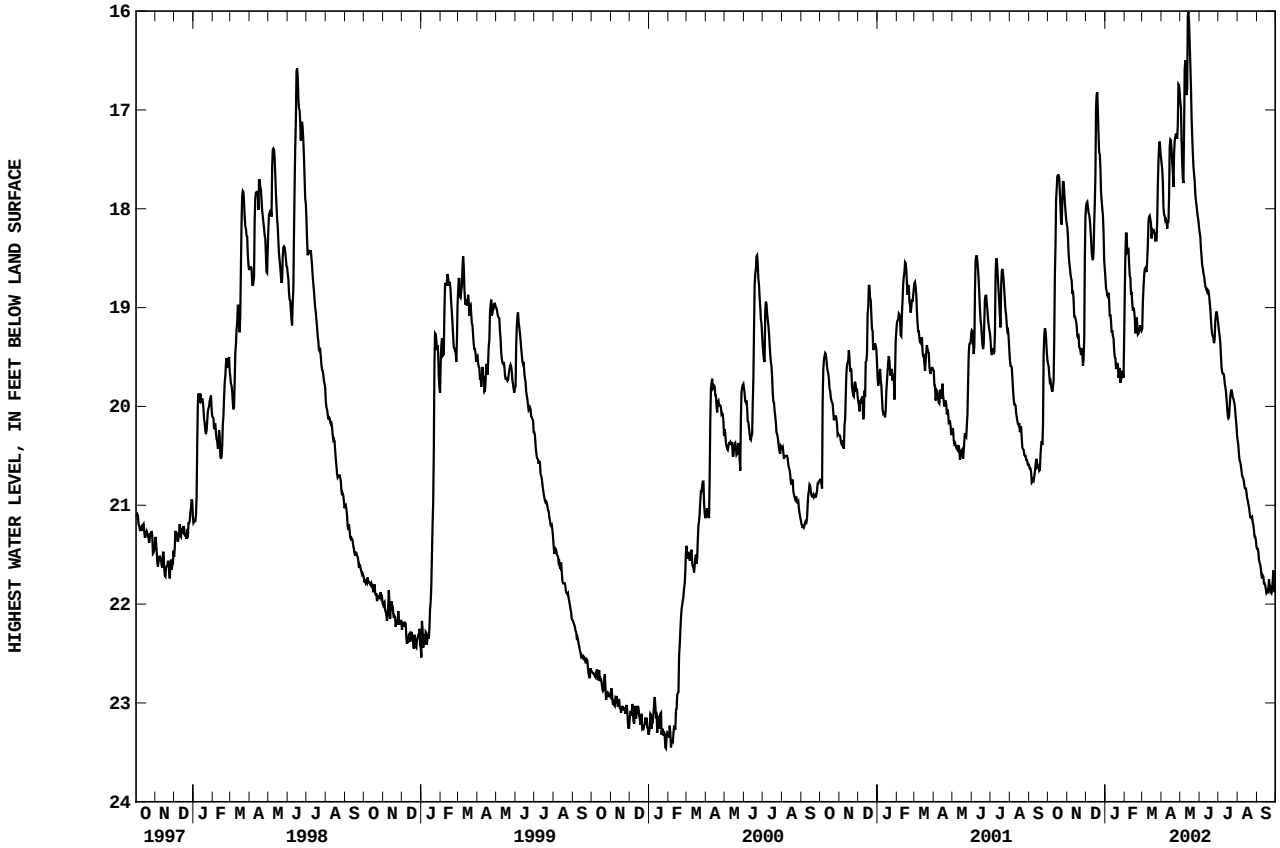
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.74	18.59	18.04	18.89	18.44	18.61	18.06	17.69	18.57	19.48	20.56	21.58
10	19.74	18.83	18.44	19.14	18.70	18.36	18.20	16.64	18.78	19.68	20.73	21.71
15	17.79	19.14	17.95	19.43	19.00	18.15	17.30	16.12	18.83	20.01	20.87	21.85
20	17.83	19.40	17.03	19.60	19.10	18.23	17.78	17.26	19.21	19.90	21.07	21.75
25	17.73	19.45	17.83	19.76	19.21	18.12	17.26	17.85	19.32	19.92	21.17	21.85
EOM	18.15	18.08	18.61	19.32	19.23	17.48	16.82	18.19	19.12	20.30	21.42	21.86
MIN	17.66	18.08	16.82	18.70	18.25	17.32	16.74	16.01	18.24	19.18	20.35	21.44

WTR YR 2002 HIGH 16.01 MAY 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.81	18.66	18.07	18.92	18.46	18.68	18.09	17.83	18.65	19.61	20.62	21.66
10	19.82	18.92	18.50	19.25	18.87	18.57	18.29	16.85	18.85	19.79	20.79	21.76
15	17.91	19.21	18.15	19.60	19.06	18.30	17.37	16.32	18.91	20.09	20.93	21.91
20	17.99	19.45	17.26	19.67	19.19	18.32	17.93	17.43	19.29	20.01	21.15	21.90
25	17.90	19.65	17.92	19.81	19.27	18.38	17.31	17.93	19.46	19.98	21.23	21.91
EOM	18.19	18.52	18.70	19.74	19.29	17.54	16.92	18.27	19.19	20.36	21.46	21.90
MAX	19.90	19.68	18.70	19.81	19.32	19.29	18.29	18.27	19.46	20.36	21.46	21.95

WTR YR 2002 LOW 21.95 SEP 16



STARKE COUNTY

411342086365601. Local number, SK 2.
LOCATION.--Lat 41°13'42", long 86°36'56", in NW$^1/_4$NE$^1/_4$NW$^1/_4$ sec.14, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001, (BASS LAKE, IN quadrangle), on private property in the southeast angle of intersection of U.S. Highway 35 and County Road 500 South, and 5.0 mi south of Knox.
Owner: Samuel A. Craigmile.

AQUIFER.--Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 85 ft, cased to 77 ft, screened to 85 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 712.97 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1935 to December 1952 (random instantaneous measurements only), August 1963 to October l966, June l976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.83 ft below land-surface datum, June 17, 1949; lowest, 6.99 ft below land-surface datum, Aug. 2, 1939, Sept. 17, 18, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

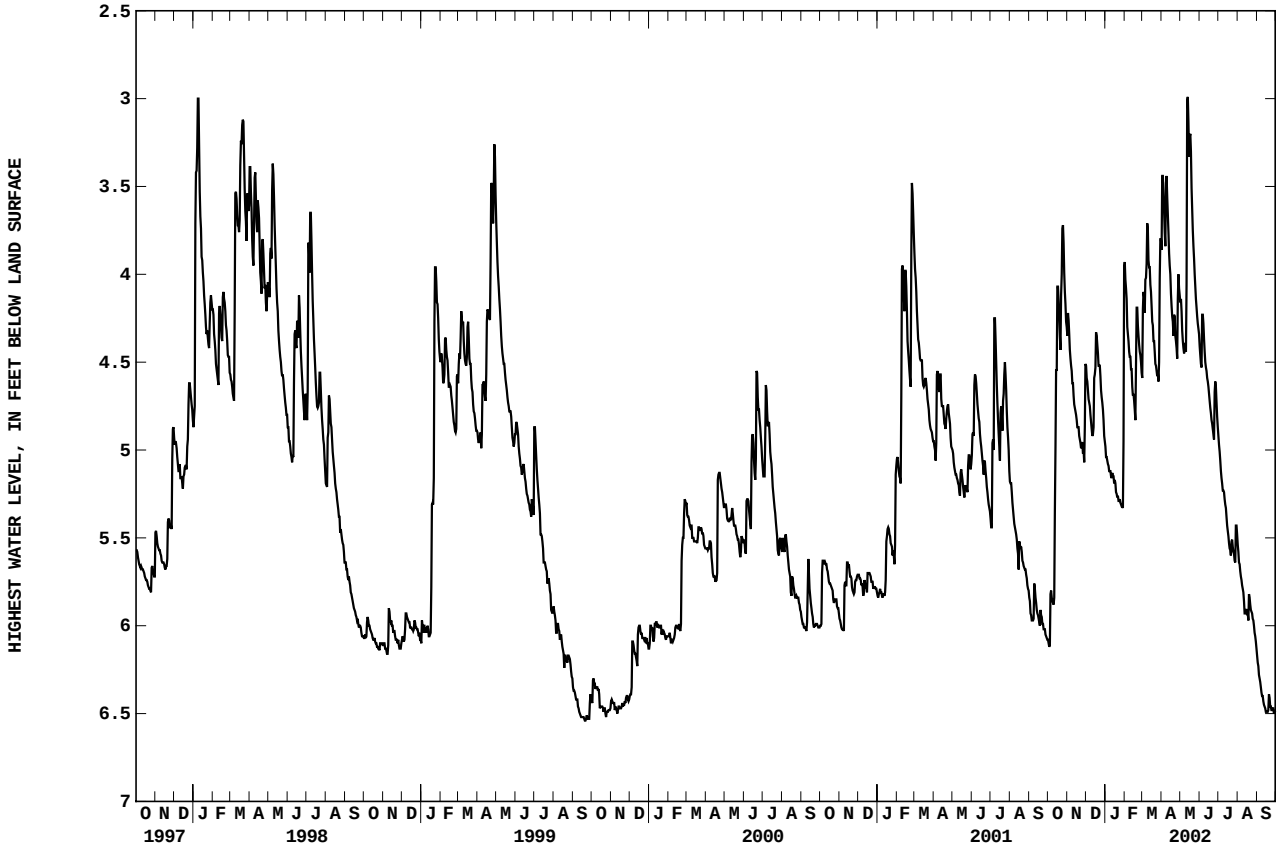
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.82	4.43	4.71	5.08	4.30	4.22	3.64	4.38	4.23	5.12	5.69	6.30
10	5.88	4.62	4.88	5.15	4.47	3.75	3.56	4.44	4.50	5.24	5.81	6.40
15	4.55	4.80	4.57	5.19	4.68	4.10	4.00	3.33	4.64	5.43	5.91	6.49
20	4.35	4.92	4.45	5.27	4.19	4.38	4.35	3.63	4.83	5.57	5.84	6.39
25	3.72	4.96	4.66	5.30	4.44	4.58	4.42	4.07	4.67	5.58	5.96	6.48
EOM	4.30	4.51	4.95	3.96	4.56	3.80	4.12	4.34	4.87	5.48	6.13	6.49
MIN	3.72	4.22	4.33	3.96	3.93	3.71	3.44	2.99	4.23	4.92	5.54	6.17

WTR YR 2002 HIGH 2.99 MAY 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.12	4.48	4.73	5.10	4.35	4.29	3.76	4.43	4.56	5.16	5.72	6.33
10	5.88	4.69	4.92	5.16	4.56	3.92	3.66	4.52	4.53	5.28	5.86	6.45
15	4.60	4.83	4.59	5.22	4.73	4.18	4.11	3.48	4.68	5.46	5.94	6.51
20	4.43	4.94	4.52	5.28	4.52	4.44	4.37	3.75	4.85	5.60	5.88	6.50
25	3.82	5.04	4.70	5.32	4.50	4.60	4.48	4.14	5.01	5.60	5.98	6.49
EOM	4.35	4.87	4.98	4.95	4.59	3.86	4.18	4.41	4.92	5.54	6.17	6.51
MAX	6.15	5.09	4.98	5.34	4.84	4.64	4.53	4.53	5.01	5.71	6.17	6.51

WTR YR 2002 LOW 6.51 SEP 14



STEUBEN COUNTY

414204085054002. Local number, SB 6.
LOCATION.--Lat 41°42'04", long 85°05'40", in SE$^1/_4$SE$^1/_4$SW$^1/_4$ sec.36, T.38 N., R.12 E., Steuben County, Hydrologic Unit 04050001, (ANGOLA WEST, IN quadrangle), 0.5 east of Panama on the north side of the Lake Gage Congregational Church. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 76 ft, cased to 71 ft, screened to 76 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 987.89 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.60 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.46 ft below land-surface datum, June 14, 2002; lowest, 19.30 ft below land-surface datum, Mar. 1, 2, 1995.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

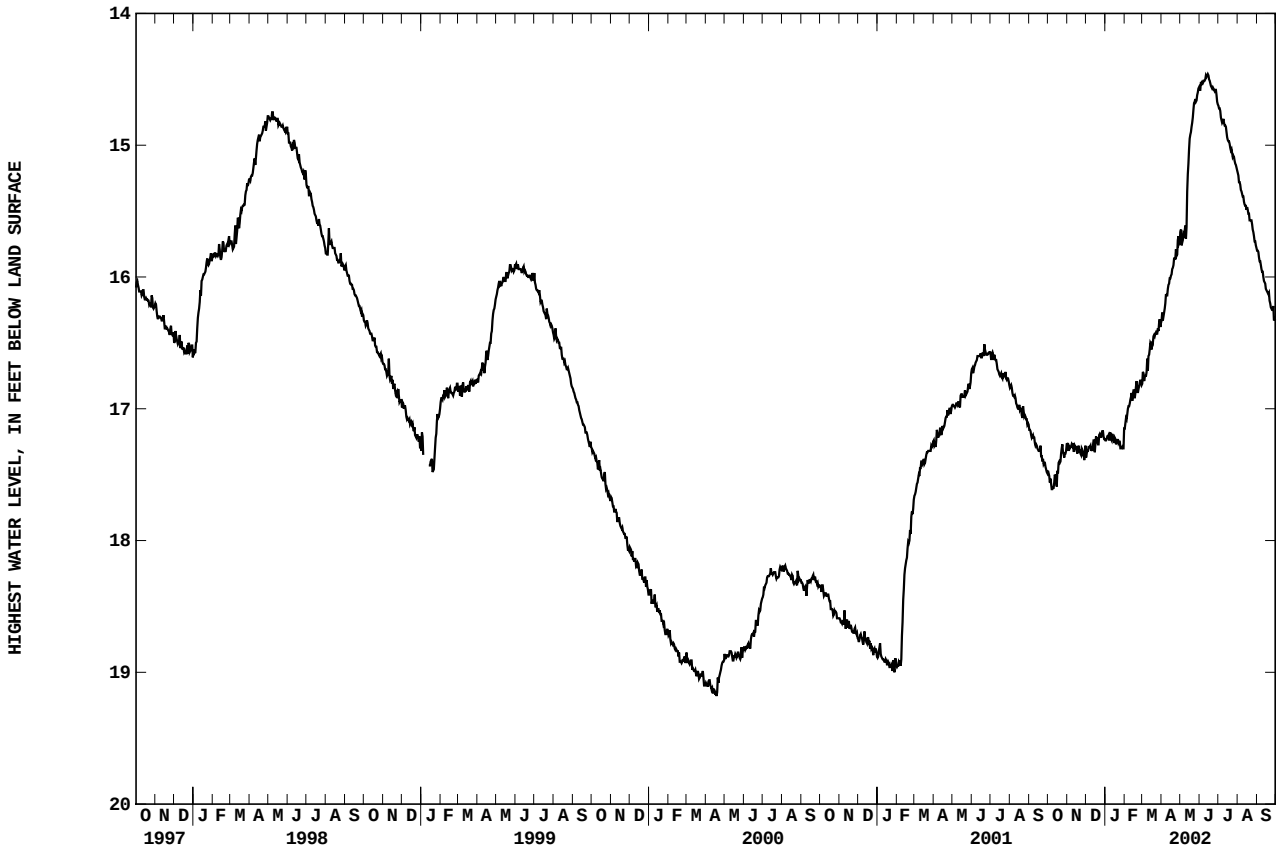
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.53	17.30	17.29	17.21	17.04	16.76	16.27	15.72	14.52	14.79	15.30	15.88
10	17.60	17.26	17.30	17.23	16.93	16.71	16.14	15.71	14.50	14.83	15.39	15.96
15	17.59	17.29	17.33	17.26	16.86	16.51	16.01	15.03	14.47	14.94	15.49	16.09
20	17.41	17.33	17.27	17.25	16.79	16.44	15.91	14.83	14.56	15.02	15.57	16.12
25	17.33	17.31	17.22	17.30	16.80	16.43	15.84	14.65	14.59	15.08	15.64	16.25
EOM	17.27	17.28	17.23	17.15	16.82	16.35	15.74	14.56	14.69	15.19	15.78	16.33
MIN	17.27	17.26	17.17	17.15	16.78	16.32	15.69	14.56	14.46	14.70	15.21	15.80

WTR YR 2002 HIGH 14.46 JUN 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.59	17.34	17.34	17.24	17.10	16.82	16.30	15.76	14.55	14.85	15.37	15.91
10	17.63	17.33	17.33	17.27	17.02	16.76	16.23	15.76	14.55	14.87	15.46	16.00
15	17.64	17.33	17.36	17.32	16.91	16.57	16.04	15.14	14.52	14.98	15.52	16.12
20	17.43	17.36	17.28	17.28	16.86	16.50	15.95	14.88	14.61	15.09	15.61	16.18
25	17.36	17.42	17.25	17.34	16.85	16.47	15.88	14.72	14.66	15.12	15.67	16.28
EOM	17.32	17.39	17.26	17.31	16.87	16.40	15.79	14.61	14.74	15.21	15.81	16.37
MAX	17.65	17.43	17.41	17.34	17.25	16.89	16.40	15.80	14.74	15.21	15.81	16.37

WTR YR 2002 LOW 17.65 OCT 11



402734087033401. Local number, TC 17.
LOCATION.--Lat 40°27'34", long 87°03'34", NW1/4NE1/4NE1/4 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 (Teays Valley aquifer).

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 212.5 ft, cased to 207.5 ft, screened to 212.5 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 681 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring point: Top of casing, 3.60 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 109.69 ft below land-surface datum, Nov. 10, 1998; lowest, 121.28 ft below land-surface datum, Aug. 18, 1989.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

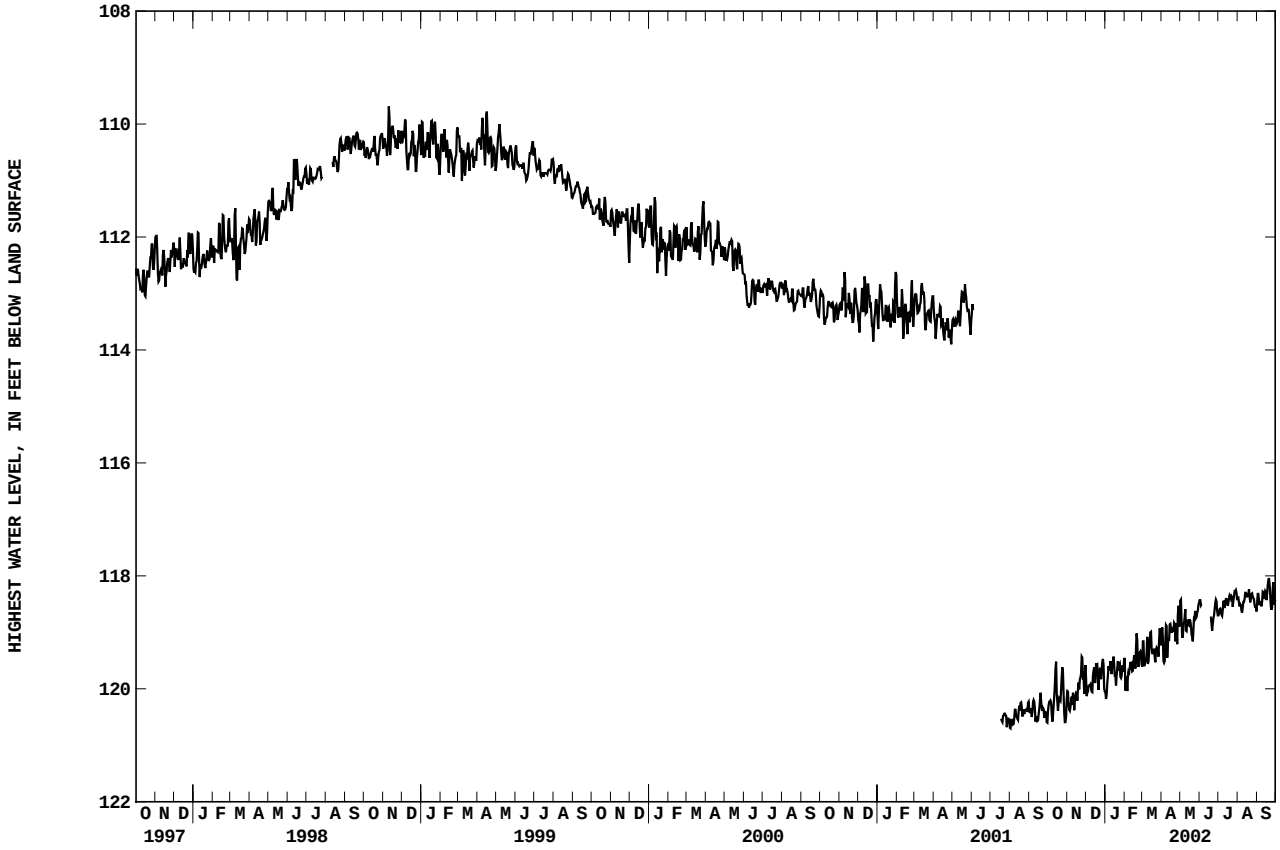
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	120.21	120.39	119.95	119.76	120.04	119.56	119.54	119.08	---	118.61	118.50	118.52
10	120.30	120.07	120.05	119.57	119.53	119.56	119.45	118.97	---	118.48	118.46	118.28
15	120.08	120.07	119.88	119.58	119.51	118.99	118.85	118.88	---	118.47	118.32	118.29
20	120.19	120.01	119.79	119.63	119.02	119.29	118.99	119.08	118.86	118.36	118.37	118.04
25	119.72	119.45	119.83	119.79	119.36	119.29	118.94	118.62	118.59	118.44	118.36	118.56
EOM	120.18	119.58	120.05	119.47	119.57	119.23	118.85	118.47	118.70	118.43	118.63	118.42
MIN	119.52	119.43	119.47	119.43	119.02	118.93	118.53	118.42	---	118.25	118.24	118.04

WTR YR 2002 HIGH 118.04 SEP 20

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	120.27	120.42	120.07	119.90	120.17	119.70	119.62	119.19	---	118.69	118.54	118.59
10	120.47	120.28	120.13	119.74	119.76	119.88	119.56	119.26	---	118.58	118.56	118.46
15	120.36	120.15	120.17	120.00	119.68	119.27	118.93	119.02	---	118.55	118.38	118.43
20	120.22	120.09	120.02	119.80	119.28	119.45	119.06	119.17	118.97	118.44	118.52	118.14
25	120.09	119.97	119.86	119.90	119.45	119.44	119.22	118.79	118.73	118.58	118.42	118.71
EOM	120.49	119.82	120.08	119.84	119.62	119.28	118.96	118.52	118.72	118.47	118.68	118.51
MAX	120.67	120.44	120.18	120.26	120.18	119.88	119.62	119.26	---	118.76	118.70	118.72

WTR YR 2002 LOW 120.67 OCT 28



TIPPECANOE COUNTY

402734087033402. Local number, TC 18.
LOCATION.--Lat 40°27'34", long 87°03'34", NW1/4NE1/4NE1/4 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

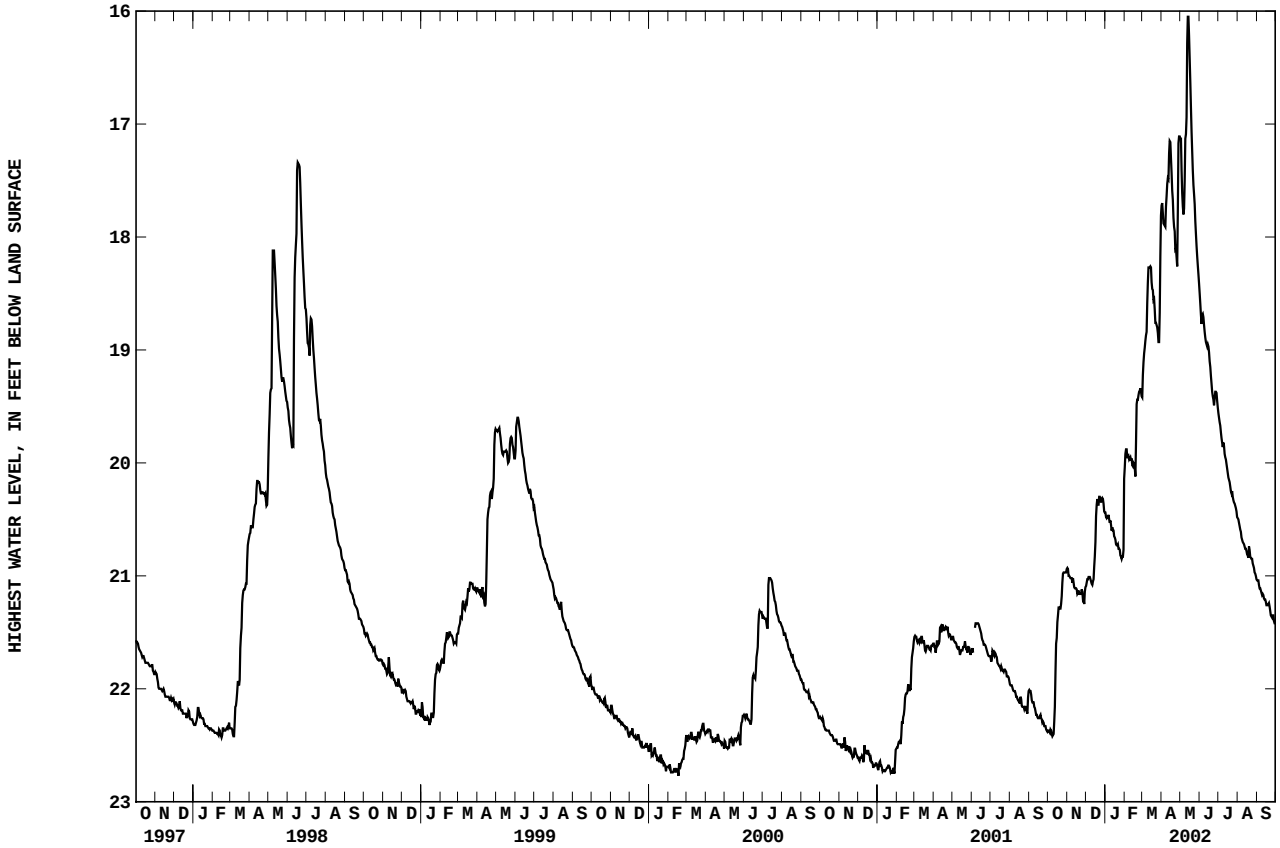
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.36	21.01	21.01	20.48	19.95	18.98	17.89	17.73	18.69	19.73	20.59	21.11
10	22.40	21.02	21.07	20.55	19.95	18.40	17.53	17.09	18.89	19.85	20.71	21.16
15	21.55	21.11	20.83	20.65	20.00	18.27	17.16	16.22	18.97	20.05	20.78	21.23
20	21.29	21.16	20.37	20.73	19.48	18.55	17.83	17.24	19.30	20.21	20.77	21.24
25	20.98	21.14	20.35	20.82	19.36	18.80	18.18	17.86	19.43	20.33	20.89	21.37
EOM	20.94	21.10	20.44	20.14	19.41	17.81	17.11	18.41	19.51	20.48	21.03	21.42
MIN	20.94	20.93	20.30	20.14	19.34	17.81	17.11	16.05	18.50	19.56	20.49	21.04

WTR YR 2002 HIGH 16.05 MAY 13

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.41	21.02	21.04	20.48	19.95	19.05	17.91	17.82	18.78	19.78	20.61	21.12
10	22.42	21.06	21.08	20.60	20.03	18.58	17.64	17.13	18.94	19.92	20.72	21.17
15	21.64	21.12	20.92	20.72	20.03	18.40	17.30	16.42	19.02	20.09	20.81	21.26
20	21.29	21.18	20.38	20.75	19.83	18.64	17.95	17.41	19.37	20.25	20.83	21.27
25	21.06	21.23	20.35	20.84	19.40	18.89	18.26	17.97	19.55	20.35	20.91	21.39
EOM	20.97	21.14	20.44	20.77	19.43	18.17	17.16	18.50	19.56	20.49	21.04	21.44
MAX	22.42	21.27	21.11	20.87	20.14	19.47	18.31	18.50	19.56	20.49	21.04	21.44

WTR YR 2002 LOW 22.42 OCT 7



380608087395901. Local number, VA 6.
LOCATION.--Lat 38o06'08", long 87o39'59", in SE1/4SW1/4NW1/4 sec.8, T.5 S., R.11 W., Vanderburgh County, Hydrologic Unit 05120113, (KASSON, IN quadrangle), on county right-of-way at the intersection of Buente and New Harmony Roads, 1.0 mi southwest of Armstrong.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 125 ft, cased to 80 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 446.57 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 3.40 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.88 ft below land-surface datum, Apr. 3, 4, 1968; lowest, 37.18 ft below land-surface datum, Sept. 13, 15, 2002.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

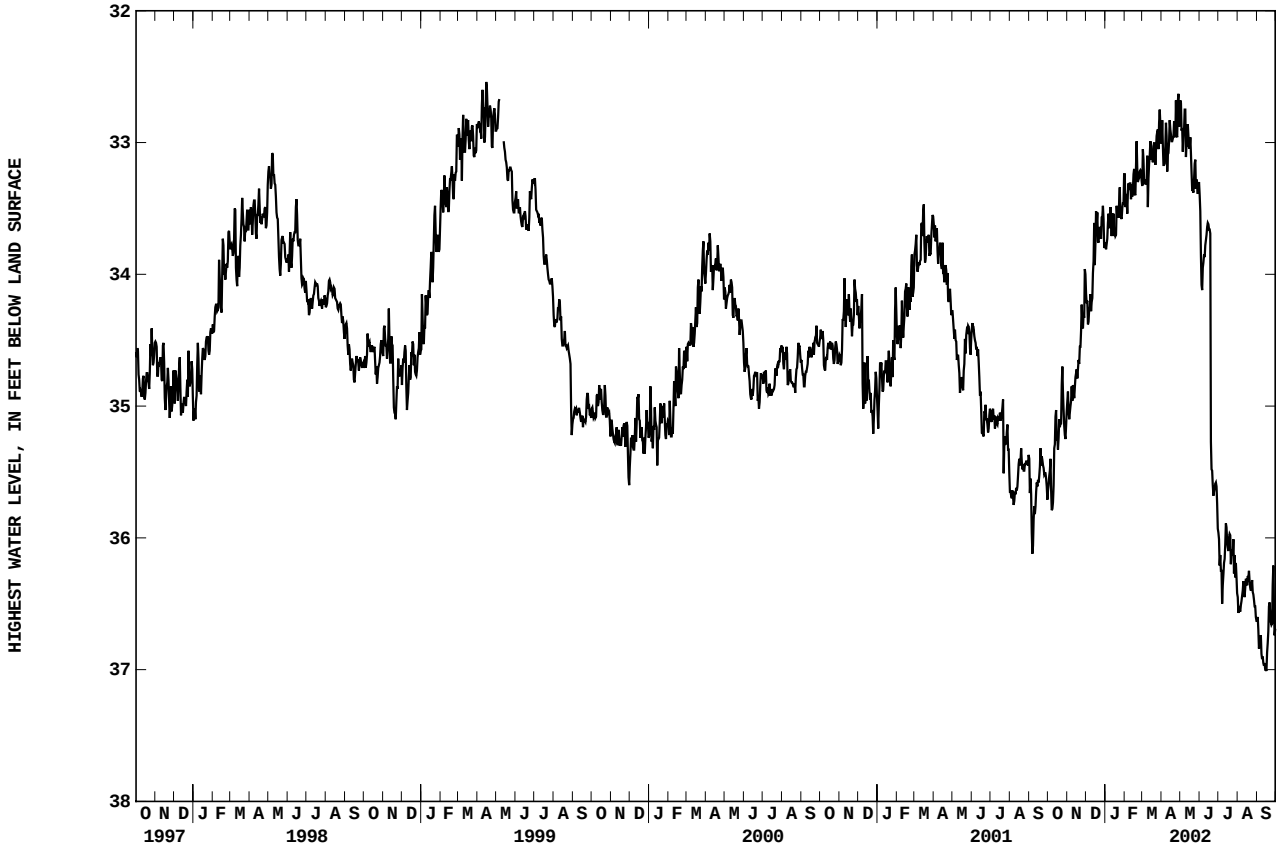
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.40	35.05	34.36	33.61	33.54	33.31	33.17	33.07	34.12	36.25	36.56	36.78
10	35.60	34.84	34.21	33.55	33.31	33.49	33.22	33.11	33.78	36.19	36.33	36.90
15	35.26	34.75	33.93	33.71	33.24	33.02	32.90	33.04	33.62	36.03	36.32	37.00
20	35.16	34.68	33.75	33.56	32.99	33.00	32.95	33.36	35.48	35.98	36.33	36.52
25	34.90	34.35	33.73	33.55	33.22	32.92	32.94	33.13	35.62	36.01	36.41	36.65
EOM	35.04	34.00	33.79	33.24	33.29	32.93	32.80	33.30	35.93	36.42	36.63	36.69
MIN	34.70	33.96	33.48	33.24	32.99	32.75	32.63	32.68	33.40	35.89	36.25	36.21

WTR YR 2002 HIGH 32.63 APR 28

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.64	35.19	34.50	33.74	33.64	33.38	33.29	33.23	34.36	36.60	36.75	36.97
10	35.76	34.96	34.37	33.81	33.55	33.64	33.30	33.29	33.93	36.52	36.62	37.13
15	35.38	34.87	34.09	33.91	33.38	33.21	33.04	33.17	33.81	36.28	36.43	37.18
20	35.29	34.82	33.86	33.75	33.20	33.12	33.06	33.66	35.67	36.26	36.49	36.82
25	35.05	34.61	33.84	33.71	33.37	33.15	33.09	33.95	35.79	36.60	36.63	36.82
EOM	35.22	34.22	33.97	33.50	33.40	33.09	32.93	33.71	36.17	36.62	36.88	36.82
MAX	36.02	35.31	34.55	33.99	33.64	33.64	33.30	33.95	36.17	36.63	36.88	37.18

WTR YR 2002 LOW 37.18 SEP 13



380626087344401. Local number, VA 7.
LOCATION.--Lat 38°06'26", long 87°34'44", in NE$^1/_4$NW$^1/_4$Nw$^1/_4$ 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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

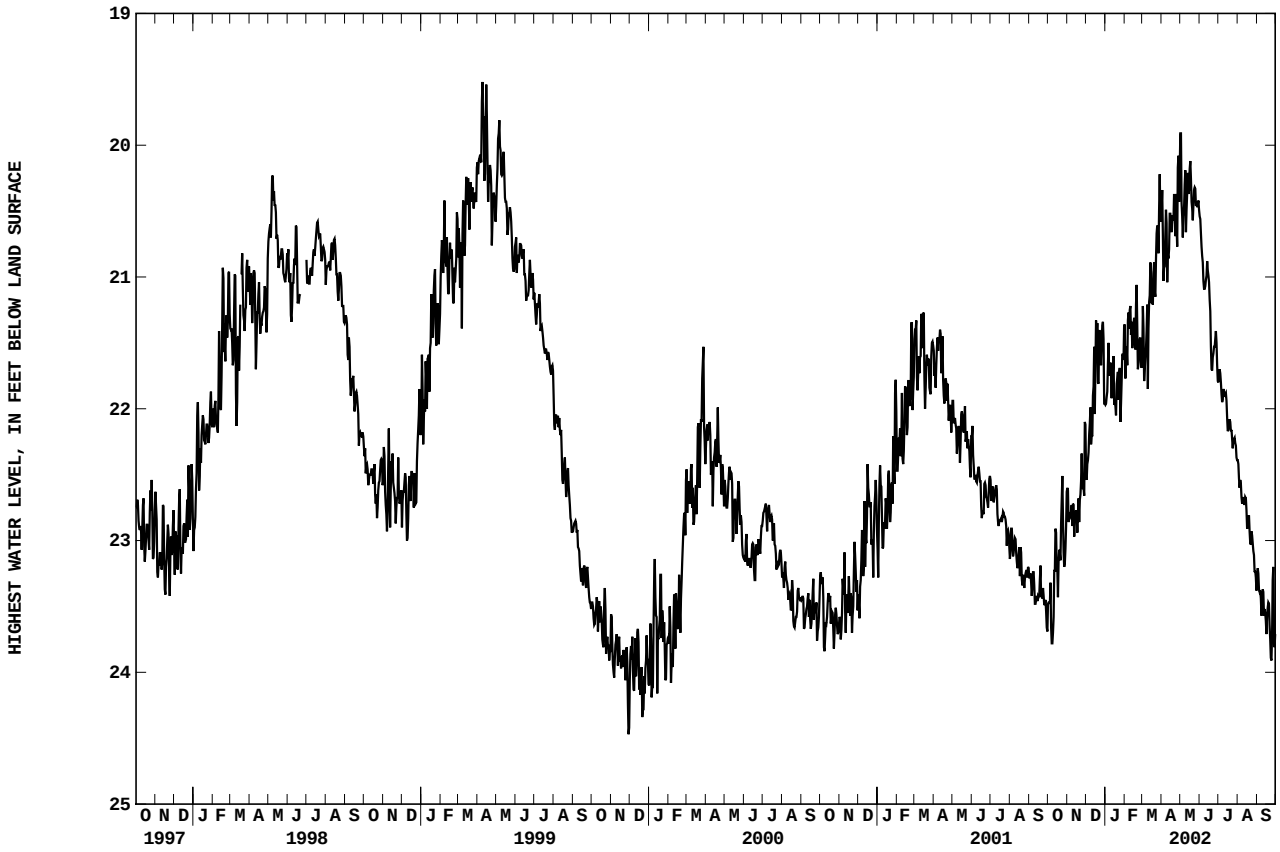
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.32	22.83	22.33	21.66	21.67	21.70	20.93	20.70	20.84	21.80	22.54	23.39
10	23.58	22.72	22.20	21.71	21.22	21.85	21.04	20.66	21.07	21.87	22.67	23.37
15	23.23	22.77	22.04	21.97	21.36	20.96	20.52	20.34	20.99	22.07	22.77	23.61
20	23.10	22.86	21.80	21.77	21.06	20.89	20.57	20.48	21.70	22.10	22.93	23.48
25	22.83	22.55	21.67	22.10	21.47	20.61	20.62	20.33	21.53	22.23	23.02	23.72
EOM	22.63	22.12	21.96	21.37	21.69	20.58	20.19	20.49	21.79	22.39	23.38	23.71
MIN	22.51	22.10	21.33	21.37	21.06	20.22	20.08	19.91	20.54	21.70	22.39	23.20

WTR YR 2002 HIGH 19.91 MAY 1

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.66	22.91	22.44	21.89	21.88	21.85	21.16	20.81	20.99	21.89	22.63	23.49
10	23.70	22.89	22.35	21.92	21.64	22.03	21.23	20.83	21.18	21.92	22.74	23.48
15	23.58	22.87	22.23	22.21	21.50	21.21	20.71	20.49	21.11	22.17	22.91	23.73
20	23.19	23.01	21.89	22.07	21.36	21.17	20.62	20.59	21.84	22.21	23.05	23.64
25	23.09	23.00	21.72	22.18	21.57	20.88	20.89	20.46	21.63	22.33	23.08	23.91
EOM	22.89	22.50	22.07	21.63	21.86	20.68	20.43	20.55	21.84	22.47	23.45	23.81
MAX	23.87	23.06	22.73	22.22	22.00	22.03	21.23	20.83	21.87	22.47	23.45	23.99

WTR YR 2002 LOW 23.99 SEP 24



VIGO COUNTY

392820087242601. Local number, VI 7.
LOCATION.--Lat 39°28'20", long 87°24'26", in SE$^1/_4$SE$^1/_4$NE$^1/_4$ sec.21, T.12 N., R.9 W., Vigo County, Hydrologic Unit 05120111, (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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

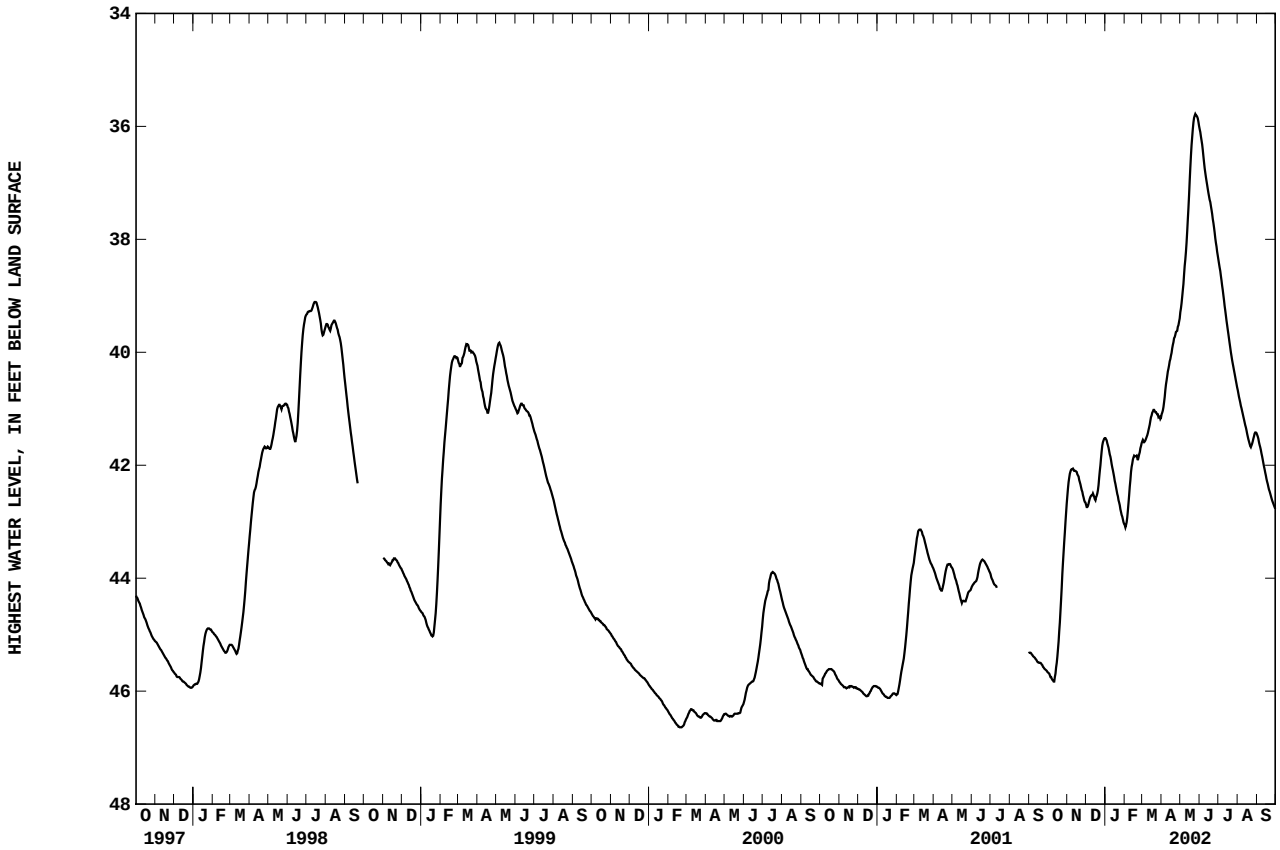
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.75	42.15	42.68	41.65	42.92	41.58	40.88	38.90	36.32	38.65	40.89	41.64
10	45.83	42.06	42.53	41.91	42.26	41.43	40.42	38.22	36.82	39.08	41.14	41.90
15	45.50	42.11	42.60	42.21	41.86	41.15	40.12	37.22	37.18	39.52	41.38	42.18
20	44.78	42.26	42.44	42.51	41.83	41.02	39.82	36.19	37.48	39.92	41.62	42.43
25	43.72	42.47	41.87	42.78	41.77	41.10	39.63	35.78	37.88	40.26	41.58	42.62
EOM	42.68	42.66	41.52	43.04	41.61	41.16	39.40	35.99	38.29	40.62	41.43	42.77
MIN	42.68	42.06	41.52	41.52	41.61	41.02	39.40	35.78	36.05	38.36	40.67	41.46

WTR YR 2002 HIGH 35.78 MAY 25

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.76	42.22	42.72	41.69	43.01	41.61	40.97	39.02	36.42	38.73	40.95	41.68
10	45.84	42.08	42.54	41.98	42.38	41.47	40.50	38.36	36.90	39.18	41.19	41.96
15	45.58	42.12	42.64	42.28	41.90	41.21	40.16	37.45	37.24	39.60	41.44	42.24
20	44.94	42.30	42.50	42.55	41.87	41.04	39.87	36.33	37.55	40.00	41.66	42.46
25	43.92	42.53	42.00	42.83	41.81	41.11	39.66	35.81	37.98	40.32	41.62	42.65
EOM	42.84	42.70	41.53	43.06	41.66	41.19	39.46	36.05	38.36	40.67	41.46	42.80
MAX	45.86	42.70	42.75	43.06	43.10	41.61	41.16	39.40	38.36	40.67	41.69	42.80

WTR YR 2002 LOW 45.86 OCT 11



WABASH COUNTY

404424085422801. Local number, WB 3.
LOCATION.--Lat 40°44'24", long 85°42'28", in SE$^1/_4$SE$^1/_4$SW$^1/_4$ sec.35, T.27 N., R.7 E., Wabash County, Hydrologic Unit 05120101, (LA FONTAINE, IN quadrangle), on State Highway 124, 3.5 mi west of the county line and in the southwest corner of United Telephone Company property.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 105 ft, cased to 100 ft, screened to 105 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 850.45 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.85 ft below land-surface datum, Mar. 27, 1991 and Apr. 1, 1993; lowest, 49.66 ft below land-surface datum, Mar. 10, 1996.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

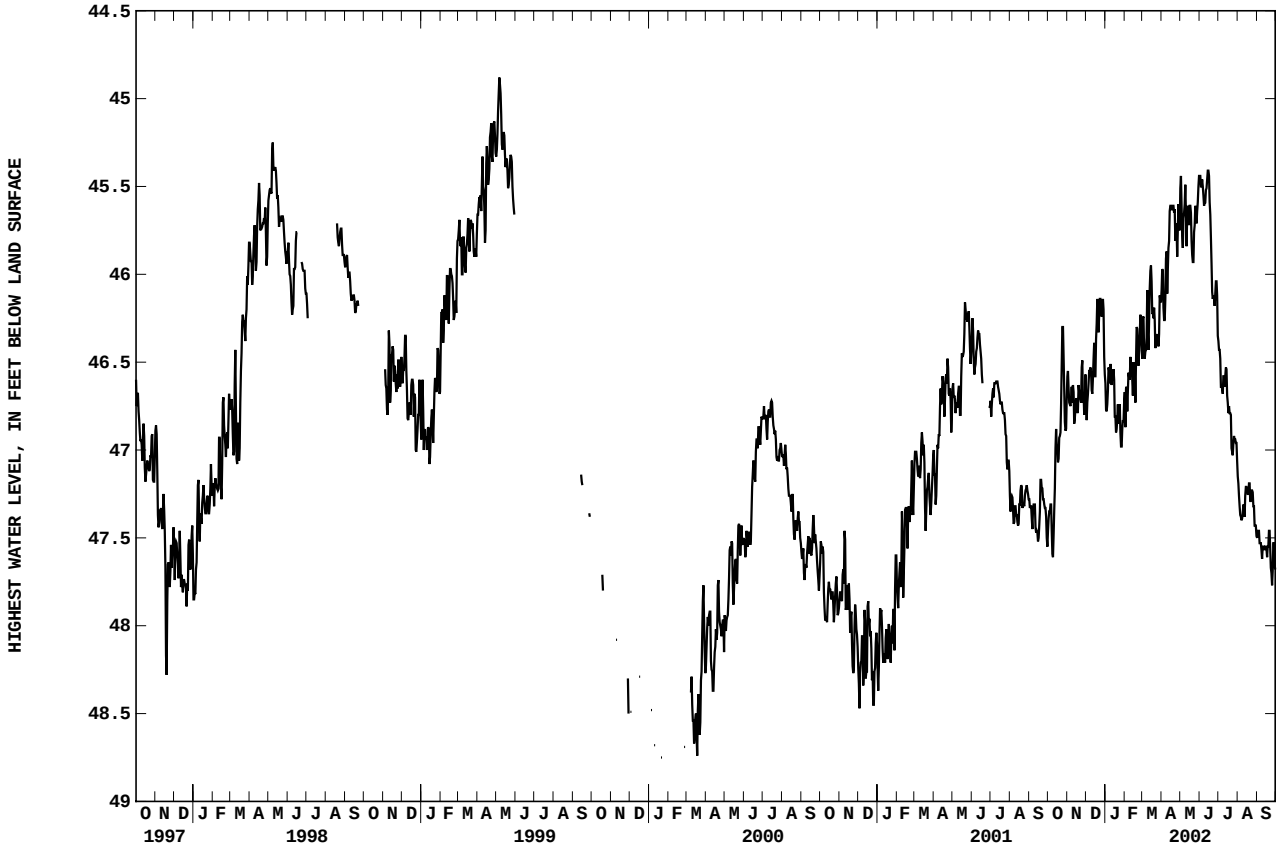
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	47.31	46.74	46.62	46.66	46.78	46.48	46.26	45.85	45.46	46.64	47.37	47.53
10	47.48	46.63	46.66	46.55	46.47	46.34	46.11	45.65	45.59	46.58	47.31	47.55
15	46.97	46.71	46.58	46.60	46.56	45.95	45.61	45.72	45.41	46.69	47.21	47.55
20	46.92	46.67	46.21	46.82	46.30	46.19	45.61	45.89	45.94	46.79	47.19	47.46
25	46.30	46.49	46.22	46.90	46.34	46.36	45.74	45.61	46.18	46.96	47.24	47.77
EOM	46.71	46.57	46.57	46.73	46.43	46.16	45.75	45.44	46.35	47.06	47.49	47.68
MIN	46.30	46.49	46.14	46.51	46.23	45.95	45.60	45.44	45.41	46.38	47.15	47.46

WTR YR 2002 HIGH 45.41 JUN 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	47.35	46.75	46.68	46.74	46.80	46.52	46.26	45.87	45.51	46.65	47.40	47.54
10	47.61	46.77	46.69	46.63	46.60	46.56	46.18	45.89	45.59	46.70	47.36	47.62
15	47.09	46.78	46.75	46.88	46.69	46.04	45.64	45.79	45.44	46.76	47.22	47.56
20	46.93	46.75	46.33	46.88	46.50	46.26	45.69	45.93	46.10	46.80	47.29	47.55
25	46.47	46.73	46.29	47.01	46.42	46.46	45.90	45.74	46.19	47.05	47.32	47.79
EOM	46.88	46.73	46.62	46.97	46.48	46.24	45.83	45.50	46.38	47.15	47.50	47.68
MAX	47.63	46.91	46.84	47.01	46.93	46.60	46.32	45.99	46.38	47.18	47.50	47.79

WTR YR 2002 LOW 47.79 SEP 25



WABASH COUNTY

403948085414601. Local number, WB 4.
LOCATION.--Lat 40°39'48", long 85°41'46", in NE$^1/_4$SE$^1/_4$NE$^1/_4$ sec. 35, T.26N., R.7E., Wabash County, Hydrologic Unit 05120103, (LA FONTAINE, IN quadrangle), on America Road, 1.3 mi southeast of La Fountaine.
Owner: U.S. Geological Survey

AQUIFER.--Sand and gravel of the Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 118 ft, cased to 113 ft, screened to 118 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 837.40 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.30 ft above land-surface datum.

REMARKS.--Water level affected by public water supply pumpage.

PERIOD OF RECORD.--August 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.19 ft below land-surface datum, Nov. 5, 1988; lowest, 49.95 ft below land-surface datum, Sept. 24, 2002.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

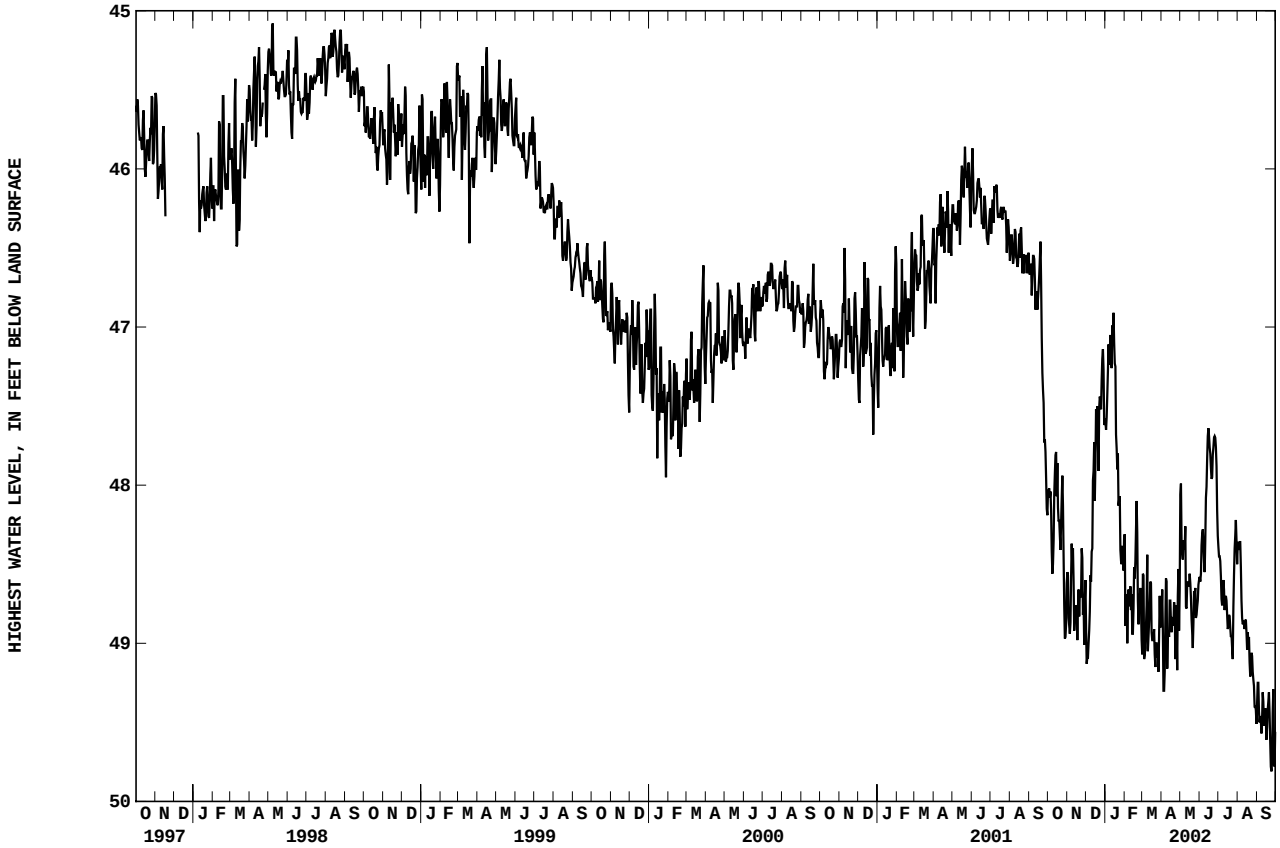
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.04	48.94	49.00	47.28	49.00	49.07	49.30	48.47	48.31	48.58	48.36	49.50
10	48.35	48.40	48.42	47.15	48.64	49.05	49.16	48.77	48.35	48.66	48.87	49.31
15	48.07	48.76	48.10	47.10	48.78	48.62	48.73	48.63	47.64	48.82	48.93	49.46
20	48.32	48.83	47.75	47.90	48.10	48.91	48.89	48.93	47.96	48.90	49.12	49.31
25	48.13	48.46	47.52	48.41	48.72	49.09	48.90	48.65	47.69	48.77	49.18	49.75
EOM	48.62	48.60	47.58	48.33	48.98	48.86	48.66	48.60	48.32	48.50	49.51	49.56
MIN	47.79	48.37	47.14	46.91	48.10	48.44	48.53	47.99	47.64	48.22	48.36	49.25

WTR YR 2002 HIGH 46.91 JAN 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.16	49.00	49.15	47.43	49.16	49.23	49.39	48.61	48.38	48.72	48.52	49.56
10	48.50	48.61	48.61	47.26	48.93	49.32	49.29	49.05	48.56	48.81	48.90	49.49
15	48.20	48.84	48.34	47.46	48.94	48.93	48.87	48.77	47.72	48.91	49.04	49.61
20	48.41	48.95	47.91	48.04	48.30	49.14	48.98	49.03	48.04	49.01	49.26	49.44
25	48.46	48.97	47.62	48.56	48.79	49.23	49.17	48.84	47.74	49.10	49.24	49.93
EOM	48.88	48.90	47.64	48.70	49.07	48.98	48.92	48.65	48.39	48.59	49.58	49.78
MAX	49.08	49.16	49.26	48.75	49.19	49.35	49.39	49.12	48.79	49.26	49.58	49.95

WTR YR 2002 LOW 49.95 SEP 24



WARRICK COUNTY

380624087164801. Local number, WK 4.
LOCATION.--Lat 38°06'24", long 87°16'48", in SE$^1/_4$SW$^1/_4$SW$^1/_4$ sec.2, T.5 S., R.8 W., Warrick County, Hydrologic Unit 05140201, (BOONVILLE, IN quadrangle), on State Highway 61, 4.2 mi north of Boonville.
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone from lower Dugger Formation of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 105 ft, cased to 30 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 446.18 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of floor of shelter, 4.09 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.85 ft below land-surface datum, June 17, 1997; lowest, 18.20 ft below land-surface datum, Oct. 30, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

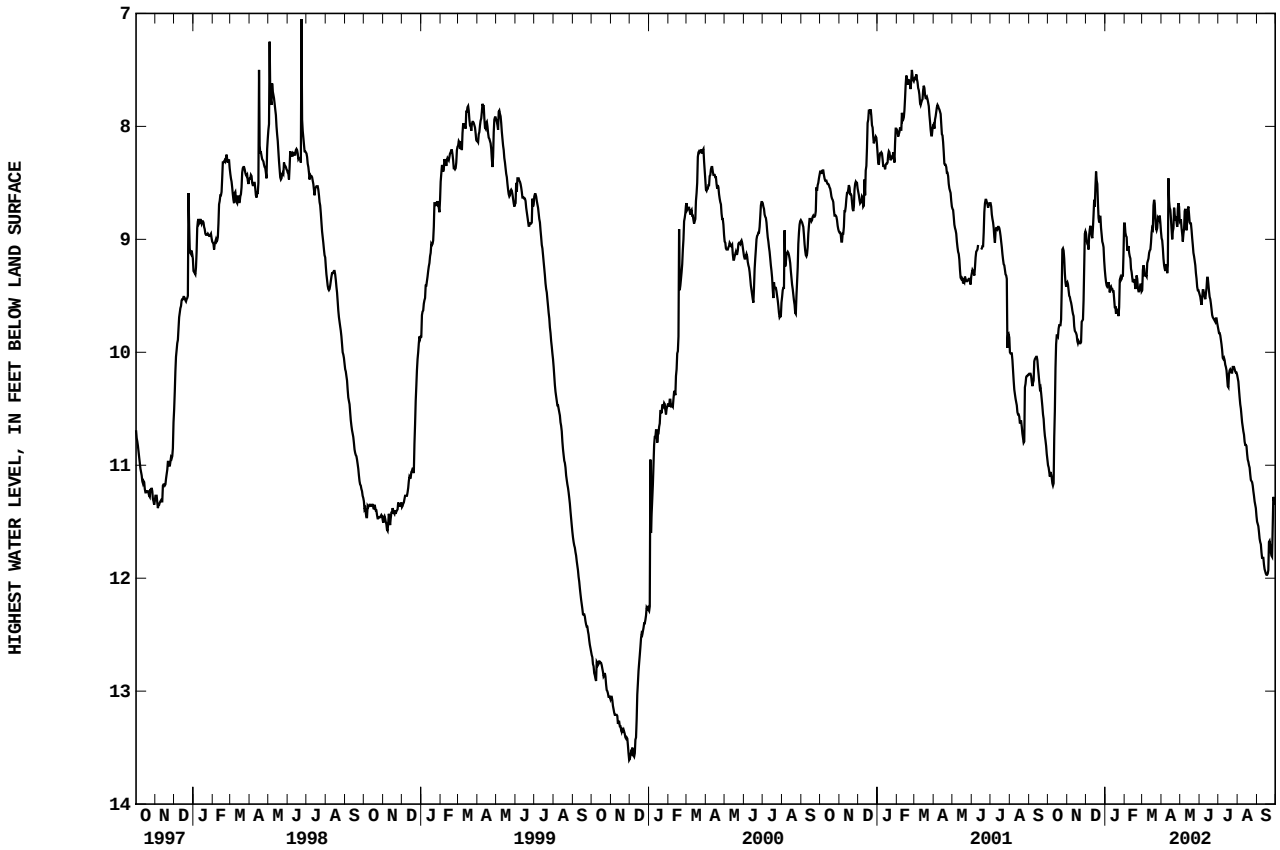
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.06	9.51	9.09	9.41	9.10	9.32	9.23	9.02	9.52	9.89	10.46	11.65
10	11.16	9.66	8.97	9.42	9.17	9.19	9.30	8.85	9.53	10.05	10.70	11.82
15	9.85	9.83	8.71	9.53	9.36	9.03	8.74	8.78	9.40	10.23	10.83	11.96
20	9.76	9.91	8.68	9.63	9.32	8.65	8.90	8.99	9.62	10.15	11.02	11.68
25	9.08	9.72	8.90	9.34	9.44	8.90	8.85	9.23	9.72	10.13	11.18	11.81
EOM	9.39	8.93	9.27	8.86	9.46	8.93	8.84	9.47	9.77	10.20	11.45	11.34
MIN	9.08	8.93	8.40	8.86	8.86	8.65	8.46	8.71	9.34	9.80	10.23	11.28

WTR YR 2002 HIGH 8.40 DEC 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.13	9.54	9.11	9.44	9.14	9.34	9.26	9.08	9.64	9.93	10.50	11.68
10	11.20	9.68	8.99	9.44	9.26	9.21	9.33	8.93	9.55	10.07	10.74	11.82
15	9.94	9.85	8.78	9.63	9.38	9.14	8.82	8.85	9.46	10.30	10.90	12.01
20	9.76	9.93	8.81	9.68	9.38	8.70	8.93	9.05	9.67	10.16	11.08	11.93
25	9.14	9.76	8.96	9.37	9.47	8.98	8.89	9.30	9.75	10.14	11.23	11.83
EOM	9.42	8.97	9.33	9.12	9.47	8.99	8.87	9.49	9.80	10.23	11.50	11.36
MAX	11.20	9.94	9.33	9.72	9.48	9.50	9.33	9.49	9.80	10.40	11.50	12.01

WTR YR 2002 LOW 12.01 SEP 15



WASHINGTON COUNTY

383012086124501. Local number, WA 2.
LOCATION.--Lat 38°30'12", long 86°12'45", IN NE$^1/_4$SW$^1/_4$SW$^1/_4$ sec.20, T.1 N., R.3 E., Washington County, Hydrologic Unit 05140104, (BECKS MILL, IN quadrangle), on West Washington School Road, 5.1 mi north of Fredericksburg.
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 142.5 ft, cased to 101 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 780 ft above 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, 61.14 ft below land-surface datum, Apr. 30, 1996; lowest, 75.95 ft below land-surface datum, Nov. 29, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

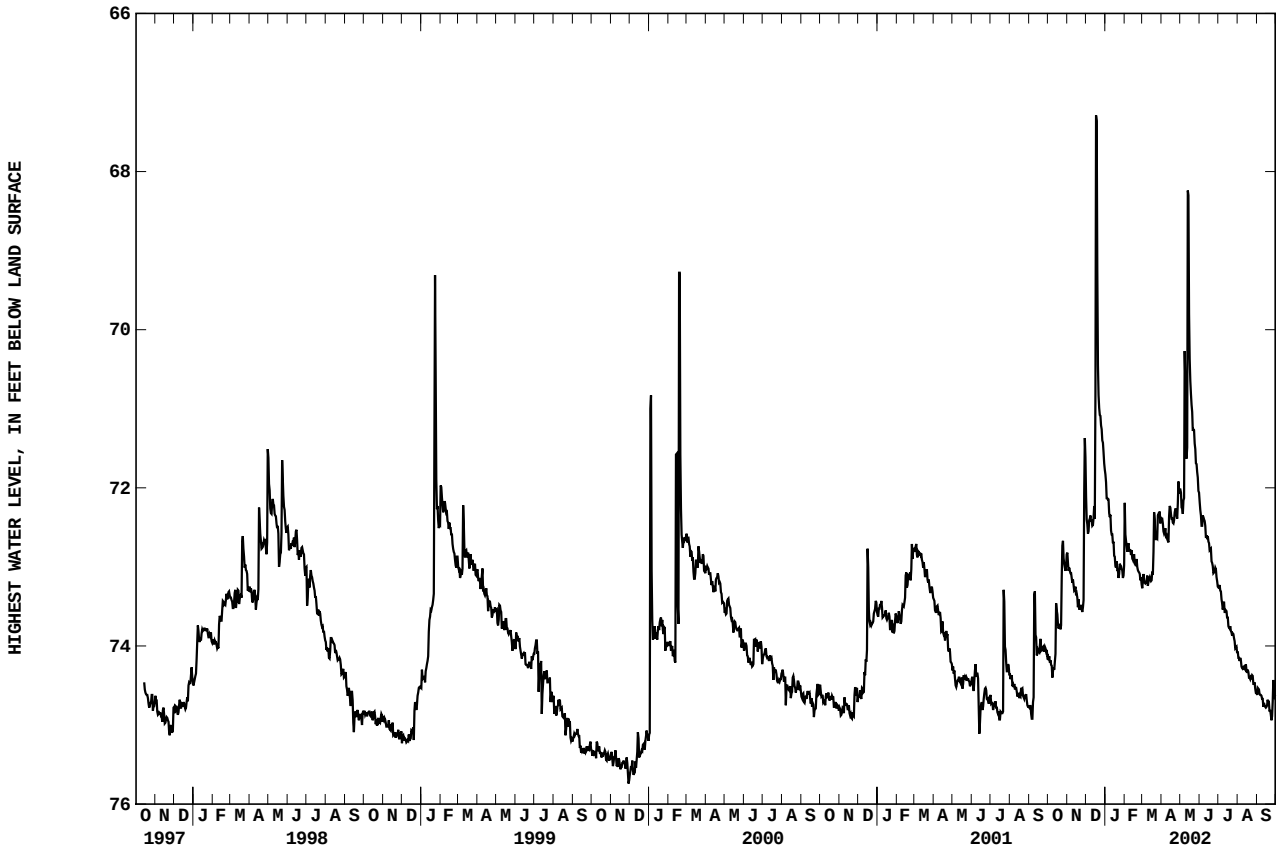
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	74.18	73.05	72.55	72.15	72.81	73.20	72.58	72.33	72.48	73.31	74.15	74.61
10	74.27	73.16	72.40	72.54	72.79	73.24	72.65	71.37	72.48	73.44	74.28	74.67
15	73.55	73.36	72.39	72.86	72.87	73.18	72.25	69.80	72.68	73.65	74.31	74.78
20	73.72	73.54	70.45	73.04	72.90	72.31	72.45	71.04	72.93	73.75	74.40	74.72
25	72.67	73.57	71.21	72.98	73.09	72.64	72.35	71.51	73.05	73.85	74.38	74.89
EOM	72.84	71.61	71.77	72.98	73.22	72.38	72.02	72.06	73.25	74.09	74.59	74.62
MIN	72.67	71.37	67.29	71.83	72.19	72.30	71.92	68.24	72.18	73.23	74.07	74.43

WTR YR 2002 HIGH 67.29 DEC 17

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	74.33	73.19	72.63	72.22	72.89	73.25	72.65	72.44	72.57	73.51	74.35	74.73
10	74.33	73.28	72.53	72.64	73.01	73.34	72.75	71.64	72.80	73.59	74.34	74.82
15	73.68	73.50	72.49	72.94	72.97	73.30	72.35	70.37	72.79	73.68	74.43	74.85
20	73.85	73.64	70.83	73.06	73.05	72.81	72.52	71.41	73.03	73.89	74.48	74.92
25	72.95	73.64	71.29	73.12	73.29	72.77	72.46	71.75	73.19	73.97	74.58	74.98
EOM	73.06	72.11	71.86	73.11	73.30	72.50	72.09	72.21	73.28	74.15	74.73	74.71
MAX	74.46	73.67	72.69	73.25	73.30	73.34	72.78	72.44	73.28	74.15	74.73	75.04

WTR YR 2002 LOW 75.04 SEP 24



WAYNE COUNTY

394426085080601. Local number, WE 6.
LOCATION.--Lat 39°44'26", long 85°08'06", in SE$^1/_4$NW$^1/_4$NE$^1/_4$ sec.24, T.15 N., R.12 E., Wayne County, Hydrologic Unit 05080003, (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, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

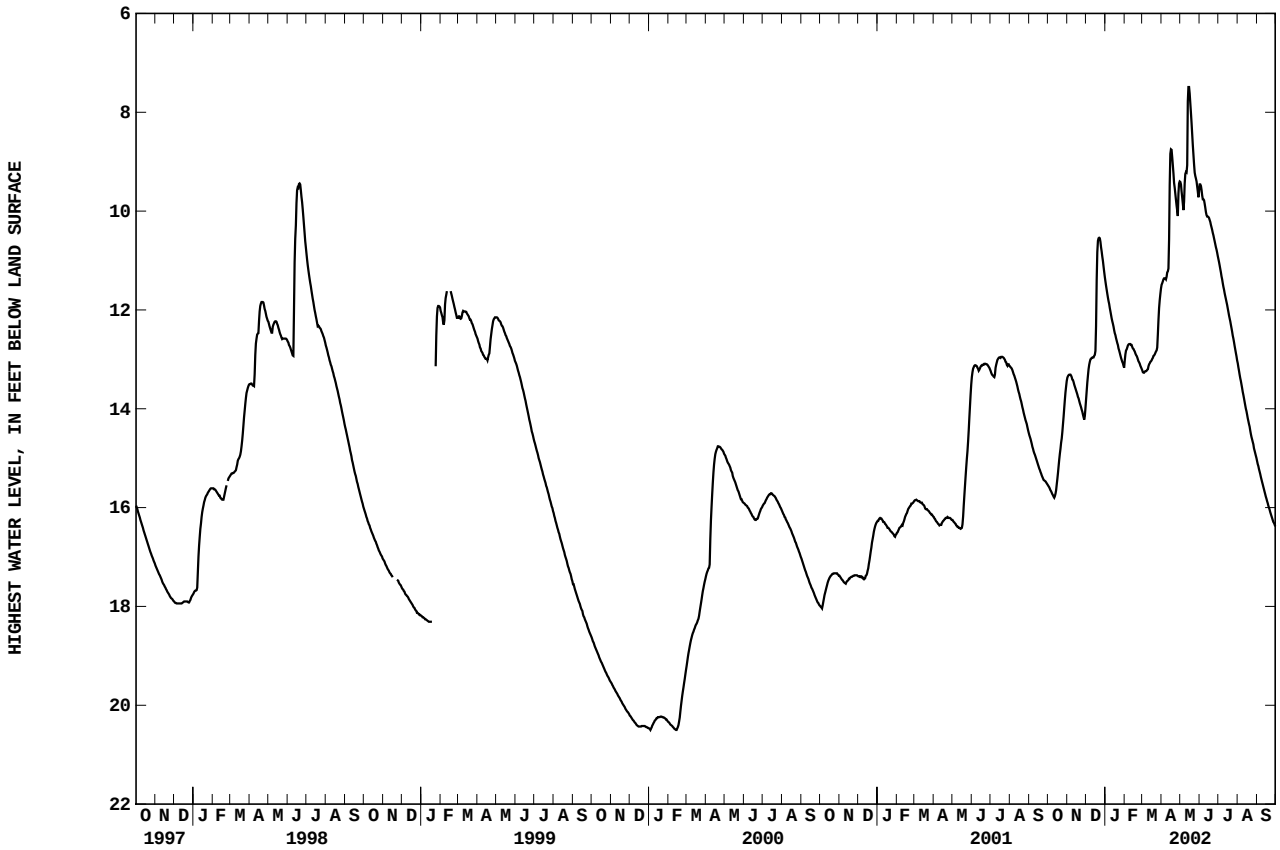
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.65	13.31	13.20	11.75	12.76	13.25	11.36	9.85	9.68	11.24	13.38	15.27
10	15.78	13.42	12.97	12.10	12.69	13.20	11.24	9.21	9.93	11.59	13.72	15.53
15	15.53	13.63	12.91	12.41	12.79	13.04	8.84	7.49	10.12	11.90	14.05	15.78
20	14.91	13.84	10.60	12.67	12.93	12.92	9.24	8.44	10.33	12.23	14.36	16.00
25	14.31	14.06	10.73	12.92	13.09	12.76	9.89	9.29	10.61	12.58	14.67	16.21
EOM	13.44	13.99	11.33	13.17	13.19	11.57	9.40	9.61	10.91	13.02	15.00	16.38
MIN	13.44	13.31	10.54	11.42	12.69	11.57	8.75	7.49	9.46	10.97	13.08	15.06

WTR YR 2002 HIGH 7.49 MAY 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.67	13.31	13.33	11.82	12.80	13.27	11.38	9.98	9.76	11.32	13.44	15.32
10	15.80	13.46	12.99	12.17	12.71	13.24	11.33	9.25	10.02	11.66	13.79	15.58
15	15.65	13.67	12.95	12.47	12.82	13.05	9.47	7.62	10.14	11.97	14.12	15.82
20	15.03	13.89	10.83	12.71	12.96	12.93	9.43	8.66	10.38	12.30	14.44	16.04
25	14.47	14.12	10.82	12.97	13.13	12.82	9.99	9.35	10.67	12.65	14.72	16.25
EOM	13.55	14.15	11.42	13.18	13.22	11.68	9.44	9.93	10.97	13.08	15.06	16.41
MAX	15.81	14.23	13.99	13.18	13.22	13.28	11.57	10.12	10.97	13.08	15.06	16.41

WTR YR 2002 LOW 16.41 SEP 30



WELLS COUNTY

404331085064701. Local number, WL 4.
LOCATION.--Lat 40°43'31", long 85°06'47", in SE$^1/_4$NW$^1/_4$NE$^1/_4$ sec.12, T.26 N., R.12 E., Wells County, Hydrologic Unit 05120101, (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 current year. (Semi-annual tape-down readings only September 1971 to December 1981.)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.70 ft below land-surface datum, Apr. 4, 1973; lowest, 26.27 ft below land-surface datum, Jan. 27, Feb. 4, 16, 2000.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

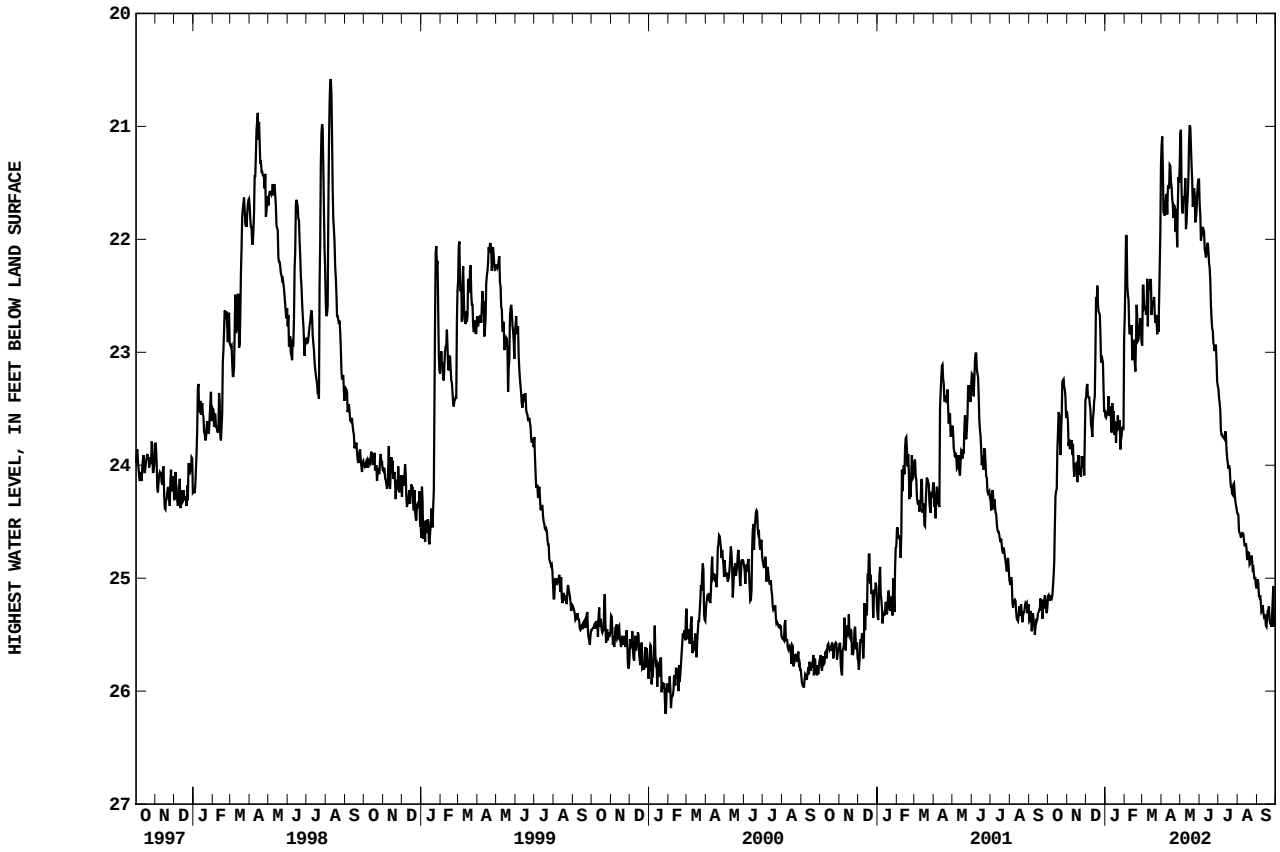
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.15	23.85	23.40	23.51	22.41	22.60	21.76	21.77	21.95	23.69	24.61	25.17
10	24.98	23.81	23.67	23.62	22.76	22.77	21.78	21.91	22.12	23.76	24.61	25.24
15	24.21	23.99	23.39	23.73	22.90	22.39	21.35	21.13	22.10	23.94	24.73	25.42
20	23.76	24.08	22.57	23.63	22.58	22.51	21.81	21.47	22.70	24.12	24.88	25.25
25	23.25	23.96	23.09	23.86	22.76	22.84	21.85	21.85	22.99	24.17	24.92	25.33
EOM	23.52	23.42	23.51	22.87	22.92	21.34	21.36	21.47	23.30	24.42	25.09	25.37
MIN	23.24	23.42	22.41	22.87	21.97	21.34	21.09	20.99	21.69	23.32	24.43	25.01

WTR YR 2002 HIGH 20.99 MAY 16

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.27	23.91	23.51	23.58	22.49	22.74	21.83	21.87	22.14	23.83	24.74	25.24
10	25.12	24.01	23.77	23.73	23.08	22.88	21.99	22.11	22.23	23.87	24.74	25.33
15	24.41	24.07	23.63	23.93	23.05	22.67	21.51	21.47	22.22	24.03	24.86	25.50
20	23.91	24.20	22.64	23.82	22.88	22.76	21.89	21.72	22.86	24.28	24.97	25.41
25	23.36	24.27	23.17	23.95	22.85	22.95	22.10	21.98	23.07	24.28	25.00	25.45
EOM	23.62	23.75	23.58	23.68	23.05	21.93	21.50	21.70	23.38	24.47	25.17	25.42
MAX	25.27	24.27	23.87	23.95	23.33	23.18	22.17	22.11	23.38	24.48	25.17	25.51

WTR YR 2002 LOW 25.51 SEP 16



404914086403001. Local number, WT 4.
LOCATION.--Lat 40°49'14", long 86°40'30", in NW$^1/_4$SW$^1/_4$NW$^1/_4$ sec.5, T.27 N., R.2 W., White County, Hydrologic Unit 05120106, (IDAVILLE, IN quadrangle), in the southwest corner of the Pious Chapel property, 4.25 mi north of Idaville. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 134 ft, cased to 129 ft, screened to 134 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 683.06 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.20 ft above land-surface datum.

REMARKS.--Water level affected by irrigation pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.65 ft below land-surface datum, Jan. 7, 1993; lowest, 13.66 ft below land-surface datum, Aug. 3, 1991.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

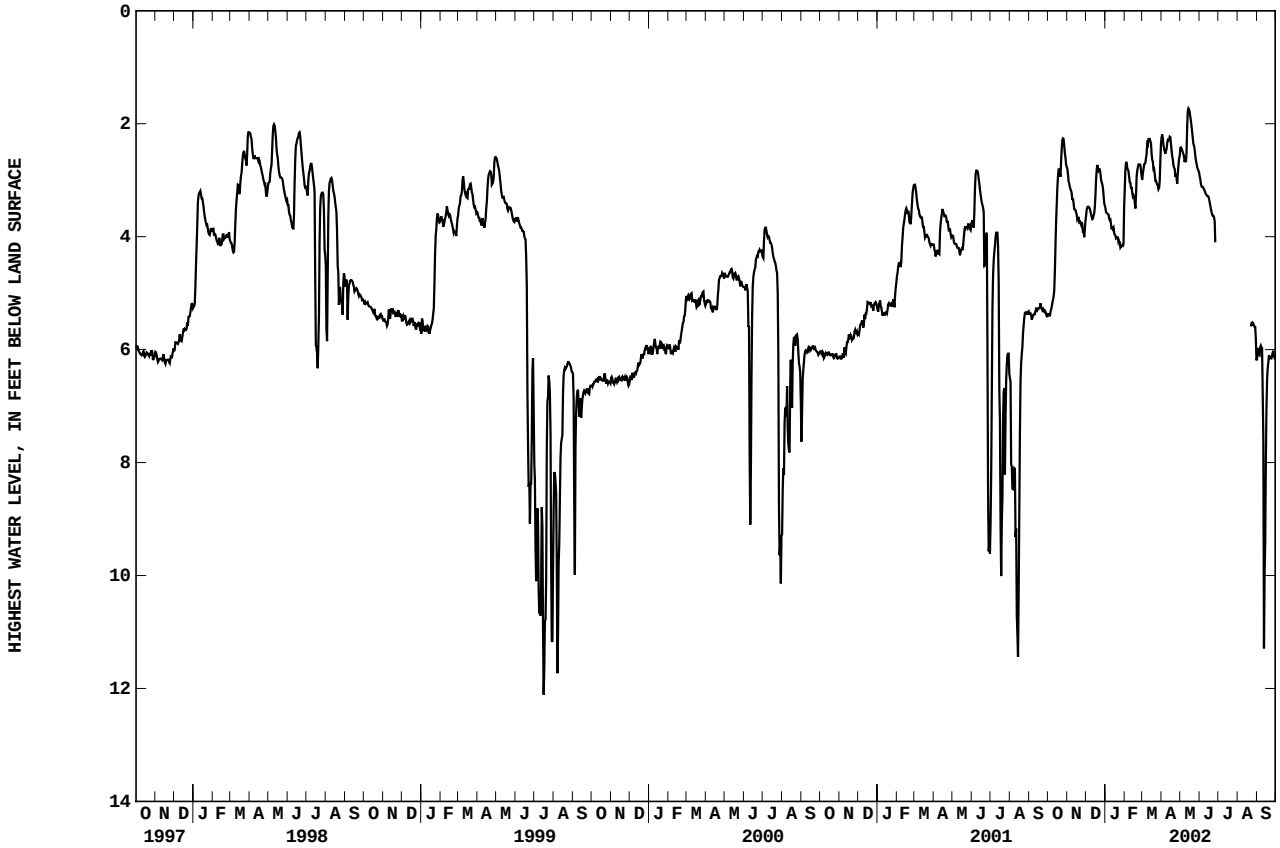
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.33	3.12	3.47	3.60	2.79	2.71	2.44	2.51	3.12	---	---	6.10
10	5.06	3.32	3.65	3.78	3.05	2.37	2.34	2.68	3.22	---	---	6.79
15	3.43	3.57	3.48	3.93	3.27	2.35	2.24	1.75	3.29	---	---	8.00
20	2.87	3.74	2.78	4.03	2.93	2.80	2.74	2.15	3.56	---	---	6.10
25	2.26	3.78	2.99	4.19	2.72	3.08	2.97	2.57	3.72	---	5.55	6.11
EOM	2.76	3.72	3.45	3.48	2.93	2.36	2.57	2.86	---	---	6.19	6.14
MIN	2.26	2.80	2.73	3.48	2.69	2.27	2.19	1.73	---	---	---	5.93

WTR YR 2002 HIGH 1.73 MAY 14

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.43	3.16	3.51	3.63	2.81	2.72	2.49	2.57	3.16	---	---	6.49
10	5.12	3.41	3.70	3.88	3.19	2.43	2.45	2.71	3.26	---	---	7.57
15	3.74	3.61	3.62	4.03	3.33	2.53	2.36	1.79	3.33	---	---	9.40
20	2.94	3.77	2.83	4.05	3.28	2.90	2.83	2.26	3.62	---	---	6.24
25	2.30	3.95	3.06	4.22	2.78	3.16	3.06	2.65	4.10	---	5.57	6.17
EOM	2.81	3.88	3.49	4.13	2.99	2.65	2.62	2.93	---	---	6.48	6.17
MAX	5.43	4.03	3.75	4.22	3.51	3.21	3.12	2.93	---	---	---	12.16

WTR YR 2002 LOW 12.16 SEP 12



WHITLEY COUNTY

410337085264201. Local number, WY 3.
LOCATION.--Lat 41°03'37", long 85°26'42", in NW$^1/_4$SE$^1/_4$NW$^1/_4$ 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, 53.83 ft below land-surface datum, Dec. 25, 1999.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

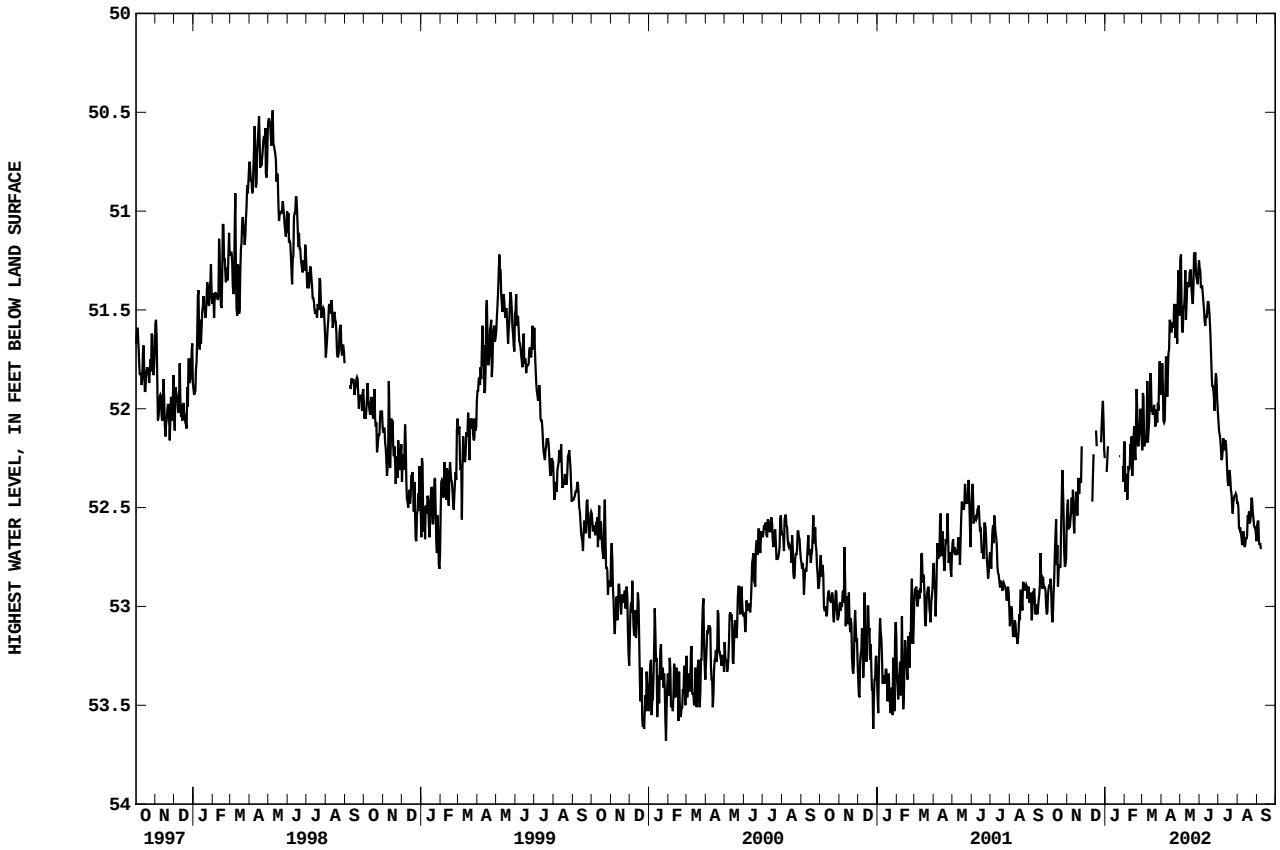
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.86	52.60	---	52.19	52.46	52.18	52.07	51.61	51.38	52.20	52.60	52.69
10	52.93	52.41	---	---	52.18	52.17	51.94	51.55	51.58	52.18	52.62	---
15	52.79	52.42	---	---	52.15	51.86	51.56	51.38	51.46	52.31	52.66	---
20	52.80	52.43	---	---	51.90	51.98	51.59	51.44	51.80	52.35	52.58	---
25	52.41	---	52.17	---	52.08	52.07	51.59	51.21	52.01	52.47	52.52	---
EOM	52.58	---	52.25	52.17	52.14	51.93	51.51	51.25	52.01	52.48	52.67	---
MIN	52.31	---	---	---	51.90	51.76	51.30	51.21	51.29	52.06	52.45	---

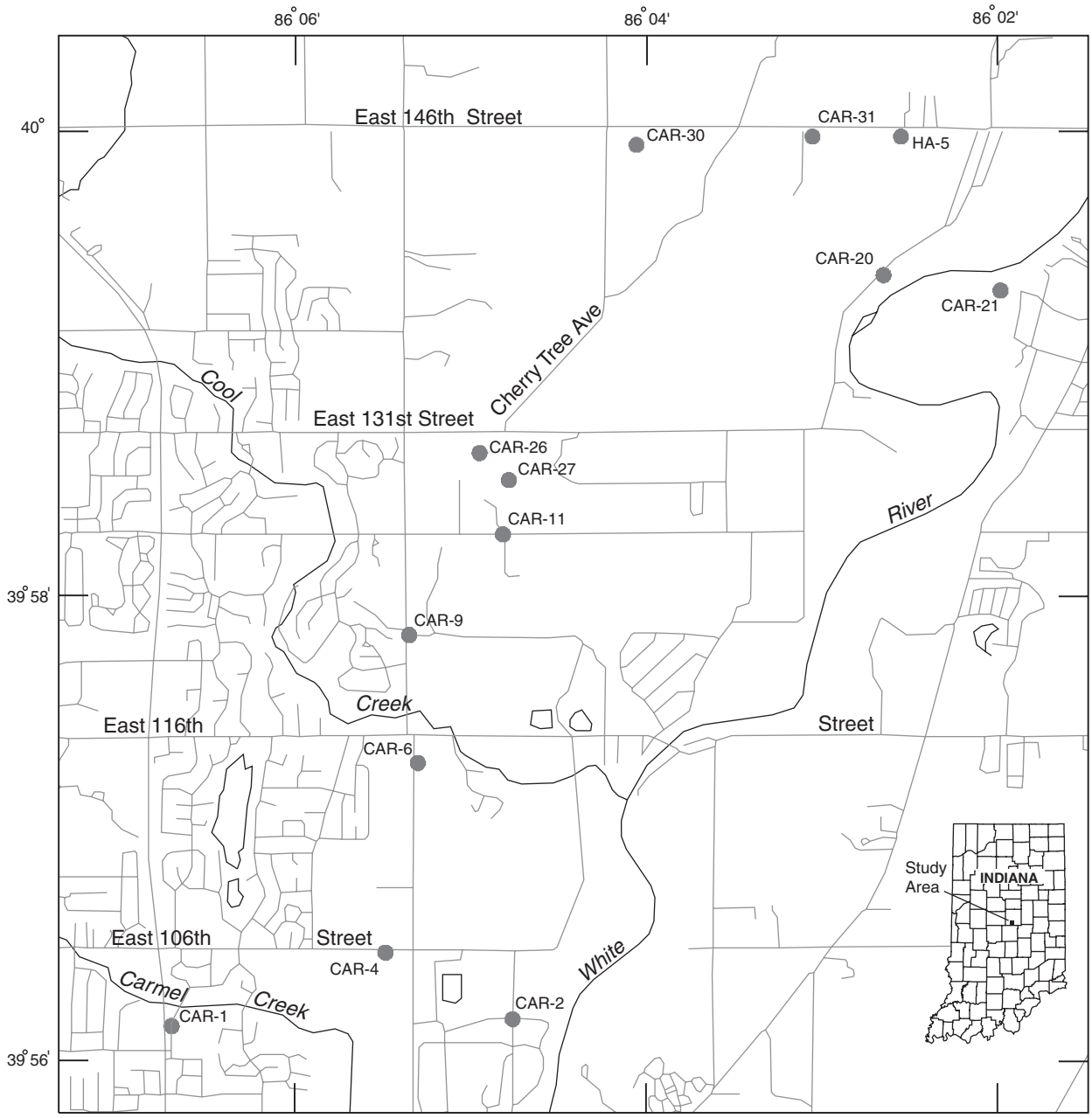
WTR YR 2002 HIGH 51.21 MAY 23

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	52.99	52.69	---	52.28	52.56	52.27	52.11	51.69	51.46	52.29	52.71	52.79
10	53.06	52.57	---	---	52.39	52.33	52.07	51.70	51.70	52.28	52.74	---
15	52.94	52.59	---	---	52.27	52.01	51.65	51.49	51.52	52.38	52.73	---
20	52.89	52.52	---	---	52.08	52.12	51.71	51.53	51.93	52.45	52.70	---
25	52.54	---	52.22	---	52.19	52.15	51.73	51.37	52.10	52.58	52.59	---
EOM	52.79	---	52.33	52.45	52.24	52.04	51.59	51.32	52.06	52.51	52.75	---
MAX	53.17	---	---	---	52.58	52.34	52.14	51.72	52.10	52.63	52.80	---

WTR YR 2002 LOW 53.17 OCT 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°

0 1 2 MILES

0 1 2 KILOMETERS

EXPLANATION

CAR-1 WELL LOCATION AND NAME--Number in parentheses indicates number of wells at site, if more than one

Figure 10.--Locations of wells in the Carmel, Hamilton County 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 biannual basis within the alluvial aquifer near the White River. Locations of observation wells where measurements were made are shown in figure 13.

Previous water-levels for this monitoring well network were first published in the 2000 and 2001 water year version 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.--53 entries from September 1974 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 18.99 ft below land-surface datum, Apr. 4, 1991; lowest, 23.53 ft below land surface datum, Sep. 5, 1986.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR 2002.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 25	19.75	SEP 19	21.66

- -

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 eastside at slight jog 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.--49 entries from September 1974 to current year. Measured irregularly in semi-annual status.

EXTREMES FOR THE PERIOD OF RECORD.--Highest water level, 15.77 ft below land-surface datum, Sep. 9, 1974; lowest, dry on numerous dates.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER, YEAR 2002.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 25	21.55	SEP 23	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 744.42 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of well casing, 0.25 ft above land-surface datum.

REMARKS.--Water level may be affected by nearby mining.

PERIOD OF RECORD.--43 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, Apr. 23, 1982; lowest, 16.69 ft below land surface datum, Oct. 27, 1988.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR 2002.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 25	6.60	SEP 19	11.56

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GROUND-WATER LEVELS FOR THE ALLUVIAL AQUIFER NEAR THE CITY OF CARMEL, HAMILTON COUNTY NETWORK--Continued

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 Carmel Utility Wells.

PERIOD OF RECORD.--49 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, Apr. 14, 1975; lowest, 48.17 ft below land surface datum, Sep. 23, 1999.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR 2002.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 25	42.21	SEP 19	41.40

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GROUND-WATER LEVELS FOR THE ALLUVIAL AQUIFER NEAR THE CITY OF CARMEL, HAMILTON COUNTY NETWORK--Continued

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, screened to 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 Carmel City Utilities Water Department well field. Carmel Utility well field.

PERIOD OF RECORD.--51 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, Apr. 27, 1978; lowest, 24.75 ft below land surface datum, Sep. 07, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR 2002.

DATE	WATER LEVEL	DATE	WATER LEVEL
APR 25	19.30	SEP 19	18.04

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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$^{1}/_{4}$NW$^{1}/_{4}$NW$^{1}/_{4}$ 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.--Well installed September 2002, measured irregularly.

WATER LEVEL.--Only measurement, 10.74 ft below land-surface datum, Sept. 23, 2002.

- -

400000086023001. Local number HA-5.

LOCATION.--Lat 40°00′00″, long 86°02′30″, in NE$^{1}/_{4}$NE$^{1}/_{4}$NW$^{1}/_{4}$ sec.23, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, well is 20 ft south of the intersection of 146th Street at the intersection of Grayland Place, 0.8 mi east of Cherry Tree Road.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel outwash deposit, White River valley-train of Pleistocene age, Atherton Formation.

WELL CHARACTERISTICS.--Bored hole, diameter 12.0 in., depth 86.0 ft, Well diameter 6 in., cased to 82.0 ft, screened to 86.0 ft.

INSTRUMENTATION.--None in WY2002.

DATUM.--Elevation of land-surface datum is 755.17 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of inner well casing, 3.50 ft above land surface datum.

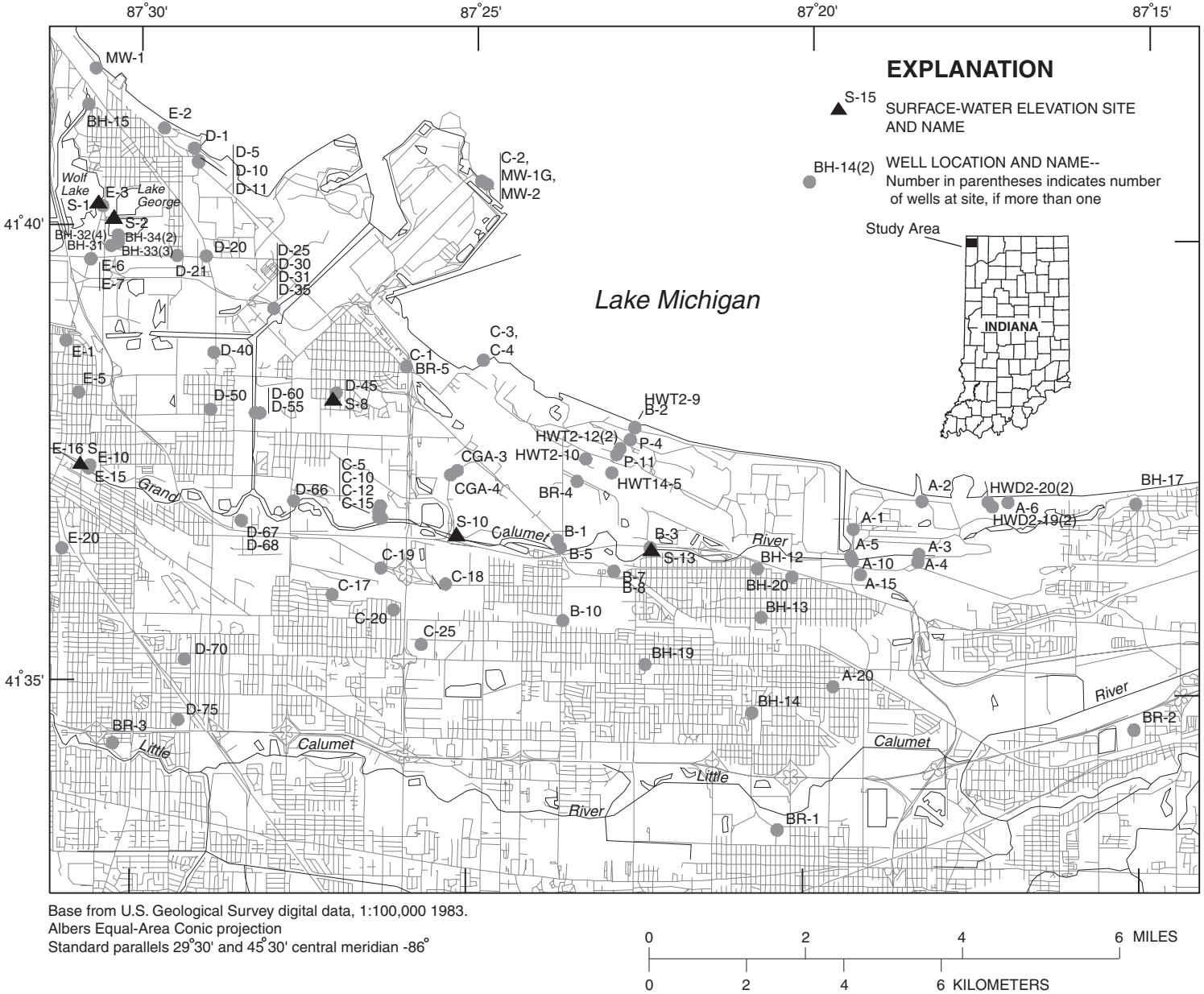
REMARKS.--Replaces original well HA-5 which was removed in May 2000. Well affected by pumpage.

PERIOD OF RECORD.--Continuous record July 1965 to September 1971, July 1974 to September 1999. Replacement well installed September 17, 2002, measured irregularly in September 2002.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.39 ft below land-surface datum, Dec. 31, 1991; lowest, 16.07 below land-surface datum, Sep. 19, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR 2002.

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
SEP 19	16.07	SEP 23	15.10	SEP 26	15.35



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 11.--Locations of wells in the Northern Lake County 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 11.

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

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

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-01-1, and on page 560 of this report.

Table 2. Period of record for observation wells in the Northern Lake County network.

Well name	Period of Record Beginning (month–year)	Period of Record End (month–year)	Well name	Period of Record Beginning (month–year)	Period of Record End (month–year)
A-1	10-1985	09-2002	C-19	12-1986	09-2002
A-2	06-1987	09-2002	C-20	08-1985	03-2002
A-3	06-1987	03-1998	C-25	12-1985	09-2002
A-4	06-1987	09-2002	CGA-3	10-1985	03-1999
A-5	12-1985	09-2002	CGA-4	10-1985	08-1999
A-6	07-1987	09-2002	D-1	08-1985	09-2002
A-10	10-1985	09-2002	D-5	08-1985	09-2002
A-15	10-1985	09-2002	D-10	08-1985	09-2002
A-20	01-1986	09-2002	D-11	06-1987	09-2002
B-1	08-1985	09-1999	D-20	08-1985	01-1995
B-2	06-1987	09-2002	D-21	07-1987	09-2002
B-3	07-1987	06-2000	D-25	12-1985	09-2002
B-5	08-1985	09-2002	D-30	12-1985	09-2002
B-7	06-1987	09-2002	D-31	07-1987	09-2002
B-8	07-1987	09-2002	D-35	12-1985	06-2001
B-10	12-1985	09-2002	D-40	10-1985	09-2002
BH-12	06-1992	09-2002	D-45	10-1985	09-2002
BH-13	06-1992	09-2002	D-50	12-1985	09-2002
BH-14	06-1992	09-2002	D-55	10-1985	01-1995
BH-15	06-1992	09-2002	D-60	10-1985	01-1995
BH-17	06-1992	09-2002	D-66	07-1987	09-2002
BH-19	06-1992	09-2002	D-67	07-1987	09-2002
BH-20	06-1992	09-1998	D-68	07-1987	09-2002
BH-31	04-1993	09-1998	D-70	01-1986	09-2002
BH-32-D	07-1996	09-2001	D-75	01-1986	09-2002
BH-32-I	07-1996	09-2001	E-1	12-1985	09-2002
BH-32-S	07-1996	09-2001	E-2	06-1987	09-2002
BH-32-SL	07-1996	09-2001	E-3	06-1987	09-2002
BH-33-I	07-1996	03-2002	E-5	08-1985	09-2002
BH-33-S	07-1996	03-2002	E-6	06-1987	09-2002
BH-33-SL	07-1996	03-2002	E-7	06-1987	09-2002
BH-34-D	06-1996	07-1998	E-10	10-1985	09-2002
BH-34-SH	06-1996	07-1998	E-15	10-1985	04-2002
BR-1	01-1995	09-2002	E-20	08-1985	06-2002
BR-2	01-1995	09-2002	HWD2-19D	07-1995	09-2002
BR-3	07-1995	09-2002	HWD2-19S	07-1995	09-2002
BR-4	07-1995	09-2002	HWD2-20D	07-1996	09-2002
BR-5	07-1995	09-2002	HWD2-20S	07-1996	09-2002
C-1	12-1985	09-2002	HWT2-9	12-1985	09-2002
C-2	07-1987	09-1998	HWT2-10	12-1985	12-1997
C-3	06-1987	09-2002	HWT2-12D	12-1992	12-1998
C-4	06-1987	09-2002	HWT2-12S	06-1992	12-1998
C-5	10-1985	09-2002	HWT14-5	12-1985	09-2002
C-10	10-1985	09-2002	P-4	12-1985	09-2002
C-12	08-1987	09-2002	P-11	10-1985	09-2002
C-15	10-1985	03-1998	MW-1	06-1992	09-2002
C-17	07-1986	09-2001	MW-1G	10-1992	09-2002
C-18	06-1987	06-2000	MW-2	10-1992	09-2002

GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water-level records for observation wells in the Northern Lake County network, collected during water year 2002 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 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 12	18.65	MAR 27	19.28	JUL 10	18.55	SEP 04	18.96

WATER YEAR 2002 HIGHEST 18.55 JUL 10, 2002 LOWEST 19.28 MAR 27, 2002
PERIOD OF RECORD HIGHEST 15.72 SEP 08, 1993 LOWEST 20.12 MAR 29, 2000
RECORD AVAILABLE FROM OCT 24, 1985 TO SEP 04, 2002 58 ENTRIES

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

Table 3. Water level records for observation wells in the Northern Lake County network, water years 1993-2002.—Continued

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Table 4. Location and description of surface-water stage measurement sites in Northern Lake County network measured during water year 2002.

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, Ind.
S-2	Lake George	41°40′06″/87°30′23″	414006087302301	125th Street, east of Calumet Ave., Hammond, Ind.
S-8	Sewer	41°38′08″/87°27′05″	413808087270501	Sewer grate, Washington Park, East Chicago, Ind.
S-10	Grand Calumet River	41°36′40″/87°25′13″	413640087251301	Confluence with drainage ditch, Gary, Ind.
S-13	Grand Calumet River	41°36′32″/87°22′18″	413632087221900	At Bridge Street bridge, Gary, Ind.
E-16S	Grand Calumet River	41°37′19″/87°30′44″	413719087304302	Spohn School, Hammond, Ind

MISCELLANEOUS PROJECT DATA

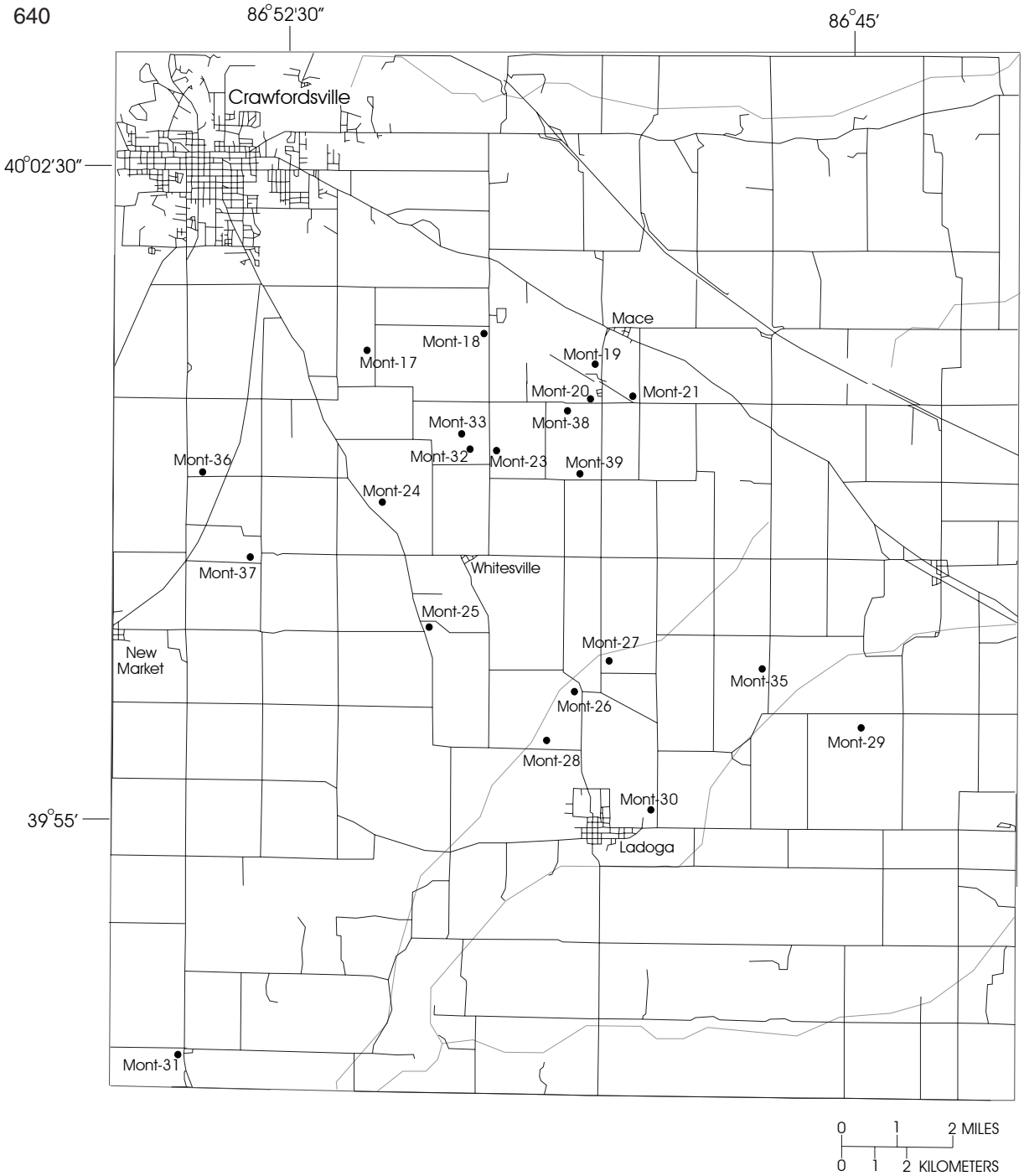
GROUND-WATER AND SURFACE-WATER LEVELS IN NORTHERN LAKE COUNTY, INDIANA

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 09-2002	DEC 10, 2001	1.32	583.22
			MAR 26, 2002	1.40	583.29
			JUL 09, 2002	0.06	582.85
			SEP 04, 2002	1.53	582.99
S-2	414006087302301	05-1986 through 07-2002	DEC 11, 2001	0.72	579.69
			JUL 09, 2002	1.35	582.82
S-8	413808087270501	01-1986 through 09-2002	DEC 11, 2001	1.62	579.98
			MAR 26, 2002	1.40	583.07
			JUL 10, 2002	1.66	583.04
			SEP 05, 2002	1.73	
S-10	413640087251301	11-1985 through 12-2001	DEC 12, 2001	3.23	581.81
S-13	413632087221900	10-1988 through 09-2002	DEC 11, 2001	18.05	582.11
			MAR 26, 2002	18.04	617.74
			JUL 08, 2002	16.60	616.96
			SEP 06, 2002	17.45	617.47
E-16S	413719087304302	12-1985 through 09-2002	DEC 11, 2001	6.64	582.22
			MAR 26, 2002	5.91	595.58
			JUL 09, 2002	5.15	594.31
			SEP 03, 2002	17.39	595.92

[1] Several sites have multiple measuring points to accommodate changing site conditions.



Explanation

- Mont-17 Wells completed in the upper-weathered bedrock aquifer and sampled for arsenic in January and February, 2002

Figure 12.--Montgomery County wells sampled for arsenic in January and February, 2002.

ANALYTICAL RESULTS FOR SAMPLES COLLECTED FROM WELLS IN MONTGOMERY COUNTY

Arsenic-concentration data listed below are from water samples collected at miscellaneous wells in Montgomery County, Indiana. Samples were collected in January and February 2002. All wells included in this sampling were completed in an upper-weathered bedrock aquifer. The sampling was conducted through a cooperative agreement between the Montgomery County Commissioners and the U.S. Geological Survey

{USGS, U.S. Geological Survey; µg/L, micrograms per liter; CR, County Road; US, U.S. Highway; E and S, denote the geographic directions of east and south; <, less than]

Site name	Site location	USGS site identification	Date sampled	Dissolved arsenic concentration (µg/L)
Mont-17	CR250E near Crawfordsville	400004086512601	01/28/2002	<2.0
Mont-18	CR400E near Mace	400034086494201	01/23/2002	<2.0
Mont-19	CR550E at Linnsburg	400010086480101	01/23/2002	2.2
Mont-20	CR300S at Linnsburg	395946086480301	01/23/2002	10
Mont-21	CR600E at Linnsburg	395946086472701	01/23/2002	3.0
Mont-23	CR400E near Whitesville	395917086493801	01/23/2002	2.8
Mont-24	Ladoga Rd near Whitesville	395832086512201	02/05/2002	50
Mont-25	CR325 near Whitesville	395714086503901	01/23/2002	<2.0
Mont-26	CR525E near Ladoga	395637086482701	01/28/2002	<2.0
Mont-27	CR550E near Ladoga	395650086475701	01/28/2002	4.0
Mont-28	CR750S near Ladoga	395555086485001	01/28/2002	<2.0
Mont-29	CR700S near New Ross	395605086442001	01/28/2002	<2.0
Mont-30	CR625E at Ladoga	395501086470801	01/28/2002	2.1
Mont-31	US231 at Parkersburg	395222086541101	01/28/2002	<2.0
Mont-32	CR350S near Whitesville	395917086494701	01/23/2002	2.3
Mont-33	CR350S near Whitesville	395922086495501	01/23/2002	3.3
Mont-35	CR775E near Ladoga	395653086452801	01/28/2002	<2.0
Mont-36	CR400S near New Market	395855086540001	02/05/2002	2.0
Mont-37	CR510S near New Market	395756086531101	02/05/2002	<2.0
Mont-38	CR300S at Linnsburg	395943086483101	02/05/2002	<2.0
Mont-39	CR400S near Linnsburg	395854086481301	02/05/2002	<2.0

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CONVERSION FACTORS

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$°F = (1.8 \times °C) + 32$$