

# CALENDAR FOR WATER YEAR 1994

1993

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

1994

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



# Water Resources Data Indiana Water Year 1994

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT IN-94-1  
Prepared in cooperation with the State of Indiana  
and with other agencies

**U. S. DEPARTMENT OF THE INTERIOR**

**BRUCE BABBITT, Secretary**

**U.S. Geological Survey**

**Gordon P. Eaton, Director**

**For additional information, write to  
District Chief, Water Resources Division  
U.S. Geological Survey  
5957 Lakeside Boulevard  
Indianapolis, Indiana 46278**

## PREFACE

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

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

D.V. Arvin	R.J. Lewins
P.R. Baker	D.K. Majors
J. R. Davis	S. E. Morlock
T.J. Eaton	H.T. Nguyen
J. H. Ibsen	R.R. Ondrish
T.M. Kelly	M.S. Rehmel
R.G. Knapp	B.T. Reinking
P.H. Laird	D.C. Voelker

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

J. R. Davis	M. S. Hopkins	L. M. Huff	D. K. Majors
-------------	---------------	------------	--------------

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

**REPORT DOCUMENTATION PAGE**Form Approved  
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503

1. AGENCY USE ONLY (Leave blank)

2. REPORT DATE

May 1995

3. REPORT TYPE AND DATES COVERED

Annual-Oct. 1, 1993 to Sept. 30, 1994

4. TITLE AND SUBTITLE

Water Resources Data--Indiana, Water Year 1994

5. FUNDING NUMBERS

6. AUTHOR(S)

J.A. Stewart, C.R. Keeton, B.L. Benedict and L.E. Hammil

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

U.S. Geological Survey, Water Resources Division  
5957 Lakeside Boulevard  
Indianapolis, Indiana 462788. PERFORMING ORGANIZATION  
REPORT NUMBER

USGS-WDR-IN-94-1

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

U.S. Geological Survey, Water Resources Division  
5957 Lakeside Boulevard  
Indianapolis, Indiana 4627810. SPONSORING / MONITORING  
AGENCY REPORT NUMBER

USGS/WDR/HD-94-283

11. SUPPLEMENTARY NOTES

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

12a. DISTRIBUTION / AVAILABILITY STATEMENT

No restriction on distribution. This report may be purchased from: National  
Technical Information Service, Springfield, Virginia 22161.

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

Water resources data for the 1994 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 6 stream stations, 1 sediment station, stage and contents for 1 reservoir, water quality for 2 streams, and water levels for 80 lakes and 94 observation wells. These data represent that part of the National Water Data System operated by the U.S. Geological Survey in Indiana in cooperation with State and Federal agencies.

14. SUBJECT TERMS

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

15. NUMBER OF PAGES

360

16. PRICE CODE

17. SECURITY CLASSIFICATION  
OF REPORT

Unclassified

18. SECURITY CLASSIFICATION  
OF THIS PAGE

Unclassified

19. SECURITY CLASSIFICATION  
OF ABSTRACT

20. LIMITATION OF ABSTRACT

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

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

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

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
<b>WABASH RIVER BASIN</b>			
Little Williams Creek at Connersville	03274950	9.16	1968-91
East Fork Whitewater River at Richmond	03275500	121	1949-78
Laughery Creek near Farmers Retreat (a)	03277000	248	1941-73
Indian Creek near Corydon	03302500	129	1943-93
Whiskey Run at Marengo (d)	03302849	7.02	1986-93
Friday Branch tributary near Saint Meinrad (b)	03303276	.096	1981
Little Pigeon Creek near Tennyson	03304000	187	1944-47
Pigeon Creek at Evansville	03322100	323	1960-85
Wabash River near New Corydon	03322500	262	1951-88
Wabash River at Bluffton	03323000	532	1930-71, 1987-92 (d)
Salamonie River at Portland	03324200	85.6	1959-93
Mississinewa River near Eaton (b)	03326000	310	1952-71
Wabash River at Delphi	03329500	4,072	1940-71
Tippecanoe River near Warsaw	03331000	126	1943-49
Tippecanoe River at Pulaski	03332000	1,089	1928-31
Little Indian Creek near Royal Center (a)	03332300	35.0	1959-73
Tippecanoe River at Buffalo (e)	03332345	1,285	1986-92
Big Monon Creek near Francesville (a)	03332400	152	1959-73
Tippecanoe River near Monticello (c)	03332500	1,732	1932-81
Rattlesnake Creek near Patton	03329400	6.83	1968-93
Wildcat Creek at Greentown	03333500	168	1945-61
Big Pine Creek near Williamsport	03335700	323	1955-87
East Fork Coal Creek near Hillsboro	03339108	33.4	1968-91
Coal Creek at Coal Creek	03339120	214	1965-72
Little Vermilion River near Newport	03339150	237	1965-72
Sugar Creek tributary near Deer Mill (b)	03339855	.45	1981
Sugar Creek near Byron (b)	03340000	670	1941-71
Big Raccoon Creek at Mansfield (d)	03341000	248	1939-58
Little Raccoon Creek near Catlin (d,g)	03341200	134	1957-71
Big Raccoon Creek near Mecca (d)	03341315	473	1988-92
Brouilletts Creek near Universal (b)	03341420	321	1966-71
North Coal Creek near Terre Haute	03341470	1.91	1974-76
Honey Creek near Riley (b)	03341570	5.79	1981
West Fork Busseron Creek near Hymera	03342150	14.4	1966-86
Mud Creek near Cass	03342244	9.16	1981-91
Mud Creek near Dugger	03342250	11.9	1966-81
Busseron Creek near Sullivan	03342300	138	1966-86
Buttermilk Creek near Paxton	03342350	16.5	1966-73
Buttermilk Creek near Sullivan	03342360	17.6	1975-78
South Fork Smalls Creek at Bruceville (b,g)	03342800	4.94	1972-75
White River at Anderson	03348000	406	1925-26, 1931-93
Killbuck Creek near Gaston	03348020	25.5	1968-91
Killbuck Creek near Anderson	03348100	97.8	1964-68
White River near Noblesville	03348500	828	1915-26, 1929-74 (b)
Cicero Creek near Arcadia (a)	03349500	131	1955-76
Little Cicero Creek near Arcadia (a)	03349700	40.4	1956-76
Cicero Creek near Cicero	03350000	196	1946-54
Hinkle Creek near Cicero (a)	03350100	18.5	1956-76
Cicero Creek at Noblesville	03350500	216	1950-80, 1985-92
Sugar Creek near Middletown	03351400	5.80	1969-89
Lawrence Creek at Fort Benjamin Harrison	03352000	2.74	1952-56, 1958-69
Mud Creek at Indianapolis (a)	03352200	42.4	1958-76
Fall Creek at 16th St. at Indianapolis	03352875	317	1985-91
Pleasant Run at Brookville Road at Indpls.	03353160	10.1	1960-81
Bean Creek at Indianapolis	03353180	4.4	1970-93

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
WABASH RIVER BASIN--Continued			
White River at Waverly	03353660	2,026	1986-88
Beanblossom Creek at Beanblossom	03354500	14.6	1951-93
Bear Creek near Trevlac (a)	03355000	6.94	1952-73
Beanblossom Creek at Dolan	03356000	100	1946-78
Beanblossom Creek near Bloomington	03356500	112	1931-33
Big Walnut Creek at Greencastle	03357420	216	1975-82
Deer Creek near Putnamville	03359500	59.0	1955-65, 1968-72
Jordan Creek near Jordan (b)	03359980	25.9	1981
Driftwood River near Edinburgh	03363000	1,060	1940-91
Haw Creek near Clifford	03364200	47.5	1967-91
Sand Creek near Brewersville	03365000	155	1948-86
Graham Creek near Vernon	03366000	77.2	1955-73
Muscatatuck River near Austin	03367000	359	1932-43, 1944-71 (f)
Stucker Creek near Austin	03367500	127	1932-33
Vernon Fork near Crothersville	03370000	391	1932-33
Muscatatuck River near Tampico	03370500	960	1939
Muscatatuck River near Vallonia	03371000	1,134	1932-33
South Fork Salt Creek at Kurtz	03371600	38.2	1961-71, 1972-75 (e)
North Fork Salt Creek at Nashville (a)	03371650	76.1	1962-76
North Fork Salt Creek near Belmont	03372000	120	1946-71
Stephens Creek near Bloomington	03372300	10.9	1970-91
Clear Creek near Harrodsburg	03372700	55.2	1960-71
Salt Creek near Peerless	03373000	573	1939-50, 1957-71, 1971-84 (d)
Indian Creek near Springville (a)	03373200	60.7	1961-73
Lost River near West Baden Springs	03373700	287	1964-93
White River at Hazleton (h)	03374100	11,305	1928-38
Patoka River near Jasper (g)	03376000	348	1944-47
Flat Creek near Otwell	03376260	21.3	1965-82
Little Flat Creek near Otwell (b)	03376279	6.56	1981
South Fork Patoka River near Spurgeon	03376350	42.8	1964-86

## STREAMS TRIBUTARY TO LAKE MICHIGAN

Dunes Creek at Porter	04095050	3.40	1979-82
Burns Ditch at Gary (g)	04093500	160	1943-91
Salt Creek near McCool	04094500	74.6	1945-91
Derby Ditch at Beverly Shores	04095100	4.64	1980
Lime Lake outlet at Panama	04097970	17.5	1969-86
Fawn River at Orland	04098000	86.4	1943-47
Pigeon Creek and Hogback Lake near Angola	04099500	103	1946-74
Pretty Lake Inlet near Stroh	04099610	1.96	1963-80
Christiana Creek at Elkhart	04100000	127	1947-52
North Branch Elkhart River near Cosperville	04100220	134	1951-71
Turkey Creek at Syracuse	04100465	43.8	1969-87

## STREAMS TRIBUTARY TO LAKE ERIE

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

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

Station name	Station number	Drainage area (mi <sup>2</sup> )	Period of record
UPPER MISSISSIPPI RIVER BASIN			
Kingsbury Creek near LaPorte	05515400	7.08	1970-86
Yellow River near Bremen (a)	05516000	135	1955-73
Singleton Ditch near Hebron	05518500	34.2	1949-51
West Creek near Schneider	05519500	54.7	1948-52, 1954-72
Singleton Ditch at Illinois, IL	05520000	220	1945-77
Oliver Ditch near Aix	05521500	79.6	1948-51
Iroquois River near North Marion	05522000	144	1948-93
Bice Ditch at South Marion	05523000	21.8	1948-93
Slough Creek near Collegeville	05523500	83.7	1948-52, 1953-82
Carpenter Creek at Egypt	05524000	44.8	1948-52, 1953-82

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

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

xix

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 <sup>2</sup> )	Type of Record	Period of record
<b>WABASH RIVER BASIN</b>				
East Fork Whitewater River at Abington	03275600	198	C T T	1969-76, 1970-71, 1973-76
East Fork Whitewater at Brookville	03276000	380	C,T	1974-75
Whitewater River at Brookville	03276500	1224	T C	1974-81, 1974-86
South Hogan Creek near Dillsboro	03276700	38.1	C,T,S	1961-93
Trib to Friday Branch at St. Meinard	03303276	.096	C,T,S	1980-81
Wabash River near New Corydon	03322500	262	C	1969-73
Wabash River at Huntington	03323500	710	T	1963-77
Salamonie Creek at Warren	03324288	402	T	1980-81
Mississinewa River at Marion	03326500	682	C,T	1975-76,79
Eel River near Logansport	03328500	789	S,T	1969-80
Wildcat Creek near Lafayette	03335000	794	C T	1970-79, 1970-74
Wabash River at Lafayette	03335500	7247	T T S	1954-64, 1967-75, 1978-80
Big Pine Creek at Williamsport	03335700	323	C T	1970-76, 1970-75,
Big Raccoon Creek near Fincastle	03340800	132	C,T,S T	1980-81, 1965-77,
Honey Creek at Riley	03341570	5.79	C C,T,S	1975-77, 1980-81
Wabash River near Sullivan	03341805	12,600	C,T	1963-64
Wabash River at Riverton	03342000	13,100	T T T	1954-61, 1962-65, 1967-78
South Fork Smalls Creek at Bruceville	03342800	4.94	C	1973-75
White River at Noblesville	03348500	814	T	1952-76
White River near Nora	03351000	1200	T T	1954-60, 1962-72
Big Walnut Creek at Greencastle	03357420	216	C,T	1973-77
Mill Creek at Cataract	03358000	245	C,T	1978-82
Jordan Creek at Jordan	03359980	25.9	C,T	1980-81
Big Blue River at Carthage	03361000	184	T C,T S	1974-77, 1979-82, 1977-81,
Flatrock River at St. Paul	03363500	303	C C,T	1973-77, 1976-79
Clifty Creek at Hartsville	03364500	91.4	C,T	1970-75
East Fork White River at Seymour	03365500	2333	S T	1966-80, 1954-79
North Fork Salt Creek near Nashville	03371650	761	C,T	1974-76
Salt Creek near Harrodsburg	03372500	441	T	1966-76
White River at Petersburg	03374000	11125	T	1964-77
White River near Hazelton	03374100	11305	T S	1973-81, 1973-83,
Patoka River near English	03374470	308	C T C	1973-86, 1970-76, 1969-76
Little Flat Creek near Otwell	03376279	6.36	C,T,S	1980-81
Wabash River at New Harmony	03378500	29234	T C S	1974-80, 1974-86, 1974-83
<b>STREAM TRIBUTARY TO LAKE MICHIGAN</b>				
Trail Creek near Michigan City	04095300	54.1	C,T	1977-81
<b>STREAMS TRIBUTARY TO LAKE ERIE</b>				
St. Joseph River near Newville	04178100	615	C	1969-73
St. Marys River at Wilshire	04181050	435	C	1969-73
St. Marys River near Ft Wayne	04182000	762	S T	1953-67, 1964-67
<b>UPPER MISSISSIPPI RIVER BASIN</b>				
Yellow Creek near Plymouth	05516500	29.4	S,T	1979-81



# WATER RESOURCES DATA - INDIANA, 1994

## 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 1994 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 6 gaging stations, stage and contents at 1 reservoir, water quality at 2 stream sites, sediment discharge at 1 gaging station, water levels at 80 lakes, and water levels at 94 observation wells. Locations of the streamflow and water-quality sites, are shown on figures 5, and 6. The number of lakes and ground-water observation wells by county having 1993 water-level records are shown on figures 7, and 8. A systematic collection of stages on selected lakes was begun in 1943 in cooperation with the State of Indiana, Department of Natural Resources. The data collected since the beginning of record have not been published previously in the annual water data reports for Indiana. They are available from the Indiana District Office. A selected amount of lake data was published in Water-Supply Paper 1363, "Hydrology of Indiana Lakes," by J. I. Perrey and D. M. Corbett (1956). Additional lake data were published in Open-File Report 88-331, "Annual maximum and minimum lake levels for Indiana, water years 1942-85," by Kathleen K. Fowler (1988). These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Indiana.

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

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

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

Publications similar to this report are published annually by the U.S. Geological Survey for all States. These official U.S. Geological Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report IN-94-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Every five years since 1950 the Geological Survey has compiled data on water use in the United States. During 1993, this effort was completed again for 1990 use in Indiana primarily through the auspices of the Water Management Branch, Division of Water, Indiana Department of Natural Resources. The Water Management Branch found that in 1990 more than 9 billion gallons per day were withdrawn from the surface- and ground-water resources of Indiana to meet the needs of its citizens. Approximately 93 percent of this withdrawal was from surface-water sources. Indiana used 2.48 billion gallons per day of fresh water for industrial use, more than any other state in the nation for this category. The largest category of use in Indiana was thermoelectric power production, for which 5.96 billion gallons per day were used.

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

## COOPERATION

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

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

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

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

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

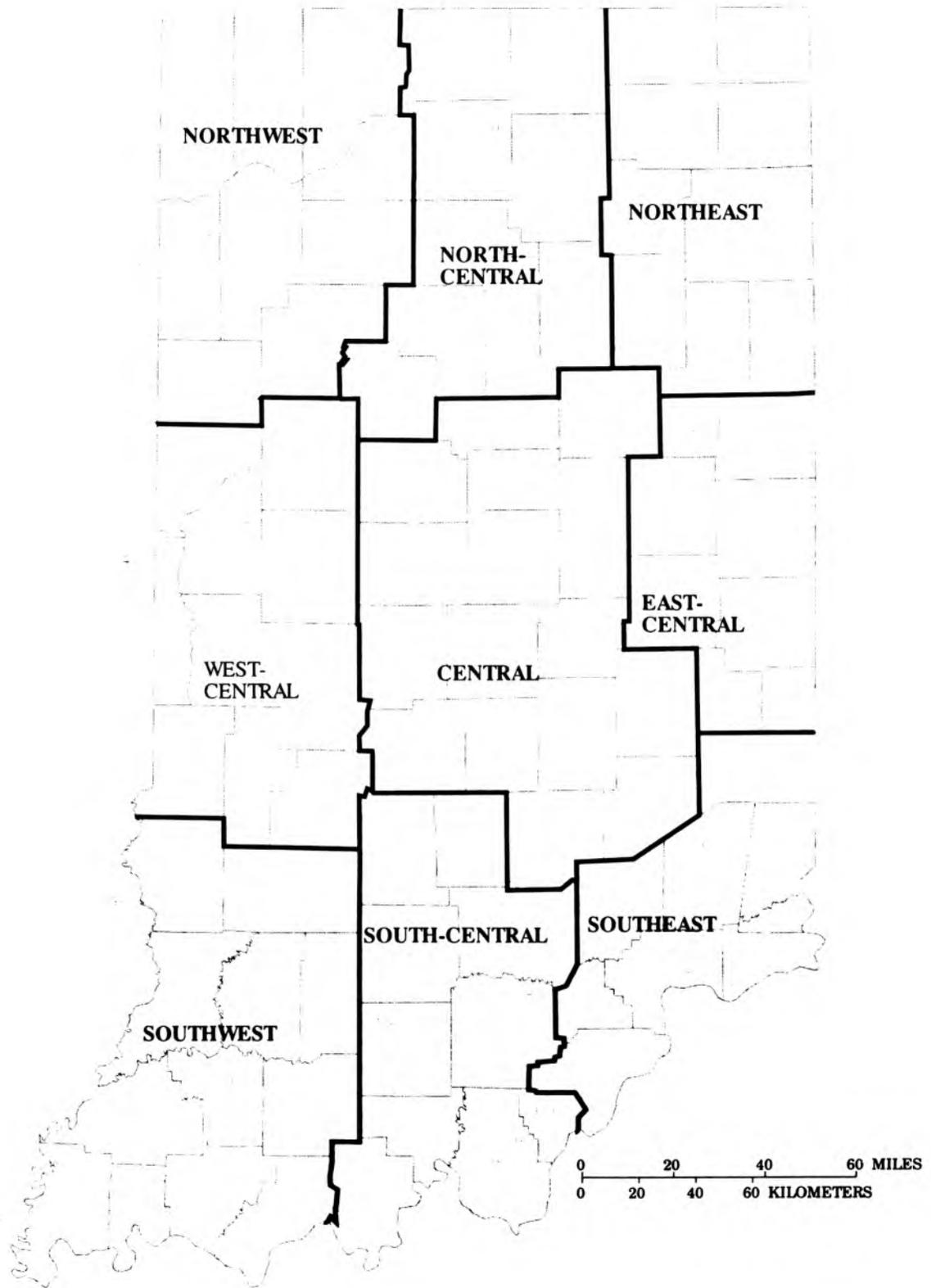
The following organizations aided in collecting records: The cities of Carmel, Columbus, Elkhart, Fort Wayne, Indianapolis, and Hoosier Energy; Indianapolis Water Co.; Indianapolis Power and Light Co.; Public Service Company of Indiana; Container Corporation of America; Prudential Insurance Co.; Northern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

## SUMMARY OF HYDROLOGIC CONDITIONS

### Precipitation

The average long-term (1961-90) precipitation in Indiana ranges from about 36 inches in the northeast climatic division (Indiana's climatic divisions are shown in figure 1) to nearly 46.5 inches in the south-central climatic division (Ken Sheeringa, Indiana State Climatologist, written commun., 1994). The 1994 water year precipitation amounts in Indiana's climatic divisions did not depart significantly from the long-term average yearly precipitation amounts. Departures of water year 1994 precipitation from the long-term average ranged from about one-half to nearly three inches for all climatic divisions except for the northeast, which departed approximately 6.5 inches from the long-term average. All climatic division precipitation amounts for water year 1994 were less than the respective long-term average precipitation amounts. The long-term average precipitation and precipitation for the 1994 water year are compared by climatic division in figure 2.

Monthly precipitation amounts in climatic divisions ranged from a low of 29 percent of the monthly long-term average in the east-central climatic division in March to a high of 174 percent of the monthly long-term average in the northwest climatic division in October. Monthly precipitation amounts state-wide were generally above the long-term averages for November, January, April and June; and generally below the long-term averages for December, February, March, May, July, and September. August monthly precipitation amounts state-wide were very close to the long-term average amounts. Monthly precipitation amounts during water year 1994, expressed as a percentage of the monthly long-term average precipitation for the period 1961-90 are shown in table 1.



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

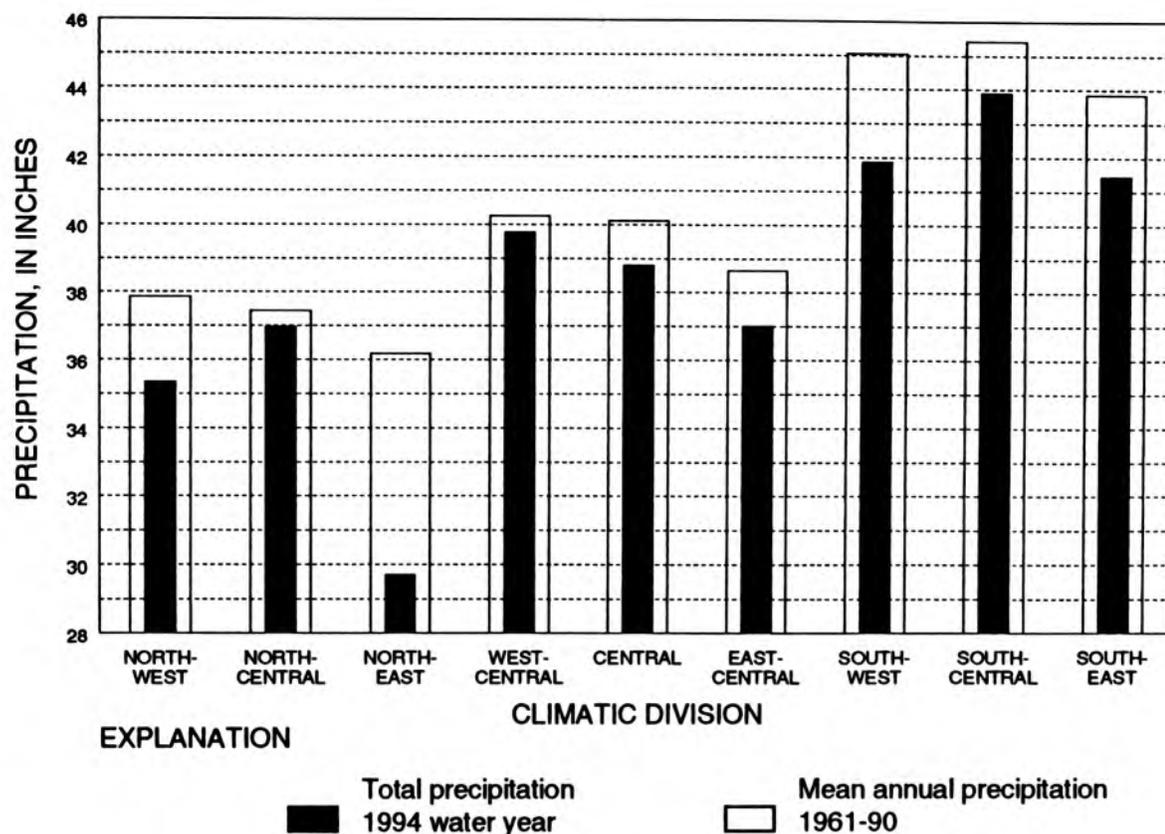


Figure 2.--Indiana precipitation during 1994 water year and mean annual precipitation for period 1961-90.

Table 1.--Monthly precipitation during water year 1994 as a percentage of mean monthly precipitation for the period 1961-90

Climatic division	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
Northwest	173	103	59	111	73	38	116	42	147	113	95	42
North-central	129	99	44	119	57	44	140	60	156	136	98	65
Northeast	87	106	41	130	49	36	148	48	112	88	90	43
West-central	115	185	52	121	42	36	181	72	94	86	96	91
Central	105	202	66	127	54	27	145	74	125	67	98	74
East-central	103	221	74	138	55	29	120	67	109	86	101	51
Southwest	106	188	76	129	69	35	153	52	83	56	90	113
South-central	132	148	87	134	82	41	150	79	85	45	92	127
Southeast	107	141	93	108	87	56	161	69	77	83	93	70

### Surface Water

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

The index station Mississinewa River at Marion is located in Randolph County (the locations of all Indiana surface-water stations, including the index stations, are shown in figure 5), in the east-central climatic division. The drainage area above this station is 682 square miles. Mean monthly discharges at this station for the 1994 water year were greater than the long-term (1961-90) median monthly discharges for the months of November, December, January, and April. Monthly precipitation in the east-central climatic division for these months was 103, 221, 138 and 120 percent, respectively, of the monthly long-term average precipitation. The remaining months of the 1994 water year, had mean discharges which were less than the long-term median monthly discharges. Precipitation amounts for these months were roughly equal to or below the monthly long-term average precipitation amounts. The mean discharge for the 1994 water year for this index station was close to the long-term median annual discharge, reflecting the relatively normal precipitation of the 1994 water year. Mean discharges during the 1994 water year and long-term median discharges for Mississinewa River at Marion are compared in figure 3.

The East Fork White River at Shoals index station, which has above it a drainage area of 4,927 square miles, is located in Martin County, within the southwest climatic division. For the 1994 water year October, November, December, January, February, April, and May had mean discharges which were greater than the long-term median discharges. The remaining months had mean discharges which were less than the long-term median discharges; in July August, and September, the mean discharges did not differ significantly from the long-term median discharges. The 1994 water year mean discharge was greater than the long-term median annual discharge for East Fork White River at Shoals, but the departure was small because of the relatively normal precipitation amounts. Mean discharges during the 1994 water year and long-term median discharges for East Fork White River at Shoals are compared in figure 3.

The index station Wabash River at Mount Carmel is located in Illinois, adjacent to Gibson County of Indiana. It is in the same climatic division, the southwest, as the index station East Fork White River at shoals. The drainage area of the Wabash River at this location is 28,635 square miles, and includes a large portion of Indiana. The pattern of monthly mean discharges for water year 1994 is very similar to the East Fork White River. As in the case of the East Fork White River, the mean discharge for the 1994 water year was than but did not depart significantly from annual long-term median discharge. Mean discharges during the 1994 water year and long-term median discharges for the Wabash River at Mount Carmel are compared in figure 3.

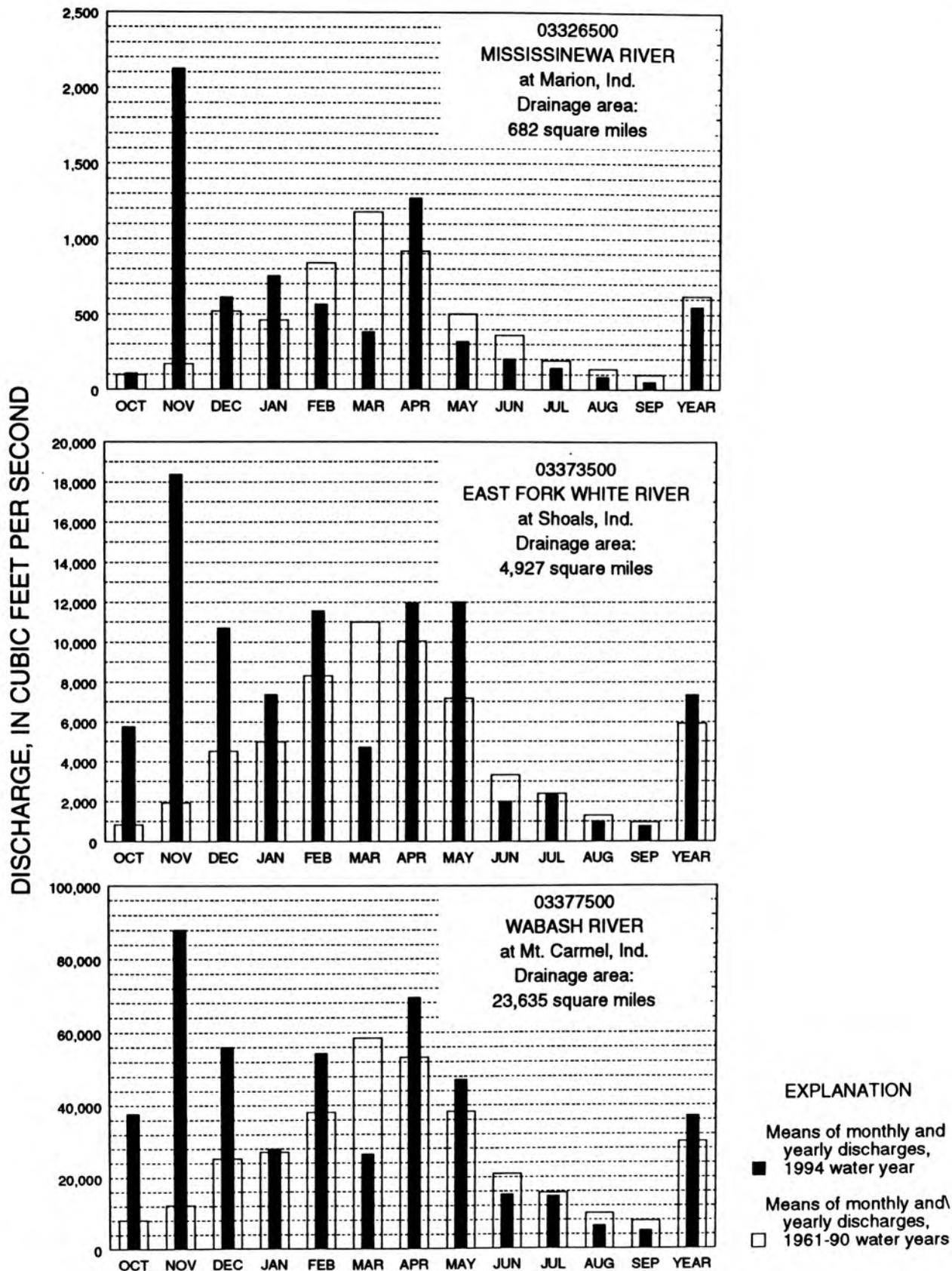


Figure 3.--Mean discharge at Indiana index stations during 1994 water year and median discharges for period 1961-90.

### Groundwater

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

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

The observation well Decatur 2 is located in a Devonian brown limestone aquifer, in the central climatic division. Generally, 1994 ground-water levels (in this discussion the term ground-water level(s) will refer to a height above an arbitrary datum; however, ground-water level data is normally quantified in terms of distance below a land-surface datum) were lower than normal (normal refers for ground-water level data for the period 1983-93), except for October and November, which had higher than normal levels. November had the highest level, which was indicative of the high (202 percent of long-term average) precipitation in the central climatic division. Monthly and annual mean of daily minimum ground-water levels for this observation well during the 1994 water year and for the period 1983-93 are shown in figure 4.

Martin 5 is located in a Pennsylvanian rock aquifer in the southwest climatic division of Indiana. The 1994 water year ground-water levels generally follow the normal seasonal pattern for Martin 5, with the high occurring May. Monthly and annual mean of daily minimum ground-water levels for this observation well during the 1994 water year and for the period 1983-93 are shown in figure 4.

The index observation well Elkhart 4 is located in the north-central climatic division, in a sand and gravel aquifer. For 1994 water year, the normal seasonal pattern of ground-water levels is generally followed; however, the highest monthly mean ground-water level occurred in November, most likely due to much higher than normal precipitation which occurred in the north-central climatic region during November. The ground water-levels were generally lower than normal for the 1994 water year. Monthly and annual mean of daily minimum ground-water levels for this observation well during the 1994 water year and for the period 1983-93 are shown in figure 4 (note that ground-water levels in the figure are give in feet below land-surface datum).

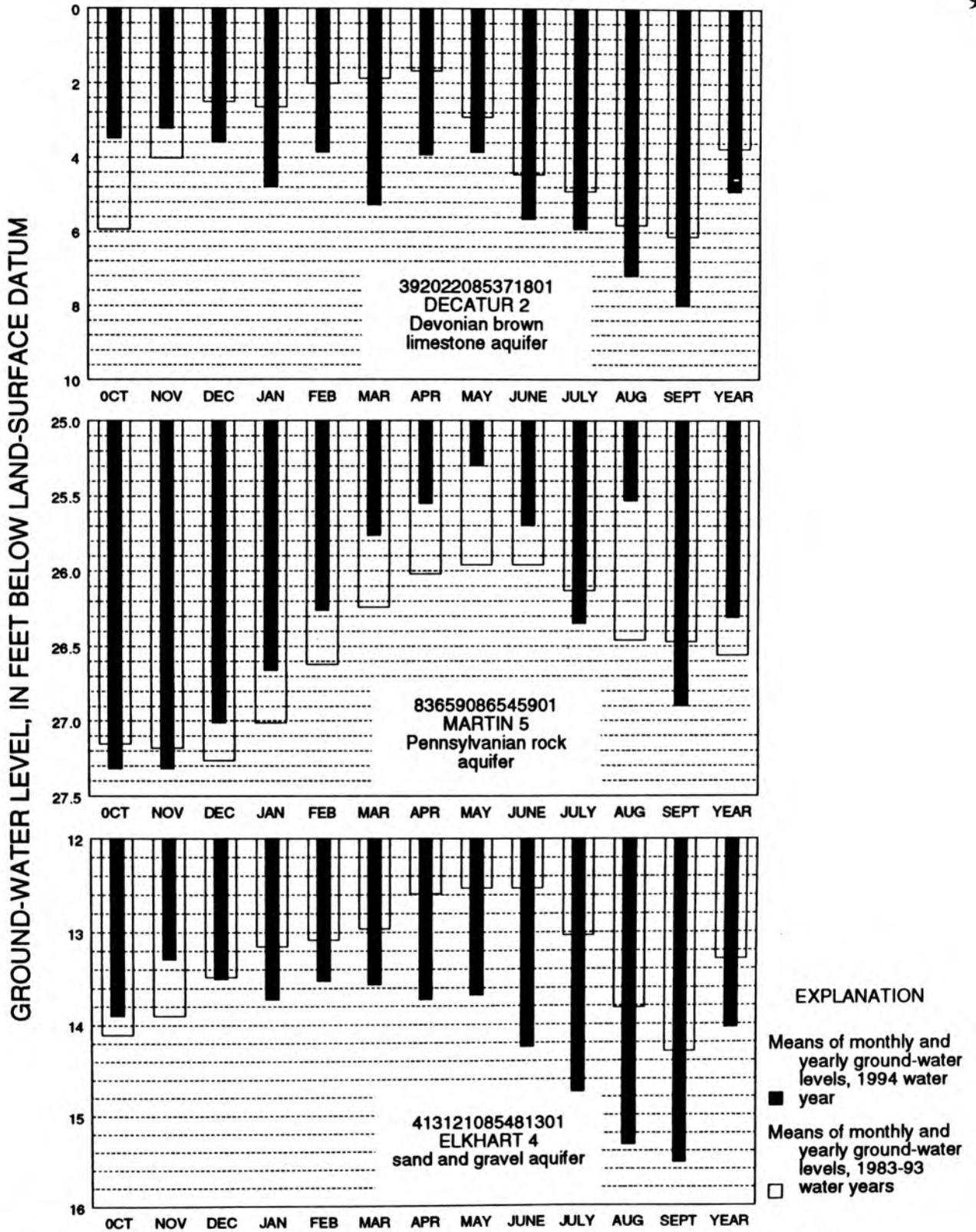


Figure 4.--Monthly and yearly mean of daily minimum ground-water levels at three Indiana ground-water observation wells during the 1994 water year and mean of monthly and yearly minimum ground-water levels for the period 1983-93.

## SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench Mark Network is a network of 53 sites in small drainage basins around the country whose purposes is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 284 sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) To obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, diverse, and geographically distributed part of the Nation's ground- and surface-water resources, and to identify, describe, and explain the major natural and human factors that affect these observed conditions and trends.

Assessment activities have begun in about two-thirds of the study units and ultimately will be conducted in 60 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.

Radiochemical Programs is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

## EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1994 water year that began October 1, 1993, and ended September 30, 1994. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow and stage data, stage and content data for a reservoir, water-quality data for surface water, and ground-water, lake-level data, peak-flow data, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

### Station Identification Numbers

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

### Downstream Order System

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

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

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

### Latitude-Longitude System

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

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

### Records of Surface-Water Stage and Discharge

#### Data Collection and Computation

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

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

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

Daily mean discharges are computed by applying the instantaneous stages (gage heights) to the stage-discharge curves or tables and then assigning the arithmetic mean. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction

factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

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

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

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

### Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less

information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

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

#### Station manuscript

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

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

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

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

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

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

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

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

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

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

Although rare, occasionally the records of a discontinued gaging station may need revision. Because for these stations there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would 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 of will be expressed as "FOR WATER YEARS \_\_\_\_ - \_\_\_\_, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

### Summary statistics

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### Identifying Estimated Daily Discharge

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

### Accuracy of the Records

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

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

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

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

### Other Records Available

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

### Records of Surface-Water Quality

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

### Classification of Records

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

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

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

### Arrangement of Records

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

#### On-site Measurements and Sample Collection

The major concern in obtaining water-quality data is assuring that the data represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, specific conductance, alkalinity, and dissolved oxygen, are made on-site when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are detailed in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These references are listed in PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS section of this report. These methods are consistent with ASTM standards and generally follow ISO standards.

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

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

### Laboratory Measurements

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

### Data Presentation

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

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

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

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

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

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

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

## Remark Codes

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

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

## Dissolved Trace-Element Concentrations

**NOTE.**--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ( $\mu\text{g/L}$ ) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are with the range of 10's to 100's of nanograms per liter ( $\text{ng/L}$ ). Present data above the  $\mu\text{g/L}$  level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994. Full implementation of the protocols will take place during the 1995 water year.

## Change in National Trends Network procedures

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

### Records of Lake Levels

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

#### Data Collection and Computation

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

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

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

#### Data Presentation

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

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

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

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

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

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

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

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

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

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

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

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

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

#### Records of Ground-Water Levels

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

### Data Collection and Computation

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

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

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

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

### Data Presentation

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

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

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

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

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

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

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

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

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

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

### Records of Ground-Water Quality

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

### Sample Collection and Analysis

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

### Data Presentation

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

### ACCESS TO WATSTORE DATA

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

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

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

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

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

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

#### DEFINITION OF TERMS

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

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

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

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

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

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

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

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

Bottom material: See Bed material.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Hardness of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ( $\text{CaCO}_3$ ).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Solute is any substance that is dissolved in water.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Ion	Multiply by	Ion	Multiply by
Aluminum ( $Al^{+3}$ )	0.11119	Iodide ( $I^{-1}$ )	0.00788
Ammonia as $NH_4^{+1}$	.05544	Iron ( $Fe^{+3}$ )*	.05372
Barium ( $Ba^{+2}$ )	.01456	Lead ( $Pb^{+2}$ )*	.00965
Bicarbonate ( $HCO_3^{-1}$ )	.01639	Lithium ( $Li^{+1}$ )*	.14411
Bromide ( $Br^{-1}$ )	.01251	Magnesium ( $Mg^{+2}$ )	.08226
Calcium ( $Ca^{+2}$ )	.04990	Manganese ( $Mn^{+2}$ )*	.03640
Carbonate ( $CO_3^{-2}$ )	.03333	Nickel ( $Ni^{+2}$ )*	.03406
Chloride ( $Cl^{-1}$ )	.02821	Nitrate ( $NO_3^{-1}$ )	.01613
Chromium ( $Cr^{+6}$ )*	.11539	Nitrite ( $NO_2^{-1}$ )	.02174
Cobalt ( $Co^{+2}$ )*	.03394	Phosphate ( $PO_4^{-3}$ )	.03159
Copper ( $Cu^{+2}$ )*	.03148	Potassium ( $K^{+1}$ )	.02557
Cyanide ( $CN^{-1}$ )	.03844	Sodium ( $Na^{+1}$ )	.04350
Fluoride ( $F^{-1}$ )	.05264	Strontium ( $Sr^{+2}$ )*	.02283
Hydrogen ( $H^{+1}$ )	.99209	Sulfate ( $SO_4^{-2}$ )	.02082
Hydroxide ( $OH^{-1}$ )	.05880	Zinc ( $Zn^{+2}$ )*	.03060

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

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

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

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

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

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

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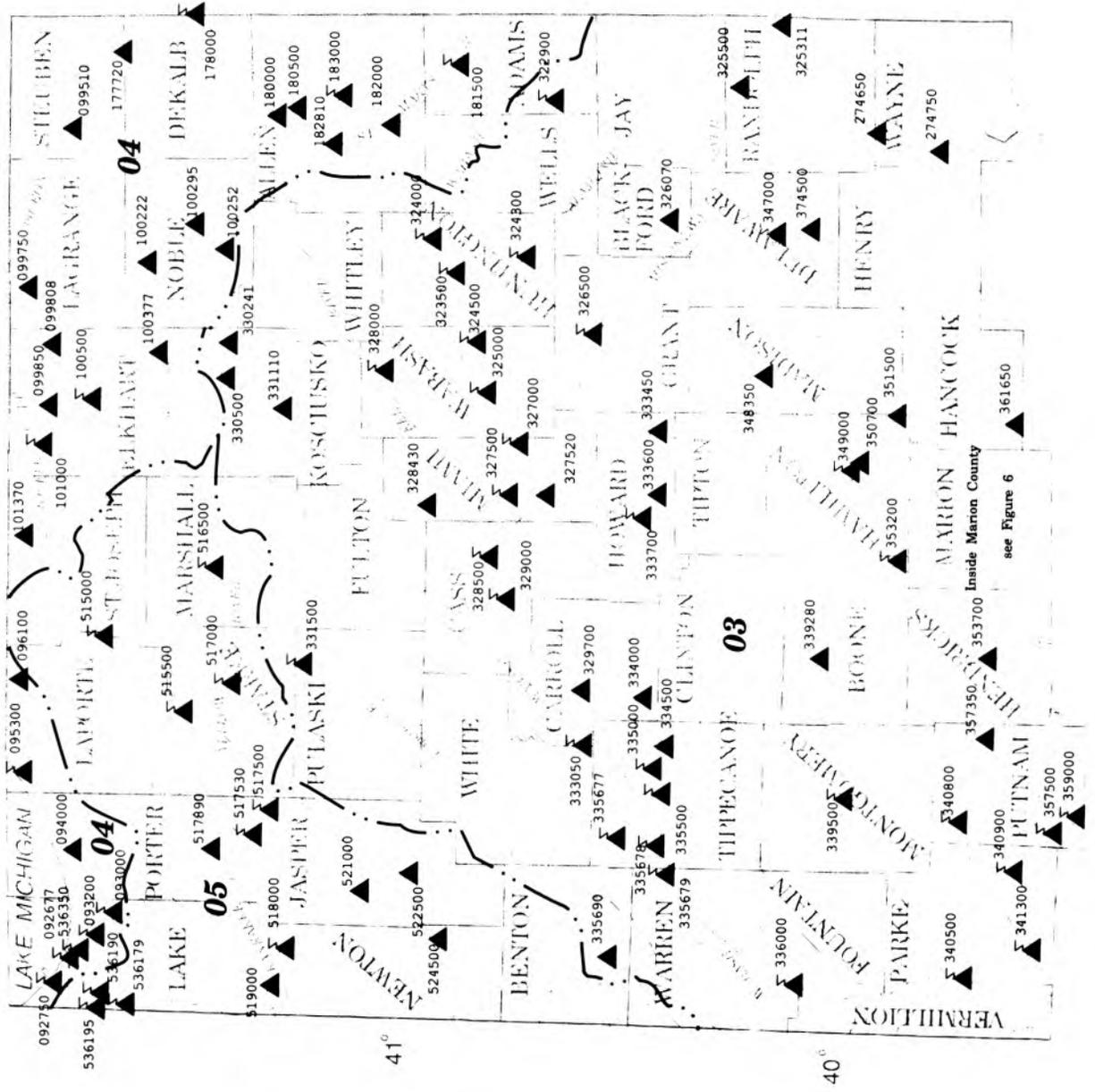
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see Figure 6

Inside Marion County

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FULTON

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BENTON

CARROLL

HOWARD

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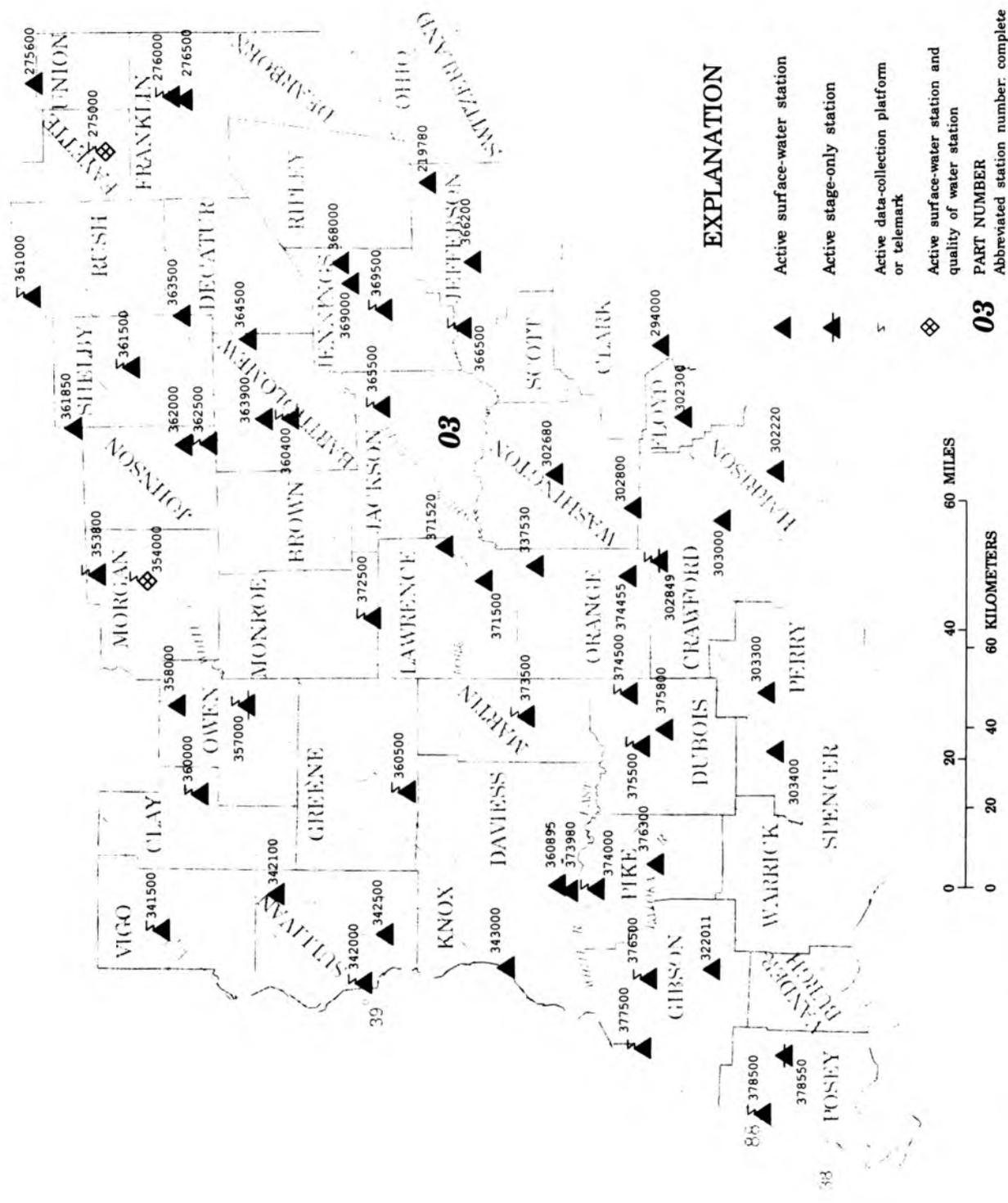
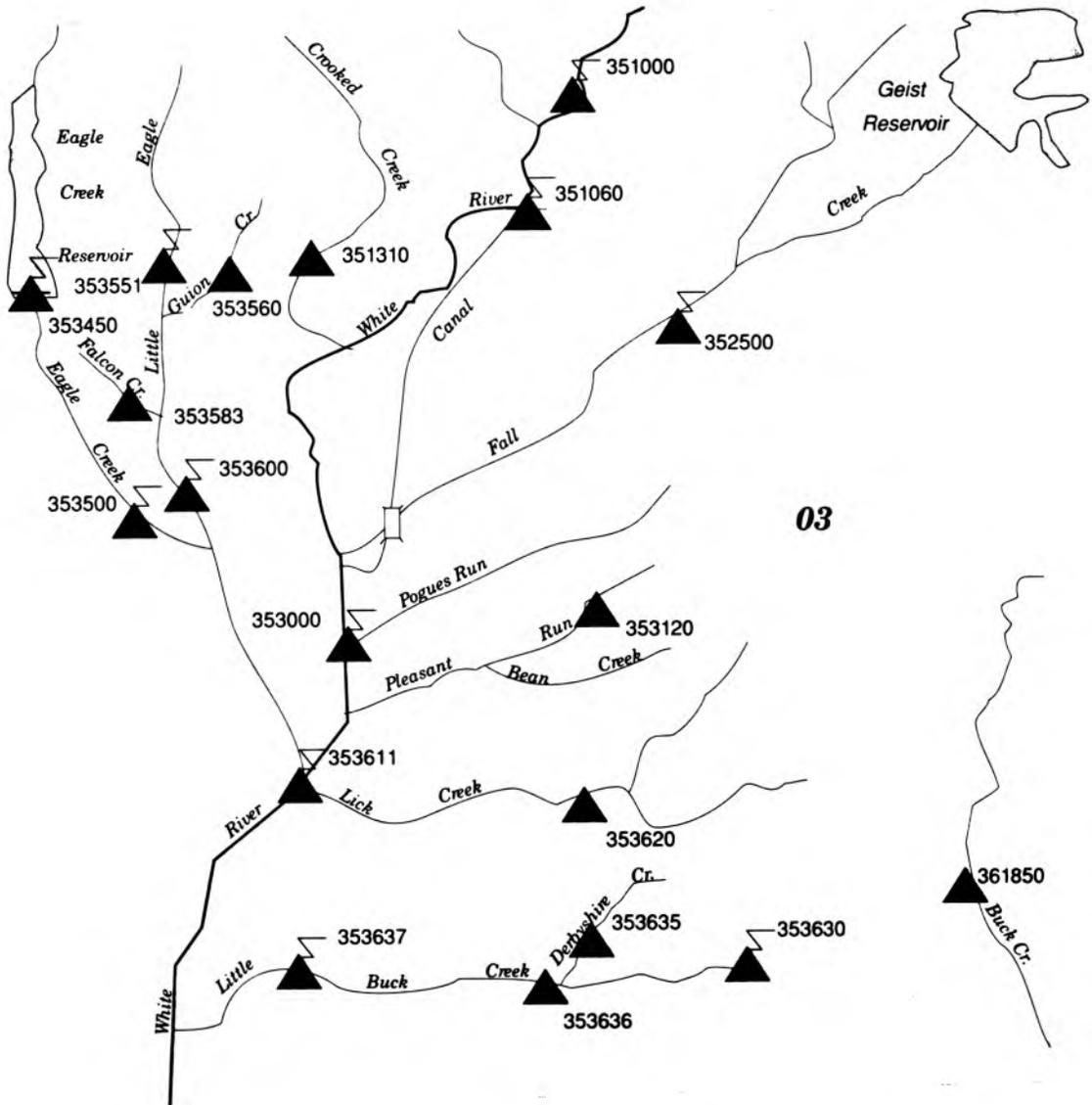


Figure 5.--Locations of streamflow and water-quality gaging stations in Indiana.



**EXPLANATION**

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

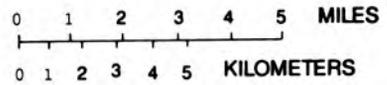


Figure 6.--Locations of streamflow gaging stations in Marion County.

GREAT MIAMI RIVER BASIN

03274650 WHITEWATER RIVER NEAR ECONOMY, IN

LOCATION.--Lat 40°00'05", long 85°06'56", in NW<sup>1</sup>/<sub>4</sub>/NE<sup>1</sup>/<sub>4</sub>, sec.19, T.18 N., R.13 E., Wayne County, Hydrologic Unit 05080003, on right bank 15 ft downstream from bridge on Wayne County Line Road, 1.7 mi upstream from Little Creek, 2.4 mi northwest of Economy, and at mile 91.9.

DRAINAGE AREA.--10.4 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	e2.3	8.7	e5.0	e10	6.1	5.4	9.1	3.4	4.2	1.4	.89
2	9.1	e2.2	8.6	e4.7	e6.4	6.5	5.0	6.7	3.2	3.5	1.4	.82
3	5.1	e2.1	9.5	e4.7	e5.0	6.3	5.9	6.0	3.1	5.7	1.4	.79
4	3.5	e2.0	117	e4.5	e3.8	8.0	6.1	5.8	3.0	4.5	1.4	.75
5	3.3	e2.0	81	e4.3	e3.2	9.0	6.3	5.5	2.8	3.5	1.5	.94
6	e3.1	e1.9	33	e4.2	e2.6	10	15	5.2	2.8	20	1.3	.81
7	e2.9	e1.8	23	e4.3	e2.3	10	19	11	2.6	16	1.3	.67
8	e2.8	e1.8	16	e4.1	e2.0	9.1	15	11	2.5	6.4	1.2	e.68
9	e2.7	e1.7	12	e3.9	e1.9	8.1	11	7.7	2.5	5.6	1.1	e.68
10	e3.2	e1.7	11	e3.8	e1.8	7.2	134	6.4	2.4	4.4	1.1	e.72
11	e3.0	e1.6	8.4	e3.6	e1.7	7.1	120	5.9	2.3	3.9	1.2	e.80
12	e2.8	3.6	7.5	e3.4	e1.6	7.1	83	6.7	2.3	3.4	1.1	e.74
13	e2.7	30	6.9	e3.3	e1.5	7.7	36	5.9	2.7	3.3	1.1	e.72
14	e2.7	647	8.5	e3.2	e1.4	8.6	25	5.6	2.7	3.2	1.1	e.70
15	e2.6	296	11	e3.0	e1.8	8.3	21	5.6	2.5	2.9	.99	e.70
16	e3.2	88	9.2	e2.9	e2.8	7.0	16	5.4	2.3	2.7	.91	e.85
17	5.6	413	8.2	e2.8	e4.5	6.4	11	4.8	2.2	2.8	.92	e1.1
18	4.7	189	11	e2.7	e7.0	6.7	9.4	4.5	2.2	2.7	.90	e1.0
19	4.2	67	13	e2.7	e13	5.9	8.3	4.2	2.2	2.4	.87	e.96
20	18	46	12	e2.6	23	5.9	7.3	4.1	2.1	2.4	.89	e.92
21	61	37	14	e2.6	18	7.5	6.8	3.7	2.1	2.4	.92	e.88
22	19	30	10	e2.5	11	6.8	6.6	3.5	2.1	2.4	.89	e.84
23	9.3	25	8.5	e2.5	24	6.6	6.2	3.5	3.9	2.2	.83	e.80
24	6.2	21	7.8	e15	20	6.7	6.0	3.4	3.6	2.1	.76	e.73
25	4.7	18	e7.0	e72	10	6.2	5.8	7.7	3.3	2.1	.81	e.74
26	3.9	17	e6.3	e45	7.6	6.0	5.8	6.1	4.4	2.0	.83	1.7
27	e3.4	24	e6.0	e120	6.4	6.7	5.6	5.3	5.2	1.8	.79	1.5
28	e3.0	16	e5.6	253	5.9	6.1	5.0	4.7	3.6	1.8	.88	1.3
29	e2.8	12	e5.4	48	---	5.8	5.4	4.3	3.9	1.8	.92	1.1
30	e2.6	9.7	e5.2	e24	---	5.4	6.9	4.0	6.7	1.6	.78	1.1
31	e2.5	---	e5.0	e16	---	5.4	---	3.6	---	1.5	1.1	---
TOTAL	206.9	2010.4	496.3	674.3	200.2	220.2	619.8	176.9	90.6	125.2	32.59	26.93
MEAN	6.67	67.0	16.0	21.8	7.15	7.10	20.7	5.71	3.02	4.04	1.05	.90
MAX	61	647	117	253	24	10	134	11	6.7	20	1.5	1.7
MIN	2.5	1.6	5.0	2.5	1.4	5.4	5.0	3.4	2.1	1.5	.76	.67
CFSM	.64	6.44	1.54	2.09	.69	.68	1.99	.55	.29	.39	.10	.09
IN.	.74	7.19	1.78	2.41	.72	.79	2.22	.63	.32	.45	.12	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1994, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	4.06	12.2	13.6	12.5	19.2	21.0	18.1	11.5	8.24	7.41	5.14	3.47												
MAX	39.9	67.0	39.7	33.0	56.0	41.6	38.0	42.6	22.4	27.5	61.5	32.2												
(WY)	1987	1994	1978	1975	1985	1978	1989	1989	1973	1979	1979	1989												
MIN	.46	.45	.51	.33	3.31	2.58	2.96	1.47	1.03	.57	.41	.40												
(WY)	1992	1972	1977	1977	1978	1981	1971	1988	1977	1977	1988	1988												

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1971 - 1994
ANNUAL TOTAL	6632.7	4880.32	
ANNUAL MEAN	18.2	13.4	11.3
HIGHEST ANNUAL MEAN			18.8
LOWEST ANNUAL MEAN			3.26
HIGHEST DAILY MEAN	647	647	647
LOWEST DAILY MEAN	1.6	.67	.22
ANNUAL SEVEN-DAY MINIMUM	1.8	.72	.24
INSTANTANEOUS PEAK FLOW		1120	1120
INSTANTANEOUS PEAK STAGE		8.91	8.91
ANNUAL RUNOFF (CFSM)	1.75	1.29	1.09
ANNUAL RUNOFF (INCHES)	23.72	17.46	14.79
10 PERCENT EXCEEDS	40	18	26
50 PERCENT EXCEEDS	6.6	4.2	4.0
90 PERCENT EXCEEDS	2.1	.93	.74

e Estimated

GREAT MIAMI RIVER BASIN

03274750 WHITEWATER RIVER NEAR HAGERSTOWN, IN

LOCATION.--Lat 39°52'25", long 85°09'47", in NE<sup>1</sup>/<sub>4</sub>/NE<sup>1</sup>/<sub>4</sub>, sec.3, T.16 N., R.12 E., Wayne County, Hydrologic Unit 05080003, on left bank at downstream side of bridge on Jerry Meyers Road, 1.0 mi upstream from Pronghorn Run, 1.5 mi north of Interstate 70, 2.0 mi downstream from Nettle Creek, 2.6 mi south of Hagerstown, and at mile 84.9.

DRAINAGE AREA.--58.7 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	27	73	e51	112	61	39	77	34	37	19	17
2	64	25	75	e52	100	59	38	63	32	38	18	15
3	42	25	79	e50	91	58	42	58	31	57	18	13
4	34	24	639	e49	84	62	41	56	31	40	20	13
5	30	24	387	e48	e78	66	44	54	31	34	20	15
6	28	23	192	e49	e73	65	81	55	31	85	17	17
7	26	22	152	e50	e68	67	96	87	28	107	17	15
8	25	21	133	e46	e65	63	84	86	25	53	17	13
9	31	21	120	e44	e62	59	71	68	25	47	17	12
10	32	20	114	e42	60	57	796	60	24	40	16	12
11	28	20	101	e40	58	55	656	56	25	37	18	13
12	27	20	94	e39	57	53	454	66	27	33	18	12
13	25	174	89	e37	56	56	206	56	43	31	16	12
14	24	1620	130	e36	e55	59	155	54	32	31	18	11
15	23	1030	143	e34	e59	58	131	58	29	29	17	11
16	24	333	114	e33	e64	52	113	53	27	27	18	11
17	47	1360	101	e32	e72	48	98	49	26	27	19	12
18	37	683	106	e31	e82	51	91	47	26	26	18	11
19	33	289	111	e30	e105	46	84	46	25	25	17	11
20	52	203	103	e30	145	45	76	44	31	24	17	11
21	293	161	113	e29	118	49	71	43	31	24	17	11
22	86	132	95	e28	90	47	68	42	29	27	17	11
23	59	115	86	e28	145	44	64	40	52	25	15	10
24	47	105	80	e60	138	48	62	41	45	24	15	12
25	41	96	e72	e350	87	44	60	58	38	40	14	12
26	38	94	e64	247	74	42	58	49	62	23	14	18
27	34	115	e60	686	66	47	58	42	57	21	13	21
28	32	98	e56	1280	62	45	56	39	42	20	18	17
29	30	85	e54	277	---	43	56	38	38	26	18	15
30	29	77	e52	172	---	40	70	36	48	22	15	15
31	29	---	e50	135	---	39	---	36	---	19	23	---
TOTAL	1370	7042	3838	4115	2326	1628	4019	1657	1025	1099	534	399
MEAN	44.2	235	124	133	83.1	52.5	134	53.5	34.2	35.5	17.2	13.3
MAX	293	1620	639	1280	145	67	796	87	62	107	23	21
MIN	20	20	50	28	55	39	38	36	24	19	13	10
CFSM	.75	4.00	2.11	2.26	1.42	.89	2.28	.91	.58	.60	.29	.23
IN.	.87	4.46	2.43	2.61	1.47	1.03	2.55	1.05	.65	.70	.34	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1994, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	31.3	61.0	78.1	73.4	104	116	109	78.3	55.7	52.1	39.4	25.6												
MAX	188	235	205	170	233	224	189	196	114	219	312	121												
(WY)	1987	1994	1978	1975	1975	1973	1972	1990	1980	1979	1979	1989												
MIN	11.6	12.1	12.0	8.48	29.4	25.6	28.0	23.0	14.6	8.18	8.56	8.37												
(WY)	1977	1977	1977	1977	1978	1981	1971	1988	1977	1977	1988	1983												

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR
ANNUAL TOTAL	35210	29052						
ANNUAL MEAN	96.5	79.6						
HIGHEST ANNUAL MEAN								
LOWEST ANNUAL MEAN								
HIGHEST DAILY MEAN	1620	Nov 14	1620	Nov 14	1880	Feb 23	1975	
LOWEST DAILY MEAN	17	Sep 18	10	Sep 23	5.3	Aug 5	1977	
ANNUAL SEVEN-DAY MINIMUM	17	Sep 18	11	Sep 17	5.9	Jul 31	1977	
INSTANTANEOUS PEAK FLOW			2310	Nov 14	2310	Jul 23	1992	
INSTANTANEOUS PEAK STAGE			11.52	Nov 14	11.52	Nov 14	1993	
ANNUAL RUNOFF (CFSM)	1.64	1.36						
ANNUAL RUNOFF (INCHES)	22.31	18.41						
10 PERCENT EXCEEDS	177	116						
50 PERCENT EXCEEDS	64	44						
90 PERCENT EXCEEDS	23	17						

e Estimated



## GREAT MIAMI RIVER BASIN

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

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSIS: October 1986 to current year.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	TUR- BID- ITY (NTU) (00076)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML) (31625)
NOV											
02...	1330	310	720	8.2	15.0	7.5	759	13.2	111	0.6	540
JAN											
12...	1440	405	673	8.4	3.0	4.5	751	14.2	112	0.5	410
MAR											
29...	1430	404	591	8.4	7.0	9.0	754	16.6	145	0.6	23
MAY											
18...	1520	435	620	8.0	20.5	18.0	755	12.2	130	1.1	97
AUG											
09...	1525	139	676	8.1	28.0	23.5	755	12.2	146	0.7	27
SEP											
07...	1315	108	682	7.9	22.5	18.5	755	9.6	103	1.0	58

DATE	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL AS CACO3 (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WAT DIS FIX END FIELD CACO3 (MG/L) (39036)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)
NOV										
02...	29	360	61	91	33	12	1.9	300	302	369
JAN										
12...	140	330	57	86	29	10	2.0	270	278	339
MAR										
29...	K18	310	47	73	30	10	2.1	260	258	315
MAY										
18...	28	300	--	72	29	10	2.0	320	318	388
AUG										
09...	E30	310	79	74	30	16	2.3	230	229	279
SEP										
07...	K15	320	140	80	30	17	2.7	190	187	228

DATE	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
NOV										
02...	0	44	27	0.3	7.2	402	412	336	0.02	3.0
JAN										
12...	0	39	21	0.2	6.1	386	378	422	0.02	3.9
MAR										
29...	0	38	21	0.2	2.7	351	344	383	0.03	2.7
MAY										
18...	0	36	21	0.2	2.4	350	378	411	0.06	3.1
AUG										
09...	0	41	30	0.2	6.0	374	348	140	0.06	2.5
SEP										
07...	0	40	31	0.2	7.7	417	334	122	0.03	2.8

GREAT MIAMI RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITRO- GEN, DIS- SOLVED AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	
NOV 02...		0.18	0.4	0.04	0.01	0.04	<10	83	<3	16	6
JAN 12...		0.15	0.3	0.04	0.02	0.03	<10	75	<3	22	5
MAR 29...		0.07	0.2	0.01	<0.01	<0.01	--	--	--	--	--
MAY 18...		0.12	0.4	0.05	0.02	0.02	<10	73	<3	18	<4
AUG 09...		0.09	0.4	0.04	0.03	0.02	--	--	--	--	--
SEP 07...		0.08	0.3	0.08	0.11	0.05	<10	81	<3	12	5

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	
NOV 02...		8	10	1	<1	<1	400	<6	46	39	53
JAN 12...		13	<10	<1	<1	<1	350	<6	33	36	21
MAR 29...		--	--	--	--	--	--	27	29	22	
MAY 18...		10	<10	1	<1	<1	320	<6	21	25	36
AUG 09...		--	--	--	--	--	--	29	11	31	
SEP 07...		11	10	2	<1	<1	310	<6	32	9.2	37

## GREAT MIAMI RIVER BASIN

## 03275600 EAST FORK WHITEWATER RIVER AT ABINGTON, IN

LOCATION.--Lat 39°43'59", long 84°57'35", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.2, T.12 N., R.2 W., Wayne County, Hydrologic Unit 05080003, 15 ft downstream of bridge on county road at Abington, 3 mi downstream from Elkhorn Creek, 8 mi southwest of Richmond, and at mile 26.7.

DRAINAGE AREA.--200 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	72	262	e180	266	165	133	342	122	58	63	47
2	118	64	261	196	e220	160	133	231	112	132	58	36
3	88	67	277	193	e200	152	164	196	105	180	54	31
4	66	67	1850	182	e190	163	159	182	106	115	95	27
5	54	67	2490	168	e180	185	164	173	103	135	159	35
6	49	62	881	167	e170	188	320	192	100	113	88	41
7	46	57	590	185	e160	199	456	308	101	108	67	32
8	44	51	461	155	e155	188	300	241	98	120	61	29
9	81	49	387	e145	e150	174	228	153	94	108	51	25
10	90	49	352	e138	e147	179	2980	117	88	83	41	22
11	68	49	299	e135	e145	166	2210	100	80	73	52	22
12	58	50	262	e143	e143	177	2170	140	78	66	54	21
13	53	463	247	e150	e141	269	1100	99	101	173	48	21
14	49	4480	347	e145	e140	327	842	100	86	90	46	21
15	46	4040	363	e137	e160	272	703	199	78	129	42	20
16	46	667	283	e134	e200	214	467	148	69	105	40	19
17	140	4570	248	e128	e240	186	365	113	66	91	37	33
18	111	2290	266	e126	291	188	331	97	71	107	36	26
19	96	742	282	e122	324	160	309	87	63	92	33	22
20	127	514	277	e118	384	143	286	109	59	81	31	20
21	263	429	305	e116	385	154	254	138	81	79	42	20
22	159	382	267	e115	276	143	237	125	131	100	34	22
23	110	343	247	e120	304	142	215	120	106	96	31	19
24	96	317	e230	e160	450	148	198	131	199	73	29	20
25	90	286	e215	1230	242	135	186	155	212	91	26	32
26	86	276	e205	1050	195	130	182	125	622	78	23	46
27	83	460	e195	2570	174	163	206	137	742	66	26	147
28	77	385	e188	4500	167	154	293	137	188	66	53	52
29	71	316	e180	1190	---	153	363	135	107	85	77	36
30	71	282	e176	599	---	135	417	131	140	111	43	31
31	77	---	e170	395	---	133	---	128	---	77	49	---
TOTAL	2655	21946	13063	15092	6199	5445	16371	4789	4308	3081	1589	975
MEAN	85.6	732	421	487	221	176	546	154	144	99.4	51.3	32.5
MAX	263	4570	2490	4500	450	327	2980	342	742	180	159	147
MIN	42	49	170	115	140	130	133	87	59	58	23	19
CFSM	.43	3.66	2.11	2.43	1.11	.88	2.73	.77	.72	.50	.26	.16
IN.	.49	4.08	2.43	2.81	1.15	1.01	3.05	.89	.80	.57	.30	.18

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1994, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	81.5	187	296	264	331	378	370	312	167	169	114	58.3																		
MAX	615	732	929	708	901	884	748	1049	419	773	773	242																		
(WY)	1967	1994	1991	1969	1975	1978	1970	1968	1980	1979	1979	1979																		
MIN	22.5	32.7	26.5	21.3	83.8	111	88.7	55.9	24.6	22.9	18.6	19.9																		
(WY)	1989	1977	1977	1977	1992	1992	1976	1976	1988	1988	1988	1983																		

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1966 - 1994	
ANNUAL TOTAL	117204		95513			
ANNUAL MEAN	321		262		227	
HIGHEST ANNUAL MEAN					388	
LOWEST ANNUAL MEAN					92.3	
HIGHEST DAILY MEAN	4570	Nov 17	4570	Nov 17	9990	Dec 30 1990
LOWEST DAILY MEAN	29	Aug 30	19	Sep 16	11	Aug 18 1988
ANNUAL SEVEN-DAY MINIMUM	32	Sep 17	21	Sep 10	13	Aug 13 1988
INSTANTANEOUS PEAK FLOW			10100	Nov 14	20000	Jul 20 1969
INSTANTANEOUS PEAK STAGE			13.47	Nov 14	16.18	Jul 20 1969
ANNUAL RUNOFF (CFSM)	1.61		1.31		1.13	
ANNUAL RUNOFF (INCHES)	21.80		17.77		15.42	
10 PERCENT EXCEEDS	653		385		456	
50 PERCENT EXCEEDS	201		137		113	
90 PERCENT EXCEEDS	47		41		34	

e Estimated



GREAT MIAMI RIVER BASIN

03276500 WHITEWATER RIVER AT BROOKVILLE, IN

(Former National stream-quality accounting network station)

LOCATION.--Lat 39°24'24", long 85°00'46", in NE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.32, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, on right bank at downstream side of highway bridge, 0.3 mi downstream from East Fork Whitewater River, 1.1 mi south of Brookville, and at mile 29.3.

DRAINAGE AREA.--1,224 mi<sup>2</sup>.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	387	1390	2760	973	2210	1150	810	3320	601	1790	316	218
2	447	1380	2690	1060	2390	1100	782	2350	568	1690	292	208
3	673	1370	2820	1050	2770	1040	891	2280	539	1830	288	198
4	575	1370	5840	1040	3170	1030	1140	2110	520	1830	282	193
5	484	1170	12100	969	3540	1040	962	1990	463	1080	341	187
6	428	974	6330	956	3450	1060	1200	1600	440	540	319	191
7	391	947	4640	1290	3410	1190	2000	3170	936	547	294	190
8	386	931	4300	1140	e3360	1290	1730	2710	474	900	274	194
9	428	905	4130	988	e3350	1260	1500	2010	413	675	265	192
10	658	887	3940	975	3310	1250	16700	1910	385	554	286	183
11	700	881	3780	966	3270	1250	11700	2070	366	480	315	171
12	575	879	3640	1010	3260	1310	12000	2030	352	421	350	165
13	462	2220	3550	1050	2720	1390	6330	1670	412	492	356	165
14	424	6430	3860	990	2390	1490	5300	1260	397	1320	339	165
15	402	18000	4520	815	3120	1470	4710	1810	357	580	316	166
16	389	15100	4040	719	3240	1360	4350	1840	327	460	312	163
17	421	11200	3790	e680	2700	1180	4030	1410	321	392	300	173
18	850	14800	3690	e640	2100	1110	3860	1240	481	359	299	167
19	1090	7190	3540	e608	1960	1120	3600	1170	324	335	289	159
20	4210	4460	3220	e608	2350	1060	2280	1100	284	322	292	156
21	3710	3250	2760	e608	2570	1040	2010	1040	419	312	293	155
22	3310	3290	2230	e700	2200	1040	1920	999	412	324	300	152
23	2370	3440	2070	841	2810	912	1830	958	301	375	344	144
24	1980	3230	1950	1090	3740	874	1760	922	309	323	281	156
25	1790	3070	1600	3670	3290	847	1710	920	411	348	246	165
26	1670	2950	1140	6220	2870	811	1660	948	2030	353	211	181
27	1570	3620	e1050	6660	2300	907	1640	928	2350	343	208	240
28	1500	3420	e999	16400	1550	976	1610	880	1790	329	214	256
29	1440	3140	e960	10900	---	974	1740	844	1940	337	567	220
30	1430	2920	e940	4120	---	901	3350	818	1880	481	317	200
31	1410	---	948	2910	---	846	---	742	---	367	242	---
TOTAL	36560	124814	103827	72646	79400	34278	105105	49049	20802	20489	9348	5473
MEAN	1179	4160	3349	2343	2836	1106	3503	1582	693	661	302	182
MAX	4210	18000	12100	16400	3740	1490	16700	3320	2350	1830	567	256
MIN	386	879	940	608	1550	811	782	742	284	312	208	144
CFSM	.96	3.40	2.74	1.91	2.32	.90	2.86	1.29	.57	.54	.25	.15
IN.	1.11	3.79	3.16	2.21	2.41	1.04	3.19	1.49	.63	.62	.28	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1994, BY WATER YEAR (WY)

	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944		
MEAN	473	908	1312	1970	2026	2292	2157	1629	1125	756	504	416																			
MAX	2796	4160	5468	9401	6290	5909	4664	5738	4710	3390	4271	4239																			
(WY)	1927	1994	1991	1937	1950	1963	1964	1968	1958	1958	1979	1926																			
MIN	95.5	98.1	95.1	102	122	294	275	186	161	138	102	98.9																			
(WY)	1935	1935	1935	1977	1935	1941	1941	1941	1934	1934	1930	1940																			

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1916 - 1994	
ANNUAL TOTAL	739702		661791			
ANNUAL MEAN	2027		1813		1293	
HIGHEST ANNUAL MEAN					2359	
LOWEST ANNUAL MEAN					271	
HIGHEST DAILY MEAN	18000		18000		55000	
LOWEST DAILY MEAN	145		144		60	
ANNUAL SEVEN-DAY MINIMUM	166		155		66	
INSTANTANEOUS PEAK FLOW			26400		81800	
INSTANTANEOUS PEAK STAGE			15.70		27.78	
ANNUAL RUNOFF (CFSM)	1.66		1.48		1.06	
ANNUAL RUNOFF (INCHES)	22.48		20.11		14.36	
10 PERCENT EXCEEDS	4020		3700		2820	
50 PERCENT EXCEEDS	1240		1040		620	
90 PERCENT EXCEEDS	320		270		164	

\* Estimated

INDIAN-KENTUCK CREEK BASIN

03291780 INDIAN-KENTUCK CREEK NEAR CANAAN, IN

LOCATION.--Lat 38°52'41", long 85°15'26", in SW<sup>1</sup>/<sub>4</sub>/NW<sup>1</sup>/<sub>4</sub> sec.13, T.5 N., R.11 E., Jefferson County, Hydrologic Unit 05140101, on downstream end of left pier of bridge on State Highway 62, 1,500 ft upstream from Wilson Fork, 2.0 mi northeast of Canaan, and at mile 16.7.  
 DRAINAGE AREA.--27.5 mi<sup>2</sup>.  
 PERIOD OF RECORD.--October 1969 to current year.  
 GAGE.--Water-stage recorder. Elevation of gage is 590 ft above sea level, from topographic map.  
 REMARKS.--Records good except for estimated daily discharges and those below 1 ft<sup>3</sup>/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	5.1	18	e11	e28	19	20	235	1.8	.32	.39	6.9
2	.65	4.2	20	e14	e22	18	17	100	1.4	.15	.28	1.2
3	.68	3.9	58	18	e17	15	56	66	1.2	35	.17	.58
4	.65	4.0	729	e16	e14	14	44	48	1.0	15	.10	.36
5	.54	5.9	248	e18	e14	12	30	36	.77	3.2	.09	.33
6	.44	6.4	93	e21	e13	11	95	33	.63	2.4	.05	.33
7	.40	4.9	53	98	e12	9.9	78	498	.57	1.3	.00	.21
8	.36	3.8	38	e55	38	9.4	44	154	.71	.70	.00	.21
9	32	3.2	29	e25	e112	11	35	79	.78	1.5	.00	.12
10	18	2.9	42	e13	e73	13	1020	51	.50	.60	.00	.05
11	6.0	2.8	31	e11	e26	22	218	37	.40	.27	.00	.00
12	3.5	2.6	22	38	e11	57	161	29	.26	.12	.00	.00
13	2.6	47	20	32	e14	105	94	23	.16	.09	.00	.00
14	2.1	874	110	e20	e17	104	65	21	.08	2.4	79	.00
15	1.7	231	113	e13	21	52	54	111	.02	192	4.9	.00
16	1.6	73	54	e7.2	17	32	42	43	.00	44	1.4	.00
17	2.3	547	37	e6.4	14	24	33	23	.00	9.9	.84	.00
18	2.5	119	32	e5.8	16	31	28	17	.00	4.1	.60	.00
19	2.4	62	30	e5.2	24	23	25	14	.00	2.3	.42	.00
20	5.7	38	25	e4.7	64	20	20	12	.00	1.6	.35	.00
21	25	27	28	e4.2	74	21	18	9.7	.00	1.2	.30	.00
22	12	21	22	e5.4	70	19	18	8.1	.27	34	.22	.00
23	7.4	17	18	e7.0	300	17	15	6.8	.07	13	.15	.00
24	5.3	15	16	e50	91	15	14	5.7	.05	2.7	.10	.00
25	4.0	13	e13	e260	50	13	12	5.5	.05	1.5	.05	.00
26	3.2	16	e12	152	33	12	11	5.1	6.3	1.1	.00	.00
27	2.8	130	e10	302	e24	39	59	4.2	51	1.9	.00	.00
28	2.4	50	e9.0	484	e20	51	34	3.2	4.7	1.7	.03	.00
29	2.2	30	e8.2	110	---	36	394	2.9	1.6	.86	.88	.00
30	2.6	22	e7.6	57	---	26	708	2.5	.69	.74	1.0	.00
31	3.3	---	e8.2	38	---	23	---	2.3	---	.53	9.4	---
TOTAL	154.89	2381.7	1954.0	1901.9	1229	874.3	3462	1686.0	75.01	376.18	100.72	10.29
MEAN	5.00	79.4	63.0	61.4	43.9	28.2	115	54.4	2.50	12.1	3.25	.34
MAX	32	874	729	484	300	105	1020	498	51	192	79	6.9
MIN	.36	2.6	7.6	4.2	11	9.4	11	2.3	.00	.09	.00	.00
CFSM	.18	2.89	2.29	2.23	1.60	1.03	4.20	1.98	.09	.44	.12	.01
IN.	.21	3.22	2.64	2.57	1.66	1.18	4.68	2.28	.10	.51	.14	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	11.2	37.0	49.9	46.6	56.5	67.4	58.6	39.5	20.3	11.9	10.7	7.45													
MAX	83.6	137	173	169	136	134	115	193	64.6	45.9	58.6	57.9													
(WY)	1984	1980	1991	1982	1990	1975	1994	1983	1992	1992	1979	1979													
MIN	.000	.22	3.95	.60	5.24	11.7	6.55	3.82	.44	.12	.001	.000													
(WY)	1988	1988	1977	1977	1992	1983	1976	1992	1988	1975	1975	1987													

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1970 - 1994
ANNUAL TOTAL	15472.64	14205.99	
ANNUAL MEAN	42.4	38.9	34.6
HIGHEST ANNUAL MEAN			55.8
LOWEST ANNUAL MEAN			17.0
HIGHEST DAILY MEAN	874	Nov 14	1630
LOWEST DAILY MEAN	.00	Jul 26	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 26	.00
INSTANTANEOUS PEAK FLOW		3710	7800
INSTANTANEOUS PEAK STAGE		8.67	11.34
ANNUAL RUNOFF (CFSM)	1.54	1.42	1.26
ANNUAL RUNOFF (INCHES)	20.93	19.22	17.11
10 PERCENT EXCEEDS	93	78	73
50 PERCENT EXCEEDS	15	11	8.8
90 PERCENT EXCEEDS	.36	.03	.13

e Estimated



BUCK CREEK BASIN

03302220 BUCK CREEK NEAR NEW MIDDLETOWN, IN

LOCATION.--Lat 38°07'13", long 86°05'16", in SE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.32, T.4 S., R.4 E., Harrison County, Hydrologic Unit 05140104, on right bank at downstream side of bridge on State Highway 337 (revised), 0.6 mi downstream from South Fork Buck Creek, 3.6 mi southwest of New Middletown, and 14.6 mi upstream from mouth.

DRAINAGE AREA.--65.2 mi<sup>2</sup>, of which 28.1 mi<sup>2</sup> does not contribute directly to surface runoff.

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

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

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

REMARKS.--Records good except for estimated daily discharges and those below 10 ft<sup>3</sup>/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	11	15	15	e110	e66	103	493	13	e10	2.6	e4.5
2	5.1	9.1	16	20	e90	e60	86	233	13	e6.0	2.7	e5.8
3	5.8	9.2	40	e32	e74	e54	82	154	13	e4.5	3.8	e7.4
4	4.8	9.2	276	e40	e66	e48	77	116	11	e5.6	6.3	e10
5	4.1	10	309	e33	e59	e43	74	93	10	e8.0	22	15
6	3.7	9.4	167	e48	54	e39	75	80	10	e12	7.9	19
7	3.4	8.0	112	e77	48	36	74	250	10	e17	4.4	e15
8	3.7	7.7	85	e62	74	35	70	197	10	e13	3.4	e11
9	6.1	7.1	67	e52	185	42	69	137	15	e9.8	3.2	e8.0
10	18	6.1	62	e42	121	66	123	105	11	e7.2	2.7	e6.6
11	5.9	5.7	49	e48	99	130	228	84	e9.2	e5.4	2.7	e5.4
12	4.4	5.6	40	55	82	178	231	74	e8.4	e4.8	2.8	e6.0
13	3.9	17	37	53	73	166	166	62	e7.2	e4.3	2.9	e6.2
14	3.4	184	38	e42	63	139	139	58	e6.4	e3.8	2.5	e6.4
15	2.9	255	38	e35	60	115	131	63	e5.8	e3.5	2.6	e7.0
16	4.0	123	35	e28	54	92	130	54	e5.4	e3.1	3.1	e6.5
17	37	212	33	e22	51	79	107	35	e6.0	e2.9	e4.0	e6.1
18	25	151	32	e20	49	76	89	32	e6.0	e3.1	e4.8	e9.0
19	32	111	31	e18	47	60	78	29	e5.4	e5.0	4.9	e13
20	158	81	31	e17	52	54	64	27	e5.0	6.0	6.4	e8.4
21	88	61	31	e17	71	58	54	24	e5.1	4.9	13	e6.0
22	52	42	28	e16	184	54	48	22	e5.6	11	e9.0	e4.5
23	37	34	25	21	584	52	42	20	e7.0	5.5	e6.0	36
24	37	30	23	44	210	53	38	19	e10	3.7	e4.5	73
25	27	26	e21	428	143	48	35	19	14	4.7	e3.5	48
26	11	26	e19	458	108	47	33	24	17	16	e2.5	e20
27	8.9	36	e16	668	88	456	46	18	22	5.6	e4.5	e14
28	9.1	27	e15	1040	e76	403	58	16	17	4.1	8.6	e8.7
29	8.1	21	e14	393	---	231	154	15	14	3.0	55	e6.4
30	11	17	e13	e200	---	158	637	14	14	4.1	8.8	e4.9
31	12	---	e13	e140	---	125	---	14	---	3.0	3.7	---
TOTAL	635.3	1552.1	1731	4184	2975	3263	3341	2581	306.5	200.6	214.8	397.8
MEAN	20.5	51.7	55.8	135	106	105	111	83.3	10.2	6.47	6.93	13.3
MAX	158	255	309	1040	584	456	637	493	22	17	55	73
MIN	2.9	5.6	13	15	47	35	33	14	5.0	2.9	2.5	4.5
CFSM	.31	.79	.86	2.07	1.63	1.61	1.71	1.28	.16	.10	.11	.20
IN.	.36	.89	.99	2.39	1.70	1.86	1.91	1.47	.17	.11	.12	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	18.4	59.6	98.7	102	135	142	149	94.0	48.1	29.3	17.4	18.0													
MAX	71.8	228	262	201	368	342	412	558	222	219	67.2	217													
(WY)	1971	1980	1991	1974	1989	1975	1970	1983	1990	1979	1992	1979													
MIN	.76	3.16	6.01	2.64	24.8	40.4	22.4	16.3	1.56	4.59	2.11	.72													
(WY)	1988	1988	1977	1977	1992	1983	1986	1976	1988	1975	1987	1987													

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1970 - 1994	
	Value	Date	Value	Date	Value	Date
ANNUAL TOTAL	24517.3		21382.1			
ANNUAL MEAN	67.2		58.6		75.6	
HIGHEST ANNUAL MEAN					146	1979
LOWEST ANNUAL MEAN					32.8	1981
HIGHEST DAILY MEAN	941	Feb 21	1040	Jan 28	3970	May 1 1983
LOWEST DAILY MEAN	1.3	Aug 9	2.5	Aug 14	.52	Jul 10 1988
ANNUAL SEVEN-DAY MINIMUM	1.5	Aug 5	2.8	Aug 10	.57	Jul 4 1988
INSTANTANEOUS PEAK FLOW			2040	Jan 28	12700	Apr 2 1970
INSTANTANEOUS PEAK STAGE			6.85	Jan 28	14.40	Apr 2 1970
ANNUAL RUNOFF (CFSM)	1.03		.90		1.16	
ANNUAL RUNOFF (INCHES)	13.99		12.20		15.75	
10 PERCENT EXCEEDS	166		139		169	
50 PERCENT EXCEEDS	30		23		27	
90 PERCENT EXCEEDS	3.2		4.4		3.6	

e Estimated

## INDIAN CREEK BASIN

03302300 LITTLE INDIAN CREEK NEAR GALENA, IN

LOCATION.--Lat 38°19'19", long 85°55'53", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, sec.23, T.2 S., R.5 E., Floyd County, Hydrologic Unit 05140104, on right bank at downstream side of county road bridge, 2 mi south of Galena, 3.6 mi upstream from mouth, and 7.0 mi northwest of New Albany.

DRAINAGE AREA.--16.1 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	1.8	6.3	e6.8	e23	17	23	61	2.5	.89	.46	.67
2	.17	1.8	8.2	e9.7	e19	16	20	33	2.2	.62	.47	.59
3	.10	1.6	33	13	16	14	23	24	2.0	.50	.58	.60
4	.07	1.7	157	13	14	13	20	21	1.6	.50	14	.83
5	.05	2.4	78	12	14	12	19	17	1.4	.50	1.6	6.8
6	.00	2.2	33	12	12	12	21	15	1.2	21	.79	1.7
7	.00	1.9	22	24	11	11	20	41	.95	2.6	.65	1.1
8	.04	1.7	18	e19	52	12	18	36	1.2	1.4	.72	.81
9	.32	1.6	15	e16	85	15	17	25	1.3	1.4	.72	.72
10	.46	1.5	15	e15	38	19	63	19	1.3	1.0	.72	.72
11	.34	1.5	12	14	26	29	60	15	.98	.83	.74	.60
12	.17	1.5	11	18	22	40	52	14	.72	.72	1.0	.71
13	.20	25	11	16	20	50	37	12	.66	.72	1.6	.72
14	.15	87	12	e14	18	43	29	138	.60	.63	.79	.72
15	.10	42	14	e13	16	32	27	68	.58	.60	.67	.84
16	.26	18	12	e11	14	25	23	32	.56	.60	.75	.78
17	1.8	80	12	e9.8	13	21	20	20	.77	.52	.52	.97
18	.99	29	12	e8.4	13	20	18	16	.61	.50	.49	1.1
19	5.7	19	11	e7.8	12	16	16	13	.56	.56	.39	.89
20	19	14	11	e7.4	19	16	13	11	.50	.56	.70	.75
21	3.9	11	11	e7.0	26	19	12	8.7	6.1	.54	.96	.63
22	2.1	9.5	10	e6.9	129	17	11	7.5	3.3	.68	.78	.54
23	1.7	8.9	9.6	e8.0	160	16	9.9	6.3	1.0	.70	.64	14
24	1.3	8.0	9.0	81	48	25	9.3	5.5	.75	.57	.53	11
25	1.0	7.4	e8.4	205	32	23	8.5	5.2	1.1	.53	.38	2.6
26	.96	7.6	e7.3	101	24	19	8.0	5.2	4.9	.57	.29	2.0
27	.91	9.0	e6.3	154	20	93	18	4.2	14	.80	.19	1.7
28	.93	8.0	e5.7	279	18	88	21	3.3	2.6	2.1	7.7	1.1
29	1.3	7.2	e5.3	64	---	46	27	3.0	1.5	.62	2.0	.82
30	1.6	6.5	e5.1	39	---	33	134	2.9	1.0	.73	.82	.68
31	1.9	---	e5.0	29	---	27	---	2.9	---	.79	.90	---
TOTAL	47.65	418.3	586.2	1233.8	914	839	797.7	685.7	58.44	45.28	43.55	57.69
MEAN	1.54	13.9	18.9	39.8	32.6	27.1	26.6	22.1	1.95	1.46	1.40	1.92
MAX	19	87	157	279	160	93	134	138	14	21	14	14
MIN	.00	1.5	5.0	6.8	11	11	8.0	2.9	.50	.50	.19	.54
CFSM	.10	.87	1.17	2.47	2.03	1.68	1.65	1.37	.12	.09	.09	.12
IN.	.11	.97	1.35	2.85	2.11	1.94	1.84	1.58	.14	.10	.10	.13

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1994, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	4.68	15.8	30.5	31.9	41.1	44.8	44.4	25.3	13.5	8.82	5.74	4.41														
MAX	42.2	70.6	103	64.3	111	112	120	116	75.1	50.7	30.5	62.1														
(WY)	1978	1980	1991	1969	1990	1975	1970	1983	1990	1979	1978	1979														
MIN	.000	.25	1.80	.46	2.91	10.9	7.78	1.48	.002	.088	.15	.000														
(WY)	1988	1992	1981	1977	1992	1976	1976	1988	1988	1991	1987	1987														

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1969 - 1994	
ANNUAL TOTAL	6811.66		5727.31			
ANNUAL MEAN	18.7		15.7		22.5	
HIGHEST ANNUAL MEAN					45.0	
LOWEST ANNUAL MEAN					8.23	
HIGHEST DAILY MEAN	431	Feb 21	279	Jan 28	1300	Feb 15 1990
LOWEST DAILY MEAN	.00	Oct 6	.00	Oct 6	.00	Oct 4 1968
ANNUAL SEVEN-DAY MINIMUM	.06	Oct 2	.06	Oct 2	.00	Sep 24 1969
INSTANTANEOUS PEAK FLOW			1480		5500	Jul 21 1973
INSTANTANEOUS PEAK STAGE			5.87		9.30	Jul 21 1973
ANNUAL RUNOFF (CFSM)	1.16		.97		1.40	
ANNUAL RUNOFF (INCHES)	15.74		13.23		18.97	
10 PERCENT EXCEEDS	41		33		45	
50 PERCENT EXCEEDS	8.0		7.6		6.2	
90 PERCENT EXCEEDS	.61		.56		.27	

e Estimated

BLUE RIVER BASIN

03302680 WEST FORK BLUE RIVER AT SALEM, IN

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

DRAINAGE AREA.--19.0 mi<sup>2</sup>.

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.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	6.1	7.9	5.1	e30	19	9.8	153	3.8	3.0	.25	.25
2	3.0	5.3	8.9	5.4	e25	17	9.3	87	3.5	2.6	.25	.18
3	2.6	5.4	16	5.1	21	14	16	58	3.4	2.7	.25	.15
4	2.1	5.4	304	5.2	17	12	14	43	3.1	2.2	.44	.12
5	1.9	8.1	174	4.5	16	10	12	33	2.8	1.9	.66	10
6	1.7	6.4	95	4.9	13	8.9	40	29	2.7	1.8	.48	3.8
7	1.5	5.3	60	8.3	12	7.8	45	146	2.6	1.6	.32	1.8
8	1.4	4.6	44	e7.1	32	6.9	35	79	2.6	1.5	.24	.91
9	2.8	4.3	34	5.9	65	8.1	28	53	2.6	2.1	.20	.52
10	3.4	4.2	28	5.5	35	8.3	192	39	2.4	1.4	.15	.32
11	2.6	4.2	21	6.0	27	9.8	111	29	2.3	.81	.15	.29
12	2.3	4.4	16	11	22	18	81	24	2.1	.62	.15	.25
13	2.1	49	15	9.6	18	24	56	18	1.9	.87	.18	.25
14	2.0	1040	16	e8.0	15	22	40	26	1.7	1.6	.25	.25
15	1.8	216	17	e7.0	14	19	65	71	1.4	2.8	.25	.25
16	1.6	104	14	e6.0	12	14	49	37	1.2	1.9	.25	.25
17	2.2	151	13	e5.6	11	12	34	27	1.2	1.0	.25	.51
18	2.4	98	13	e5.4	10	14	25	21	1.1	.64	.25	.29
19	6.3	72	13	e5.2	11	9.9	20	16	1.2	.40	.21	.23
20	249	48	12	e5.1	17	8.9	15	14	1.1	.62	.21	.20
21	79	34	12	e5.0	27	9.6	13	11	.95	2.1	.41	.20
22	43	25	10	e4.9	58	7.7	11	9.8	.98	1.6	.32	.20
23	29	20	9.1	e9.0	160	6.5	9.4	8.6	.99	.74	.26	1.2
24	22	16	8.0	125	87	7.6	8.5	7.6	1.1	.47	.25	2.3
25	17	13	e7.3	194	56	6.1	7.7	8.1	1.1	.37	.23	2.6
26	13	13	e6.6	84	37	5.9	6.9	7.0	57	.30	.17	3.6
27	11	15	e5.8	113	27	12	19	5.6	22	.29	.10	6.8
28	9.2	13	e5.4	183	22	17	9.6	5.1	6.9	.25	2.1	2.3
29	8.1	11	e5.0	88	---	15	144	4.7	4.6	.26	4.8	1.5
30	7.7	9.0	e4.8	57	---	12	532	4.6	3.6	.27	1.0	.90
31	7.6	---	e4.7	42	---	11	---	4.4	---	.25	.36	---
TOTAL	541.8	2010.7	1000.5	1030.8	897	374.0	1658.2	1079.5	143.92	38.96	15.39	42.42
MEAN	17.5	67.0	32.3	33.3	32.0	12.1	55.3	34.8	4.80	1.26	.50	1.41
MAX	249	1040	304	194	160	24	532	153	57	3.0	4.8	10
MIN	1.4	4.2	4.7	4.5	10	5.9	6.9	4.4	.95	.25	.10	.12
CFSM	.92	3.53	1.70	1.75	1.69	.63	2.91	1.83	.25	.07	.03	.07
IN.	1.06	3.94	1.96	2.02	1.76	.73	3.25	2.11	.28	.08	.03	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	7.86	25.6	33.3	32.5	41.1	44.5	43.5	24.6	10.5	14.5	8.09	6.63													
MAX	45.7	89.9	98.2	103	106	104	136	140	38.0	65.7	30.5	40.0													
(WY)	1984	1986	1991	1982	1989	1989	1972	1983	1985	1988	1985	1982													
MIN	.14	.74	2.33	.97	5.41	9.65	4.21	1.91	.088	.29	.13	.36													
(WY)	1988	1972	1977	1977	1992	1976	1976	1988	1988	1991	1987	1984													

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1970 - 1994	
	Value	Date	Value	Date	Value	Date
ANNUAL TOTAL	10827.87		8833.19			
ANNUAL MEAN	29.7		24.2		24.4	
HIGHEST ANNUAL MEAN					43.1	1989
LOWEST ANNUAL MEAN					10.7	1981
HIGHEST DAILY MEAN	1040	Nov 14	1040	Nov 14	1730	Jul 20 1988
LOWEST DAILY MEAN	.22	Aug 1	.10	Aug 27	.01	Nov 7 1992
ANNUAL SEVEN-DAY MINIMUM	.37	Jul 26	.19	Aug 8	.03	Jul 4 1988
INSTANTANEOUS PEAK FLOW			3690	Nov 14	9240	May 17 1990
INSTANTANEOUS PEAK STAGE			11.46	Nov 14	15.58	May 17 1990
ANNUAL RUNOFF (CFSM)	1.56		1.27		1.28	
ANNUAL RUNOFF (INCHRS)	21.20		17.29		17.44	
10 PERCENT EXCEEDS	71		56		52	
50 PERCENT EXCEEDS	11		7.0		7.4	
90 PERCENT EXCEEDS	1.8		.26		.47	

e Estimated

## BLUE RIVER BASIN

03302800 BLUE RIVER AT FREDERICKSBURG, IN

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

DRAINAGE AREA.--283 mi<sup>2</sup>, of which 76.9 mi<sup>2</sup> does not contribute directly to surface runoff.

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

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

REMARKS.--Records good except for estimated daily discharges, which are 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 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	54	137	93	468	327	295	4950	73	37	14	21
2	22	50	135	100	e370	301	264	1350	68	31	14	17
3	20	51	165	110	e320	267	253	856	65	25	14	10
4	17	54	1610	120	277	238	307	647	61	28	15	8.4
5	15	49	4040	116	256	214	277	507	53	24	18	15
6	14	49	1170	107	227	189	318	417	50	21	17	56
7	13	45	718	160	199	175	568	1130	47	21	17	37
8	13	41	538	188	200	165	442	1100	43	33	15	23
9	14	38	421	e140	900	165	384	715	41	33	14	18
10	14	36	363	e125	553	176	1520	524	41	37	12	15
11	24	36	305	135	418	189	1620	404	37	25	12	13
12	21	34	250	167	341	314	1180	349	33	21	11	13
13	17	58	224	210	302	395	864	281	30	19	11	12
14	17	2650	215	e150	260	433	644	265	28	23	12	11
15	18	6920	233	e125	240	384	672	580	26	20	11	9.1
16	17	1190	221	e105	219	310	844	572	23	25	9.5	7.2
17	22	1680	195	e98	201	259	578	367	22	31	9.1	6.2
18	20	1320	187	e95	192	255	460	290	21	20	9.0	6.0
19	14	785	186	e92	186	230	390	240	20	18	8.7	9.1
20	202	573	176	e90	206	201	321	208	20	18	8.6	8.3
21	981	429	176	e89	441	195	272	180	21	16	9.2	7.6
22	271	336	164	e88	462	184	242	159	19	19	9.2	6.3
23	176	281	151	e98	2540	164	211	140	18	21	8.4	7.2
24	130	247	138	214	1360	187	191	128	18	18	8.5	28
25	103	215	135	1820	818	245	176	119	18	16	8.3	37
26	83	195	e120	1950	588	202	163	111	21	13	8.3	31
27	73	192	e110	1390	441	368	198	97	351	12	8.7	129
28	65	192	e102	2660	371	575	251	86	124	11	8.5	87
29	58	171	e95	1420	---	521	734	79	71	9.4	55	40
30	58	151	e86	840	---	397	4480	75	50	9.5	44	27
31	57	---	e82	626	---	335	---	75	---	15	28	---
TOTAL	2592	18122	12848	13721	13356	8560	19119	17001	1513	669.9	448.0	715.4
MEAN	83.6	604	414	443	477	276	637	548	50.4	21.6	14.5	23.8
MAX	981	6920	4040	2660	2540	575	4480	4950	351	37	55	129
MIN	13	34	82	88	186	164	163	75	18	9.4	8.3	6.0
CFSM	.30	2.13	1.46	1.56	1.69	.98	2.25	1.94	.18	.08	.05	.08
IN.	.34	2.38	1.69	1.80	1.76	1.13	2.51	2.23	.20	.09	.06	.09

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1994, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	66.5	272	415	459	553	610	588	360	202	155	96.0	65.8														
MAX	305	1135	1166	1341	1236	1193	1280	1808	743	588	463	239														
(WY)	1984	1980	1991	1982	1990	1978	1972	1983	1990	1973	1977	1979														
MIN	6.35	12.5	29.4	11.6	56.1	142	86.8	35.2	8.36	13.1	14.5	8.37														
(WY)	1988	1988	1977	1977	1992	1969	1976	1988	1988	1991	1994	1987														

## SUMMARY STATISTICS

## FOR 1993 CALENDAR YEAR

## FOR 1994 WATER YEAR

## WATER YEARS 1969 - 1994

ANNUAL TOTAL	123666.1	108665.3	
ANNUAL MEAN	339	298	319
HIGHEST ANNUAL MEAN			544
LOWEST ANNUAL MEAN			129
HIGHEST DAILY MEAN	6920	Nov 15	11500
LOWEST DAILY MEAN	7.8	Aug 1	2.5
ANNUAL SEVEN-DAY MINIMUM	11	Jul 26	3.0
INSTANTANEOUS PEAK FLOW			10500
INSTANTANEOUS PEAK STAGE			21.62
ANNUAL RUNOFF (CFSM)	1.20		1.05
ANNUAL RUNOFF (INCHES)	16.26		14.28
10 PERCENT EXCEEDS	844		645
50 PERCENT EXCEEDS	145		119
90 PERCENT EXCEEDS	23		13
			732
			114
			15
			1.13
			15.31
			24.37
			May 2 1983
			May 2 1983
			May 17 1990
			Oct 4 1991
			Sep 30 1991
			May 2 1983
			May 2 1983

e Estimated

BLUE RIVER BASIN

03302849 WHISKEY RUN AT MARENGO, IN

LOCATION.--Lat 38°22'32", long 86°20'41", in SW<sup>1</sup>/<sub>4</sub>/NW<sup>1</sup>/<sub>4</sub> sec.6, T.2 S., R.2 E., Crawford County, Hydrologic Unit 05140104, on left (north) bank about 100 ft upstream from bridge and intersection of North Main Street and North Water Street in Marengo, known as Old Town.

DRAINAGE AREA.--7.02 mi<sup>3</sup>.

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

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

REMARKS.--No estimated daily discharges. Records poor. Stage affected by inflow from small cave 50 ft below gage.

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 0.80 ft.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 7.84 ft, Nov. 14, 1993; minimum gage height, undetermined below 0.80 ft.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.19	1.42	1.52	1.49	1.81	1.69	1.67	2.33	1.28	1.07	.91	1.04
2	1.20	1.40	1.68	1.54	1.76	1.66	1.63	2.07	1.33	1.07	.86	1.00
3	1.19	1.42	2.63	1.61	1.70	1.61	1.76	1.92	1.28	1.07	.86	.90
4	1.18	1.42	3.31	1.58	1.68	1.59	1.70	1.81	1.28	1.06	1.22	.82
5	1.17	1.42	2.38	1.55	1.65	1.55	1.67	1.72	1.27	1.06	1.18	1.23
6	1.16	1.39	2.09	1.61	1.61	1.53	2.08	1.75	1.27	1.06	1.07	1.12
7	1.15	1.38	1.94	1.68	1.59	1.51	1.89	1.96	1.27	1.05	1.07	1.07
8	1.16	1.37	1.84	1.59	1.81	1.50	1.81	1.82	1.26	1.11	1.06	1.06
9	1.35	1.36	1.79	1.54	1.84	1.56	1.76	1.73	1.26	1.09	1.05	1.03
10	1.26	1.35	1.75	1.53	1.75	1.67	2.25	1.65	1.25	1.07	1.05	.98
11	1.23	1.35	1.69	1.57	1.71	1.93	2.13	1.61	1.24	1.07	1.05	.92
12	1.22	1.35	1.66	1.71	1.70	1.87	2.01	1.56	1.23	1.06	1.16	.84
13	1.21	2.15	1.65	1.72	1.67	1.87	1.87	1.53	1.22	1.07	1.09	.82
14	1.20	3.49	1.70	1.61	1.65	1.81	1.78	1.79	1.22	1.07	1.08	.81
15	1.19	2.32	1.74	1.54	1.63	1.73	1.85	1.71	1.21	1.07	1.06	.81
16	1.20	2.15	1.68	1.56	1.60	1.66	1.76	1.61	1.22	1.07	1.04	.81
17	1.30	2.43	1.66	1.54	1.58	1.64	1.70	1.55	1.22	1.06	.97	.81
18	1.25	2.09	1.66	1.48	1.57	1.61	1.66	1.51	1.21	1.04	.89	.81
19	1.40	1.93	1.64	1.47	1.58	1.58	1.61	1.47	1.25	.99	.84	.81
20	2.21	1.82	1.64	1.45	1.99	1.59	1.57	1.44	1.18	.95	.81	.81
21	1.78	1.74	1.60	1.44	1.88	1.61	1.54	1.41	1.17	.91	.81	.81
22	1.64	1.69	1.58	1.44	3.37	1.57	1.51	1.38	1.15	.92	.81	.81
23	1.57	1.65	1.54	1.52	2.45	1.59	1.49	1.37	1.17	.87	.81	1.65
24	1.52	1.62	1.54	2.01	2.11	1.76	1.47	1.35	1.19	.87	.80	1.36
25	1.49	1.60	1.53	2.90	1.95	1.67	1.45	1.34	1.17	.87	.80	1.26
26	1.46	1.60	1.51	2.39	1.83	1.79	1.43	1.33	1.26	.86	.80	1.62
27	1.44	1.61	1.49	2.81	1.76	2.08	2.02	1.31	1.21	.85	.98	1.34
28	1.43	1.59	1.48	2.55	1.72	2.05	1.79	1.30	1.17	.85	.97	1.23
29	1.41	1.56	1.47	2.19	---	1.88	2.62	1.29	1.14	1.07	1.05	1.19
30	1.47	1.53	1.45	2.01	---	1.79	3.05	1.34	1.11	1.04	.96	1.17
31	1.45	---	1.45	1.90	---	1.72	---	1.31	---	.98	1.08	---
MEAN	1.36	1.71	1.75	1.76	1.82	1.70	1.82	1.59	1.22	1.01	.97	1.03
MAX	2.21	3.49	3.31	2.90	3.37	2.08	3.05	2.33	1.33	1.11	1.22	1.65
MIN	1.15	1.35	1.45	1.44	1.57	1.50	1.43	1.29	1.11	.85	.80	.81

WTR YR 1994 MEAN 1.48 MAX 3.49 MIN .80

## BLUE RIVER BASIN

## 03303000 BLUE RIVER NEAR WHITE CLOUD, IN

LOCATION.--Lat 38°14'15", long 86°13'42", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, sec.19, T.3 S., R.3 E., Harrison County, Hydrologic Unit 05140104, on left bank 400 ft downstream from Spring Creek, 600 ft upstream from bridge on Interstate 64, 0.2 mi upstream from bridge on State Highway 62, 0.8 mi north of White Cloud, and at mile 14.7.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	108	316	e220	1260	871	881	10400	222	117	35	67
2	69	105	296	234	1010	790	782	3990	216	95	32	53
3	63	103	357	257	884	722	722	2330	211	81	36	41
4	57	101	2070	286	768	641	723	1690	192	73	36	34
5	53	103	7250	289	673	582	740	1320	181	65	60	38
6	47	103	3240	284	620	523	701	1090	166	65	67	51
7	43	95	1830	322	549	480	1010	1270	155	64	86	45
8	40	91	1270	387	556	453	1060	2520	145	107	56	66
9	40	87	1020	e335	1160	448	918	1720	139	91	43	69
10	51	83	851	e315	1580	452	1260	1300	130	82	36	50
11	45	79	734	336	1050	533	3730	1040	125	75	32	39
12	44	75	608	351	882	738	2540	890	117	73	29	31
13	42	283	523	418	776	954	2070	778	110	65	30	27
14	46	2770	489	459	693	1040	1590	803	103	65	38	24
15	46	11000	478	e300	625	1010	1300	1310	96	56	35	22
16	42	4260	482	e250	580	868	1630	1430	90	53	26	21
17	50	2920	446	e230	532	731	1360	1070	92	52	24	21
18	56	3410	410	e220	502	674	1090	829	96	49	23	21
19	112	1920	397	e218	482	637	950	704	84	59	21	19
20	229	1360	392	e212	504	582	823	608	83	50	21	18
21	1290	1000	379	e210	878	608	712	539	76	45	24	18
22	740	795	367	e209	1200	569	635	477	80	50	23	16
23	405	649	347	e240	4400	520	572	433	79	46	20	23
24	286	560	323	390	3720	530	519	396	76	40	19	47
25	222	492	311	2170	2170	613	482	369	78	47	19	56
26	191	442	299	4830	1580	617	451	347	85	64	19	91
27	159	412	281	3150	1180	1030	642	320	220	48	18	142
28	137	398	e250	5120	985	1550	745	288	455	43	18	124
29	122	385	e225	4110	---	1550	940	257	259	48	76	168
30	119	349	e200	2250	---	1220	6200	237	152	47	52	102
31	117	---	e185	1610	---	1010	---	234	---	40	64	---
TOTAL	5039	34538	26626	30212	31799	23546	37778	40989	4313	1955	1118	1544
MEAN	163	1151	859	975	1136	760	1259	1322	144	63.1	36.1	51.5
MAX	1290	11000	7250	5120	4400	1550	6200	10400	455	117	86	168
MIN	40	75	185	209	482	448	451	234	76	40	18	16
CFSM	.34	2.42	1.80	2.05	2.39	1.60	2.65	2.78	.30	.13	.08	.11
IN.	.39	2.70	2.08	2.36	2.49	1.84	2.95	3.20	.34	.15	.09	.12

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1994, BY WATER YEAR (WY)

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	
MEAN	130	383	652	1056	1143	1382	1160	787	450	287	177	136													
MAX	515	2057	2417	6290	3404	4299	2422	4020	2101	1655	801	541													
(WY)	1956	1980	1958	1937	1950	1945	1947	1983	1990	1979	1977	1965													
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 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1932 - 1994	
ANNUAL TOTAL	254118		239457			
ANNUAL MEAN	696		656		643	
HIGHEST ANNUAL MEAN					1199	
LOWEST ANNUAL MEAN					140	
HIGHEST DAILY MEAN	11000		11000		26000	
LOWEST DAILY MEAN	40		16		9.6	
ANNUAL SEVEN-DAY MINIMUM	44		19		11	
INSTANTANEOUS PEAK FLOW			12500		28500	
INSTANTANEOUS PEAK STAGE			14.21		23.07	
ANNUAL RUNOFF (CFSM)	1.46		1.38		1.35	
ANNUAL RUNOFF (INCHES)	19.86		18.71		18.34	
10 PERCENT EXCEEDS	1720		1480		1440	
50 PERCENT EXCEEDS	342		286		251	
90 PERCENT EXCEEDS	70		38		36	

e Estimated



## CROOKED CREEK BASIN

03303400 CROOKED CREEK NEAR SANTA CLAUS, IN

LOCATION.--Lat 38°07'05", long 86°53'24", in SW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, sec.31, T.4 S., R.4 W., Spencer County, Hydrologic Unit 05140201, on right bank at upstream side of bridge on county road, 1.3 mi east of Santa Claus Post Office, and 1.8 mi upstream from unnamed right-bank tributary.

DRAINAGE AREA.--7.86 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	8.1	2.8	2.5	e3.5	3.9	3.5	53	.10	e.05	e.00	e.00
2	.68	8.9	13	5.3	e3.3	3.5	3.1	18	.57	e.00	e.00	e.00
3	.32	8.7	59	6.8	e3.0	2.5	7.2	11	.20	e.00	e5.4	e.00
4	.19	9.2	309	5.4	e3.0	2.4	5.3	8.5	.12	e.00	e.50	e.00
5	.14	9.1	69	3.8	e3.0	2.0	6.0	5.7	.09	e.00	4.3	e.60
6	.13	7.2	18	4.7	2.5	2.1	30	5.6	.08	e.00	e.50	e.05
7	.16	5.5	9.4	6.3	2.2	1.5	13	16	.08	e.00	e.00	e.00
8	.16	5.7	6.9	3.0	8.5	1.9	7.3	9.4	.09	e.02	e.00	e.00
9	.86	6.0	6.1	e1.8	17	3.1	5.3	5.7	.07	e7.0	e.00	e.00
10	.18	6.5	7.4	e1.2	7.2	9.1	31	3.2	.07	.38	e.00	e.00
11	.11	6.8	5.1	e1.3	e3.8	16	21	2.2	.06	.10	e.00	e.00
12	.14	7.0	4.4	13	e3.7	15	16	1.8	.05	e.00	e.00	e.00
13	.33	116	4.1	7.9	e3.5	11	9.2	1.2	.04	e.00	e.00	e.00
14	.09	390	11	e3.8	e3.3	8.9	5.6	14	.04	e.00	e.00	e.00
15	.10	85	11	e1.3	e3.0	6.2	29	13	.04	e.03	e.00	e.00
16	.25	24	7.0	e1.0	2.6	3.6	12	5.0	.04	e.02	e.00	e.00
17	4.8	199	5.8	e.90	2.5	3.2	6.1	2.5	.09	e.00	e.00	e.00
18	.99	23	6.8	e.86	2.3	3.1	4.2	1.6	.04	e.00	e.00	e.00
19	25	13	5.1	e.80	2.8	2.5	3.0	1.0	.04	e.00	e.00	e.00
20	180	9.8	4.5	e.76	29	2.2	2.0	.70	.03	e.00	e.00	e.00
21	32	7.7	4.6	e.76	22	2.3	1.5	.50	.03	e.00	e.00	e.00
22	14	5.7	4.6	e.76	98	1.7	1.1	.38	.03	e.00	e.00	e.00
23	8.1	4.9	3.2	e.80	82	1.7	.79	.26	.03	e.00	e.00	e.00
24	5.3	4.3	2.8	e1.0	20	1.6	.63	.53	.13	e.00	e.00	e.05
25	4.8	5.3	e2.2	e2.5	11	1.2	.46	.18	.08	e.00	e.00	e.07
26	5.1	9.1	e1.5	28	5.9	3.7	.38	.32	4.0	e.00	e.00	e.20
27	4.5	7.6	e1.6	179	4.6	39	11	.09	3.4	e.00	e.00	e.10
28	4.7	5.4	e1.6	168	4.1	25	2.2	.08	.47	e.00	e.00	e.00
29	6.0	4.0	e1.3	26	---	9.0	47	.07	.17	e.00	e1.6	e.00
30	10	3.0	e1.1	13	---	5.6	533	.14	.10	e.00	e.00	e.00
31	9.4	---	e1.0	8.8	---	4.5	---	.22	---	e.00	e.00	---
TOTAL	318.83	1005.5	590.9	501.04	357.3	199.0	817.86	181.87	10.38	7.60	12.30	1.07
MEAN	10.3	33.5	19.1	16.2	12.8	6.42	27.3	5.87	.35	.25	.40	.036
MAX	180	390	309	179	98	39	533	53	4.0	7.0	5.4	.60
MIN	.09	3.0	1.0	.76	2.2	1.2	.38	.07	.03	.00	.00	.00
CFSM	1.31	4.26	2.43	2.06	1.62	.82	3.47	.75	.04	.03	.05	.00
IN.	1.51	4.76	2.80	2.37	1.69	.94	3.87	.86	.05	.04	.06	.01

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	2.71	10.5	15.0	13.8	21.3	21.3	20.0	9.34	5.12	4.88	2.59	2.25													
MAX	10.3	33.5	49.1	43.7	51.7	51.9	60.7	56.1	19.6	47.5	19.4	11.6													
(WY)	1994	1994	1991	1982	1989	1975	1983	1990	1986	1979	1977	1982													
MIN	.000	.28	.51	.058	1.12	5.35	2.27	.17	.000	.001	.000	.000													
(WY)	1988	1992	1977	1977	1992	1990	1976	1988	1988	1974	1983	1970													

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1970 - 1994	
ANNUAL TOTAL	5508.17		4003.65			
ANNUAL MEAN	15.1		11.0		10.7	
HIGHEST ANNUAL MEAN					17.4	
LOWEST ANNUAL MEAN					3.97	
HIGHEST DAILY MEAN	390		533		833	
LOWEST DAILY MEAN	.00		.00		.00	
ANNUAL SEVEN-DAY MINIMUM	.01		.00		.00	
INSTANTANEOUS PEAK FLOW			1680		4100	
INSTANTANEOUS PEAK STAGE			9.35		10.13	
ANNUAL RUNOFF (CFSM)	1.92		1.40		1.36	
ANNUAL RUNOFF (INCHES)	26.07		18.95		18.44	
10 PERCENT EXCEEDS	28		15		22	
50 PERCENT EXCEEDS	4.5		2.0		1.6	
90 PERCENT EXCEEDS	.11		.00		.00	

e Estimated

PIGEON CREEK BASIN

03322011 PIGEON CREEK NEAR FORT BRANCH, IN

LOCATION.--Lat 38°15'08", long 87°31'11", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, sec.15, T.3 S., R.10 W., Gibson County, Hydrologic Unit 05140202, on right bank 20 ft downstream from bridge on State Highway 169, 1.1 mi upstream from West Fork Pigeon Creek and 2.6 mi east of intersection of U.S. Highway 41 at Fort Branch.

DRAINAGE AREA.--35.4 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	3.4	5.4	e5.2	21	15	e8.6	105	7.1	2.3	1.5	1.8
2	4.4	3.0	35	e8.0	18	15	e8.4	44	10	2.2	1.8	1.8
3	3.3	3.1	251	e14	16	13	12	29	8.0	2.1	2.1	e1.7
4	2.9	3.2	e600	e13	15	13	10	23	6.9	2.0	3.8	e1.6
5	2.7	3.3	e200	e10	15	11	16	19	7.3	1.9	4.2	e1.7
6	2.6	2.9	e62	e12	15	10	135	23	8.1	1.9	1.1	e1.7
7	2.6	2.5	e37	e14	14	9.7	38	41	6.9	2.0	.94	e1.6
8	2.7	2.4	e29	e11	24	9.5	22	26	23	2.0	.95	e1.6
9	4.5	4.2	e24	e9.0	43	9.7	19	20	17	1.9	1.4	e1.6
10	3.6	2.0	e22	e8.6	15	12	236	17	7.1	1.9	1.4	e1.6
11	3.1	2.1	e18	8.9	14	19	104	15	6.4	1.8	1.5	e1.6
12	3.1	2.2	e15	27	13	20	87	14	6.1	1.8	1.4	e1.6
13	3.0	51	e15	17	13	16	42	14	5.9	2.3	1.5	e1.5
14	2.8	1800	e16	e12	12	16	28	19	5.9	2.8	1.6	e1.5
15	2.7	1040	e18	e10	12	14	47	82	5.7	1.6	1.7	e1.5
16	2.8	119	e15	e9.3	12	11	29	21	5.6	1.6	1.7	e1.4
17	3.2	1460	e14	e8.7	12	9.8	20	15	5.4	1.8	1.7	e1.4
18	3.0	101	e14	e8.2	13	10	16	14	5.4	1.9	1.5	e1.4
19	4.8	38	e13	e7.7	12	e9.3	14	13	5.3	2.0	1.4	e1.3
20	28	24	e13	e7.5	19	e8.6	12	12	5.3	2.0	1.5	e1.3
21	30	16	e12	e7.4	15	e8.6	11	11	5.1	2.0	1.6	e1.3
22	6.2	11	e10	e7.3	226	e7.7	11	10	5.1	1.9	1.3	e1.3
23	4.3	9.3	e9.1	21	254	e7.1	e9.5	10	4.8	1.7	1.2	e1.3
24	3.6	8.0	e8.1	136	52	e6.3	e9.1	9.9	4.8	1.7	.96	e1.4
25	3.2	7.5	e7.4	470	32	e6.0	e8.2	9.9	4.6	1.8	.89	e1.5
26	3.2	61	e6.9	97	20	e8.6	e7.5	9.4	7.5	2.1	.89	e1.5
27	3.2	31	e6.4	613	16	45	e25	8.9	8.4	2.0	.89	e1.6
28	3.1	17	e6.0	597	15	15	144	8.5	3.0	1.7	1.3	e1.5
29	3.1	8.6	e5.6	60	---	11	66	8.2	2.6	1.6	18	e1.4
30	3.4	5.8	e5.4	40	---	e9.2	800	7.7	2.4	1.6	2.2	e1.4
31	3.9	---	e5.3	30	---	e8.9	---	7.5	---	1.5	1.8	---
TOTAL	155.4	4842.5	1498.6	2299.8	958	385.0	1995.3	667.0	206.7	59.4	65.72	45.4
MEAN	5.01	161	48.3	74.2	34.2	12.4	66.5	21.5	6.89	1.92	2.12	1.51
MAX	30	1800	600	613	254	45	800	105	23	2.8	18	1.8
MIN	2.4	2.0	5.3	5.2	12	6.0	7.5	7.5	2.4	1.5	.89	1.3
CFSM	.14	4.56	1.37	2.10	.97	.35	1.88	.61	.19	.05	.06	.04
IN.	.16	5.09	1.57	2.42	1.01	.40	2.10	.70	.22	.06	.07	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1994, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	10.0	39.1	44.2	53.0	73.4	59.2	43.0	39.9	13.5	23.3	17.8	8.47				
MAX	38.8	161	176	98.4	170	164	95.3	203	40.4	52.5	75.5	20.5				
(WY)	1991	1994	1991	1991	1989	1989	1993	1990	1990	1989	1989	1989				
MIN	.55	2.13	12.0	6.96	4.66	12.4	14.6	2.21	1.38	1.92	1.29	1.06				
(WY)	1992	1988	1993	1987	1992	1994	1991	1988	1988	1994	1991	1987				

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1987 - 1994	
	Value	Date	Value	Date	Value	Date
ANNUAL TOTAL	17359.1		13178.82			
ANNUAL MEAN	47.6		36.1		35.2	
HIGHEST ANNUAL MEAN					62.3	1989
LOWEST ANNUAL MEAN					12.7	1992
HIGHEST DAILY MEAN	1800	Nov 14	1800	Nov 14	1800	Nov 14 1993
LOWEST DAILY MEAN	1.3	Aug 30	.89	Aug 25	.28	Oct 4 1991
ANNUAL SEVEN-DAY MINIMUM	1.5	Aug 20	1.1	Aug 22	.39	Oct 2 1991
INSTANTANEOUS PEAK FLOW			3430	Nov 14	3430	Nov 14 1993
INSTANTANEOUS PEAK STAGE			17.17	Nov 14	17.17	Nov 14 1993
ANNUAL RUNOFF (CFSM)	1.34		1.02		.99	
ANNUAL RUNOFF (INCHES)	18.24		13.85		13.52	
10 PERCENT EXCEEDS	61		39		44	
50 PERCENT EXCEEDS	8.7		8.1		6.0	
90 PERCENT EXCEEDS	2.0		1.5		1.1	

e Estimated



WABASH RIVER BASIN

03323500 WABASH RIVER AT HUNTINGTON, IN

LOCATION.--Lat 40°51'20", long 85°29'53", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.27, T.28 N., R.9 E., Huntington County, Hydrologic Unit 05120101, on right bank at the Huntington Water and Light Plant, 2 mi south of Huntington, 2.4 mi downstream from Huntington Lake, 3.2 mi upstream from Little River, and at mile 409.0.

DRAINAGE AREA.--721 mi<sup>2</sup>.

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

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

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

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

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

AVERAGE DISCHARGE.--43 years, 607 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,900 ft<sup>3</sup>/s Feb. 10, 1959; maximum gage height 23.20 ft Feb 10, 1959 (backwater from ice); minimum daily discharge, 0.00 ft<sup>3</sup>/s Sept. 12, 1989.

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

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,360 ft<sup>3</sup>/s Apr. 16; minimum daily discharge, 26 ft<sup>3</sup>/s Apr. 28-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	94	643	170	4490	634	82	27	176	381	28	39
2	187	88	320	174	4300	427	87	52	70	370	28	43
3	142	87	305	208	3450	331	87	105	27	999	28	43
4	108	87	424	220	1280	337	87	134	27	1550	356	49
5	103	87	580	198	580	351	87	164	27	641	313	52
6	103	86	2040	196	371	382	107	185	27	448	27	52
7	102	86	1980	199	266	653	281	206	44	655	27	52
8	90	94	670	143	320	1110	774	221	135	754	27	52
9	96	102	701	155	244	1230	1010	266	112	570	34	52
10	90	100	702	174	216	1160	1060	341	59	377	43	52
11	78	99	691	167	172	492	1490	389	27	419	43	68
12	80	98	674	139	183	332	579	383	84	311	43	75
13	83	98	652	148	214	367	1290	345	82	99	43	68
14	83	125	623	185	255	373	2730	183	61	75	56	52
15	94	499	592	190	266	401	4120	116	61	75	165	43
16	99	1640	558	150	332	423	5360	112	61	75	406	43
17	112	2420	521	84	469	473	5000	112	78	75	339	43
18	133	2730	480	104	561	608	4000	87	117	75	188	32
19	143	3630	365	139	636	554	2310	75	184	75	118	27
20	141	4070	237	147	706	427	760	75	176	75	79	62
21	109	4600	234	146	761	331	469	81	119	89	81	74
22	94	4760	345	140	2000	280	317	83	101	95	83	73
23	94	4540	368	151	2610	270	230	83	75	95	78	78
24	93	3490	294	150	2480	237	187	83	714	82	75	81
25	106	2160	277	146	1560	214	154	83	1720	76	75	87
26	112	1200	140	1240	1160	253	78	105	1740	70	68	90
27	111	629	120	1610	1100	226	30	155	712	61	49	90
28	110	488	195	1570	798	145	26	196	331	39	35	89
29	109	733	216	3020	---	114	26	232	211	27	27	89
30	108	841	214	3850	---	114	26	242	338	27	27	88
31	107	---	180	4330	---	91	---	221	---	27	27	---
TOTAL	3405	39761	16341	19643	31780	13340	32844	5142	7696	8787	3016	1838
MEAN	110	1325	527	634	1135	430	1095	166	257	283	97.3	61.3
MAX	187	4760	2040	4330	4490	1230	5360	389	1740	1550	406	90
MIN	78	86	120	84	172	91	26	27	27	27	27	27

CAL YR 1993 TOTAL 347050 MEAN 951 MAX 4760 MIN 43  
WTR YR 1994 TOTAL 183593 MEAN 503 MAX 5360 MIN 26





## WABASH RIVER BASIN

03324500 SALAMONIE RIVER AT DORA, IN

LOCATION.--Lat 40°48'42", long 85°41'02", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.12, T.27 N., R.7 E., Wabash County, Hydrologic Unit 05120102, on right bank, 0.4 mi downstream from Salamonie Lake, 1.5 mi northwest of Dora, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--557 mi<sup>2</sup>.

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

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

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

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

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

AVERAGE DISCHARGE.--70 years, 516 ft<sup>3</sup>/s.

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

EXTREMES FOR CURRENT YEAR.-- Maximum daily discharge, 3,440 ft<sup>3</sup>/s Nov. 28; minimum daily, 13 ft<sup>3</sup>/s July 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	725	289	3110	225	2000	680	59	327	62	212	26	26
2	720	288	2970	224	2230	668	59	382	48	274	26	35
3	716	312	2820	223	2170	654	59	382	33	1880	26	48
4	677	322	1700	176	2090	641	59	207	26	1850	26	48
5	707	320	431	143	2020	633	59	120	26	764	247	48
6	702	319	1350	128	1930	630	59	142	26	739	110	33
7	698	317	1930	116	1840	632	60	197	26	939	26	26
8	554	316	888	116	1400	639	61	516	26	358	26	26
9	491	362	426	100	803	638	62	521	26	211	26	26
10	489	381	425	107	601	631	63	317	26	251	26	26
11	472	379	423	117	344	304	64	244	26	180	26	26
12	461	376	421	116	172	95	68	236	26	100	26	26
13	459	418	419	116	143	96	70	174	41	103	26	26
14	457	597	416	116	143	97	72	151	48	78	26	26
15	455	974	414	103	143	98	72	151	48	70	26	26
16	452	1400	411	90	293	99	72	139	48	56	26	26
17	450	1640	408	90	369	99	691	120	48	48	41	26
18	448	1730	405	90	385	100	1330	120	184	34	48	26
19	446	1040	401	90	400	100	2380	85	210	26	48	191
20	416	582	398	90	417	100	2560	60	151	26	48	336
21	402	588	396	79	429	181	2520	48	151	26	48	336
22	321	588	395	71	435	216	2170	48	97	26	48	335
23	286	587	393	71	437	215	953	48	55	26	48	334
24	285	1170	391	71	437	215	201	64	281	26	48	333
25	284	2540	388	179	626	214	201	70	1630	26	48	332
26	283	3260	384	844	713	214	201	431	1680	13	48	332
27	290	3310	380	1220	702	213	201	454	856	20	48	331
28	293	3440	376	1350	691	213	144	175	464	26	48	203
29	292	3340	371	1500	---	110	120	120	233	26	48	25
30	291	3240	366	1590	---	59	176	104	151	26	48	151
31	290	---	283	1630	---	59	---	95	---	26	32	---
TOTAL	14312	34425	24289	11181	24363	9543	14866	6248	6753	8466	1418	3789
MEAN	462	1147	784	361	870	308	496	202	225	273	45.7	126
MAX	725	3440	3110	1630	2230	680	2560	521	1680	1880	247	336
MIN	283	288	283	71	143	59	59	48	26	13	26	25

CAL YR 1993 TOTAL 289708 MEAN 794 MAX 3800 MIN 38  
WTR YR 1994 TOTAL 159653 MEAN 437 MAX 3440 MIN 13

WABASH RIVER BASIN

03325000 WABASH RIVER AT WABASH, IN

LOCATION.--Lat 40°47'25", long 85°49'13", in SE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.14, T.27 N., R.6 E., Wabash County, Hydrologic Unit 05120101, on right bank on upstream side of Wabash Street bridge in Wabash, 7.1 mi downstream from Salamonie River, and at mile 387.2.

DRAINAGE AREA.--1,768 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1923 to current year. Monthly discharge only for some periods, published in WSP 1305. REVISED RECORDS.--WSP 1275: 1931-37(M), 1938-39, 1940(M). WSP 1385: 1942. WSP 1505: 1955. WSP 2109: Drainage area. WDR IN-84-1: 1983.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	504	4620	650	e5200	1730	326	933	444	840	109	75
2	1080	470	4310	657	e4700	1630	324	876	390	866	108	82
3	1040	486	4040	645	e4300	1380	352	776	274	2230	115	107
4	930	524	3940	681	e3800	1600	372	658	202	3790	119	115
5	928	512	2920	619	e3400	2040	378	518	240	1880	839	115
6	916	504	3380	520	e2900	1970	502	517	186	1390	291	120
7	906	491	5350	507	e2500	3390	890	594	140	2510	110	109
8	783	483	2660	e465	e2300	4680	2080	947	150	1930	100	107
9	666	518	1680	e410	e2100	3390	2300	1070	263	1460	115	105
10	685	573	1670	e450	e1040	2750	4940	861	239	1150	92	110
11	656	571	1610	e430	e660	1960	4790	842	156	721	126	116
12	617	568	1530	e400	e460	970	10800	857	137	756	112	121
13	623	638	1510	e410	e500	1020	7150	792	224	385	109	134
14	616	1910	1500	e470	537	1130	6600	632	471	252	115	135
15	613	3770	1470	e480	712	1120	6560	459	487	242	127	116
16	612	3660	1430	e450	1260	1020	6640	452	283	218	331	94
17	822	6580	1390	e310	1770	923	6720	425	221	201	535	89
18	952	7360	1370	e330	1930	1080	5780	430	298	191	321	87
19	845	5900	1350	e370	2380	1110	5530	341	479	167	267	145
20	766	5540	1120	e390	2760	952	4180	300	459	160	185	378
21	818	5560	1120	e380	2430	909	3470	299	376	164	171	405
22	676	5890	1160	e370	2480	897	3110	329	297	223	169	415
23	557	5630	1270	e380	3510	817	1770	295	247	232	171	417
24	529	5250	1100	e390	3350	800	721	324	676	222	152	442
25	516	5230	1060	e380	2900	694	613	362	3590	170	146	495
26	529	5450	997	e1800	2340	688	579	582	4110	173	141	459
27	520	5050	734	e3300	2190	785	478	875	2310	163	134	453
28	520	4880	804	e5000	1990	719	469	589	1380	148	124	414
29	518	4740	961	e6000	---	524	488	465	861	124	121	164
30	516	4780	835	e6400	---	387	592	545	965	122	99	187
31	507	---	e920	e5800	---	368	---	537	---	123	95	---
TOTAL	22372	94022	59811	39844	66399	43433	89504	18482	20555	23203	5749	6311
MEAN	722	3134	1929	1285	2371	1401	2983	596	685	748	185	210
MAX	1110	7360	5350	6400	5200	4680	10800	1070	4110	3790	839	495
MIN	507	470	734	310	460	368	324	295	137	122	92	75
CFSM	.41	1.77	1.09	.73	1.34	.79	1.69	.34	.39	.42	.10	.12
IN.	.47	1.98	1.26	.84	1.40	.91	1.88	.39	.43	.49	.12	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1994, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1988	1989	1990	1991	1992	1993	1994
MEAN	1065	2072	2020	2680	2303	2129	2369	1216	1672	1689	795	1089		
MAX	2534	5044	4452	5731	5732	4207	3555	3103	4648	4776	2179	2552		
(WY)	1991	1993	1991	1991	1990	1993	1993	1990	1989	1993	1990	1992		
MIN	444	860	345	844	829	831	1219	155	78.3	109	111	210		
(WY)	1989	1988	1990	1988	1989	1989	1990	1988	1988	1988	1991	1994		

SUMMARY STATISTICS FOR 1993 CALENDAR YEAR FOR 1994 WATER YEAR WATER YEARS 1988 - 1994

ANNUAL TOTAL	891348	489685												
ANNUAL MEAN	2442	1342								1754				
HIGHEST ANNUAL MEAN										2753			1993	
LOWEST ANNUAL MEAN										979			1988	
HIGHEST DAILY MEAN	10300	Jan 4				10800	Apr 12		14900				Dec 30	1990
LOWEST DAILY MEAN	151	Aug 31				75	Sep 1		48				Jul 8	1988
ANNUAL SEVEN-DAY MINIMUM	199	Aug 27				98	Aug 30		51				Jul 4	1988
INSTANTANEOUS PEAK FLOW						12800	Apr 12		49600				May 18	1943
INSTANTANEOUS PEAK STAGE						15.45	Apr 12		24.44				Feb 11	1959
ANNUAL RUNOFF (CFSM)	1.38					.76			.99					
ANNUAL RUNOFF (INCHES)	18.75					10.30			13.48					
10 PERCENT EXCEEDS	5550					4140			4680					
50 PERCENT EXCEEDS	1370					616			869					
90 PERCENT EXCEEDS	492					131			189					

e Estimated

## WABASH RIVER BASIN

03325311 LITTLE MISSISSINAWA RIVER AT UNION CITY, IN

LOCATION.--Lat 40°11'46", long 84°49'45", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.26, T.18 N., R.1 W., Randolph County, Hydrologic Unit 05120103, on right bank 85 ft downstream from Westinghouse Road, 0.5 mi downstream from Little Ditch, 0.8 mi upstream from City Drain, and 1.2 mi west of the Post Office in Union City.

DRAINAGE AREA.--9.67 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1075.50 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	.50	e6.1	e9.7	e14	4.1	2.2	4.7	1.8	1.8	.52	.17
2	2.2	.40	e5.9	e9.7	e8.2	4.2	2.2	3.6	1.6	1.7	.43	.09
3	.89	.47	e6.5	e9.7	e5.4	4.2	2.4	3.5	1.6	1.7	.42	.07
4	.48	.49	e6.0	e9.6	e4.4	6.8	2.2	3.3	1.6	1.4	.40	.07
5	.34	.57	e8.2	e9.4	e4.0	9.0	2.6	3.1	1.6	1.5	.40	.09
6	.28	.51	e3.0	e9.3	e3.5	12	7.2	2.9	1.6	8.0	.33	.10
7	.26	.40	e2.2	e9.0	e3.2	13	13	4.2	1.6	23	.34	.10
8	.31	.34	e1.9	e8.8	e3.0	10	13	4.4	1.5	11	.28	.09
9	1.2	.32	e1.7	e8.5	e2.9	8.6	9.1	3.9	1.4	8.8	.25	.09
10	1.7	.34	e1.5	e8.0	e2.8	6.5	69	3.2	1.3	4.7	.24	.09
11	1.2	.40	e1.4	e7.6	e2.7	5.5	70	3.3	1.3	3.1	.58	.09
12	1.0	.43	e1.3	e7.4	e2.7	8.0	104	3.5	1.3	2.4	.68	.10
13	.96	11	e1.2	e7.1	e2.6	11	58	3.0	1.3	2.0	.47	.09
14	.89	395	e3.2	e6.9	e2.6	11	37	3.1	1.2	1.7	.35	.09
15	.73	200	e2.8	e6.5	e2.6	9.3	26	3.2	1.2	1.5	.24	.09
16	1.1	77	e2.4	e6.0	e7.0	6.6	17	2.5	1.2	1.3	.19	.10
17	1.8	204	e1.9	e5.8	e1.6	5.8	11	2.2	1.5	1.2	.16	.11
18	1.9	129	e1.8	e5.7	e3.0	5.9	8.5	2.2	1.3	1.1	.16	.08
19	1.8	69	e1.8	e5.6	e3.3	3.9	7.1	2.1	1.2	1.0	.16	.12
20	3.6	44	e1.7	e5.3	e3.0	3.9	5.6	2.1	1.1	.93	.18	.13
21	19	30	e1.7	e5.2	29	4.2	5.1	2.0	1.8	1.0	.28	.11
22	4.7	19	e1.6	e5.2	16	3.3	4.5	2.0	1.2	1.6	.18	.10
23	2.2	15	e1.6	e5.2	18	3.4	4.2	2.0	4.4	1.1	.13	.07
24	1.4	11	e1.5	e7.6	18	3.3	4.1	2.1	7.3	.86	.20	.09
25	1.1	8.8	e1.4	e1.1	9.0	2.7	3.8	3.2	4.9	.80	.11	.08
26	.87	7.3	e1.2	e2.5	9.2	2.9	3.6	6.1	7.6	.73	.09	.13
27	.75	28	e1.2	e6.0	8.0	3.3	3.3	2.8	7.2	.63	.10	.15
28	.77	16	e1.1	15.7	4.8	2.6	3.0	2.3	3.8	.66	.13	.06
29	.83	10	e1.0	5.7	---	2.3	3.0	2.1	2.9	.58	.18	.05
30	.66	e6.6	e1.0	3.3	---	2.0	4.0	2.0	2.2	1.3	.13	.03
31	.66	---	e9.7	2.2	---	2.2	---	1.9	---	.63	.59	---
TOTAL	56.15	1285.87	601.2	543.8	292.6	181.5	505.7	92.5	71.5	89.72	8.90	2.83
MEAN	1.81	42.9	19.4	17.5	10.4	5.85	16.9	2.98	2.38	2.89	.29	.094
MAX	19	395	82	157	33	13	104	6.1	7.6	23	.68	.17
MIN	.26	.32	5.9	5.2	2.6	2.0	2.2	1.9	1.1	.58	.09	.03
CFSM	.19	4.43	2.01	1.81	1.08	.61	1.74	.31	.25	.30	.03	.01
IN.	.22	4.95	2.31	2.09	1.13	.70	1.95	.36	.28	.35	.03	.01

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1994, BY WATER YEAR (WY)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	3.85	12.2	13.6	8.85	15.1	15.7	17.5	9.78	8.49	11.5	2.07	2.56
MAX	23.1	42.9	53.4	21.4	38.6	29.9	33.7	26.4	24.2	33.5	11.2	24.0
(WY)	1987	1994	1991	1993	1990	1993	1989	1989	1987	1992	1990	1989
MIN	.035	.084	.91	1.19	4.66	3.05	8.60	.93	.23	.065	.004	.000
(WY)	1983	1988	1992	1988	1989	1983	1991	1988	1988	1988	1988	1983

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	FOR 1983 CALENDAR YEAR	FOR 1984 WATER YEAR	FOR 1985 CALENDAR YEAR	FOR 1986 WATER YEAR	FOR 1987 CALENDAR YEAR	FOR 1988 WATER YEAR	FOR 1989 CALENDAR YEAR	FOR 1990 WATER YEAR	FOR 1991 CALENDAR YEAR	FOR 1992 WATER YEAR	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR
ANNUAL TOTAL	5839.64	3732.27												
ANNUAL MEAN	16.0	10.2												
HIGHEST ANNUAL MEAN														
LOWEST ANNUAL MEAN														
HIGHEST DAILY MEAN	395	Nov 14												
LOWEST DAILY MEAN	.19	Sep 11												
ANNUAL SEVEN-DAY MINIMUM	.22	Sep 6												
INSTANTANEOUS PEAK FLOW														
INSTANTANEOUS PEAK STAGE														
ANNUAL RUNOFF (CFSM)	1.65													
ANNUAL RUNOFF (INCHES)	22.46													
10 PERCENT EXCEEDS	38													
50 PERCENT EXCEEDS	6.4													
90 PERCENT EXCEEDS	.38													

e Estimated

WABASH RIVER BASIN

03325500 MISSISSINAWA RIVER NEAR RIDGEVILLE, IN

LOCATION.--Lat 40°16'49", long 84°59'44", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.7, T.21 N., R.14 E., Randolph County, Hydrologic Unit 05120103, on right bank 30 ft downstream from county road bridge, 0.8 mi downstream from Mud Creek, 2 mi east of Ridgeville, and at mile 99.5.

DRAINAGE AREA.--133 mi<sup>2</sup>.

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

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

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

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	11	73	e28	e98	e40	e27	38	e16	e18	14	13
2	13	10	72	e25	e78	e35	e26	28	e14	e15	9.2	5.1
3	11	10	78	e23	e62	e39	e26	26	e14	e12	7.5	e6.5
4	5.2	11	1160	e22	e50	72	e26	26	e14	e11	8.1	e5.0
5	5.4	11	1550	e20	e43	105	e26	25	e14	e10	8.4	e4.5
6	5.4	12	421	e19	e37	139	112	24	e14	e60	6.6	e4.1
7	5.5	11	221	e18	e34	153	270	30	e13	e300	5.3	e3.7
8	6.0	9.4	146	e18	e29	142	279	47	e12	e150	4.6	e3.5
9	7.9	7.8	110	e17	e26	101	142	31	e12	e80	4.5	e3.5
10	23	8.4	99	e17	e26	83	1650	27	e11	e52	4.0	e3.6
11	9.6	8.2	76	e17	e25	78	976	25	e11	e35	7.6	e3.7
12	9.6	8.0	63	e16	e25	95	2280	e22	e10	e21	14	e3.8
13	9.5	109	57	e16	e26	125	651	e21	e10	e17	12	e3.9
14	8.8	5060	55	e16	e27	142	329	e19	e9.8	15	103	e3.5
15	9.4	5730	53	e15	160	117	207	e18	e9.4	15	25	e3.5
16	11	1910	46	e15	543	85	141	e17	e11	10	14	e3.5
17	32	3390	39	e15	468	64	105	e16	e13	9.1	8.8	e3.1
18	30	3050	47	e15	417	69	88	e15	e11	8.7	6.2	e2.6
19	12	672	72	e15	433	48	76	e15	e10	7.1	5.1	e3.0
20	25	325	73	e15	379	41	54	e14	e9.4	6.0	5.9	e3.0
21	132	205	108	e15	294	48	44	e13	e10	7.6	13	e3.0
22	58	143	83	e17	155	42	38	e12	e11	85	9.0	e3.0
23	36	109	70	e25	177	e39	33	e13	e13	21	5.5	e3.0
24	19	95	59	e40	283	e36	31	e35	e84	14	4.3	e2.8
25	12	77	e49	e120	98	e30	29	e60	e65	9.6	3.8	e3.0
26	11	71	e41	e400	62	e33	28	e90	e90	8.0	3.6	e3.8
27	11	410	e37	e1000	e50	e32	29	e50	e72	19	3.2	e5.0
28	11	199	e35	3500	e43	e32	26	e30	e45	53	4.7	e6.8
29	8.9	115	e34	696	---	e31	26	e21	e29	46	9.8	e5.0
30	10	84	e33	233	---	e30	28	e17	e22	82	7.2	e3.7
31	11	---	e31	129	---	e28	---	e16	---	19	7.6	---
TOTAL	565.6	21871.8	5091	6537	4148	2154	7803	841	679.6	1216.1	345.5	125.2
MEAN	18.2	729	164	211	148	69.5	260	27.1	22.7	39.2	11.1	4.17
MAX	132	5730	1550	3500	543	153	2280	90	90	300	103	13
MIN	5.2	7.8	31	15	25	28	26	12	9.4	6.0	3.2	2.6
CFSM	.14	5.48	1.23	1.59	1.11	.52	1.96	.20	.17	.29	.08	.03
IN.	.16	6.12	1.42	1.83	1.16	.60	2.18	.24	.19	.34	.10	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1994, BY WATER YEAR (WY)

	30.8	98.8	152	179	208	254	222	115	143	101	41.2	32.1
MEAN	30.8	98.8	152	179	208	254	222	115	143	101	41.2	32.1
MAX	272	729	872	865	548	714	810	352	1417	709	454	337
(WY)	1987	1994	1991	1950	1950	1978	1964	1981	1958	1979	1979	1972
MIN	1.25	1.82	2.62	3.25	5.00	46.1	25.8	15.3	6.52	2.37	2.13	.99
(WY)	1947	1954	1964	1977	1964	1957	1976	1988	1988	1952	1983	1954

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1947 - 1994	
ANNUAL TOTAL	80702.5		51377.8			
ANNUAL MEAN	221		141		131	
HIGHEST ANNUAL MEAN					223	
LOWEST ANNUAL MEAN					29.8	
HIGHEST DAILY MEAN	5730	Nov 15	5730	Nov 15	11300	
LOWEST DAILY MEAN	3.5	Aug 29	2.6	Sep 18	.10	
ANNUAL SEVEN-DAY MINIMUM	3.7	Sep 6	2.9	Sep 18	.23	
INSTANTANEOUS PEAK FLOW			10000		13900	
INSTANTANEOUS PEAK STAGE			15.35		16.25	
ANNUAL RUNOFF (CFSM)	1.66		1.06		.98	
ANNUAL RUNOFF (INCHES)	22.57		14.37		13.38	
10 PERCENT EXCEEDS	470		167		280	
50 PERCENT EXCEEDS	61		25		29	
90 PERCENT EXCEEDS	6.9		5.2		3.8	

e Estimated

## WABASH RIVER BASIN

03326070 BIG LICK CREEK NEAR HARTFORD CITY, IN

LOCATION.--Lat 40°25'20", long 85°21'04", in SE<sup>1</sup>/<sub>4</sub>/SE<sup>1</sup>/<sub>4</sub>, sec.23, T.23 N., R.10 E., Blackford County, Hydrologic Unit 05120103, on right bank 6 ft downstream from bridge on County Road 100 East, and 2.0 mi southeast of Hartford City.

DRAINAGE AREA.--29.2 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.57	2.6	7.9	e4.0	e15	e6.8	3.5	23	3.0	3.4	2.5	4.7
2	.47	2.5	8.3	e4.1	e11	e6.0	3.5	14	2.5	2.7	2.2	2.3
3	.50	2.3	12	e3.7	e8.0	e7.0	3.6	9.0	2.3	2.6	2.0	1.6
4	.53	2.2	125	e3.3	e6.4	e9.4	3.8	7.5	2.2	2.5	2.2	1.4
5	.49	2.3	96	e3.0	e5.4	e13	3.9	6.5	2.2	3.2	3.1	1.4
6	.48	2.3	26	e2.7	e4.7	e19	23	5.6	2.1	3.1	2.5	1.6
7	.48	2.2	22	e2.6	e4.2	e30	51	14	1.9	2.4	2.3	1.4
8	.50	2.2	19	e2.4	e3.8	e24	52	22	2.2	4.9	2.2	1.2
9	.81	2.2	15	e2.3	e3.6	e19	25	14	2.7	7.5	2.2	1.2
10	1.6	2.2	13	e2.2	e3.5	e15	278	8.4	1.9	3.1	2.4	1.1
11	.92	2.1	10	e2.1	e3.4	e13	147	6.6	1.7	2.3	3.7	1.3
12	.76	2.1	8.9	e2.2	e3.3	e16	472	16	1.7	2.3	4.6	1.2
13	.71	5.9	8.4	e2.3	e3.2	e20	111	8.3	1.9	2.5	3.2	1.2
14	.66	476	8.6	e2.2	e3.1	e26	36	6.3	2.1	2.6	8.2	1.0
15	.69	435	9.5	e2.1	e4.5	e19	27	5.8	1.6	2.8	4.2	.99
16	.72	82	9.2	e2.0	e9.6	e15	24	4.6	15	2.7	2.5	1.1
17	.85	527	8.6	e1.9	e18	e11	21	3.7	131	2.6	1.7	1.1
18	1.6	327	9.5	e1.8	e35	e12	18	3.4	11	3.0	1.6	1.1
19	1.7	55	13	e1.8	e80	e10	16	3.1	4.9	2.8	1.4	1.2
20	1.5	28	15	e1.7	e58	e8.6	11	3.0	3.0	2.8	1.8	1.3
21	4.1	23	27	e1.6	e38	e7.6	8.9	2.9	2.5	3.1	2.2	1.2
22	3.1	21	20	e1.6	e26	e7.0	7.7	2.7	2.0	3.2	1.8	1.1
23	1.6	17	16	e1.6	e33	6.0	6.3	2.6	12	2.7	1.5	1.1
24	1.3	14	12	e3.0	e40	5.6	6.0	3.1	204	2.7	1.5	1.2
25	1.1	11	e9.6	e6.0	e20	4.8	5.5	59	67	3.8	1.2	1.9
26	1.2	11	e7.6	e18	e13	4.4	5.0	22	28	3.2	1.2	1.6
27	1.4	16	e6.4	e68	e10	5.5	6.5	11	65	2.8	1.2	1.5
28	1.7	14	e5.4	e410	e8.4	5.2	5.8	6.2	8.5	3.7	2.0	1.6
29	1.9	11	e4.8	e120	---	4.3	7.0	4.8	5.0	3.4	5.6	1.4
30	2.0	8.5	e4.3	e52	---	3.6	9.6	3.9	7.1	7.7	2.8	1.1
31	2.5	---	e3.9	e28	---	3.5	---	3.4	---	3.4	5.8	---
TOTAL	38.44	2109.6	561.9	760.2	472.1	357.3	1398.6	306.4	598.0	101.5	83.3	43.09
MEAN	1.24	70.3	18.1	24.5	16.9	11.5	46.6	9.88	19.9	3.27	2.69	1.44
MAX	4.1	527	125	410	80	30	472	59	204	7.7	8.2	4.7
MIN	.47	2.1	3.9	1.6	3.1	3.5	3.5	2.6	1.6	2.3	1.2	.99
CFSM	.04	2.41	.62	.84	.58	.39	1.60	.34	.68	.11	.09	.05
IN.	.05	2.69	.72	.97	.60	.46	1.78	.39	.76	.13	.11	.05

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1994, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)	MEAN	MAX	(WY)	MIN	(WY)	MEAN	MAX	(WY)	MIN	(WY)	MEAN	MAX	(WY)	MIN	(WY)
1972	7.76	53.4	1991	.92	1983	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977
1973	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1974	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1975	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1976	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1977	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1978	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1979	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1980	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1981	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1982	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1983	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1984	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1985	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1986	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1987	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1988	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1989	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1990	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1991	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1992	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1993	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977
1994	29.6	135	1986	1.26	1977	39.0	157	1991	1.63	1977	30.9	92.7	1974	.76	1977	30.9	92.7	1974	.76	1977

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1972 - 1994	
ANNUAL TOTAL	13648.76		6830.43			
ANNUAL MEAN	37.4		18.7		28.5	
HIGHEST ANNUAL MEAN					43.3	
LOWEST ANNUAL MEAN					9.21	
HIGHEST DAILY MEAN	847	Jul 2	527	Nov 17	1580	Jun 6 1981
LOWEST DAILY MEAN	.47	Oct 2	.47	Oct 2	.19	Oct 4 1983
ANNUAL SEVEN-DAY MINIMUM	.49	Oct 2	.49	Oct 2	.32	Sep 28 1983
INSTANTANEOUS PEAK FLOW			849	Nov 14	1940	Jun 6 1981
INSTANTANEOUS PEAK STAGE			13.04	Nov 14	16.14	Jun 6 1981
ANNUAL RUNOFF (CFSM)	1.28		.64		.97	
ANNUAL RUNOFF (INCHES)	17.39		8.70		13.24	
10 PERCENT EXCEEDS	101		26		66	
50 PERCENT EXCEEDS	8.9		3.7		6.0	
90 PERCENT EXCEEDS	1.6		1.2		1.3	

e Estimated

WABASH RIVER BASIN

03326500 MISSISSINewa RIVER AT MARION, IN

LOCATION.--Lat 40°34'34", long 85°39'34", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec.31, T.25 N., R.8 E., Grant County, Hydrologic Unit 05120103, on left bank 12 ft downstream from Highland Avenue bridge in Marion, 0.1 mi downstream from old mill dam, 1.0 mi upstream from Hummel Creek, 4.6 mi downstream from Lugar Creek, and at mile 35.8.

DRAINAGE AREA.--682 mi<sup>2</sup>.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	81	430	e200	e600	e270	173	457	163	226	168	102
2	127	80	396	e190	e480	e250	167	494	152	281	106	93
3	107	78	460	e180	e410	e230	176	387	142	360	82	75
4	92	78	851	e170	e370	347	176	326	137	223	78	65
5	89	77	2650	e160	e340	478	179	297	137	267	75	65
6	82	79	3140	e150	e310	569	394	278	132	193	70	62
7	82	78	1370	e160	e280	736	681	363	79	165	63	56
8	75	75	846	e150	e260	771	1210	559	60	165	59	54
9	114	74	668	e140	e250	670	1120	483	109	237	55	50
10	108	76	538	e135	e230	576	2050	389	116	236	53	49
11	108	76	469	e130	e220	490	4250	320	112	236	94	49
12	100	75	395	e135	e210	440	7470	316	109	160	81	46
13	92	136	345	e140	e200	440	7800	322	127	120	79	47
14	85	2330	340	e136	e190	513	3810	322	156	104	83	45
15	92	9230	401	e130	e240	571	1620	286	126	95	86	44
16	86	12000	387	e125	e450	613	1140	262	122	88	109	42
17	99	9650	353	e120	e800	405	830	251	185	83	122	41
18	91	9780	339	e115	1350	349	759	224	307	77	87	40
19	89	8700	339	e110	1620	315	540	220	193	73	72	39
20	85	3290	361	e108	1470	290	452	214	186	83	124	38
21	110	1420	532	e104	1250	273	386	189	139	90	92	37
22	129	1010	573	e100	963	259	344	184	117	79	82	40
23	263	780	480	e98	719	248	317	183	192	73	62	37
24	172	639	390	e180	623	239	297	204	331	108	58	53
25	127	541	e320	e500	759	224	280	421	707	119	58	43
26	106	637	e280	e3000	511	212	268	619	405	91	55	49
27	93	647	e260	e2200	350	218	294	415	354	76	53	45
28	86	741	e280	e4000	e300	217	295	281	373	70	91	45
29	78	718	e260	e7400	---	209	337	228	259	66	73	44
30	83	524	e240	e2000	---	197	322	199	261	92	77	41
31	81	---	e220	e900	---	181	---	179	---	123	84	---
TOTAL	3288	63700	18913	23366	15755	11800	38137	9872	5988	4459	2531	1536
MEAN	106	2123	610	754	563	381	1271	318	200	144	81.6	51.2
MAX	263	12000	3140	7400	1620	771	7800	619	707	360	168	102
MIN	75	74	220	98	190	181	167	179	60	66	53	37
CFSM	.16	3.11	.89	1.11	.83	.56	1.86	.47	.29	.21	.12	.08
IN.	.18	3.47	1.03	1.27	.86	.64	2.08	.54	.33	.24	.14	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1994, BY WATER YEAR (WY)

	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	177	419	706	901	955	1263	1156	691	609	390	192	234																																																											
MAX	1072	2626	2947	5129	2707	3181	3699	3776	4765	2831	1293	4222																																																											
(WY)	1927	1993	1991	1930	1990	1982	1964	1933	1958	1992	1926	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 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1924 - 1994
ANNUAL TOTAL	344273	199345	
ANNUAL MEAN	943	546	631
HIGHEST ANNUAL MEAN			1167
LOWEST ANNUAL MEAN			106
HIGHEST DAILY MEAN	14700	Jul 3	12000
LOWEST DAILY MEAN	66	Sep 24	37
ANNUAL SEVEN-DAY MINIMUM	76	Nov 6	39
INSTANTANEOUS PEAK FLOW			13000
INSTANTANEOUS PEAK FLOW			12.05
INSTANTANEOUS LOW FLOW			17.40
ANNUAL RUNOFF (CFSM)	1.38	.80	.15
ANNUAL RUNOFF (INCHES)	18.78	10.87	.93
10 PERCENT EXCEEDS	2280	788	1500
50 PERCENT EXCEEDS	418	193	200
90 PERCENT EXCEEDS	92	65	48

e Estimated

## WABASH RIVER BASIN

## 03327000 MISSISSINewa RIVER AT PEORIA, IN

LOCATION.--Lat 40°43'24", long 85°57'27", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, sec.3, T.26 N., R.5 E., Miami County, Hydrologic Unit 05120103, on right bank at Peoria, 0.6 mi downstream from Mississinewa Lake, 6.5 mi southeast of Peru, and 6.7 mi upstream from mouth.

DRAINAGE AREA.--808 mi<sup>2</sup>.

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

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

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

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

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

AVERAGE DISCHARGE.--42 years, 737 ft<sup>3</sup>/s.

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

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,640 ft<sup>3</sup>/s Nov. 29; minimum daily, .17 ft<sup>3</sup>/s July 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201	775	5390	517	2500	656	53	790	110	309	34	110
2	110	739	5440	515	2950	652	54	526	110	329	34	110
3	110	735	5430	514	2910	649	54	394	110	466	34	110
4	110	731	5330	511	2870	646	55	369	110	245	41	110
5	110	728	2550	509	3050	644	55	335	110	155	332	91
6	110	724	2010	507	3360	643	56	323	110	188	466	59
7	110	720	3300	504	3450	644	57	323	110	402	378	47
8	139	716	1730	502	3390	1110	60	650	317	438	194	47
9	181	711	536	498	3300	2090	63	532	223	318	110	47
10	250	706	537	495	2840	2980	66	2320	181	206	90	207
11	323	700	538	493	1290	2710	73	395	132	262	68	68
12	195	695	538	490	491	1430	83	395	110	261	108	68
13	96	689	537	487	317	626	83	395	110	177	132	54
14	110	691	536	484	274	537	402	395	110	127	132	47
15	110	728	535	481	223	477	546	394	139	93	113	47
16	110	745	535	477	263	497	548	324	181	68	89	47
17	406	327	534	474	328	591	842	252	141	68	89	47
18	853	124	533	471	336	628	1400	227	110	176	89	47
19	949	130	532	468	348	626	2170	191	110	110	89	47
20	847	132	531	394	358	348	2770	181	138	170	177	47
21	774	1410	531	287	364	210	3060	167	109	68	160	152
22	770	3010	531	188	368	307	3030	154	226	68	160	143
23	768	3710	532	184	371	355	2990	127	288	87	136	47
24	766	4390	531	173	517	355	2200	110	288	110	93	47
25	763	4830	530	293	664	275	599	189	592	79	68	47
26	761	4930	529	503	664	239	109	890	596	17	68	47
27	798	4880	527	673	662	239	109	665	365	26	61	47
28	836	5400	525	719	659	199	110	465	315	34	58	47
29	832	5640	523	768	---	112	233	270	333	34	76	47
30	829	5540	521	1530	---	52	519	134	333	34	89	47
31	825	---	519	1950	---	53	---	110	---	34	99	---
TOTAL	14152	55986	43401	17059	39117	21580	22449	12992	6217	5159	3867	2128
MEAN	457	1866	1400	550	1397	696	748	419	207	166	125	70.9
MAX	949	5640	5440	1950	3450	2980	3060	2320	596	466	466	207
MIN	96	124	519	173	223	52	53	110	109	17	34	47

CAL YR 1993 TOTAL 448413 MEAN 1229 MAX 5640 MIN 75  
WTR YR 1994 TOTAL 244107 MEAN 669 MAX 5640 MIN 17



## WABASH RIVER BASIN

03327520 PIPE CREEK NEAR BUNKER HILL, IN

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

DRAINAGE AREA.--159 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	41	151	e53	118	e44	45	273	57	33	11	12
2	95	38	148	e50	e100	e48	45	219	51	32	14	10
3	74	37	158	e47	e90	62	48	166	46	80	11	8.8
4	65	37	318	e45	e82	97	47	142	43	61	12	7.7
5	56	37	547	e43	e72	147	46	121	43	95	12	7.8
6	48	37	338	e41	e65	164	82	106	41	111	11	8.4
7	45	35	224	e38	e60	297	165	134	38	82	10	8.1
8	44	33	178	e37	e54	338	346	246	38	50	12	7.6
9	76	31	152	e35	e46	229	295	191	39	92	11	7.0
10	103	34	141	e35	e40	167	537	147	35	41	9.3	7.0
11	86	30	119	e33	e36	136	644	120	32	31	34	e7.0
12	73	30	102	e31	e33	130	2160	111	31	26	23	e6.8
13	62	46	97	e29	e31	141	2650	101	32	23	14	e6.6
14	53	636	99	e27	e31	157	1620	93	51	21	12	e6.4
15	49	1590	140	e26	e45	156	789	91	42	21	12	e6.0
16	45	1270	138	e25	e70	127	523	79	33	18	9.8	e5.8
17	216	1380	119	e23	e130	102	358	69	30	17	9.0	e5.8
18	182	1800	115	e22	324	99	261	63	28	16	8.5	e5.4
19	116	1390	113	e21	377	87	204	61	27	15	8.1	e5.4
20	98	721	111	e20	424	73	157	58	26	15	11	e5.6
21	124	447	144	e20	341	71	131	56	23	35	17	e5.4
22	88	316	143	e20	213	65	115	54	22	17	14	e5.2
23	73	239	120	e21	138	61	101	50	25	15	10	e6.2
24	66	196	102	e26	109	61	96	49	44	14	9.1	e7.6
25	62	160	e95	e70	76	55	89	125	61	20	8.4	e9.0
26	58	623	e84	696	55	51	80	268	81	16	7.9	e8.0
27	54	655	e78	437	e50	59	86	146	80	13	7.7	e8.6
28	51	401	e72	1470	e45	58	96	100	55	12	11	e7.7
29	51	256	e66	1380	---	51	217	82	43	12	19	e7.0
30	46	180	e61	710	---	47	213	72	44	12	13	e6.4
31	45	---	e57	219	---	46	---	63	---	11	13	---
TOTAL	2422	12726	4530	5750	3255	3426	12246	3656	1241	1057	384.8	216.3
MEAN	78.1	424	146	185	116	111	408	118	41.4	34.1	12.4	7.21
MAX	216	1800	547	1470	424	338	2650	273	81	111	34	12
MIN	44	30	57	20	31	44	45	49	22	11	7.7	5.2
CFSM	.49	2.67	.92	1.17	.73	.70	2.57	.74	.26	.21	.08	.05
IN.	.57	2.98	1.06	1.35	.76	.80	2.87	.86	.29	.25	.09	.05

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1994, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	54.1	152	187	176	230	303	255	158	129	90.5	50.5	44.3
MAX	238	797	563	731	648	902	637	411	429	334	296	226
(WY)	1991	1993	1991	1974	1990	1982	1972	1989	1980	1986	1973	1972
MIN	6.66	8.79	6.57	3.70	25.1	49.7	45.6	28.5	12.4	8.17	7.63	5.16
(WY)	1989	1981	1977	1977	1978	1981	1971	1976	1988	1988	1971	1991

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1968 - 1994	
ANNUAL TOTAL	86853		50910.1			
ANNUAL MEAN	238		139		153	
HIGHEST ANNUAL MEAN					266	
LOWEST ANNUAL MEAN					67.6	
HIGHEST DAILY MEAN	2980	Jan 5	2650	Apr 13	4210	Feb 24 1985
LOWEST DAILY MEAN	17	Aug 30	5.2	Sep 22	3.3	Feb 1 1977
ANNUAL SEVEN-DAY MINIMUM	22	Aug 3	5.5	Sep 16	3.5	Jan 27 1977
INSTANTANEOUS PEAK FLOW			2890		5140	
INSTANTANEOUS PEAK STAGE			12.64		17.91	
ANNUAL RUNOFF (CFSM)	1.50		.88		.96	
ANNUAL RUNOFF (INCHES)	20.32		11.91		13.04	
10 PERCENT EXCEEDS	602		282		365	
50 PERCENT EXCEEDS	115		54		56	
90 PERCENT EXCEEDS	34		9.6		11	

e Estimated



## WABASH RIVER BASIN

03328430 WEESAU CREEK NEAR DEEDSVILLE, IN

LOCATION.--Lat 40°54'34", long 86°07'36", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.6, T.28 N., R.4 E., Miami County, Hydrologic Unit  
 05120104, on left bank 100 ft downstream from bridge on County Road 1000 North, and 1.5 mi west of Deedsville.  
 DRAINAGE AREA.--8.87 mi<sup>2</sup>.  
 PERIOD OF RECORD.--October 1970 to current year.  
 GAGE.--Water-stage recorder. Datum of gage is 785.00 ft above sea level.  
 REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	7.8	8.2	e4.1	e11	e7.0	6.9	41	3.9	3.1	1.7	e1.8
2	3.5	7.5	14	e4.0	e9.0	e7.4	6.8	20	3.8	3.0	1.7	e1.7
3	3.3	7.5	14	e3.7	e8.0	e7.2	8.8	15	3.6	2.9	1.6	e1.6
4	3.3	7.4	28	e3.5	e7.4	e8.0	9.3	13	3.6	2.8	1.7	e1.6
5	3.0	7.1	16	e3.4	e6.6	e15	8.4	11	3.5	2.7	1.7	e1.6
6	2.8	6.5	12	e3.4	e6.0	e28	9.8	9.1	3.4	2.8	1.7	e1.6
7	2.7	6.2	e10	e3.4	e5.2	e56	15	12	3.3	3.2	1.7	e1.6
8	2.9	5.3	e9.0	e3.3	e4.6	e33	24	13	3.5	3.2	1.8	e1.6
9	4.1	4.3	8.4	e3.3	e4.3	e20	17	11	3.4	3.8	2.3	e1.9
10	4.3	4.2	8.1	e3.3	e4.0	e15	59	8.5	3.3	2.9	1.9	e2.3
11	3.9	4.3	7.1	e3.2	e3.8	e12	39	7.8	3.3	2.6	3.6	e1.8
12	3.8	4.8	6.6	e3.3	e3.6	e11	295	7.5	3.6	2.5	2.7	e1.6
13	3.6	6.9	6.4	e3.2	e3.5	e10	101	7.0	3.7	2.4	2.1	e1.5
14	3.1	28	6.6	e3.2	e3.4	e9.6	66	6.6	22	2.7	2.0	e1.5
15	4.4	20	6.6	e3.0	e3.6	e9.2	47	6.6	6.9	3.0	2.0	e1.6
16	36	27	6.3	e2.9	e4.5	e8.0	38	6.1	4.5	2.5	2.0	e1.6
17	45	59	6.0	e2.8	e6.0	e7.2	31	5.7	3.8	2.3	2.1	e1.6
18	23	25	6.7	e2.7	e10	e6.6	23	5.6	3.5	2.2	2.2	e1.6
19	17	19	7.8	e2.6	e16	e6.0	18	5.4	3.2	2.1	2.4	e1.6
20	36	15	8.5	e2.6	e18	e5.6	14	5.2	3.1	2.0	2.8	e1.6
21	28	12	10	e2.6	e16	e8.0	13	5.1	3.0	2.3	2.9	e1.6
22	21	11	7.7	e2.6	e14	e8.4	12	5.0	2.9	2.2	e2.2	e1.6
23	18	9.5	6.7	e2.8	e12	e7.4	9.2	4.9	3.0	2.0	e2.1	e1.7
24	15	9.3	6.2	e5.0	e11	e6.6	8.6	4.9	5.5	1.9	e2.0	e1.9
25	14	21	e5.8	e10	e10	e6.0	8.4	5.0	4.1	1.9	e1.8	e2.1
26	11	30	e5.4	e15	e9.2	e5.0	8.4	5.3	12	1.8	e1.8	e2.1
27	10	17	e4.7	26	e8.6	e7.2	13	5.0	13	1.8	e1.8	e2.0
28	9.9	13	e4.3	118	e8.4	e7.2	21	4.7	5.6	1.8	e1.8	e2.0
29	9.6	10	e4.1	37	---	e7.8	31	4.5	4.1	1.7	e1.8	e1.9
30	9.6	8.9	e4.0	19	---	e7.4	37	4.1	3.5	1.7	e1.8	e1.8
31	8.8	---	e4.2	e12	---	7.2	---	4.0	---	1.7	e1.8	---
TOTAL	364.8	414.5	259.4	314.9	227.7	360.0	998.6	269.6	149.6	75.5	63.5	52.0
MEAN	11.8	13.8	8.37	10.2	8.13	11.6	33.3	8.70	4.99	2.44	2.05	1.73
MAX	45	59	28	118	18	56	295	41	22	3.8	3.6	2.3
MIN	2.7	4.2	4.0	2.6	3.4	5.0	6.8	4.0	2.9	1.7	1.6	1.5
CFSM	1.33	1.56	.94	1.15	.92	1.31	3.75	.98	.56	.27	.23	.20
IN.	1.53	1.74	1.09	1.32	.95	1.51	4.19	1.13	.63	.32	.27	.22

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1994, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	5.32	9.91	13.4	11.7	16.8	21.6	16.8	10.6	8.62	5.98	4.41	4.54													
MAX	28.5	34.5	35.9	55.6	47.6	53.7	34.5	24.6	31.6	28.9	47.0	21.6													
(WY)	1991	1993	1991	1993	1985	1982	1983	1983	1986	1992	1990	1989													
MIN	.79	.95	.61	.30	2.62	3.50	4.60	3.30	1.17	.80	.66	.45													
(WY)	1975	1977	1977	1977	1978	1981	1971	1977	1988	1988	1988	1988													

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1971 - 1994
ANNUAL TOTAL	6427.2	3550.1	
ANNUAL MEAN	17.6	9.73	10.8
HIGHEST ANNUAL MEAN			19.1
LOWEST ANNUAL MEAN			5.52
HIGHEST DAILY MEAN	313	295	436
LOWEST DAILY MEAN	1.9	1.5	.26
ANNUAL SEVEN-DAY MINIMUM	2.1	1.6	.27
INSTANTANEOUS PEAK FLOW		438	518
INSTANTANEOUS PEAK STAGE		7.39	7.39
ANNUAL RUNOFF (CFSM)	1.99	1.10	1.21
ANNUAL RUNOFF (INCHES)	26.96	14.89	16.50
10 PERCENT EXCEEDS	40	20	25
50 PERCENT EXCEEDS	9.9	5.0	4.5
90 PERCENT EXCEEDS	3.4	1.8	1.0

e Estimated



## WABASH RIVER BASIN

## 03329000 WABASH RIVER AT LOGANSPOBT, IN

LOCATION.--Lat 40°44'47", long 86°22'39", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec.35, T.27 N., R.1 E., Cass County, Hydrologic Unit 05120105, on left bank 150 ft downstream from Cicott Street bridge in Logansport, 1,000 ft downstream from Eel River, and at mile 353.7.

DRAINAGE AREA.--3,779 mi<sup>2</sup>.

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

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

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 25.3 ft March 26, 1913, from floodmarks, discharge, 140,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2310	2080	10500	2270	10800	e3240	1270	4480	1240	2380	630	608
2	2060	2000	10200	2110	11600	3130	1210	4360	1150	2660	607	590
3	1890	1960	10100	2070	11100	2990	1280	3210	1050	2740	690	579
4	1770	1940	10300	2010	9390	3120	1340	2830	957	4900	672	588
5	1630	1950	9300	1980	7300	3960	1380	2470	874	3800	725	619
6	1600	1950	5450	1880	7350	4320	1490	2260	860	3000	1390	595
7	1570	1910	9510	1780	7100	5270	1940	2280	837	4820	1120	557
8	1540	1920	7790	1270	6520	9860	3330	2630	869	5490	1020	517
9	1530	1920	3510	e1230	5730	8060	4250	3230	1030	3880	1130	505
10	1520	1960	3280	e1200	4940	7140	6810	2650	1090	3780	763	535
11	1700	1990	3160	e1200	4110	6500	10200	2410	1070	2700	1100	731
12	1660	1970	3010	e1150	e1800	4620	23400	2430	1020	2110	1200	570
13	1410	2040	2920	e1200	e1550	3060	24200	2360	962	1860	878	545
14	1320	2670	2910	e1150	e1480	3060	18300	2200	1270	1330	859	542
15	1290	7560	2990	e950	2020	3000	15100	2090	1680	1180	792	514
16	1340	7350	2980	e900	2720	2780	12600	1900	1820	1050	730	504
17	2290	9450	2900	e840	3830	2630	11300	1650	1730	979	891	469
18	4180	13800	2870	e850	4210	2640	10000	e1500	1580	921	1060	452
19	3570	10700	2900	e870	5110	2720	9630	e1370	1440	1020	852	447
20	3050	8110	2860	e800	5850	2540	8790	e1270	1390	895	827	456
21	3170	7470	2850	e780	5730	2080	7860	e1180	1350	1510	909	744
22	3100	9970	2920	e820	4690	2120	7440	e1140	1310	1030	835	905
23	2620	10300	2840	e840	5050	2190	6460	e1090	1270	967	808	900
24	2390	10500	2750	e800	4810	2120	4910	e1060	1390	949	755	842
25	2280	10600	2590	e1200	4620	2040	3320	e1150	1590	928	673	931
26	2210	12000	2380	e3500	3720	1800	2040	e2050	5770	836	627	890
27	2170	12400	2190	e6000	e3550	1930	2070	2790	6290	743	612	898
28	2200	11600	2250	e12000	e3400	2040	2570	2100	4180	731	635	885
29	2170	11200	2190	16200	---	1890	3090	1760	2700	711	646	840
30	2150	10900	2160	14000	---	1530	3500	1380	2660	694	621	583
31	2120	---	2230	12500	---	1320	---	1280	---	644	630	---
TOTAL	65810	192170	136790	96350	150080	105700	211080	66560	52429	61238	25687	19341
MEAN	2123	6406	4413	3108	5360	3410	7036	2147	1748	1975	829	645
MAX	4180	13800	10500	16200	11600	9860	24200	4480	6290	5490	1390	931
MIN	1290	1910	2160	780	1480	1320	1210	1060	837	644	607	447
CFSM	.56	1.70	1.17	.82	1.42	.90	1.86	.57	.46	.52	.22	.17
IN.	.65	1.89	1.35	.95	1.48	1.04	2.08	.66	.52	.60	.25	.19

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1994, BY WATER YEAR (WY)

	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	1418	2211	3711	4673	5175	6482	5992	3712	3010	1911	1230	1230																																																											
MAX	6547	10940	12340	25590	15880	18180	17520	21310	16440	8381	5576	10710																																																											
(WY)	1991	1973	1968	1950	1959	1982	1957	1943	1958	1993	1990	1926																																																											
MIN	197	296	252	290	417	638	929	600	398	269	203	176																																																											
(WY)	1964	1964	1964	1945	1964	1941	1971	1941	1988	1936	1941	1941																																																											

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1924 - 1994	
ANNUAL TOTAL	1986203		1183235		3386	
ANNUAL MEAN	5442		3242		6614	
HIGHEST ANNUAL MEAN					1950	
LOWEST ANNUAL MEAN					796	
HIGHEST DAILY MEAN	29700	Jan 5	24200	Apr 13	84700	May 19 1943
LOWEST DAILY MEAN	695	Aug 30	447	Sep 19	135	Sep 26 1941
ANNUAL SEVEN-DAY MINIMUM	792	Aug 27	483	Sep 14	142	Sep 24 1941
INSTANTANEOUS PEAK FLOW			28100		89800	
INSTANTANEOUS PEAK FLOW					21.32	
ANNUAL RUNOFF (CFSM)	1.44		11.64		.90	
ANNUAL RUNOFF (INCHES)	19.55		11.65		12.17	
10 PERCENT EXCEEDS	11600		8990		9130	
50 PERCENT EXCEEDS	3280		2040		1430	
90 PERCENT EXCEEDS	1350		731		410	

e Estimated

WABASH RIVER BASIN

03329700 DEER CREEK NEAR DELPHI, IN

LOCATION.--Lat 40°35'25", long 86°37'15", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec.27, T.25 N., R.2 W., Carroll County, Hydrologic Unit 05120105, on downstream side of left wingwall of county road bridge, 2.6 mi northeast of Delphi Post Office, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--274 mi<sup>2</sup>.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246	146	305	144	193	115	101	956	123	182	86	64
2	205	134	299	140	180	130	99	637	113	156	77	57
3	169	133	334	137	170	152	113	457	107	140	98	52
4	150	132	383	132	160	199	109	366	102	156	84	49
5	134	132	593	128	130	254	108	310	99	625	84	54
6	121	128	484	123	120	277	131	274	98	1450	70	52
7	113	119	376	116	110	515	185	296	93	571	64	50
8	108	113	327	110	100	784	326	424	105	368	61	47
9	155	109	295	104	94	503	349	366	106	261	255	44
10	289	105	285	98	90	361	521	298	92	208	226	43
11	240	105	255	94	86	284	772	257	87	161	483	42
12	197	105	229	92	84	254	3790	244	85	133	549	42
13	168	121	219	90	82	255	4260	216	91	116	297	41
14	144	289	232	86	92	265	1880	202	1010	125	212	39
15	131	1650	285	84	110	267	1230	221	650	144	151	37
16	127	1170	294	82	150	228	864	189	349	107	117	36
17	841	1450	262	80	210	191	620	170	239	115	98	36
18	979	2390	257	76	325	185	466	159	181	96	85	35
19	572	1360	253	74	409	168	383	153	149	87	76	34
20	425	852	253	70	474	149	312	147	128	84	82	35
21	626	608	296	68	434	141	270	142	116	1080	79	34
22	505	465	303	66	327	134	242	135	104	469	77	34
23	375	385	269	66	245	124	218	131	317	250	72	34
24	314	343	240	261	205	121	206	133	853	220	64	44
25	273	299	220	505	161	113	195	247	409	464	58	43
26	244	528	190	849	126	111	184	360	651	238	55	42
27	217	936	180	673	120	128	257	248	1080	157	53	43
28	199	645	170	1980	110	127	298	187	533	124	61	39
29	190	461	160	1510	---	117	643	161	325	106	86	37
30	171	353	154	585	---	108	618	145	236	95	83	36
31	161	---	148	313	---	102	---	132	---	96	76	---
TOTAL	8789	15766	8550	8936	5097	6862	19750	8363	8631	8584	4019	1275
MEAN	284	526	276	288	182	221	658	270	288	277	130	42.5
MAX	979	2390	593	1980	474	784	4260	956	1080	1450	549	64
MIN	108	105	148	66	82	102	99	131	85	84	53	34
CFSM	1.03	1.92	1.01	1.05	.66	.81	2.40	.98	1.05	1.01	.47	.16
IN.	1.19	2.14	1.16	1.21	.69	.93	2.68	1.14	1.17	1.17	.55	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1994, BY WATER YEAR (WY)

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
MEAN	99.5	173	260	324	375	445	441	297	252	165	101	84.3
MAX	575	1249	983	1882	1039	1311	1109	793	1799	669	537	568
(WY)	1991	1993	1991	1950	1959	1982	1959	1983	1958	1957	1958	1989
MIN	15.0	22.7	22.2	17.6	36.1	46.8	83.0	62.2	30.7	22.5	12.5	10.5
(WY)	1965	1954	1945	1977	1954	1954	1971	1976	1977	1944	1966	1954

SUMMARY STATISTICS FOR 1993 CALENDAR YEAR FOR 1994 WATER YEAR WATER YEARS 1944 - 1994

ANNUAL TOTAL	164256	104622	
ANNUAL MEAN	450	287	250
HIGHEST ANNUAL MEAN			510
LOWEST ANNUAL MEAN			62.7
HIGHEST DAILY MEAN	5830	Jan 5	4260
LOWEST DAILY MEAN	61	Aug 18	34
ANNUAL SEVEN-DAY MINIMUM	77	Aug 12	35
INSTANTANEOUS PEAK FLOW			4930
INSTANTANEOUS PEAK STAGE			9.64
ANNUAL RUNOFF (CFSM)	1.64		1.05
ANNUAL RUNOFF (INCHES)	22.30		14.20
10 PERCENT EXCEEDS	995		599
50 PERCENT EXCEEDS	276		160
90 PERCENT EXCEEDS	109		64

• Estimated

## WABASH RIVER BASIN

## 03330241 TIPPECANOE RIVER AT NORTH WEBSTER, IN

LOCATION.--Lat 41°18'58", long 85°41'32", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec.15, T.33 N., R.7 E., Kosciusko County, Hydrologic Unit 05120106, on right upstream corner of State Road 13 bridge, at the intersection of State Road 13 and County Road 550 North, and 0.4 mi southeast of North Webster.

DRAINAGE AREA.--49.3 mi<sup>2</sup>.

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

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

REMARKS.--No estimated daily discharges, records fair. Flow regulated at times by dams at Webster Lake, 0.25 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	33	51	25	79	65	17	66	9.0	8.7	4.6	6.7
2	5.6	32	51	33	79	65	18	22	8.4	10	5.3	5.0
3	5.9	32	51	33	78	64	22	31	8.2	15	6.3	4.4
4	7.0	27	52	33	76	63	25	62	8.0	14	7.3	3.7
5	8.8	11	64	33	74	43	28	68	7.9	14	7.7	3.8
6	11	11	73	32	64	22	30	87	7.7	14	8.0	3.9
7	13	11	71	33	49	25	58	75	7.5	13	8.5	3.5
8	18	10	70	26	49	34	123	32	7.6	11	9.1	3.3
9	43	10	69	5.0	48	38	82	15	7.1	12	11	3.1
10	55	10	68	4.6	43	48	22	16	7.0	12	13	3.3
11	46	10	67	4.7	27	65	11	25	6.7	10	14	3.2
12	25	7.5	50	8.3	27	64	190	46	6.5	5.9	17	3.0
13	25	4.3	23	22	27	65	245	44	13	6.0	24	2.7
14	21	5.3	23	22	27	65	267	34	42	6.1	30	2.5
15	22	16	23	21	34	64	258	19	37	6.2	25	2.3
16	86	44	23	21	41	63	238	13	30	10	11	2.3
17	157	54	23	21	41	54	236	4.4	5.4	16	11	2.3
18	111	79	29	22	41	29	226	4.6	5.4	10	11	2.2
19	18	77	36	21	42	30	204	4.9	5.5	19	5.9	1.7
20	25	75	37	21	44	29	161	5.2	5.4	57	5.7	1.5
21	50	54	36	21	49	28	112	5.9	17	43	6.8	1.5
22	61	38	36	21	68	28	57	6.3	27	16	7.7	1.5
23	59	38	36	21	69	30	46	6.4	17	3.9	9.0	1.5
24	26	39	36	22	69	38	46	6.5	28	3.8	10	1.5
25	3.0	56	36	25	69	38	46	6.9	13	3.8	13	1.6
26	4.6	53	36	25	68	43	42	7.9	24	3.6	12	1.8
27	7.0	53	36	31	67	53	35	8.1	33	7.5	12	2.0
28	12	53	36	45	66	52	52	8.4	6.8	20	11	2.0
29	12	53	28	46	---	52	98	8.7	7.4	20	9.2	2.1
30	25	52	22	59	---	43	99	9.0	7.8	12	8.1	2.3
31	36	---	22	78	---	16	---	9.1	---	4.4	7.8	---
TOTAL	1004.3	1048.1	1314	835.6	1515	1416	3094	757.3	416.3	407.9	342.0	82.2
MEAN	32.4	34.9	42.4	27.0	54.1	45.7	103	24.4	13.9	13.2	11.0	2.74
MAX	157	79	73	78	79	65	267	87	42	57	30	6.7
MIN	3.0	4.3	22	4.6	27	16	11	4.4	5.4	3.6	4.6	1.5
CFSM	.66	.71	.86	.55	1.10	.93	2.09	.50	.28	.27	.22	.06
IN.	.76	.79	.99	.63	1.14	1.07	2.33	.57	.31	.31	.26	.06

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1994, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	48.8	57.7	55.8	84.4	59.6	60.8	71.5	40.9
MAX	142	133	98.8	209	119	102	103	77.4
(WY)	1991	1993	1987	1993	1990	1994	1987	1989
MIN	15.2	23.7	14.0	27.0	31.5	30.6	46.8	15.4
(WY)	1990	1990	1990	1994	1989	1989	1992	1988

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1987 - 1994	
ANNUAL TOTAL	21703.5		12232.7			
ANNUAL MEAN	59.5		33.5		48.5	
HIGHEST ANNUAL MEAN					70.5	
LOWEST ANNUAL MEAN					29.6	
HIGHEST DAILY MEAN	420		267		420	
LOWEST DAILY MEAN	3.0		1.5		.06	
ANNUAL SEVEN-DAY MINIMUM	6.1		1.5		.36	
INSTANTANEOUS PEAK FLOW	6.1		297		430	
INSTANTANEOUS PEAK STAGE			5.58		6.49	
ANNUAL RUNOFF (CFSM)	1.21		.68		.98	
ANNUAL RUNOFF (INCHES)	16.38		9.23		13.37	
10 PERCENT EXCEEDS	130		68		111	
50 PERCENT EXCEEDS	41		23		32	
90 PERCENT EXCEEDS	7.9		4.5		7.0	



WABASH RIVER BASIN

03331110 WALNUT CREEK NEAR WARSAW, IN

LOCATION.--Lat 41°12'17", long 85°52'11", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.30, T.32 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106, on left bank 10 ft upstream from bridge on County Road 200 South, 0.3 mi downstream from small right-bank tributary, and 2.5 mi south of court house in Warsaw.

DRAINAGE AREA.--19.6 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	6.5	17	6.8	e19	e12	14	52	9.0	49	8.4	4.8
2	8.9	6.3	17	7.3	e17	e11	13	43	8.7	39	7.2	4.5
3	7.6	6.5	22	7.4	e15	e10	16	37	7.2	32	6.2	4.3
4	6.2	6.6	24	7.1	e14	e13	18	35	5.8	26	6.3	4.1
5	5.1	6.4	28	6.7	e13	e17	19	27	5.4	31	6.3	4.0
6	4.6	6.4	26	e6.3	e11	e25	26	23	5.1	49	5.9	3.8
7	4.1	6.0	22	e6.3	e10	e40	31	23	4.9	89	5.3	3.6
8	3.7	5.7	19	e6.2	e9.0	e34	32	25	6.0	101	6.2	3.6
9	4.2	5.5	17	e6.2	e8.2	e30	34	22	6.5	120	7.5	3.5
10	5.2	5.3	17	e6.2	e7.6	e27	35	20	5.9	92	7.0	5.7
11	5.7	5.1	15	e6.1	e7.2	e23	41	18	5.0	69	9.9	4.8
12	5.3	4.7	14	e6.4	e6.8	e21	167	18	5.1	54	9.7	4.6
13	5.1	6.6	13	e6.2	e6.4	e19	166	18	14	43	9.5	4.5
14	4.6	12	12	e5.9	e6.2	e18	135	17	84	37	9.1	4.5
15	4.4	17	12	e5.6	e7.0	e17	93	16	92	32	7.7	4.5
16	5.6	18	12	e5.4	e8.3	22	70	16	79	26	6.9	4.7
17	17	23	11	e5.2	e11	21	57	14	58	23	6.2	5.1
18	21	31	12	e5.0	e14	e13	48	12	41	21	5.7	5.1
19	17	28	13	e4.9	e20	e12	39	11	30	18	5.6	5.0
20	15	21	e14	e4.8	e24	e11	38	11	22	16	6.4	5.3
21	21	17	e15	e4.8	e22	e14	35	11	18	17	6.8	5.4
22	20	14	13	e4.9	e20	e16	25	11	14	18	6.2	5.3
23	16	12	12	e5.2	e18	e14	23	10	12	16	5.9	5.3
24	14	13	11	e6.2	e16	12	20	8.3	12	14	5.7	5.8
25	11	14	10	e9.0	e15	12	18	8.2	12	14	5.4	4.6
26	9.6	21	e9.4	e17	e14	11	17	8.7	139	14	5.6	4.1
27	9.1	27	e9.0	e29	e13	13	30	9.0	147	13	5.7	4.0
28	8.5	25	e8.4	e53	e13	16	38	9.0	105	13	5.6	3.9
29	7.8	20	e7.8	e33	---	15	46	10	82	12	5.5	3.6
30	7.4	17	e7.4	e25	---	15	46	9.7	65	10	5.3	3.3
31	7.2	---	6.6	e21	---	14	---	9.0	---	9.1	5.1	---
TOTAL	291.9	407.6	446.6	330.1	365.7	548	1390	561.9	1100.6	1117.1	205.8	135.3
MEAN	9.42	13.6	14.4	10.6	13.1	17.7	46.3	18.1	36.7	36.0	6.64	4.51
MAX	21	31	28	53	24	40	167	52	147	120	9.9	5.8
MIN	3.7	4.7	6.6	4.8	6.2	10	13	8.2	4.9	9.1	5.1	3.3
CFSM	.48	.69	.74	.54	.67	.90	2.36	.92	1.87	1.84	.34	.23
IN.	.55	.77	.85	.63	.69	1.04	2.64	1.07	2.09	2.12	.39	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

	8.67	14.8	21.3	19.7	24.3	35.5	35.0	20.2	18.3	8.19	5.97	6.79
MEAN	8.67	14.8	21.3	19.7	24.3	35.5	35.0	20.2	18.3	8.19	5.97	6.79
MAX	54.6	44.9	48.3	77.7	60.6	110	66.5	60.8	80.3	36.0	53.7	27.0
(WY)	1991	1993	1991	1993	1985	1982	1981	1981	1981	1994	1990	1980
MIN	1.04	2.18	1.43	.91	2.87	14.0	14.3	6.35	2.34	1.73	1.07	.80
(WY)	1977	1979	1977	1977	1979	1989	1976	1988	1988	1988	1971	1976

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1970 - 1994	
ANNUAL TOTAL	7956.8		6900.6			
ANNUAL MEAN	21.8		18.9		18.2	
HIGHEST ANNUAL MEAN					28.2	
LOWEST ANNUAL MEAN					10.0	
HIGHEST DAILY MEAN	255		167		389	
LOWEST DAILY MEAN	2.7	Jan 5	3.3	Apr 12	.40	
ANNUAL SEVEN-DAY MINIMUM	2.8	Aug 18	3.8	Sep 30	.46	
INSTANTANEOUS PEAK FLOW			266		561	
INSTANTANEOUS PEAK STAGE			4.03		5.38	
ANNUAL RUNOFF (CFSM)	1.11		.96		.93	
ANNUAL RUNOFF (INCHES)	15.10		13.10		12.60	
10 PERCENT EXCEEDS	44		38		42	
50 PERCENT EXCEEDS	14		12		11	
90 PERCENT EXCEEDS	4.4		5.1		1.8	

e Estimated



## WABASH RIVER BASIN

03333050 TIPPECANOE RIVER NEAR DELPHI, IN

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

DRAINAGE AREA.--1,869 mi<sup>2</sup>.

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<sup>3</sup>/s).

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

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

REVISIONS.--The maximum discharge for the water year 1991 has been revised to 18,900 ft<sup>3</sup>/s, Dec. 30, 1990, gage height, 12.87 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3480	2190	2610	1500	3320	1870	1340	4510	990	2270	742	486
2	2430	1990	2640	1830	3270	1830	1530	4080	839	2620	684	454
3	1870	1980	3660	1820	2530	1730	1730	3740	875	2650	607	429
4	1720	1930	3810	1800	2350	2030	1520	3360	994	2080	859	426
5	1630	1960	4260	1390	2010	2640	1830	3200	893	2240	466	660
6	1420	1850	3890	1480	2280	2840	1770	2890	830	3290	703	831
7	1390	1800	3450	1450	1670	3770	1830	3040	893	6710	451	317
8	1320	1670	3130	834	1860	4390	2170	2880	887	4260	555	288
9	1600	1690	2850	1500	1630	3640	2310	2890	941	5210	658	298
10	2600	1630	2740	780	1230	2990	3620	2590	790	3510	635	545
11	2560	1500	2420	1100	1210	2860	4070	2310	875	2530	771	566
12	2220	1570	2370	1700	1330	2320	15100	2140	909	2290	787	474
13	1970	1530	2240	1250	1240	2690	17100	1980	1010	2080	639	515
14	1800	1850	2450	e1050	1250	2370	12000	1970	6470	1950	871	427
15	1650	2500	2180	e940	1720	2320	10500	1790	5570	1950	700	425
16	2020	2630	2320	e900	2600	2050	11200	1610	3870	1480	615	396
17	7740	1810	2190	e840	2760	1790	8400	1480	2930	1570	555	376
18	9630	3180	2180	e960	3020	1940	6740	1620	2470	1260	754	396
19	9150	3630	2210	e980	3660	1750	5930	1480	2040	1220	575	417
20	7930	3290	2480	e860	3670	1530	4890	1270	2080	1160	771	353
21	8310	2700	2560	e1100	3520	1770	4540	1270	1840	1170	608	436
22	7940	2500	2530	e900	2980	1530	3890	1280	1650	1440	852	407
23	6250	2130	2150	e1100	2780	1700	3180	1320	1920	1100	495	369
24	5260	1130	2130	e1300	2350	1640	3190	1250	3680	1270	545	435
25	4460	873	1940	2730	2170	1440	2820	1330	2430	1190	741	435
26	3840	1880	1390	4170	1470	1390	2690	1390	1960	1160	427	464
27	3370	3500	1510	2180	1830	1740	2910	1270	2530	924	410	547
28	2930	4050	1670	6730	1710	1630	2830	1100	2380	734	653	487
29	2860	3370	1480	5840	---	1670	3510	1140	2450	1060	404	440
30	2530	2780	1210	3860	---	1610	3600	1190	2410	766	506	440
31	2290	---	1480	3550	---	1610	---	1060	---	755	471	---
TOTAL	116170	67093	76130	58424	63420	67080	148740	64430	60406	63899	19510	13539
MEAN	3747	2236	2456	1885	2265	2164	4958	2078	2014	2061	629	451
MAX	9630	4050	4260	6730	3670	4390	17100	4510	6470	6710	871	831
MIN	1320	873	1210	780	1210	1390	1340	1060	790	734	404	288
CFSM	2.01	1.20	1.31	1.01	1.21	1.16	2.65	1.11	1.08	1.10	.34	.24
IN.	2.31	1.34	1.52	1.16	1.26	1.34	2.96	1.28	1.20	1.27	.39	.27

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1994, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1988	1989	1990	1991	1992	1993	1994
MEAN	1695	2054	2317	3166	2581	3081	3298	2026	1816	1440	1222	1405		
MAX	4185	4120	3819	6854	4660	4950	4958	3124	3360	2508	4849	3092		
(WY)	1991	1993	1991	1993	1990	1990	1994	1991	1993	1993	1990	1993		
MIN	518	929	810	1460	1324	1326	1787	983	493	360	308	364		
(WY)	1989	1988	1990	1992	1989	1989	1989	1988	1988	1988	1988	1988		

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR
ANNUAL TOTAL	1147759	818841				
ANNUAL MEAN	3145	2243				
HIGHEST ANNUAL MEAN					3046	1993
LOWEST ANNUAL MEAN					1516	1992
HIGHEST DAILY MEAN	17000	Jan 5	17100	Apr 13	18400	Dec 30 1990
LOWEST DAILY MEAN	498	Aug 9	288	Sep 8	131	Aug 5 1988
ANNUAL SEVEN-DAY MINIMUM	770	Aug 3	393	Sep 17	255	Aug 2 1988
INSTANTANEOUS PEAK FLOW			20600	Apr 12	20600	Apr 12 1994
INSTANTANEOUS PEAK STAGE			13.72	Apr 12	13.72	Apr 12 1994
ANNUAL RUNOFF (CFSM)	1.68		1.20		1.16	
ANNUAL RUNOFF (INCHES)	22.84		16.30		15.79	
10 PERCENT EXCEEDS	5480		3860		4250	
50 PERCENT EXCEEDS	2560		1800		1680	
90 PERCENT EXCEEDS	1250		552		495	

e Estimated













WABASH RIVER BASIN

03335500 WABASH RIVER AT LAFAYETTE, IN

LOCATION.--Lat 40°25'19", long 86°53'49", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, sec.20, T.23 N., R.4 W., Tippecanoe County, Hydrologic Unit 05120108, on right bank 20 ft downstream from Brown Street in Lafayette, 0.2 mi upstream from Main Street 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<sup>2</sup>.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7380	5170	15900	5160	e18000	6560	3770	14500	3300	6310	1930	1850
2	6200	4790	15200	5510	e16000	6270	3640	13900	3090	5890	1990	1740
3	4990	4680	16100	5280	e14000	6170	4040	11400	2980	7050	1910	1710
4	4480	4570	16300	5140	e13000	6290	3890	9520	2800	6650	1900	1650
5	4200	4560	18200	4850	e11500	7320	4280	8490	2690	8040	1930	1700
6	3860	4500	15400	4630	e10500	8760	4310	7590	2570	12400	1690	1840
7	3720	4370	13400	e4000	e9600	10000	4690	7460	2350	15300	2500	2060
8	3610	4240	15400	e3300	e9000	15600	5970	8290	2650	13500	2150	1390
9	3770	4170	11200	e2900	e8000	16300	8330	8560	2930	12300	2300	1330
10	4770	4080	8430	e3200	e7400	13400	10300	8250	3090	9840	2900	1380
11	5140	4070	7890	e3800	e6600	11900	17600	7000	2720	7630	3210	1730
12	4870	4050	7450	e4400	e5600	10100	37200	6750	2660	6230	5740	1750
13	4490	4160	7070	e4100	4630	8220	63500	6230	2870	5220	4620	1600
14	3960	4950	7100	e3000	4260	7110	56900	6070	8560	4800	4130	1590
15	3710	13300	7300	e2400	5070	7050	43800	5700	13400	5610	3510	1500
16	3690	18100	7320	e2300	6720	6640	35400	5380	9020	4220	2930	1450
17	9080	17300	7240	e2200	7940	6050	29000	4720	6370	3660	2700	1380
18	17500	25200	7010	e2100	9040	5950	23900	4750	5130	3520	2570	1330
19	17000	26500	6940	e2000	10200	5830	20500	4180	4230	2950	2660	1300
20	14400	22000	7060	e1900	11900	5500	18400	4000	4080	3220	2700	1300
21	14400	16300	7410	e1900	12300	5300	16100	3750	4110	3930	2830	1240
22	14700	15000	7410	e1990	10800	4920	14400	3650	3640	5180	2710	1460
23	12200	15700	7170	e2200	9350	4970	12900	3600	3480	3730	2640	1690
24	9970	14700	6610	e2700	9100	4810	11500	3390	11000	3150	2270	1870
25	8580	14000	6380	e4000	8500	4740	9440	3990	8360	3580	2250	1790
26	7580	14900	5620	e8000	7430	4390	7490	5940	8700	3420	2020	1930
27	6990	19900	5430	e7900	6730	4570	7650	5450	13600	2660	1700	1930
28	6330	20500	5340	e15000	6670	4830	7650	5480	11700	2350	1750	1950
29	6030	18700	5120	e26000	---	4780	10900	4600	8110	2300	1970	1870
30	5710	17000	5130	e23000	---	4510	11300	4040	6570	2040	1980	1770
31	5240	---	5020	e20000	---	4100	---	3600	---	2060	2000	---
TOTAL	228550	351460	284550	184860	259840	222940	508750	200230	166760	178740	80090	49080
MEAN	7373	11720	9179	5963	9280	7192	16960	6459	5559	5766	2584	1636
MAX	17500	26500	18200	26000	18000	16300	63500	14500	13600	15300	5740	2060
MIN	3610	4050	5020	1900	4260	4100	3640	3390	2350	2040	1690	1240
CFSM	1.01	1.61	1.26	.82	1.28	.99	2.33	.89	.76	.79	.36	.23
IN.	1.17	1.80	1.46	.95	1.33	1.14	2.60	1.02	.85	.91	.41	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1994, BY WATER YEAR (WY)

	3022	4341	6807	8557	9598	11830	11790	8149	6291	4050	2674	2684
MEAN	3022	4341	6807	8557	9598	11830	11790	8149	6291	4050	2674	2684
MAX	14750	19910	25250	42040	28000	33560	28000	37290	31830	14820	12090	20120
(WY)	1927	1993	1928	1950	1959	1982	1957	1943	1958	1957	1990	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 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1924 - 1994	
ANNUAL TOTAL	4130730		2715850			
ANNUAL MEAN	11320		7441		6631	
HIGHEST ANNUAL MEAN					12340	
LOWEST ANNUAL MEAN					1631	
HIGHEST DAILY MEAN	61100	Jan 6	63500	Apr 13	129000	May 19 1943
LOWEST DAILY MEAN	2320	Aug 19	1240	Sep 21	399	Sep 26 1941
ANNUAL SEVEN-DAY MINIMUM	2650	Aug 26	1350	Sep 16	404	Sep 21 1941
INSTANTANEOUS PEAK FLOW			65600	Apr 13	131000	May 19 1943
INSTANTANEOUS PEAK STAGE			22.29	Apr 13	28.47	May 19 1943
ANNUAL RUNOFF (CFSM)	1.56		1.02		.91	
ANNUAL RUNOFF (INCHES)	21.15		13.90		12.40	
10 PERCENT EXCEEDS	21900		15400		15900	
50 PERCENT EXCEEDS	8430		5220		3600	
90 PERCENT EXCEEDS	4020		1930		1130	

e Estimated

## WABASH RIVER BASIN

03335677 MARSHALL DITCH NEAR MONTMORENCI, IN

LOCATION.--Lat 40°30'42", long 87°01'10", in NW<sup>1</sup>/<sub>4</sub>/SW<sup>1</sup>/<sub>4</sub> sec.20, T.24 N., R.5 W., Tippecanoe County, Hydrologic Unit 05120108, on right bank at mile 1.7, and 2.9 mi northeast of Montmorenci.  
 DRAINAGE AREA.--1.58 mi<sup>2</sup>.  
 PERIOD OF RECORD.--October 1990 to current year.  
 GAGE.--Water-stage recorder. Datum of gage is 710.00 ft. above sea level.  
 REMARKS.--Records good except for estimated daily discharges which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	.44	.86	.53	.17	.16	.32	4.8	.63	.32	.16	.06
2	.42	.44	1.4	.48	0.15	.24	.31	2.7	.55	.48	.14	.05
3	.39	.45	1.5	.48	.16	.61	.50	1.9	.52	.38	.16	.05
4	.35	.46	3.7	.43	.15	1.4	.57	1.5	.51	.32	.15	.05
5	.26	.39	2.9	.39	.15	1.0	.49	1.3	.53	5.2	.14	.06
6	.27	.32	1.8	0.37	0.13	1.1	.61	1.1	.47	48	.09	.05
7	.25	.29	1.4	.33	.14	4.7	1.2	1.7	.49	13	.08	.05
8	.26	.27	1.1	.30	0.12	2.6	2.1	1.6	.49	2.9	.07	.05
9	.53	.25	1.2	.27	.11	1.6	1.5	1.2	.54	2.2	.07	.04
10	.42	.29	1.3	0.26	.10	1.0	5.4	1.0	.48	1.4	.06	.04
11	.38	.33	.76	.28	0.08	.82	35	.97	.55	1.0	.17	.05
12	.33	.30	.74	.32	0.07	.77	80	.82	.55	.79	.11	.07
13	.25	.39	.70	.31	0.07	.79	7.8	.76	.54	.65	.80	.05
14	.24	2.1	.90	.25	0.07	.80	4.3	.74	6.5	4.1	1.9	.03
15	.24	1.9	1.1	.18	0.07	.68	3.4	.67	1.3	2.6	.37	.04
16	.79	1.2	.90	0.17	0.08	.55	2.5	.56	.85	1.0	.22	.05
17	7.7	9.8	.85	0.16	0.08	.54	1.8	.54	.70	.95	.16	.05
18	2.8	3.9	.99	0.16	0.13	.51	1.5	.51	.59	.70	.13	.05
19	1.8	2.5	.94	0.15	1.7	.40	1.1	.47	.53	.63	.12	.06
20	3.0	1.7	1.2	0.15	1.2	.40	.96	.45	.48	1.0	.21	.06
21	5.9	1.3	1.3	0.14	.87	.39	.88	.46	.44	1.3	.18	.06
22	2.3	1.0	1.0	0.14	.48	.35	.77	.47	.41	.78	.12	.07
23	1.7	1.1	.82	0.14	.36	.35	.76	.46	.69	.56	.11	.08
24	1.3	1.1	.79	2.3	.24	.30	.77	.49	2.5	.47	.09	.14
25	1.1	.99	.71	4.6	0.22	.27	.73	10	.83	.41	.07	.09
26	.93	3.5	.59	.90	0.18	.31	.72	3.2	.62	.35	.07	.08
27	.81	2.2	.50	3.2	.15	.48	4.4	1.6	.48	.32	.07	.07
28	.82	1.5	0.49	19	0.14	.41	8.7	1.1	.45	.27	.07	.05
29	.62	1.1	0.47	.83	---	.33	4.6	.91	.40	.23	.06	.02
30	.58	.88	.45	.33	---	.30	11	.78	.34	.20	.08	.01
31	.52	---	.45	.22	---	.32	---	.71	---	.18	.08	---
TOTAL	37.71	42.39	33.81	37.77	7.57	24.48	184.69	45.47	24.96	92.69	6.31	1.68
MEAN	1.22	1.41	1.09	1.22	.27	.79	6.16	1.47	.83	2.99	.20	.056
MAX	7.7	9.8	3.7	19	1.7	4.7	80	10	6.5	48	1.9	.14
MIN	.24	.25	.45	.14	.07	.16	.31	.45	.34	.18	.06	.01
CFSM	.77	.89	.69	.77	.17	.50	3.90	.93	.53	1.89	.13	.04
IN.	.89	1.00	.80	.89	.18	.58	4.35	1.07	.59	2.18	.15	.04

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	.90	1.71	2.22	1.87	.60	2.07	2.94	.89	.90	3.11	.18	.37
MAX	1.87	4.57	6.22	4.60	.82	3.43	6.16	1.47	2.36	6.39	.28	.82
(WY)	1991	1993	1991	1993	1992	1993	1994	1994	1993	1992	1992	1992
MIN	.049	.20	.29	.25	.27	.79	.80	.28	.076	.085	.004	.000
(WY)	1992	1992	1992	1992	1994	1994	1991	1992	1992	1991	1991	1991

## SUMMARY STATISTICS

## FOR 1993 CALENDAR YEAR

## FOR 1994 WATER YEAR

## WATER YEARS 1990 - 1994

ANNUAL TOTAL	710.52	539.53		
ANNUAL MEAN	1.95	1.48	1.49	
HIGHEST ANNUAL MEAN			2.16	1993
LOWEST ANNUAL MEAN			.95	1992
HIGHEST DAILY MEAN	52	Jan 4	80	Apr 12
LOWEST DAILY MEAN	.06	Sep 1	.01	Sep 30
ANNUAL SEVEN-DAY MINIMUM	.08	Aug 26	.05	Sep 9
INSTANTANEOUS PEAK FLOW			438	Jul 6
INSTANTANEOUS PEAK STAGE			6.79	Jul 6
ANNUAL RUNOFF (CFSM)	1.23		.94	
ANNUAL RUNOFF (INCHES)	16.73		12.70	
10 PERCENT EXCEEDS	3.6		2.5	
50 PERCENT EXCEEDS	.85		.49	
90 PERCENT EXCEEDS	.27		.07	

\* Estimated

WABASH RIVER BASIN

03335678 INDIAN CREEK NEAR MONTMORENCI, IN

LOCATION.--Lat 40°25'53", long 87°02'16", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.13, T.23 N., R.6 W., Tippecanoe County, Hydrologic Unit 05120108, on right bank 1.8 mile upstream from mouth, 1.4 mile downstream from Goose Creek and 3.0 miles southwest on Montmorenci.

DRAINAGE AREA.--27.8 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1990 to September 1994 (discontinued).

REVISED RECORDS.--WDR IN-94-1; 1991, 1992, 1993.

GAGE.--Water-stage recorder. Datum of gage is 530.05 ft above sea level.

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

REVISIONS.--Mean daily discharges greater than 75 ft<sup>3</sup>/s, monthly values, statistics, and summary statistics for 1991-1993 are revised as shown in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	5.0	13	87	11	13	23	14	19	1.8	1.2	.15
2	.26	5.5	10	43	11	16	21	13	14	2.1	.75	.15
3	.69	5.1	93	29	16	14	21	12	15	1.9	.98	.23
4	5.3	5.0	36	20	19	14	21	13	9.7	2.1	2.2	.19
5	1.4	97	22	18	25	13	22	14	8.0	1.9	2.5	.12
6	.62	49	18	15	29	13	21	14	6.9	1.7	3.4	.12
7	4.3	23	15	14	30	12	21	12	6.2	1.6	2.3	.12
8	8.1	15	13	14	25	11	25	11	5.9	1.6	17	.08
9	115	13	12	13	24	11	26	11	5.7	1.8	3.4	.11
10	293	11	11	12	22	10	22	11	5.4	1.8	.67	.12
11	91	9.3	11	28	19	9.9	20	15	5.2	1.8	.46	.11
12	36	8.1	11	27	19	44	20	20	5.0	4.5	.37	.12
13	22	6.9	9.4	17	19	347	22	14	4.6	3.6	.37	.29
14	16	6.4	7.9	25	18	210	49	12	4.1	3.1	.37	.19
15	12	5.8	26	47	17	183	91	11	3.8	2.8	.37	.12
16	11	5.5	19	210	16	116	41	11	4.3	2.7	.36	.14
17	10	5.0	18	85	15	145	25	11	3.8	2.4	.42	.17
18	52	4.7	31	36	17	247	20	116	3.4	2.4	.45	.26
19	24	4.7	27	31	27	92	20	24	3.0	2.3	.95	.26
20	16	4.3	20	33	22	51	17	15	2.9	2.3	.48	.29
21	13	4.1	118	29	20	43	16	12	2.8	2.1	.26	.31
22	10	4.7	103	25	18	55	15	11	2.8	2.0	.19	.38
23	9.4	4.1	38	23	16	116	15	12	2.6	1.5	.15	.39
24	8.3	4.1	31	20	16	47	14	12	2.3	2.2	.15	.31
25	7.4	3.8	25	18	14	36	13	11	2.0	2.5	.14	.32
26	6.7	3.5	22	16	15	95	13	9.5	2.0	2.0	.14	.32
27	6.5	4.9	20	15	14	60	13	8.2	1.9	1.7	.15	.35
28	5.9	75	18	14	13	39	13	7.2	1.7	1.6	.15	.40
29	5.1	26	1200	14	---	31	14	9.5	1.6	1.7	.16	.37
30	4.9	16	778	13	---	26	13	12	1.5	1.9	.20	.36
31	4.9	---	130	12	---	25	---	94	---	1.6	.20	---
TOTAL	801.11	435.5	2906.3	1003	527	2134.9	687	572.4	157.1	67.0	40.89	6.85
MEAN	25.8	14.5	93.8	32.4	18.8	68.9	22.9	18.5	5.24	2.16	1.32	.23
MAX	293	97	1200	210	30	347	91	116	19	4.5	.17	.40
MIN	.26	3.5	7.9	12	11	9.9	13	7.2	1.5	1.5	.14	.08
CFSM	.93	.52	3.37	1.16	.68	2.48	.82	.66	.19	.08	.05	.01
IN.	1.07	.58	3.89	1.34	.71	2.86	.92	.77	.21	.09	.05	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1991, BY WATER YEAR (WY)

	1990	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MEAN	25.8	14.5	93.8	32.4	18.8	68.9	22.9	18.5	5.24	2.16	1.32	.23
MAX	25.8	14.5	93.8	32.4	18.8	68.9	22.9	18.5	5.24	2.16	1.32	.23
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991
MIN	25.8	14.5	93.8	32.4	18.8	68.9	22.9	18.5	5.24	2.16	1.32	.23
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991	1991

SUMMARY STATISTICS

FOR 1991 WATER YEAR

WATER YEARS 1990 - 1991

ANNUAL TOTAL	9339.05											
ANNUAL MEAN	25.6								25.6			
HIGHEST ANNUAL MEAN									25.6			1991
LOWEST ANNUAL MEAN									25.6			1991
HIGHEST DAILY MEAN	1200	Dec 29							1200	Dec 29	1990	
LOWEST DAILY MEAN	.08	Sep 8							.08	Sep 8	1991	
ANNUAL SEVEN-DAY MINIMUM	.11	Sep 5							.11	Sep 5	1991	
INSTANTANEOUS PEAK FLOW	1970	Dec 29							1970	Dec 29	1990	
INSTANTANEOUS PEAK STAGE	7.60	Dec 29							7.60	Dec 29	1990	
ANNUAL RUNOFF (CFSM)	.92								.92			
ANNUAL RUNOFF (INCHES)	12.50								12.51			
10 PERCENT EXCEEDS	43								43			
50 PERCENT EXCEEDS	11								11			
90 PERCENT EXCEEDS	.33								.33			

STATISTICS COMPUTED BY: ROKNAPP

DATE: 09/23/1994 AT: 13:19:16

• Estimated

WABASH RIVER BASIN

03335678 INDIAN CREEK NEAR MONTMORENCI, IN --Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	2.3	11	2.3	8.1	8.4	13	11	2.8	.22	44	1.3
2	.48	2.0	8.2	3.2	8.9	8.1	12	10	2.5	.37	28	1.3
3	.87	1.6	23	4.5	9.6	7.3	12	9.3	2.3	2.1	22	1.4
4	.96	1.4	24	4.5	11	6.8	17	8.8	2.9	1.6	15	1.2
5	1.6	1.4	e15	4.0	9.8	6.7	14	e9.0	2.9	.82	12	.99
6	.51	1.4	6.8	4.0	10	6.9	13	8.0	2.3	.50	9.6	.85
7	.37	1.4	5.4	3.6	8.2	7.1	12	7.5	2.7	1.1	8.5	.63
8	.44	1.4	4.5	5.7	6.7	6.4	11	7.7	2.0	1.6	7.7	1.7
9	.46	1.5	3.6	15	10	6.4	10	7.8	e1.9	1.0	6.3	2.8
10	.48	1.4	2.9	11	13	51	12	6.6	e1.7	.99	5.4	87
11	.62	1.4	2.7	8.0	5.2	45	24	6.2	1.6	1.1	4.7	17
12	e.71	1.4	4.8	7.2	7.0	34	16	6.8	1.5	18	3.8	8.8
13	e.72	1.4	14	7.0	5.3	28	13	6.5	1.4	95	3.7	5.9
14	.76	1.4	12	8.4	5.5	25	13	5.5	1.4	173	3.3	4.2
15	.65	1.5	7.0	23	48	22	12	5.5	1.4	410	2.9	2.9
16	.63	1.5	15	18	46	20	25	5.0	1.2	73	2.6	2.2
17	.70	1.4	5.5	e15	31	21	64	5.7	1.1	43	2.5	1.9
18	.64	1.7	8.6	e11	171	45	179	5.4	1.8	25	2.4	1.8
19	1.0	1.7	11	e8.6	67	115	104	4.6	1.3	15	2.2	1.7
20	.87	45	4.2	e6.7	44	45	78	4.3	1.4	27	1.9	1.7
21	.82	24	3.9	e9.8	31	30	51	3.8	1.4	25	1.8	120
22	.72	9.4	3.4	e14	24	28	34	e3.5	1.2	14	1.7	50
23	.66	5.5	4.4	e25	19	21	27	4.0	1.3	45	1.6	20
24	.73	3.8	4.0	54	16	17	25	4.3	1.2	33	1.5	12
25	3.3	3.7	3.6	45	15	16	22	3.7	1.0	142	1.4	8.9
26	5.4	5.8	3.1	38	13	17	18	3.7	.87	181	1.5	31
27	8.1	2.3	2.9	25	12	17	16	3.6	.74	153	6.5	118
28	1.7	3.5	2.8	6.7	11	14	14	3.3	.65	49	6.3	40
29	1.5	5.0	2.9	5.8	9.3	14	14	3.1	.61	35	3.0	22
30	2.4	18	2.8	6.5	---	15	e13	3.9	.39	130	1.9	16
31	3.5	---	2.5	8.5	---	14	---	3.7	---	101	1.6	---
TOTAL	42.72	155.2	225.5	409.0	675.6	718.1	888	181.8	47.46	1798.40	217.3	585.17
MEAN	1.38	5.17	7.27	13.2	23.3	23.2	29.6	5.86	1.58	58.0	7.01	19.5
MAX	8.1	45	24	54	171	115	179	11	2.9	410	44	120
MIN	.37	1.4	2.5	2.3	5.2	6.4	10	3.1	.39	.22	1.4	.63
CFSM	.05	.19	.26	.47	.84	.83	1.06	.21	.06	2.09	.25	.70
IN.	.06	.21	.30	.55	.90	.96	1.19	.24	.06	2.41	.29	.78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

	1990	1991	1992	1990	1991	1992	1990	1991	1992	1990	1991	1992
MEAN	13.6	9.84	50.5	22.8	21.1	46.0	26.2	12.2	3.41	30.1	4.16	9.87
MAX	25.8	14.5	93.8	32.4	23.3	68.9	29.6	18.5	5.24	58.0	7.01	19.5
(WY)	1991	1991	1991	1991	1992	1991	1992	1991	1991	1992	1992	1992
MIN	1.38	5.17	7.27	13.2	18.8	23.2	22.9	5.86	1.58	2.16	1.32	.23
(WY)	1992	1992	1992	1992	1991	1992	1991	1992	1992	1991	1991	1991

SUMMARY STATISTICS

FOR 1991 CALENDAR YEAR

FOR 1992 WATER YEAR

WATER YEARS 1990 - 1992

ANNUAL TOTAL	5619.56	5944.25	
ANNUAL MEAN	15.4	16.2	20.9
HIGHEST ANNUAL MEAN			25.6
LOWEST ANNUAL MEAN			16.2
HIGHEST DAILY MEAN	347	410	1200
LOWEST DAILY MEAN	.08	.22	.08
ANNUAL SEVEN-DAY MINIMUM	.11	.51	.11
INSTANTANEOUS PEAK FLOW		1070	1970
INSTANTANEOUS PEAK STAGE		5.90	7.60
ANNUAL RUNOFF (CFSM)	.55	.58	.75
ANNUAL RUNOFF (INCHES)	7.52	7.95	10.22
10 PERCENT EXCEEDS	28	39	41
50 PERCENT EXCEEDS	5.4	6.0	8.1
90 PERCENT EXCEEDS	.36	1.0	.67

STATISTICS COMPUTED BY: CRKEETON

DATE: 02/25/1995 AT: 07:47:56

e Estimated

WABASH RIVER BASIN

03335678 INDIAN CREEK NEAR MONTMORENCI, IN --Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	157	19	43	17	99.0	391	27	25	286	6.0	3.0
2	9.8	484	18	27	15	18	88	27	21	151	5.6	36
3	8.3	127	15	90	15	134	59	27	18	85	5.1	72
4	6.9	66	15	938	13	207	46	25	29	47	5.2	27
5	5.8	47	13	292	13	140	39	25	78	32	4.3	12
6	5.3	35	12	104	13	127	33	20	30	23	4.3	8.7
7	5.1	26	12	68	12	110	29	19	21	18	3.9	7.0
8	5.2	21	11	52	12	76	27	17	20	15	3.4	5.9
9	5.7	18	11	40	11	58	30	15	189	13	3.2	5.1
10	4.7	23	13	34	11	51	28	14	48	40	3.3	4.4
11	4.1	70	11	27	11	41	25	13	27	169	3.1	3.6
12	3.6	616	9.4	26	13	34	21	14	20	40	5.4	20
13	3.5	229	9.1	36	12	31	20	15	16	24	4.8	12
14	3.3	80	9.7	31	11	28	132	13	14	39	3.3	45
15	4.5	50	18	27	10	25	248	12	12	22	5.1	136
16	54	40	56	24	99.2	24	130	10	10	17	17	41
17	23	32	32	22	88.6	25	61	9.9	9.5	15	6.3	22
18	14	23	23	20	88.2	22	47	9.9	9.0	14	4.0	14
19	10	20	21	18	88.0	21	42	9.5	8.7	12	6.4	10
20	8.9	18	22	37	87.6	22	81	9.1	15	10	22	8.8
21	8.1	17	21	355	89.0	22	50	8.5	24	9.2	6.8	7.6
22	6.7	94	16	197	89.6	42	40	7.9	12	8.4	4.6	6.5
23	6.3	97	15	112	88.4	242	34	81	9.2	8.1	4.0	6.3
24	6.5	55	14	91	88.0	76	31	55	9.6	22	4.9	5.7
25	5.7	44	12	50	87.6	51	656	27	29	56	3.7	13
26	5.5	42	11	38	87.8	41	121	19	14	19	3.6	21
27	5.2	33	10	31	87.6	34	66	15	11	12	2.9	57
28	5.0	27	11	28	87.8	29	49	13	188	9.5	2.6	33
29	4.9	23	13	22	---	26	39	12	79	8.0	2.4	17
30	4.6	21	52	26	---	23	34	40	207	7.0	2.3	13
31	4.4	---	100	20	---	140	---	53	---	6.4	2.8	---
TOTAL	260.6	2635	625.2	2926	296.4	1929.0	2697	662.8	1203.0	1237.6	162.3	673.6
MEAN	8.41	87.8	20.2	94.4	10.6	62.2	89.9	21.4	40.1	39.9	5.24	22.5
MAX	54	616	100	938	17	242	656	81	207	286	22	136
MIN	3.3	17	9.1	18	7.6	9.0	20	7.9	8.7	6.4	2.3	3.0
CFSM	.30	3.16	.73	3.40	.38	2.24	3.23	.77	1.44	1.44	.19	.81
IN.	.35	3.53	.84	3.92	.40	2.58	3.61	.89	1.61	1.66	.22	.90

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

	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
MEAN	11.9	35.8	40.4	46.6	17.6	51.4	47.5	15.2	15.6	33.4	4.52	14.1
MAX	25.8	87.8	93.8	94.4	23.3	68.9	89.9	21.4	40.1	58.0	7.01	22.5
(WY)	1991	1993	1991	1993	1992	1991	1993	1993	1993	1992	1992	1993
MIN	1.38	5.17	7.27	13.2	10.6	23.2	22.9	5.86	1.58	2.16	1.32	.23
(WY)	1992	1992	1992	1992	1993	1992	1991	1992	1992	1991	1991	1991

SUMMARY STATISTICS

	FOR 1992 CALENDAR YEAR	FOR 1993 WATER YEAR	WATER YEARS 1990 - 1993
ANNUAL TOTAL	9041.63	15308.5	
ANNUAL MEAN	24.7	41.9	27.9
HIGHEST ANNUAL MEAN			41.9
LOWEST ANNUAL MEAN			16.2
HIGHEST DAILY MEAN	616	938	1200
LOWEST DAILY MEAN	.22	2.3	.08
ANNUAL SEVEN-DAY MINIMUM	.55	2.8	.11
INSTANTANEOUS PEAK FLOW		1560	1970
INSTANTANEOUS PEAK STAGE		6.88	7.60
INSTANTANEOUS LOW FLOW		2.0	
ANNUAL RUNOFF (CFSM)	.89	1.51	1.00
ANNUAL RUNOFF (INCHES)	12.10	20.48	13.64
10 PERCENT EXCEEDS	51	89	52
50 PERCENT EXCEEDS	9.9	19	11
90 PERCENT EXCEEDS	1.6	5.1	1.4

STATISTICS COMPUTED BY: CRKEETON

DATE: 02/25/1995 AT: 07:48:24

• Estimated

WABASH RIVER BASIN

03335678 INDIAN CREEK NEAR MONTMORENCI, IN --Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	9.7	15	e9.2	e6.0	8.9	8.4	122	9.5	6.2	3.0	1.6
2	9.5	8.9	20	e8.7	e4.5	9.9	7.9	65	8.0	11	2.7	1.3
3	7.7	9.5	24	e8.4	e3.7	13	12	48	8.3	12	2.5	1.2
4	7.1	9.7	35	e8.0	e3.2	24	12	39	7.9	7.6	2.4	1.3
5	6.1	9.5	41	e7.7	e3.1	26	11	34	7.8	7.1	3.1	2.1
6	5.6	8.5	27	e7.4	e3.0	26	18	30	7.9	136	2.4	1.8
7	5.5	7.8	21	e6.9	e2.8	102	23	62	7.3	315	2.2	1.2
8	5.4	7.4	18	e6.3	e2.7	64	39	50	16	70	2.1	1.1
9	15	7.1	17	e6.0	e2.5	37	29	38	14	50	2.2	1.0
10	13	7.1	16	e6.0	e2.3	25	113	31	9.7	26	2.2	1.0
11	9.5	7.1	13	e6.2	e2.0	19	306	28	8.4	19	7.1	.96
12	8.2	7.2	13	e6.7	e1.9	17	1450	26	8.3	14	6.3	.95
13	7.0	11	13	e7.4	e1.8	17	181	23	17	11	6.9	1.1
14	6.1	62	17	e7.0	e1.8	17	97	22	108	9.6	20	1.5
15	5.8	59	22	e5.7	e1.8	16	96	20	28	33	5.4	1.7
16	8.4	29	18	e5.0	e1.9	12	74	17	15	11	3.1	1.9
17	145	168	16	e4.1	e2.0	11	56	16	12	16	2.3	1.9
18	48	79	18	e3.8	e2.5	12	46	14	9.8	12	1.8	1.1
19	28	43	18	e3.7	31	10	39	13	8.4	12	1.6	.74
20	40	29	21	e3.6	31	9.8	33	12	7.4	9.2	4.8	.83
21	95	22	27	e3.5	24	9.8	31	11	7.0	9.8	4.0	.87
22	38	19	20	e3.5	17	8.6	27	9.6	6.1	8.4	2.2	.99
23	28	17	17	e3.5	16	8.4	25	9.0	8.5	6.9	1.6	1.6
24	23	16	15	e100	14	8.3	23	8.9	37	5.9	1.4	3.2
25	19	15	e13	e70	e11	7.2	21	101	14	5.5	1.3	1.4
26	16	41	e12	e98	e9.0	7.9	19	111	21	4.9	1.4	1.3
27	13	37	e11	e260	e7.4	13	96	24	13	4.5	1.4	1.1
28	14	26	e10	440	e7.5	11	173	17	9.4	4.3	1.5	.95
29	13	20	e9.7	64	---	9.2	122	14	8.3	3.8	1.8	1.1
30	11	16	e9.4	28	---	8.5	159	12	7.4	3.4	2.1	1.1
31	11	---	e9.3	e16	---	8.4	---	11	---	3.2	2.3	---
TOTAL	674.9	808.5	556.4	1214.3	217.4	576.9	3347.3	1038.5	451.2	848.3	105.1	39.89
MEAN	21.8	26.9	17.9	39.2	7.76	18.6	112	33.5	15.0	27.4	3.39	1.33
MAX	145	168	41	440	31	102	1450	122	108	315	20	3.2
MIN	5.4	7.1	9.3	3.5	1.8	7.2	7.9	8.9	6.1	3.2	1.3	.74
CFSM	.78	.97	.65	1.41	.28	.67	4.01	1.21	.54	.98	.12	.05
IN.	.90	1.08	.74	1.62	.29	.77	4.48	1.39	.60	1.14	.14	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994		
MEAN	14.3	33.6	34.8	44.8	15.2	43.2	63.5	19.8	15.5	31.9	4.24	10.9
MAX	25.8	87.8	93.8	94.4	23.3	68.9	112	33.5	40.1	58.0	7.01	22.5
(WY)	1991	1993	1991	1993	1992	1991	1994	1994	1993	1992	1992	1993
MIN	1.38	5.17	7.27	13.2	7.76	18.6	22.9	5.86	1.58	2.16	1.32	.23
(WY)	1992	1992	1992	1992	1994	1994	1991	1992	1992	1991	1991	1991

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1990 - 1994	
	Value	Date	Value	Date	Value	Date
ANNUAL TOTAL	13827.5		9878.69			
ANNUAL MEAN	37.9		27.1		27.7	
HIGHEST ANNUAL MEAN					41.9	1993
LOWEST ANNUAL MEAN					16.2	1992
HIGHEST DAILY MEAN	938	Jan 4	1450	Apr 12	1450	Apr 12 1994
LOWEST DAILY MEAN	2.3	Aug 30	.74	Sep 19	.08	Sep 8 1991
ANNUAL SEVEN-DAY MINIMUM	2.8	Aug 26	1.0	Sep 7	.11	Sep 5 1991
INSTANTANEOUS PEAK FLOW			2860	Apr 12	2860	Apr 12 1994
INSTANTANEOUS PEAK STAGE			8.94	Apr 12	8.94	Apr 12 1994
ANNUAL RUNOFF (CFSM)	1.36		.97		1.00	
ANNUAL RUNOFF (INCHES)	18.50		13.22		13.54	
10 PERCENT EXCEEDS	79		50		52	
50 PERCENT EXCEEDS	18		9.8		11	
90 PERCENT EXCEEDS	6.1		1.8		1.4	

STATISTICS COMPUTED BY: CRKRETON

DATE: 02/25/1995 AT: 09:02:12

e Estimated

WABASH RIVER BASIN

03335679 LITTLE PINE CREEK AT GREEN HILL, IN

LOCATION.--Lat 40°24'34", long 87°06'53", in NE<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub> sec.29, T.23 N., R.6 W., Warren County, Hydrologic Unit 05120108, on right bank at southwest edge of Green Hill, 1.2 mile downstream from Armstrong Creek and at mile 6.1.

DRAINAGE AREA.--42.3 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	23	35	e23	e15	14	43	269	14	7.3	e3.0	e1.5
2	26	22	44	e22	e11	15	27	140	13	15	e2.8	e1.4
3	22	23	59	e21	e9.0	18	25	97	12	21	e2.6	e1.3
4	22	23	73	e20	e8.1	29	24	77	12	12	e2.4	e1.4
5	19	23	99	e19	e7.9	35	21	64	12	8.9	e2.2	e1.6
6	17	20	68	e18	e7.5	34	24	56	13	38	e2.1	e1.8
7	17	18	52	e17	e7.0	92	29	74	11	226	e2.0	e2.0
8	17	18	46	e16	e6.7	102	53	76	15	227	e1.9	e1.8
9	33	17	42	e15	e6.2	63	47	61	18	113	e1.9	e1.5
10	33	17	40	e15	e5.8	44	109	49	14	61	e2.4	e1.3
11	25	17	33	e16	e5.5	35	205	44	14	33	e3.4	e1.3
12	24	17	31	e17	e5.2	30	1730	40	14	23	3.4	e1.8
13	21	21	30	e17	e5.0	30	894	36	20	18	6.1	e1.6
14	19	61	36	e16	e5.0	30	383	34	37	14	14	e1.4
15	18	97	49	e14	e5.0	28	271	32	31	21	8.0	e1.3
16	22	58	41	e13	e5.4	24	206	28	20	14	4.1	e1.3
17	179	139	37	e10	e5.9	21	160	25	16	14	e3.1	e1.3
18	165	184	39	e9.6	e7.4	22	127	24	14	14	e2.6	e1.3
19	91	106	40	e9.2	47	19	102	23	13	13	e2.4	e1.3
20	81	70	41	e8.9	51	18	82	22	11	13	e3.0	e1.3
21	175	54	54	e8.8	42	18	70	21	11	13	4.9	e1.4
22	112	45	45	e8.8	30	16	62	20	9.4	12	e3.4	e1.4
23	71	40	38	e8.9	24	16	56	19	11	9.5	e2.6	e1.5
24	57	37	34	72	21	16	52	19	26	7.7	e2.3	e1.7
25	47	34	33	156	17	14	47	23	16	6.9	e1.8	e1.9
26	41	73	e30	110	e15	14	43	36	18	6.0	e1.7	e1.8
27	36	85	e27	79	e13	19	157	24	15	5.5	e1.7	e1.7
28	34	60	e25	287	e13	18	193	20	11	5.1	e1.6	e1.6
29	31	47	e24	167	---	16	261	18	9.9	4.3	e1.5	e1.5
30	27	38	e23	63	---	14	215	16	8.6	3.7	e1.6	e1.4
31	26	---	e23	38	---	19	---	16	---	3.4	e1.7	---
TOTAL	1539	1487	1291	1315.2	401.6	883	5718	1503	459.9	983.3	98.2	45.4
MEAN	49.6	49.6	41.6	42.4	14.3	28.5	191	48.5	15.3	31.7	3.17	1.51
MAX	179	184	99	287	51	102	1730	269	37	227	14	2.0
MIN	17	17	23	8.8	5.0	14	21	16	8.6	3.4	1.5	1.3
CFSM	1.17	1.17	.98	1.00	.34	.67	4.51	1.15	.36	.75	.07	.04
IN.	1.35	1.31	1.14	1.16	.35	.78	5.03	1.32	.40	.86	.09	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994		
MEAN	36.0	60.5	58.0	74.3	26.4	65.9	104	38.2	30.2	59.5	11.4	21.9
MAX	61.5	146	133	157	38.0	102	191	48.9	80.9	111	27.6	44.1
(WY)	1991	1993	1991	1993	1991	1993	1994	1991	1993	1992	1992	1993
MIN	6.29	14.7	17.2	12.8	14.3	28.5	41.8	9.59	4.08	3.93	3.17	1.06
(WY)	1992	1992	1992	1992	1994	1994	1991	1992	1992	1991	1994	1991

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1990 - 1994	
ANNUAL TOTAL	25456.0		15724.6			
ANNUAL MEAN	69.7		43.1		49.0	
HIGHEST ANNUAL MEAN					75.6	
LOWEST ANNUAL MEAN					29.9	
HIGHEST DAILY MEAN	673	Jan 4	1730	Apr 12	1730	Apr 12 1994
LOWEST DAILY MEAN	6.0	Aug 30	1.3	Sep 3	.55	Sep 8 1991
ANNUAL SEVEN-DAY MINIMUM	7.0	Aug 26	1.3	Sep 14	.68	Sep 6 1991
INSTANTANEOUS PEAK FLOW			2090		2090	
INSTANTANEOUS PEAK STAGE			11.16		11.16	
ANNUAL RUNOFF (CFSM)	1.65		1.02		1.16	
ANNUAL RUNOFF (INCHES)	22.39		13.83		15.74	
10 PERCENT EXCEEDS	169		87		111	
50 PERCENT EXCEEDS	40		20		24	
90 PERCENT EXCEEDS	14		1.9		2.7	

e Estimated

WABASH RIVER BASIN

03335690 MUD PINE CREEK NEAR OXFORD, IN

LOCATION.--Lat 40°31'24", long 87°20'30", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.17, T.24 N., R.8 W., Benton County, Hydrologic Unit 05120108, on right bank 5 ft downstream from county road bridge, 0.3 mi north of Chase, 2 mi east of Boswell, and 5 mi west of Oxford.

DRAINAGE AREA.--39.4 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	28	50	e20	e30	e12	20	149	14	23	4.9	1.3
2	40	27	116	e20	e18	e13	19	91	13	22	4.6	1.3
3	35	27	124	e20	e11	18	46	70	13	20	4.3	1.3
4	33	27	157	e19	e7.6	46	46	58	13	18	5.0	1.4
5	26	25	137	e17	e6.0	61	37	49	13	26	4.6	2.0
6	25	21	91	e16	e5.2	60	34	42	13	51	3.9	2.2
7	24	20	66	e16	e4.7	158	42	63	12	33	3.8	2.0
8	23	19	57	e15	e4.3	121	70	65	14	24	3.8	1.9
9	42	18	50	e15	e4.1	74	58	52	14	20	3.7	1.8
10	34	18	46	e15	e4.0	53	177	43	13	17	3.4	1.8
11	30	18	35	e15	e3.9	41	290	40	12	15	6.2	1.6
12	27	17	34	e14	e3.9	38	4550	35	12	14	5.7	1.4
13	22	22	33	e14	e4.0	39	564	32	16	13	7.3	1.2
14	20	94	72	e14	e6.0	39	248	31	17	12	15	1.0
15	19	105	93	e13	e8.5	35	453	28	14	11	5.7	.89
16	268	64	64	e13	e15	28	228	25	13	9.9	4.5	.80
17	951	200	54	e12	e29	26	143	24	13	11	3.9	.88
18	297	165	63	e12	59	27	111	23	12	9.6	3.5	1.1
19	180	111	59	e12	70	21	88	22	11	12	3.4	1.0
20	191	73	69	e11	69	21	75	21	11	10	52	1.1
21	396	56	77	e11	44	21	67	20	11	13	35	1.2
22	178	45	e54	e11	26	19	58	20	9.9	10	13	1.5
23	127	41	e42	e11	24	19	52	19	85	8.7	3.7	2.0
24	102	38	e34	e14	17	18	46	19	332	8.2	1.7	11
25	82	40	e29	e19	11	16	41	19	102	10	1.4	7.2
26	68	312	e26	e80	11	17	38	19	117	7.9	1.3	9.8
27	57	185	e24	e60	e13	29	57	16	76	7.1	1.2	6.8
28	53	111	e23	e300	e12	27	90	16	48	6.7	1.1	3.6
29	41	76	e21	e95	---	23	112	15	36	6.1	1.1	1.5
30	36	56	e21	e58	---	21	152	15	27	5.5	1.2	.61
31	33	---	e20	e37	---	20	---	15	---	5.2	1.5	---
TOTAL	3518	2059	1841	999	521.2	1161	8012	1156	1106.9	459.9	211.4	73.18
MEAN	113	68.6	59.4	32.2	18.6	37.5	267	37.3	36.9	14.8	6.82	2.44
MAX	951	312	157	300	70	158	4550	149	332	51	52	11
MIN	19	17	20	11	3.9	12	19	15	9.9	5.2	1.1	.61
CFSM	2.88	1.74	1.51	.82	.47	.95	6.78	.95	.94	.38	.17	.06
IN.	3.32	1.94	1.74	.94	.49	1.10	7.56	1.09	1.05	.43	.20	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1994, BY WATER YEAR (WY)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
MEAN	18.7	34.2	50.3	39.9	59.1	75.7	72.7	57.5	46.9	24.9	16.5	19.5	
MAX	113	169	154	164	158	237	267	159	145	147	122	134	
(WY)	1994	1986	1991	1993	1990	1979	1994	1981	1980	1993	1981	1993	
MIN	.89	.79	.98	.47	3.41	6.54	17.2	8.49	2.85	.65	.79	.40	
(WY)	1981	1981	1977	1977	1977	1981	1977	1976	1988	1988	1988	1983	

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1972 - 1994	
ANNUAL TOTAL	34708.5		21118.58		42.9	
ANNUAL MEAN	95.1		57.9		93.0	
HIGHEST ANNUAL MEAN					1993	
LOWEST ANNUAL MEAN					1977	
HIGHEST DAILY MEAN	1970	Jan 4	4550	Apr 12	4550	Apr 12 1994
LOWEST DAILY MEAN	4.6	Aug 30	.61	Sep 30	.10	Sep 18 1988
ANNUAL SEVEN-DAY MINIMUM	5.1	Aug 26	.97	Sep 14	.24	Sep 9 1983
INSTANTANEOUS PEAK FLOW			12100	Apr 12	12100	Apr 12 1994
INSTANTANEOUS PEAK STAGE			16.98	Apr 12	16.98	Apr 12 1994
ANNUAL RUNOFF (CFSM)	2.41		1.47		1.09	
ANNUAL RUNOFF (INCHES)	32.77		19.94		14.78	
10 PERCENT EXCEEDS	185		103		99	
50 PERCENT EXCEEDS	58		21		16	
90 PERCENT EXCEEDS	16		3.6		1.0	

e Estimated



WABASH RIVER BASIN

03339280 PRAIRIE CREEK NEAR LEBANON, IN

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

DRAINAGE AREA.--33.2 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	11	44	e18	e35	e15	11	46	13	22	4.5	4.0
2	14	10	58	e19	e29	17	11	33	12	20	4.8	3.6
3	12	11	70	e16	e24	19	13	28	11	32	4.7	3.4
4	12	11	129	e15	e21	26	11	25	11	20	9.3	3.1
5	10	12	107	e14	e19	32	12	23	10	15	13	3.9
6	8.9	12	69	e15	e18	37	22	24	10	13	6.0	3.8
7	9.0	9.7	50	e16	e17	37	23	89	9.7	13	5.5	3.5
8	10	10	43	e14	e16	34	37	77	16	12	5.3	3.2
9	46	10	39	e13	e15	29	28	51	14	11	5.1	3.0
10	33	10	37	e12	e14	25	141	37	11	8.6	4.9	3.3
11	23	9.1	29	e13	e13	21	313	30	10	8.3	24	2.6
12	18	9.4	26	e15	e13	19	748	27	10	8.2	13	3.1
13	15	29	25	e16	e12	21	244	23	379	8.7	8.8	2.4
14	13	1290	38	e14	e12	22	135	22	145	8.4	7.8	2.5
15	12	868	53	e12	e16	21	89	22	66	9.3	6.0	2.4
16	13	263	40	e11	e22	18	64	18	38	8.0	5.6	2.4
17	45	784	35	e10	e29	16	50	17	27	7.6	5.5	2.8
18	27	404	35	e9.4	45	18	41	16	21	7.9	4.7	2.5
19	21	192	33	e9.0	59	15	34	15	17	7.2	4.4	2.9
20	19	120	37	e8.6	54	15	28	14	15	7.1	23	2.5
21	19	85	48	e8.4	43	15	27	14	14	17	10	2.6
22	16	67	39	e8.2	33	13	24	13	12	9.2	5.1	2.9
23	15	56	31	e8.0	30	13	22	13	13	7.4	4.8	7.4
24	14	48	27	e25	27	14	22	16	14	6.7	4.1	17
25	15	49	e25	327	e22	12	19	41	13	6.4	3.6	3.7
26	13	150	e23	125	e18	12	18	26	59	6.4	3.6	12
27	12	107	e21	189	e16	15	21	19	40	5.7	3.4	5.2
28	13	74	e20	581	e14	13	25	16	24	5.4	4.0	2.9
29	12	57	e19	127	---	11	24	15	29	4.4	5.6	2.6
30	13	48	e18	69	---	11	37	14	40	4.6	3.7	2.6
31	13	---	e17	48	---	10	---	14	---	4.9	7.5	---
TOTAL	531.9	4816.2	1285	1785.6	686	596	2294	838	1103.7	325.4	221.3	119.8
MEAN	17.2	161	41.5	57.6	24.5	19.2	76.5	27.0	36.8	10.5	7.14	3.99
MAX	46	1290	129	581	59	37	748	89	379	32	24	17
MIN	8.9	9.1	17	8.0	12	10	11	13	9.7	4.4	3.4	2.4
CF8M	.52	4.84	1.25	1.73	.74	.58	2.30	.81	1.11	.32	.22	.12
IN.	.60	5.40	1.44	2.00	.77	.67	2.57	.94	1.24	.36	.25	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1994, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1988	1989	1990	1991	1992	1993	1994
MEAN	13.2	63.1	38.8	45.9	45.8	57.8	69.8	41.3	29.9	40.0	10.7	33.5		
MAX	25.8	205	158	129	139	109	96.7	86.3	80.0	95.6	34.8	139		
(WY)	1993	1993	1991	1993	1990	1990	1989	1989	1990	1989	1989	1989		
MIN	3.52	6.68	6.03	11.0	8.62	19.2	39.0	6.45	4.34	3.08	2.45	2.22		
(WY)	1989	1988	1989	1989	1989	1994	1990	1988	1988	1991	1988	1991		

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1988 - 1994	
ANNUAL TOTAL	21894.6		14602.9			
ANNUAL MEAN	60.0		40.0		40.7	
HIGHEST ANNUAL MEAN					63.0	
LOWEST ANNUAL MEAN					19.3	
HIGHEST DAILY MEAN	1290		1290		1900	
LOWEST DAILY MEAN	5.0		2.4		.71	
ANNUAL SEVEN-DAY MINIMUM	5.9		2.6		.93	
INSTANTANEOUS PEAK FLOW			2290		2710	
INSTANTANEOUS PEAK STAGE			12.68		13.99	
ANNUAL RUNOFF (CF8M)	1.81		1.21		1.23	
ANNUAL RUNOFF (INCHES)	24.53		16.36		16.65	
10 PERCENT EXCEEDS	124		58		78	
50 PERCENT EXCEEDS	28		15		16	
90 PERCENT EXCEEDS	9.3		4.7		3.4	

e Estimated



WABASH RIVER BASIN

03340500 WABASH RIVER AT MONTEZUMA, IN

LOCATION.--Lat 39°47'33", long 87°22'26", in SE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub> sec.35, T.16 N., R.9 W., Parke County, Hydrologic Unit 05120108, on left bank 20 ft upstream from bridge on U.S. Highway 36 at Montezuma, 2.0 mi upstream from Big Raccoon Creek, 4.9 mi downstream from Sugar Creek, and at mile 240.0.

DRAINAGE AREA.--11,118 mi<sup>2</sup>.

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

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

GAGE.--Water-stage recorder. Datum of gage is 457.75 ft above sea level (levels by U.S. Army Corps of Engineers). Oct. 1, 1927, to July 12, 1950, nonrecording gage on downstream side of bridge 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 good except for estimated daily discharges, which are 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<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15900	9490	26000	8860	33300	9280	6000	27100	6690	8880	3180	2630
2	13100	9090	24600	9300	27800	9050	5720	27300	6310	8100	3090	2520
3	11200	8700	26600	9390	22400	8770	5590	25100	5850	e7800	3110	2410
4	9530	8460	27800	8930	19900	8910	5930	21200	5560	e7900	3180	2270
5	8420	8270	28700	8300	17900	9840	6110	17700	5360	e8250	3070	2230
6	7830	8080	28600	7840	15700	12100	6420	15500	5240	e9200	3070	2230
7	7360	7780	26700	7490	14300	14300	7190	16600	5080	e13000	2910	2320
8	6980	7360	23500	6820	13800	18800	7740	21300	4870	e14300	3130	2400
9	8790	7070	22600	5980	12400	22500	9340	20000	4920	15100	3100	2190
10	12800	6880	19800	5450	11400	22100	14000	17600	5150	13800	3000	1960
11	12700	6770	16200	5920	10700	19000	23400	15600	5220	11700	3390	1870
12	11300	6730	14400	6430	9910	16400	38600	13900	4980	9620	3730	2010
13	10100	6930	13300	6900	8910	14400	60100	12700	5240	7950	5530	2120
14	9040	14300	12700	6690	7530	12400	91200	11700	7440	6820	5450	2070
15	8090	33200	13400	5040	7340	11000	99600	11500	11600	6250	4750	1990
16	7550	34300	14400	3730	9050	10400	87100	10800	15400	6540	4340	1940
17	18600	37100	13900	e3440	11500	9750	72700	9910	12200	5850	3630	1870
18	28500	48300	13300	e3350	12600	9030	59900	8980	9290	5090	3210	1820
19	30400	46900	13000	e3260	13900	8640	50200	8440	7610	4850	2980	1790
20	30400	42900	13000	e3180	15700	8360	41400	7900	6610	4430	3040	1790
21	29600	39100	13700	e3120	17400	8000	33700	7600	6080	4600	3100	1750
22	28800	34100	14300	e3100	17400	7640	28200	7210	6040	4860	3470	1690
23	26900	28100	13600	e3450	15700	7190	23900	6940	5730	6260	3460	1790
24	22700	24500	12700	e4450	13800	6970	20700	6960	5650	5470	3370	2230
25	18400	22400	11800	8250	12700	6820	18200	11100	10500	4550	3010	2510
26	15700	23300	11100	17900	11300	6640	15800	11300	11100	4430	2780	2550
27	13800	28500	10100	17800	9950	6480	14400	10500	11300	4540	2670	2510
28	12700	30000	9580	27300	9300	6550	17100	9520	15000	4070	2480	2420
29	11600	29500	9160	37600	---	6820	23700	8870	13800	3650	2410	2380
30	10800	28100	8580	38900	---	6640	25000	7900	10700	3390	2500	2330
31	10100	---	8530	36900	---	6370	---	7210	---	3370	2600	---
TOTAL	469690	646210	515650	325070	403590	331150	918940	415940	236520	224620	102740	64590
MEAN	15150	21540	16630	10490	14410	10680	30630	13420	7884	7246	3314	2153
MAX	30400	48300	28700	38900	33300	22500	99600	27300	15400	15100	5530	2630
MIN	6980	6730	8530	3100	7340	6370	5590	6940	4870	3370	2410	1690
CFSM	1.36	1.94	1.50	.94	1.30	.96	2.76	1.21	.71	.65	.30	.19
IN.	1.57	2.16	1.73	1.09	1.35	1.11	3.07	1.39	.79	.75	.34	.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1994, BY WATER YEAR (WY)

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
MEAN	4281	6320	9624	12780	14320	17230	17810	13530	10120	7120	4315	3667					
MAX	16990	36840	40350	66690	40610	49690	37650	58400	42730	25110	18840	17800					
(WY)	1991	1993	1928	1950	1959	1982	1938	1943	1958	1993	1958	1989					
MIN	973	1202	1041	1107	1789	2370	4941	2082	1357	1210	815	710					
(WY)	1964	1965	1964	1977	1931	1941	1931	1934	1934	1934	1941	1941					

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1928 - 1994
ANNUAL TOTAL	7009560	4654710	
ANNUAL MEAN	19200	12750	10070
HIGHEST ANNUAL MEAN			20290
LOWEST ANNUAL MEAN			2506
HIGHEST DAILY MEAN	80200	Jan 8	182000
LOWEST DAILY MEAN	4610	Sep 1	571
ANNUAL SEVEN-DAY MINIMUM	5010	Aug 27	600
INSTANTANEOUS PEAK FLOW			184000
INSTANTANEOUS PEAK STAGE			32.83
ANNUAL RUNOFF (CFSM)	1.73	1.15	.91
ANNUAL RUNOFF (INCHES)	23.45	15.57	12.30
10 PERCENT EXCEEDS	35900	27800	24700
50 PERCENT EXCEEDS	15100	8930	5660
90 PERCENT EXCEEDS	7540	2860	1690

e Estimated

WABASH RIVER BASIN

03340800 BIG RACCOON CREEK NEAR FINCASTLE, IN

LOCATION.--Lat 39°48'45", long 86°57'14", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.22, T.16 N., R.5 W., Putnam County, Hydrologic Unit 05120108, on left bank at downstream side of county road bridge, 1.6 mi upstream from Ramp Creek, 3.1 mi west of Fincastle, and at mile 48.8.

DRAINAGE AREA.--139 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	42	219	e90	e130	e72	50	221	49	64	7.0	4.9
2	61	38	288	e96	e110	e74	50	164	46	54	6.2	4.7
3	49	37	381	e90	e100	83	53	131	44	54	5.9	4.4
4	43	38	518	e82	e92	104	52	114	42	101	7.4	4.3
5	40	38	464	e78	e86	146	50	101	41	74	7.7	4.6
6	35	36	319	e76	e82	154	59	99	40	47	6.7	4.7
7	32	33	253	e80	e78	154	68	278	39	37	6.0	4.8
8	31	32	223	e72	e72	140	88	400	46	33	6.4	4.5
9	94	30	198	e68	e64	124	95	259	37	30	6.8	4.5
10	126	30	187	e66	e62	115	345	187	36	25	5.4	4.3
11	84	29	161	e68	e60	98	830	155	35	22	5.7	4.4
12	66	31	143	e70	e56	87	1830	195	41	20	6.0	e4.3
13	56	53	138	e72	e54	88	722	129	1240	18	6.7	e4.2
14	48	3900	153	e64	e52	90	415	113	666	17	8.5	e4.2
15	41	5990	237	e58	e62	88	317	150	263	15	8.6	e4.1
16	37	742	221	e54	e90	79	263	112	169	14	6.4	e4.1
17	97	2690	188	e48	e130	70	208	92	121	13	5.8	e4.1
18	162	1570	176	e45	202	73	171	83	91	11	5.3	e4.1
19	107	568	168	e42	228	70	149	77	74	11	5.3	e4.0
20	87	408	166	e40	228	64	123	73	65	12	7.5	e4.0
21	122	324	208	e38	195	65	112	69	58	17	8.4	e4.0
22	107	271	187	e36	152	64	102	66	52	15	7.3	e4.0
23	83	234	159	e35	138	59	92	63	47	12	6.1	6.8
24	71	207	141	e80	135	59	87	67	47	10	5.7	13
25	64	225	e130	e600	110	56	83	121	49	10	5.4	9.0
26	58	597	e115	682	e80	54	78	113	321	12	5.1	20
27	53	571	e105	503	e74	61	82	80	305	8.4	5.3	14
28	50	358	e98	1700	e70	60	82	65	160	8.1	5.4	8.1
29	47	276	e92	507	---	55	125	59	102	8.1	5.8	5.9
30	45	233	e88	272	---	51	126	56	77	7.5	5.3	4.7
31	44	---	e86	200	---	50	---	52	---	7.0	5.3	---
TOTAL	2113	19631	6210	6012	2992	2607	6907	3944	4403	787.1	196.4	176.7
MEAN	68.2	654	200	194	107	84.1	230	127	147	25.4	6.34	5.89
MAX	162	5990	518	1700	228	154	1830	400	1240	101	8.6	20
MIN	31	29	86	35	52	50	50	52	35	7.0	5.1	4.0
CFSM	.49	4.71	1.44	1.40	.77	.61	1.66	.92	1.06	.18	.05	.04
IN.	.57	5.25	1.66	1.61	.80	.70	1.85	1.06	1.18	.21	.05	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1994, BY WATER YEAR (WY)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994		
MEAN	53.9	145	204	170	206	265	231	167	112	97.2	51.9	45.5																											
MAX	312	844	913	616	694	683	730	540	496	430	268	545																											
(WY)	1970	1993	1991	1974	1985	1978	1964	1974	1974	1979	1979	1989																											
MIN	3.13	5.89	4.93	4.69	26.2	28.6	43.5	19.5	11.1	4.83	2.75	1.72																											
(WY)	1967	1964	1964	1977	1964	1981	1976	1976	1988	1991	1991	1991																											

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1958 - 1994

ANNUAL TOTAL	82728	55979.2	
ANNUAL MEAN	227	153	145
HIGHEST ANNUAL MEAN			292
LOWEST ANNUAL MEAN			38.5
HIGHEST DAILY MEAN	5990	Nov 15	5990
LOWEST DAILY MEAN	19	Aug 31	4.0
ANNUAL SEVEN-DAY MINIMUM	20	Aug 27	4.0
INSTANTANEOUS PEAK FLOW			12000
INSTANTANEOUS PEAK STAGE			15.25
ANNUAL RUNOFF (CFSM)	1.63		1.10
ANNUAL RUNOFF (INCHES)	22.14		14.98
10 PERCENT EXCEEDS	418		266
50 PERCENT EXCEEDS	114		67
90 PERCENT EXCEEDS	31		5.9
			16000
			16.10
			1.05
			14.21
			300
			55
			7.5

e Estimated

## WABASH RIVER BASIN

## 03340900 BIG RACCOON CREEK AT FERNDAL, IN

LOCATION.--Lat 39°42'40", long 87°04'15", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.28, T.15 N., R.6 W., Parke County, Hydrologic Unit 05120108, on right bank at upstream side of bridge on New Discovery Road, 0.5 mi downstream from Cecil M. Harden Lake, 3.7 mi upstream from Rocky Fork Creek, and at mile 33.3.

DRAINAGE AREA.--222 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 2109: Drainage area.

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

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

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

AVERAGE DISCHARGE.--38 years, 234 ft<sup>3</sup>/s. The figures published in the 1992 and 1993 report were in error; the correct figures are: (1992) 36 years, 229 ft<sup>3</sup>/s, and (1993) 37 years, 233 ft<sup>3</sup>/s.

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

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,610 ft<sup>3</sup>/s, Dec. 12; minimum daily 17 ft<sup>3</sup>/s, Oct. 5-8, 10, 1993 and Aug. 16-Sept. 1, 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	399	865	793	1250	69	124	20	28	82	227	28	17
2	290	857	792	1220	70	124	21	28	70	82	28	23
3	110	847	501	1080	248	124	21	28	53	83	28	28
4	52	838	56	592	589	124	21	28	45	83	28	28
5	17	829	487	256	849	192	21	28	41	83	28	28
6	17	620	798	177	912	392	21	28	41	83	28	28
7	17	310	947	101	899	306	21	28	41	83	28	28
8	17	197	1030	80	886	107	21	28	41	83	28	28
9	176	197	1290	107	871	108	21	198	41	83	28	28
10	17	197	1470	90	856	81	21	300	41	82	28	28
11	199	196	1560	79	839	54	22	300	41	82	28	28
12	308	264	1610	97	823	54	24	364	41	49	28	28
13	202	304	1460	107	708	55	26	401	265	29	28	28
14	149	126	1380	107	472	37	26	259	892	29	28	28
15	149	29	1370	107	379	19	27	162	1270	29	21	28
16	401	24	1360	106	526	19	27	137	939	29	17	28
17	506	25	1380	87	598	19	27	150	492	29	17	28
18	318	26	1420	66	372	19	27	150	245	29	17	28
19	134	26	1430	53	232	20	27	150	124	29	17	28
20	98	26	1410	53	233	20	27	150	82	29	17	28
21	98	26	1400	53	234	20	27	150	82	29	17	28
22	98	26	1380	53	234	20	27	149	82	29	17	28
23	99	27	1370	53	384	20	28	124	82	29	17	28
24	99	27	1350	82	487	20	28	100	55	29	17	28
25	403	230	1330	263	353	20	28	125	41	29	17	28
26	772	515	1380	369	181	20	28	274	41	29	17	28
27	904	681	1400	377	123	20	28	325	184	29	17	28
28	897	798	1380	171	123	20	28	153	327	29	17	28
29	889	797	1350	67	---	20	28	82	326	29	17	28
30	881	795	1320	68	---	20	28	82	325	29	17	28
31	873	---	1290	69	---	20	---	82	---	29	17	---
TOTAL	9589	10725	37494	7440	13550	2218	747	4591	6432	1654	685	824
MEAN	309	357	1209	240	484	71.5	24.9	148	214	53.4	22.1	27.5
MAX	904	865	1610	1250	912	392	28	401	1270	227	28	28
MIN	17	24	56	53	69	19	20	28	41	29	17	17

CAL YR 1993 TOTAL 139578 MEAN 382 MAX 1610 MIN 17  
WTR YR 1994 TOTAL 95949 MEAN 263 MAX 1610 MIN 17



WABASH RIVER BASIN

03341500 WABASH RIVER AT TERRE HAUTE, IN

LOCATION.--Lat 39°28'33", long 87°25'07", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.21, T.12 N., R.9 W., Vigo County, Hydrologic Unit 05120111, on left bank at Indiana America Water Company, Inc., 1st and Elm Streets in Terre Haute, 3.0 mi upstream from Sugar Creek, and 3.6 mi downstream from Lost Creek and at mile 215.

DRAINAGE AREA.--12,263 mi<sup>2</sup>.

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

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

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 27, 1913, reached a stage of 31.1 ft, present site and datum, discharge, 245,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18600	10900	29600	9860	37100	10100	e6600	27100	7010	9330	3640	2990
2	15700	10300	27700	10300	34000	9920	e6500	28200	6630	8350	3540	2930
3	13700	9870	28300	10500	28200	9650	e6400	27400	6130	8210	3500	2850
4	11900	9520	29900	10300	23400	9590	e6400	24300	5760	8280	3540	2720
5	10300	9330	30900	9510	20800	10100	e6800	20200	5510	8360	3470	2680
6	9080	9110	31000	8920	18400	11800	e7000	17400	5320	8610	3430	2630
7	8480	8820	30200	8510	16300	14000	e7800	17500	5170	12000	3350	2670
8	7920	8350	27600	7960	15400	17200	e8400	22100	5180	14400	3310	2730
9	8820	7940	25500	7080	14100	21400	e9800	22000	5060	15000	3890	2750
10	13700	7690	23500	6450	12800	22700	e15500	19500	5110	14200	3530	2420
11	14200	7530	20000	6450	12000	20800	e27000	17400	5230	12700	3650	2250
12	13000	7420	17400	6970	11300	18000	e44000	15400	5090	10700	3910	e2130
13	11600	7650	15900	7490	10400	15900	e64600	13900	5020	8930	4960	e2300
14	10500	17100	14900	7630	9080	13900	e76500	12800	6440	7750	5960	e2300
15	9250	36000	14800	6600	8510	12200	e94800	12500	9240	7060	5310	2270
16	8400	39700	15600	4280	9270	11300	e104000	11900	14500	6780	4950	2220
17	15200	41100	15500	e3900	11400	10600	e86100	10800	13300	6660	4340	2140
18	28400	49200	15000	e3700	13100	9960	66600	9790	10300	5850	3760	2080
19	31700	53000	14500	e3550	14200	9370	56300	8990	8200	5390	3490	2020
20	32300	49400	14400	e3500	15800	9090	48000	8510	7000	5080	3420	2000
21	32300	45300	14900	e3450	17700	8790	40800	8040	6250	5160	3480	1980
22	31800	41300	15600	e3400	18300	8400	35100	7680	5970	5350	3670	1940
23	30300	36400	15300	e3600	17800	7990	29700	7330	5790	6020	3910	1990
24	27100	30700	14400	e4000	16000	7610	25000	7060	5460	6330	3730	2390
25	22100	27100	13500	7700	14400	7490	21400	9720	7640	5340	3460	2790
26	18400	26500	12600	18200	12900	7310	18600	11400	10900	4820	3180	2870
27	16200	28800	11800	19900	11500	7210	16100	10900	10200	4910	3080	2920
28	14500	30900	11000	27100	10300	e7060	16900	10100	13200	4720	3050	2800
29	13300	31700	10600	33800	---	e7060	22300	9270	14200	4250	2850	2700
30	12300	31100	9940	37600	---	e7050	25600	8420	11500	3930	2810	2640
31	11600	---	9660	38400	---	e6900	---	7640	---	3800	2930	---
TOTAL	522650	729730	581500	340610	454460	350450	1000600	445250	232310	238270	115100	74100
MEAN	16860	24320	18760	10990	16230	11300	33350	14360	7744	7686	3713	2470
MAX	32300	53000	31000	38400	37100	22700	104000	28200	14500	15000	5960	2990
MIN	7920	7420	9660	3400	8510	6900	6400	7060	5020	3800	2810	1940
CFSM	1.37	1.98	1.53	.90	1.32	.92	2.72	1.17	.63	.63	.30	.20
IN.	1.59	2.21	1.76	1.03	1.38	1.06	3.03	1.35	.70	.72	.35	.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1994, BY WATER YEAR (WY)

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
MEAN	4747	6895	10540	14070	15730	18750	19500	15210	11300	7972	4900	4113					
MAX	18880	40220	44490	77540	47990	51250	41940	64810	44130	27840	21330	21440					
(WY)	1991	1993	1928	1950	1950	1982	1938	1943	1958	1957	1958	1989					
MIN	1103	1405	1145	1216	1998	2645	5250	2405	1492	1292	1002	966					
(WY)	1957	1954	1964	1977	1963	1941	1931	1934	1934	1936	1941	1941					

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1928 - 1994	
ANNUAL TOTAL	7740960		5085030			
ANNUAL MEAN	21210		13930		11120	
HIGHEST ANNUAL MEAN					22800	
LOWEST ANNUAL MEAN					2864	
HIGHEST DAILY MEAN	77700	Jan 9	104000	Apr 16	186000	May 20 1943
LOWEST DAILY MEAN	4970	Sep 1	1940	Sep 22	701	Aug 3 1934
ANNUAL SEVEN-DAY MINIMUM	5360	Aug 27	2020	Sep 17	732	Sep 24 1941
INSTANTANEOUS PEAK FLOW			unknown		189000	May 20 1943
INSTANTANEOUS PEAK STAGE			unknown		30.50	May 20 1943
ANNUAL RUNOFF (CFSM)	1.73		1.14		.91	
ANNUAL RUNOFF (INCHES)	23.48		15.42		12.32	
10 PERCENT EXCEEDS	38100		30200		27500	
50 PERCENT EXCEEDS	17400		9790		6440	
90 PERCENT EXCEEDS	9030		3260		1960	

e Estimated



WABASH RIVER BASIN

03342100 BUSSEYON CREEK NEAR HYMERA, IN

LOCATION.--Lat 39°12'54", long 87°18'41", in NW<sup>1</sup>/<sub>4</sub>/NW<sup>1</sup>/<sub>4</sub> sec.21, T.9 N., R.8 W., Sullivan County, Hydrologic Unit 05120111, on right bank at downstream side of bridge on County Road 900 North, 1.3 mi upstream from East Fork Busseron Creek, 1.9 mi northwest of Hymera, 4.1 mi upstream from West Fork Busseron Creek, and at mile 30.3.  
 DRAINAGE AREA.--16.7 mi<sup>2</sup>.  
 PERIOD OF RECORD.--June 1966 to current year.  
 REVISED RECORDS.--WDR IN-72-1; 1971. WDR IN-87-1; 1982-86.  
 GAGE.--Water-stage recorder. Datum of gage is 480.00 ft above sea level (U.S. Soil Conservation Service bench mark).  
 REMARKS.--Records good except for estimated daily discharges, which are poor. Flow affected by U.S. Soil Conservation Service floodwater-retarding structures.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	4.7	17	7.2	e21	15	4.4	33	e3.5	.20	.14	.17
2	6.5	4.5	43	6.7	e17	16	4.4	21	e1.8	.28	.14	.12
3	5.4	4.7	58	6.7	e14	14	6.1	17	1.8	.45	.17	.12
4	5.1	4.5	293	6.4	e12	14	5.5	14	1.6	.24	.33	.13
5	4.3	4.5	66	5.9	e10	12	5.9	13	1.7	.19	.16	1.8
6	3.9	4.2	30	e5.5	e9.5	11	15	13	1.5	.27	.09	.58
7	3.9	3.9	23	e4.8	e8.8	10	15	98	1.5	.30	.09	.16
8	3.6	3.8	19	e4.5	e8.4	9.7	12	41	1.3	.22	.16	.09
9	255	3.7	17	e4.4	e8.0	9.2	12	27	3.3	.23	.35	.12
10	51	3.7	16	e4.4	e7.7	8.4	458	e20	1.3	.18	.18	.10
11	31	3.7	13	e5.2	e7.4	7.7	454	e15	1.2	.15	.19	3.6
12	23	3.8	12	6.4	e7.2	7.3	291	e17	2.3	.17	.39	5.1
13	e17	32	11	6.2	e7.0	6.8	91	e8.0	7.2	1.2	.23	1.6
14	e14	848	12	e4.3	e8.0	6.3	58	e11	1.7	.76	13	.76
15	12	496	11	e3.7	e9.7	5.6	57	e18	1.3	.34	.44	.37
16	11	93	10	e3.3	e8.2	4.9	46	e11	1.2	.25	.28	.18
17	11	403	10	e3.1	e10	4.7	37	e8.0	1.0	.23	.19	.10
18	9.5	79	9.8	e2.9	e15	5.9	32	e6.8	.82	.19	.14	.07
19	9.4	40	9.1	e2.8	16	4.7	27	e5.7	.77	.18	.11	.07
20	18	28	10	e2.7	29	4.5	21	e5.0	.71	.60	.14	.04
21	13	23	11	e2.7	22	4.5	18	e4.3	.71	3.7	.18	.05
22	10	19	9.2	e2.8	52	3.9	16	e3.8	.68	1.2	.11	.04
23	8.9	17	8.2	e3.1	135	4.1	13	e3.4	3.8	.68	.08	.50
24	8.2	15	7.6	20	39	4.8	11	e3.0	5.8	.44	.07	5.9
25	7.7	22	e6.3	132	24	4.4	9.3	e2.8	1.2	.32	.05	1.5
26	7.2	95	e5.8	94	19	4.6	7.3	e2.6	.55	.23	.04	1.4
27	6.4	47	e5.3	309	17	8.9	8.8	e3.7	.48	.18	.06	.87
28	6.0	26	e5.1	271	16	6.6	18	e2.9	.38	.15	.12	.45
29	5.8	20	e4.9	59	---	5.4	18	e2.4	.30	.12	.19	.24
30	5.4	18	e4.8	34	---	4.9	68	e2.2	.23	.12	.16	.15
31	5.1	---	e4.9	26	---	4.6	---	e2.1	---	.13	.18	---
TOTAL	584.1	2370.7	763.0	1050.7	557.9	234.4	1839.7	435.7	51.63	13.90	18.16	26.38
MEAN	18.8	79.0	24.6	33.9	19.9	7.56	61.3	14.1	1.72	.45	.59	.88
MAX	255	848	293	309	135	16	458	98	7.2	3.7	13	5.9
MIN	3.6	3.7	4.8	2.7	7.0	3.9	4.4	2.1	.23	.12	.04	.04
CFSM	1.13	4.73	1.47	2.03	1.19	.45	3.67	.84	.10	.03	.04	.05
IN.	1.30	5.28	1.70	2.34	1.24	.52	4.10	.97	.12	.03	.04	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1994, BY WATER YEAR (WY)

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	3.24	18.1	26.6	23.6	28.1	35.7	34.5	21.3	9.33	13.1	4.98	8.16																
MAX	18.8	79.0	96.8	105	67.4	112	74.9	86.2	41.1	79.3	25.4	60.9																
(WY)	1994	1994	1983	1969	1971	1973	1992	1981	1980	1973	1979	1989																
MIN	.020	.058	.026	.006	1.63	7.23	1.48	1.23	.22	.17	.065	.018																
(WY)	1988	1972	1977	1977	1978	1976	1971	1976	1977	1972	1983	1976																

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1967 - 1994

ANNUAL TOTAL	9889.2	7946.27		
ANNUAL MEAN	27.1	21.8	18.8	
HIGHEST ANNUAL MEAN			36.1	1973
LOWEST ANNUAL MEAN			6.93	1977
HIGHEST DAILY MEAN	848	Nov 14	848	Nov 14 1993
LOWEST DAILY MEAN	1.7	Sep 1	.04	Aug 26 1966
ANNUAL SEVEN-DAY MINIMUM	2.2	Aug 5	.08	Aug 22 1966
INSTANTANEOUS PEAK FLOW			1080	Nov 14 1974
INSTANTANEOUS PEAK STAGE			18.94	Nov 14 1982
ANNUAL RUNOFF (CFSM)	1.62		1.30	1.13
ANNUAL RUNOFF (INCHES)	22.03		17.70	15.34
10 PERCENT EXCEEDS	48		32	46
50 PERCENT EXCEEDS	11		5.4	3.7
90 PERCENT EXCEEDS	3.3		.17	.10

e Estimated

WABASH RIVER BASIN

03342500 BUSSEYON CREEK NEAR CARLISLE, IN

LOCATION.--Lat 38°58'27", long 87°25'33", in NW<sup>1</sup>/<sub>4</sub> survey 17, Vincennes Tract, Sullivan County, Hydrologic Unit 05120111, on left bank 10 ft downstream from bridge on State Highway 58, 1.5 mi northwest of Carlisle, and 6.7 mi upstream from mouth.

DRAINAGE AREA.--228 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 1335: Drainage area.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	79	384	96	806	233	70	1310	47	24	17	21
2	733	75	446	107	487	239	69	878	49	116	16	19
3	371	73	802	112	389	218	73	438	48	239	16	17
4	236	84	1690	107	324	199	78	321	43	45	16	16
5	186	77	1570	94	286	180	76	259	40	33	18	50
6	147	72	1460	90	252	163	99	229	39	135	18	34
7	99	66	984	99	228	148	174	692	38	728	20	29
8	91	63	563	74	208	137	144	893	41	114	19	24
9	173	62	431	e68	e190	127	114	494	46	67	26	21
10	499	70	378	e70	e182	118	1670	334	52	47	21	19
11	220	61	313	76	e172	107	2390	258	45	36	23	19
12	156	60	265	87	170	99	3340	252	43	33	24	18
13	136	324	240	89	164	96	3490	211	72	28	22	18
14	123	2750	248	69	150	98	3150	187	59	39	41	19
15	104	3790	268	e63	159	96	2240	363	47	45	75	18
16	91	4250	237	e58	167	83	1510	555	42	31	33	17
17	89	5430	207	e55	156	74	1180	255	46	27	25	17
18	88	4480	192	e53	159	78	1080	181	39	25	21	20
19	188	3620	177	e52	183	80	1000	145	36	23	21	23
20	1220	2960	173	e51	286	74	851	123	33	23	21	20
21	552	2100	203	e50	383	71	648	108	31	23	23	32
22	283	1410	188	e52	309	68	472	92	29	33	24	35
23	202	871	159	e65	1080	65	326	81	27	29	22	37
24	161	589	138	140	1090	64	229	74	47	35	20	35
25	135	486	e120	966	618	62	174	68	56	26	19	42
26	116	817	e110	1150	367	60	144	65	48	23	18	32
27	102	1040	e104	1640	281	105	197	66	41	21	17	28
28	91	776	e101	2380	253	120	228	59	34	20	22	27
29	87	536	e98	2280	---	93	419	51	28	19	27	24
30	85	429	e94	2190	---	79	975	48	26	18	22	22
31	84	---	e91	1530	---	73	---	46	---	17	19	---
TOTAL	7044	37500	12434	14013	9499	3507	26610	9136	1272	2122	726	753
MEAN	227	1250	401	452	339	113	887	295	42.4	68.5	23.4	25.1
MAX	1220	5430	1690	2380	1090	239	3490	1310	72	728	75	50
MIN	84	60	91	50	150	60	69	46	26	17	16	16
CFSM	1.00	5.48	1.76	1.98	1.49	.50	3.89	1.29	.19	.30	.10	.11
IN.	1.15	6.12	2.03	2.29	1.55	.57	4.34	1.49	.21	.35	.12	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1994, BY WATER YEAR (WY)

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
MEAN	47.8	180	268	318	372	459	441	304	167	112	53.7	74.2
MAX	263	1250	1421	2380	1317	1284	1102	1230	988	1101	633	701
(WY)	1950	1994	1983	1950	1950	1978	1945	1981	1945	1979	1979	1989
MIN	1.39	.94	2.87	3.64	11.3	12.8	35.6	31.6	8.88	.035	1.89	.88
(WY)	1944	1955	1954	1977	1954	1954	1954	1954	1954	1954	1953	1953

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1944 - 1994

ANNUAL TOTAL	143588	124616	
ANNUAL MEAN	393	341	
HIGHEST ANNUAL MEAN			548
LOWEST ANNUAL MEAN			10.8
HIGHEST DAILY MEAN	5430	Nov 17	8500
LOWEST DAILY MEAN	40	Jul 14	.00
ANNUAL SEVEN-DAY MINIMUM	48	Aug 27	.00
INSTANTANEOUS PEAK FLOW			8800
INSTANTANEOUS PEAK STAGE			20.30
ANNUAL RUNOFF (CFSM)	1.73	18.69	1.02
ANNUAL RUNOFF (INCHES)	23.43	1.50	13.84
10 PERCENT EXCEEDS	921	922	647
50 PERCENT EXCEEDS	190	92	54
90 PERCENT EXCEEDS	60	21	5.2

e Estimated

## WABASH RIVER BASIN

## 03343000 WABASH RIVER AT VINCENNES, IN

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

DRAINAGE AREA.--13,706 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 1173: 1943 (maximum gage height only). WSP 1335: 1930-31, 1933, 1936. WSP 1909: 1955.

WDR IN-73-1: Drainage area.

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

REMARKS.--Records good except for estimated daily discharges, which are poor. 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<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24900	13400	35700	11100	35100	12700	8090	30800	9380	13200	4200	3140
2	25200	12500	35100	11100	36400	12200	7780	31700	8790	11300	4070	3160
3	21800	11800	34900	11500	37200	11900	7510	32300	8320	10700	3910	3200
4	17000	11300	36900	11800	36600	11600	7260	32600	7830	9890	3870	3150
5	13900	10800	37400	11600	34600	11400	7190	32500	7360	9580	3800	3380
6	11900	10500	37300	10900	31100	11600	7510	30800	7020	9710	3760	3280
7	10600	10200	37100	10300	26400	12800	8050	28500	6750	11900	3680	3070
8	9710	9840	36700	9700	22000	14700	8760	26500	6520	12700	3640	2960
9	9610	9360	35800	9100	19600	17200	9230	26700	6470	14600	3810	2960
10	12000	8890	34200	8360	17800	20400	14700	26700	6540	15400	4230	3060
11	14900	8540	32300	7700	15700	22200	25600	25200	6320	14900	4110	2930
12	15600	8290	29500	7440	14400	22200	31700	23000	6310	13600	3860	2700
13	14500	8790	25700	7780	13500	20300	35700	20500	6380	12000	4250	2540
14	13200	19800	22400	8210	12500	18100	38700	18300	6180	10400	4650	2520
15	12000	35900	20300	8310	11500	16200	42100	17400	6840	9260	5960	2610
16	10800	40200	19000	7870	11000	14400	48500	17400	9320	8200	5970	2590
17	9860	46200	18700	e5400	11200	13100	60600	16000	13600	7560	5430	2530
18	13900	52600	18400	e4520	12800	12400	72000	14300	14300	7420	5000	2480
19	22700	55900	17700	e4200	14600	11700	76500	13000	12200	6780	4440	2420
20	27300	56400	17100	e4000	16000	11000	75300	11900	10100	6140	4070	2370
21	29500	56000	16800	e3880	17900	10600	70400	11100	8650	5790	3780	2330
22	30200	55100	17000	e3850	19500	10200	63300	10400	7700	5700	3730	2330
23	30800	53200	17500	e3800	22800	9740	55400	9860	7340	6060	3780	2350
24	31100	50600	17200	e4350	24600	9260	48400	9410	6970	6170	4060	2360
25	30900	47700	16500	e8400	22400	8760	42600	9040	6660	6800	4070	2490
26	29500	44800	15500	14600	18900	8530	37600	10400	7630	6180	3910	2800
27	25700	41700	14600	21100	16000	8560	32900	12800	11200	5430	3610	3030
28	20900	39100	13600	29500	14100	8500	27600	12600	11400	5230	3480	3090
29	17700	37300	12800	31900	---	8340	24800	11900	13100	5190	3560	3060
30	15800	36300	12000	33000	---	8280	27500	11100	14500	4830	3310	2960
31	14400	---	11400	34100	---	8290	---	10200	---	4460	3340	---
TOTAL	587880	903010	747100	359370	586200	397160	1023280	594910	261680	277080	127340	83850
MEAN	18960	30100	24100	11590	20940	12810	34110	19190	8723	8938	4108	2795
MAX	31100	56400	37400	34100	37200	22200	76500	32600	14500	15400	5970	3380
MIN	9610	8290	11400	3800	11000	8280	7190	9040	6180	4460	3310	2330
CFSM	1.38	2.20	1.76	.85	1.53	.93	2.49	1.40	.64	.65	.30	.20
IN.	1.60	2.45	2.03	.98	1.59	1.08	2.78	1.61	.71	.75	.35	.23

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1994, BY WATER YEAR (WY)

	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
MEAN	5068	7610	10920	14670	16950	21190	22020	17630	12870	9245	5808	4768		
MAX	18960	39400	39370	79760	57040	54760	49960	67770	42370	36090	24680	26040		
(WY)	1994	1993	1996	1950	1950	1982	1938	1943	1958	1957	1979	1989		
MIN	1244	1496	1347	1410	2037	3005	5247	3076	1612	1474	1303	1498		
(WY)	1957	1957	1964	1977	1931	1941	1931	1934	1934	1934	1936	1940		

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1931 - 1994
ANNUAL TOTAL	8793930	5948860	
ANNUAL MEAN	24090	16300	12370
HIGHEST ANNUAL MEAN			24920
LOWEST ANNUAL MEAN			3021
HIGHEST DAILY MEAN	65600	Jan 12	76500
LOWEST DAILY MEAN	5500	Sep 2	2330
ANNUAL SEVEN-DAY MINIMUM	6380	Aug 28	2380
INSTANTANEOUS PEAK FLOW			77000
INSTANTANEOUS PEAK STAGE			26.15
ANNUAL RUNOFF (CFSM)	1.76		1.19
ANNUAL RUNOFF (INCHES)	23.87		16.15
10 PERCENT EXCEEDS	39900		36100
50 PERCENT EXCEEDS	20900		11600
90 PERCENT EXCEEDS	10500		3660

e Estimated

WABASH RIVER BASIN

03347000 WHITE RIVER AT MUNCIE, IN

LOCATION.--Lat 40°12'15", long 85°23'14", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, Delaware County, Hydrologic Unit 05120201, on right bank 200 ft downstream from Walnut Street bridge in Muncie, 6 mi upstream from Bell Creek, and at mile 315.8.  
DRAINAGE AREA.--241 mi<sup>2</sup>.

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

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

GAGE.--Water-stage recorder. Datum of gage is 917.10 ft above sea level (city of Muncie bench mark). See WSP 1705 for history of changes prior to Jan. 28, 1942. Jan. 28, 1942, to Apr. 27, 1964, water-stage recorder at present site at datum 3.00 ft higher.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	69	210	e115	e212	159	88	207	68	84	31	61
2	47	86	205	e120	e183	147	87	163	61	61	26	46
3	93	71	202	e115	e167	145	89	137	54	60	22	42
4	60	71	552	e110	e155	155	95	123	52	68	23	40
5	42	68	1910	e102	e147	197	96	113	49	46	30	43
6	36	67	918	e97	e141	221	162	108	48	40	28	37
7	31	63	518	e97	e139	239	308	135	41	143	26	23
8	29	60	377	e90	e137	234	391	242	49	181	21	20
9	46	52	296	e86	e135	205	281	200	68	139	19	19
10	62	49	260	e82	e132	183	1530	159	64	108	18	27
11	55	53	230	e76	e130	172	1730	141	60	68	30	31
12	46	53	201	e77	e125	165	2860	145	63	49	34	27
13	40	155	186	e78	e121	172	1370	146	86	37	37	24
14	38	2750	189	e72	e116	199	701	132	88	33	34	24
15	35	8730	235	e66	e130	205	493	123	68	34	28	22
16	39	3830	216	e62	e200	175	377	114	64	26	22	20
17	39	3100	189	e59	e350	149	293	103	104	25	20	20
18	114	5510	182	e58	e510	141	245	94	102	22	18	22
19	74	2520	228	e57	690	137	217	88	73	22	17	21
20	79	950	238	e56	550	126	191	82	59	20	18	21
21	506	655	275	e57	463	126	166	79	53	21	21	20
22	316	504	253	e60	340	130	153	74	43	30	18	18
23	191	414	221	e65	281	121	142	75	47	54	16	18
24	138	358	198	e120	474	117	134	88	82	31	15	26
25	107	312	e180	e200	298	109	126	172	84	21	10	25
26	92	287	e160	e1300	257	102	121	177	90	16	18	27
27	84	312	e140	e900	186	104	124	146	196	27	25	31
28	79	359	e126	3810	168	104	113	111	114	41	52	40
29	78	284	e115	2880	---	96	113	93	87	46	58	20
30	69	236	e100	789	---	90	134	84	109	40	43	18
31	70	---	e105	e470	---	85	---	75	---	41	67	---
TOTAL	2790	32028	9415	12326	6937	4710	12930	3929	2226	1634	845	833
MEAN	90.0	1068	304	398	248	152	431	127	74.2	52.7	27.3	27.8
MAX	506	8730	1910	3810	690	239	2860	242	196	181	67	61
MIN	29	49	100	56	116	85	87	74	41	16	10	18
CFSM	.37	4.43	1.26	1.65	1.03	.63	1.79	.53	.31	.22	.11	.12
IN.	.43	4.94	1.45	1.90	1.07	.73	2.00	.61	.34	.25	.13	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1994, BY WATER YEAR (WY)

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	
MEAN	56.6	150	227	297	343	417	402	252	208	118	70.8	58.5	825	816	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989
MAX	409	1068	1119	1654	1122	963	1476	1239	1492	750	816	825	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989
(WY)	1987	1994	1991	1950	1950	1978	1964	1933	1958	1992	1979	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	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	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989
(WY)	1957	1957	1961	1977	1935	1941	1941	1941	1988	1944	1940	1954	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1932 - 1994
ANNUAL TOTAL	134991	90603	
ANNUAL MEAN	370	248	216
HIGHEST ANNUAL MEAN			421
LOWEST ANNUAL MEAN			42.1
HIGHEST DAILY MEAN	8730	8730	11600
LOWEST DAILY MEAN	21	10	1.1
ANNUAL SEVEN-DAY MINIMUM	25	16	1.2
INSTANTANEOUS PEAK FLOW		10500	14300
INSTANTANEOUS PEAK STAGE		13.00	21.07
ANNUAL RUNOFF (CFSM)	1.53	1.03	.90
ANNUAL RUNOFF (INCHES)	20.84	13.99	12.17
10 PERCENT EXCEEDS	705	358	481
50 PERCENT EXCEEDS	197	96	74
90 PERCENT EXCEEDS	41	24	11

e Estimated



WABASH RIVER BASIN

03348350 PIPE CREEK AT FRANKTON, IN

LOCATION.--Lat 40°13'38", long 85°45'58", in SE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.31, T.21 N., R.7 E., Madison County, Hydrologic Unit 05120201, on right bank 20 ft downstream from bridge on County Road 500 West, at northeast edge of Frankton.  
DRAINAGE AREA.--113 mi<sup>2</sup>.

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

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

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

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<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	25	105	e50	e102	47	32	87	41	39	7.5	16
2	42	26	103	e49	e80	47	33	76	36	25	7.5	12
3	36	29	112	e49	e70	49	33	63	32	20	7.4	9.3
4	33	26	231	e47	e62	57	32	58	30	17	7.5	8.8
5	31	27	407	e44	e58	77	33	54	29	16	10	8.6
6	29	27	245	e40	e56	97	52	50	28	15	8.2	8.7
7	27	25	176	e39	e63	119	91	67	26	14	7.7	8.0
8	25	24	145	e38	e58	127	151	100	25	14	7.3	7.7
9	33	23	123	e37	e54	106	122	79	24	16	7.2	7.4
10	38	22	112	e36	e42	88	372	65	23	15	7.2	7.5
11	36	23	93	e35	e33	78	505	56	22	13	13	e7.2
12	33	24	79	e35	e31	76	1240	54	22	12	11	e7.0
13	30	36	73	e34	e30	81	826	48	22	11	9.6	e6.7
14	28	1040	106	e33	e30	97	469	44	23	11	10	e6.2
15	27	2280	205	e32	e31	102	312	44	22	11	8.9	e6.1
16	27	1140	161	e31	e43	82	235	40	20	10	8.4	e5.8
17	27	1320	128	e31	e74	69	177	36	20	10	7.7	e5.4
18	27	1580	115	e30	e102	65	139	33	19	9.9	7.4	e5.4
19	27	925	114	e29	177	58	114	32	18	9.5	7.1	e5.4
20	28	589	114	e29	197	51	90	31	17	9.5	7.7	e5.2
21	29	366	184	e29	178	51	78	30	16	9.4	11	e5.0
22	26	281	149	e28	135	47	70	29	15	9.9	9.0	e5.1
23	28	230	118	e29	107	43	64	28	15	9.5	8.2	e7.0
24	28	195	97	e31	110	43	59	30	16	8.9	7.6	e9.0
25	27	164	e82	384	80	40	56	214	19	8.8	7.5	e12
26	27	188	e72	854	79	38	52	242	19	8.6	7.2	e10
27	26	198	e64	521	59	41	54	134	18	8.0	7.1	e8.4
28	27	176	e59	1370	49	41	51	84	18	7.7	14	e9.8
29	25	145	e56	1060	---	37	56	64	16	7.9	24	e8.2
30	25	119	e54	475	---	34	57	54	31	8.1	13	5.7
31	26	---	e52	255	---	33	---	46	---	7.5	17	---
TOTAL	930	11273	3934	5784	2190	2021	5655	2072	682	392.2	293.9	234.6
MEAN	30.0	376	127	187	78.2	65.2	188	66.8	22.7	12.7	9.48	7.82
MAX	52	2280	407	1370	197	127	1240	242	41	39	24	16
MIN	25	22	52	28	30	33	32	28	15	7.5	7.1	5.0
CFSM	.27	3.33	1.12	1.65	.69	.58	1.67	.59	.20	.11	.08	.07
IN.	.31	3.71	1.30	1.90	.72	.67	1.86	.68	.22	.13	.10	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1994, BY WATER YEAR (WY)

	34.8	105	139	125	167	203	175	91.2	107	74.2	45.3	46.5
MEAN	34.8	105	139	125	167	203	175	91.2	107	74.2	45.3	46.5
MAX	176	519	482	409	416	544	467	224	409	526	234	529
(WY)	1991	1993	1991	1974	1990	1982	1972	1989	1980	1992	1990	1989
MIN	5.70	7.95	7.31	5.29	19.2	42.4	33.3	19.1	10.3	7.94	4.97	4.76
(WY)	1989	1977	1977	1977	1978	1981	1971	1976	1988	1977	1988	1983

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1969 - 1994	
ANNUAL TOTAL	57860		35461.7			
ANNUAL MEAN	159		97.2		109	
HIGHEST ANNUAL MEAN					180	
LOWEST ANNUAL MEAN					32.7	
HIGHEST DAILY MEAN	2280	Nov 15	2280	Nov 15	3840	Jul 14 1992
LOWEST DAILY MEAN	12	Aug 29	5.0	Sep 21	3.0	Oct 11 1988
ANNUAL SEVEN-DAY MINIMUM	15	Aug 26	5.3	Sep 16	3.2	Oct 9 1988
INSTANTANEOUS PEAK FLOW			2710		5630	
INSTANTANEOUS PEAK STAGE			11.85		15.00	
ANNUAL RUNOFF (CFSM)	1.40		.86		.96	
ANNUAL RUNOFF (INCHES)	19.05		11.67		13.11	
10 PERCENT EXCEEDS	375		177		255	
50 PERCENT EXCEEDS	78		33		41	
90 PERCENT EXCEEDS	24		8.0		9.4	

e Estimated



WABASH RIVER BASIN

03350700 STONY CREEK NEAR NOBLESVILLE, IN

LOCATION.--Lat 40°01'44", long 85°59'44", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.7, T.18 N., R.5 E., Hamilton County, Hydrologic Unit 05120201, on right bank, between dual bridges on State Highway 37, 1.4 mi upstream from mouth, and 1.4 mi southeast of Noblesville.

DRAINAGE AREA.--50.8 mi<sup>2</sup>.

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

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

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

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	13	66	e31	e96	36	22	61	23	15	5.8	5.7
2	22	13	63	e31	e70	37	22	48	21	22	5.3	3.8
3	18	13	62	e30	e52	38	23	42	20	25	4.4	3.7
4	16	13	175	e28	e45	42	21	39	20	18	5.6	e3.5
5	15	13	248	e27	e41	48	22	37	19	15	7.8	e3.5
6	14	13	144	e26	e38	52	37	35	19	17	6.6	e3.4
7	13	12	99	e24	e35	54	56	54	18	15	4.8	e3.3
8	12	11	81	e23	e33	52	75	69	18	13	4.2	e5.2
9	25	11	69	e22	e30	48	60	53	18	12	3.8	e3.4
10	49	11	65	e22	e28	45	293	44	16	11	3.7	e3.0
11	31	10	55	e22	e25	43	378	40	16	10	13	e2.9
12	25	11	49	e22	e24	42	695	81	17	9.7	17	e2.7
13	19	35	47	e23	e24	44	327	66	20	9.5	8.0	e2.6
14	17	890	77	21	e23	45	179	53	17	9.5	6.0	e2.5
15	15	1070	144	e19	e23	44	156	48	15	10	4.6	e2.4
16	15	549	100	e18	e30	38	131	40	14	10	4.1	e4.6
17	15	865	77	e17	e60	35	98	35	18	12	3.9	e3.0
18	15	882	73	e17	e110	37	79	33	16	12	3.6	e4.1
19	14	502	73	e16	126	32	67	31	14	9.4	3.3	e2.9
20	14	280	70	e16	113	30	56	30	13	8.8	4.1	e2.8
21	19	196	80	e15	96	31	51	28	13	14	4.9	e2.7
22	24	151	68	e15	75	28	46	27	12	10	3.8	e2.6
23	19	121	58	e15	70	27	42	26	12	8.6	3.1	e2.5
24	17	100	53	e15	79	29	41	27	12	7.9	2.9	e7.2
25	16	85	e47	e42	57	26	40	60	12	7.4	2.8	e4.1
26	15	168	e41	284	48	25	37	54	28	7.0	2.7	e3.8
27	14	160	e37	253	41	29	38	38	26	6.6	2.5	e3.6
28	14	118	e35	756	37	27	36	32	19	6.7	2.6	e3.5
29	14	91	e34	407	---	26	38	28	16	7.8	3.1	e3.4
30	14	74	e33	181	---	24	42	26	18	9.3	3.0	e3.3
31	14	---	e31	123	---	23	---	25	---	7.4	15	---
TOTAL	569	6481	2354	2561	1529	1137	3208	1310	520	356.6	166.0	105.7
MEAN	18.4	216	75.9	82.6	54.6	36.7	107	42.3	17.3	11.5	5.35	3.52
MAX	49	1070	248	756	126	54	695	81	28	25	17	7.2
MIN	12	10	31	15	23	23	21	25	12	6.6	2.5	2.4
CFSM	.36	4.25	1.49	1.63	1.07	.72	2.10	.83	.34	.23	.11	.07
IN.	.42	4.75	1.72	1.88	1.12	.83	2.35	.96	.38	.26	.12	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1994, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	17.7	50.8	61.5	56.5	81.2	88.9	83.8	54.0	42.5	31.7	23.5	19.2																
MAX	68.0	287	235	145	190	203	160	146	142	128	80.5	210																
(WY)	1991	1993	1991	1974	1990	1978	1972	1981	1974	1979	1979	1989																
MIN	3.63	5.51	5.84	3.87	11.0	17.6	16.9	16.1	6.50	3.25	3.84	3.52																
(WY)	1988	1988	1977	1977	1978	1981	1971	1988	1988	1977	1988	1994																

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1968 - 1994

ANNUAL TOTAL	28561.8		20297.3																								
ANNUAL MEAN	78.3		55.6																								
HIGHEST ANNUAL MEAN																											
LOWEST ANNUAL MEAN																											
HIGHEST DAILY MEAN	1070																										
LOWEST DAILY MEAN	6.4																										
ANNUAL SEVEN-DAY MINIMUM	7.9																										
INSTANTANEOUS PEAK FLOW																											
INSTANTANEOUS PEAK STAGE																											
ANNUAL RUNOFF (CFSM)	1.54																										
ANNUAL RUNOFF (INCHES)	20.92																										
10 PERCENT EXCEEDS	160																										
50 PERCENT EXCEEDS	42																										
90 PERCENT EXCEEDS	12																										

e Estimated



WABASH RIVER BASIN

03351060 WHITE RIVER AT BROAD RIPPLE

LOCATION.--Lat 39°52'17", long 86°08'16", in SW<sup>1</sup>/<sub>4</sub> sec.36, T.17 N., R.3 E., Marion County, Hydrologic Unit 05120201, on left bank at Indianapolis Water Company, 75 ft downstream from diversion canal, and 500 ft upstream from Broad Ripple dam.

DRAINAGE AREA.--1,238 mi<sup>2</sup>.

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

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.16 ft, Nov. 17; minimum 2.42 ft, Sept. 22.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.13	2.96	3.60	3.29	3.91	3.25	3.04	3.44	3.05	2.96	2.72	2.94
2	3.10	2.94	3.58	3.29	3.72	3.25	3.05	3.42	3.02	3.08	2.70	2.82
3	3.04	2.95	3.57	3.24	3.59	3.23	3.08	3.33	2.96	3.18	2.88	2.79
4	3.04	2.97	4.04	3.23	3.49	3.27	3.03	3.27	2.95	2.91	2.99	2.76
5	3.01	2.95	4.72	3.22	3.41	3.34	3.07	3.25	2.93	2.87	2.93	2.77
6	2.98	2.96	4.61	3.20	3.36	3.42	3.22	3.23	2.92	2.92	2.81	2.74
7	2.96	2.93	4.08	3.20	3.35	3.49	3.34	3.41	2.88	2.90	2.74	2.75
8	2.94	2.90	3.85	3.11	3.33	3.52	3.57	3.49	2.93	2.90	2.70	2.73
9	3.14	2.91	3.71	3.09	3.18	3.47	3.64	3.46	2.91	3.04	2.69	2.67
10	3.14	2.91	3.68	3.13	3.17	3.40	4.41	3.35	2.86	2.96	2.66	2.68
11	3.11	2.90	3.58	3.16	3.18	3.35	5.43	3.27	2.89	2.90	2.96	2.67
12	3.08	2.90	3.49	3.15	3.18	3.31	6.19	3.45	2.92	2.85	2.86	2.67
13	3.04	3.09	3.42	3.16	3.15	3.31	6.39	3.36	2.94	2.83	2.84	2.63
14	3.01	6.04	3.61	3.10	3.16	3.33	5.06	3.29	2.96	2.80	2.79	2.59
15	2.98	6.79	3.93	2.96	3.41	3.38	4.58	3.25	2.91	2.80	2.74	2.58
16	2.97	7.49	3.80	3.02	3.72	3.33	4.24	3.20	2.89	2.79	2.71	2.58
17	3.00	7.81	3.66	3.04	3.78	3.24	3.96	3.15	2.93	2.82	2.68	2.62
18	3.00	7.13	3.60	3.05	3.85	3.26	3.74	3.11	2.95	2.81	2.64	2.59
19	3.06	7.08	3.56	3.02	3.98	3.21	3.64	3.10	2.94	2.71	2.61	2.53
20	3.10	5.93	3.61	3.05	4.01	3.17	3.51	3.07	2.89	2.71	2.81	2.48
21	3.08	4.69	3.68	3.02	3.90	3.17	3.43	3.05	2.84	2.81	2.73	2.43
22	3.50	4.35	3.68	3.04	3.73	3.13	3.38	3.05	2.83	2.75	2.71	2.52
23	3.26	4.11	3.56	3.06	3.63	3.11	3.33	3.02	2.84	2.78	2.70	2.75
24	3.14	3.95	3.49	3.22	3.59	3.13	3.28	3.07	2.83	2.75	2.63	2.81
25	3.07	3.91	3.48	3.95	3.57	3.11	3.25	3.46	2.88	2.73	2.55	2.78
26	3.02	4.35	3.39	4.83	3.38	3.10	3.22	3.69	3.25	2.74	2.56	2.79
27	3.02	4.26	3.33	4.99	3.27	3.13	3.27	3.42	3.01	2.72	2.59	2.73
28	2.98	4.05	3.32	6.14	3.25	3.11	3.29	3.26	3.03	2.70	2.77	2.72
29	2.98	3.87	3.22	6.57	---	3.09	3.26	3.19	3.13	2.77	2.83	2.69
30	3.00	3.69	3.18	5.58	---	3.07	3.36	3.11	2.98	2.78	2.93	2.71
31	2.99	---	3.24	4.31	---	3.05	---	3.07	---	2.78	2.91	---
MEAN	3.06	4.26	3.65	3.59	3.51	3.25	3.78	3.27	2.94	2.84	2.75	2.68
MAX	3.50	7.81	4.72	6.57	4.01	3.52	6.39	3.69	3.25	3.18	2.99	2.94
MIN	2.94	2.90	3.18	2.96	3.15	3.05	3.03	3.02	2.83	2.70	2.55	2.43

CAL YR 1993 MEAN 3.64 MAX 7.81 MIN 2.83  
WTR YR 1994 MEAN 3.30 MAX 7.81 MIN 2.43

WABASH RIVER BASIN

03351310 CROOKED CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°49'47", long 86°12'22", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.16, T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, on left bank 150 ft downstream from 42nd Street bridge in Indianapolis, and at mile 1.6.

DRAINAGE AREA.--17.9 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	10	14	e9.6	20	13	5.0	24	4.2	5.9	.52	3.6
2	8.4	8.0	15	e11	16	16	5.7	13	3.1	6.4	.42	1.3
3	7.3	7.5	17	e9.8	13	14	11	11	2.7	31	.56	.86
4	6.8	8.4	99	e8.2	12	15	9.4	9.7	2.4	22	1.9	.62
5	6.1	7.9	70	e7.4	11	15	12	8.8	2.3	6.3	5.1	3.1
6	5.6	8.3	44	e7.8	9.8	14	41	19	2.3	3.9	1.5	3.8
7	5.5	7.1	29	e8.2	9.2	14	31	87	2.1	30	.69	1.5
8	5.8	6.7	25	e7.4	e8.0	13	22	37	1.9	16	.42	.80
9	61	6.2	21	e6.8	e7.0	12	18	20	1.9	8.2	.36	.57
10	24	5.6	21	e6.2	e6.4	14	229	14	1.9	4.5	.34	.48
11	11	5.1	17	e6.6	e5.8	12	263	12	1.7	2.9	62	.49
12	8.8	5.2	13	e7.0	e5.4	11	150	17	1.7	3.3	16	.45
13	7.9	69	13	7.1	e5.2	10	63	11	5.5	2.2	5.0	.46
14	7.4	1280	52	6.1	e5.0	11	41	9.4	2.7	2.0	9.2	.57
15	6.6	197	58	4.8	e7.0	10	67	10	1.9	2.0	3.9	.73
16	6.2	55	e32	4.0	e10	8.8	47	8.0	1.5	1.6	2.5	.65
17	17	477	e19	e3.7	e15	7.5	27	6.7	1.3	3.8	1.7	.71
18	10	111	e18	e3.5	27	8.2	21	5.9	1.2	3.6	2.3	.73
19	7.3	53	e17	e3.4	33	7.6	17	5.3	1.0	1.1	2.1	.78
20	20	34	e27	e3.3	39	6.5	14	5.1	2.3	.98	25	.80
21	26	24	e45	e3.2	30	6.7	13	4.7	1.8	1.1	23	.82
22	11	19	e29	e3.1	22	6.4	11	4.1	2.1	1.2	5.2	.89
23	7.9	17	e21	e3.0	34	6.0	9.5	3.8	1.2	.62	2.4	4.2
24	7.1	15	e16	e6.0	35	5.8	8.9	6.6	3.6	.48	1.3	47
25	6.6	25	e13	96	22	5.6	8.4	45	1.8	.67	.94	9.0
26	6.3	78	e12	67	17	5.2	8.1	11	42	.64	.74	5.5
27	7.1	43	e11	119	14	10	15	7.3	30	.89	1.0	5.4
28	6.7	27	e10	254	12	8.3	18	6.9	7.2	.56	24	2.6
29	6.4	20	e9.4	67	---	6.5	18	5.8	16	.62	36	1.5
30	7.0	16	e8.6	41	---	5.9	31	4.8	23	1.9	5.9	2.0
31	12	---	e8.2	27	---	6.2	---	4.3	---	1.0	5.5	---
TOTAL	346.6	2646.0	804.2	818.2	450.8	305.2	1235.0	438.2	174.3	167.36	247.49	101.91
MEAN	11.2	88.2	25.9	26.4	16.1	9.85	41.2	14.1	5.81	5.40	7.98	3.40
MAX	61	1280	99	254	39	16	263	87	42	31	62	47
MIN	5.5	5.1	8.2	3.0	5.0	5.2	5.0	3.8	1.0	.48	.34	.45
CFSM	.62	4.93	1.45	1.47	.90	.55	2.30	.79	.32	.30	.45	.19
IN.	.72	5.50	1.67	1.70	.94	.63	2.57	.91	.36	.35	.51	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	9.40	22.7	23.9	18.4	25.7	32.5	31.0	24.1	15.7	13.9	8.62	8.87													
MAX	60.9	88.2	95.4	54.8	79.4	63.7	58.2	71.9	73.4	57.7	30.8	69.9													
(WY)	1987	1994	1991	1974	1975	1991	1972	1990	1978	1979	1978	1989													
MIN	1.86	.88	1.23	.94	4.17	5.65	5.63	4.31	1.59	2.51	1.94	1.07													
(WY)	1983	1972	1977	1977	1978	1981	1971	1988	1988	1991	1991	1991													

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1970 - 1994
ANNUAL TOTAL	11854.2	7735.26	
ANNUAL MEAN	32.5	21.2	19.5
HIGHEST ANNUAL MEAN			29.6
LOWEST ANNUAL MEAN			8.30
HIGHEST DAILY MEAN	1280	1280	1570
LOWEST DAILY MEAN	1.8	.34	.00
ANNUAL SEVEN-DAY MINIMUM	3.4	.54	.00
INSTANTANEOUS PEAK FLOW		2080	5500
INSTANTANEOUS PEAK STAGE		9.51	13.31
ANNUAL RUNOFF (CFSM)	1.81	1.18	1.09
ANNUAL RUNOFF (INCHES)	24.64	16.08	14.81
10 PERCENT EXCEEDS	61	38	39
50 PERCENT EXCEEDS	14	7.9	7.8
90 PERCENT EXCEEDS	6.1	1.0	1.7

e Estimated













WABASH RIVER BASIN

03353450 EAGLE CREEK RESERVOIR NEAR INDIANAPOLIS, IN

RESERVOIR RECORDS

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

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

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

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

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

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

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

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994			
Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	790.68	24,950	
Oct. 31.....	790.72	25,010	+60
Nov. 30.....	790.61	24,850	-160
Dec. 31.....	790.78	25,090	+240
CAL YR 1993.....			+1,140
Jan. 31.....	790.13	24,180	-910
Feb. 28.....	790.07	24,100	-80
Mar. 31.....	790.05	24,070	-30
Apr. 30.....	790.06	24,080	+10
May 31.....	790.89	25,250	+1,170
June 30.....	791.36	25,900	+650
July 31.....	790.22	24,310	-1,590
Aug. 31.....	789.59	23,470	-840
Sept. 30.....	788.65	22,240	-1,230
WYR YR 1994.....			-2,710



WABASH RIVER BASIN

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

LOCATION.--Lat 39°50'45", long 86°14'55", in NE<sup>1</sup>/<sub>4</sub>/SW<sup>1</sup>/<sub>4</sub> sec.7, T.16 N., R.2 E., Marion County, Hydrologic Unit 05120201, on right bank at downstream side of West 52nd Street, 0.4 mi east of Lafayette Road, 1.1 mi upstream from Quion Creek, and at mile 7.2.

DRAINAGE AREA.--6.94 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	3.0	4.9	3.4	4.7	4.2	2.1	6.4	1.5	3.0	.78	2.0
2	2.4	2.3	6.6	3.7	3.8	5.1	2.0	3.7	1.3	12	.78	1.6
3	2.1	2.5	7.1	3.3	3.2	4.6	3.2	3.1	1.3	9.4	.78	1.4
4	1.8	2.5	7.3	3.0	2.7	5.1	2.5	2.8	1.4	2.9	4.9	1.1
5	1.6	2.6	19	2.6	2.8	4.8	4.6	2.5	1.4	2.0	3.8	4.4
6	1.4	2.5	10	2.7	3.1	4.3	17	7.6	1.3	1.8	1.3	2.5
7	1.4	2.4	6.9	2.8	2.7	4.5	12	56	1.3	19	.99	1.5
8	1.4	2.5	6.0	2.5	2.3	3.9	6.2	9.9	1.2	3.8	.82	1.1
9	20	2.4	5.2	2.2	2.0	3.5	6.2	5.5	1.3	2.3	.70	1.0
10	4.4	2.3	5.4	2.1	1.8	3.8	139	4.2	1.2	1.5	.71	.99
11	2.7	2.3	4.3	2.4	1.6	3.6	132	3.4	1.6	1.3	31	.97
12	2.2	2.4	3.8	2.6	1.5	3.3	41	4.9	2.7	1.4	2.5	.90
13	1.9	30	3.7	3.0	1.4	3.3	15	3.1	6.2	2.1	5.1	.73
14	1.7	664	39	2.7	1.3	3.2	8.4	3.1	2.1	2.2	1.7	.70
15	1.6	70	20	2.5	1.8	3.1	21	3.3	1.6	2.0	1.2	.60
16	1.5	19	9.8	2.3	2.7	2.9	9.3	2.4	1.3	1.7	1.1	.52
17	5.0	229	7.1	2.1	4.0	2.8	5.1	2.0	1.3	4.9	1.1	.45
18	3.0	36	10	2.0	6.8	3.1	4.4	1.9	1.1	2.6	.99	.50
19	2.4	17	7.4	1.9	8.6	2.9	3.8	1.8	1.1	1.4	.93	.43
20	6.4	11	13	1.8	12	2.8	3.3	1.7	1.2	1.1	23	.48
21	6.0	8.0	14	1.7	7.6	3.0	3.6	1.6	1.2	1.9	7.2	.70
22	3.1	6.3	7.1	1.6	5.8	2.5	2.9	1.5	1.0	1.7	3.6	1.3
23	2.6	5.1	5.7	1.5	15	2.4	2.7	1.4	2.7	1.2	1.8	8.9
24	2.2	4.6	4.8	11	8.0	2.4	2.5	7.5	3.2	1.0	1.1	37
25	2.1	20	4.3	95	5.5	2.2	2.4	23	1.5	.92	.99	6.5
26	2.1	44	3.8	29	4.7	2.2	2.3	3.8	47	2.2	.89	5.0
27	2.2	16	3.5	81	4.1	4.9	5.0	2.3	11	1.3	.89	3.2
28	2.2	10	3.2	133	3.7	3.0	7.0	1.9	3.2	.97	36	1.7
29	2.2	7.3	3.0	13	---	2.5	5.3	1.8	26	1.1	11	1.3
30	2.5	5.3	2.8	7.9	---	2.2	17	1.7	10	1.0	2.9	.97
31	3.7	---	3.1	5.7	---	2.2	---	1.7	---	.93	2.9	---
TOTAL	98.4	1232.3	317.5	432.0	125.2	104.3	488.8	177.5	140.2	92.62	153.45	90.44
MEAN	3.17	41.1	10.2	13.9	4.47	3.36	16.3	5.73	4.67	2.99	4.95	3.01
MAX	20	664	73	133	15	5.1	139	56	47	19	36	37
MIN	1.4	2.3	2.8	1.5	1.3	2.2	2.0	1.4	1.0	.92	.70	.43
CFSM	.46	5.92	1.48	2.01	.64	.48	2.35	.83	.67	.43	.71	.43
IN.	.53	6.61	1.70	2.32	.67	.56	2.62	.95	.75	.50	.82	.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1994, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994	
MEAN	6.77	20.5	14.5	10.4	12.4	12.3	16.4	11.1	7.10	9.82	4.15	6.23
MAX	13.3	41.1	49.8	16.5	31.1	25.0	23.4	31.0	16.2	22.5	6.53	16.3
(WY)	1991	1994	1991	1993	1990	1991	1992	1990	1993	1992	1993	1993
MIN	1.69	8.49	1.15	5.94	4.47	3.36	8.38	4.32	1.63	2.21	1.64	1.05
(WY)	1990	1990	1990	1992	1994	1994	1990	1992	1991	1991	1991	1991

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1989 - 1994	
ANNUAL TOTAL	5273.71		3452.71			
ANNUAL MEAN	14.4		9.46		10.9	
HIGHEST ANNUAL MEAN					13.3	
LOWEST ANNUAL MEAN					9.46	
HIGHEST DAILY MEAN	664	Nov 14	664	Nov 14	664	Nov 14 1993
LOWEST DAILY MEAN	.82	Aug 9	.43	Sep 19	.15	Sep 21 1991
ANNUAL SEVEN-DAY MINIMUM	1.2	Aug 26	.53	Sep 14	.28	Aug 21 1991
INSTANTANEOUS PEAK FLOW			1550	Nov 14	1550	Nov 14 1993
INSTANTANEOUS PEAK STAGE			7.03	Nov 14	8.30	Jul 5 1992
ANNUAL RUNOFF (CFSM)	2.08		1.36		1.58	
ANNUAL RUNOFF (INCHES)	28.27		18.51		21.41	
10 PERCENT EXCEEDS	31		14		21	
50 PERCENT EXCEEDS	4.6		2.8		3.3	
90 PERCENT EXCEEDS	1.8		1.1		.84	

• Estimated

WABASH RIVER BASIN

03353560 GUION CREEK ABOVE 52ND STREET AT INDIANAPOLIS, IN

LOCATION.--Lat 39°50'45", long 86°13'57", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.08., T.16 N., R.3 E., Marion County, Hydrologic Unit 05120201, on right bank 25 ft upstream from private bridge, 0.2 mi north of West 52nd Street along Guion Road, and 1.25 mi upstream of the confluence with Little Eagle Creek.  
 DRAINAGE AREA.--3.91 mi<sup>2</sup>.  
 PERIOD OF RECORD.--October 1989 to current year.  
 GAGE.--Water-stage recorder. Datum of gage is 760.11 ft above sea level.  
 REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.0	2.7	e1.4	e3.1	e2.1	1.0	6.2	.47	1.1	.05	.73
2	1.6	1.7	3.2	e1.6	e2.2	2.7	.74	4.0	.55	2.1	.04	.62
3	1.2	2.7	3.3	e1.4	e1.6	2.7	1.4	2.8	.37	2.1	.04	.43
4	1.3	2.3	31	e1.2	e1.3	3.0	.81	2.5	.30	.75	.22	.37
5	1.3	2.2	14	e1.1	e1.4	2.6	1.9	1.9	.29	.46	.15	1.3
6	1.1	1.8	7.2	e1.2	e1.5	2.6	7.5	5.4	.33	.35	.07	.56
7	1.1	1.5	4.7	e1.3	e1.3	2.7	7.1	29	.34	2.2	.05	.44
8	1.2	1.4	3.7	e1.1	e1.1	2.4	5.4	9.7	.36	2.0	.05	.54
9	8.5	1.3	3.1	e.98	e1.0	2.1	5.2	5.0	.40	.45	.04	.46
10	2.6	1.3	2.9	e.90	e.90	2.1	65	3.1	.28	.22	.04	.47
11	1.4	1.4	2.2	e.96	e.82	2.0	70	2.3	.31	.13	8.6	.48
12	1.2	1.5	1.9	e1.0	e.76	1.6	36	2.9	.46	.09	1.4	.49
13	.91	16	1.8	e1.1	e.70	1.8	15	1.4	1.5	.09	.43	.34
14	.69	283	13	e1.0	e.66	1.9	9.3	1.3	.41	.09	1.3	.28
15	.77	53	11	e.96	e.98	1.8	20	1.3	.88	.09	.31	.32
16	1.1	19	5.5	e.90	e1.7	1.5	10	.81	.26	.09	.15	.27
17	2.4	114	3.9	e.86	e3.0	1.8	5.9	.55	.18	.58	.10	.26
18	1.6	29	4.2	e.82	5.6	1.6	4.4	.48	.16	.27	.08	.23
19	1.9	14	3.6	e.80	7.4	1.3	3.5	.38	.16	.10	.06	.17
20	5.5	7.7	5.3	e.76	8.5	1.2	2.7	.33	.14	.07	3.2	.15
21	5.2	5.5	6.3	e.74	6.4	1.3	2.2	.31	.12	.09	1.4	.12
22	3.1	4.1	3.9	e.72	4.5	1.2	1.9	.27	.09	.08	.37	.12
23	2.3	3.5	2.9	e.70	8.4	1.2	1.5	.27	.32	.05	.46	1.8
24	1.9	2.8	2.3	e3.7	6.9	1.2	1.8	3.6	.17	.05	.49	7.2
25	1.7	7.8	e1.9	40	4.1	1.1	1.4	6.9	.15	.05	.52	.54
26	1.6	20	e1.7	19	e3.0	1.2	1.1	1.8	9.0	.11	.63	.69
27	1.4	10	e1.5	37	e2.3	2.1	2.1	.96	3.4	.07	.76	.39
28	1.4	6.3	e1.4	71	e1.8	1.3	3.5	.74	.85	.06	13	.18
29	1.5	4.5	e1.3	16	---	.94	2.9	.61	7.0	.17	4.7	.12
30	2.1	3.3	e1.2	8.3	---	.92	9.3	.52	4.4	.11	1.1	.07
31	2.6	---	e1.3	5.5	---	1.0	---	.52	---	.06	1.6	---
TOTAL	64.57	624.6	153.9	224.00	82.92	54.96	300.55	97.85	33.65	14.23	41.41	20.14
MEAN	2.08	20.8	4.96	7.23	2.96	1.77	10.0	3.16	1.12	.46	1.34	.67
MAX	8.5	283	31	71	8.5	3.0	70	29	9.0	2.2	13	7.2
MIN	.69	1.3	1.2	.70	.66	.92	.74	.27	.09	.05	.04	.07
CFSM	.53	5.32	1.27	1.85	.76	.45	2.56	.81	.29	.12	.34	.17
IN.	.61	5.94	1.46	2.13	.79	.52	2.86	.93	.32	.14	.39	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994
MEAN	2.44	10.0	5.97	5.57	6.08
MAX	5.45	20.8	19.6	10.6	16.4
(WY)	1991	1994	1991	1993	1990
MIN	.68	3.61	.52	1.94	2.45
(WY)	1990	1990	1990	1993	1994

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1990 - 1994
ANNUAL TOTAL	2867.12	1712.78	
ANNUAL MEAN	7.86	4.69	5.16
HIGHEST ANNUAL MEAN			7.26
LOWEST ANNUAL MEAN			3.59
HIGHEST DAILY MEAN	283	283	283
LOWEST DAILY MEAN	.17	.04	.00
ANNUAL SEVEN-DAY MINIMUM	.25	.07	.01
INSTANTANEOUS PEAK FLOW		435	435
INSTANTANEOUS PEAK STAGE		6.97	7.35
ANNUAL RUNOFF (CFSM)	2.01	1.20	1.32
ANNUAL RUNOFF (INCHES)	27.28	16.30	17.94
10 PERCENT EXCEEDS	18	7.7	11
50 PERCENT EXCEEDS	2.7	1.4	1.6
90 PERCENT EXCEEDS	.88	.15	.15

e Estimated

WABASH RIVER BASIN

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

LOCATION.--Lat 39°48'33", long 86°13'56", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, sec.29, T.16 N., R.03 E., Marion County, Hydrologic Unit 05120201, on left bank, 150 ft downstream from bridge on West 30th Street, 0.6 mi west of Lafayette Road, and 0.6 mi upstream of confluence with Little Eagle Creek.

DRAINAGE AREA.--2.95 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.98	1.8	e1.1	e3.0	e1.6	.81	4.0	.41	.62	.31	.35
2	1.2	.85	2.7	1.4	e1.9	e2.0	.80	2.1	.42	5.5	.31	.33
3	.81	1.2	2.9	1.4	e1.3	e1.9	3.3	1.6	.48	1.7	.26	.31
4	.87	.97	25	1.2	e.80	e2.0	1.3	1.4	.48	.57	1.8	.31
5	.94	1.0	9.6	1.1	e1.1	e2.1	3.6	1.2	.47	.41	.38	2.6
6	.94	.93	4.4	1.0	e1.5	e1.7	11	5.5	.54	.40	.26	.38
7	.93	.77	2.9	1.1	e1.4	e1.5	5.8	22	.52	4.6	.26	.29
8	.89	.72	2.3	.90	e1.3	e1.4	3.9	6.6	.82	.97	.26	.28
9	10	.59	2.0	.74	e1.2	e1.3	7.6	3.2	.52	.56	.24	.27
10	1.7	.48	2.0	.70	e.90	e1.5	57	2.1	.36	.46	.21	.26
11	1.1	.47	1.5	.78	e.70	e1.3	61	2.7	.32	.42	23	.24
12	.75	.51	1.3	.86	e.52	e1.2	27	2.4	2.3	.35	.93	.24
13	.59	13	1.3	.90	e.43	e1.3	9.0	1.2	6.1	.37	.48	e.21
14	.51	226	11	.83	e.34	e1.4	5.3	1.8	.51	.37	1.9	e.17
15	.47	41	6.6	.66	e.44	e1.3	11	1.9	.36	.34	.32	e.15
16	.47	8.2	3.5	.50	e.68	e1.2	5.7	1.8	.35	.33	.29	e.13
17	1.3	106	2.5	e.45	e1.1	e1.1	3.4	1.1	.36	.43	.27	e.12
18	.55	20	2.7	e.42	e1.6	e1.3	2.7	.98	.35	.33	.31	e.15
19	.66	7.1	2.2	e.40	e2.7	e1.1	2.2	.77	.39	.29	.30	e.14
20	5.3	4.0	4.0	e.39	e4.0	e1.2	1.8	.64	.95	.32	10	e.13
21	2.2	2.7	3.6	e.38	e2.9	e1.4	1.8	.57	.32	.43	.80	e.12
22	1.0	2.1	2.5	e.37	e2.2	e1.1	1.6	.48	.26	.44	.36	e.11
23	.87	1.8	2.0	e.36	e5.2	e1.0	1.3	.34	.70	.41	.30	13
24	.99	1.7	1.7	e1.5	e3.2	e.96	1.2	10	.40	.39	.28	9.8
25	.96	9.2	e1.4	20	e2.3	.89	1.1	5.7	.34	.35	.27	.60
26	.99	13	e1.2	7.9	e1.8	1.1	1.1	1.6	30	.54	.28	1.4
27	1.3	6.0	e1.1	35	e1.5	2.5	3.0	.61	5.0	.26	.29	.27
28	1.0	3.8	e1.0	77	e1.3	1.3	5.0	.42	1.2	.26	16	.16
29	1.4	2.8	e.94	13	---	1.0	2.2	.37	6.1	.86	2.3	.13
30	1.5	2.1	e.88	6.8	---	.89	9.7	.38	2.2	.38	.45	.09
31	1.1	---	e.94	4.7	---	.83	---	.38	---	.30	2.7	---
TOTAL	44.69	479.97	109.46	183.84	47.31	42.37	252.21	85.84	63.53	23.96	66.12	32.74
MEAN	1.44	16.0	3.53	5.93	1.69	1.37	8.41	2.77	2.12	.77	2.13	1.09
MAX	10	226	25	77	5.2	2.5	61	22	30	5.5	23	13
MIN	.47	.47	.88	.36	.34	.83	.80	.34	.26	.26	.21	.09
CFSM	.49	5.42	1.20	2.01	.57	.46	2.85	.94	.72	.26	.72	.37
IN.	.56	6.05	1.38	2.32	.60	.53	3.18	1.08	.80	.30	.83	.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1994, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1989	1990	1991	1992	1993	1994
MEAN	2.40	8.25	5.43	4.72	5.13	6.07	7.85	5.23	3.11	3.81	1.78	2.33
MAX	4.37	16.0	17.8	8.64	13.7	12.3	11.4	14.8	6.59	10.0	2.40	6.22
(WY)	1991	1994	1991	1993	1990	1991	1992	1990	1993	1992	1993	1993
MIN	1.02	3.66	1.66	1.44	1.69	1.37	3.53	1.57	.82	.61	1.02	.52
(WY)	1993	1990	1990	1992	1994	1994	1990	1992	1991	1991	1991	1991

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1989 - 1994

ANNUAL TOTAL	2189.11	1432.04	
ANNUAL MEAN	6.00	3.92	4.66
HIGHEST ANNUAL MEAN			5.61
LOWEST ANNUAL MEAN			3.88
HIGHEST DAILY MEAN	226	Nov 14	226
LOWEST DAILY MEAN	.34	Aug 9	.09
ANNUAL SEVEN-DAY MINIMUM	.48	Aug 3	.13
INSTANTANEOUS PEAK FLOW			478
INSTANTANEOUS PEAK STAGE			6.34
ANNUAL RUNOFF (CFSM)	2.03		1.33
ANNUAL RUNOFF (INCHES)	27.61		18.06
10 PERCENT EXCEEDS	13		6.6
50 PERCENT EXCEEDS	2.1		1.1
90 PERCENT EXCEEDS	.71		.30

e Estimated



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

LOCATION.--Lat 39°44'38", long 86°12'03", in SE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.28, T.15N., R.3E., Marion County, Hydrologic Unit 05120201, on right bank 0.30 mi above confluence with Lick Creek and 0.31 mi above dam at Stout Generating Plant, and at mile 226.32  
 DRAINAGE AREA.--1,898 mi<sup>2</sup>.  
 PERIOD OF RECORD.--Oct. 1, 1992 to current year.  
 GAGE.--Water-stage recorder. Datum of gage is 663.40 above sea level.  
 REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1160	742	2660	e1300	4130	1380	812	2040	823	1100	299	581
2	1040	690	2460	e1300	3100	1410	873	1960	791	990	279	515
3	882	680	2290	e1300	2530	1340	905	1840	732	1040	271	379
4	791	673	3500	e1300	1900	1320	941	1410	638	1290	518	305
5	710	767	e4700	e1200	1720	1580	872	1360	614	700	710	364
6	664	680	6500	e1150	1510	1690	1400	1340	611	541	526	348
7	629	730	5280	e1100	e1350	2140	1660	2480	592	804	354	283
8	593	631	3760	e1050	e1200	2120	1900	2790	575	734	283	272
9	1380	552	3110	e1000	e1100	2120	2610	2550	657	638	233	251
10	1160	519	2990	e970	e1000	2020	7620	2080	606	655	214	222
11	1050	517	2380	1090	e970	1660	11000	1490	554	550	1050	203
12	941	490	2190	1110	e920	1580	15500	1840	612	457	937	203
13	784	1680	1960	994	e940	1410	15100	1750	872	689	509	196
14	785	16000	2360	e1000	e960	1610	12100	1740	732	541	705	188
15	770	26200	3470	e900	e1100	1450	7920	1420	697	424	380	177
16	652	22700	3590	693	e1600	1600	6000	1320	639	374	299	178
17	877	32700	3190	e660	e2400	1370	4540	1050	582	374	265	177
18	710	27900	2640	e620	3240	1190	3580	967	629	391	237	163
19	788	20700	2460	e600	3770	1330	2830	910	684	339	212	178
20	1050	16400	2530	e580	4410	1110	2480	868	645	281	267	162
21	1140	9200	2840	e560	4140	1240	1980	821	561	428	495	168
22	1130	5730	2870	748	3420	1070	1810	782	506	428	357	171
23	1660	4690	2550	827	3260	996	1510	765	475	327	299	353
24	1330	3970	2190	1090	2870	1060	1460	848	526	311	269	977
25	1060	3460	e2000	2600	2640	1030	1280	1610	498	304	225	541
26	932	4970	e1800	5940	2150	951	1320	2190	3080	283	204	427
27	895	5490	e1600	8500	1640	1110	1330	2220	2500	254	196	399
28	981	4630	e1450	14300	1400	991	1560	1500	936	266	174	322
29	814	3730	e1300	15700	---	998	1530	1180	925	456	e750	291
30	767	3170	e1250	13700	---	911	1810	1010	1580	424	450	246
31	782	---	e1250	7540	---	845	---	902	---	300	611	---
TOTAL	28907	220991	85120	91422	61370	42632	116233	47033	24872	16693	12578	9240
MEAN	932	7366	2746	2949	2192	1375	3874	1517	829	538	406	308
MAX	1660	32700	6500	15700	4410	2140	15500	2790	3080	1290	1050	977
MIN	593	490	1250	560	920	845	812	765	475	254	174	162
CFSM	.49	3.88	1.45	1.55	1.15	.72	2.04	.80	.44	.28	.21	.16
IN.	.57	4.33	1.67	1.79	1.20	.84	2.28	.92	.49	.33	.25	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1994, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	986	7292	2220	3834	1922	2941	4022	1722	1574	2172	609	896
MAX	1039	7366	2746	4718	2192	4507	4170	1927	2319	3806	812	1485
(WY)	1993	1994	1994	1993	1994	1993	1993	1993	1993	1993	1993	1993
MIN	932	7217	1694	2949	1653	1375	3874	1517	829	538	406	308
(WY)	1994	1993	1993	1994	1993	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1992 - 1994
ANNUAL TOTAL	1109378	757091	
ANNUAL MEAN	3039	2074	2511
HIGHEST ANNUAL MEAN			2947
LOWEST ANNUAL MEAN			2074
HIGHEST DAILY MEAN	32700	Nov 17	32700
LOWEST DAILY MEAN	417	Aug 9	162
ANNUAL SEVEN-DAY MINIMUM	511	Aug 4	171
INSTANTANEOUS PEAK FLOW			36500
INSTANTANEOUS PEAK STAGE			13.22
ANNUAL RUNOFF (CFSM)	1.60	1.09	1.32
ANNUAL RUNOFF (INCHES)	21.74	14.84	17.97
10 PERCENT EXCEEDS	6170	3740	5300
50 PERCENT EXCEEDS	2080	1000	1500
90 PERCENT EXCEEDS	710	296	499

e Estimated

WABASH RIVER BASIN

03353620 LICK CREEK AT INDIANAPOLIS, IN

LOCATION.--Lat 39°42'21", long 86°06'13", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec.32, T.15 N., R.4 E., Marion County, Hydrologic Unit 05120201, on left bank at upstream side of Sherman Drive bridge in Indianapolis, and at mile 6.2.

DRAINAGE AREA.--15.6 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	7.2	12	e6.2	e13.0	7.0	2.5	43	1.6	6.1	.83	3.3
2	10	2.0	22	e6.0	e10.0	8.1	2.4	17	1.4	12	9.2	2.3
3	3.4	2.9	31	e5.8	e8.0	8.2	12	10	1.4	17	1.8	1.4
4	2.5	3.4	192	e5.6	e6.6	6.8	4.4	9.1	1.3	7.5	7.4	.83
5	2.2	3.0	103	5.4	e5.5	6.6	17	9.3	1.3	5.0	2.6	2.9
6	1.2	2.8	56	e5.4	e4.5	6.2	82	22	1.3	2.5	1.5	2.1
7	1.2	1.9	32	e5.2	4.1	21	66	106	1.2	2.2	1.2	1.2
8	1.5	1.4	21	e5.0	e4.0	8.4	29	48	1.3	3.4	1.1	1.2
9	41	1.6	19	e4.9	e3.8	6.8	22	20	1.3	5.7	1.1	1.3
10	8.1	1.2	15	e4.7	e3.7	7.2	323	12	1.2	1.8	1.1	1.1
11	3.6	1.3	10	e4.6	e3.7	4.7	317	10	1.2	1.4	17	.94
12	2.8	1.0	8.8	4.3	e3.6	3.8	154	18	6.7	1.1	5.7	.86
13	2.3	121	9.6	e4.3	e4.7	4.3	76	7.5	20	88	2.6	.86
14	1.8	1380	70	e4.2	e7.4	5.2	46	14	3.6	35	12	.87
15	1.6	224	64	e4.2	e10.1	4.6	101	8.8	1.8	6.9	2.0	.87
16	1.6	117	28	e4.1	e16	3.6	57	5.1	1.2	3.3	1.4	.85
17	3.4	555	17	e4.1	15	3.1	28	4.0	1.0	2.1	1.2	1.0
18	3.0	146	43	e4.0	17	4.2	19	3.6	.96	2.8	1.2	.93
19	9.7	90	32	e3.9	28	3.5	14	3.2	2.1	1.7	.82	1.1
20	27	59	44	e3.8	60	6.4	11	3.1	1.7	1.2	1.5	2.0
21	42	34	65	e3.7	39	13	9.9	2.8	1.7	9.8	2.1	2.2
22	8.7	24	26	e3.7	21	6.1	7.9	2.5	1.4	2.8	1.2	2.3
23	4.4	18	16	20	81	3.2	6.3	2.3	2.9	1.5	.87	13
24	3.1	14	12	140	47	4.7	5.5	13	3.9	1.1	.89	49
25	2.1	35	11	282	18	3.0	5.1	41	1.8	.95	.88	3.9
26	3.1	86	e9.6	134	18	2.9	4.9	4.5	199	.84	.94	7.0
27	3.4	58	e8.4	225	12	9.8	15	2.8	73	15	.98	3.8
28	3.4	39	7.6	262	6.9	4.5	29	2.2	15	4.4	58	1.9
29	4.1	27	e7.2	88	---	3.3	16	1.9	20	7.6	27	1.1
30	4.1	14	e6.7	48	---	2.7	75	1.9	21	1.7	3.7	.62
31	4.7	---	e6.4	22	---	2.6	---	1.8	---	.97	7.9	---
TOTAL	215.0	3070.7	1005.3	1324.1	471.6	185.5	1557.9	450.4	393.26	253.36	177.71	112.73
MEAN	6.94	102	32.4	42.7	16.8	5.98	51.9	14.5	13.1	8.17	5.73	3.76
MAX	42	1380	192	282	81	21	323	106	199	88	58	49
MIN	1.2	1.0	6.4	3.7	3.6	2.6	2.4	1.8	.96	.84	.82	.62
CFSM	.44	6.56	2.08	2.74	1.08	.38	3.33	.93	.84	.52	.37	.24
IN.	.51	7.32	2.40	3.16	1.12	.44	3.71	1.07	.94	.60	.42	.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1994, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	8.41	23.3	25.5	20.2	28.1	32.3	27.0	22.7	14.8	19.5	12.5	8.41													
MAX	53.1	102	76.4	49.5	57.1	64.6	51.9	80.1	48.5	95.5	54.1	48.2													
(WY)	1987	1994	1991	1975	1975	1978	1994	1981	1978	1992	1979	1989													
MIN	1.03	1.44	2.14	1.00	4.67	5.98	3.92	1.87	.39	2.55	1.28	.53													
(WY)	1983	1982	1981	1981	1978	1994	1971	1988	1988	1991	1986	1983													

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1971 - 1994	
ANNUAL TOTAL	10787.21		9217.56			
ANNUAL MEAN	29.6		25.3		20.2	
HIGHEST ANNUAL MEAN					27.6	
LOWEST ANNUAL MEAN					11.7	
HIGHEST DAILY MEAN	1380		1380		1380	
LOWEST DAILY MEAN	.67		.62		.05	
ANNUAL SEVEN-DAY MINIMUM	1.4		.89		.11	
INSTANTANEOUS PEAK FLOW			2340		2500	
INSTANTANEOUS PEAK STAGE			9.38		9.61	
ANNUAL RUNOFF (CFSM)	1.89		1.62		1.29	
ANNUAL RUNOFF (INCHES)	25.72		21.98		17.59	
10 PERCENT EXCEEDS	67		57		44	
50 PERCENT EXCEEDS	11		5.0		7.3	
90 PERCENT EXCEEDS	1.8		1.2		1.4	

e Estimated

WABASH RIVER BASIN

03353630 LITTLE BUCK CREEK NEAR SOUTHPORT, IN

LOCATION.--Lat 39°40'11", long 86°04'57", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.10, T.14 N., T.4 E., Marion County, Hydrologic Unit 05120201, on right bank 5 ft upstream from Emerson Avenue bridge in Indianapolis, 1.1 mi downstream from Bunker Creek, and 2.5 mi upstream from Derbyshire Creek.

DRAINAGE AREA.--5.73 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.8	5.4	e3.2	e7.2	e4.5	2.2	16	.28	3.7	.13	.10
2	12	3.2	6.9	e3.5	e5.8	4.9	2.2	8.8	.21	2.6	.11	.08
3	4.7	4.0	8.3	e3.9	e4.7	4.6	3.6	6.5	.20	5.2	.13	.05
4	3.4	4.1	93	e3.3	e3.8	4.8	2.9	5.4	.20	2.6	.48	.04
5	2.6	4.4	31	e3.1	e3.3	4.8	4.8	4.5	.19	1.6	.49	.04
6	2.2	4.0	14	e3.0	e2.8	4.6	18	4.7	.16	1.1	.15	.04
7	2.2	3.7	9.5	e2.6	e2.4	4.6	15	28	.17	.94	.11	.01
8	2.4	3.4	7.8	e2.4	e2.1	4.2	10	15	.19	2.1	.09	.00
9	27	3.4	6.8	e2.3	e1.8	4.2	7.9	8.5	.23	2.1	.07	.00
10	9.6	3.4	6.4	e2.2	e1.6	4.3	199	6.0	.17	.82	.05	.00
11	5.7	3.4	5.3	e2.3	e1.5	4.0	180	4.8	.12	.50	.10	.00
12	4.1	3.3	4.8	e2.7	e1.4	3.7	59	6.2	3.4	.30	.13	.00
13	3.5	74	4.7	e2.1	e1.7	4.0	27	3.9	6.1	52	.52	.00
14	2.9	531	14	e1.7	e2.1	4.1	17	3.9	1.2	16	.20	.00
15	2.6	85	15	e1.6	e2.6	3.8	37	4.7	.50	5.2	.12	.00
16	2.7	36	9.1	e1.5	e3.7	3.1	20	3.1	.24	2.4	.08	.00
17	3.7	204	7.4	e1.5	5.4	2.8	12	2.3	.22	1.6	.08	.00
18	3.0	45	8.5	e1.4	5.9	3.3	8.8	1.8	.15	.98	.06	.00
19	6.4	23	7.7	e1.4	7.4	2.8	7.1	1.6	2.0	.66	.04	.00
20	29	14	10	e1.4	12	2.8	5.4	1.3	2.7	.42	.05	.00
21	26	9.7	13	e1.3	10	4.1	4.9	1.0	.60	.89	.04	.00
22	9.8	7.9	8.4	e1.3	8.1	3.1	4.0	.87	.30	.62	.06	.00
23	6.7	7.1	6.9	e1.3	22	2.8	3.3	.74	.89	.35	.07	.00
24	5.5	6.4	6.1	e5.0	13	3.4	2.9	.95	1.3	.21	.05	4.0
25	4.8	7.2	e5.2	e84	8.4	2.6	2.7	5.9	.86	.18	.03	1.4
26	4.3	16	e4.4	e45	e6.2	2.5	2.4	1.8	149	.15	.01	2.3
27	3.8	12	e3.8	131	e5.0	4.4	4.4	1.1	65	.14	.00	1.6
28	3.7	8.8	e3.5	111	e4.0	3.4	6.1	.71	15	.13	.44	.43
29	3.4	7.0	e3.2	27	---	2.8	5.2	.56	7.8	.20	1.2	.33
30	3.5	5.9	e3.1	14	---	2.5	26	.44	6.7	.46	.18	.20
31	4.2	---	e3.0	10	---	2.4	---	.38	---	.16	.14	---
TOTAL	208.5	1144.1	336.2	478.0	155.9	113.9	700.8	151.45	266.08	106.31	5.41	10.62
MEAN	6.73	38.1	10.8	15.4	5.57	3.67	23.4	4.89	8.87	3.43	.17	.35
MAX	29	531	93	131	22	4.9	199	28	149	52	1.2	4.0
MIN	2.2	3.2	3.0	1.3	1.4	2.4	2.2	.38	.12	.13	.00	.00
CFSM	1.17	6.66	1.89	2.69	.97	.64	4.08	.85	1.55	.60	.03	.06
IN.	1.35	7.43	2.18	3.10	1.01	.74	4.55	.98	1.73	.69	.04	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994		
MEAN	4.36	18.8	11.8	10.7	10.6	13.1	15.8	9.11	7.17	11.4	2.14	2.60
MAX	6.73	38.1	34.3	16.4	23.2	26.9	23.4	30.6	14.0	39.0	4.94	9.18
(WY)	1994	1994	1991	1993	1990	1991	1994	1990	1992	1992	1990	1993
MIN	.96	6.60	2.32	4.39	4.41	3.67	8.03	2.61	.18	.23	.17	.065
(WY)	1990	1990	1990	1992	1992	1994	1990	1993	1991	1991	1994	1991

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1990 - 1994	
ANNUAL TOTAL	4369.87		3677.27			
ANNUAL MEAN	12.0		10.1		9.79	
HIGHEST ANNUAL MEAN					10.8	
LOWEST ANNUAL MEAN					8.90	
HIGHEST DAILY MEAN	531	Nov 14	531	Nov 14	531	Nov 14 1993
LOWEST DAILY MEAN	.12	Aug 27	.00	Aug 27	.00	Jun 27 1991
ANNUAL SEVEN-DAY MINIMUM	.39	Aug 5	.00	Sep 8	.00	Jun 27 1991
INSTANTANEOUS PEAK FLOW			1180	Nov 14	1260	Jul 9 1992
INSTANTANEOUS PEAK STAGE			8.72	Nov 14	8.93	Jul 9 1992
ANNUAL RUNOFF (CFSM)	2.09		1.76		1.71	
ANNUAL RUNOFF (INCHES)	28.37		23.87		23.21	
10 PERCENT EXCEEDS	26		15		19	
50 PERCENT EXCEEDS	4.8		3.2		3.1	
90 PERCENT EXCEEDS	.93		.09		.19	

e Estimated

WABASH RIVER BASIN

03353635 DERBYSHIRE CREEK AT SOUTHPORT, IN

LOCATION.--Lat 39°40'15", long 86°07'21", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, sec.07, T.14 N., R.04 E., Marion County Hydrologic Unit 05120201, on left bank, 10 ft downstream from bridge on Derbyshire Road, and 0.3 mi upstream from mouth.  
 DRAINAGE AREA.--1.79 mi<sup>2</sup>.  
 PERIOD OF RECORD.--September 1989 to current year.  
 GAGE.--Water-stage recorder. Datum of gage is 746.37 ft above sea level.  
 REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.0	.75	1.1	e.70	2.6	1.2	.66	3.0	.40	.68	.27	.30
2	e4.0	.69	1.7	e.71	2.3	1.3	.62	1.7	.37	1.0	.25	.29
3	e1.3	.70	1.9	e.71	2.0	1.2	1.0	1.3	.35	1.0	.25	.41
4	e.72	.70	2.2	e.69	1.9	1.2	.81	1.2	.35	.66	.72	.45
5	e.60	.66	7.7	e.66	1.8	1.1	1.4	1.1	.34	.56	.33	.97
6	e.50	.62	3.6	e.61	1.7	1.1	5.5	1.2	.31	.51	.26	1.0
7	e.45	.61	2.4	e.60	1.6	.98	3.8	7.5	.30	.47	.24	.43
8	e.40	.56	1.8	e.57	1.6	.91	2.4	2.7	.29	.52	.24	.34
9	e7.4	.57	1.4	e.53	1.5	.90	3.1	1.7	.28	.44	.22	.31
10	e3.1	.53	1.3	e.50	1.4	.91	63	1.3	.26	.35	.22	.31
11	e1.6	.52	1.1	e.50	1.3	.89	54	1.3	.26	.32	.55	.30
12	e1.1	.62	1.0	e.50	1.3	.78	16	1.3	3.6	.32	.26	.30
13	e.90	13	1.0	e.50	e1.3	.85	5.7	1.0	2.2	26	.23	.28
14	e.80	202	2.7	e.47	e1.2	.84	3.3	1.0	.58	3.4	.41	.15
15	e.70	20	2.9	e.43	e1.2	.81	11	1.0	.44	1.1	.22	.12
16	e.60	6.5	1.6	e.41	e1.1	.72	4.6	.88	.39	.74	.24	.13
17	e.76	66	1.2	e.39	1.1	.69	2.6	.74	.37	.62	.27	.16
18	e.70	13	2.3	e.38	1.2	.73	2.0	.69	.35	.52	.28	.13
19	e2.0	5.3	1.7	e.38	1.3	.66	1.6	.64	.66	.47	.28	.12
20	e7.0	3.1	3.0	e.38	2.6	.70	1.4	.62	.40	.45	.42	.11
21	e8.4	2.3	3.2	e.38	2.1	.86	1.3	.58	.36	.85	.33	.12
22	e2.2	1.7	2.0	e.39	1.8	.70	1.4	.57	.29	.49	.28	.35
23	1.3	1.4	1.4	e.47	5.3	.68	1.3	.54	.39	.40	.25	1.3
24	1.1	1.2	1.2	2.4	3.2	.76	1.3	1.8	.38	.35	.31	2.3
25	.99	1.9	e1.1	15	2.1	.62	1.3	1.6	.31	.34	.29	.81
26	.91	4.5	e.94	6.4	1.5	.65	1.3	.72	17	.31	.30	1.3
27	.81	2.9	e.82	25	1.3	1.1	1.6	.57	5.3	.58	.30	.43
28	.78	2.2	e.76	30	1.2	.83	3.4	.51	1.2	.36	.94	.25
29	.75	1.6	e.70	6.5	---	.76	1.9	.48	1.2	.41	.52	.19
30	.83	1.2	e.68	4.0	---	.69	7.6	.46	.91	.35	.34	.15
31	.86	---	e.66	3.2	---	.74	---	.45	---	.29	.36	---
TOTAL	54.56	357.33	76.86	104.36	50.5	26.86	206.89	40.15	39.84	44.86	10.38	13.81
MEAN	1.76	11.9	2.48	3.37	1.80	.87	6.90	1.30	1.33	1.45	.33	.46
MAX	8.4	202	22	30	5.3	1.3	63	7.5	17	26	.94	2.3
MIN	.40	.52	.66	.38	1.1	.62	.62	.45	.26	.29	.22	.11
CFSM	.98	6.65	1.39	1.88	1.01	.48	3.85	.72	.74	.81	.19	.26
IN.	1.13	7.43	1.60	2.17	1.05	.56	4.30	.83	.83	.93	.22	.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994		
MEAN	1.17	4.91	4.73	3.61	4.40	4.61	4.67	3.33	1.73	3.35	1.06	.94
MAX	2.49	11.9	17.0	5.74	13.1	8.25	6.90	11.5	3.33	10.8	2.54	2.30
(WY)	1991	1994	1991	1990	1990	1991	1994	1990	1992	1992	1990	1993
MIN	.30	1.25	1.27	1.32	1.17	.87	3.05	.74	.28	.26	.17	.052
(WY)	1990	1992	1990	1992	1992	1994	1991	1992	1991	1991	1991	1991

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1990 - 1994	
ANNUAL TOTAL	1276.90		1026.40			
ANNUAL MEAN	3.50		2.81		3.20	
HIGHEST ANNUAL MEAN					4.25	
LOWEST ANNUAL MEAN					2.40	
HIGHEST DAILY MEAN	202		202		273	
LOWEST DAILY MEAN	.40		.11		.03	
ANNUAL SEVEN-DAY MINIMUM	.58		.13		.04	
INSTANTANEOUS PEAK FLOW			706		1010	
INSTANTANEOUS PEAK STAGE			4.88		5.14	
ANNUAL RUNOFF (CFSM)	1.95		1.57		1.79	
ANNUAL RUNOFF (INCHES)	26.54		21.33		24.30	
10 PERCENT EXCEEDS	6.3		3.5		5.5	
50 PERCENT EXCEEDS	1.4		.81		1.1	
90 PERCENT EXCEEDS	.60		.29		.27	

e Estimated

WABASH RIVER BASIN

03353636 LITTLE BUCK CREEK AT SOUTHPORT, IN

LOCATION.--Lat 39°39'54", long 86°08'11", in SW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.7, T.14 N., R.4 E., Marion County, Hydrologic Unit 05120201, on left bank 50 ft downstream from Southport Road bridge in Indianapolis.  
 DRAINAGE AREA.--12.3 mi<sup>2</sup>.  
 PERIOD OF RECORD.--October 1989 to current year.  
 GAGE.--Water-stage recorder. Datum of gage is 725.50 ft above sea level.  
 REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	6.5	11	e5.6	e13	9.2	4.8	24	1.6	5.4	1.0	1.1
2	22	5.6	14	e6.0	e10	9.4	4.6	13	e1.4	5.8	.98	.91
3	10	6.0	18	e6.6	e8.4	8.8	8.3	9.4	e1.3	8.0	.91	.96
4	7.1	6.0	136	e6.0	e7.0	8.9	6.4	7.9	e1.2	4.4	2.5	1.3
5	5.2	5.8	62	e5.6	e6.2	8.6	10	6.7	e1.1	3.2	1.9	1.9
6	4.2	5.4	33	e5.2	e5.6	8.3	35	7.9	e1.0	2.6	1.2	1.9
7	3.9	5.1	21	e5.0	e5.2	8.1	29	47	e.98	2.4	1.0	1.0
8	3.6	4.7	16	e4.7	e4.9	7.7	20	23	e1.1	3.4	.88	.78
9	40	4.5	13	e4.5	e4.7	7.5	17	13	e.92	4.1	.80	.69
10	16	4.2	12	e4.3	e4.5	7.9	322	9.0	e.80	2.4	.72	.67
11	10	4.3	9.8	e4.6	e4.4	7.5	292	7.8	e.70	1.8	2.1	.67
12	8.4	4.6	8.5	e5.0	e4.2	6.8	106	8.5	e1.7	1.5	1.1	.68
13	7.0	94	8.2	e4.2	e4.7	7.3	50	6.0	e9.8	74	.98	.71
14	6.0	956	25	e3.7	e5.4	7.6	31	6.2	e5.8	23	1.9	.55
15	5.1	149	30	e3.4	e6.2	7.1	60	7.5	e3.5	7.9	1.3	.41
16	5.0	63	18	e3.2	e7.6	6.1	31	5.4	e2.0	4.4	.97	.53
17	6.7	379	14	e3.2	9.1	5.7	18	4.4	1.4	3.3	.86	.87
18	6.0	93	18	e3.1	9.5	6.3	13	3.9	1.3	2.5	.81	.71
19	12	49	15	e3.0	12	5.6	10	3.5	2.3	2.1	.73	.81
20	39	31	20	e2.9	22	5.7	8.1	3.3	5.2	1.8	1.2	.68
21	42	22	28	e2.8	19	7.7	7.5	3.0	2.9	3.9	1.4	.61
22	18	17	18	e2.7	16	6.2	6.9	2.8	1.7	2.2	.97	.92
23	12	14	14	e2.7	39	5.7	5.9	2.6	2.3	1.8	.80	5.2
24	9.5	13	12	e11	27	7.1	5.6	6.9	3.3	1.5	.79	8.9
25	8.0	16	e10	e90	17	5.5	5.3	9.3	2.3	1.3	.74	3.5
26	7.0	35	e8.8	58	12	5.3	5.0	4.2	164	1.2	.74	5.1
27	6.5	27	e7.4	157	9.9	9.0	8.5	3.0	92	2.8	.76	3.5
28	6.1	20	e6.6	193	8.9	7.1	13	2.4	20	1.4	2.3	1.6
29	5.9	15	e6.2	50	---	6.2	9.4	2.1	12	1.4	3.1	.99
30	6.6	12	e5.6	27	---	5.6	41	2.0	9.9	1.9	1.5	.74
31	7.4	---	e5.4	20	---	5.1	---	1.8	---	1.3	1.3	---
TOTAL	354.5	2067.7	624.5	704.0	303.4	220.6	1184.3	257.5	355.50	184.7	38.24	48.89
MEAN	11.4	68.9	20.1	22.7	10.8	7.12	39.5	8.31	11.8	5.96	1.23	1.63
MAX	42	956	136	193	39	9.4	322	47	164	74	3.1	8.9
MIN	3.6	4.2	5.4	2.7	4.2	5.1	4.6	1.8	.70	1.2	.72	.41
CFSM	.93	5.60	1.64	1.85	.88	.58	3.21	.68	.96	.48	.10	.13
IN.	1.07	6.25	1.89	2.13	.92	.67	3.58	.78	1.08	.56	.12	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994
MEAN	8.35	31.6	24.2	18.8	21.7	25.9	29.6	18.3	12.5	21.4	5.82	5.84			
MAX	14.0	68.9	72.5	32.2	48.1	53.8	39.5	58.3	26.6	70.6	12.9	17.8			
(WY)	1991	1994	1991	1993	1990	1991	1994	1990	1992	1992	1990	1993			
MIN	3.48	11.6	4.99	8.27	7.78	7.12	16.6	5.95	1.68	1.55	1.23	.36			
(WY)	1990	1991	1990	1992	1992	1994	1990	1993	1991	1991	1994	1991			

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1990 - 1994

ANNUAL TOTAL	8201.0	6343.83		
ANNUAL MEAN	22.5	17.4	18.6	
HIGHEST ANNUAL MEAN			19.9	1991
LOWEST ANNUAL MEAN			17.4	1994
HIGHEST DAILY MEAN	956	Nov 14	956	Nov 14
LOWEST DAILY MEAN	1.0	May 28	.41	Sep 15
ANNUAL SEVEN-DAY MINIMUM	1.7	May 23	.60	Sep 10
INSTANTANEOUS PEAK FLOW			1590	Nov 14
INSTANTANEOUS PEAK STAGE			10.63	Nov 14
ANNUAL RUNOFF (CFSM)	1.83		1.41	
ANNUAL RUNOFF (INCHES)	24.80		19.19	20.57
10 PERCENT EXCEEDS	42		28	36
50 PERCENT EXCEEDS	11		5.8	7.0
90 PERCENT EXCEEDS	2.7		.98	1.2

e Estimated

WABASH RIVER BASIN

03353637 LITTLE BUCK CREEK NEAR INDIANAPOLIS, IN

LOCATION.--Lat 39°40'00", long 86°11'48", in SW<sup>1</sup>/<sub>4</sub>/SW<sup>1</sup>/<sub>4</sub>, sec.10, T.14 N., R.3 E., Marion County, Hydrologic Unit 05120201, on right bank, 10 ft upstream from bridge on South Belmont Street, and 2.2 mi above mouth.

DRAINAGE AREA.--16.6 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 666.20 above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	6.5	17	e9.8	23	13	6.4	43	4.6	11	2.0	1.3
2	32	6.5	20	e10	20	14	6.2	29	4.2	11	2.0	.97
3	9.4	7.0	24	e11	17	13	12	24	4.0	17	1.9	.82
4	8.8	6.9	145	e10	14	13	9.4	20	3.9	8.7	6.9	.91
5	6.4	6.5	72	e9.5	13	12	11	18	3.7	6.3	3.8	1.8
6	5.1	5.6	41	e9.1	12	12	38	19	3.5	5.2	2.7	1.7
7	4.5	5.3	30	e8.3	11	11	37	64	3.2	4.7	2.0	1.3
8	4.1	5.3	26	e7.5	10	11	27	41	3.0	5.2	1.8	.82
9	64	5.7	23	e7.0	10	10	22	29	3.0	7.6	1.6	.57
10	30	6.1	22	e6.6	7.7	11	401	23	2.7	4.8	1.5	.39
11	16	8.7	18	e6.9	7.0	10	378	19	2.3	3.8	4.2	.27
12	11	9.3	16	e7.2	7.0	9.1	153	22	20	3.2	2.5	.10
13	8.4	131	15	e7.0	7.5	9.5	70	16	28	117	1.8	.05
14	6.6	1220	26	e5.8	e8.4	10	46	16	8.6	39	3.1	.01
15	5.5	239	34	e4.9	e9.6	9.3	87	19	4.9	17	2.0	.00
16	4.9	86	26	e4.7	e11	7.9	55	15	3.5	9.0	1.6	.00
17	6.5	505	22	e4.6	13	7.1	37	12	2.8	6.6	1.4	.00
18	5.8	119	25	e4.6	14	7.9	31	11	2.4	5.2	1.4	.00
19	16	63	23	e4.6	17	7.3	27	9.4	4.8	4.2	1.3	.00
20	45	41	24	e4.5	27	6.6	24	8.8	11	3.7	1.5	.00
21	71	32	33	e4.5	26	10	23	7.6	8.5	9.0	2.4	.00
22	30	27	25	e4.5	22	8.3	21	7.1	3.8	4.8	1.5	.00
23	17	24	22	e5.0	41	7.0	e19	6.5	5.3	3.5	1.3	3.8
24	12	23	20	17	39	9.3	e17	7.4	7.1	3.1	1.1	19
25	9.2	24	18	101	25	7.3	16	26	4.5	2.7	1.0	5.4
26	7.4	38	e14	70	20	6.5	15	11	141	2.4	.90	7.3
27	6.4	33	e13	171	15	12	23	7.9	150	6.0	.86	5.5
28	5.7	28	e11	225	13	9.6	28	6.3	34	3.2	2.0	2.2
29	5.5	24	e10	65	---	8.2	25	5.6	26	2.3	4.7	1.3
30	6.5	20	e9.7	40	---	7.4	58	5.3	21	3.2	1.9	.95
31	7.9	---	e9.1	30	---	6.6	---	5.0	---	2.4	1.7	---
TOTAL	482.6	2756.4	833.8	876.6	460.2	296.9	1723.0	553.9	525.3	332.8	66.36	56.46
MEAN	15.6	91.9	26.9	28.3	16.4	9.58	57.4	17.9	17.5	10.7	2.14	1.88
MAX	71	1220	145	225	41	14	401	64	150	117	6.9	19
MIN	4.1	5.3	9.1	4.5	7.0	6.5	6.2	5.0	2.3	2.3	.86	.00
CF8M	.94	5.53	1.62	1.70	.99	.58	3.46	1.08	1.05	.65	.13	.11
IN.	1.08	6.18	1.87	1.96	1.03	.67	3.86	1.24	1.18	.75	.15	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994		
MEAN	11.8	45.1	32.6	27.3	28.3	34.7	41.1	24.7	18.9	28.6	8.71	8.59
MAX	20.6	91.9	99.4	50.1	54.5	68.0	57.4	66.9	34.7	85.7	18.3	28.6
(WY)	1991	1994	1991	1993	1990	1991	1994	1990	1992	1992	1990	1993
MIN	6.15	17.2	8.16	10.4	10.0	9.58	22.5	9.22	4.99	2.67	1.35	.13
(WY)	1990	1992	1990	1992	1992	1994	1990	1992	1991	1991	1991	1991

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1990 - 1994

ANNUAL TOTAL	12089.3	8964.32	
ANNUAL MEAN	33.1	24.6	25.8
HIGHEST ANNUAL MEAN			30.3
LOWEST ANNUAL MEAN			22.9
HIGHEST DAILY MEAN	1220	Nov 14	1390
LOWEST DAILY MEAN	2.5	Aug 9	.00
ANNUAL SEVEN-DAY MINIMUM	3.3	Aug 5	.00
INSTANTANEOUS PEAK FLOW			2300
INSTANTANEOUS PEAK STAGE			11.21
ANNUAL RUNOFF (CF8M)	2.00	1.48	1.56
ANNUAL RUNOFF (INCHES)	27.09	20.09	21.14
10 PERCENT EXCEEDS	64	39	50
50 PERCENT EXCEEDS	17	9.1	11
90 PERCENT EXCEEDS	5.3	1.7	2.4

e Estimated







WABASH RIVER BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSIS: October 1986 to current year.

WATER TEMPERATURE: September 1953 to April 1956, October 1966 to September 1967, May 1970 to September 1972, October 1977 to July 1980, October 1982 to June 1985.

SEDIMENT DISCHARGE: March 1965 to September 1977, October 1986 to current year (partial-record station).

EXTREMES FOR PERIOD OF RECORD.--Water temperature: Maximum, 33 °C July 3, 1970; minimum, -0.5 °C, several days during winters.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	TUR-BID-ITY (NTU) (00076)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)
NOV 03...	1230	1100	914	7.7	13.0	10.5	757	11.3	102	1.0	870
JAN 13...	1410	1580	844	8.1	-1.0	4.5	753	12.5	98	1.9	480
MAR 30...	1240	1440	828	8.0	7.0	10.5	757	14.6	133	0.9	K17
MAY 17...	1720	1800	708	7.9	21.0	20.0	758	13.6	151	6.5	150
AUG 10...	1520	465	1110	8.6	27.0	25.0	757	--	--	1.0	83
SEP 06...	1530	525	1180	7.5	23.0	22.0	754	7.7	89	1.0	610

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	HARD-NESS NONCARB DISSOLV FLD. AS CaCO3 (MG/L) (00904)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD (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)
NOV 03...	65	350	78	91	29	63	4.2	270	269	328
JAN 13...	280	340	53	90	27	48	4.1	280	283	345
MAR 30...	K2	320	58	82	27	60	3.8	260	258	315
MAY 17...	63	280	44	74	24	39	3.3	240	239	292
AUG 10...	E22	300	63	74	29	110	6.5	240	240	286
SEP 06...	23	310	67	77	28	110	7.7	240	241	294

DATE	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
NOV 03...	0	97	82	0.5	7.4	553	549	1640	0.02	2.7
JAN 13...	0	73	69	0.3	7.6	531	503	2270	0.03	2.9
MAR 30...	0	87	77	0.3	1.4	516	506	2010	0.06	2.5
MAY 17...	0	64	57	0.3	2.7	425	421	2070	0.06	2.8
AUG 10...	4	130	130	0.5	0.4	647	638	812	0.10	2.5
SEP 06...	0	140	140	0.6	8.8	707	679	1000	0.20	4.2

WABASH RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
NOV 03...	0.06	0.6	0.53	0.51	0.51	10	66	<3	43	13
JAN 13...	0.14	0.6	0.31	0.27	0.28	<10	68	<3	49	5
MAR 30...	0.13	0.9	0.46	0.36	0.34	--	--	--	--	--
MAY 17...	0.03	1.0	0.24	0.12	0.13	40	59	<3	18	<4
AUG 10...	0.02	2.1	0.91	0.65	0.66	--	--	--	--	--
SEP 06...	0.39	1.4	0.97	0.89	0.90	10	57	<3	19	10

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 03...	45	10	3	<1	<1	280	<6	7	21	38
JAN 13...	44	<10	3	<1	<1	270	<6	20	85	57
MAR 30...	--	--	--	--	--	--	--	16	62	49
MAY 17...	13	<10	2	<1	<1	220	<6	35	170	73
AUG 10...	--	--	--	--	--	--	--	15	19	27
SEP 06...	72	20	7	<2	<1	280	<6	23	32	33

## WABASH RIVER BASIN

03357000 WHITE RIVER AT SPENCER, IN

LOCATION.--Lat 39°16'49", long 86°45'42", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.29, T.10 N., R. 3 W., Owen County, Hydrologic Unit 05120202, on right bank at downstream side of county road bridge at the south edge of Spencer, 3.3 mi upstream from McBrides Creek, and at mile 165.9.

DRAINAGE AREA.--2,980 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1925 to September 1971 (discharge), October 1971 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 526.04 ft above sea level. Prior to Dec. 26, 1940, nonrecording gage at same site and datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 23.99 ft Jan. 1, 1991; minimum gage height, 0.88 ft Sept. 25, 30, and Oct. 1, 1941.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 28.5 ft Mar. 26, 1913, from flood marks.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 23.77 ft Nov. 16; minimum gage height, 2.54 ft Sept. 22 and 23.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.25	4.37	8.81	6.03	---	6.31	4.59	8.93	4.47	4.86	3.13	3.35
2	10.79	4.28	8.53	6.05	10.03	6.31	4.52	7.94	4.33	4.67	3.10	3.28
3	7.58	4.26	8.75	6.17	8.94	6.15	4.66	7.18	4.25	5.55	3.09	3.18
4	6.09	4.17	13.04	5.97	8.03	6.10	4.79	6.67	4.13	4.70	3.21	3.04
5	5.35	4.05	14.91	5.89	7.51	6.02	4.75	6.20	4.01	4.55	3.39	2.99
6	4.96	4.07	13.70	5.78	7.13	6.29	5.55	6.23	3.94	4.13	3.52	2.98
7	4.65	3.91	12.86	5.80	6.85	6.26	6.72	9.71	3.90	4.21	3.34	2.97
8	4.45	3.84	10.68	5.60	6.87	6.50	6.35	10.27	3.93	4.21	3.15	2.90
9	8.37	3.78	9.41	5.54	6.81	6.51	6.60	8.69	3.86	3.98	3.06	2.86
10	7.71	3.85	8.77	5.43	6.29	6.40	15.48	7.71	3.87	3.91	2.98	2.82
11	6.33	3.81	8.29	5.41	6.06	6.25	19.53	6.88	3.77	3.88	2.99	2.77
12	5.70	3.82	7.77	5.54	5.92	5.92	20.24	6.66	3.75	3.75	4.01	2.72
13	5.29	6.15	7.53	5.48	5.82	5.89	19.86	6.46	5.06	3.85	3.66	2.70
14	4.94	19.07	7.41	5.27	5.92	5.87	18.97	6.35	4.57	4.48	3.44	2.66
15	4.68	22.74	8.57	5.11	6.57	5.85	18.01	7.71	4.14	3.84	3.55	2.65
16	4.52	23.47	9.07	5.54	7.10	5.69	15.07	6.53	3.97	3.62	3.23	2.63
17	4.39	23.11	8.56	7.93	7.51	5.71	11.45	5.92	3.83	3.47	3.11	2.61
18	4.50	23.60	8.10	7.63	7.89	5.55	9.93	5.53	3.74	3.42	3.03	2.58
19	4.59	23.18	7.90	7.02	8.17	5.36	8.94	5.27	3.76	3.38	2.97	2.58
20	7.38	22.04	7.68	7.57	9.03	5.29	8.17	5.08	3.93	3.30	2.95	2.56
21	9.13	20.91	8.08	7.39	9.42	5.21	7.61	4.94	3.75	3.32	2.91	2.55
22	9.08	19.22	8.02	7.47	8.83	5.21	7.22	4.80	3.67	3.53	3.18	2.54
23	8.71	14.33	7.86	7.29	9.91	5.02	6.77	4.68	3.55	3.41	3.06	2.77
24	7.41	11.19	7.39	5.38	9.40	4.94	6.47	4.59	3.65	3.26	2.98	3.20
25	5.74	10.23	7.13	7.94	8.31	4.93	6.28	5.20	3.57	3.22	2.89	3.79
26	5.25	11.76	6.98	11.46	7.61	4.87	6.03	5.33	4.06	3.19	2.86	3.42
27	4.91	12.38	6.71	14.47	7.01	4.97	6.06	5.82	8.14	3.16	2.81	3.21
28	4.71	11.60	6.45	17.67	6.63	5.06	6.13	5.53	5.75	3.11	2.97	3.10
29	4.55	10.29	6.25	19.36	---	4.87	6.57	5.08	4.77	3.10	3.75	2.97
30	4.44	9.55	6.08	19.02	---	4.85	7.53	4.82	5.01	3.19	3.61	2.90
31	4.46	---	6.01	18.55	---	4.69	---	4.63	---	3.26	3.27	---
MEAN	6.03	11.43	8.62	8.28	---	5.64	9.36	6.37	4.24	3.79	3.20	2.91
MAX	10.79	23.60	14.91	19.36	---	6.51	20.24	10.27	8.14	5.55	4.01	3.79
MIN	4.39	3.78	6.01	5.11	---	4.69	4.52	4.59	3.55	3.10	2.81	2.54

CAL YR 1993 MEAN 8.12 MAX 23.60 MIN 3.30

WARASH RIVER BASIN

03357350 PLUM CREEK NEAR BAINBRIDGE, IN

LOCATION.--Lat 39°45'42", long 86°43'46", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.3, T.15 N., R.3 W., Putnam County, Hydrologic Unit 05120203, on right upstream wingwall of bridge on U.S. Highway 36, 0.5 mi west of Groveland, and 4.5 mi east of Bainbridge.

DRAINAGE AREA.--3.00 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	.96	4.9	e1.0	e3.0	e1.4	e.92	5.1	.56	.73	.14	e.07
2	2.1	.84	9.1	e1.1	e2.0	e1.6	e.90	3.6	.52	33	e.13	e.00
3	1.6	1.0	8.1	e1.0	e1.6	1.9	e1.0	2.8	.50	10	e.12	e.00
4	1.5	.99	19	e.94	e1.3	2.4	e.90	2.5	.49	4.3	e.11	e.00
5	1.1	.99	9.9	e.90	e1.2	2.6	e.96	2.2	.47	2.0	e.12	e.00
6	.93	.80	7.1	e.82	e1.1	2.7	e1.1	2.6	.45	1.3	e.14	e.00
7	.84	.75	5.7	e.86	e1.0	2.9	e1.2	10	.44	.95	e.11	e.00
8	.82	.84	5.0	e.62	e.90	2.5	e1.4	7.3	.44	.77	e.12	e.00
9	27	.94	4.6	e.58	e.82	2.3	e1.5	5.4	.47	.62	e.13	e.00
10	10	.78	4.2	e.56	e.76	1.9	48	4.2	.44	.45	e.09	e.00
11	7.0	.81	2.9	e.58	e.72	1.6	86	6.9	.42	.38	e.10	e.00
12	5.4	.88	2.7	e.60	e.70	1.5	24	9.6	53	.33	e.11	e.00
13	3.6	9.6	2.5	e.64	e.68	1.7	12	4.8	30	.28	e.12	e.00
14	2.8	209	5.2	e.45	e.66	1.7	9.0	3.7	6.3	.26	e.14	e.00
15	2.2	22	6.9	e.34	e.90	1.6	7.9	3.0	3.5	.24	e.15	e.00
16	2.1	11	5.2	e.36	e1.5	1.2	6.5	2.0	1.9	.20	e.10	e.00
17	2.6	74	4.6	e.38	e2.5	1.2	5.4	1.7	1.3	.26	e.08	e.00
18	1.9	14	4.8	e.37	4.6	1.3	4.8	1.4	.93	.19	e.07	e.00
19	1.7	8.6	4.4	e.36	5.7	e1.1	4.2	1.3	.74	.17	e.06	e.00
20	2.3	6.4	5.4	e.38	5.7	e1.0	3.4	1.1	.65	.16	e.09	e.00
21	3.3	5.0	5.8	e.40	4.5	e1.1	3.4	.98	.61	.18	e.13	e.00
22	2.4	4.1	4.6	e.42	3.2	e.98	2.9	.86	.56	.17	e.09	e.00
23	1.9	3.7	3.6	e.45	4.3	e1.0	2.5	.77	.54	.16	e.06	e.00
24	1.8	3.0	e2.8	e1.0	3.6	e.98	2.5	1.6	.56	.16	e.05	e.06
25	3.0	12	e2.2	e2.5	2.2	e.96	2.3	3.8	.54	.15	e.04	e.00
26	1.7	24	e1.8	e20	e1.6	e1.0	2.0	2.0	16	.26	e.03	e.01
27	1.3	11	e1.4	e8.8	e1.4	e1.1	2.1	1.2	3.3	.17	e.03	e.00
28	1.3	7.4	e1.2	50	e1.3	e1.0	2.8	.98	1.4	.15	e.04	e.00
29	1.1	5.6	e1.1	8.2	---	e.98	2.6	.85	1.2	.15	e.01	e.00
30	1.1	4.7	e1.0	5.4	---	e.96	5.1	.73	1.2	.14	e.00	e.00
31	1.4	---	e.94	4.0	---	e.94	---	.63	---	.14	e.03	---
TOTAL	100.89	445.68	148.64	114.01	59.44	47.10	249.28	95.60	129.43	58.42	2.74	0.14
MEAN	3.25	14.9	4.79	3.68	2.12	1.52	8.31	3.08	4.31	1.88	.088	.005
MAX	27	209	19	50	5.7	2.9	86	10	53	33	.15	.07
MIN	.82	.75	.94	.34	.66	.94	.90	.63	.42	.14	.00	.00
CFSM	1.08	4.95	1.60	1.23	.71	.51	2.77	1.03	1.44	.63	.03	.00
IN.	1.25	5.53	1.84	1.41	.74	.58	3.09	1.19	1.60	.72	.03	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1994, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	1.31	4.50	5.39	3.74	5.89	6.85	5.58	3.81	2.07	2.56	1.33	1.24														
MAX	5.80	20.6	18.4	13.5	17.1	19.1	10.7	16.1	6.53	12.9	7.90	12.8														
(WY)	1987	1986	1991	1974	1971	1978	1992	1981	1973	1979	1979	1989														
MIN	.000	.019	.011	.000	.76	1.46	.92	.14	.007	.019	.001	.000														
(WY)	1989	1977	1977	1977	1978	1981	1971	1976	1988	1988	1991	1988														

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1969 - 1994

ANNUAL TOTAL	2054.85	1451.37	
ANNUAL MEAN	5.63	3.98	3.67
HIGHEST ANNUAL MEAN			5.71
LOWEST ANNUAL MEAN			1.60
HIGHEST DAILY MEAN	209	209	218
LOWEST DAILY MEAN	.16	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.17	.00	.00
INSTANTANEOUS PEAK FLOW		438	940
INSTANTANEOUS PEAK STAGE		4.46	6.50
ANNUAL RUNOFF (CFSM)	1.88	1.33	1.22
ANNUAL RUNOFF (INCHES)	25.48	18.00	16.61
10 PERCENT EXCEEDS	9.6	7.0	7.6
50 PERCENT EXCEEDS	2.7	1.1	1.0
90 PERCENT EXCEEDS	.60	.06	.02

e Estimated





## WABASH RIVER BASIN

03359000 MILL CREEK NEAR MANHATTAN, IN

LOCATION.--Lat 39°29'16", long 86°55'30", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.11, T.12 N., R.5 W., Putnam County, Hydrologic Unit 05120203, on left bank 0.3 mi upstream from Cagles Mill Dam, 0.4 mi downstream from Cagles Mill Lake, 1.3 mi upstream from Deer Creek, 5.0 mi south of Manhattan, and at mile 2.3.

DRAINAGE AREA.--294 mi<sup>2</sup>.

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

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

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

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

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

AVERAGE DISCHARGE.--56 years (1938 to current year), 322 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,960 ft<sup>3</sup>/s, Jan. 5, 1950, gage height, 18.38 ft; no flow Aug. 7, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,940 ft<sup>3</sup>/s Dec. 28; minimum daily, 19 ft<sup>3</sup>/s Aug. 19, 20, 27, 28, Sept. 18-23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	952	84	813	1870	89	269	102	1350	90	90	20	20
2	1200	84	778	1850	90	229	95	1330	90	90	20	20
3	749	193	406	1830	509	184	82	1320	90	162	20	20
4	112	295	175	1810	1280	205	83	1300	90	342	20	20
5	112	64	111	1790	1440	205	83	1280	77	349	20	20
6	112	64	111	1770	1420	234	125	1260	70	124	20	20
7	156	65	244	1750	1410	251	345	769	70	100	20	20
8	950	76	519	1730	1390	251	620	379	75	104	20	20
9	821	83	829	1700	1370	217	549	649	463	98	20	20
10	656	83	1070	1680	1350	149	201	903	644	77	20	20
11	1090	83	1240	1660	1330	149	108	1040	638	69	20	20
12	1520	83	1420	1630	1310	184	110	898	632	56	20	20
13	1670	195	1510	1610	1290	204	114	348	765	50	20	20
14	1640	149	1500	1580	1200	181	116	208	925	77	20	20
15	1740	88	1670	1550	1040	133	117	208	1050	160	20	20
16	1800	95	1790	1530	1030	133	118	174	971	154	20	20
17	1770	99	1780	1500	897	133	170	104	396	76	20	20
18	1740	102	1770	1290	652	144	448	104	104	69	20	19
19	1700	104	1770	793	308	167	862	104	95	63	19	19
20	1340	106	1760	550	327	167	1160	104	89	50	19	19
21	524	106	1750	227	672	166	1240	104	89	50	20	19
22	256	107	1740	64	753	166	1230	104	89	50	20	19
23	279	107	1730	64	616	151	1220	104	89	50	20	19
24	278	271	1760	65	619	120	1210	86	149	40	20	20
25	276	599	1850	68	618	120	1190	50	209	33	20	20
26	426	251	1830	76	390	120	1260	366	124	33	20	20
27	364	109	1900	79	205	120	1410	300	284	33	19	20
28	205	109	1940	83	245	120	1390	89	421	33	19	20
29	129	109	1930	86	---	120	1370	89	349	27	20	20
30	83	437	1910	88	---	120	1360	90	151	20	20	25
31	84	---	1890	89	---	110	---	90	---	20	20	---
TOTAL	24734	4400	41496	32462	23850	5222	18488	15304	9378	2749	616	599
MEAN	798	147	1339	1047	852	168	616	494	313	88.7	19.9	20.0
MAX	1800	599	1940	1870	1440	269	1410	1350	1050	349	20	25
MIN	83	64	111	64	89	110	82	50	70	20	19	19

CAL YR 1993 TOTAL 229435 MEAN 629 MAX 1940 MIN 20  
WTR YR 1994 TOTAL 179298 MEAN 491 MAX 1940 MIN 19





WABASH RIVER BASIN

03360895 KESSINGER DITCH NEAR MONROE CITY, IN

LOCATION.--Lat 38°34'14", long 87°16'37", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.27 T.2N., R.8W., Knox County, Hydrologic Unit 05120202 on left bank at county road bridge 1.7 miles upstream of the confluence with White River, and approximately 4.7 miles southeast of Monroe City.

DRAINAGE AREA.--58 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 413 ft, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Stage affected by backwater from White River during times of flood (at approximately 25,000 ft<sup>3</sup>/s).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	72	17	e94	33	20	e250	7.0	e4.1	e3.9	54
2	145	15	66	20	e80	34	19	e96	37	e4.8	e3.3	5.1
3	59	16	150	19	e71	28	24	e70	14	e5.6	e2.8	2.8
4	30	18	955	19	e63	28	22	e49	8.7	e4.9	e3.8	2.3
5	21	18	467	15	e58	24	25	e40	7.6	e4.5	e6.3	90
6	16	15	e150	17	e53	23	85	e36	7.5	e12	e4.8	66
7	14	13	e100	30	e49	22	59	435	6.9	e9.4	e3.6	7.1
8	13	12	e80	15	46	19	36	180	6.6	e7.4	e3.3	3.6
9	110	11	e66	14	76	20	32	e80	7.0	e11	e3.0	2.9
10	135	11	e56	14	50	23	746	e60	8.5	e7.8	e3.3	2.6
11	40	12	e48	16	31	22	e410	e45	5.3	e5.6	e3.0	2.6
12	28	12	e42	45	26	19	e230	e38	5.1	e5.2	e2.9	2.7
13	22	105	38	34	24	19	e110	32	43	e5.8	e2.9	2.7
14	17	1570	56	22	21	20	e84	116	9.4	e6.6	e3.3	2.7
15	15	2240	61	e15	23	19	e64	165	6.4	e5.8	e2.8	2.8
16	15	e1100	42	7.8	21	15	e52	58	5.2	e5.2	e2.6	2.6
17	28	e1400	36	e7.6	22	14	e46	35	5.1	e4.7	e2.4	3.1
18	25	e950	37	e7.3	24	17	e41	27	4.8	e4.2	e2.6	2.9
19	39	e500	33	e7.2	27	13	e36	22	4.3	e3.8	2.9	2.8
20	116	e250	32	e7.1	65	14	e33	19	4.0	e3.3	3.9	2.7
21	88	e200	34	e7.0	57	17	e30	17	4.0	e13	9.8	2.8
22	46	e170	28	e7.4	90	15	27	15	3.6	e6.6	4.5	2.8
23	34	e150	e22	25	486	13	24	14	62	e3.6	2.6	3.9
24	29	e130	e21	153	116	55	23	13	10	e3.4	2.2	4.3
25	24	e120	e19	755	69	26	21	12	7.3	e3.1	2.1	4.3
26	22	e110	e17	429	41	21	20	12	37	e2.9	2.1	4.0
27	19	e100	e16	841	33	92	182	9.3	18	e3.2	2.3	4.0
28	18	e94	e15	1260	32	41	242	8.3	7.7	e3.5	3.0	3.5
29	18	e88	e16	794	---	28	145	8.1	6.0	e6.8	79	3.1
30	16	e80	e15	e300	---	23	771	7.6	e4.9	e5.8	9.9	3.1
31	21	---	e14	e120	---	21	---	7.6	---	e4.8	25	---
TOTAL	1240	9527	2804	5040.4	1848	778	3659	1976.9	363.9	178.4	209.9	299.8
MEAN	40.0	318	90.5	163	66.0	25.1	122	63.8	12.1	5.75	6.77	9.99
MAX	145	2240	955	1260	486	92	771	435	62	13	79	90
MIN	13	11	14	7.0	21	13	19	7.6	3.6	2.9	2.1	2.3
CFSM	.69	5.48	1.56	2.80	1.14	.43	2.10	1.10	.21	.10	.12	.17
IN.	.80	6.11	1.80	3.23	1.19	.50	2.35	1.27	.23	.11	.13	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994
MEAN	21.8	193	61.6	155	64.2	65.8	137	64.8	16.5	10.3	11.1	47.9
MAX	40.0	318	90.5	163	66.0	106	151	65.8	20.9	14.8	15.4	85.9
(WY)	1994	1994	1994	1994	1994	1993	1993	1993	1993	1993	1993	1993
MIN	3.65	67.6	32.7	146	62.4	25.1	122	63.8	12.1	5.75	6.77	9.99
(WY)	1993	1993	1993	1993	1993	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1993 - 1994	
ANNUAL TOTAL	33872.6		27925.3			
ANNUAL MEAN	92.8		76.5		70.4	
HIGHEST ANNUAL MEAN					76.5	
LOWEST ANNUAL MEAN					64.3	
HIGHEST DAILY MEAN	2240		2240		2240	
LOWEST DAILY MEAN	2.0		2.1		2.0	
ANNUAL SEVEN-DAY MINIMUM	2.4		2.7		2.4	
INSTANTANEOUS PEAK FLOW			2580		2580	
INSTANTANEOUS PEAK STAGE			e20.24		20.24	
ANNUAL RUNOFF (CFSM)	1.60		1.32		1.21	
ANNUAL RUNOFF (INCHES)	21.73		17.91		16.49	
10 PERCENT EXCEEDS	222		124		148	
50 PERCENT EXCEEDS	27		19		20	
90 PERCENT EXCEEDS	4.0		3.2		3.1	

e Estimated  
a Backwater





WABASH RIVER BASIN

03361650 SUGAR CREEK AT NEW PALESTINE, IN

LOCATION.--Lat 39°42'51", long 85°53'08", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, sec.29, T.15 N., R.6 E., Hancock County, Hydrologic Unit 05120204, on left bank 10 ft downstream from bridge on County Road 450 West, 0.5 mi south of New Palestine, 3.1 mi upstream from Little Sugar Creek, and 37.3 mi upstream from mouth.

DRAINAGE AREA.--93.9 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	42	115	e64	e180	e65	35	160	28	46	e13	8.7
2	58	40	110	e64	e120	e64	35	149	25	36	e12	7.3
3	61	42	121	e62	e84	e65	38	99	23	53	e11	e6.5
4	70	39	422	e62	e70	e70	38	81	22	32	e13	6.0
5	50	40	607	60	e64	e76	39	70	21	26	e18	e6.4
6	40	39	540	58	e58	e78	72	70	21	22	e14	6.7
7	34	37	300	57	e46	e78	129	183	20	e21	e11	6.5
8	30	34	211	e40	e44	e72	155	241	19	e25	e10	e6.2
9	53	32	164	e41	e43	e66	135	172	18	e35	e9.4	5.8
10	106	31	140	e45	e42	e64	708	115	18	e25	e9.0	5.9
11	119	31	119	e48	e39	e60	982	89	17	e18	e8.8	8.8
12	78	30	102	49	e37	e56	1100	79	17	e16	e20	6.3
13	59	167	93	49	e37	e56	919	69	24	e88	e15	e6.4
14	49	1460	148	e31	e52	e60	556	64	24	e100	e20	6.1
15	42	1930	289	e30	e70	e58	357	64	23	e50	e17	5.5
16	38	1870	264	e28	e94	e50	261	57	19	e39	e15	5.2
17	38	1590	186	e25	e120	e45	191	50	17	e30	e13	5.6
18	36	1390	162	e21	e140	e48	145	46	16	e25	e12	5.9
19	37	1390	159	e20	e160	e46	120	43	15	e20	e11	3.9
20	65	736	160	e20	e200	e43	e99	41	14	e18	e10	3.5
21	213	408	193	e20	e220	e52	e85	39	13	e21	e9.8	4.1
22	266	300	174	e20	e180	50	76	37	12	e20	e9.0	4.3
23	155	233	138	e25	e220	47	69	35	e15	e18	e8.2	5.6
24	106	193	117	e60	e260	49	65	35	13	e15	e7.8	8.3
25	83	163	109	295	e160	45	61	56	13	e14	e7.0	8.6
26	69	203	e96	701	e100	42	57	55	108	e13	e6.4	9.2
27	59	241	e80	784	e78	46	55	48	86	e12	e6.0	9.0
28	54	209	e74	1030	e70	45	53	39	56	e11	e5.8	7.4
29	49	167	e68	e1100	---	42	53	35	50	e10	e17	6.2
30	47	134	e58	e840	---	38	89	32	98	e11	e12	5.4
31	46	---	e58	e430	---	36	---	30	---	e15	11	---
TOTAL	2261	13221	5577	6179	2988	1712	6777	2383	865	885	362.2	191.3
MEAN	72.9	441	180	199	107	55.2	226	76.9	28.8	28.5	11.7	6.38
MAX	266	1930	607	1100	260	78	1100	241	108	100	20	9.2
MIN	30	30	58	20	37	36	35	30	12	10	5.8	3.5
CFSM	.78	4.69	1.92	2.12	1.14	.59	2.41	.82	.31	.30	.12	.07
IN.	.90	5.24	2.21	2.45	1.18	.68	2.68	.94	.34	.35	.14	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1994, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	39.7	101	133	131	174	175	158	109	81.7	68.2	49.2	30.6															
MAX	309	441	352	345	439	413	279	321	232	241	306	314															
(WY)	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978															
MIN	4.14	10.4	9.11	5.35	35.7	35.0	30.0	23.4	8.47	9.21	4.06	3.42															
(WY)	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979															

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1968 - 1994	
ANNUAL TOTAL	58337		43401.5			
ANNUAL MEAN	160		119		104	
HIGHEST ANNUAL MEAN					150	
LOWEST ANNUAL MEAN					37.7	
HIGHEST DAILY MEAN	1930	Nov 15	1930	Nov 15	1930	Nov 15 1993
LOWEST DAILY MEAN	11	Sep 1	3.5	Sep 20	2.4	Oct 3 1983
ANNUAL SEVEN-DAY MINIMUM	17	Aug 5	4.6	Sep 16	3.0	Sep 10 1983
INSTANTANEOUS PEAK FLOW			2340		2340	
INSTANTANEOUS PEAK STAGE			10.08		10.34	
ANNUAL RUNOFF (CFSM)	1.70		1.27		1.11	
ANNUAL RUNOFF (INCHRS)	23.11		17.19		15.03	
10 PERCENT EXCEEDS	345		216		244	
50 PERCENT EXCEEDS	83		48		48	
90 PERCENT EXCEEDS	22		9.0		9.7	

e Estimated

WABASH RIVER BASIN

03361850 BUCK CREEK AT ACTON, IN

LOCATION.--Lat 39°39'25", long 85°57'27", in NW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, sec.15, T.14 N., R.5 E., Marion County, Hydrologic Unit 05120204, on left bank 30 ft downstream from McGregor Road bridge, 0.5 mi east of Acton, and 4.1 mi upstream from mouth.

DRAINAGE AREA.--78.8 mi<sup>2</sup>.

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

REVISED RECORDS.--WDR IN-79-1: 1969 (M).

GAGE.--Water-stage recorder. Datum of gage is 757.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor. Low flow is affected by regulation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	39	85	e42	123	54	29	225	19	72	4.9	13
2	104	33	83	e44	87	54	28	122	16	47	4.8	7.9
3	73	33	105	e44	e64	54	33	83	15	67	8.4	5.5
4	58	34	592	e42	e58	58	37	66	14	56	9.3	4.7
5	47	34	612	e40	e52	63	36	55	13	42	15	5.3
6	40	31	279	e36	e47	65	110	57	13	30	9.7	6.4
7	36	29	176	e35	e43	65	168	236	13	26	6.3	5.2
8	34	27	134	e34	e40	60	132	281	12	23	5.1	4.5
9	109	24	107	e31	e37	55	97	148	11	33	4.8	4.2
10	136	23	96	e30	e35	54	1280	96	10	20	4.5	4.0
11	93	23	80	e30	32	50	1240	71	9.8	15	7.4	3.9
12	67	23	67	e30	31	47	1300	71	10	13	23	3.9
13	54	373	62	e31	30	47	467	56	22	72	12	3.6
14	45	3570	120	e28	44	50	273	49	17	92	19	3.8
15	38	2830	264	e27	e60	49	257	52	12	39	14	3.7
16	36	994	168	e25	e84	43	229	43	9.8	24	7.9	3.7
17	37	1870	122	e24	e94	38	144	36	11	18	5.6	3.8
18	37	1370	116	e22	112	40	107	32	9.8	14	4.8	3.6
19	39	648	130	e21	134	39	88	29	9.9	12	4.5	3.5
20	87	339	114	e20	176	35	70	28	15	10	4.5	3.7
21	315	225	187	e20	189	44	60	26	24	30	5.1	3.0
22	183	173	135	e20	138	43	54	24	13	20	4.9	3.1
23	108	141	103	e20	196	37	47	22	10	13	4.4	4.3
24	80	119	84	e22	223	39	44	22	13	9.4	4.2	26
25	64	101	e75	e84	129	36	41	66	13	7.9	4.8	24
26	56	187	e64	469	86	32	38	57	271	6.8	4.1	16
27	49	215	e56	e300	66	41	42	41	366	6.0	4.0	17
28	45	161	e50	1640	58	42	43	29	117	5.5	9.0	11
29	41	124	e48	616	---	35	54	24	64	4.8	78	6.6
30	39	98	e44	271	---	31	127	21	110	5.7	24	5.1
31	42	---	e41	177	---	30	---	20	---	5.0	13	---
TOTAL	2292	13891	4399	4275	2468	1430	6675	2188	1263.3	839.1	331.0	214.0
MEAN	73.9	463	142	138	88.1	46.1	222	70.6	42.1	27.1	10.7	7.13
MAX	315	3570	612	1640	223	65	1300	281	366	92	78	26
MIN	34	23	41	20	30	30	28	20	9.8	4.8	4.0	3.0
CFSM	.94	5.88	1.80	1.75	1.12	.59	2.82	.90	.53	.34	.14	.09
IN.	1.08	6.56	2.08	2.02	1.17	.68	3.15	1.03	.60	.40	.16	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1994, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	34.5	105	122	114	145	161	138	102	66.8	73.3	41.9	23.4															
MAX	312	463	333	352	349	347	245	386	196	324	216	166															
(WY)	1987	1994	1991	1969	1971	1978	1972	1981	1974	1969	1979	1989															
MIN	4.08	6.90	8.11	4.09	18.8	27.8	18.5	17.4	6.04	5.97	3.74	2.42															
(WY)	1969	1972	1977	1977	1978	1969	1971	1976	1988	1991	1983	1983															

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1968 - 1994	
ANNUAL TOTAL	51076.9		40265.4			
ANNUAL MEAN	140		110		93.7	
HIGHEST ANNUAL MEAN					138	
LOWEST ANNUAL MEAN					36.7	
HIGHEST DAILY MEAN	3570	Nov 14	3570	Nov 14	3570	Nov 14 1993
LOWEST DAILY MEAN	7.4	Aug 10	3.0	Sep 21	.60	Oct 1 1967
ANNUAL SEVEN-DAY MINIMUM	9.4	Aug 5	3.5	Sep 16	1.7	Sep 16 1991
INSTANTANEOUS PEAK FLOW			6310	Nov 14	7140	Jul 20 1969
INSTANTANEOUS PEAK STAGE			14.44	Nov 14	14.99	Jul 20 1969
ANNUAL RUNOFF (CFSM)	1.78		1.40		1.19	
ANNUAL RUNOFF (INCHES)	24.11		19.01		16.15	
10 PERCENT EXCEEDS	292		187		209	
50 PERCENT EXCEEDS	70		40		34	
90 PERCENT EXCEEDS	26		5.3		6.0	

e Estimated



WABASH RIVER BASIN

03362500 SUGAR CREEK NEAR EDINBURGH, IN

LOCATION.--Lat 39°21'39", long 85°59'51", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, sec.29, T.11 N., R.5 E., Johnson County, Hydrologic Unit 05120204, on left bank 50 ft upstream from highway bridge in Camp Atterbury, 1.3 mi upstream from confluence with Blue River, 1.5 mi northwest of Edinburg, and at mile 1.3.

DRAINAGE AREA.--474 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1942 to current year. Prior to February 1943 monthly discharge only, published in WSP 1305. Prior to October 1977, published as "near Edinburg".

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 646.23 ft above sea level. Prior to Oct. 1, 1952, nonrecording gage on downstream side of old highway bridge, 100 ft downstream at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	418	309	593	e375	e1000	457	225	1480	211	449	98	65
2	1720	283	567	383	e720	432	220	999	198	315	89	64
3	1700	272	587	377	e590	421	229	720	188	360	88	55
4	832	272	1660	379	e520	415	240	568	183	380	90	48
5	594	269	3610	358	e480	423	239	478	174	284	113	48
6	445	260	2410	339	449	428	326	427	167	413	120	48
7	372	244	1580	344	423	428	752	944	164	1380	99	47
8	326	230	1150	e305	432	419	702	1820	159	532	86	46
9	626	220	921	e300	e440	394	591	1170	152	385	80	44
10	1320	213	805	e290	e365	389	2930	810	148	300	76	41
11	785	210	697	290	e340	363	6150	613	141	243	74	38
12	597	206	602	292	e325	345	7530	559	138	212	92	37
13	464	503	557	296	e317	337	5570	497	172	196	104	38
14	383	4210	565	284	395	345	2520	447	189	557	93	37
15	335	16800	1220	e230	729	348	1660	839	162	358	84	36
16	302	15000	1190	e185	812	332	1460	768	144	250	86	35
17	310	8210	908	e175	740	304	1070	519	135	207	74	34
18	346	8820	769	e165	703	306	838	436	127	179	66	32
19	358	6930	768	e155	769	301	708	384	128	162	63	31
20	796	3890	734	e152	922	279	587	349	116	148	60	30
21	3020	2040	897	e150	1090	284	510	322	119	143	61	31
22	1810	1400	890	e150	902	298	461	301	174	158	60	30
23	1010	1070	728	e165	1430	276	413	283	131	138	58	35
24	692	872	615	459	1550	271	382	271	153	122	56	65
25	560	738	e540	1300	1010	263	362	286	146	110	54	75
26	480	795	e470	2610	720	249	341	350	151	103	52	84
27	424	1050	e430	2650	552	265	334	306	1610	98	51	74
28	384	971	e390	6050	492	276	338	273	805	94	52	73
29	362	774	e370	6780	---	257	336	246	474	93	68	64
30	334	658	e360	3490	---	240	502	232	411	104	159	53
31	323	---	e363	1630	---	229	---	220	---	116	91	---
TOTAL	22428	77719	27946	31108	19217	10374	38526	17917	7370	8589	2497	1438
MEAN	723	2591	901	1003	686	335	1284	578	246	277	80.5	47.9
MAX	3020	16800	3610	6780	1550	457	7530	1820	1610	1380	159	84
MIN	302	206	360	150	317	229	220	220	116	93	51	30
CFSM	1.53	5.47	1.90	2.12	1.45	.71	2.71	1.22	.52	.58	.17	.10
IN.	1.76	6.10	2.19	2.44	1.51	.81	3.02	1.41	.58	.67	.20	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1994, BY WATER YEAR (WY)

	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
MEAN	136	391	530	709	812	953	845	634	412	330	182	125	
MAX	983	2591	1742	4000	2192	2281	2076	2011	1608	1564	1348	1295	
(WY)	1987	1994	1991	1950	1950	1961	1964	1981	1958	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 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1943 - 1994	
ANNUAL TOTAL	311158		265129			
ANNUAL MEAN	852		726			
HIGHEST ANNUAL MEAN					849	1950
LOWEST ANNUAL MEAN					160	1954
HIGHEST DAILY MEAN	16800	Nov 15	16800	Nov 15	19200	May 29 1956
LOWEST DAILY MEAN	68	Aug 10	30	Sep 20	9.2	Sep 18 1954
ANNUAL SEVEN-DAY MINIMUM	76	Aug 5	32	Sep 16	10	Sep 13 1954
INSTANTANEOUS PEAK FLOW			20500		27600	May 29 1956
INSTANTANEOUS PEAK STAGE			17.05		18.38	May 29 1956
ANNUAL RUNOFF (CFSM)	1.80		1.53		1.06	
ANNUAL RUNOFF (INCHES)	24.42		20.81		14.41	
10 PERCENT EXCEEDS	1690		1340		1150	
50 PERCENT EXCEEDS	470		340		208	
90 PERCENT EXCEEDS	169		66		45	

e Estimated



WABASH RIVER BASIN

03363900 FLATROCK RIVER AT COLUMBUS, IN

LOCATION.--Lat 39°14'06", long 85°55'36", in NE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.12, T.9 N., R.5 E., Bartholomew County, Hydrologic Unit 05120205, on left bank at downstream side of Bridge on U.S. Highway 31, 0.2 mi northwest of Columbus city limits, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--534 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 610.14 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	356	466	704	465	1100	536	281	1250	294	520	119	58
2	440	424	680	460	880	509	280	1120	278	440	114	56
3	1060	396	685	447	720	486	296	834	267	483	104	53
4	895	386	962	438	670	468	316	709	257	731	97	49
5	643	381	3990	426	630	465	315	639	248	620	103	50
6	491	368	3400	400	603	465	329	597	241	479	100	50
7	400	345	2300	370	570	466	451	759	240	488	95	48
8	349	317	1390	365	555	462	569	1550	238	535	93	47
9	365	300	1070	370	540	449	516	1190	227	469	88	44
10	697	290	913	383	525	444	2230	888	217	398	81	42
11	632	278	808	397	518	428	6240	736	207	340	75	41
12	530	272	711	386	515	414	8030	679	199	292	77	40
13	441	357	662	382	494	415	6660	636	216	271	78	38
14	377	1870	647	371	512	427	3630	596	360	454	86	36
15	330	7370	1070	290	1030	431	2140	636	316	628	80	34
16	304	11400	1130	270	964	425	1640	1080	263	439	74	34
17	337	9720	887	255	810	398	1310	806	231	334	68	36
18	624	10400	768	245	710	390	1080	658	224	278	64	35
19	699	8000	726	238	727	388	940	584	252	244	59	35
20	3080	4690	700	234	818	367	826	536	206	215	57	34
21	3870	2500	716	231	974	359	741	500	237	195	57	33
22	2950	1700	747	230	872	358	683	469	247	220	56	32
23	2020	1370	692	240	1110	341	631	442	223	282	55	36
24	1400	1170	633	310	1530	333	593	419	212	232	53	41
25	1070	1030	600	533	1150	326	569	406	205	187	51	42
26	879	931	540	2400	815	316	546	398	265	163	47	43
27	752	891	500	2440	649	324	531	385	2040	145	45	45
28	657	882	470	7160	579	336	517	359	1170	137	46	45
29	594	829	450	7830	---	325	501	336	732	134	48	50
30	541	752	440	4630	---	306	540	320	577	128	47	52
31	501	---	445	2020	---	290	---	310	---	123	56	---
TOTAL	28284	70085	30436	35216	21570	12447	43931	20827	10889	10604	2273	1279
MEAN	912	2336	982	1136	770	402	1464	672	363	342	73.3	42.6
MAX	3870	11400	3990	7830	1530	536	8030	1550	2040	731	119	58
MIN	304	272	440	230	494	290	280	310	199	123	45	32
CFSM	1.71	4.37	1.84	2.13	1.44	.75	2.74	1.26	.68	.64	.14	.08
IN.	1.97	4.88	2.12	2.45	1.50	.87	3.06	1.45	.76	.74	.16	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1994, BY WATER YEAR (WY)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	175	495	723	739	999	987	961	806	462	416	274	163															
MAX	912	2336	2092	1827	2524	2223	1768	2281	1100	1556	1296	837															
(WY)	1994	1994	1991	1969	1982	1978	1989	1968	1968	1979	1979	1989															
MIN	33.2	47.6	44.8	30.6	189	204	251	132	77.2	50.8	35.0	30.1															
(WY)	1992	1977	1977	1977	1992	1992	1976	1976	1988	1988	1988	1988															

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1968 - 1994	
ANNUAL TOTAL	315888		287841			
ANNUAL MEAN	865		789		598	
HIGHEST ANNUAL MEAN					842	
LOWEST ANNUAL MEAN					271	
HIGHEST DAILY MEAN	11400	Nov 16	11400	Nov 16	18200	Dec 31 1990
LOWEST DAILY MEAN	81	Aug 11	32	Sep 22	22	Oct 5 1967
ANNUAL SEVEN-DAY MINIMUM	86	Aug 6	34	Sep 16	23	Oct 1 1967
INSTANTANEOUS PEAK FLOW			12100		20000	
INSTANTANEOUS PEAK STAGE			13.91		15.87	
ANNUAL RUNOFF (CFSM)	1.62		1.48		1.12	
ANNUAL RUNOFF (INCHES)	22.01		20.05		15.21	
10 PERCENT EXCEEDS	1700		1270		1330	
50 PERCENT EXCEEDS	569		439		319	
90 PERCENT EXCEEDS	140		56		60	

• Estimated





WABASH RIVER BASIN

03365500 EAST FORK WHITE RIVER AT SEYMOUR, IN

LOCATION.--Lat 38°58'57", long 85°53'57", in NW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.7, T.6 N., R.6 E., Jackson County, Hydrologic Unit 05120206, on left bank 1,700 ft downstream from highway bridge, 1 mi north of Seymour, 9.5 mi downstream from Sand Creek, and at mile 214.6.

DRAINAGE AREA.--2,341 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1927 to current year. Yearly maximum discharge only for water years 1924-27 published in WSP 1305. Daily gage heights from May 1923 to September 1927 are available in the district office.

REVISED RECORDS.--WSP 743: 1928-29, 1931-32. WSP 783: 1934. WSP 873: 1938. WSP 1335: 1928(M), 1929-30, 1932-33(M), 1937(M), 1942. WSP 1435: 1949. WSP 1705: 1958. WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 550.67 ft above sea level. Oct. 1, 1927 to July 2, 1931, nonrecording gage 1,700 ft upstream at datum 7.61 ft higher. July 3, 1931 to July 16, 1934, nonrecording gage at site 100 ft downstream at present datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 21.0 ft, from information by Corps of Engineers and Indiana Department of Highways, discharge, 120,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2010	1940	3320	2140	9840	2770	1300	11000	1300	2010	648	539
2	1790	1840	3080	2140	5650	2600	1270	7650	1230	1860	626	476
3	3830	1730	3070	2130	4510	2470	1290	5200	1180	1780	598	443
4	4520	1650	4730	2110	3780	2360	1520	4000	1130	2150	584	419
5	3200	1620	13100	2040	3350	2270	1500	3530	1090	2210	577	405
6	2430	1580	15000	1970	3080	2230	1480	3130	1050	1730	580	400
7	1960	1530	12300	2090	2870	2200	2160	4650	1010	1860	585	391
8	1680	1440	8490	2220	2740	2180	2740	8430	1010	2770	562	383
9	1540	1370	5870	1890	3430	2130	2680	7040	1020	2030	538	375
10	2420	1310	4790	1810	3300	2080	6200	5160	956	1650	514	361
11	3200	1260	4200	1840	2610	2060	25600	3960	915	1410	495	351
12	2640	1240	3690	1850	2460	2020	28800	3340	874	1250	516	344
13	2190	1500	3330	1860	2380	1980	30200	3100	842	1170	662	338
14	1850	5020	3210	1820	2370	1990	24700	2800	906	1730	672	330
15	1610	22900	4630	e1500	2620	2000	13400	3690	1030	1990	581	324
16	1450	41500	5740	e1210	3510	1940	8640	5060	960	1630	528	316
17	1420	59800	5140	e1110	3610	1830	6720	3910	1060	1290	504	314
18	1880	53000	4270	e1030	3400	1770	5280	3040	838	1100	472	306
19	2110	39400	3860	e1000	3340	1850	4420	2610	795	995	456	305
20	4380	32800	3700	e970	3720	1750	3870	2350	764	920	439	306
21	11000	21800	3620	e960	4590	1660	3430	2180	724	869	457	305
22	12800	11500	3830	e1000	4540	1640	3130	2040	906	1230	495	302
23	11000	7560	3670	e1060	5480	1600	2870	1930	973	1360	444	305
24	7600	5850	3290	1520	7010	1530	2660	1850	850	1120	421	340
25	4790	4960	3030	2720	6330	1470	2500	1780	849	915	404	353
26	3720	4390	2840	7280	4790	1420	2380	1730	881	815	390	370
27	3140	4320	2650	10300	3650	1430	2360	1760	4240	754	380	405
28	2720	4470	2510	22700	3070	1530	2430	1660	6100	710	376	429
29	2430	4180	2350	30600	---	1510	2680	1530	3480	677	888	403
30	2220	3730	e2140	28700	---	1430	4970	1430	2410	673	649	379
31	2050	---	e2080	21300	---	1360	---	1360	---	652	573	---
TOTAL	111580	347190	147530	162870	112030	59060	203180	112900	41373	43310	16614	11017
MEAN	3599	11570	4759	5254	4001	1905	6773	3642	1379	1397	536	367
MAX	12800	59800	15000	30600	9840	2770	30200	11000	6100	2770	888	539
MIN	1420	1240	2080	960	2370	1360	1270	1360	724	652	376	302
CFSM	1.54	4.94	2.03	2.24	1.71	.81	2.89	1.56	.59	.60	.23	.16
IN.	1.77	5.52	2.34	2.59	1.78	.94	3.23	1.79	.66	.69	.26	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1994, BY WATER YEAR (WY)

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
MEAN	723	1665	2580	3838	4030	4602	4283	3224	2024	1583	954	647					
MAX	3599	11570	9245	19560	12290	10690	9211	9379	7164	6040	8795	4244					
(WY)	1994	1994	1928	1950	1950	1963	1944	1968	1947	1979	1979	1989					
MIN	162	182	207	192	373	299	356	264	394	199	148	136					
(WY)	1941	1935	1964	1977	1931	1941	1941	1941	1931	1941	1941	1941					

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1928 - 1994
ANNUAL TOTAL	1488215	1368654	
ANNUAL MEAN	4077	3750	2505
HIGHEST ANNUAL MEAN			4575
LOWEST ANNUAL MEAN			287
HIGHEST DAILY MEAN	59800	Nov 17	63500
LOWEST DAILY MEAN	544	Aug 11	86
ANNUAL SEVEN-DAY MINIMUM	588	Aug 6	93
INSTANTANEOUS PEAK FLOW			65200
INSTANTANEOUS PEAK STAGE			19.14
ANNUAL RUNOFF (CFSM)	1.74	1.60	1.07
ANNUAL RUNOFF (INCHES)	23.65	21.75	14.54
10 PERCENT EXCEEDS	7580	6490	5630
50 PERCENT EXCEEDS	2720	1980	1200
90 PERCENT EXCEEDS	988	457	295

e Estimated

WABASH RIVER BASIN

03366200 HARBERTS CREEK NEAR MADISON, IN

LOCATION.--Lat 38°46'55", long 85°29'08", in SW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, sec.14, T.4 N., R.9 E., Jefferson County, Hydrologic Unit 05120207, attached to 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<sup>2</sup>.  
 PERIOD OF RECORD.--August 1968 to current year.  
 GAGE.--Water-stage recorder. Datum of gage is 725.75 ft above sea level.  
 REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	7.2	8.6	e4.3	e10	5.3	4.6	82	.66	.70	.14	.33
2	.38	6.8	10	8.0	e8.0	5.3	4.0	27	.55	.52	.04	.20
3	.42	5.6	45	12	e6.6	4.7	14	15	.45	.67	.00	.07
4	.30	6.7	268	12	e5.9	4.1	14	9.8	.37	1.2	.00	.01
5	.25	14	106	7.2	e5.4	3.7	8.3	7.1	.31	.60	.03	.05
6	.22	9.3	34	10	e5.1	3.2	24	7.7	.31	.36	.18	.22
7	.21	4.5	19	48	e4.8	2.9	22	258	1.0	1.5	.27	.20
8	.18	3.0	14	19	9.2	2.7	9.7	56	.75	.79	.17	.13
9	26	2.4	11	e8.0	26	3.3	7.1	19	.47	2.9	.05	.03
10	10	1.9	11	e4.9	10	4.5	261	10	.32	1.1	.00	.00
11	2.0	1.5	9.8	e4.7	6.3	14	66	6.7	.27	.56	.00	.00
12	1.2	1.5	7.8	8.7	5.5	22	44	4.9	.18	.30	.00	.00
13	1.1	68	6.8	12	7.5	22	24	3.5	.13	.28	.00	.00
14	.86	503	34	e7.5	6.7	23	15	3.2	.09	2.0	.00	.00
15	.77	149	38	e5.0	7.0	12	17	7.9	.12	24	22	.00
16	1.1	34	18	e3.7	7.3	7.8	18	6.6	.04	6.5	2.4	.00
17	1.8	257	12	e3.4	6.6	5.5	11	2.9	.02	1.7	.87	.00
18	2.3	52	11	e3.1	6.9	8.3	8.0	2.2	.00	1.0	.44	.00
19	2.8	27	12	e2.9	8.5	8.1	6.7	1.8	.08	.70	.27	.00
20	10	18	10	e2.7	18	5.9	5.4	1.6	.54	.50	e.16	.00
21	19	13	15	e2.6	30	5.4	4.9	1.6	1.4	.53	e.08	.00
22	6.0	10	11	e2.6	33	5.6	4.8	1.4	1.0	.77	e.04	.00
23	3.2	8.4	8.2	e3.2	110	4.5	4.3	1.1	.36	.87	e.02	.00
24	2.2	7.3	6.6	26	28	4.1	4.0	1.0	.28	.46	e.01	.00
25	1.7	6.5	e6.1	106	14	3.6	3.7	1.1	.24	.52	e.00	.26
26	1.7	11	e5.5	62	9.4	3.2	3.4	1.1	18	.54	.00	.94
27	3.0	60	e5.0	110	6.7	20	49	.85	6.5	.24	.00	2.2
28	3.1	23	e4.6	174	5.7	28	20	.77	1.9	2.0	.23	.94
29	3.2	14	e4.3	39	---	12	281	.86	1.1	1.5	9.2	.37
30	3.9	10	e4.0	21	---	7.2	279	.77	.87	.62	1.3	.15
31	5.7	---	e3.8	e14	---	5.5	---	.75	---	.33	.58	---
TOTAL	114.85	1335.6	760.1	747.5	408.1	267.4	1237.9	544.20	38.31	56.26	38.48	6.10
MEAN	3.70	44.5	24.5	24.1	14.6	8.63	41.3	17.6	1.28	1.81	1.24	.20
MAX	26	503	268	174	110	28	281	258	18	24	22	2.2
MIN	.18	1.5	3.8	2.6	4.8	2.7	3.4	.75	.00	.24	.00	.00
CFSM	.40	4.78	2.63	2.59	1.57	.93	4.43	1.89	.14	.19	.13	.02
IN.	.46	5.34	3.04	2.99	1.63	1.07	4.95	2.17	.15	.22	.15	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1994, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	4.13	14.5	18.9	18.5	21.2	25.9	23.3	14.5	6.27	4.18	4.24	1.99														
MAX	28.8	48.6	64.1	57.5	51.9	52.0	44.1	61.1	27.2	14.7	28.2	18.7														
(WY)	1984	1980	1991	1982	1971	1975	1972	1983	1982	1993	1992	1979														
MIN	.081	.29	1.52	.49	1.47	4.72	2.65	1.12	.083	.21	.11	.003														
(WY)	1970	1982	1977	1977	1992	1969	1976	1976	1988	1991	1975	1983														

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1969 - 1994
ANNUAL TOTAL	7214.26	5554.80	
ANNUAL MEAN	19.8	15.2	13.1
HIGHEST ANNUAL MEAN			21.0
LOWEST ANNUAL MEAN			6.13
HIGHEST DAILY MEAN	503	Nov 14	769
LOWEST DAILY MEAN	.00	Jul 31	.00
ANNUAL SEVEN-DAY MINIMUM	.02	Aug 5	.00
INSTANTANEOUS PEAK FLOW			1370
INSTANTANEOUS PEAK STAGE			7.65
ANNUAL RUNOFF (CFSM)	2.12	1.63	8.96
ANNUAL RUNOFF (INCHES)	28.83	22.20	19.11
10 PERCENT EXCEEDS	44	26	26
50 PERCENT EXCEEDS	5.6	4.0	2.5
90 PERCENT EXCEEDS	.25	.05	.09

e Estimated



WABASH RIVER BASIN

03368000 BRUSH CREEK NEAR NEBRASKA, IN

LOCATION.--Lat 39°04'13", long 85°29'10" in NW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.11, T.7 N., R.9 E., Jennings County, Hydrologic Unit 05120207, on right bank at downstream side of county road bridge, 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<sup>2</sup>.

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

REVISED RECORDS.--WSP 2109; Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 717.17 ft above sea level (levels by State of Indiana, Department of Natural Resources).

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	2.6	4.3	3.3	6.8	5.6	4.8	56	.83	.64	.20	1.4
2	.62	2.2	5.4	4.7	5.6	6.0	4.4	19	.76	.54	.15	.89
3	.30	2.3	14	5.0	4.8	5.2	20	11	.75	.72	.13	.69
4	.16	2.3	278	4.7	4.5	5.1	11	8.4	.69	.56	.14	.53
5	.13	2.8	77	3.7	4.5	4.7	7.4	6.4	.67	.44	.19	.59
6	.08	2.9	20	5.9	4.1	4.3	52	5.6	.61	.39	.38	.72
7	.08	2.5	11	35	3.7	4.1	24	291	.81	.45	.28	.57
8	.12	2.2	8.4	8.2	26	3.9	11	43	2.0	.40	.19	.46
9	.99	2.1	6.8	4.2	22	4.3	9.1	14	.61	.47	.13	.38
10	1.8	2.0	6.7	3.8	6.7	5.2	735	8.6	.53	.38	.11	.35
11	1.2	2.0	5.7	4.3	4.2	11	60	6.1	.46	.32	.13	.31
12	1.2	2.0	4.5	15	3.9	13	32	5.3	.40	.26	.26	.26
13	1.3	55	4.3	9.7	8.5	16	19	4.1	.39	3.5	.17	.24
14	1.0	615	34	5.9	6.7	16	13	3.9	.39	3.8	.57	.23
15	.58	72	33	3.2	6.8	9.1	16	39	.39	6.0	.50	.21
16	.77	17	11	2.6	5.7	6.3	14	11	.35	1.3	.26	.20
17	1.8	237	7.9	2.4	5.3	5.2	8.5	5.3	.35	.66	.19	.31
18	3.4	33	8.9	2.2	6.2	12	6.9	3.8	.31	.49	.15	.27
19	2.5	14	9.0	2.1	11	7.5	6.0	3.0	.29	.36	.12	.24
20	122	9.2	7.1	2.0	37	5.9	5.3	2.4	.25	.29	.12	.23
21	32	6.4	12	1.9	18	15	4.6	2.0	.21	.27	.11	.21
22	6.4	5.0	6.4	2.2	36	11	4.4	1.8	.24	.40	.11	.20
23	3.8	4.5	5.4	3.0	81	7.3	3.8	1.5	.18	.42	.10	.22
24	2.9	3.9	4.6	70	21	6.1	3.6	1.4	.19	.29	.09	.42
25	2.8	3.5	4.0	111	11	5.2	3.4	1.6	.38	.23	.08	.41
26	2.3	4.0	3.6	40	8.2	4.8	3.1	1.4	34	.20	.07	.89
27	2.2	35	3.2	151	6.2	11	15	1.2	11	.18	.06	2.6
28	2.0	9.1	2.9	150	5.4	12	7.8	1.1	1.6	.15	43	1.3
29	1.9	5.9	2.7	26	---	8.6	168	.99	1.0	.20	25	.86
30	2.1	4.7	2.5	14	---	6.2	353	.91	.76	.46	1.6	.65
31	2.5	---	2.8	9.2	---	5.4	---	.91	---	.30	1.9	---
TOTAL	200.97	1162.1	607.1	706.2	370.8	243.0	1626.1	561.71	61.40	25.07	76.49	16.84
MEAN	6.48	38.7	19.6	22.8	13.2	7.84	54.2	18.1	2.05	.81	2.47	.56
MAX	122	615	278	151	81	16	735	291	34	6.0	43	2.6
MIN	.04	2.0	2.5	1.9	3.7	3.9	3.1	.91	.18	.15	.06	.20
CFSM	.57	3.40	1.72	2.00	1.16	.69	4.75	1.59	.18	.07	.22	.05
IN.	.66	3.79	1.98	2.30	1.21	.79	5.31	1.83	.20	.08	.25	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1994, BY WATER YEAR (WY)

	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	
MEAN	2.41	10.5	17.2	18.6	22.2	28.3	23.3	17.9	7.17	7.50	3.71	1.65									
MAX	19.7	64.5	86.9	70.4	51.8	89.6	59.8	80.7	45.2	72.0	41.9	11.0									
(WY)	1984	1986	1991	1959	1971	1963	1972	1968	1981	1962	1978	1974									
MIN	.000	.000	.000	.063	1.44	4.22	2.12	.76	.12	.025	.000	.000									
(WY)	1958	1964	1964	1977	1964	1969	1976	1976	1965	1970	1964	1957									

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1956 - 1994	
	Value	Date	Value	Date	Value	Date
ANNUAL TOTAL	6635.77		5657.78			
ANNUAL MEAN	18.2		15.5		13.3	
HIGHEST ANNUAL MEAN					23.3	1973
LOWEST ANNUAL MEAN					5.92	1977
HIGHEST DAILY MEAN	615	Nov 14	735	Apr 10	1460	Jan 21 1959
LOWEST DAILY MEAN	.01	Jul 29	.04	Oct 1	.00	Oct 4 1955
ANNUAL SEVEN-DAY MINIMUM	.02	Jul 26	.09	Aug 21	.00	Aug 6 1956
INSTANTANEOUS PEAK FLOW			1880	Nov 14	9360	Jun 10 1981
INSTANTANEOUS PEAK STAGE			9.27	Nov 14	12.99	Jun 10 1981
ANNUAL RUNOFF (CFSM)	1.59		1.36		1.17	
ANNUAL RUNOFF (INCHES)	21.65		18.46		15.89	
10 PERCENT EXCEEDS	34		24		23	
50 PERCENT EXCEEDS	4.2		3.4		2.1	
90 PERCENT EXCEEDS	.12		.21		.00	

e Estimated

WABASH RIVER BASIN

03369000 VERNON FORK MUSCATATUCK RIVER NEAR BUTLERVILLE, IN

LOCATION.--Lat 39°02'55", long 85°32'40", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.17, T.7 N., R.9 E., Jennings County, Hydrologic Unit 05120207, on left bank 0.3 mi downstream from Muscatatuck State School dam, 1.1 mi downstream from Brush Creek, 2 mi northwest of Butlerville, and at mile 50.6.

DRAINAGE AREA.--85.9 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1942 to current year. Prior to October 1960, published as North Fork of Vernon Fork near Butlerville, and as Vernon Fork near Butlerville, October 1960 to September 1979.

REVISED RECORDS.--WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 669.40 ft above sea level. Prior to Aug. 19, 1942, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Water supply for the Muscatatuck State School is diverted and the sewage effluent returned above station. Flow regulated by Brush Creek Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	13	43	26	e56	55	e48	646	12	18	5.2	14
2	7.2	12	42	34	e46	53	e44	193	11	14	4.9	10
3	9.9	11	118	39	e44	50	e80	129	9.9	14	4.7	8.2
4	6.5	11	1410	39	43	48	e125	99	9.5	13	5.6	7.1
5	4.3	15	935	32	44	45	e200	80	9.2	12	6.9	7.0
6	3.9	19	208	33	35	41	e152	72	9.0	10	8.1	6.3
7	4.1	14	126	176	35	39	e268	1170	19	11	7.1	5.7
8	4.7	11	95	e52	46	38	e112	365	15	12	6.1	5.1
9	17	9.9	76	e42	236	38	e89	160	11	9.6	5.2	4.8
10	39	9.2	71	e35	65	42	e3090	110	9.2	8.2	6.9	5.0
11	15	9.0	64	41	54	54	e657	82	8.5	7.2	4.6	5.0
12	11	8.7	50	67	41	93	e288	79	7.7	6.8	18	4.8
13	9.1	337	44	69	70	91	e174	63	8.4	23	19	4.4
14	8.7	2410	145	e28	55	115	e126	55	12	44	14	4.7
15	8.5	1140	210	e21	95	85	e113	512	7.9	15	9.0	5.9
16	9.3	205	113	e17	65	64	e118	196	6.7	11	9.1	7.8
17	12	1470	81	e14	50	50	e85	104	6.4	8.7	7.0	10
18	23	366	72	e13	52	92	e71	74	5.8	13	6.0	7.8
19	16	160	84	e12	74	e93	e68	57	5.7	9.6	5.2	7.1
20	589	110	69	e12	190	e68	52	45	6.0	7.4	5.1	6.3
21	416	79	92	e13	181	e76	44	37	5.9	6.5	42	6.2
22	101	62	67	e14	119	e81	42	31	5.5	20	15	6.4
23	51	51	55	21	525	e68	36	27	4.9	35	8.3	7.9
24	33	44	46	116	202	e60	33	23	5.1	15	6.3	10
25	25	39	e40	838	114	e50	30	24	4.9	9.5	5.3	8.7
26	20	39	e34	515	86	e42	28	22	98	7.7	4.8	10
27	16	179	e32	1180	64	e75	85	18	311	6.8	4.5	16
28	14	97	e28	1240	59	e85	68	16	48	5.7	20	13
29	12	67	e25	272	---	e79	423	15	27	8.7	194	7.3
30	12	51	e22	138	---	e69	1630	13	21	13	28	5.8
31	13	---	e22	101	---	e55	---	13	---	6.4	19	---
TOTAL	1515.1	7048.8	4519	5250	2746	1994	8379	4530	721.2	401.8	504.9	228.3
MEAN	48.9	235	146	169	98.1	64.3	279	146	24.0	13.0	16.3	7.61
MAX	589	2410	1410	1240	525	115	3090	1170	311	44	194	16
MIN	3.9	8.7	22	12	35	38	28	13	4.9	5.7	4.5	4.4
CFSM	.57	2.74	1.70	1.97	1.14	.75	3.25	1.70	.28	.15	.19	.09
IN.	.66	3.05	1.96	2.27	1.19	.86	3.63	1.96	.31	.17	.22	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1994, BY WATER YEAR (WY)

	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
MEAN	16.0	64.3	108	153	163	207	163	121	54.4	45.8	26.2	15.8	
MAX	99.7	441	395	763	492	604	446	554	297	277	308	126	
(WY)	1991	1986	1991	1950	1950	1945	1947	1968	1960	1992	1978	1950	
MIN	.33	.34	.37	1.28	11.3	29.3	18.4	6.91	1.56	1.22	1.32	.37	
(WY)	1952	1944	1944	1977	1964	1983	1976	1949	1965	1954	1951	1943	

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1943 - 1994
ANNUAL TOTAL	44027.5	37838.1	
ANNUAL MEAN	121	104	94.5
HIGHEST ANNUAL MEAN			188
LOWEST ANNUAL MEAN			13.1
HIGHEST DAILY MEAN	2410	Nov 14	3090
LOWEST DAILY MEAN	2.5	Sep 18	3.9
ANNUAL SEVEN-DAY MINIMUM	3.4	Jul 26	4.8
INSTANTANEOUS PEAK FLOW			7000
INSTANTANEOUS PEAK STAGE			14.63
ANNUAL RUNOFF (CFSM)	1.40		1.21
ANNUAL RUNOFF (INCHES)	19.07		16.39
10 PERCENT EXCEEDS	256		185
50 PERCENT EXCEEDS	42		33
90 PERCENT EXCEEDS	5.2		6.1

e Estimated





WABASH RIVER BASIN

03371520 BACK CREEK AT LEESVILLE, IN

LOCATION.--Lat 38°50'48", long 86°18'06", in SW<sup>1</sup>/<sub>4</sub>/SE<sup>1</sup>/<sub>4</sub>, sec.21, T.5 N., R.2 E., Lawrence County, Hydrologic Unit 05120208, on left bank at downstream side of county road bridge, 0.9 mi west of Leesville, 2.5 mi upstream from Jones Defeat Hollow, and 7 mi above mouth.

DRAINAGE AREA.--24.1 mi<sup>2</sup>.

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

REVISED RECORDS.--WDR IN-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 575.00 ft above sea level.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1913 reached a stage of 18.1 ft from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	15	16	9.2	35	33	6.7	242	4.3	1.1	.06	.41
2	16	14	21	9.4	25	29	6.3	142	3.7	1.0	.04	.28
3	13	13	55	8.3	18	24	16	103	3.5	12	.03	.20
4	10	13	510	7.4	14	21	18	79	3.0	3.6	.02	.16
5	7.7	15	228	5.7	12	18	15	62	2.5	1.9	.94	1.2
6	6.3	14	126	5.0	11	16	48	61	2.1	1.3	.34	.87
7	5.5	12	86	15	10	14	63	366	1.9	.86	.17	.38
8	4.9	11	64	13	43	13	44	175	1.7	1.5	.10	.27
9	5.4	10	50	10	62	13	34	117	1.4	3.0	.05	.20
10	6.9	9.7	43	8.8	35	14	762	85	1.3	1.6	.03	.16
11	5.2	9.2	30	8.6	23	15	220	63	1.2	.97	.02	.13
12	4.9	9.5	24	23	17	14	158	51	.97	.68	.08	.11
13	4.8	119	21	19	16	14	117	39	.87	42	.85	.09
14	4.6	1880	27	12	15	15	90	61	.78	20	.69	.06
15	4.4	302	29	7.4	14	14	86	299	.68	3.4	.41	.05
16	4.7	136	23	6.0	12	11	74	146	.89	2.7	.26	.04
17	61	560	19	5.2	11	9.9	59	93	1.4	1.5	.22	.05
18	25	167	20	4.8	11	12	48	65	1.2	.99	.16	.04
19	36	112	20	4.5	14	9.7	38	48	.69	.70	.13	.03
20	110	78	20	4.4	42	9.2	28	37	.55	.54	.10	.02
21	105	57	20	4.2	37	11	23	28	.58	.48	.10	.02
22	56	41	17	4.1	79	9.7	22	21	.56	.42	.09	.01
23	37	32	15	8.0	253	8.5	17	16	.46	.34	.06	.98
24	28	26	13	180	134	8.6	15	13	.58	.31	.04	20
25	22	22	12	350	91	7.4	13	17	.56	.27	.03	4.2
26	19	32	10	190	50	7.0	11	14	1.3	.21	.02	2.4
27	18	30	9.8	483	39	13	88	10	12	.17	.02	1.9
28	16	26	9.4	512	35	11	77	7.9	2.8	.14	.12	1.4
29	16	21	9.0	161	---	8.9	143	6.5	1.5	.11	5.2	.94
30	16	17	8.8	89	---	7.7	704	5.6	1.4	.09	.93	.71
31	17	---	9.0	54	---	7.1	---	5.0	---	.08	.52	---
TOTAL	695.0	3803.4	1565.0	2222.0	1158	418.7	3044.0	2478.0	56.37	103.96	11.83	37.31
MEAN	22.4	127	50.5	71.7	41.4	13.5	101	79.9	1.88	3.35	.38	1.24
MAX	110	1880	510	512	253	33	762	366	12	42	5.2	20
MIN	4.4	9.2	8.8	4.1	10	7.0	6.3	5.0	.46	.08	.02	.01
CFSM	.93	5.26	2.09	2.97	1.72	.56	4.21	3.32	.08	.14	.02	.05
IN.	1.07	5.87	2.42	3.43	1.79	.65	4.70	3.82	.09	.16	.02	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1994, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	9.16	34.0	41.8	39.7	50.5	64.6	58.8	36.9	14.0	23.0	15.3	6.26													
MAX	48.0	132	101	147	105	168	176	150	63.3	195	92.4	60.9													
(WY)	1984	1986	1983	1982	1979	1989	1972	1990	1973	1973	1979	1974													
MIN	.000	1.05	2.37	.98	5.78	9.74	8.62	2.70	.25	.014	.080	.000													
(WY)	1989	1988	1990	1977	1992	1981	1976	1988	1988	1991	1988	1988													

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1971 - 1994	
ANNUAL TOTAL	17037.16		15593.57			
ANNUAL MEAN	46.7		42.7		32.7	
HIGHEST ANNUAL MEAN					64.6	
LOWEST ANNUAL MEAN					14.4	
HIGHEST DAILY MEAN	1880	Nov 14	1880	Nov 14	5000	Jul 21 1973
LOWEST DAILY MEAN	.57	Aug 1	.01	Sep 22	.00	Oct 4 1970
ANNUAL SEVEN-DAY MINIMUM	.90	Jul 26	.03	Sep 16	.00	Jul 12 1975
INSTANTANEOUS PEAK FLOW			6010		15300	
INSTANTANEOUS PEAK STAGE			9.45		14.00	
ANNUAL RUNOFF (CFSM)	1.94		1.77		1.36	
ANNUAL RUNOFF (INCHES)	26.30		24.07		18.46	
10 PERCENT EXCEEDS	97		90		72	
50 PERCENT EXCEEDS	16		11		9.2	
90 PERCENT EXCEEDS	2.5		.16		.34	

• Estimated

## WABASH RIVER BASIN

03372500 SALT CREEK NEAR HARRODSBURG, IN

LOCATION.--Lat 39°00'16", long 86°30'31", in NE<sup>1</sup>/<sub>4</sub>/NW<sup>1</sup>/<sub>4</sub> sec.34, T.7 N., R.1 W., Monroe County, Hydrologic Unit 05120208, on right bank 0.35 mi downstream from Monroe Lake, 0.9 mi upstream from Clear Creek, 2.2 mi southeast of Harrodsburg, and 25.7 mi upstream from mouth.

DRAINAGE AREA.--432 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 1705: 1959. WSP 1725: 1956(M). WSP 2109: Drainage area.

GAGE.--Water-stage recorder. Datum of gage was 480.00 ft above sea level, (levels by U.S. Army Corps of Engineers). Oct. 1, 1960, to Sept. 30, 1974, water-stage recorder at site described in "LOCATION" paragraph. Prior to Oct. 1, 1960, nonrecording gage at site 0.7 mi upstream at datum 2.41 ft higher.

REMARKS.--Flow regulated by U.S. Army Corps of Engineers from Monroe Lake since April 1966.

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

AVERAGE DISCHARGE.--39 years, 489 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft<sup>3</sup>/s June 25, 1960, gage height, 32.76 ft site and datum then in use; maximum gage height at present site and datum, 35.35 ft May 9, 1961; no flow Sept. 29 to Dec. 2, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2190 ft<sup>3</sup>/s Dec. 17; minimum daily, 55 ft<sup>3</sup>/s July 25, Sept. 5, Sept. 8 to Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	565	1080	821	2070	221	2000	232	223	1300	56	55	55
2	567	1080	1200	2060	222	1990	200	225	615	56	55	55
3	568	1070	838	2050	222	1980	200	226	564	56	55	55
4	568	1070	231	2040	643	1970	201	226	562	56	55	55
5	567	1070	233	2030	1130	1960	201	541	382	56	55	55
6	566	1070	234	2030	1130	1390	311	970	202	56	55	102
7	448	1060	520	2020	1410	880	367	849	202	56	55	125
8	564	1060	663	2010	1790	878	465	638	202	56	55	55
9	563	1060	663	2000	1780	489	382	840	201	56	55	55
10	563	1050	663	1990	1770	200	207	1160	160	56	55	55
11	562	629	864	1980	1770	200	214	1510	92	56	55	55
12	561	366	1190	1870	1760	200	219	1950	92	56	55	55
13	560	280	1370	1330	1900	201	222	2140	92	56	55	55
14	558	207	1370	1060	2040	201	223	1890	79	56	55	55
15	557	214	1550	1050	2030	201	224	1810	56	56	55	55
16	398	222	2050	966	2020	201	224	2120	56	56	55	55
17	201	226	2190	709	2010	201	225	2110	56	56	55	55
18	201	228	2180	558	2000	201	225	2100	56	56	55	55
19	201	230	2180	379	1550	201	704	2100	56	56	55	55
20	203	230	2170	201	1080	261	964	2090	56	56	55	55
21	207	230	2160	201	1080	293	963	2080	56	56	55	55
22	212	230	2150	201	1070	293	1610	2070	56	56	55	55
23	212	230	2150	201	757	293	2090	2060	56	56	55	55
24	401	231	2140	201	396	293	2090	2050	56	56	55	55
25	590	231	2130	202	710	293	2080	2040	56	55	55	55
26	590	231	2120	204	1090	292	2070	2030	56	55	55	55
27	589	231	2110	207	1240	293	1660	2020	56	55	55	55
28	588	231	2100	212	1610	293	1240	2010	56	55	55	55
29	723	440	2100	217	---	293	939	2000	56	55	55	55
30	1000	649	2090	220	---	293	629	1990	56	55	55	55
31	1080	---	2080	221	---	292	---	1340	---	55	55	---
TOTAL	15733	16436	46510	32690	36431	19026	21581	47408	5641	1729	1705	1767
MEAN	508	548	1500	1055	1301	614	719	1529	188	55.8	55.0	58.9
MAX	1080	1080	2190	2070	2040	2000	2090	2140	1300	56	55	125
MIN	201	207	231	201	221	200	200	223	56	55	55	55

CAL YR 1993 TOTAL 248861 MEAN 682 MAX 2190 MIN 45  
WTR YR 1994 TOTAL 246657 MEAN 676 MAX 2190 MIN 55



## WABASH RIVER BASIN

03373530 LOST RIVER NEAR LEIPSIC, IN

LOCATION.--Lat 38°38'11", long 86°21'55", in NE<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub>, sec.2, T.2N., R.1E., Orange County, Hydrologic Unit 05120208, on left bank 5 ft upstream from bridge on Potato Road, and 2.2 mile south of Leipsic.

DRAINAGE AREA.--35 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1992 to current year.

REVISED RECORDS.--WDR IN-94-1; 1993.

GAGE.--Water-stage recorder. Datum of gage is 645.00 ft above sea level.

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

REVISIONS.--Revised figures of discharge for Jan. 4, 5, 21, 24; Feb. 21, 22; Mar. 4; Apr. 14, 15, 25; May 4; Aug. 2, 17; Sept. 3, 1993, superseding those published in the report for 1993 are published below.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e7.8	e9.7	13	22	34	38	149	45	22	9.7	2.9	4.9
2	e7.1	e15	12	19	30	48	69	42	22	9.8	834	8.1
3	e6.5	14	11	18	27	175	58	45	21	78	31	215
4	e6.3	14	9.8	156	25	397	50	192	23	20	18	32
5	e6.2	13	8.9	153	23	222	45	81	23	12	14	19
6	e6.2	12	8.3	87	22	132	41	70	20	9.2	11	14
7	e6.0	12	8.0	71	20	104	37	59	19	7.7	9.8	11
8	e5.2	12	7.3	59	19	115	34	50	19	6.6	8.5	9.3
9	e4.3	12	7.1	49	18	84	45	44	19	5.9	6.8	8.3
10	e4.0	12	7.9	54	17	73	72	39	19	5.3	6.4	7.4
11	e4.6	13	8.3	58	17	62	43	33	26	5.0	6.2	6.6
12	e4.9	30	7.5	56	28	54	37	29	32	5.8	6.7	6.2
13	e4.8	37	6.8	65	24	49	39	27	22	5.4	6.7	5.8
14	e4.9	21	6.5	49	21	43	229	24	20	4.6	5.8	5.7
15	e5.1	16	6.3	43	19	38	205	23	19	6.7	5.0	6.7
16	e5.2	13	6.6	39	22	36	146	28	17	7.3	4.7	6.0
17	e6.0	11	6.1	36	24	42	83	23	16	6.1	154	e5.5
18	e10	9.7	5.8	31	e22	45	72	44	15	5.6	22	e4.8
19	e13	8.6	5.7	27	e20	43	64	39	14	5.0	13	e4.6
20	e10	7.8	6.2	30	e19	41	58	29	14	4.5	11	e4.5
21	e8.8	11	5.9	231	387	41	50	26	14	4.2	9.2	4.4
22	e8.9	37	5.6	120	181	40	44	23	13	4.0	7.6	4.3
23	e9.7	57	5.5	83	102	152	41	21	12	3.9	6.7	6.0
24	e9.1	34	5.1	167	76	70	40	20	12	3.8	6.1	5.6
25	e8.2	28	e4.9	98	67	59	248	19	12	3.6	6.8	6.6
26	e7.1	23	e4.8	76	58	73	156	18	11	3.5	7.3	13
27	e7.0	19	e4.8	64	49	59	79	17	11	3.3	6.0	9.3
28	e7.0	17	5.0	56	42	51	66	16	11	3.2	5.4	7.6
29	e7.0	15	6.2	47	---	46	57	15	12	3.1	5.0	6.7
30	e6.6	14	25	40	---	47	51	15	11	3.0	4.7	6.0
31	e5.4	---	21	37	---	95	---	17	---	2.9	4.9	---
TOTAL	212.9	547.8	252.9	2141	1413	2574	2408	1173	521	258.7	1247.2	454.9
MEAN	6.87	18.3	8.16	69.1	50.5	83.0	80.3	37.8	17.4	8.35	40.2	15.2
MAX	13	57	25	231	387	397	248	192	32	78	834	215
MIN	4.0	7.8	4.8	18	17	36	34	15	11	2.9	2.9	4.3
CFSM	.20	.52	.23	1.97	1.44	2.37	2.29	1.08	.50	.24	1.15	.43
IN.	.23	.58	.27	2.28	1.50	2.74	2.56	1.25	.55	.27	1.33	.48

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

	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
MEAN	6.87	18.3	8.16	69.1	50.5	83.0	80.3	37.8	17.4	8.35	40.2	15.2
MAX	6.87	18.3	8.16	69.1	50.5	83.0	80.3	37.8	17.4	8.35	40.2	15.2
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
MIN	6.87	18.3	8.16	69.1	50.5	83.0	80.3	37.8	17.4	8.35	40.2	15.2
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993

## SUMMARY STATISTICS

## FOR 1993 WATER YEAR

ANNUAL TOTAL	13204.4
ANNUAL MEAN	36.2
HIGHEST DAILY MEAN	834 Aug 2
LOWEST DAILY MEAN	2.9 Jul 31
ANNUAL SEVEN-DAY MINIMUM	3.1 Jul 26
INSTANTANEOUS PEAK FLOW	3250 Aug 2
INSTANTANEOUS PEAK STAGE	12.69 Aug 2
ANNUAL RUNOFF (CFSM)	1.03
ANNUAL RUNOFF (INCHES)	14.03
10 PERCENT EXCEEDS	74
50 PERCENT EXCEEDS	17
90 PERCENT EXCEEDS	5.0

e Estimated

WABASH RIVER BASIN

03373530 LOST RIVER NEAR LEIPSIC, IN --Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	9.9	37	e14	57	36	21	209	14	3.9	3.8	4.4
2	6.0	9.1	35	e15	e48	34	20	123	13	4.3	3.5	3.8
3	5.6	8.8	58	15	e42	31	27	94	13	5.2	3.1	3.5
4	5.3	8.3	931	e15	39	28	28	80	13	4.0	4.3	3.3
5	5.0	8.3	263	e14	36	25	24	67	12	3.4	7.3	9.3
6	4.6	8.0	123	e13	33	23	91	61	11	14	5.0	10
7	4.7	7.4	92	28	30	21	69	202	10	13	4.0	5.3
8	4.3	7.0	76	e19	38	20	49	94	9.9	6.9	3.7	3.9
9	5.2	6.7	66	e15	84	20	44	70	9.8	14	3.4	3.3
10	6.1	6.4	59	e12	38	19	432	58	9.0	7.9	3.2	2.9
11	5.9	6.3	51	e13	33	21	144	50	8.3	5.5	3.2	2.8
12	5.7	6.2	45	e17	30	28	112	46	7.8	4.8	3.1	2.6
13	5.4	48	42	e18	28	24	87	40	7.3	5.4	3.2	2.4
14	5.1	2320	40	e15	25	25	72	43	7.0	6.3	3.4	2.2
15	4.9	381	40	e13	24	23	74	147	6.7	5.1	2.9	2.3
16	4.9	155	36	e11	22	20	65	69	6.5	4.9	2.9	2.3
17	5.3	491	33	e10	21	19	52	53	6.6	4.3	2.5	2.4
18	5.3	159	31	e9.8	20	20	46	45	6.3	3.8	2.7	2.2
19	5.8	122	31	e9.6	22	18	41	40	6.0	3.5	2.5	2.0
20	178	101	29	e9.4	29	17	37	36	5.9	3.5	2.5	1.9
21	67	86	28	e9.3	33	17	33	32	5.5	14	3.2	1.9
22	30	74	26	e9.3	68	16	30	30	4.5	6.6	3.4	2.1
23	23	67	24	e12	230	15	28	29	4.5	3.9	3.1	5.5
24	19	61	22	101	85	35	26	26	5.8	3.5	3.0	9.4
25	16	55	e20	314	64	26	24	25	5.3	3.3	2.7	7.1
26	14	52	e18	119	51	21	22	23	7.7	2.8	2.7	6.0
27	13	52	e17	292	44	31	28	20	12	3.0	2.7	6.5
28	11	48	e16	307	39	40	24	18	6.6	3.3	7.9	5.4
29	11	43	e15	115	---	28	191	17	5.1	8.7	72	4.5
30	11	40	e14	84	---	24	1290	16	4.4	7.4	9.1	3.4
31	11	---	e13	70	---	22	---	15	---	4.3	5.5	---
TOTAL	504.8	4447.4	2331	1718.4	1313	747	3231	1878	244.5	184.5	185.5	124.6
MEAN	16.3	148	75.2	55.4	46.9	24.1	108	60.6	8.15	5.95	5.98	4.15
MAX	178	2320	931	314	230	40	1290	209	14	14	72	10
MIN	4.3	6.2	13	9.3	20	15	20	15	4.4	2.8	2.5	1.9
CFSM	.47	4.24	2.15	1.58	1.34	.69	3.08	1.73	.23	.17	.17	.12
IN.	.54	4.73	2.48	1.83	1.40	.79	3.43	2.00	.26	.20	.20	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994
MEAN	11.6	83.3	41.7	62.2	48.7	53.6	94.0	49.2	12.8	7.15	23.1	9.66
MAX	16.3	148	75.2	69.1	50.5	83.0	108	60.6	17.4	8.35	40.2	15.2
(WY)	1994	1994	1994	1993	1993	1993	1994	1994	1993	1993	1993	1993
MIN	6.87	18.3	8.16	55.4	46.9	24.1	80.3	37.8	8.15	5.95	5.98	4.15
(WY)	1993	1993	1993	1994	1994	1994	1993	1993	1994	1994	1994	1994

SUMMARY STATISTICS FOR 1993 CALENDAR YEAR FOR 1994 WATER YEAR WATER YEARS 1993 - 1994

	1993	1994	1993	1994	1993	1994
ANNUAL TOTAL		19474.0		16909.7		
ANNUAL MEAN		53.4		46.3		41.3
HIGHEST ANNUAL MEAN						46.3
LOWEST ANNUAL MEAN						36.2
HIGHEST DAILY MEAN		2320	Nov 14	2320	Nov 14	2320
LOWEST DAILY MEAN		2.9	Jul 31	1.9	Sep 20	1.9
ANNUAL SEVEN-DAY MINIMUM		3.1	Jul 26	2.1	Sep 16	2.1
INSTANTANEOUS PEAK FLOW				6910	Nov 14	6910
INSTANTANEOUS PEAK STAGE				14.29	Nov 14	14.29
ANNUAL RUNOFF (CFSM)		1.52		1.32		1.18
ANNUAL RUNOFF (INCHES)		20.70		17.97		16.01
10 PERCENT EXCEEDS		99		82		76
50 PERCENT EXCEEDS		22		16		16
90 PERCENT EXCEEDS		5.3		3.4		4.3

e Estimated

## WABASH RIVER BASIN

03373980 WHITE RIVER ABOVE PETERSBURG, IN

LOCATION.--Lat 38°31'42", long 87°15'12", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.12, T.1 N., R.8 W., Pike County, Hydrologic Unit 05120202, on left bank 300 ft upstream from intake structure of Indianapolis Power and Light Company's generating plant, 1.5 mi downstream from East Fork White River, 2.2 mi upstream from State Highway 61, 2.9 mi northeast of Petersburg, and at mile 48.0.

DRAINAGE AREA.--11,123 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1976 to current year. Discharges below 1500 ft<sup>3</sup>/s only, published 1980 to 1993.

GAGE.--Water-stage recorder. Datum of gage is 401.52 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are fair. Discharges above 20,000 ft<sup>3</sup>/s are based on measurements from White River at Petersburg. Flow partially regulated by upstream reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13900	8590	25800	12600	55000	19300	7500	30200	8490	8950	e2710	2770
2	12900	8200	22200	12300	56900	17000	7270	33900	8240	8240	e2700	2770
3	15200	7910	20100	12200	59400	15300	7010	34900	7490	8330	e2650	2630
4	17200	7590	24900	12300	56900	14100	6910	33100	6470	7030	e2580	2420
5	15300	7410	31800	12200	49000	13400	6950	31600	5900	6910	e2510	2750
6	12300	7240	36000	12100	e35000	12700	7690	30300	5600	6850	2550	3130
7	10800	7070	38400	12100	24100	12200	8990	30100	5340	6800	2550	2760
8	9610	6750	39300	11900	18100	11500	10400	31400	5050	8070	2550	2470
9	8490	6530	40200	11800	16600	10800	11800	32600	4880	6730	2600	2340
10	8920	6320	40100	11700	16200	10700	16100	31200	5530	5870	2500	2200
11	12100	6140	37500	11600	16200	10300	25600	28500	5390	5790	2400	1990
12	13300	6000	32800	11500	16100	9840	33900	26200	4960	5420	2300	1840
13	11800	6070	26900	11500	15500	9590	39200	24200	4970	4890	2340	1760
14	10700	14800	22100	11600	14300	9490	46100	22300	4850	4610	2160	1700
15	10100	42700	19000	11000	13500	9500	57800	22300	4880	4380	2390	1630
16	9350	52100	17200	9720	13300	9560	65800	21700	5650	4260	2760	1560
17	8760	69400	17100	8940	13400	9510	68300	21400	5630	4390	2790	1520
18	8450	89900	18700	6490	13800	9330	66700	20400	5270	4460	2970	1490
19	8180	108000	19600	5530	14700	8920	62000	18800	5090	4400	2950	1440
20	8520	121000	19200	e5300	15200	8510	50300	16800	4720	4220	2670	1370
21	13600	123000	18200	e5210	15400	8170	35100	14600	4360	4000	2470	1310
22	18200	121000	17500	e5200	15800	7950	23100	13000	4150	3750	2220	1290
23	19300	115000	17200	e5450	20500	7770	18000	11800	4120	3580	2060	1270
24	18600	106000	16900	7800	25000	7690	16100	11000	3970	3500	1950	1370
25	18500	95200	16600	11400	27100	7630	15300	10300	3880	3430	1910	1610
26	18700	85100	16000	17600	25300	7460	14400	9920	4020	3450	1860	2380
27	17500	71200	15400	24100	23000	7710	14800	9630	4120	3400	1820	2570
28	14800	53300	14700	34900	21300	7730	16700	9670	4440	3240	1770	2510
29	11900	37600	14100	42900	---	7680	17500	9770	5580	e3100	2090	2320
30	10100	29600	13500	47500	---	7610	21300	9590	7630	e2950	2310	2160
31	9120	---	13000	52500	---	7580	---	9020	---	e2820	2450	---
TOTAL	396200	1426720	722000	468940	706600	316530	798620	660200	160670	157820	74540	61330
MEAN	12780	47560	23290	15130	25240	10210	26620	21300	5356	5091	2405	2044
MAX	19300	123000	40200	52500	59400	19300	68300	34900	8490	8950	2970	3130
MIN	8180	6000	13000	5200	13300	7460	6910	9020	3880	2820	1770	1270
CFSM	1.15	4.28	2.09	1.36	2.27	.92	2.39	1.91	.48	.46	.22	.18
IN.	1.33	4.77	2.41	1.57	2.36	1.06	2.67	2.21	.54	.53	.25	.21

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

	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	
MEAN	12780	47560	23290	15130	25240	10210	26620	21300	5356	5091	2405	2044
MAX	12780	47560	23290	15130	25240	10210	26620	21300	5356	5091	2405	2044
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994
MIN	12780	47560	23290	15130	25240	10210	26620	21300	5356	5091	2405	2044
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994

## SUMMARY STATISTICS

## FOR 1994 WATER YEAR

ANNUAL TOTAL	5950170
ANNUAL MEAN	16300
HIGHEST DAILY MEAN	123000
LOWEST DAILY MEAN	1270
ANNUAL SEVEN-DAY MINIMUM	1360
INSTANTANEOUS PEAK FLOW	123000
INSTANTANEOUS PEAK STAGE	26.68
ANNUAL RUNOFF (CFSM)	1.47
ANNUAL RUNOFF (INCHES)	19.90
10 PERCENT EXCEEDS	36600
50 PERCENT EXCEEDS	9720
90 PERCENT EXCEEDS	2460

e Estimated



WABASH RIVER BASIN

03374455 PATOKA RIVER NEAR HARDINSBURG, IN

LOCATION.--Lat 38°26'41", long 86°23'14", in NW<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub> sec.10, T.1 S., R.1 E., Orange County, Hydrologic Unit 05120209, on downstream edge of center pier of county road bridge, 0.3 mi downstream from Fudge Creek, 0.7 mi northeast of Valeene, 6.0 mi southwest of Hardinsburg, and at mile 158.0.  
 DRAINAGE AREA.--12.8 mi<sup>2</sup>.  
 PERIOD OF RECORD.--October 1968 to current year.  
 GAGE.--Water-stage recorder and concrete control. Datum of gage is 606.89 ft above sea level.  
 REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	2.0	5.9	e4.5	21	14	13	197	2.3	1.3	.11	.00
2	.55	1.8	6.3	e5.2	16	13	12	65	2.5	1.3	.11	.00
3	.46	1.9	23	6.7	13	11	13	35	2.3	1.2	.11	.00
4	.42	1.8	505	8.1	11	10	20	23	2.1	1.1	.11	.00
5	.42	2.0	220	7.2	11	9.0	17	16	2.0	1.0	.69	.05
6	.40	1.7	69	6.8	9.6	8.0	84	12	1.9	1.0	.45	.05
7	.40	1.7	33	11	8.6	7.4	70	94	1.8	.92	.24	.02
8	.46	1.5	22	e10	45	7.1	39	58	1.8	.90	.16	.00
9	.85	1.5	17	e8.4	134	6.8	27	30	1.7	.84	.12	.00
10	.78	1.4	15	e7.0	42	6.7	168	19	1.7	.80	.10	.00
11	.73	1.3	12	6.6	26	9.7	107	13	1.6	.70	.08	.00
12	.70	1.3	10	12	19	25	67	12	1.6	.64	.07	.00
13	.74	16	9.4	15	16	25	44	9.1	1.6	.62	.05	.00
14	.92	709	9.6	e12	14	24	30	9.3	1.5	.58	.04	.00
15	.92	219	11	e10	13	20	27	45	1.5	.54	.02	.00
16	.92	51	11	e8.5	11	14	34	31	1.5	.52	.00	.00
17	1.1	243	9.9	e7.6	10	11	23	16	1.5	.47	.00	.00
18	1.1	71	9.7	e7.1	10	11	18	11	1.4	.45	.00	.00
19	1.3	34	9.3	e6.7	9.6	9.5	15	8.5	1.4	.38	.00	.00
20	36	20	9.0	e6.5	13	8.4	12	7.0	1.4	.34	.00	.00
21	28	14	8.4	e6.2	21	8.5	10	5.8	1.4	.33	.00	.00
22	7.3	11	7.6	e6.0	81	8.0	9.2	5.1	1.4	.29	.00	.00
23	4.1	9.6	6.9	e11	232	7.7	8.2	4.5	1.4	.27	.00	.57
24	2.9	8.4	6.3	e44	84	12	7.6	3.9	1.3	.25	.00	2.4
25	2.5	7.5	e6.0	e190	44	16	7.1	3.7	1.3	.19	.00	1.6
26	2.4	7.5	e5.5	163	26	12	7.0	3.4	1.4	.18	.00	.99
27	2.6	7.9	e5.2	221	18	24	57	3.1	1.6	.15	.00	.91
28	2.3	8.0	e4.9	269	16	44	37	2.9	1.4	.14	.00	.73
29	2.1	7.0	e4.7	94	---	33	150	2.8	1.4	.14	.06	.52
30	2.4	6.1	e4.5	48	---	21	755	2.7	1.3	.13	.01	.41
31	2.1	---	e4.4	32	---	16	---	2.6	---	.12	.00	---
TOTAL	108.38	1469.9	1081.5	1251.1	974.8	452.8	1888.1	741.4	49.0	17.79	2.53	8.25
MEAN	3.50	49.0	34.9	40.4	34.8	14.6	62.9	23.9	1.63	.57	.082	.27
MAX	36	709	505	269	232	44	755	187	2.5	1.3	.69	2.4
MIN	.40	1.3	4.4	4.5	8.6	6.7	7.0	2.6	1.3	.12	.00	.00
CFSM	.27	3.83	2.73	3.15	2.72	1.14	4.92	1.87	.13	.04	.01	.02
IN.	.31	4.27	3.14	3.64	2.83	1.32	5.49	2.15	.14	.05	.01	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1994, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	3.53	21.1	32.6	33.1	39.6	48.8	47.9	29.7	13.8	9.54	4.65	3.39														
MAX	11.9	77.3	109	107	89.6	101	102	138	59.0	89.6	33.4	18.9														
(WY)	1991	1980	1991	1982	1990	1973	1972	1983	1990	1979	1977	1981														
MIN	.001	.20	1.17	.61	2.58	8.80	6.79	2.66	.46	.26	.000	.003														
(WY)	1992	1992	1981	1981	1992	1981	1976	1988	1988	1983	1991	1991														

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1969 - 1994
ANNUAL TOTAL	8671.77	8045.55	
ANNUAL MEAN	23.8	22.0	23.9
HIGHEST ANNUAL MEAN			43.6
LOWEST ANNUAL MEAN			6.35
HIGHEST DAILY MEAN	709	755	1770
LOWEST DAILY MEAN	.07	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.07	.00	.00
INSTANTANEOUS PEAK FLOW		1680	9270
INSTANTANEOUS PEAK STAGE		7.84	11.35
ANNUAL RUNOFF (CFSM)	1.86	1.72	1.87
ANNUAL RUNOFF (INCHES)	25.20	23.38	25.35
10 PERCENT EXCEEDS	52	43	50
50 PERCENT EXCEEDS	5.7	6.0	5.2
90 PERCENT EXCEEDS	.30	.03	.31

e Estimated

WABASH RIVER BASIN

03374500 PATOKA RIVER NEAR CUZCO, IN

LOCATION.--Lat 38°26'30", long 86°43'01", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.11, T.1 S., R.3 W., Dubois County, Hydrologic Unit 05120209, on right bank 20 ft upstream from bridge on Cuzco Road South, 2.3 mi south of Cuzco, 0.7 mi downstream from Patoka Lake, 4.5 mi upstream from Dillon Creek, and at mile 117.8.

DRAINAGE AREA.--170 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 477.00 ft above sea level, (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1961, nonrecording gage on downstream side of bridge, 1.7 mi downstream at same datum. Oct. 1, 1961 to Sept. 30, 1981, water-stage recorder at site described above. Prior to October 1979, published as "near Ellsworth".

REMARKS.--Flow regulated by U.S. Army Corps of Engineers from Patoka Lake since February 1978.

COOPERATION.--Records of daily discharge provided by U.S. Army Corps of Engineers beginning Oct. 1, 1981.

AVERAGE DISCHARGE.--33 years, 216 ft<sup>3</sup>/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 14,700 ft<sup>3</sup>/s Mar. 10, 1964, gage height, 20.02 ft; no flow Oct. 30, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 19.1 ft according to information by local resident, discharge, 12,300 ft<sup>3</sup>/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,060 ft<sup>3</sup>/s Jan. 13; minimum daily, 18 ft<sup>3</sup>/s Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	207	54	780	207	581	51	33	198	196	20	20
2	105	207	54	778	306	580	51	33	198	196	20	20
3	105	207	54	777	404	579	51	33	198	195	20	20
4	105	207	54	776	518	578	51	33	198	195	20	20
5	173	207	55	775	695	577	51	77	198	195	20	20
6	208	207	55	773	756	576	51	78	198	195	20	20
7	208	207	55	772	755	404	39	53	198	155	20	20
8	208	206	55	771	537	201	32	53	198	98	20	20
9	208	206	91	769	419	101	32	86	197	98	20	20
10	207	206	128	768	419	101	32	100	197	98	20	110
11	207	206	157	872	418	101	32	100	197	98	20	87
12	207	206	157	1010	418	102	32	100	197	98	20	20
13	207	99	157	1060	523	102	33	100	197	98	20	18
14	207	53	157	1050	628	102	33	100	197	98	20	20
15	207	53	188	1050	627	102	33	100	197	98	20	20
16	74	53	240	1050	761	102	33	100	197	98	20	20
17	51	53	305	1050	831	102	33	100	197	98	20	20
18	207	53	466	1040	829	102	33	100	197	98	20	20
19	91	54	603	1040	535	102	33	137	196	82	20	20
20	53	54	846	896	414	102	33	199	196	66	20	20
21	53	54	795	750	413	102	33	199	196	66	20	20
22	53	54	403	749	413	102	33	199	196	48	20	20
23	53	54	555	748	272	102	33	199	196	40	20	20
24	53	54	935	747	210	102	33	199	196	40	20	20
25	149	54	1010	384	414	102	33	199	196	40	20	20
26	207	54	1000	205	583	102	33	199	196	40	20	20
27	207	54	858	206	582	102	33	199	196	40	20	20
28	207	54	785	206	581	102	33	199	196	27	20	20
29	207	54	783	207	---	102	33	198	196	20	20	20
30	207	54	782	207	---	102	33	198	196	20	20	110
31	207	---	781	207	---	70	---	198	---	20	20	---
TOTAL	4728	3491	12618	22473	14468	6387	1099	3901	5906	2954	620	845
MEAN	153	116	407	725	517	206	36.6	126	197	95.3	20.0	28.2
MAX	208	207	1010	1060	831	581	51	199	198	196	20	110
MIN	51	53	54	205	207	70	32	33	196	20	20	18

CAL YR 1993 TOTAL 71622 MEAN 196 MAX 1010 MIN 20  
WTR YR 1994 TOTAL 79490 MEAN 218 MAX 1060 MIN 18



WABASH RIVER BASIN

03375800 HALL CREEK NEAR ST. ANTHONY, IN

LOCATION.--Lat 38°21'45", long 86°49'43", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.11, T.2 S., R.4 W., Dubois County, Hydrologic Unit 05120209, on right bank 10 ft downstream of bridge on County Road 125 South, 0.7 mi upstream from Grassy Fork, 3.3 mi north of St. Anthony, and at mile 4.1.

DRAINAGE AREA.--21.8 mi<sup>2</sup>.

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

REVISED RECORDS.--WDR IN-75-1; 1971-74.

GAGE.--Water-stage recorder. Datum of gage is 459.22 ft above sea level (levels by State of Indiana, Department of Natural Resources).

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	5.3	14	8.7	e17	16	15	125	1.2	1.4	.41	1.0
2	4.6	4.8	28	11	e14	14	13	50	11	1.1	.41	.55
3	3.7	5.1	127	11	e15	12	21	30	3.7	.92	.48	.28
4	3.2	5.3	751	11	15	12	18	22	2.1	.87	26	.20
5	2.5	6.1	174	9.4	15	11	17	17	1.8	.81	5.4	43
6	2.1	5.0	57	11	13	10	145	18	1.6	.81	.74	6.3
7	1.9	4.5	34	20	13	9.8	56	30	1.4	.82	.43	1.9
8	1.8	4.2	25	e9.0	42	9.9	32	23	1.3	42	.32	1.0
9	14	4.0	21	e6.0	79	11	24	17	1.3	47	.31	.69
10	6.5	3.8	19	e7.0	e21	13	159	12	1.2	5.1	.25	.62
11	4.3	3.9	15	10	e17	20	73	9.3	.87	2.4	.20	.49
12	3.8	3.8	14	21	e16	23	54	8.3	.76	1.6	2.9	.36
13	3.1	58	13	18	17	22	35	6.0	.62	1.4	.44	.29
14	2.5	1440	15	e9.0	15	20	25	29	.56	3.0	.20	.25
15	2.3	290	21	e6.0	14	17	59	33	.55	1.3	.12	.21
16	4.8	65	18	e5.0	14	14	37	16	.59	1.1	.06	.20
17	8.7	494	15	e4.5	13	12	24	10	.75	.90	.04	.23
18	5.3	79	15	e4.0	13	12	18	7.6	.85	.77	.04	.31
19	11	43	14	e3.8	12	10	15	5.6	.75	.66	.04	.26
20	187	30	13	e3.5	21	60	12	4.6	.72	.60	.04	.18
21	56	22	13	e3.5	23	44	11	3.8	6.3	.81	.08	.14
22	18	18	12	e3.5	141	26	9.8	3.1	2.7	.54	.16	.12
23	11	16	11	e5.0	176	20	8.8	2.6	1.1	.48	.13	.44
24	8.5	14	10	105	59	20	8.0	2.3	3.0	.44	.13	16
25	7.0	23	e9.0	343	33	16	7.4	2.1	2.0	.44	.16	3.0
26	6.1	51	e8.0	120	21	17	8.0	1.9	22	.43	.17	2.0
27	5.3	36	e8.4	274	18	51	69	1.6	17	.44	.23	3.3
28	5.0	25	e8.4	296	16	39	28	1.4	4.5	.41	.88	1.5
29	4.7	19	e6.0	71	---	25	63	1.3	2.8	.37	91	.98
30	5.2	16	e5.4	40	---	20	1080	1.2	1.8	.37	2.5	.75
31	6.1	---	7.6	28	---	17	---	1.4	---	.41	1.1	---
TOTAL	410.0	2794.8	1501.8	1477.9	883	623.7	2145.0	496.1	96.82	119.70	135.37	86.55
MEAN	13.2	93.2	48.4	47.7	31.5	20.1	71.5	16.0	3.23	3.86	4.37	2.88
MAX	187	1440	751	343	176	60	1080	125	22	47	91	43
MIN	1.8	3.8	5.4	3.5	12	9.8	7.4	1.2	.55	.37	.04	.12
CFSM	.61	4.27	2.22	2.19	1.45	.92	3.28	.73	.15	.18	.20	.13
IN.	.70	4.77	2.56	2.52	1.51	1.06	3.66	.85	.17	.20	.23	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1994, BY WATER YEAR (WY)

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	9.33	37.1	42.8	39.5	58.8	61.2	53.6	29.2	18.2	19.6	12.0	11.4													
MAX	34.1	147	125	154	131	131	142	153	73.7	247	52.5	68.0													
(WY)	1978	1980	1991	1982	1985	1989	1972	1983	1979	1979	1979	1986													
MIN	.003	.38	3.28	.17	4.96	13.9	5.83	.35	.003	.32	.040	.022													
(WY)	1988	1988	1977	1977	1992	1981	1986	1988	1988	1983	1991	1987													

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1971 - 1994

ANNUAL TOTAL	13497.23	10770.74	
ANNUAL MEAN	37.0	29.5	32.6
HIGHEST ANNUAL MEAN			78.4
LOWEST ANNUAL MEAN			11.5
HIGHEST DAILY MEAN	1440	1440	5110
LOWEST DAILY MEAN	.00	.04	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.06	.00
INSTANTANEOUS PEAK FLOW		4040	11500
INSTANTANEOUS PEAK STAGE		12.61	15.30
ANNUAL RUNOFF (CFSM)	1.70	1.35	1.49
ANNUAL RUNOFF (INCHES)	23.03	18.38	20.30
10 PERCENT EXCEEDS	71	50	62
50 PERCENT EXCEEDS	10	8.4	7.0
90 PERCENT EXCEEDS	.73	.41	.30

e Estimated







WABASH RIVER BASIN

03378500 WABASH RIVER AT NEW HARMONY, IN

LOCATION.--Lat 38°07'55", long 87°56'25" in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.35, T.4 S., R.14 W., Posey County, Hydrologic Unit 05120113, at bridge on U.S. Highway 66 at New Harmony, at Indiana-Illinois state line, and at mile 51.5.

DRAINAGE AREA.--29,234 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1988 to current year. Water discharge published October 1938 to September 1947.

GAGE.--Water-stage recorder. Datum of gage is 353.20 ft above sea level. (Furnished by National Weather Service). (Prior to October 1992, erroneously published as 353.30 ft above sea level).

REMARKS.--Water-quality data collected October 1974 to September 1986.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 23.84 ft. May 26, 1943. Beginning August 1988, minimum gage height 0.46 ft. Oct. 12, 1988.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1913 reached a stage of 27.7 ft. Flood of Jan. 31, 1937, reached a stage of 24.4 ft.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 21.34 ft. Nov. 24; minimum gage height, .93 ft., Sept. 22, 23.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.23	5.76	16.90	---	---	9.36	4.30	13.57	---	5.15	1.95	1.61
2	10.11	5.40	16.08	---	---	8.55	4.18	14.16	---	4.97	1.89	1.55
3	9.84	5.11	15.47	---	---	7.90	4.06	14.53	---	4.73	1.81	1.55
4	9.18	4.89	15.26	---	16.84	7.36	3.97	14.81	---	4.60	1.79	1.53
5	8.23	4.68	15.31	---	17.06	6.91	3.94	14.81	---	4.25	1.73	1.51
6	7.04	4.52	15.44	---	16.94	6.63	4.20	14.78	---	4.09	1.69	1.68
7	5.97	4.42	15.58	---	16.31	6.56	4.60	14.49	3.41	4.23	1.68	1.65
8	5.36	4.30	15.70	---	14.93	6.72	4.95	14.21	3.29	4.68	1.72	1.56
9	4.84	4.14	15.75	---	---	7.00	5.44	13.93	3.16	5.05	1.67	1.47
10	4.88	3.98	15.74	---	---	7.48	7.26	13.91	3.10	5.27	1.73	1.41
11	5.99	3.82	15.61	---	---	7.96	10.79	13.73	3.25	5.22	1.87	1.39
12	7.02	3.73	15.40	5.06	---	8.13	13.22	13.28	3.27	5.00	1.74	1.30
13	6.95	3.72	14.93	5.07	8.16	7.91	14.45	---	3.23	4.59	1.69	1.22
14	6.40	8.57	13.97	5.12	7.69	7.45	15.15	---	3.31	4.19	1.75	1.14
15	5.92	---	---	5.08	7.14	6.97	15.79	---	3.17	3.75	1.87	1.14
16	5.54	---	---	5.01	6.71	6.57	16.30	---	3.36	3.39	2.17	1.15
17	5.06	---	---	4.52	6.65	6.25	17.23	---	4.20	3.15	2.17	1.10
18	4.86	17.66	---	3.31	6.76	5.98	18.17	---	4.93	3.07	2.09	1.06
19	6.77	18.70	---	2.51	7.22	5.74	19.04	---	4.72	3.01	2.01	1.03
20	8.26	19.44	---	3.30	7.76	5.44	19.46	---	4.18	2.87	1.90	1.01
21	9.23	20.54	---	4.01	8.38	5.20	19.48	---	3.67	2.75	1.79	.95
22	10.39	21.09	---	4.67	8.97	5.04	19.23	---	3.37	2.61	1.68	.93
23	11.28	21.24	---	5.01	10.31	4.88	18.38	---	3.45	2.59	1.61	.97
24	11.64	21.11	---	5.22	11.66	4.66	17.17	---	3.09	2.57	1.58	.96
25	11.64	20.92	---	6.97	12.34	4.47	15.81	---	2.93	2.65	1.61	.97
26	11.44	20.61	---	7.99	12.16	4.38	14.46	---	2.99	2.66	---	1.05
27	10.97	20.14	---	10.64	11.25	4.49	13.48	---	3.51	2.49	---	1.25
28	9.83	19.46	---	13.43	10.21	4.62	12.72	---	3.97	2.33	1.49	1.43
29	8.32	18.75	---	14.59	---	4.57	11.89	---	4.09	2.27	1.59	1.45
30	7.11	17.86	---	15.16	---	4.48	12.59	---	4.78	2.20	1.59	1.40
31	6.31	---	---	---	---	4.39	---	---	---	2.07	1.51	---
MEAN	7.96	---	---	---	---	6.26	12.06	---	---	3.63	---	1.28
MAX	11.64	---	---	---	---	9.36	19.48	---	---	5.27	---	1.68
MIN	4.84	---	---	---	---	4.38	3.94	---	---	2.07	---	.93

## WABASH RIVER BASIN

03378550 BIG CREEK NEAR WADESVILLE, IN

LOCATION.--Lat 38°04'58", long 87°46'10", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.16, T.5 S., R.12 W., Posey County, Hydrologic Unit 05120113, on left bank at downstream side of bridge on State Highway 66, 0.6 mi northwest of Blairsville, and 1.6 mi southeast of Wadesville.

DRAINAGE AREA.--104 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 370.00 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.95	6.4	40	e16	91	63	32	468	5.2	1.2	.01	1.1
2	1.4	4.5	78	e21	76	62	30	142	11	.92	.01	.43
3	3.0	4.0	326	35	64	53	40	98	13	.69	.01	.18
4	2.0	4.8	1630	42	59	52	43	74	8.1	.53	.01	.10
5	1.2	5.0	873	30	60	44	53	60	6.0	.38	67	.19
6	.94	4.5	194	34	56	40	400	57	5.1	.25	5.4	.15
7	.79	3.5	110	62	52	38	196	83	5.0	.24	1.1	.08
8	1.9	3.0	86	41	69	35	107	86	5.0	.29	.38	.05
9	43	3.0	72	31	124	42	84	61	4.8	.33	.53	.03
10	27	3.2	67	25	62	49	652	47	6.0	2.0	.17	.03
11	4.7	3.3	49	28	56	76	565	39	3.7	1.6	.09	.05
12	2.4	5.4	43	88	51	128	402	36	3.0	.61	.06	.06
13	1.6	37	42	64	45	93	219	30	2.4	.38	.04	.07
14	1.3	2310	47	50	41	82	128	37	2.1	.25	.02	.06
15	1.1	4050	53	e35	45	69	155	44	1.9	.14	.01	.05
16	1.0	1480	42	e28	41	51	167	30	1.4	.11	.01	.04
17	1.2	3000	39	e26	43	44	93	22	1.2	.06	.01	.12
18	1.2	1110	41	e24	43	50	73	20	1.4	.05	.01	.10
19	292	237	38	e23	42	37	61	17	1.4	.04	.01	.07
20	149	117	38	e22	59	36	48	16	1.1	.04	.02	.05
21	130	82	36	e21	68	40	43	14	.80	.04	.02	.03
22	32	61	32	e21	164	33	39	13	.91	.03	.01	.03
23	16	52	27	51	901	33	34	12	.89	.01	.01	.15
24	11	46	e24	457	264	30	32	11	1.0	.01	.01	.16
25	8.2	40	e22	1080	145	24	29	11	1.3	.01	.01	.26
26	6.2	87	e20	386	92	28	28	10	78	.01	.01	.26
27	4.8	142	e19	887	72	89	34	7.6	117	.01	.01	.94
28	3.9	77	e18	1610	66	52	56	6.6	11	.01	.12	.96
29	3.5	55	e17	337	---	39	78	6.3	3.8	.01	.68	.82
30	3.8	41	e16	174	---	33	1150	5.8	1.9	.01	.06	1.5
31	5.2	---	e16	131	---	33	---	5.5	---	.01	1.5	---
TOTAL	762.28	13074.6	4155	5880	2951	1578	5071	1569.8	305.40	10.27	77.34	8.12
MEAN	24.6	436	134	190	105	50.9	169	50.6	10.2	.33	2.49	.27
MAX	292	4050	1630	1610	901	128	1150	468	117	2.0	67	1.5
MIN	.79	3.0	16	16	41	24	28	5.5	.80	.01	.01	.03
CFSM	.24	4.19	1.29	1.82	1.01	.49	1.63	.49	.10	.00	.02	.00
IN.	.27	4.68	1.49	2.10	1.06	.56	1.81	.56	.11	.00	.03	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1994, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
MEAN	21.3	91.3	142	145	200	223	188	145	73.8	71.0	44.4	29.8							
MAX	131	513	710	559	727	581	577	742	285	264	341	233							
(WY)	1978	1986	1983	1982	1990	1975	1983	1990	1973	1992	1977	1982							
MIN	.019	.96	.30	.13	9.15	14.3	8.73	2.98	.62	.37	.18	.000							
(WY)	1969	1966	1966	1977	1992	1981	1981	1988	1988	1991	1988	1983							

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1966 - 1994	
ANNUAL TOTAL	48985.80		35442.81			
ANNUAL MEAN	134		97.1		114	
HIGHEST ANNUAL MEAN					205	
LOWEST ANNUAL MEAN					38.7	
HIGHEST DAILY MEAN	4050		4050		6440	
LOWEST DAILY MEAN	.01		.01		.00	
ANNUAL SEVEN-DAY MINIMUM	.11		.01		.00	
INSTANTANEOUS PEAK FLOW			5360		7880	
INSTANTANEOUS PEAK STAGE			19.13		19.72	
ANNUAL RUNOFF (CFSM)	1.29		.93		1.10	
ANNUAL RUNOFF (INCHES)	17.52		12.68		14.91	
10 PERCENT EXCEEDS	241		130		210	
50 PERCENT EXCEEDS	35		22		16	
90 PERCENT EXCEEDS	.95		.04		.21	

e Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04092677 GRAND CALUMET RIVER AT GARY, IN

LOCATION.--Lat 41°36'29", long 87°23'39", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec. 6, T.37 N., R.8W., Lake County, Hydrologic Unit 04040001, on left bank, 100 feet streamward of the centerline of Interstate 90, 30 feet upstream of U.S. 12 (Industrial Highway).

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 580.00 ft above sea level.

REMARKS.--Stage affected by backwater from indeterminate sources.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 4.81 ft, June 13, 1994; minimum gage height, 1.08 ft, Feb. 13, 1992.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.81 ft, June 13; minimum gage height, 1.22 ft, Feb. 2.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.91	1.73	1.54	1.62	1.36	1.53	1.95	3.03	3.36	3.84	2.64	2.10
2	1.82	1.61	1.71	1.62	1.53	1.65	2.06	2.98	3.42	3.86	2.51	2.13
3	1.68	1.69	1.69	1.70	1.30	1.66	1.94	2.99	3.47	3.83	2.51	2.09
4	1.88	---	1.81	1.72	1.31	1.74	2.11	2.96	3.58	3.87	2.82	2.00
5	1.76	---	1.58	1.40	---	1.72	2.40	3.00	3.62	3.78	2.44	1.95
6	1.70	1.81	1.76	1.90	1.54	1.78	2.25	2.98	3.70	3.80	2.31	1.93
7	1.84	1.47	1.56	---	1.52	1.47	2.06	3.05	3.79	3.74	2.26	1.87
8	2.45	1.66	1.55	---	1.61	1.57	2.09	2.94	3.76	3.60	2.44	1.97
9	2.18	1.72	1.64	---	1.53	1.63	2.18	2.93	3.76	3.48	2.39	2.07
10	1.78	1.81	2.14	1.34	1.38	1.57	2.22	2.88	3.80	3.43	2.34	2.10
11	1.69	1.85	1.69	---	1.42	1.49	2.59	2.95	3.92	3.39	2.06	2.00
12	1.86	1.86	1.40	---	1.54	1.71	2.61	2.84	3.83	3.42	2.14	1.94
13	1.82	1.85	1.68	---	1.41	1.74	2.37	2.95	4.73	3.45	2.27	2.00
14	1.70	1.94	1.87	---	1.47	1.68	2.47	3.13	4.09	3.47	2.07	2.12
15	1.80	1.78	1.82	---	1.60	1.92	2.50	2.99	3.94	3.30	2.10	---
16	2.15	1.62	1.65	---	1.42	1.67	2.48	3.00	3.94	3.20	2.14	---
17	2.03	1.84	1.59	---	1.66	1.73	2.47	3.04	4.03	3.20	2.18	---
18	2.00	1.54	1.65	---	1.53	1.76	2.62	3.02	4.07	3.16	2.16	---
19	1.99	1.80	1.47	---	1.61	1.71	2.74	2.98	4.04	3.12	2.55	---
20	2.14	1.48	1.66	---	1.65	1.80	2.77	3.07	4.10	3.38	2.26	---
21	1.78	1.52	1.58	---	---	1.92	2.74	3.16	4.11	2.90	2.12	---
22	1.80	1.81	1.70	---	1.92	1.80	2.79	3.17	4.00	2.78	2.17	---
23	1.78	2.09	1.58	1.53	1.91	1.93	2.82	3.26	4.34	2.66	2.11	---
24	1.86	2.03	1.49	1.34	1.65	2.02	2.92	3.28	4.28	2.63	2.04	---
25	1.96	1.97	1.53	1.80	2.15	1.82	3.04	3.35	3.90	2.65	2.12	---
26	2.04	2.08	1.58	1.55	1.74	1.99	3.19	3.32	4.00	2.57	---	---
27	1.81	1.72	1.54	1.77	1.60	1.92	3.05	3.29	3.91	2.68	---	---
28	1.75	1.66	1.40	1.71	1.55	1.91	3.36	3.32	3.89	2.54	2.05	---
29	1.83	1.70	1.62	1.68	---	1.95	3.10	3.38	3.90	2.50	2.05	---
30	2.31	1.63	1.26	1.54	---	1.88	3.40	3.35	3.80	2.43	2.04	---
31	2.09	---	1.35	1.43	---	1.88	---	3.36	---	2.32	2.36	---
MEAN	1.91	---	1.62	---	---	1.76	2.58	3.10	3.90	3.19	---	---
MAX	2.45	---	2.14	---	---	2.02	3.40	3.38	4.73	3.87	---	---
MIN	1.68	---	1.26	---	---	1.47	1.94	2.84	3.36	2.32	---	---

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04092750 INDIANA HARBOR CANAL AT EAST CHICAGO, IN

LOCATION.--Lat 41°39'27", long 87°27'21", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.16, T.37N., R.9W., Lake County, Hydrologic Unit 04040001, on right bank 1200 ft downstream (northeast) of Dickey Road bridge.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder, ultrasonic velocity meter and responder. Datum of gage is 570.00 ft above sea level.

REMARKS.--A partial data set for this station is on file at the Indiana District Office.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

( Available data for the 1994 water-year will be published in the 1995 report.)



## STREAMS TRIBUTARY TO LAKE MICHIGAN

04093200 LITTLE CALUMET RIVER AT GARY, IN

LOCATION.--Lat 41°34'19", long 87°19'13", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, sec.15, T.36 N., R.8 W., Lake County, Hydrologic Unit 04040001, on right bank 100 ft upstream of Conrail Railroad bridge, 800 ft upstream of Martin Luther King Avenue bridge at Gary, 1.3 mi downstream of highway 53, and 1.5 mi upstream from confluence with Deep River.

DRAINAGE AREA.--5.82 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--June 1958 to September 1967, October 1968 to September 30, 1971 (discharge), December, 1984 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is 580.00 ft above sea level.

REMARKS.--Stage affected by backwater from Deep River during times of flood. Minimum gage height for the period of record may have been lower prior to December 13, 1984.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 13.31 ft, Nov. 30, 1990; minimum gage height, 5.27 ft, Aug. 7, 8, 1991. Minimum gage height was not published prior to December 13, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.-- Flood in October 1954 reached a stage of 13.09 ft, from flood mark.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.00 ft, Oct. 19; minimum gage height, 8.60 ft, June 1, 2, 3, 4.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.36	9.05	9.20	8.74	9.08	9.04	8.80	8.96	8.60	8.82	8.68	8.78
2	9.29	9.05	9.16	8.75	9.05	8.99	8.77	8.97	8.60	8.78	8.72	8.77
3	9.19	9.06	9.14	8.75	9.02	8.98	8.75	8.94	8.60	8.74	8.82	8.76
4	9.09	9.08	9.14	8.75	8.95	9.03	8.75	8.91	8.61	8.73	8.99	8.74
5	9.00	9.08	9.13	8.74	8.89	9.11	8.74	8.85	8.64	8.75	9.04	8.74
6	8.93	9.06	9.13	8.74	8.83	9.24	8.73	8.81	8.64	8.77	9.05	8.74
7	8.85	9.01	9.08	8.74	8.73	9.35	8.72	8.83	8.64	8.87	9.02	8.74
8	8.83	8.98	9.04	8.77	8.72	9.44	8.71	8.84	8.72	8.89	8.98	8.71
9	8.88	8.92	9.01	8.79	8.72	9.45	8.71	8.84	8.75	8.85	8.97	8.69
10	8.89	8.88	8.97	8.79	8.70	9.44	8.70	8.82	8.77	8.80	8.96	8.79
11	8.89	8.88	8.95	8.75	8.71	9.39	8.73	8.80	8.85	8.77	9.20	8.97
12	8.85	8.88	8.90	8.73	8.71	9.30	8.98	8.78	8.92	8.74	9.16	8.98
13	8.82	8.91	8.87	8.71	8.70	9.23	9.18	8.76	9.19	8.74	9.16	8.96
14	8.80	8.95	8.86	8.76	8.68	9.17	9.28	8.81	9.26	8.73	9.15	8.92
15	8.77	8.99	8.84	8.83	8.70	9.12	9.32	8.83	9.41	8.75	9.05	8.89
16	8.98	8.99	8.86	8.84	8.75	9.08	9.31	8.81	9.49	8.75	8.97	8.84
17	9.37	9.00	8.93	8.70	8.89	9.02	9.26	8.79	9.47	8.74	8.91	8.81
18	9.80	9.01	9.01	8.67	9.14	8.98	9.20	8.77	9.39	8.72	8.85	8.78
19	10.00	9.03	9.02	8.68	9.21	8.99	9.11	8.75	9.29	8.71	8.89	8.75
20	9.90	9.04	9.01	8.66	9.37	8.94	9.03	8.73	9.18	8.76	8.99	8.75
21	9.76	9.03	8.98	8.64	9.44	8.90	8.97	8.72	9.09	8.86	9.01	8.72
22	9.70	8.99	8.97	8.63	9.45	8.88	8.92	8.70	9.00	8.91	8.97	8.70
23	9.62	8.95	8.95	8.64	9.38	8.86	8.87	8.68	9.02	8.89	8.91	8.69
24	9.52	8.92	8.88	8.70	9.33	8.85	8.81	8.70	9.19	8.83	8.85	8.72
25	9.44	8.92	8.84	8.74	9.04	8.81	8.78	8.70	9.19	8.80	8.79	8.77
26	9.37	9.04	8.81	8.76	9.18	8.79	8.77	8.73	9.16	8.75	8.77	8.86
27	9.30	9.20	8.79	8.83	9.16	8.81	8.78	8.74	9.09	8.75	8.76	8.89
28	9.20	9.29	8.76	8.99	9.08	8.89	8.82	8.70	9.00	8.71	8.74	8.89
29	9.13	9.29	8.75	9.05	---	8.86	8.86	8.68	8.94	8.69	8.73	8.89
30	9.07	9.27	8.75	9.08	---	8.84	8.92	8.65	8.88	8.65	8.75	8.87
31	9.06	---	8.75	9.08	---	8.80	---	8.62	---	8.66	8.78	---
MEAN	9.21	9.02	8.95	8.78	8.99	9.05	8.91	8.78	8.99	8.77	8.92	8.80
MAX	10.00	9.29	9.20	9.08	9.45	9.45	9.32	8.97	9.49	8.91	9.20	8.98
MIN	8.77	8.88	8.75	8.63	8.68	8.79	8.70	8.62	8.60	8.65	8.68	8.69

WTR YR 1994 MEAN 8.93 MAX 10.00 MIN 8.60



## STREAMS TRIBUTARY TO LAKE MICHIGAN

04095300 TRAIL CREEK AT MICHIGAN CITY, IN

LOCATION.--Lat 41°43'00", long 86°51'35", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.27, T.38 N., R.4 W., LaPorte County, Hydrologic Unit 04040001, on right upstream side of bridge on Springland Avenue in Michigan City, 1.0 mi upstream from Otter Creek, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--54.1 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 584.02 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	68	81	e52	e60	e72	68	e110	43	52	43	37
2	57	63	119	e54	e54	e75	67	e79	42	49	47	36
3	53	62	112	e54	e48	83	65	e65	42	48	47	36
4	50	60	96	e54	e46	117	64	e60	42	47	89	36
5	49	59	92	e55	e43	175	62	e60	41	52	58	36
6	48	66	85	e55	e41	277	63	e60	40	68	47	36
7	47	63	78	e55	e39	218	62	69	41	71	44	36
8	46	58	74	e54	e39	132	61	70	46	60	42	34
9	63	56	71	e54	e38	99	60	61	43	57	42	34
10	55	55	70	e54	e38	87	59	56	41	52	41	41
11	52	54	67	e54	e37	81	60	56	42	49	53	37
12	50	53	65	e52	e37	79	158	55	47	47	47	35
13	49	114	65	e51	e35	83	131	52	123	54	104	34
14	48	85	64	e50	e34	84	94	51	370	48	83	33
15	48	88	64	e50	e33	80	108	53	115	46	57	33
16	155	74	63	e50	e39	74	92	52	62	44	49	32
17	532	82	63	e50	e60	71	72	50	52	45	46	32
18	302	83	74	e49	187	73	67	50	46	46	44	33
19	148	70	87	e49	323	70	63	50	44	44	200	33
20	107	63	78	e49	318	70	60	50	42	56	181	33
21	162	58	78	e49	196	73	59	48	41	94	100	32
22	96	55	70	e49	120	71	57	47	39	74	63	32
23	75	54	69	e48	97	69	56	47	48	54	52	32
24	68	61	e64	e46	89	68	55	49	216	50	46	40
25	64	69	e59	e52	83	65	55	47	75	50	42	48
26	61	273	e55	e60	e80	66	e56	48	179	49	41	51
27	59	230	e54	e68	e76	83	e66	47	169	46	41	42
28	58	122	e53	e200	e73	76	e72	46	74	45	39	39
29	55	97	e52	174	---	73	e81	44	59	43	38	37
30	55	84	e51	e89	---	69	e89	43	54	42	38	36
31	64	---	e52	e70	---	68	---	43	---	41	39	---
TOTAL	2839	2479	2225	1950	2363	2881	2182	1718	2318	1623	1903	1086
MEAN	91.6	82.6	71.8	62.9	84.4	92.9	72.7	55.4	77.3	52.4	61.4	36.2
MAX	532	273	119	200	323	277	158	110	370	94	200	51
MIN	46	53	51	46	33	65	55	43	39	41	38	32
CFSM	1.69	1.53	1.33	1.16	1.56	1.72	1.34	1.02	1.43	.97	1.13	.67
IN.	1.95	1.70	1.53	1.34	1.62	1.98	1.50	1.18	1.59	1.12	1.31	.75

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	57.3	84.5	83.0	74.8	88.2	115	105	85.5	77.8	50.2	47.8	47.5
MAX	142	236	148	152	189	249	172	159	318	121	190	88.6
(WY)	1991	1991	1991	1993	1985	1982	1983	1990	1993	1986	1990	1981
MIN	35.3	37.6	40.4	38.7	51.8	56.8	47.1	46.5	33.7	28.9	28.8	29.2
(WY)	1980	1972	1990	1977	1978	1981	1971	1977	1971	1971	1970	1988

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1970 - 1994
ANNUAL TOTAL	39763	25567	
ANNUAL MEAN	109	70.0	76.2
HIGHEST ANNUAL MEAN			113
LOWEST ANNUAL MEAN			50.5
HIGHEST DAILY MEAN	2530	532	2550
LOWEST DAILY MEAN	39	32	20
ANNUAL SEVEN-DAY MINIMUM	43	32	22
INSTANTANEOUS PEAK FLOW		626	4240
INSTANTANEOUS PEAK STAGE		8.19	12.97
ANNUAL RUNOFF (CFSM)	2.01	1.29	1.41
ANNUAL RUNOFF (INCHES)	27.34	17.58	19.15
10 PERCENT EXCEEDS	168	105	124
50 PERCENT EXCEEDS	66	55	55
90 PERCENT EXCEEDS	47	39	34

e Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04095300 TRAIL CREEK AT MICHIGAN CITY, IN  
WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: June 1990 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 394 mg/L. Mar. 23, 1993; minimum daily mean, 1 mg/L, Feb. 10, 1992.  
SEDIMENT LOADS: Maximum daily, 1610 tons, June 8, 1993; minimum daily, 0.21 ton, Feb. 10, 1992.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 394 mg/L. Mar. 23; minimum daily mean, 2 mg/L, May 16.  
SEDIMENT LOADS: Maximum daily, 1610 tons, June 8; minimum daily, 0.30 ton, May 16.

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

DATE	TIME	GAGE HEIGHT (FEET) (00065)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI- MENT, DIS- CHARGE, SUS- PENDE D (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE D (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
13...	1602	2.38	36	7	0.69	48
NOV						
18...	1300	2.94	72	9	1.8	71
DEC						
09...	1430	2.66	54	6	0.87	85
FEB						
04...	1505	2.70	58	63	9.9	14
APR						
01...	1530	5.73	394	167	178	56
MAY						
27...	1500	2.56	46	11	1.4	43
SEP						
07...	1440	2.65	56	17	2.6	62

STREAMS TRIBUTARY TO LAKE MICHIGAN  
04095300 TRAIL CREEK AT MICHIGAN CITY, IN --Continued  
WATER-QUALITY RECORDS

DAY	SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994								
	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	MEAN SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	MEAN SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	MEAN SEDIMENT DISCHARGE (TONS/DAY)
1	63	9	1.6	68	12	2.1	81	17	3.6
2	57	6	.92	63	16	2.6	119	28	9.8
3	53	5	.71	62	16	2.7	112	22	6.7
4	50	4	.59	60	14	2.3	96	14	3.6
5	49	4	.51	59	15	2.3	92	13	3.3
6	48	3	.44	66	10	1.8	85	11	2.5
7	47	3	.37	63	14	2.4	78	11	2.2
8	46	3	.34	58	18	2.8	74	14	2.7
9	63	---	1.5	56	19	2.9	71	16	3.0
10	55	---	1.2	55	18	2.7	70	14	2.7
11	52	---	1.0	54	12	1.8	67	17	3.0
12	50	---	.81	53	11	1.6	65	16	2.8
13	49	---	.66	114	30	9.6	65	15	2.7
14	48	---	.65	85	18	4.1	64	15	2.5
15	48	---	.52	88	14	3.3	64	14	2.4
16	155	---	60	74	11	2.2	63	13	2.3
17	532	---	980	82	18	4.2	63	15	2.5
18	302	---	260	83	20	4.4	74	18	3.7
19	148	---	60	70	18	3.3	87	18	4.3
20	107	---	35	63	19	3.2	78	20	4.2
21	162	---	90	58	16	2.6	78	14	3.0
22	96	---	20	55	15	2.2	70	11	2.2
23	75	---	5.0	54	13	1.9	69	17	3.1
24	68	19	3.4	61	16	2.7	e64	18	3.1
25	64	17	2.9	69	16	2.9	e59	16	2.8
26	61	16	2.6	273	166	144	e55	20	3.2
27	59	15	2.4	230	56	39	e54	28	4.9
28	58	14	2.2	122	17	5.7	e53	15	2.3
29	55	13	1.9	97	12	3.1	e52	16	2.5
30	55	15	2.3	84	12	2.8	e51	20	3.1
31	64	11	1.8	---	---	---	e52	23	3.8
TOTAL	2839	---	1541.32	2479	---	269.2	2225	---	104.5
DAY	SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994								
	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	MEAN SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	MEAN SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	MEAN SEDIMENT DISCHARGE (TONS/DAY)
1	e52	16	2.6	e60	9	2.5	e72	9	1.9
2	e54	16	3.0	e54	10	3.2	e75	9	2.0
3	e54	16	2.8	e48	9	2.8	83	12	2.7
4	e54	15	2.5	e46	8	2.3	117	56	22
5	e55	14	2.2	e43	7	1.8	175	139	73
6	e55	10	1.6	e41	7	1.1	277	135	103
7	e55	6	.97	e39	8	.94	218	58	35
8	e54	7	1.3	e39	6	.73	132	21	7.6
9	e54	7	1.5	e38	6	.82	99	10	2.6
10	e54	7	1.2	e38	8	1.1	87	8	2.0
11	e54	9	1.5	e37	7	.99	81	9	2.0
12	e52	10	1.5	e37	10	1.3	79	7	1.4
13	e51	8	1.2	e35	9	.99	83	7	1.7
14	e50	10	1.5	e34	7	.76	84	6	1.3
15	e50	18	6.4	e33	8	.79	80	5	1.2
16	e50	24	11	e39	16	2.0	74	8	1.6
17	e50	16	7.5	e60	37	11	71	9	1.7
18	e49	---	1.7	187	105	59	73	9	1.8
19	e49	---	1.6	323	195	173	70	11	2.0
20	e49	---	1.5	318	109	97	70	10	1.8
21	e49	---	2.0	196	48	25	73	12	2.4
22	e49	---	1.7	120	22	7.3	71	9	1.8
23	e48	18	3.2	97	17	4.4	69	11	2.0
24	e46	20	3.0	89	8	2.0	68	11	2.0
25	e52	20	3.6	83	6	1.4	65	7	1.3
26	e60	17	3.2	e80	9	2.0	66	8	1.4
27	e68	30	6.8	e76	9	2.0	83	11	2.4
28	e200	301	210	e73	9	1.9	76	8	1.6
29	174	88	45	---	---	---	73	7	1.3
30	e89	20	6.0	---	---	---	69	10	1.8
31	e70	13	2.9	---	---	---	68	11	2.0
TOTAL	1950	---	342.47	2363	---	410.12	2881	---	288.3

e Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN  
04095300 TRAIL CREEK AT MICHIGAN CITY, IN --Continued  
WATER-QUALITY RECORDS

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	MEAN			MEAN			MEAN		
	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL									
1	68	12	2.1	110	59	17	43	27	3.2
2	67	15	2.6	79	22	4.4	42	23	2.7
3	65	12	2.1	65	21	3.7	42	19	2.1
4	64	11	1.9	60	13	2.2	42	31	3.5
5	62	9	1.5	60	16	2.9	41	24	2.6
6	63	11	1.9	60	11	1.9	40	35	3.8
7	62	7	1.2	69	25	5.0	41	49	5.4
8	61	6	.91	70	33	6.3	46	59	7.3
9	60	4	.60	61	13	2.2	43	52	6.1
10	59	5	.87	56	8	1.2	41	52	5.8
11	60	9	1.5	56	9	1.4	42	53	6.0
12	158	190	95	55	11	1.6	47	70	8.9
13	131	66	24	52	9	1.3	123	202	123
14	94	32	8.1	51	23	3.2	370	433	439
15	108	61	20	53	24	3.3	115	141	46
16	92	33	8.5	52	19	2.6	62	75	13
17	72	15	2.8	50	13	1.8	52	57	7.9
18	67	15	2.6	50	11	1.5	46	57	7.2
19	63	7	1.2	50	10	1.3	44	57	6.7
20	60	8	1.3	50	17	2.3	42	54	6.1
21	59	9	1.4	48	17	2.2	41	52	5.7
22	57	8	1.2	47	24	3.0	39	58	6.1
23	56	7	1.1	47	25	3.2	48	81	14
24	55	7	1.0	49	19	2.5	216	208	142
25	55	8	1.2	47	23	2.9	75	60	12
26	56	11	2.2	48	23	3.0	179	170	120
27	66	40	7.0	47	15	1.9	169	101	52
28	72	40	8.0	46	25	3.1	74	66	13
29	81	44	9.0	44	29	3.5	59	63	10
30	89	55	14	43	24	2.7	54	59	8.6
31	---	---	---	43	20	2.3	---	---	---
<b>TOTAL</b>	<b>2182</b>	<b>---</b>	<b>226.78</b>	<b>1718</b>	<b>---</b>	<b>97.4</b>	<b>2318</b>	<b>---</b>	<b>1089.7</b>

DAY	MEAN			MEAN			MEAN		
	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
JULY									
1	52	50	7.0	43	34	4.1	37	27	2.7
2	49	64	8.4	47	34	4.3	36	28	2.7
3	48	55	7.2	47	28	3.9	36	27	2.6
4	47	56	7.1	89	88	22	36	26	2.6
5	52	80	12	58	36	5.8	36	22	2.2
6	68	96	19	47	25	3.2	36	19	1.9
7	71	75	15	44	31	3.7	36	19	1.8
8	60	79	13	42	28	3.2	34	13	1.2
9	57	77	12	42	30	3.4	34	10	.96
10	52	53	7.3	41	25	2.8	41	7	.78
11	49	58	7.6	53	38	5.5	37	26	2.6
12	47	60	7.6	47	23	2.9	35	18	1.7
13	54	66	9.5	104	129	43	34	23	2.1
14	48	69	8.9	83	59	14	33	19	1.7
15	46	67	8.2	57	34	5.2	33	16	1.4
16	44	62	7.4	49	39	5.2	32	18	1.6
17	45	53	6.5	46	48	5.9	32	11	.96
18	46	49	6.0	44	34	4.1	33	12	1.1
19	44	41	4.8	200	167	106	33	12	1.0
20	56	69	15	181	100	49	33	8	.73
21	94	93	26	100	54	15	32	12	1.1
22	74	79	16	63	25	4.4	32	9	.78
23	54	55	7.9	52	26	3.7	32	6	.56
24	50	53	7.1	46	32	3.9	40	18	2.5
25	50	44	5.9	42	35	4.0	48	32	4.4
26	49	28	3.7	41	31	3.4	51	30	4.4
27	46	26	3.2	41	31	3.4	42	28	3.2
28	45	25	3.0	39	32	3.4	39	22	2.3
29	43	17	2.0	38	37	3.8	37	17	1.7
30	42	15	1.7	38	42	4.3	36	14	1.4
31	41	27	3.0	39	32	3.4	---	---	---
<b>TOTAL</b>	<b>1623</b>	<b>---</b>	<b>269.0</b>	<b>1903</b>	<b>---</b>	<b>349.9</b>	<b>1086</b>	<b>---</b>	<b>56.67</b>

• Estimated

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04096100 GALENA RIVER NEAR LAPORTE, IN

LOCATION.--Lat 41°44'54", long 86°40'30", in SE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.17, T.38 N., R.2 W., LaPorte County, Hydrologic Unit 04040001, on left bank at downstream side of bridge on County Road 125 East, 1.3 mi upstream from Indiana-Michigan State line, and 9.8 mi north of Courthouse in LaPorte.

DRAINAGE AREA.--17.2 mi<sup>2</sup>, of which 2.30 mi<sup>2</sup> does not contribute directly to surface runoff.

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

REVISED RECORDS.--WDR IN-80-1: 1970, 1971(P), 1972, 1973, 1974(P), 1975 (M), 1976 (P), and 1978 (P).

GAGE.--Water-stage recorder. Datum of gage is 625.00 ft above sea level.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum instantaneous gage height may have occurred Nov. 28, 1990 during period of no gage height record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	25	34	e24	e31	28	24	33	15	18	13	15
2	28	23	46	e25	e28	28	23	26	16	18	17	13
3	27	24	42	25	e26	29	24	23	16	17	15	13
4	26	23	40	23	e24	36	23	21	15	16	34	12
5	25	24	37	22	e23	46	23	21	15	19	23	12
6	24	30	35	e21	e22	77	23	20	14	49	18	12
7	26	28	33	e21	e21	67	23	24	13	40	16	11
8	25	24	32	e20	e21	43	22	25	17	28	15	11
9	33	24	31	e20	e20	35	22	21	15	25	15	11
10	31	23	30	e20	e20	32	24	20	14	21	15	14
11	29	23	28	e21	e19	30	24	19	14	19	18	12
12	28	22	27	e21	e19	30	48	19	16	18	18	10
13	28	42	27	e20	e18	32	41	18	26	19	35	10
14	28	34	27	e20	e18	31	32	18	88	17	34	9.6
15	28	35	26	e19	20	30	34	19	33	16	22	9.3
16	58	29	26	e19	23	27	30	18	25	16	19	9.0
17	175	33	26	e18	31	26	26	18	20	17	17	9.4
18	96	32	31	e18	58	27	24	17	18	16	17	9.6
19	42	28	33	e17	103	26	23	17	17	15	148	9.2
20	34	25	31	e17	107	26	22	17	16	16	82	9.1
21	55	23	30	e16	60	28	22	17	16	24	41	8.9
22	35	23	27	e16	40	26	21	16	16	23	26	8.8
23	31	22	e26	e16	e34	25	21	16	18	20	22	8.8
24	30	26	e25	e17	e32	25	20	16	38	18	18	11
25	28	28	e24	e18	e31	24	20	16	27	16	16	17
26	26	89	e24	e21	e30	24	20	16	31	16	17	18
27	26	76	e23	e25	e29	31	22	16	30	17	14	15
28	25	47	e23	68	e28	28	23	15	23	15	13	14
29	23	40	e22	56	---	26	27	15	23	14	12	12
30	22	36	e22	43	---	25	28	14	20	13	12	12
31	23	---	e23	35	---	24	---	14	---	13	17	---
TOTAL	1145	961	911	742	936	992	759	585	665	609	799	346.7
MEAN	36.9	32.0	29.4	23.9	33.4	32.0	25.3	18.9	22.2	19.6	25.8	11.6
MAX	175	89	46	68	107	77	48	33	88	49	148	18
MIN	22	22	22	16	18	24	20	14	13	13	12	8.8
CFSM	2.15	1.86	1.71	1.39	1.94	1.86	1.47	1.10	1.29	1.14	1.50	.67
IN.	2.48	2.08	1.97	1.60	2.02	2.15	1.64	1.27	1.44	1.32	1.73	.75

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	23.4	30.2	31.1	26.6	30.6	38.5	34.6	26.5	23.5	16.3	15.3	17.3													
MAX	43.8	64.4	51.8	46.6	51.6	70.1	56.0	45.2	69.7	29.8	26.3	32.6													
(WY)	1991	1991	1973	1993	1985	1982	1970	1981	1993	1993	1990	1993													
MIN	14.8	16.8	15.6	15.0	19.2	19.4	18.2	15.5	12.3	10.3	9.71	10.4													
(WY)	1990	1981	1990	1976	1980	1981	1971	1992	1971	1988	1970	1988													

## SUMMARY STATISTICS

## FOR 1993 CALENDAR YEAR

## FOR 1994 WATER YEAR

## WATER YEARS 1970 - 1994

ANNUAL TOTAL	12953	9450.7																							
ANNUAL MEAN	35.5	25.9																							
HIGHEST ANNUAL MEAN																									
LOWEST ANNUAL MEAN																									
HIGHEST DAILY MEAN																									
LOWEST DAILY MEAN	397	Jun 8																							
ANNUAL SEVEN-DAY MINIMUM	14	Aug 23																							
INSTANTANEOUS PEAK FLOW	16	Jul 30																							
INSTANTANEOUS PEAK STAGE																									
ANNUAL RUNOFF (CFSM)	2.06																								
ANNUAL RUNOFF (INCHES)	28.01																								
10 PERCENT EXCEEDS	54																								
50 PERCENT EXCEEDS	27																								
90 PERCENT EXCEEDS	18																								

e Estimated





STREAMS TRIBUTARY TO LAKE MICHIGAN

04099808 LITTLE ELKHART RIVER AT MIDDLEBURY, IN

LOCATION.--Lat 41°40'31", long 85°42'01", in NE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, sec.10, T.37 N., R.7 E., Elkhart County, Hydrologic Unit 04050001, on left bank 15 ft downstream from bridge on County Road 16, 0.1 mi east of Middlebury, and 1.7 mi downstream from Rowe Eden Ditch.  
 DRAINAGE AREA.--97.6 mi<sup>2</sup>, of which 5.89 mi<sup>2</sup> does not contribute directly to surface runoff.  
 PERIOD OF RECORD.--October 1979 to current year.  
 REVISED RECORDS.--WDR IN-82-1: 1980, 1981. WDR IN-92-1: 1991.  
 GAGE.--Water-stage recorder. Datum of gage is 810.00 ft above sea level.  
 REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	88	87	67	135	100	77	124	58	49	37	41
2	80	86	95	67	119	97	76	103	56	48	36	40
3	77	87	100	65	108	96	74	94	54	45	37	39
4	75	85	110	63	103	115	73	89	52	44	37	39
5	72	83	123	63	97	176	74	86	51	46	36	39
6	70	82	110	65	92	197	79	83	52	45	33	38
7	68	80	106	64	88	202	79	85	51	45	33	37
8	68	78	101	57	84	167	87	84	52	46	37	38
9	98	77	96	e56	e81	143	86	79	52	45	40	39
10	94	77	94	e55	e79	128	80	76	51	45	39	43
11	87	77	88	e56	78	118	77	75	50	44	44	41
12	83	76	84	e58	77	113	203	73	49	43	43	40
13	80	83	83	e60	76	113	224	72	51	45	52	39
14	78	84	81	60	75	112	184	70	55	45	63	39
15	76	89	81	48	77	108	156	70	51	43	50	38
16	117	84	78	e46	86	101	135	69	48	41	46	38
17	374	90	77	e45	115	96	118	67	45	43	44	39
18	270	103	79	e44	199	96	109	66	47	42	43	38
19	176	96	78	e44	317	92	103	66	49	39	44	38
20	154	90	78	e43	348	91	97	65	51	42	57	37
21	243	85	80	e43	233	99	93	64	49	44	56	37
22	168	81	76	e44	171	94	90	63	46	45	50	36
23	138	79	74	e45	148	90	87	62	48	43	47	36
24	125	86	72	e47	132	88	85	62	62	43	45	37
25	116	91	72	e50	119	84	83	61	60	44	43	38
26	111	115	69	e54	110	83	81	61	59	43	43	38
27	105	122	69	e61	105	93	83	60	57	43	42	37
28	101	105	68	477	102	88	89	58	54	42	42	37
29	97	97	67	363	---	84	92	57	53	42	41	36
30	94	91	66	206	---	81	99	58	51	40	41	36
31	91	---	66	161	---	79	---	59	---	39	41	---
TOTAL	3671	2647	2608	2677	3554	3424	3073	2261	1564	1353	1342	1148
MEAN	118	88.2	84.1	86.4	127	110	102	72.9	52.1	43.6	43.3	38.3
MAX	374	122	123	477	348	202	224	124	62	49	63	43
MIN	68	76	66	43	75	79	73	57	45	39	33	36
CFSM	1.21	.90	.86	.88	1.30	1.13	1.05	.75	.53	.45	.44	.39
IN.	1.40	1.01	.99	1.02	1.35	1.31	1.17	.86	.60	.52	.51	.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1994, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	85.4	108	119	117	128	157	140	103	102	72.8	57.1	60.9			
MAX	172	202	207	307	280	404	210	191	278	189	117	118			
(WY)	1991	1986	1991	1993	1985	1982	1985	1983	1993	1981	1981	1981			
MIN	43.7	38.6	42.9	53.8	75.2	84.5	93.3	55.3	36.7	37.9	39.9	38.3			
(WY)	1988	1981	1990	1981	1980	1981	1986	1988	1988	1988	1987	1984			

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1980 - 1994	
ANNUAL TOTAL	52831		29322			
ANNUAL MEAN	145		80.3		104	
HIGHEST ANNUAL MEAN					155	
LOWEST ANNUAL MEAN					75.9	
HIGHEST DAILY MEAN	1760	Jun 9	477	Jan 28	2040	Feb 24 1985
LOWEST DAILY MEAN	53	Aug 22	33	Aug 6	24	Jul 9 1988
ANNUAL SEVEN-DAY MINIMUM	55	Aug 21	36	Aug 1	26	Jul 3 1988
INSTANTANEOUS PEAK FLOW			831		2470	
INSTANTANEOUS PEAK STAGE			8.13		10.52	
ANNUAL RUNOFF (CFSM)	1.48		.82		1.07	
ANNUAL RUNOFF (INCHES)	20.14		11.18		14.47	
10 PERCENT EXCEEDS	244		118		176	
50 PERCENT EXCEEDS	103		74		81	
90 PERCENT EXCEEDS	66		40		44	

e Estimated

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04099850 PINE CREEK NEAR ELKHART, IN

LOCATION.--Lat 41°40'53", long 85°52'57", in NE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.7, T.37 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on right bank 50 ft upstream from bridge on County Road 14, 0.3 mi east of the intersection of County Roads 17 and 14, and 3.1 mi east of Elkhart.

DRAINAGE AREA.--31.0 mi<sup>2</sup>, of which 8.75 mi<sup>2</sup> does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 755.00 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	22	21	e13	21	21	18	27	11	11	8.3	7.5
2	19	21	25	e13	19	20	18	21	12	9.9	7.9	7.3
3	18	21	26	e13	17	20	17	20	11	9.9	8.1	7.2
4	17	21	26	e13	16	25	17	19	10	9.9	8.3	7.2
5	16	21	26	e13	15	36	17	18	10	13	8.3	7.2
6	16	20	25	e12	e14	44	18	18	11	12	7.4	7.1
7	16	20	23	e12	e13	43	18	19	10	12	7.1	7.0
8	15	19	22	e12	e13	32	19	19	10	12	7.2	6.8
9	26	19	21	e11	e12	27	18	18	10	14	7.8	6.8
10	24	18	21	e11	e12	25	17	17	9.7	11	7.7	8.3
11	21	18	19	e11	e12	23	17	17	9.5	10	8.5	7.5
12	19	18	18	e11	e12	22	47	17	9.6	10	8.5	7.0
13	18	21	18	e11	e12	23	48	16	13	14	9.4	7.0
14	17	22	18	e11	e12	23	34	16	12	10	11	7.0
15	17	23	18	e11	e12	22	31	16	10	10	8.7	6.9
16	37	21	17	e10	13	20	28	16	10	10	8.0	7.0
17	135	24	16	e10	18	20	24	15	9.7	9.7	7.7	7.5
18	78	31	17	e10	38	20	23	15	9.9	9.7	7.4	7.5
19	45	26	17	e10	74	19	22	15	9.7	9.6	7.6	7.3
20	41	23	17	e10	85	19	20	15	11	9.5	15	7.4
21	60	21	18	e9.8	49	24	19	15	9.8	11	13	7.3
22	42	20	17	e9.8	33	24	19	15	9.4	15	9.4	7.3
23	36	19	16	e9.8	29	22	18	15	11	11	8.6	7.4
24	32	21	15	e9.8	27	21	18	15	17	10	8.1	7.6
25	30	23	15	e10	24	19	18	15	15	10	7.8	8.7
26	28	37	e14	e11	23	19	18	15	15	10	7.6	8.2
27	27	34	e14	e12	22	23	18	15	15	9.6	7.6	7.8
28	25	27	e14	78	21	22	19	14	13	9.5	7.5	7.7
29	24	24	e13	51	---	21	21	12	13	9.2	7.3	7.4
30	23	22	e13	32	---	19	21	13	12	8.9	7.4	7.2
31	22	---	e13	25	---	19	---	12	---	8.8	7.6	---
TOTAL	965	677	573	486.2	668	737	660	510	339.3	330.2	261.8	221.1
MEAN	31.1	22.6	18.5	15.7	23.9	23.8	22.0	16.5	11.3	10.7	8.45	7.37
MAX	135	37	26	78	85	44	48	27	17	15	15	8.7
MIN	15	18	13	9.8	12	19	17	12	9.4	8.8	7.1	6.8
CFSM	1.00	.73	.60	.51	.77	.77	.71	.53	.36	.34	.27	.24
IN.	1.16	.81	.69	.58	.80	.88	.79	.61	.41	.40	.31	.27

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1994, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	16.9	19.2	22.4	20.4	23.2	28.7	27.1	21.2	21.3	16.0	12.5	13.3			
MAX	42.4	32.8	52.7	45.6	47.6	82.3	40.0	40.6	68.1	39.2	25.5	23.7			
(WY)	1991	1986	1991	1993	1985	1982	1993	1983	1993	1981	1981	1981			
MIN	7.27	7.39	6.93	8.23	11.7	14.4	16.3	11.9	7.79	6.58	6.75	6.34			
(WY)	1990	1981	1990	1981	1980	1981	1981	1988	1988	1988	1988	1988			

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1980 - 1994	
ANNUAL TOTAL	11152		6428.6			
ANNUAL MEAN	30.6		17.6		20.2	
HIGHEST ANNUAL MEAN					30.1	
LOWEST ANNUAL MEAN					13.3	
HIGHEST DAILY MEAN	500	Jun 9	135	Oct 17	532	Dec 30 1990
LOWEST DAILY MEAN	11	Aug 22	6.8	Sep 8	3.8	Jul 26 1980
ANNUAL SEVEN-DAY MINIMUM	12	Aug 21	7.0	Sep 3	4.7	Jul 3 1988
INSTANTANEOUS PEAK FLOW			146	Oct 17	607	Dec 30 1990
INSTANTANEOUS PEAK STAGE			4.87	Oct 17	9.74	Jul 26 1981
ANNUAL RUNOFF (CFSM)	.99		.57		.65	
ANNUAL RUNOFF (INCHES)	13.38		7.71		8.83	
10 PERCENT EXCEEDS	44		27		33	
50 PERCENT EXCEEDS	22		15		16	
90 PERCENT EXCEEDS	14		7.7		8.2	

e Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100222 NORTH BRANCH ELKHART RIVER AT COSPERVILLE, IN

LOCATION.--Lat 41°28'54", long 85°28'32", in NE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.22, T.35 N., R.9 E., Noble County, Hydrologic Unit 04050001, on right bank at downstream side of bridge on County Road 900 North at Cosperville, 1,300 ft downstream from Boyd Ditch, 1.7 mi upstream from Rustin Ditch, and 3.1 mi downstream from Waldron Lake.

DRAINAGE AREA.--142 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 880.12 ft above sea level (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records good 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 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	110	131	e77	e196	208	131	211	36	39	21	16
2	70	104	131	e74	e190	199	128	204	34	38	19	16
3	68	99	135	e71	e180	191	127	194	32	36	19	16
4	65	95	142	e73	e170	188	125	185	33	33	19	16
5	63	91	154	e74	e158	199	124	181	33	30	22	16
6	61	88	157	e74	e150	210	130	178	34	30	20	14
7	59	85	157	e72	e143	228	133	171	32	30	17	14
8	56	82	155	68	135	238	141	163	30	31	16	14
9	70	78	152	e67	e131	238	147	155	27	33	15	14
10	85	75	149	e66	e128	230	152	149	26	31	15	19
11	90	72	145	e65	e123	224	156	143	29	28	19	21
12	92	72	141	e64	e120	217	155	135	35	26	24	19
13	93	75	137	e62	e118	213	287	130	37	28	27	17
14	91	81	134	e62	e116	208	318	123	37	26	36	15
15	89	89	131	e61	116	202	323	118	35	23	35	14
16	107	93	127	e60	119	194	320	113	33	23	33	13
17	156	100	125	e58	130	187	317	107	31	23	32	11
18	173	111	123	e56	149	179	308	102	30	22	30	11
19	173	115	121	e54	186	173	290	98	27	21	29	11
20	172	114	121	e53	233	169	279	82	25	19	31	9.9
21	171	114	119	e52	253	169	266	20	e25	21	35	9.8
22	171	113	118	e51	253	170	252	21	24	22	34	9.5
23	167	110	115	e50	246	167	238	33	23	21	37	9.3
24	163	114	111	e50	239	160	225	43	29	21	32	9.6
25	159	120	108	e53	234	156	212	47	35	20	29	12
26	153	126	92	e58	e225	151	209	45	41	23	27	14
27	145	133	e90	e64	e219	151	210	44	45	22	26	14
28	139	136	e89	e95	214	149	210	43	43	28	24	13
29	131	135	e85	e160	---	144	218	41	44	28	20	13
30	125	134	e80	e190	---	141	217	40	41	25	12	15
31	117	---	e78	e200	---	136	---	38	---	23	15	---
TOTAL	3546	3064	3853	2334	4874	5789	6408	3357	986	824	770	416.1
MEAN	114	102	124	75.3	174	187	214	108	32.9	26.6	24.8	13.9
MAX	173	136	157	200	253	238	323	211	45	39	37	21
MIN	56	72	78	50	116	136	124	20	23	19	12	9.3
CFSM	.81	.72	.88	.53	1.23	1.32	1.50	.76	.23	.19	.17	.10
IN.	.93	.80	1.01	.61	1.28	1.52	1.68	.88	.26	.22	.20	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1994, BY WATER YEAR (WY)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	89.2	125	152	162	157	265	248	166	138	83.8	58.5	66.8												
MAX	272	314	341	542	272	553	530	324	400	211	130	161												
(WY)	1987	1973	1986	1993	1990	1985	1985	1981	1981	1981	1981	1972												
MIN	17.8	17.8	46.5	42.2	43.2	118	133	67.2	18.1	16.4	18.3	13.9												
(WY)	1975	1972	1972	1972	1972	1989	1987	1988	1988	1988	1978	1994												

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1972 - 1994
ANNUAL TOTAL	72443	36221.1	
ANNUAL MEAN	198	99.2	143
HIGHEST ANNUAL MEAN			222
LOWEST ANNUAL MEAN			85.7
HIGHEST DAILY MEAN	837	Jan 7	916
LOWEST DAILY MEAN	35	Aug 19	2.2
ANNUAL SEVEN-DAY MINIMUM	38	Aug 14	2.8
INSTANTANEOUS PEAK FLOW			919
INSTANTANEOUS PEAK STAGE			8.12
ANNUAL RUNOFF (CFSM)	1.40	.70	1.00
ANNUAL RUNOFF (INCHES)	18.98	9.49	13.64
10 PERCENT EXCEEDS	414	209	302
50 PERCENT EXCEEDS	149	88	112
90 PERCENT EXCEEDS	55	19	31

e Estimated

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04100252 FORKER CREEK NEAR BURR OAK, IN

LOCATION.--Lat 41°19'58", long 85°25'25", in SE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.12, T.33 N., R.9 E., Noble County, Hydrologic Unit 04050001, on right bank 300 ft downstream from bridge on State Highway 9,400 ft downstream from Miller Lake Outlet, 0.8 mi northeast of Burr Oak, and 4.5 mi south of Albion.

DRAINAGE AREA.--19.2 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 889.00 ft above sea level (Indiana Department of Highways bench mark).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Occasional regulation at Miller Lake Outlet.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	9.6	18	5.8	31	15	13	46	5.1	4.4	1.3	1.0
2	5.5	7.5	17	5.5	27	14	13	45	4.5	3.9	1.3	.94
3	5.6	5.8	17	5.3	23	13	14	40	4.1	3.4	1.3	.94
4	5.7	4.8	18	5.1	21	14	13	34	3.8	3.0	1.5	.95
5	5.6	4.2	20	4.8	19	18	13	29	3.6	2.7	1.4	.83
6	5.7	4.2	22	5.0	17	26	14	25	3.4	2.6	1.3	.72
7	5.4	4.0	22	5.1	15	37	15	24	3.3	2.6	1.4	.73
8	5.0	3.8	20	4.7	13	45	20	22	3.1	2.8	.94	.71
9	6.1	3.6	19	4.1	11	43	26	21	2.9	3.3	.70	.70
10	6.7	3.5	17	4.0	9.5	37	35	19	2.6	3.4	.68	.65
11	7.7	3.5	16	4.0	8.5	30	40	18	2.4	3.3	.67	.66
12	7.8	3.5	15	4.1	7.6	24	88	17	2.3	3.3	.75	.72
13	7.8	3.9	14	4.3	6.7	22	155	17	2.5	3.1	.78	.69
14	7.6	4.8	13	4.4	6.4	20	141	16	2.7	3.0	.86	.69
15	7.8	6.3	13	4.3	6.7	19	103	16	2.6	2.7	.89	.75
16	8.7	8.3	12	4.0	7.2	18	79	15	2.4	2.5	.95	.78
17	11	11	12	3.6	7.6	17	62	15	2.2	2.4	1.0	.68
18	13	16	13	3.2	10	17	51	14	2.0	2.2	1.1	.67
19	13	23	13	2.9	21	17	43	14	1.7	2.1	1.2	.69
20	13	25	13	2.7	49	18	35	13	1.6	1.7	1.4	.77
21	14	23	12	2.7	65	19	30	12	1.4	1.6	1.4	.79
22	14	20	11	2.8	59	19	26	12	1.3	1.5	1.4	.77
23	15	19	9.7	3.0	48	15	23	11	1.3	1.5	1.6	.72
24	15	18	9.6	3.3	38	13	21	9.7	1.6	1.4	1.7	.68
25	15	19	9.3	3.7	30	12	20	8.8	2.0	1.5	1.7	.62
26	15	19	8.1	4.2	23	12	19	8.3	2.9	1.6	1.9	.66
27	14	21	7.0	4.7	20	13	22	7.6	4.1	1.5	2.0	.67
28	13	22	6.8	9.3	17	13	28	7.0	4.7	1.5	2.0	.68
29	13	21	6.7	24	---	14	37	6.4	5.0	1.5	1.9	.56
30	12	20	6.5	42	---	14	43	6.0	4.8	1.4	1.5	.55
31	11	---	6.0	42	---	13	---	5.6	---	1.4	1.1	---
TOTAL	305.2	358.3	416.7	228.6	617.2	621	1242	554.4	87.9	74.8	39.62	21.97
MEAN	9.85	11.9	13.4	7.37	22.0	20.0	41.4	17.9	2.93	2.41	1.28	.73
MAX	15	25	22	42	65	45	155	46	5.1	4.4	2.0	1.0
MIN	5.0	3.5	6.0	2.7	6.4	12	13	5.6	1.3	1.4	.67	.55
CFSM	.51	.62	.70	.38	1.15	1.04	2.16	.93	.15	.13	.07	.04
IN.	.59	.69	.81	.44	1.20	1.20	2.41	1.07	.17	.14	.08	.04

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	8.71	15.3	20.4	17.9	25.4	37.3	34.7	18.7	19.7	9.26	5.16	5.99													
MAX	50.6	48.8	52.5	67.1	62.5	111	60.5	41.1	90.7	49.5	36.4	33.4													
(WY)	1991	1989	1978	1993	1985	1982	1978	1983	1981	1986	1990	1990													
MIN	.36	.28	2.59	1.22	2.96	13.6	9.61	4.70	1.98	.41	.25	.23													
(WY)	1972	1972	1977	1977	1979	1989	1971	1988	1988	1971	1971	1978													

## SUMMARY STATISTICS

## FOR 1993 CALENDAR YEAR

## FOR 1994 WATER YEAR

## WATER YEARS 1970 - 1994

ANNUAL TOTAL	7582.4	4567.69	
ANNUAL MEAN	20.8	12.5	18.1
HIGHEST ANNUAL MEAN			29.0
LOWEST ANNUAL MEAN			9.49
HIGHEST DAILY MEAN	246	Jan 5	431
LOWEST DAILY MEAN	3.1	Aug 5	.13
ANNUAL SEVEN-DAY MINIMUM	3.2	Aug 2	.17
INSTANTANEOUS PEAK FLOW			480
INSTANTANEOUS PEAK STAGE			7.03
ANNUAL RUNOFF (CFSM)	1.08		.95
ANNUAL RUNOFF (INCHES)	14.69		12.84
10 PERCENT EXCEEDS	41		46
50 PERCENT EXCEEDS	15		9.3
90 PERCENT EXCEEDS	4.1		.87

e Estimated

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100295 RIMMELL BRANCH NEAR ALBION, IN

LOCATION.--Lat 41°23'07", long 85°22'14", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.21, T.34 N., R.10 E., Noble County, Hydrologic Unit 04050001, on right bank 900 ft downstream from culvert on County Road 300 East, 0.75 mi south of State Highway 8, 3.0 mi east of intersection of State Highway 9 and State Highway 8 in Albion.  
 DRAINAGE AREA.--10.7 mi<sup>2</sup>.  
 PERIOD OF RECORD.--November 1979 to current year.  
 GAGE.--Water-stage recorder. Datum of gage is 934.49 ft above sea level.  
 REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	1.8	5.5	e2.2	e14	6.9	5.1	24	.97	.45	.24	.18
2	2.3	1.8	7.4	e2.1	e11	e6.3	4.6	14	.92	.42	.24	.17
3	2.0	2.0	8.8	e2.0	e9.0	e6.1	5.4	11	.85	.39	.23	.17
4	2.0	1.9	19	e2.0	e7.5	19	5.8	8.6	.78	.36	.24	.17
5	1.7	1.9	17	e2.0	e6.6	27	5.4	7.3	.74	.36	.27	.16
6	1.6	1.8	12	e3.5	e5.6	28	9.0	6.2	.72	.36	.23	.15
7	1.6	1.8	9.2	e2.4	e5.0	60	15	6.6	.73	.36	.21	.15
8	1.6	1.7	7.6	e2.1	e4.6	34	20	6.7	.73	.81	.21	.15
9	9.6	1.7	6.7	e2.0	e4.2	20	16	5.6	.73	1.4	.21	.15
10	7.9	1.6	6.3	e1.9	e3.9	14	25	4.6	.68	.58	.21	.21
11	4.7	1.6	5.3	e2.2	e3.7	12	19	4.4	.66	.45	.24	.16
12	3.6	1.5	4.6	e2.1	e3.5	11	169	4.8	.64	.38	.24	.15
13	2.9	2.4	4.3	e2.0	e3.4	11	124	3.9	.65	.33	.28	.15
14	2.5	6.1	4.2	e1.9	e3.3	10	70	3.3	.65	.31	.29	.16
15	2.2	11	4.3	e1.8	e3.5	9.5	47	4.5	.61	.31	.22	.17
16	5.7	6.4	4.0	e1.7	e4.1	7.8	33	3.8	.59	.29	.21	.16
17	20	23	3.7	e1.7	e6.0	e7.0	23	3.1	.57	.29	.21	.16
18	11	18	4.3	e1.6	e3.0	6.3	17	2.7	.57	.29	.21	.16
19	6.6	11	4.6	e1.6	e5.0	5.5	13	2.4	.48	.26	.20	.15
20	5.6	8.1	4.6	e1.5	57	5.4	10	2.2	.46	.26	.24	.15
21	9.7	6.6	5.1	e1.5	36	7.9	8.7	2.0	.44	.33	.26	.14
22	6.7	5.6	4.4	e1.5	22	8.1	7.4	1.8	.40	.30	.21	.13
23	5.0	4.9	3.8	e1.6	15	7.0	6.6	1.7	.50	.26	.20	.14
24	4.2	8.4	e3.5	e1.9	11	6.4	6.0	1.6	.73	.26	.19	.16
25	3.6	9.2	e3.2	e3.1	e10	5.5	5.4	1.4	.85	.26	.17	.18
26	3.1	16	e2.9	e2.9	e9.6	4.9	4.9	1.7	1.8	.26	.17	.18
27	2.8	14	e2.7	e2.5	e9.0	7.1	9.7	1.4	1.3	.25	.17	.16
28	2.7	9.4	e2.5	e6.0	8.2	7.0	15	1.3	.80	.24	.19	.14
29	2.4	7.2	e2.4	e4.5	---	7.6	19	1.2	.63	.24	.19	.13
30	2.1	6.1	e2.3	e2.9	---	6.6	19	1.1	.52	.31	.19	.12
31	2.0	---	e2.6	e1.9	---	5.7	---	1.0	---	.26	.19	---
TOTAL	142.0	194.5	178.8	208.3	356.7	380.6	738.0	145.9	21.70	11.63	6.76	4.71
MEAN	4.58	6.48	5.77	6.72	12.7	12.3	24.6	4.71	.72	.38	.22	.16
MAX	20	23	19	60	57	60	169	24	1.8	1.4	.29	.21
MIN	1.6	1.5	2.3	1.5	3.3	4.9	4.6	1.0	.40	.24	.17	.12
CFSM	.43	.61	.54	.63	1.19	1.15	2.30	.44	.07	.04	.02	.01
IN.	.49	.68	.62	.72	1.24	1.32	2.57	.51	.08	.04	.02	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1994, BY WATER YEAR (WY)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	6.88	12.9	13.8	11.7	17.7	21.8	18.6	9.60	9.48	5.73	2.60	2.53		
MAX	26.8	34.3	38.7	46.2	44.8	69.9	31.8	24.9	39.1	33.0	16.1	12.7		
(WY)	1991	1993	1991	1993	1985	1982	1981	1990	1981	1986	1990	1992		
MIN	.62	1.38	1.00	2.27	4.99	6.68	5.94	2.05	.72	.38	.22	.16		
(WY)	1984	1981	1990	1981	1993	1981	1986	1985	1988	1994	1994	1994		

SUMMARY STATISTICS

FOR 1993 CALENDAR YEAR

FOR 1994 WATER YEAR

WATER YEARS 1981 - 1994

ANNUAL TOTAL	4344.36	2389.60		
ANNUAL MEAN	11.9	6.55	11.1	
HIGHEST ANNUAL MEAN			15.1	1993
LOWEST ANNUAL MEAN			6.55	1994
HIGHEST DAILY MEAN	259	Jan 4	169	Apr 12
LOWEST DAILY MEAN	.65	Aug 23	.12	Sep 30
ANNUAL SEVEN-DAY MINIMUM	.68	Aug 21	.15	Sep 17
INSTANTANEOUS PEAK FLOW			228	Apr 12
INSTANTANEOUS PEAK STAGE			a9.64	Jan 28
ANNUAL RUNOFF (CFSM)	1.11	.61		1.03
ANNUAL RUNOFF (INCHES)	15.10	8.31		14.04
10 PERCENT EXCEEDS	25	15		25
50 PERCENT EXCEEDS	5.1	2.4		4.6
90 PERCENT EXCEEDS	1.1	.19		.55

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 a Backwater from ice

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04100377 SOLOMON CREEK NEAR SYRACUSE, IN

LOCATION.--Lat 41°27'30", long 85°43'12", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.28, T.35 N., R.7 E., Elkhart County, Hydrologic Unit 04050001, on right bank 40 ft upstream from County Road 52 East bridge over Solomon Creek, and 2.5 mi northeast of Syracuse.

DRAINAGE AREA.--36.1 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	40	36	26	e40	33	31	55	26	19	14	13
2	29	38	38	25	e35	32	30	50	26	18	14	12
3	28	37	41	25	e32	33	30	47	25	18	14	12
4	27	36	49	24	e31	35	30	45	24	17	14	12
5	26	36	59	24	e29	41	30	44	24	16	13	12
6	26	34	53	24	e27	43	31	42	23	15	12	12
7	26	33	49	24	e26	53	31	43	21	16	12	12
8	25	35	46	24	e25	53	33	43	21	16	13	12
9	41	33	43	24	e24	46	34	42	20	17	15	12
10	46	32	42	23	e24	42	34	40	20	17	14	12
11	40	32	39	23	e24	39	33	39	20	16	14	12
12	36	31	37	23	e24	38	87	38	21	16	14	11
13	32	32	36	23	e24	37	107	36	22	16	15	11
14	31	35	34	22	e25	37	83	36	23	15	16	11
15	29	40	33	e21	e27	37	68	36	22	14	15	11
16	50	36	32	e21	30	35	59	34	21	13	15	11
17	108	40	32	e20	34	34	54	33	20	14	15	11
18	90	47	32	e20	42	34	51	33	21	14	14	11
19	74	44	31	e20	51	33	48	32	21	14	14	11
20	69	40	31	e20	59	33	46	32	19	14	15	12
21	73	44	31	e19	55	33	45	32	19	14	15	11
22	67	38	31	e19	48	33	43	31	18	14	14	11
23	65	35	30	e19	44	33	42	30	19	13	14	12
24	60	35	29	e19	41	33	42	30	21	14	14	12
25	55	36	29	e19	38	32	41	31	21	14	14	12
26	52	42	28	e19	37	32	41	32	21	15	14	12
27	49	46	27	e20	35	33	42	30	21	15	13	12
28	46	43	26	e90	34	33	42	28	21	15	13	12
29	45	40	26	e120	---	32	47	28	20	15	13	12
30	43	37	26	e100	---	31	47	28	20	15	13	12
31	41	---	26	e50	---	31	---	27	---	14	13	---
TOTAL	1459	1127	1102	950	965	1124	1382	1127	641	473	432	351
MEAN	47.1	37.6	35.5	30.6	34.5	36.3	46.1	36.4	21.4	15.3	13.9	11.7
MAX	108	47	59	120	59	53	107	55	26	19	16	13
MIN	25	31	26	19	24	31	30	27	18	13	12	11
CFSM	1.30	1.04	.98	.85	.95	1.00	1.28	1.01	.59	.42	.39	.32
IN.	1.50	1.16	1.14	.98	.99	1.16	1.42	1.16	.66	.49	.45	.36

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1994, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1988	1989	1990	1991	1992	1993	1994
MEAN	31.1	40.2	39.2	48.4	41.1	44.7	49.5	40.9	45.7	26.8	20.2	22.9		
MAX	61.5	60.1	60.3	94.8	50.1	64.4	62.8	59.4	82.3	40.0	33.2	36.5		
(WY)	1991	1993	1991	1993	1993	1993	1993	1990	1993	1993	1990	1990		
MIN	12.9	14.0	14.8	27.4	32.8	30.8	37.9	24.4	16.5	12.1	10.5	11.7		
(WY)	1988	1988	1990	1988	1989	1989	1989	1989	1988	1988	1988	1994		

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR
ANNUAL TOTAL	18921	11133						
ANNUAL MEAN	51.8	30.5						
HIGHEST ANNUAL MEAN								
LOWEST ANNUAL MEAN								
HIGHEST DAILY MEAN	256	Jun 9	120	Jan 29	256	Jun 9	1993	
LOWEST DAILY MEAN	20	Aug 22	11	Sep 12	7.9	Aug 9	1988	
ANNUAL SEVEN-DAY MINIMUM	20	Aug 21	11	Sep 12	9.0	Aug 8	1988	
INSTANTANEOUS PEAK FLOW			128	Apr 12	333	Jun 8	1993	
INSTANTANEOUS PEAK STAGE			a4.53	Jan 28	6.35	Jun 8	1993	
ANNUAL RUNOFF (CFSM)	1.44		.84		1.04			
ANNUAL RUNOFF (INCHES)	19.50		11.47		14.12			
10 PERCENT EXCEEDS	78		47		63			
50 PERCENT EXCEEDS	49		30		33			
90 PERCENT EXCEEDS	26		13		15			

e Estimated  
a Backwater from ice

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100500 ELKHART RIVER AT GOSHEN, IN

LOCATION.--Lat 41°35'36", long 85°50'55", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.8, T.36 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on right bank 20 ft downstream from River Avenue bridge at Goshen, 0.4 mi upstream from Rock Run, and at mile 16.1.

DRAINAGE AREA.--594 mi<sup>2</sup>.

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

REVISED RECORDS.--WSP 1337; 1939(M). WSP 1557; 1954. WSP 2111; Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 769.43 ft above sea level. Prior to Nov. 20, 1931, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Occasional low-flow regulation at Goshen Dam, 3.4 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	426	548	655	430	850	820	499	987	275	308	163	151
2	404	532	678	438	805	768	487	947	264	278	154	160
3	385	521	756	428	715	749	470	885	256	254	146	147
4	370	512	753	408	700	767	454	854	244	234	142	144
5	355	501	910	402	670	944	450	831	236	224	143	142
6	341	497	845	384	660	1090	485	807	235	214	145	147
7	336	482	796	381	640	1160	502	798	226	221	136	144
8	328	467	762	336	610	1180	558	808	227	233	149	139
9	419	460	737	394	600	1000	588	773	226	235	197	136
10	607	450	720	390	590	935	591	741	218	222	187	170
11	552	435	685	381	560	896	594	717	201	213	190	172
12	513	410	653	364	530	870	960	685	196	195	195	157
13	480	433	634	364	510	858	1760	650	219	206	232	152
14	451	456	618	354	472	850	1660	618	246	200	285	140
15	441	550	605	343	473	827	1430	597	252	185	254	132
16	530	542	585	340	512	788	1380	549	230	171	236	120
17	1400	553	569	340	636	753	1330	495	223	168	222	112
18	1830	688	572	340	888	734	1300	471	222	173	212	114
19	1360	651	569	335	1190	702	1260	448	221	161	213	250
20	1030	607	572	330	1420	655	1190	427	262	162	235	148
21	1070	572	589	330	1330	634	1110	407	231	184	226	107
22	1100	556	565	330	1120	620	1040	390	207	196	218	147
23	880	557	535	336	991	603	971	372	200	188	211	132
24	793	608	498	372	905	584	914	314	271	185	204	121
25	746	666	470	365	882	560	866	297	339	179	196	126
26	718	764	383	359	832	547	822	303	338	187	188	180
27	674	909	404	366	859	575	809	306	617	187	182	120
28	641	792	454	1010	825	570	804	303	490	207	169	112
29	625	725	444	1640	---	546	856	294	382	194	161	67
30	586	680	435	1160	---	527	855	287	338	182	155	91
31	566	---	405	898	---	505	---	282	---	169	153	---
TOTAL	20957	17124	18856	14648	21775	23617	26995	17643	8092	6315	5899	4180
MEAN	676	571	608	473	778	762	900	569	270	204	190	139
MAX	1830	909	910	1640	1420	1180	1760	987	617	308	285	250
MIN	328	410	383	330	472	505	450	282	196	161	136	67
CFSM	1.14	.96	1.02	.80	1.31	1.28	1.51	.96	.45	.34	.32	.23
IN.	1.31	1.07	1.18	.92	1.36	1.48	1.69	1.10	.51	.40	.37	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1994, BY WATER YEAR (WY)

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
MEAN	321	397	503	593	696	945	946	701	490	353	267	252	252
MAX	1652	1132	1276	2058	1657	2497	2424	2354	1516	1079	712	784	784
(WY)	1955	1973	1983	1993	1959	1982	1950	1943	1981	1951	1958	1958	1958
MIN	75.9	95.9	122	122	108	301	363	222	101	94.0	73.0	58.5	58.5
(WY)	1965	1965	1964	1963	1963	1964	1946	1958	1934	1934	1941	1941	1941

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1932 - 1994	
ANNUAL TOTAL	313297		186101			
ANNUAL MEAN	858		510		538	
HIGHEST ANNUAL MEAN					1005	
LOWEST ANNUAL MEAN					197	
HIGHEST DAILY MEAN	4570	Jun 9	1830	Oct 18	6010	Feb 24 1985
LOWEST DAILY MEAN	210	Aug 27	67	Sep 29	7.0	Aug 11 1964
ANNUAL SEVEN-DAY MINIMUM	224	Aug 22	117	Sep 24	50	Sep 21 1941
INSTANTANEOUS PEAK FLOW			1900	Oct 18	6360	Feb 24 1985
INSTANTANEOUS PEAK STAGE			5.53	Oct 18	11.94	Mar 14 1982
ANNUAL RUNOFF (CFSM)	1.45		.86		.91	
ANNUAL RUNOFF (INCHES)	19.62		11.65		12.30	
10 PERCENT EXCEEDS	1550		909		1110	
50 PERCENT EXCEEDS	674		454		388	
90 PERCENT EXCEEDS	322		161		154	

• Estimated



STREAMS TRIBUTARY TO LAKE MICHIGAN

04101370 JUDAY CREEK NEAR SOUTH BEND, IN

LOCATION.--Lat 41°43'43", long 85°15'46", in NW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, sec.23, T.38N., R.2E., St. Joseph County, Hydrologic Unit 04050001, on right bank at downstream side of bridge on access road to Izaak Walton League property, 0.1 mi south of Darden Road in Roseland, IN.  
 DRAINAGE AREA.--Approx. 38 mi<sup>2</sup>.  
 PERIOD OF RECORD.--October 1992 to current year.  
 GAGE.--Water-stage recorder. Datum of gage about 690.00 ft above sea level.  
 REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	28	22	e15	e29	24	24	22	13	20	12	e14
2	25	27	21	e15	e26	23	24	20	13	20	12	e14
3	25	44	20	e14	e23	23	23	20	13	20	12	e14
4	22	68	21	e14	e21	27	22	20	13	19	14	e13
5	20	57	22	e14	e19	32	25	20	12	20	12	e13
6	19	47	22	e14	e17	36	29	20	12	22	14	e13
7	19	42	21	e13	e15	38	28	21	12	21	12	e12
8	18	38	21	e13	e14	29	27	20	12	19	12	e12
9	20	35	21	e13	e14	26	26	19	12	19	12	e12
10	18	32	21	e13	e13	25	26	18	11	18	12	e14
11	18	30	20	e12	e13	23	24	18	e11	18	12	e15
12	18	28	20	e12	e13	23	25	18	12	18	11	e13
13	18	32	19	e12	e13	23	26	17	14	18	13	e13
14	18	27	19	e12	e13	23	25	17	13	15	16	e12
15	18	25	19	e12	e14	23	25	18	12	e15	12	e12
16	34	24	19	e12	20	23	25	17	11	e15	12	e12
17	81	26	e18	e12	21	23	24	16	11	e14	11	e13
18	56	26	e18	e11	23	24	23	16	e11	14	11	e12
19	32	26	e18	e11	40	22	26	16	e11	13	14	e12
20	23	25	e18	e11	54	21	25	16	11	12	27	e12
21	22	25	e18	e11	42	22	23	e16	11	16	25	e11
22	19	26	e18	e11	29	21	23	e16	11	16	20	e11
23	19	25	e17	e11	26	21	e23	e15	12	14	19	e11
24	21	26	e17	e11	25	23	e22	15	20	14	18	e12
25	21	27	e17	e11	27	22	22	14	18	14	16	e13
26	26	40	e16	e12	e24	21	23	15	30	15	15	e14
27	26	25	e15	e16	e23	23	23	14	30	14	e15	e14
28	38	23	e15	e50	23	22	24	14	23	14	e14	e13
29	44	22	e15	e42	---	21	22	14	21	13	e14	e12
30	45	21	e14	e38	---	21	22	13	21	e13	e14	e12
31	34	---	e14	e33	---	21	---	13	---	e12	e14	---
TOTAL	845	947	576	501	634	749	729	528	437	505	447	380
MEAN	27.3	31.6	18.6	16.2	22.6	24.2	24.3	17.0	14.6	16.3	14.4	12.7
MAX	81	68	22	50	54	38	29	22	30	22	27	15
MIN	18	21	14	11	13	21	22	13	11	12	11	11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1994, BY WATER YEAR (WY)

	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994
MEAN	23.5	27.9	21.1	27.2	23.6	29.0	29.8	21.3	29.7	19.6	15.0	18.3
MAX	27.3	31.6	23.6	38.3	24.6	33.8	35.3	25.5	44.9	23.0	15.6	24.0
(WY)	1994	1994	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
MIN	19.8	24.3	18.6	16.2	22.6	24.2	24.3	17.0	14.6	16.3	14.4	12.7
(WY)	1993	1993	1994	1994	1994	1994	1994	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1993 - 1994	
	10404	28.5	7278	19.9	23.8	1993
ANNUAL TOTAL	10404	28.5	7278	19.9	23.8	1993
ANNUAL MEAN					27.7	1994
HIGHEST ANNUAL MEAN					19.9	1993
LOWEST ANNUAL MEAN					27.7	1994
HIGHEST DAILY MEAN	163	Jun 9	81	Oct 17	163	Jun 9 1993
LOWEST DAILY MEAN	13	Aug 2	11	Jan 18	11	Jan 18 1994
ANNUAL SEVEN-DAY MINIMUM	14	Aug 2	11	Jan 18	11	Jan 18 1994
INSTANTANEOUS PEAK FLOW			130	Oct 17	226	Jun 9 1993
INSTANTANEOUS PEAK STAGE			3.00	Oct 17	3.39	Jun 9 1993
10 PERCENT EXCEEDS	40		28		36	
50 PERCENT EXCEEDS	26		18		21	
90 PERCENT EXCEEDS	17		12		13	

e Estimated

## STREAMS TRIBUTARY TO LAKE ERIE

04177720 FISH CREEK AT HAMILTON, IN

LOCATION.--Lat 41°31'55", long 84°54'12", in SE<sup>1</sup>/<sub>4</sub> SW<sup>1</sup>/<sub>4</sub> sec.34, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003, on left bank 6 ft upstream from bridge on County Road 775 South, 0.5 mi downstream from Hamilton Lake outlet, and 0.5 mi southeast of Hamilton.

DRAINAGE AREA.--37.5 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 876.00 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	e7.7	26	11	61	32	26	89	5.7	4.7	2.6	1.8
2	13	6.9	26	11	49	29	24	65	4.2	4.3	2.9	1.7
3	10	8.7	27	11	40	28	29	51	4.2	3.5	2.8	1.7
4	8.8	8.5	37	11	33	44	28	42	4.3	3.2	3.6	1.7
5	6.9	9.7	47	10	28	85	28	37	4.1	3.3	3.5	1.8
6	6.2	8.9	41	13	24	104	42	31	4.3	3.3	2.6	2.0
7	6.4	8.0	34	14	21	158	50	33	3.7	4.0	2.3	1.8
8	6.2	7.1	31	e12	e20	132	64	36	3.5	7.9	2.3	1.7
9	30	7.0	27	11	e18	89	58	31	3.4	18	2.3	1.7
10	28	7.0	27	11	17	69	61	25	3.4	9.0	2.1	1.9
11	20	7.3	22	12	16	57	54	22	3.4	6.0	4.6	1.9
12	16	7.0	18	11	15	49	240	23	3.2	4.8	4.2	1.8
13	13	12	17	11	14	47	334	19	3.9	3.9	8.0	2.0
14	11	19	17	11	13	44	244	17	4.0	3.3	12	2.2
15	10	29	17	e11	13	40	167	18	3.7	3.4	5.7	2.5
16	20	23	16	e10	15	35	120	17	3.3	2.8	4.2	2.2
17	51	44	15	e9.5	17	30	87	14	4.9	2.8	3.5	2.0
18	45	51	17	e8.7	41	28	70	13	10	3.3	2.9	1.7
19	33	39	18	e8.1	133	25	60	12	6.2	3.0	2.8	1.6
20	28	31	18	e7.5	239	25	49	12	4.4	3.1	5.7	1.6
21	32	24	20	e7.4	206	42	40	11	3.7	10	7.4	1.7
22	25	21	18	e7.6	136	42	34	11	2.9	6.9	5.1	1.8
23	20	19	16	e8.0	103	37	29	10	3.1	5.0	3.8	2.0
24	18	26	15	e8.8	79	34	26	9.2	5.6	4.0	3.2	2.6
25	16	31	14	e11	63	29	24	8.6	7.2	4.1	2.9	3.8
26	14	46	13	e12	55	26	23	12	13	4.9	2.6	2.6
27	e13	61	12	14	45	36	51	8.9	16	4.1	2.6	2.7
28	e12	47	11	123	36	37	50	7.9	9.8	4.9	2.8	2.5
29	e11	37	11	163	---	37	68	6.7	8.7	3.7	2.0	1.8
30	e9.7	30	11	113	---	33	64	6.2	6.2	3.3	1.7	1.8
31	e8.6	---	11	82	---	29	---	6.2	---	2.9	2.2	---
TOTAL	554.8	683.8	650	764.6	1550	1532	2244	704.7	164.0	151.4	116.9	60.6
MEAN	17.9	22.8	21.0	24.7	55.4	49.4	74.8	22.7	5.47	4.88	3.77	2.02
MAX	51	61	47	163	239	158	334	89	16	18	12	3.8
MIN	6.2	6.9	11	7.4	13	25	23	6.2	2.9	2.8	1.7	1.6
CFSM	.48	.61	.56	.66	1.48	1.32	1.99	.61	.15	.13	.10	.05
IN.	.55	.68	.64	.76	1.54	1.52	2.23	.70	.16	.15	.12	.06

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1994, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	14.1	30.6	38.9	37.2	49.1	73.8	61.9	35.1	27.3	16.1	10.6	10.9													
MAX	69.5	117	91.3	161	129	219	112	88.4	118	64.3	35.0	47.1													
(WY)	1987	1993	1991	1993	1976	1982	1978	1990	1981	1992	1979	1981													
MIN	2.70	2.46	7.25	5.96	7.84	28.1	18.7	8.24	2.05	2.02	1.89	1.88													
(WY)	1977	1972	1977	1977	1979	1981	1971	1985	1988	1988	1970	1988													

## SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1970 - 1994	
ANNUAL TOTAL	16048.1		9176.8			
ANNUAL MEAN	44.0		25.1		33.7	
HIGHEST ANNUAL MEAN					54.7	
LOWEST ANNUAL MEAN					17.8	
HIGHEST DAILY MEAN	687		334		716	
LOWEST DAILY MEAN	3.6		1.6		.52	
ANNUAL SEVEN-DAY MINIMUM	4.1		1.8		.82	
INSTANTANEOUS PEAK FLOW			368		757	
INSTANTANEOUS PEAK STAGE			7.56		11.95	
ANNUAL RUNOFF (CFSM)	1.17		.67		.90	
ANNUAL RUNOFF (INCHES)	15.92		9.10		12.21	
10 PERCENT EXCEEDS	96		54		80	
50 PERCENT EXCEEDS	20		12		17	
90 PERCENT EXCEEDS	5.4		2.6		3.0	

e Estimated





STREAMS TRIBUTARY TO LAKE ERIE

04180500 ST. JOSEPH RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 41°10'41", long 85°03'19", in NW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.3, T.31 N., R.13 E., Allen County, Hydrologic Unit 04100003, on left bank 0.8 mi downstream from Ely Run, 1.3 mi upstream from Ely Bridge and Mayhew Road, 8.0 mi northeast of the Fort Wayne Court House.

DRAINAGE AREA.--1,060 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1983 to current year. July 1941 to September 1955 gage located 1.3 mi downstream at Ely Bridge.

GAGE.--Water-stage recorder. Datum of gage is 750.00 ft above sea level (levels by State of Indiana).

REMARKS.--Records good except for estimated daily discharges, which are fair. Flow regulated by Cedarville Reservoir and some flow diverted into storage of Hurshtown Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	416	316	959	e220	e4800	1390	750	2100	232	293	167	110
2	375	279	749	e220	e4300	1170	683	1900	250	287	164	108
3	321	263	738	242	e3800	852	652	1600	264	251	158	97
4	268	271	845	247	e3300	1130	680	1390	127	185	143	94
5	268	267	1430	238	3010	2290	653	1120	146	157	149	98
6	245	251	1260	228	2940	2480	788	1040	195	170	144	89
7	222	245	1130	249	2560	3900	1050	743	206	466	139	85
8	202	241	993	e210	2210	4320	1930	816	192	314	137	90
9	226	240	820	e210	e1950	3460	2030	723	168	634	133	94
10	462	227	829	e215	e1750	2980	2990	651	148	490	131	95
11	413	217	727	e220	1700	2460	2650	630	148	348	138	93
12	528	219	517	e220	1470	2020	6180	620	149	255	145	89
13	526	226	531	e220	1560	1570	8390	519	150	205	143	84
14	370	343	514	e220	1490	1360	7330	460	157	182	158	82
15	315	804	484	e215	1470	1310	5630	504	172	159	160	82
16	320	715	388	e210	1700	1120	4880	452	168	160	233	76
17	483	1240	386	e205	1960	1030	4000	400	174	159	304	79
18	784	2220	393	e205	2980	861	3320	391	174	168	224	77
19	777	1520	402	e200	5280	812	2710	329	196	161	183	71
20	905	1130	403	e200	4930	670	1710	361	178	154	162	68
21	808	831	424	e200	3970	699	1340	342	198	177	150	63
22	851	606	438	e200	3310	869	1100	302	177	197	143	62
23	764	527	429	e200	2870	1080	1020	300	186	177	137	59
24	612	510	434	e220	2640	1100	779	289	709	213	134	61
25	546	695	334	e400	2500	1030	755	274	560	235	137	75
26	521	947	e240	727	e2300	856	690	385	464	218	136	78
27	453	1710	e230	626	2420	850	1280	362	702	198	136	69
28	413	1560	e230	4190	1640	878	1220	230	398	184	134	78
29	487	1350	e225	7680	---	915	1820	238	774	171	116	69
30	463	1120	e220	6930	---	881	1540	239	491	168	117	70
31	432	---	e220	5610	---	809	---	234	---	173	115	---
TOTAL	14776	21090	17922	31377	76810	47152	70550	19944	8253	7309	4770	2445
MEAN	477	703	578	1012	2743	1521	2352	643	275	236	154	81.5
MAX	905	2220	1430	7680	5280	4320	8390	2100	774	634	304	110
MIN	202	217	220	200	1470	670	652	230	127	154	115	59
CFSM	.45	.66	.55	.95	2.59	1.43	2.22	.61	.26	.22	.15	.08
IN.	.52	.74	.63	1.10	2.70	1.65	2.48	.70	.29	.26	.17	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1994, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	666	1260	1358	1522	1725	1988	1829	857	846	479	280	342
MAX	1984	3330	2421	4615	3315	3612	2843	2270	2915	1413	748	766
(WY)	1987	1993	1991	1993	1990	1985	1985	1990	1989	1986	1990	1992
MIN	144	447	167	305	605	980	607	272	153	122	125	81.5
(WY)	1988	1988	1990	1984	1989	1989	1986	1988	1988	1988	1988	1994

SUMMARY STATISTICS

	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1984 - 1994
ANNUAL TOTAL	456976	322398	
ANNUAL MEAN	1252	883	1092
HIGHEST ANNUAL MEAN			1532
LOWEST ANNUAL MEAN			716
HIGHEST DAILY MEAN	13100	Jan 5	13100
LOWEST DAILY MEAN	145	Aug 22	43
ANNUAL SEVEN-DAY MINIMUM	156	Aug 17	60
INSTANTANEOUS PEAK FLOW		8750	13400
INSTANTANEOUS PEAK STAGE		13.81	18.40
ANNUAL RUNOFF (CFSM)	1.18	.83	1.03
ANNUAL RUNOFF (INCHES)	16.04	11.31	13.99
10 PERCENT EXCEEDS	2970	2350	2670
50 PERCENT EXCEEDS	543	388	544
90 PERCENT EXCEEDS	191	134	155

e Estimated





STREAMS TRIBUTARY TO LAKE ERIE

04182810 SPY RUN CREEK AT FORT WAYNE, IN

LOCATION.--Lat 41°06'18", long 85°09'12", in SW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub> sec.26, T.31 N., R.12 E., Allen County, Hydrologic Unit 04100004, on right bank 50 ft upstream from Sherman Boulevard bridge in Fort Wayne, and at mile 2.2.

DRAINAGE AREA.--14.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 760.00 ft above sea level, (levels by City of Fort Wayne).

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 14, 1982 reached a stage of 10.75 ft, present site and datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	e2.4	5.4	e1.8	e6.3	e4.3	4.4	28	3.2	3.9	2.9	3.7
2	3.7	e2.4	11	e1.9	e4.5	e4.3	3.7	13	3.0	3.5	4.0	3.4
3	2.8	e2.4	19	e1.9	e3.9	e4.6	23	7.8	2.9	3.2	3.4	3.1
4	2.8	e2.4	105	e1.8	e3.5	e44	11	6.8	2.8	3.1	9.9	2.9
5	3.0	e2.5	50	e1.7	e3.6	e66	8.4	5.1	2.7	3.1	7.2	2.8
6	2.8	e2.4	29	e1.7	4.6	e110	31	4.8	2.9	14	3.6	2.7
7	3.0	e2.4	18	e1.6	e3.5	e150	52	18	3.2	18	2.9	2.7
8	3.1	e2.3	6.9	e1.4	e3.1	e210	46	12	6.8	9.6	2.7	2.7
9	16	e2.3	5.2	e1.3	e2.4	e50	30	5.9	4.0	14	3.0	2.8
10	5.6	e2.2	4.9	e1.3	e2.1	e29	175	4.4	3.5	5.9	3.1	17
11	3.3	e2.4	4.2	e1.5	e2.0	e20	95	5.7	2.9	4.2	9.3	5.3
12	2.8	e3.3	3.6	e1.5	2.0	e14	511	7.5	2.7	3.8	5.2	3.3
13	2.5	39	3.5	e1.5	2.0	e48	102	4.0	3.6	3.7	4.6	3.1
14	2.7	208	4.0	e1.3	3.2	e35	38	3.3	6.9	3.8	9.2	3.4
15	2.6	110	6.6	e1.1	17	e28	27	3.4	3.5	3.8	3.8	3.4
16	11	28	5.0	e1.1	e10	e21	19	3.2	3.5	3.6	3.3	3.6
17	30	233	3.7	e1.1	e7.6	e16	14	3.1	6.2	3.8	3.0	5.8
18	9.1	68	7.9	e1.1	e27	e14	9.0	2.9	3.5	3.7	2.9	3.6
19	4.7	35	7.2	e1.1	e69	e11	6.5	2.8	3.3	3.5	2.7	3.2
20	4.2	25	11	e1.1	e130	e10	5.1	2.8	3.0	3.9	8.7	3.2
21	10	13	20	e1.1	e50	e8.3	4.6	2.6	3.0	6.9	7.5	3.2
22	4.9	7.2	7.2	e1.1	e27	e7.0	4.1	2.5	3.0	3.8	3.8	3.2
23	2.8	5.3	4.7	e1.5	e13	e5.3	3.8	2.5	6.8	3.6	3.2	3.2
24	e2.6	24	3.2	19	e7.2	13	3.4	2.6	67	6.4	2.8	8.4
25	e2.4	18	e2.6	22	e6.0	6.3	3.3	2.9	15	13	2.8	8.3
26	e2.4	81	e2.3	8.9	e5.4	5.0	3.3	24	43	12	3.0	6.0
27	e2.3	57	e2.0	12	e4.9	22	47	6.1	16	10	2.9	6.8
28	e2.3	25	e1.8	386	e4.5	13	32	3.9	6.7	8.2	3.2	4.8
29	e2.3	16	e1.8	42	---	10	27	3.2	7.0	5.5	3.2	3.8
30	e2.3	8.7	e1.7	21	---	6.4	31	3.1	5.3	5.2	4.1	3.4
31	e2.3	---	e1.7	12	---	4.9	---	3.2	---	3.3	4.8	---
TOTAL	157.8	1030.6	360.1	555.4	425.3	990.4	1370.6	201.1	246.9	194.0	136.7	132.8
MEAN	5.09	34.4	11.6	17.9	15.2	31.9	45.7	6.49	8.23	6.26	4.41	4.43
MAX	30	233	105	386	130	210	511	28	67	18	9.9	17
MIN	2.3	2.2	1.7	1.1	2.0	4.3	3.3	2.5	2.7	3.1	2.7	2.7
CFSM	.36	2.45	.83	1.28	1.08	2.28	3.26	.46	.59	.45	.31	.32
IN.	.42	2.74	.96	1.48	1.13	2.63	3.64	.53	.66	.52	.36	.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1994, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	14.5	23.9	22.9	17.1	24.8	26.2	24.8	14.3	13.0	15.4	8.60	12.0
MAX	43.7	61.3	66.2	48.9	64.6	46.6	45.7	34.2	34.3	48.3	21.7	39.8
(WY)	1992	1993	1991	1993	1990	1984	1994	1984	1989	1986	1990	1993
MIN	2.79	10.2	3.03	3.76	5.32	11.4	8.56	4.15	2.16	3.85	4.10	3.94
(WY)	1988	1985	1990	1984	1989	1987	1986	1988	1988	1991	1984	1988

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1984 - 1994
ANNUAL TOTAL	8026.3	5801.7	
ANNUAL MEAN	22.0	15.9	18.1
HIGHEST ANNUAL MEAN			25.6
LOWEST ANNUAL MEAN			11.5
HIGHEST DAILY MEAN	500	Jan 4	748
LOWEST DAILY MEAN	1.7	Dec 30	.93
ANNUAL SEVEN-DAY MINIMUM	2.0	Dec 25	1.1
INSTANTANEOUS PEAK FLOW			1370
INSTANTANEOUS PEAK STAGE			10.68
ANNUAL RUNOFF (CFSM)	1.57		1.29
ANNUAL RUNOFF (INCHES)	21.33		17.55
10 PERCENT EXCEEDS	41		34
50 PERCENT EXCEEDS	8.7		5.6
90 PERCENT EXCEEDS	2.7		2.5

e Estimated





ILLINOIS RIVER BASIN

05515500 KANKAKEE RIVER AT DAVIS, IN

LOCATION.--Lat 41°24'00", long 86°42'04", in SE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.13, T.34 N., R.3 W., Starke County, Hydrologic Unit 07120001, on left bank at downstream side of bridge on U.S. Highway 30 at Davis, 0.5 mi downstream from Mill Creek, 4 mi east of Hanna, and at mile 110.9.

DRAINAGE AREA.--537 mi<sup>2</sup>, of which 137 mi<sup>2</sup> does not contribute directly to surface runoff.

PERIOD OF RECORD.--July 1905 to July 1906 and October 1924 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1338: 1953. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 664.68 ft above sea level. July 13, 1905, to July 21, 1906, nonrecording gage at site 50 ft downstream at different datum. July 28, 1925, to May 18, 1929, nonrecording gage on bridge 0.5 mi downstream at different datum. Apr. 19, 1931, to Nov. 3, 1953, nonrecording gage at present site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	819	928	860	582	696	595	621	610	372	989	503	396
2	756	886	860	590	660	585	604	616	362	841	500	382
3	700	857	936	593	631	576	594	582	360	727	489	377
4	668	837	945	585	606	593	573	559	356	648	501	378
5	637	816	944	572	583	689	572	544	355	625	506	371
6	609	798	920	570	573	846	576	527	357	631	490	367
7	595	778	887	568	554	1000	578	534	346	811	479	362
8	592	757	854	534	534	1050	569	556	348	1100	471	352
9	622	729	819	410	529	994	562	545	363	1250	480	343
10	661	711	804	380	515	927	557	521	357	1170	474	363
11	647	693	781	400	509	868	546	501	338	1050	498	409
12	622	685	750	380	500	819	648	500	344	915	515	385
13	604	719	726	370	494	802	889	492	378	1020	520	364
14	587	766	711	360	491	796	878	478	963	978	558	349
15	577	797	699	350	506	789	834	475	1110	880	540	344
16	673	789	689	340	548	757	864	469	906	787	513	336
17	1340	784	682	330	583	715	803	459	725	724	495	348
18	1570	841	692	320	665	701	728	455	604	678	479	346
19	1580	847	704	320	812	689	680	448	540	643	488	339
20	1560	810	696	310	999	687	641	441	501	615	553	335
21	1550	771	701	300	1050	694	612	435	476	620	623	329
22	1520	744	689	290	967	703	588	428	439	631	588	328
23	1460	716	674	290	871	687	567	421	432	621	530	325
24	1400	703	655	300	792	671	555	412	581	587	487	333
25	1330	708	643	350	725	648	551	403	694	565	459	364
26	1270	831	620	440	671	634	538	418	768	574	443	396
27	1200	1050	617	556	645	665	536	408	1270	565	437	397
28	1130	1030	606	741	615	683	531	404	1350	553	423	384
29	1070	970	592	973	---	666	563	393	1280	541	405	373
30	1020	909	579	890	---	647	563	386	1150	524	398	363
31	967	---	580	785	---	632	---	380	---	512	404	---
TOTAL	30336	24260	22915	14779	18324	22808	18921	14800	18425	23375	15249	10838
MEAN	979	809	739	477	654	736	631	477	614	754	492	361
MAX	1580	1050	945	973	1050	1050	889	616	1350	1250	623	409
MIN	577	685	579	290	491	576	531	380	338	512	398	325
CFSM	1.82	1.51	1.38	.89	1.22	1.37	1.17	.89	1.14	1.40	.92	.67
IN.	2.10	1.68	1.59	1.02	1.27	1.58	1.31	1.03	1.28	1.62	1.06	.75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1994, BY WATER YEAR (WY)

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	414	475	521	547	582	720	746	628	521	416	352	349																																																									
MAX	1162	988	1190	1275	990	1376	1218	1067	1057	839	791	718																																																									
(WY)	1955	1991	1928	1993	1991	1985	1982	1983	1950	1950	1990	1972																																																									
MIN	198	230	236	235	236	325	420	296	248	205	174	179																																																									
(WY)	1964	1965	1964	1963	1964	1934	1987	1934	1934	1934	1941	1941																																																									

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1926 - 1994
ANNUAL TOTAL	301368	235030	
ANNUAL MEAN	826	644	522
HIGHEST ANNUAL MEAN			823
LOWEST ANNUAL MEAN			293
HIGHEST DAILY MEAN	1590	Jan 6	1580
LOWEST DAILY MEAN	329	Aug 28	290
ANNUAL SEVEN-DAY MINIMUM	345	Aug 22	304
INSTANTANEOUS PEAK FLOW			1580
INSTANTANEOUS PEAK STAGE			13.37
ANNUAL RUNOFF (CFSM)	1.54	1.20	1.52
ANNUAL RUNOFF (INCHES)	20.88	16.28	13.20
10 PERCENT EXCEEDS	1260	967	893
50 PERCENT EXCEEDS	789	594	450
90 PERCENT EXCEEDS	469	363	275

• Estimated



## ILLINOIS RIVER BASIN

221

## 05517000 YELLOW RIVER AT KNOX, IN

LOCATION.--Lat 41°18'10", long 86°37'14", in SW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.14, T.33 N., R.2 W., Starke County, Hydrologic Unit 07120001, on right bank 40 ft upstream from bridge on U.S. Highway 35 in Knox, 1.4 mi downstream from Eagle Creek, and at mile 11.6.

DRAINAGE AREA.--435 mi<sup>2</sup>, of which 51 mi<sup>2</sup> does not contribute directly to surface runoff.

PERIOD OF RECORD.--August 1905 to July 1906, August 1943 to current year.

REVISED RECORDS.--WSP 1278: 1952. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 679.93 ft above sea level (levels by State of Indiana, Department of Natural Resources). August 1905 to July 1906, nonrecording gage at same site at different datum. August 1943 to July 17, 1952, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	367	479	570	e245	e1100	407	360	542	210	1530	231	157
2	339	462	553	e240	e900	392	346	651	207	877	225	152
3	312	449	642	e230	e700	377	337	580	203	548	216	149
4	291	440	792	e220	e560	395	326	502	203	452	212	145
5	275	432	829	e212	e450	537	315	456	196	391	217	142
6	258	421	890	e210	e350	778	328	425	189	456	209	142
7	245	401	812	e203	e300	947	339	411	183	727	200	139
8	234	382	680	e193	e270	1100	351	438	183	879	199	138
9	284	373	596	e185	e265	1180	395	447	186	784	247	136
10	509	361	552	e180	e260	1020	400	412	177	685	438	140
11	638	351	532	e178	e260	710	380	375	169	542	398	158
12	490	344	507	e180	e257	590	537	355	175	456	358	177
13	401	369	483	e182	e260	547	1040	342	205	416	351	165
14	353	423	470	e183	e262	541	1290	335	587	411	434	147
15	322	511	463	e185	290	534	1580	321	1060	408	478	140
16	405	555	455	e170	349	505	1570	310	1100	361	343	140
17	1190	544	437	e180	492	459	1230	297	833	333	281	160
18	1620	574	430	e170	660	425	902	286	498	311	237	155
19	1820	683	452	e160	870	409	689	277	440	317	219	151
20	2040	632	459	e160	1030	382	591	270	359	305	214	145
21	2130	548	467	e160	1190	378	532	265	311	323	220	140
22	1990	504	e410	e190	1290	396	485	259	280	392	247	137
23	1740	471	e375	e200	1160	415	450	251	259	427	233	135
24	1570	462	e340	e230	771	394	421	245	358	391	205	137
25	1210	481	e310	e260	593	367	397	242	486	325	188	156
26	869	575	e300	e300	e500	344	382	244	566	288	173	172
27	702	834	e285	e340	e450	360	421	240	952	287	164	172
28	612	1010	e270	e450	443	402	432	232	1250	290	162	162
29	560	999	e255	e640	---	422	458	225	1590	283	163	153
30	537	716	e235	e1000	---	405	490	218	1720	268	159	142
31	505	---	e240	e1300	---	379	---	214	---	248	161	---
TOTAL	24818	15786	15091	8936	16282	16497	17774	10667	15135	14711	7782	4484
MEAN	801	526	487	288	581	532	592	344	504	475	251	149
MAX	2130	1010	890	1300	1290	1180	1580	651	1720	1530	478	177
MIN	234	344	235	160	257	344	315	214	169	248	159	135
CFSM	1.84	1.21	1.12	.66	1.34	1.22	1.36	.79	1.16	1.09	.58	.34
IN.	2.12	1.35	1.29	.76	1.39	1.41	1.52	.91	1.29	1.26	.67	.38

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1994, BY WATER YEAR (WY)

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
MEAN	264	301	394	446	518	728	723	489	396	267	202	181
MAX	1939	883	1070	1580	1193	2127	1714	1113	1113	737	652	692
(WY)	1955	1973	1967	1993	1959	1982	1950	1981	1975	1951	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 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	WATER YEARS 1944 - 1994
ANNUAL TOTAL	246511	167963	
ANNUAL MEAN	675	460	409
HIGHEST ANNUAL MEAN			661 1950
LOWEST ANNUAL MEAN			180 1964
HIGHEST DAILY MEAN	3230	Jan 8	2130 Oct 21
LOWEST DAILY MEAN	160	Aug 23	135 Sep 23
ANNUAL SEVEN-DAY MINIMUM	165	Aug 22	140 Sep 4
INSTANTANEOUS PEAK FLOW			2140 Oct 21
INSTANTANEOUS PEAK STAGE		a9.44 Feb 1	13.75 Oct 15 1954
ANNUAL RUNOFF (CFSM)	1.55	1.06	.94
ANNUAL RUNOFF (INCHES)	21.08	14.36	12.76
10 PERCENT EXCEEDS	1350	894	883
50 PERCENT EXCEEDS	486	375	264
90 PERCENT EXCEEDS	236	170	111

e Estimated

a Backwater from ice jam



ILLINOIS RIVER BASIN

05517530 KANKAKEE RIVER NEAR KOUTS, IN

LOCATION.--Lat 41°15'14", long 87°02'02", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec.6, T.32 N., R.5 W., Jasper County, Hydrologic Unit 07120001, on left bank, 20 ft downstream from bridge on State Highway 49, 4.5 mi south of Kouts, 0.7 mi upstream from Cook Ditch, and at mile 86.7.  
 DRAINAGE AREA.--1,376 mi<sup>2</sup>, of which 194 mi<sup>2</sup> does not contribute directly to surface runoff.  
 PERIOD OF RECORD.--October 1974 to current year.  
 REVISED RECORDS.--WDR IN-77-1; 1975(M).  
 GAGE.--Water-stage recorder. Datum of gage is 645.00 ft above sea level.  
 REMARKS.--Records fair except for estimated daily discharges, Jan. 9 to Feb. 17, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1970	2790	e2550	1500	e1940	e1740	1600	1690	893	2900	1040	870
2	1830	2560	e2450	1480	e1800	e1700	1520	1780	855	2840	1070	845
3	1710	2330	e2470	1530	e1720	1670	1470	1810	843	2560	1050	833
4	1600	2250	e2520	1490	e1650	1670	1460	1700	827	2120	1030	821
5	1520	2130	e2600	1460	e1600	1820	1440	1620	845	1780	1040	814
6	1480	2020	e2600	1470	e1540	2060	1400	1590	838	1680	1020	819
7	1440	1970	e2580	1420	e1500	2390	1420	1520	772	1750	974	842
8	1360	1960	e2520	1300	e1450	2620	1420	1540	753	2030	938	810
9	1420	1840	e2450	e1040	e1350	2710	1410	1580	789	2290	931	799
10	1560	1800	e2350	e1000	e1300	2740	1470	1500	768	2400	1010	758
11	1740	1800	e2280	e1080	e1240	2630	1410	1420	765	2380	1150	859
12	1780	1710	e2180	e1070	e1200	2460	1570	1410	778	2230	1150	850
13	1700	1750	e2100	e980	e1190	2330	2080	1350	799	2080	1150	820
14	1620	1880	e2030	e960	e1190	2210	2400	1290	1610	2040	1240	761
15	1520	1960	e2000	e940	e1230	2140	2620	1310	2320	2060	1320	730
16	1600	1990	e1960	e920	e1320	2120	2840	1310	2540	1920	1210	725
17	3040	e2050	e1920	e910	e1470	2030	2930	1270	2600	1740	1110	774
18	3690	e2200	e1900	e890	1710	1950	2840	1180	2370	1600	1060	765
19	3880	e2280	e1880	e880	2020	1830	2630	1140	1960	1620	997	731
20	4050	e2270	e1860	e860	2310	1760	2400	1180	1690	1560	1030	753
21	4200	e2160	e1880	e850	2490	1760	2170	1120	1470	1540	1190	761
22	4250	e2080	e1860	e840	2640	1760	1980	1100	1320	1580	1200	733
23	4220	e2000	e1820	e840	2670	1730	1860	1140	1200	1550	1160	719
24	4170	e1960	e1800	e890	2550	1690	1780	1110	1310	1500	1070	612
25	4090	e1950	e1740	e940	2350	1680	1680	1050	1510	1400	1010	632
26	4020	e2050	e1620	e1000	2030	1620	1600	1040	1710	1290	957	716
27	3900	e2450	e1540	e1050	e1870	1590	1580	1010	2110	1250	932	757
28	3720	e2600	e1560	e1800	e1800	1650	1600	979	2430	1210	880	766
29	3500	e2650	e1500	e2500	---	1700	1630	964	2650	1190	901	755
30	3280	e2600	1470	e2330	---	1680	1610	938	2810	1150	878	694
31	3040	---	1490	e2150	---	1620	---	921	---	1070	889	---
TOTAL	82900	64040	63480	38370	49130	61060	55820	40562	44135	56310	32587	23124
MEAN	2674	2135	2048	1238	1755	1970	1861	1308	1471	1816	1051	771
MAX	4250	2790	2600	2500	2670	2740	2930	1810	2810	2900	1320	870
MIN	1360	1710	1470	840	1190	1590	1400	921	753	1070	878	612
CFSM	1.94	1.55	1.49	.90	1.28	1.43	1.35	.95	1.07	1.32	.76	.56
IN.	2.24	1.73	1.72	1.04	1.33	1.65	1.51	1.10	1.19	1.52	.88	.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1994, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
MEAN	1070	1312	1660	1559	1637	2421	2544	1863	1632	1131	900	877									
MAX	2770	2392	2889	3787	2614	4613	4229	3255	3172	1828	2432	2014									
(WY)	1991	1991	1991	1991	1991	1985	1985	1983	1981	1981	1990	1993									
MIN	477	542	704	634	718	1423	1144	1113	619	411	398	479									
(WY)	1979	1979	1979	1977	1978	1987	1987	1992	1988	1988	1988	1978									

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR	FOR 1993 CALENDAR YEAR	FOR 1994 WATER YEAR
ANNUAL TOTAL	836758	611518				
ANNUAL MEAN	2292	1675				
HIGHEST ANNUAL MEAN			1549			
LOWEST ANNUAL MEAN			2160			1991
HIGHEST DAILY MEAN	4970	Jan 10	6410	Oct 22		1977
LOWEST DAILY MEAN	688	Aug 28	292	Sep 24		1988
ANNUAL SEVEN-DAY MINIMUM	731	Aug 22	309	Sep 20		1988
INSTANTANEOUS PEAK FLOW			4280	Oct 22		1982
INSTANTANEOUS PEAK STAGE			12.86	Oct 22		1982
ANNUAL RUNOFF (CFSM)	1.67		1.22			
ANNUAL RUNOFF (INCHES)	22.62		16.53			
10 PERCENT EXCEEDS	3500		2600			
50 PERCENT EXCEEDS	2150		1600			
90 PERCENT EXCEEDS	1240		841			

e Estimated

## 05517890 COBB DITCH NEAR KOUTS, IN

LOCATION.--Lat 41°20'19", long 87°04'30", in NW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, sec. 2, T.33 N., R.6 W., Porter County, Hydrologic Unit 07120001, on left bank 15 ft upstream from bridge on County Road 50 West, 1.6 mi upstream from mouth, and 3 mi northwest of Kouts.

DRAINAGE AREA.--30.3 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1968 to current year. Prior to October 1971, published as State Ditch near Kouts.

GAGE.--Water-stage recorder. Datum of gage is 652.00 ft above sea level (Indiana Department of Highways bench mark). Prior to Oct. 19, 1978, water-stage recorder at site 1.4 mi downstream at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	40	42	e24	37	31	27	20	18	22	18	17
2	32	39	66	e23	34	30	26	25	18	21	19	16
3	30	38	63	e23	31	30	26	24	17	21	18	16
4	29	37	54	e22	28	34	26	23	17	21	21	16
5	28	36	50	e22	26	76	25	23	17	21	21	16
6	28	36	45	e21	26	132	25	22	16	23	19	16
7	27	36	41	e21	25	155	24	24	16	23	18	16
8	27	35	39	e20	24	81	24	24	17	29	17	16
9	29	34	37	e20	e23	58	24	23	18	32	17	15
10	28	33	36	e20	e22	50	24	22	18	25	17	15
11	28	32	34	e19	e22	45	24	21	17	24	22	15
12	27	32	33	e19	e21	40	54	21	17	24	20	15
13	26	56	32	e18	e21	38	64	20	20	43	22	15
14	26	51	32	e18	23	39	52	20	48	54	26	14
15	26	52	32	e17	30	37	45	20	27	61	20	14
16	96	44	31	e17	46	34	42	19	24	35	19	15
17	401	58	30	e17	70	32	34	19	23	29	18	15
18	148	74	32	e16	98	32	31	19	22	26	17	14
19	92	52	36	e16	131	31	29	19	22	24	21	14
20	77	45	35	e15	138	30	27	19	21	25	33	14
21	105	43	35	e15	79	31	26	19	21	114	28	14
22	67	39	32	e15	54	31	25	19	20	46	22	14
23	57	37	e30	e16	46	30	25	19	22	34	20	14
24	51	37	29	e18	42	29	25	17	36	30	19	16
25	48	37	29	e28	36	28	25	19	26	27	18	17
26	44	169	27	e27	e35	28	24	18	27	25	18	17
27	41	102	27	e24	34	30	22	17	34	24	17	16
28	40	64	26	162	32	29	24	18	26	22	17	16
29	38	52	25	90	---	28	24	18	24	21	17	15
30	37	45	24	56	---	28	25	18	23	20	17	15
31	38	---	24	43	---	27	---	18	---	18	17	---
TOTAL	1806	1485	1108	882	1234	1354	898	635	672	964	613	458
MEAN	58.3	49.5	35.7	28.5	44.1	43.7	29.9	20.5	22.4	31.1	19.8	15.3
MAX	401	169	66	162	138	155	64	28	48	114	33	17
MIN	26	32	24	15	21	27	22	17	16	18	17	14
CFSM	1.92	1.63	1.18	.94	1.45	1.44	.99	.68	.74	1.03	.65	.50
IN.	2.22	1.82	1.36	1.08	1.52	1.66	1.10	.78	.83	1.18	.75	.56

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1994, BY WATER YEAR (WY)

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	22.6	32.5	34.4	33.4	39.7	55.3	51.6	41.6	35.7	25.6	21.4	19.5														
MAX	67.8	112	88.9	86.8	79.3	142	103	89.4	95.4	71.5	99.0	60.6														
(WY)	1991	1986	1991	1993	1976	1982	1975	1974	1981	1983	1990	1993														
MIN	11.5	11.0	14.4	11.0	10.6	18.0	20.8	14.9	14.6	12.0	10.8	12.0														
(WY)	1981	1981	1990	1977	1978	1981	1986	1980	1988	1988	1988	1988														

## SUMMARY STATISTICS

## FOR 1993 CALENDAR YEAR

## FOR 1994 WATER YEAR

## WATER YEARS 1969 - 1994

ANNUAL TOTAL	19315	12109	
ANNUAL MEAN	52.9	33.2	34.4
HIGHEST ANNUAL MEAN			53.1
LOWEST ANNUAL MEAN			19.3
HIGHEST DAILY MEAN	494	Jan 4	401
LOWEST DAILY MEAN	15	Aug 23	14
ANNUAL SEVEN-DAY MINIMUM	16	Aug 22	14
INSTANTANEOUS PEAK FLOW			481
INSTANTANEOUS PEAK STAGE			12.43
ANNUAL RUNOFF (CFSM)	1.75		1.09
ANNUAL RUNOFF (INCHES)	23.71		14.87
10 PERCENT EXCEEDS	92		53
50 PERCENT EXCEEDS	37		26
90 PERCENT EXCEEDS	21		17

e Estimated



## 05519000 SINGLETON DITCH AT SCHNEIDER, IN

LOCATION.--Lat 41°12'44", long 87°26'44", in SW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.22, T.32 N., R.9 W., Lake County, Hydrologic Unit 07120001, on left bank 15 ft upstream from bridge on Ackerman Avenue, 0.5 mi upstream from Bruce Ditch, 1.5 mi downstream from Cedar Creek, 1.6 mi north of Schneider, and at mile 10.1.

DRAINAGE AREA.--123 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 1915: 1956-59. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 623.67 ft above sea level. Prior to Oct. 1, 1949, nonrecording gage at same site at datum 2.00 ft higher. Oct. 1, 1949, to Aug. 13, 1951, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	184	183	207	97	•170	139	102	107	41	75	46	31
2	152	179	222	95	•155	133	98	98	40	70	72	30
3	145	176	254	93	•134	131	96	93	39	67	58	30
4	133	167	225	92	•125	139	93	89	38	63	57	30
5	123	162	219	90	•115	234	92	86	38	60	56	32
6	119	149	203	89	•106	456	91	83	38	64	50	31
7	113	128	205	85	•100	809	87	89	36	333	47	30
8	109	132	187	•84	•96	563	82	96	39	153	42	29
9	130	122	150	•84	•93	381	80	90	40	157	39	29
10	165	110	145	•84	•92	298	78	85	37	107	37	30
11	151	105	134	•83	•92	252	75	83	35	89	42	30
12	144	102	131	•83	•92	198	178	79	39	80	45	29
13	133	158	128	•83	•94	181	268	74	42	76	44	29
14	104	177	126	•82	99	181	247	72	999	75	45	28
15	98	217	123	•82	108	177	224	75	658	89	43	27
16	223	165	118	•81	175	163	233	70	258	69	38	26
17	1420	219	115	•81	204	153	156	65	177	61	38	26
18	1150	383	130	•80	289	149	145	63	142	61	36	25
19	722	237	164	•80	356	143	133	62	122	59	37	24
20	526	195	133	•80	452	139	121	60	111	63	40	24
21	678	173	138	•79	399	137	113	55	102	340	40	26
22	482	155	124	•79	294	132	108	55	92	184	38	27
23	337	145	116	•85	244	124	103	55	96	123	36	30
24	270	142	113	•102	191	119	100	54	140	99	35	31
25	244	143	111	•120	158	111	96	48	120	86	33	31
26	218	543	•109	•145	•150	112	92	51	102	76	33	31
27	195	624	•104	•200	•143	121	89	53	92	70	32	30
28	187	404	•102	624	•140	118	87	48	88	66	30	29
29	173	287	•100	459	---	113	92	46	83	59	30	28
30	164	236	•100	266	---	109	90	46	80	53	30	28
31	168	---	•98	200	---	105	---	43	---	47	32	---
TOTAL	9160	6318	4534	4067	4866	6320	3649	2173	3964	3074	1281	861
MEAN	295	211	146	131	174	204	122	70.1	132	99.2	41.3	28.7
MAX	1420	624	254	624	452	809	268	107	999	340	72	32
MIN	98	102	98	79	92	105	75	43	35	47	30	24
CFSM	2.40	1.71	1.19	1.07	1.41	1.66	.99	.57	1.07	.81	.34	.23
IN.	2.77	1.91	1.37	1.23	1.47	1.91	1.10	.66	1.20	.93	.39	.26

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1994, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)								
MEAN	62.3	88.3	116	125	149	212	213	143	114	66.4	44.4	46.6
MAX	295	471	457	475	486	634	477	421	463	275	237	308
(WY)	1994	1986	1991	1993	1959	1982	1950	1974	1989	1981	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 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1949 - 1994	
ANNUAL TOTAL	90417		50267			
ANNUAL MEAN	248		138		115	
HIGHEST ANNUAL MEAN					227	
LOWEST ANNUAL MEAN					24.0	
HIGHEST DAILY MEAN	1720	Jan 5	1420	Oct 17	2990	Mar 5 1976
LOWEST DAILY MEAN	45	Aug 25	24	Sep 19	3.6	Sep 7 1964
ANNUAL SEVEN-DAY MINIMUM	46	Aug 22	25	Sep 15	3.8	Sep 4 1964
INSTANTANEOUS PEAK FLOW			1750	Oct 17	3550	Mar 5 1976
INSTANTANEOUS PEAK STAGE			10.17	Oct 17	12.54	Nov 28 1990
ANNUAL RUNOFF (CFSM)	2.01		1.12		.93	
ANNUAL RUNOFF (INCHES)	27.35		15.20		12.68	
10 PERCENT EXCEEDS	542		244		256	
50 PERCENT EXCEEDS	165		100		60	
90 PERCENT EXCEEDS	80		33		18	

• Estimated







## DES PLAINES RIVER BASIN

05536179 HART DITCH AT DYER, IN

LOCATION.--Lat 41°30'28", long 87°30'36", in NE<sup>1</sup>/<sub>4</sub>/NE<sup>1</sup>/<sub>4</sub>, sec.12, T.35 N., R.10 W., Lake County, Hydrologic Unit 07120003, on right bank 50 ft upstream from 213th Street in Dyer, 0.8 mi upstream from Dyer Ditch.

DRAINAGE AREA.--37.6 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 607.38 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low-flow affected by sewage effluent.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	23	36	9.6	34	e12	5.2	46	4.0	8.1	4.9	e1.9
2	33	19	64	12	25	e12	5.2	26	4.1	7.1	18	e1.7
3	20	25	89	13	19	14	6.0	18	4.3	5.6	16	e1.6
4	14	25	64	12	14	34	4.7	15	4.3	8.4	30	2.0
5	11	18	73	10	12	129	4.1	12	4.3	7.2	29	2.8
6	9.3	14	55	9.7	10	264	3.9	11	4.1	7.1	12	2.9
7	7.7	12	46	9.8	9.0	370	3.8	17	4.1	9.4	6.8	e2.0
8	7.9	10	37	7.8	7.6	202	3.7	26	6.0	18	5.1	e1.7
9	20	8.8	31	6.3	7.2	121	6.6	18	5.4	12	5.2	e1.5
10	21	11	32	6.4	6.3	71	3.6	13	5.7	7.0	5.8	2.4
11	13	8.5	25	7.5	5.8	44	5.7	10	6.5	5.2	12	e2.0
12	9.6	8.1	21	8.5	5.5	31	165	9.0	6.0	4.5	8.7	e1.8
13	8.1	49	20	8.8	5.4	30	228	8.3	21	5.3	11	e1.9
14	7.2	51	20	8.3	6.2	38	162	9.1	691	9.9	9.0	2.3
15	6.7	41	20	6.2	8.5	30	125	16	337	7.2	6.7	2.0
16	169	31	19	4.9	27	20	117	13	154	5.2	5.0	1.8
17	1290	56	18	e4.3	132	14	55	9.0	100	5.2	3.9	1.3
18	721	106	22	e4.0	213	13	38	7.5	61	5.5	2.7	e1.0
19	235	59	30	e3.8	295	10	28	6.5	35	6.5	5.0	e.96
20	170	37	29	e3.6	355	8.7	22	5.8	70	10	7.7	e.90
21	204	23	28	e3.6	187	8.7	19	6.6	54	35	e5.3	e.84
22	134	19	24	e3.8	108	7.8	17	7.9	23	38	e4.3	e.88
23	93	14	20	e5.0	47	6.8	13	8.6	20	17	e3.7	e.78
24	65	13	16	9.8	46	5.9	12	6.5	91	7.6	e3.5	4.0
25	44	16	16	29	e20	5.3	11	4.9	71	5.3	e3.5	7.0
26	32	206	12	54	e16	5.1	13	4.2	37	4.4	3.8	6.6
27	24	217	12	46	e14	9.5	13	4.3	22	3.9	3.4	4.2
28	18	111	10	140	e13	11	14	4.1	16	3.7	2.7	4.0
29	15	71	9.3	160	---	8.0	21	3.8	12	3.6	3.0	4.1
30	14	45	8.0	88	---	6.8	23	4.0	9.5	3.6	5.1	3.5
31	18	---	8.5	47	---	5.3	---	3.6	---	3.4	2.2	---
TOTAL	3491.5	1349.4	914.8	742.7	1648.5	1547.9	1148.5	354.7	1883.3	279.9	245.0	72.36
MEAN	113	45.0	29.5	24.0	58.9	49.9	38.3	11.4	62.8	9.03	7.90	2.41
MAX	1290	217	89	160	355	370	228	46	691	38	30	7.0
MIN	6.7	8.1	8.0	3.6	5.4	5.1	3.6	3.6	4.0	3.4	2.2	.78
CFSM	3.00	1.20	.78	.64	1.57	1.33	1.02	.30	1.67	.24	.21	.06
IN.	3.45	1.34	.91	.73	1.63	1.53	1.14	.35	1.86	.28	.24	.07

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1994, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994
MEAN	44.3	87.0	53.8	50.8	52.3
MAX	113	195	106	136	70.7
(WY)	1994	1991	1991	1993	1990
MIN	3.31	19.6	4.92	17.7	9.89
(WY)	1993	1990	1990	1992	1993

SUMMARY STATISTICS	FOR 1993 CALENDAR YEAR		FOR 1994 WATER YEAR		WATER YEARS 1990 - 1994	
	1290	Oct 17	1290	Oct 17	2580	Nov 28 1990
ANNUAL TOTAL	29541.8		13678.56			
ANNUAL MEAN	80.9		37.5		50.2	
HIGHEST ANNUAL MEAN					76.6	1993
LOWEST ANNUAL MEAN					34.4	1990
HIGHEST DAILY MEAN	1290	Oct 17	1290	Oct 17	2580	Nov 28 1990
LOWEST DAILY MEAN	3.0	May 20	.78	Sep 23	.78	Sep 23 1994
ANNUAL SEVEN-DAY MINIMUM	3.4	May 16	.95	Sep 17	.95	Sep 17 1994
INSTANTANEOUS PEAK FLOW			1590	Oct 17	3010	Nov 28 1990
INSTANTANEOUS PEAK STAGE			11.36	Oct 17	15.33	Nov 28 1990
ANNUAL RUNOFF (CFSM)	2.15		1.00		1.34	
ANNUAL RUNOFF (INCHES)	29.23		13.53		18.16	
10 PERCENT EXCEEDS	208		88		130	
50 PERCENT EXCEEDS	24		11		16	
90 PERCENT EXCEEDS	7.1		3.6		3.7	

e Estimated





## DES PLAINES RIVER BASIN

233

05536357 GRAND CALUMET RIVER AT HOHMAN AVE AT HAMMOND, IN

LOCATION.--Lat 41°37'28", long 87°23'10", in NW<sup>1</sup>/<sub>4</sub>/NE<sup>1</sup>/<sub>4</sub>sec. 36, T37 N., R10 W., Lake County, Hydrologic Unit 07120003, on left bank, 20 feet upstream of 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 sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	72	43	29	35	41	37	65	49	38	66	58
2	62	58	49	35	31	43	39	51	48	41	79	49
3	55	64	45	37	31	40	43	55	48	42	60	50
4	57	60	56	40	30	47	35	53	46	41	76	48
5	59	80	48	34	30	47	71	52	45	43	68	45
6	57	80	46	37	31	54	70	53	46	44	51	46
7	56	53	44	41	40	51	46	64	48	54	47	44
8	65	50	41	34	43	45	37	51	59	53	47	41
9	121	57	37	29	43	45	38	49	48	43	55	47
10	68	56	49	23	35	42	40	51	43	41	52	71
11	56	54	54	28	35	41	48	48	43	42	86	55
12	57	57	35	26	41	39	76	51	48	42	53	47
13	60	67	33	29	34	43	56	52	59	47	69	41
14	55	63	48	31	34	39	45	54	63	50	52	47
15	54	66	57	33	39	44	45	54	49	49	45	51
16	76	52	48	27	36	48	41	53	47	46	46	43
17	131	63	40	27	39	38	38	54	42	47	46	48
18	99	53	41	30	41	46	40	57	42	48	47	47
19	86	47	35	28	37	38	51	52	44	52	55	43
20	85	45	34	25	51	41	45	50	44	52	62	42
21	81	39	39	21	45	48	47	49	44	61	58	44
22	66	45	38	25	52	37	46	49	41	52	53	46
23	64	57	38	25	69	42	40	51	64	51	53	51
24	62	77	32	28	52	43	35	55	83	50	49	53
25	69	67	35	35	47	46	47	55	49	52	48	49
26	73	78	31	42	60	41	60	69	42	54	51	53
27	66	59	34	38	42	48	64	55	43	55	51	52
28	54	51	30	66	39	42	77	46	39	58	46	46
29	54	49	29	44	---	42	60	46	41	55	46	41
30	69	47	27	52	---	40	73	47	41	54	47	44
31	94	---	24	39	---	34	---	47	---	51	59	---
TOTAL	2173	1766	1240	1038	1142	1335	1490	1638	1448	1508	1723	1442
MEAN	70.1	58.9	40.0	33.5	40.8	43.1	49.7	52.8	48.3	48.6	55.6	48.1
MAX	131	80	57	66	69	54	77	69	83	61	86	71
MIN	54	39	24	21	30	34	35	46	39	38	45	41

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1994, BY WATER YEAR (WY)

	1991	1992	1993	1994	1991	1992	1993	1994	1991	1992	1993	1994
MEAN	36.8	35.1	28.6	30.3	32.8	37.9	44.2	40.3	56.1	58.3	49.6	52.1
MAX	70.1	58.9	40.0	37.6	40.8	43.1	49.7	52.8	98.8	102	74.2	81.2
(WY)	1994	1994	1994	1993	1994	1994	1994	1994	1993	1993	1993	1993
MIN	17.7	21.5	20.8	19.9	23.0	28.1	34.3	29.6	21.1	24.2	19.1	26.9
(WY)	1993	1993	1993	1992	1992	1992	1992	1992	1992	1992	1992	1992

## SUMMARY STATISTICS

## FOR 1993 CALENDAR YEAR

## FOR 1994 WATER YEAR

## WATER YEARS 1991 - 1994

ANNUAL TOTAL	22164	17943		
ANNUAL MEAN	60.7	49.2		41.9
HIGHEST ANNUAL MEAN				51.6
LOWEST ANNUAL MEAN				24.9
HIGHEST DAILY MEAN	205	Jun 28	131	Oct 17
LOWEST DAILY MEAN	24	Jan 2	21	Jan 21
ANNUAL SEVEN-DAY MINIMUM	30	Jan 14	26	Jan 17
INSTANTANEOUS PEAK FLOW			177	Oct 17
INSTANTANEOUS PEAK STAGE			5.82	Oct 17
10 PERCENT EXCEEDS	101		66	71
50 PERCENT EXCEEDS	54		47	37
90 PERCENT EXCEEDS	33		35	18

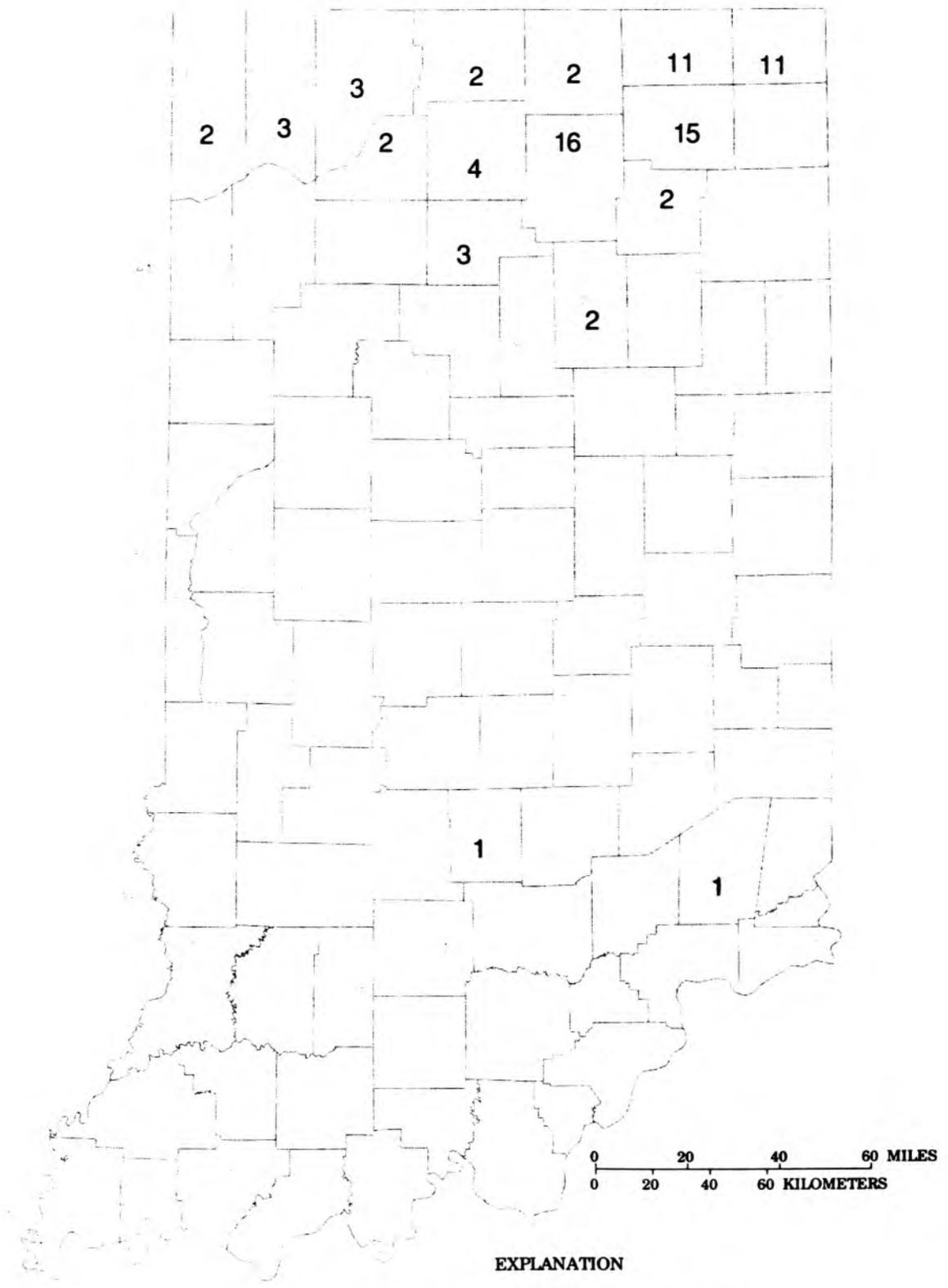


Figure 7.--Number of lakes by county having 1994 water-level records.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100030 ADAMS LAKE NEAR WOLCOTTVILLE, IN

LOCATION.--Lat 41°33'15", long 86°19'11", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--949.90 ft above sea level, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1976.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the southwest wall of the dam on the outlet channel about 500 ft downstream from the lake.

ESTABLISHED LEGAL LEVEL.--3.59 ft gage datum or 953.59 ft above sea level as decreed on December 17, 1949, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 3.59 ft gage datum or 953.49 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest "V" notch weir.

INLET AND OUTLET.--One inlet enters on the east side from Blackman Lake 2.3 mi upstream. The other inlet enters on the northeastern shore from Eve Lake. The outlet flows from the lake on the southern shore and into Little Elkhart Creek 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.32 ft June 15, 1981; minimum stage, 2.12 ft Jan. 8, 1954.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.79	3.92	4.01	3.97	3.97	4.13	4.07	4.18	3.71	3.56	3.28	3.07
10	3.84	3.87	4.03	3.97	3.97	4.22	4.09	4.15	3.65	3.54	3.17	3.04
15	3.80	3.93	3.98	3.97	3.97	4.18	4.37	4.08	3.70	3.46	3.26	3.02
20	4.03	3.95	3.97	3.97	3.96	4.14	4.27	3.99	3.65	3.42	3.23	2.93
25	4.01	3.96	3.97	3.97	4.13	4.11	4.18	3.91	3.64	3.38	3.21	2.88
BOM	3.95	3.97	3.97	3.97	4.13	4.09	4.23	3.81	3.62	3.35	3.15	2.84

WTR YR 1994 MEAN 3.80 MAX 4.37 MIN 2.84

STREAMS TRIBUTARY TO LAKE ERIE

04177680 BALL LAKE NEAR HAMILTON, IN

LOCATION.--Lat 41°32'12", long 84°56'18", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1961 to current year.

DATUM OF GAGE.--889.81 ft above sea level, as corrected on the basis of levels of the Indiana Department of Natural Resources in February 1972.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed near the recording gage and a high-water staff gage is attached to the control dam.

ESTABLISHED LEGAL LEVEL.--4.95 ft gage datum or 894.76 ft above sea level as decreed on September 20, 1974, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with movable boards.

INLET AND OUTLET.--Fish Creek flows through the lake, entering at the western end and leaving at the north-eastern 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 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.78	4.80	4.96	4.82	4.82	4.82	5.12	4.81	4.71	4.72	4.72	4.69
10	4.87	4.80	4.86	4.82	4.82	4.82	5.13	4.78	4.71	4.73	4.70	4.69
15	4.79	4.90	4.83	4.82	4.82	4.82	5.04	4.76	4.72	4.70	4.73	4.69
20	4.86	4.87	4.84	4.82	4.82	4.82	4.85	4.74	4.72	4.71	4.74	4.68
25	4.82	4.89	4.82	4.82	4.82	4.82	4.77	4.73	4.73	4.71	4.71	4.71
BOM	4.80	4.86	4.82	4.82	4.82	4.87	5.02	4.72	4.71	4.71	4.69	4.69

WTR YR 1994 MEAN 4.80 MAX 5.69 MIN 4.68

## ILLINOIS RIVER BASIN

## 05517200 BASS LAKE AT BASS LAKE, IN

LOCATION.--Lat 41°12'28", long 86°36'07", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--699.83 ft above sea level, as corrected from the unadjusted elevations.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in two sections is at the site.

ESTABLISHED LEGAL LEVEL.--13.65 ft gage datum or 713.65 ft above sea level as decreed on August 10, 1948, by the Starke County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 13.65 ft gage datum or 713.48 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

INLET AND OUTLET.--Several small unnamed ditches enter the lake at various locations. The outlet flows from the western shore, into Cedar Lake Ditch, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.03 ft June 18, 1981; minimum stage, 10.52 ft Nov. 12, 13, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.02	14.21	14.33	14.20	14.19	14.19	14.15	14.22	13.81	13.90	13.58	13.28
10	14.07	14.17	14.32	14.20	14.19	14.19	14.13	14.19	13.76	13.92	13.51	13.29
15	14.03	14.26	14.25	14.19	14.19	14.35	14.31	14.13	13.90	13.89	13.52	13.21
20	14.41	14.26	14.25	14.19	14.20	14.15	14.23	14.06	13.86	13.84	13.52	13.21
25	14.33	14.30	14.21	14.19	14.19	14.13	14.15	14.01	13.87	13.79	13.45	13.25
EOM	14.23	14.28	14.21	14.19	14.19	14.13	14.26	13.90	13.93	13.66	13.37	13.16

WTR YR 1994 MEAN 14.00 MAX 14.42 MIN 13.16

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04100260 BEAR LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°19'07", long 85°30'49", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--889.90 ft above sea level, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1974-75.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well on the west side of the dredged channel.

ESTABLISHED LEGAL LEVEL.--4.60 ft gage datum or 894.60 ft above sea level as decreed on September 23, 1959, by the Noble County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.60 ft gage datum or 894.50 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

INLET AND OUTLET.--There are two inlets to the lake, one enters on the southwest shore from High Lake, 0.6 mi upstream, and the other enters from the northeast. The outlet, Carrol Creek, leaves the lake on the south-east tip, flows into Muncie Lake, 3.1 mi downstream, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.25 ft Dec. 30, 1942 (before dredging of the outlet channel). Maximum stage, 6.61 ft Apr. 12, 1944 (after dredging); minimum stage, 2.90 ft Oct. 31, Nov. 1-3, 7-17, 1952, October 22-24, 29-31, Nov. 1-3, 6, 7, 1966.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	4.28	4.48	4.29	4.47	---	---	4.39	4.05	---	3.88	3.66
10	---	4.25	4.41	4.27	4.47	---	---	4.35	4.00	4.04	3.81	3.49
15	---	4.36	4.35	4.26	4.45	---	4.42	4.28	---	4.02	3.87	3.50
20	4.45	4.46	4.35	4.26	4.33	---	4.61	4.15	---	4.00	3.86	---
25	4.40	4.46	4.32	4.26	4.32	---	4.52	4.11	---	3.99	3.80	---
EOM	4.30	4.42	4.28	4.49	4.41	---	4.44	4.05	---	3.92	3.73	---

WTR YR 1994 MEAN 4.20 MAX 4.99 MIN 3.47

WABASH RIVER BASIN

03331010 BIG CHAPMAN LAKE NEAR WARSAW, IN

LOCATION.--Lat 41°16'53", long 85°46'47", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.25, T.33 N., R.6 E., Kosciusko County, Hydrologic Unit 05120106 (LEESBURG, IN quadrangle). The gage is on the southeastern shore of the lake, at the public fishing site, 4.9 mi northeast of Warsaw.

SURFACE AREA.--581 acres.

DRAINAGE AREA.--4.17 mi<sup>2</sup>.

PERIOD OF RECORD.--1945-68, 1971, 1976 to current year.

DATUM OF GAGE.--820.00 ft above sea level.

GAGE.--A water-stage recorder and an electric tape gage (ETG) are installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.75 ft gage datum or 827.75 ft above sea level as established on October 18, 1949, by the Kosciusko County Circuit Court. Little Chapman Lake has the same control structure and established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest at the outlet channel downstream from Little Chapman Lake.

INLET AND OUTLET.--Several small ditches enter the lake at various points. The outlet flows into Little Chapman Lake to the south, then into Deeds Creek, and eventually into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.37 ft Oct. 11, 1954; minimum stage, 6.75 ft Oct. 20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.62	7.49	7.78	7.48	7.64	7.59	7.58	7.51	7.29	7.52	7.30	7.24
10	7.71	7.45	7.63	7.48	7.64	7.70	7.66	7.47	7.28	7.49	7.34	7.29
15	7.69	7.57	7.52	7.46	7.64	7.59	7.90	7.43	7.60	7.40	7.38	7.25
20	8.02	7.62	7.54	7.46	7.57	7.51	7.62	7.38	7.46	7.37	7.38	7.18
25	7.76	7.65	7.50	7.43	7.59	7.51	7.49	7.38	7.61	7.38	7.33	7.21
DOM	7.54	7.68	7.47	7.64	7.59	7.53	7.61	7.35	---	7.34	7.29	7.16

WTR YR 1994 MEAN 7.51 MAX 8.05 MIN 7.15

WABASH RIVER BASIN

03330040 BIG LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°16'33", long 85°30'43", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943-74, 1978 to current year.

DATUM OF GAGE.--890.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.40 ft gage datum or 898.40 ft above sea level as decreed on July 18, 1956, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--The main inlet enters from Crooked Lake to the east. Three other inlets flow from Crane Lake to the east, Green Lake to the north, and Sell Brook to the south. The outlet leaves the lake at the extreme west end and forms the headwaters of the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.76 ft Apr. 4, 1950; minimum stage, 7.12 ft Aug. 24, 1987.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.13	8.15	8.34	8.23	8.23	8.35	8.26	8.32	8.10	8.16	8.02	7.87
10	8.17	8.15	8.27	8.23	8.22	8.38	8.45	8.24	8.08	8.23	7.97	7.87
15	8.16	8.24	8.22	8.23	8.22	8.28	9.80	8.24	8.24	8.14	8.02	7.82
20	8.32	8.32	8.23	8.23	8.57	8.23	8.81	8.15	8.16	8.09	8.03	7.74
25	8.21	8.28	8.23	8.23	8.38	8.22	8.27	8.16	8.20	8.12	7.99	7.73
DOM	8.15	8.27	8.23	8.23	8.30	8.22	8.57	8.15	8.24	8.05	7.93	7.68

WTR YR 1994 MEAN 8.21 MAX 9.91 MIN 7.68

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04099600 BIG LONG LAKE NEAR STROH, IN

LOCATION.--Lat 41°33'17", long 85°13'47", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--950.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--6.21 ft gage datum or 956.21 ft above sea level as decreed on July 22, 1965, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed sill and removable boards.

INLET AND OUTLET.--The one inlet is a small ditch that enters at the extreme western tip. The outlet flows from the extreme northern tip, northeastward to Mud and Little Turkey Lakes, thence to Turkey Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.49 ft Mar. 31, 1978; minimum stage, 4.58 ft Nov. 27, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.12	6.19	6.40	6.26	6.28	6.28	6.32	6.31	5.99	5.87	5.67	5.49
10	6.19	6.17	6.37	6.28	6.28	6.28	6.30	6.28	5.92	5.87	5.58	5.49
15	6.14	6.26	6.31	6.28	6.28	6.27	6.51	6.24	5.98	5.80	5.68	5.44
20	6.38	6.30	6.36	6.28	6.28	6.31	6.36	6.18	5.93	5.74	5.82	5.35
25	6.29	6.38	6.29	6.28	6.28	6.26	6.28	6.13	5.97	5.85	5.65	5.33
EOM	6.20	6.36	6.26	6.28	6.28	6.25	6.43	6.05	5.93	5.75	5.57	5.27

WTR YR 1994 MEAN 6.09 MAX 6.58 MIN 5.27

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04100140 BIXLER LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°26'13", long 85°15'10", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--960.10 ft above sea level, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1974-75.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is bolted to a concrete pier 20 ft upstream from the control dam.

ESTABLISHED LEGAL LEVEL.--3.65 ft gage datum or 963.65 ft above sea level as decreed on April 25, 1952, by the Noble County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 3.65 ft gage datum or 963.75 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed deep-notch concrete dam with two flood gates.

INLET AND OUTLET.--Riddle Ditch enters the lake from the north, Sherman Ditch from the east, Shaffer Ditch from the southeast, and an unnamed ditch from the southwest. The outlet leaves at the southwest corner and flows into Henderson Lake 1.9 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.26 ft Feb. 24, 1985; minimum stage, 1.24 ft Jan. 13-15, 18, 1954.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.92	3.98	4.27	4.03	3.99	3.99	4.02	3.65	3.57	3.39	3.28	3.00
10	4.01	3.95	4.24	3.99	3.99	4.00	3.78	3.76	3.48	3.43	3.17	2.97
15	3.96	4.06	4.18	3.99	3.99	4.26	4.46	3.83	3.45	3.35	3.22	2.91
20	4.15	4.16	4.18	3.99	3.99	4.15	3.61	3.79	3.37	3.27	3.23	2.83
25	4.10	4.19	4.15	3.99	3.99	3.76	3.41	3.74	3.40	3.35	3.18	2.76
EOM	4.01	4.19	4.05	3.99	3.99	3.94	3.62	3.68	3.45	3.36	3.09	2.68

WTR YR 1994 MEAN 3.73 MAX 4.81 MIN 2.68

WABASH RIVER BASIN

03327600 BLUE LAKE NEAR CHURUBUSCO, IN

LOCATION.--Lat 41°14'30", long 85°21'04", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.10, T.32 N., R.10 E., Whitley County, Hydrologic Unit 05120104 (CHURUBUSCO, IN quadrangle). Gage is located on a dredged channel at the extreme east end of the lake, approximately 2.0 mi west of Churubusco.

SURFACE AREA.--239 acres.

DRAINAGE AREA.--3.58 mi<sup>2</sup>.

PERIOD OF RECORD.--1946-68, 1976 to current year.

DATUM OF GAGE.--840.00 ft above sea level.

GAGE.--A water-stage recorder installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--10.28 ft gage datum or 850.28 ft above sea level as decreed on July 23, 1948, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--A concrete dam with a fixed crest is located in the outlet channel about 300 ft downstream from the lake.

INLET AND OUTLET.--Maloney Ditch enters at the eastern tip of the lake. The outlet flows from the lake at the northwest end and joins Carter Creek (Blue River) 0.2 mi downstream. Carter Creek eventually flows into Bel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.80 ft Dec. 10, 1966; minimum stage, 7.64 ft Nov. 19, 20, 1952.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.71	9.83	10.23	10.21	10.48	10.19	10.34	10.23	9.73	9.74	9.92	9.64
10	9.75	9.77	10.15	10.21	10.48	10.40	10.38	10.05	9.68	10.23	9.85	9.72
15	9.71	9.90	10.14	10.21	10.41	10.37	11.27	9.94	9.77	10.15	9.87	9.56
20	9.88	10.17	10.20	10.21	10.24	10.33	10.62	9.82	9.68	10.04	9.83	9.48
25	9.89	10.18	10.21	10.18	10.25	10.39	10.25	9.77	9.77	10.08	9.76	9.55
EOM	9.85	10.25	10.21	10.48	10.24	10.43	10.41	9.79	9.78	9.97	9.74	9.46

WTR YR 1994 MEAN 10.05 MAX 11.44 MIN 9.46

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099250 BOWER LAKE NEAR PLEASANT LAKE, IN

LOCATION.--Lat 41°36'03", long 85°03'24", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.5, T.36 N., R.13 E., Steuben County, Hydrologic Unit 04050001 (ASHLEY, IN quadrangle). The gage is located at the public fishing site on the northwestern edge of the lake, 3.9 mi southwest of Angola.

SURFACE AREA.--25 acres.

DRAINAGE AREA.--84.6 mi<sup>2</sup>.

PERIOD OF RECORD.--1946-1970, 1977 to current year.

DATUM OF GAGE.--940.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary wire-weight gage is attached to the bridge over the outlet.

ESTABLISHED LEGAL LEVEL.--8.50 ft gage datum or 948.50 ft above sea level, as decreed on October 28, 1959, by Steuben County Circuit Court. Golden Lake near Pleasant Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel or the outlet of Golden Lake.

INLET AND OUTLET.--Pigeon Creek flows through the lake, entering at the southern shore and leaving at the western end to flow into Golden Lake and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.13 ft Mar. 22, 1982; minimum stage, 7.88 ft Sept. 14, 15, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.40	8.52	9.21	8.45	---	---	9.02	9.48	8.37	8.40	8.18	8.04
10	8.65	8.44	9.23	8.39	---	---	9.58	9.20	8.30	8.31	8.05	8.01
15	8.49	8.61	8.88	8.37	---	---	11.64	8.98	8.37	8.20	8.55	7.97
20	9.47	8.89	8.77	8.29	---	---	10.07	8.77	8.33	8.17	8.39	7.96
25	8.98	8.83	8.66	8.40	---	9.25	9.29	8.61	8.40	8.33	8.29	8.02
EOM	8.62	9.09	8.48	---	---	9.16	9.61	8.48	8.73	8.30	8.11	8.03

WTR YR 1994 MEAN 8.68 MAX 11.69 MIN 7.93

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04099810 CASS LAKE NEAR SHIPSEWANA, IN

LOCATION.--Lat 41°41'42", long 85°38'18", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1971 to current year.

DATUM OF GAGE.--840.95 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--A small unnamed ditch enters on the northwestern shore. The outlet leaves the lake at the southwest and flows into Mather Ditch 1.0 mi downstream. Mather Ditch eventually empties into the Little Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.89 ft June 14, 1993; minimum stage, 1.80 ft May 15, 1971.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.52	3.42	3.43	3.37	3.37	3.37	3.34	3.11	3.03	2.99	2.85	2.73
10	3.58	3.38	3.41	3.37	3.37	3.37	3.32	3.14	2.99	2.96	2.81	2.74
15	3.55	3.41	3.39	3.37	3.37	3.37	3.40	3.15	3.01	2.98	2.89	2.71
20	3.81	3.40	3.40	3.37	3.37	3.37	3.31	3.13	2.96	2.96	2.95	2.65
25	3.75	3.41	3.37	3.37	3.37	3.32	3.20	3.12	3.03	2.99	2.89	2.64
BOM	3.53	3.41	3.37	3.37	3.37	3.36	3.20	3.08	3.00	2.91	2.81	2.59

WTR YR 1994 MEAN 3.21 MAX 3.81 MIN 2.59

## ILLINOIS RIVER BASIN

05518700 CEDAR LAKE AT CEDAR LAKE, IN

LOCATION.--Lat 41°21'58", long 87°25'36", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--690.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

INLET AND OUTLET.--Several small ditches enter the lake at various points. The outlet, Cedar Creek, flows from the lake on the eastern shore of the center lobe, into Dalecarlia Lake, 1.5 mi downstream, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.30 ft May 15, 1970; minimum stage not determined, below 1.22 ft during July, August, September, October 1988, and September 1991.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.02	3.05	3.10	2.89	2.94	2.99	2.87	2.88	2.55	2.76	2.71	2.55
10	2.97	3.00	3.03	2.91	2.94	3.15	2.82	2.87	2.51	2.74	2.64	2.53
15	2.90	3.05	2.99	2.84	2.94	3.14	3.04	2.84	2.98	2.71	2.72	2.48
20	3.41	3.05	2.99	2.83	3.00	3.02	2.96	2.77	2.94	2.77	2.71	2.40
25	3.25	3.03	2.97	2.83	3.07	2.97	2.86	2.73	2.92	2.73	2.65	2.39
BOM	3.14	3.09	2.91	2.94	3.07	2.93	2.94	2.63	2.84	2.62	2.58	2.33

WTR YR 1994 MEAN 2.87 MAX 3.41 MIN 2.33

WABASH RIVER BASIN

03331160 CENTER LAKE AT WARSAW, IN

LOCATION.--Lat 41°15'02", long 85°51'32", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943-1968, 1971 to current year.

DATUM OF GAGE.--800.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the control dam at the outlet.

ESTABLISHED LEGAL LEVEL.--3.86 ft gage datum or 803.86 ft above sea level as decreed on December 3, 1963, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam at the western end of the lake.

INLET AND OUTLET.--The one inlet flows through a 24-inch diameter tile from Pike Lake and enters the lake on the southeastern side. The outlet flows from the western shore and joins Walnut Creek 0.65 mi downstream, which in turn flows into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.24 ft Oct. 15, 1954; minimum stage, 0.17 ft Oct. 4, 1955.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.25	4.20	4.13	4.04	4.05	4.21	4.15	5.07	4.07	4.60	4.27	4.26
10	4.23	4.06	4.05	4.04	4.05	4.17	4.22	4.71	3.96	4.71	4.29	4.25
15	4.24	4.11	4.04	4.04	4.06	4.17	5.62	4.49	4.72	4.30	4.38	4.18
20	4.49	4.08	4.06	4.04	4.31	4.19	5.91	4.36	4.84	4.36	4.42	4.11
25	4.41	4.11	4.02	4.04	4.27	4.15	5.48	4.30	4.47	4.41	4.35	4.13
DOM	4.30	4.08	4.02	4.05	4.27	4.11	5.36	4.19	5.50	4.36	4.29	4.04

WTR YR 1994 MEAN 4.34 MAX 5.94 MIN 3.95

STREAMS TRIBUTARY TO LAKE ERIE

04177200 CLEAR LAKE AT CLEAR LAKE, IN

LOCATION.--Lat 41°44'52", long 84°50'25", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--1030.00 ft above sea level.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch stilling well. An auxiliary staff gage is attached to the north end of the upstream culvert.

ESTABLISHED LEGAL LEVEL.--7.38 ft gage datum or 1037.38 ft above sea level as decreed on June 1, 1950, by the Steuben County Circuit Court. Round Lake at Clear Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam with an auxiliary slide gate at the outlet of Round Lake.

INLET AND OUTLET.--Two unnamed ditches enter the lake on the southern shore. The outlet is a short channel connecting Clear and Round Lakes. The outlet of Round Lake flows from the northeast end and eventually into the West Branch of the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.24 ft May 20, 1943 (from high-water mark); maximum recorded stage, 8.58 ft Jan. 5, 1993; minimum stage, 6.24 ft Sept. 30, 1962.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.80	7.82	7.95	7.93	7.94	7.95	7.96	7.99	7.75	7.75	7.66	7.64
10	7.86	7.80	7.92	7.93	7.94	7.96	7.98	7.95	7.68	7.74	7.59	7.60
15	7.83	7.85	7.89	7.94	7.94	8.10	8.17	7.90	7.76	7.68	7.75	7.57
20	7.97	7.86	7.90	7.94	7.94	7.99	8.04	7.86	7.76	7.69	7.79	7.51
25	7.90	7.89	7.88	7.94	7.95	7.97	7.97	7.82	7.79	7.76	7.76	7.51
DOM	7.83	7.91	7.93	7.94	7.95	7.96	8.05	7.78	7.77	7.71	7.70	7.49

WTR YR 1994 MEAN 7.85 MAX 8.19 MIN 7.47

## ILLINOIS RIVER BASIN

## 05515240 CLEAR LAKE AT LAPORTE, IN

LOCATION.--Lat 41°37'25", long 86°43'11", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1942-49, 1952-75, 1979 to current year.

DATUM OF GAGE.--790.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the north wingwall of the inlet culvert on the west side of the lake.

ESTABLISHED LEGAL LEVEL.--8.20 ft gage datum or 798.20 ft above sea level as decreed on August 31, 1949, by the LaPorte County Circuit Court.

LAKE-LEVEL CONTROL.--During periods of high water, water may be released through the main sewer system of the city of LaPorte and diverted into the Kankakee River.

INLET AND OUTLET.--A small ditch enters on the west shore. There is no outlet during periods of low and medium water levels. When water levels are high, water may flow from the lake into the city sewer system.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.36 ft June 6, 1993; minimum stage, 3.98 ft Nov. 27, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.96	11.02	11.11	10.97	11.06	11.04	10.78	10.69	10.21	10.29	10.05	10.07
10	10.92	10.97	11.07	10.98	11.05	11.01	10.74	10.66	10.14	10.27	9.95	10.04
15	10.86	11.04	11.03	10.98	11.02	10.98	10.91	10.59	10.38	10.24	10.04	9.96
20	11.22	11.04	11.05	10.99	11.02	10.92	10.81	10.51	10.29	10.21	10.28	9.87
25	11.12	11.04	11.04	10.97	11.09	10.88	10.74	10.43	10.35	10.20	10.23	9.86
DOM	11.04	11.09	11.00	11.07	11.07	10.86	10.75	10.31	10.35	10.09	10.15	9.68

WTR YR 1994 MEAN 10.67 MAX 11.22 MIN 9.68

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04097850 CROOKED LAKE AT CROOKED LAKE, IN

LOCATION.--Lat 41°40'14", long 85°02'04", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1946-70, 1972 to current year.

DATUM OF GAGE.--980.26 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1977-78.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed between the Second and Third Basins under County Road 400 West.

ESTABLISHED LEGAL LEVEL.--8.17 ft gage datum or 988.17 ft above sea level as decreed on June 17, 1948, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.17 ft gage datum or 988.43 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest dam with an adjustable gate at the western end of the Third Basin.

INLET AND OUTLET.--The principal inlets enter the lake from the south, from Loon and Buck Lakes, and the southeast, from Center Lake. Another ditch enters from the east. The outlet flows from the western end of the Third Basin into Lake Gage 1.4 mi downstream and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.07 ft Apr. 6, 1985; minimum stage, 7.05 ft Nov. 13-15, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.06	9.15	9.19	8.96	9.12	9.23	9.13	9.26	8.88	8.87	8.63	8.61
10	9.12	9.17	9.17	8.98	9.12	9.22	9.15	9.20	8.82	8.83	8.58	8.56
15	9.04	9.24	9.10	8.96	9.09	9.21	9.38	9.20	8.87	8.77	8.74	8.50
20	9.30	9.20	9.13	9.00	9.21	9.17	9.31	9.10	8.84	8.69	8.85	8.44
25	9.18	9.18	9.04	8.98	9.21	9.13	9.24	9.03	8.95	8.74	8.72	8.50
DOM	9.12	9.15	8.99	9.15	9.22	9.12	9.35	8.97	8.88	8.69	8.70	8.50

WTR YR 1994 MEAN 9.00 MAX 9.38 MIN 8.41

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100470 DEWART LAKE NEAR LEESBURG, IN

LOCATION.--Lat 41°22'27", long 85°47'07", in NW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.25, T.34 N., R.6 E., Kosciusko County, Hydrologic Unit 04050001 (LEESBURG, IN quadrangle). The gage is on the west shore of the lake, 0.1 mi east of County Road 300 East at the Dewart Lake Marina, and 4.5 mi northeast of Leesburg.

SURFACE AREA.--551 acres.

DRAINAGE AREA.--8.05 mi<sup>2</sup>.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--859.87 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.70 ft gage datum or 867.70 ft above sea level as decreed on October 18, 1949, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 7.70 ft gage datum or 867.57 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

INLET AND OUTLET.--Cable Run enters the lake on the southeastern tip, and an unnamed ditch enters on the eastern shore. The outlet, Hammond Ditch, flows from the lake on the northwestern shore and into Wabsee Lake 2.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.57 ft June 14, 1981; minimum stage, 3.95 ft Dec. 21-24, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

( NO DATA COLLECTED DUE TO CONSTRUCTION )

WABASH RIVER BASIN

03331320 DIAMOND LAKE NEAR SILVER LAKE, IN

LOCATION.--Lat 41°06'23", long 85°56'05", in SW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1954-72, 1975 to current year.

DATUM OF GAGE.--849.90 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1976.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by Yellow Creek Lake, 0.3 mi downstream.

INLET AND OUTLET.--There are two inlets. One enters from the north and east from Hill Lake, one enters from the southeast. The one outlet flows from the western shore and into Yellow Creek Lake, 0.3 mi downstream. Yellow Creek Lake flows into Yellow Creek, which eventually discharges into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.47 July 9, 1964; minimum stage, 9.78 ft Sept. 18-19, 23, 27-30, Oct. 10-12, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.47	10.47	10.71	10.46	10.47	10.49	10.55	10.77	10.50	10.69	10.35	10.27
10	10.46	10.48	10.67	10.46	10.47	10.69	10.78	10.69	10.50	10.85	10.32	10.32
15	10.42	10.58	10.60	10.46	10.47	10.62	11.51	10.64	10.93	10.65	10.33	10.28
20	10.62	10.64	10.62	10.46	10.48	10.53	10.88	10.58	10.64	10.51	10.37	10.22
25	10.52	10.67	10.55	10.47	10.49	10.53	10.66	10.63	10.55	10.46	10.34	10.27
EOM	10.49	10.67	10.51	10.47	10.49	10.56	10.95	10.59	10.87	10.39	10.32	10.21

WTR YR 1994 MEAN 10.55 MAX 11.75 MIN 10.19

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04100350 DIAMOND LAKE NEAR WAWAKA, IN

LOCATION.--Lat 41°26'15", long 85°31'05", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, sec.5, T.34 N., R.9 E., Noble County, Hydrologic Unit 04050001 (LIGONIER, IN quadrangle). The gage is located on the southeastern edge of the lake at a public fishing site, 2.5 mi southwest of the town of Wawaka.

SURFACE AREA.--105 acres.

DRAINAGE AREA.--4.80 mi<sup>2</sup>.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--870.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is mounted on a piling driven into the lake bed on the northern edge of the lake.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by a riffle at the head of the outlet channel.

INLET AND OUTLET.--Willets Ditch enters at the southwestern tip of the lake from Eagle Lake, 0.6 mi upstream. One unnamed ditch enters the lake from the south. The outlet flows from the lake at the southeastern edge and joins the South Branch of the Elkhart River 0.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.83 ft Mar. 20, 1982; minimum stage, 2.29 ft Oct. 17, 1946.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.71	5.02	4.97	4.69	4.70	4.69	4.75	4.65	4.48	4.49	4.47	4.31
10	4.91	4.89	5.03	4.72	4.70	4.69	4.80	4.90	4.41	4.47	4.41	4.35
15	4.98	4.85	4.93	4.69	4.70	4.70	5.50	4.81	4.47	4.42	4.47	4.30
20	5.44	5.04	4.87	4.70	4.69	4.70	5.31	4.65	4.45	4.44	4.51	4.26
25	5.31	4.96	4.85	4.69	4.69	4.65	4.94	4.57	4.51	4.60	4.44	4.28
BOM	5.06	5.00	4.71	4.70	4.69	4.66	4.89	4.48	4.52	4.49	4.38	4.19

WTR YR 1994 MEAN 4.70 MAX 5.51 MIN 4.19

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04100370 ENGLE LAKE NEAR LIGONIER, IN

LOCATION.--Lat 41°26'08", long 85°34'30", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1956-67, 1977 to current year.

DATUM OF GAGE.--870.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.90 ft gage datum or 878.90 ft above sea level as decreed on October 23, 1984, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel at low water and the first culvert downstream at higher stages.

INLET AND OUTLET.--Sparta Lake Ditch feeds the lake from the south, flowing from Sparta Lake. The outlet flows from the northern shore through Indian Lake and into the Elkhart River 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage 10.53 ft Mar. 29, 1985; minimum stage, 7.48 ft Nov. 17, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.91	9.03	9.15	8.94	8.94	8.94	8.97	9.10	8.78	8.65	8.57	8.41
10	9.07	9.00	9.07	8.95	8.94	8.94	9.04	9.05	8.75	8.63	8.54	8.45
15	8.97	9.11	9.03	8.94	8.94	8.94	9.27	9.00	8.76	8.57	8.63	8.36
20	9.29	9.11	9.04	8.94	8.94	8.94	9.10	8.93	8.69	8.57	8.61	8.32
25	9.15	9.10	9.01	8.94	8.94	9.03	9.04	8.89	8.72	8.66	8.53	8.39
BOM	9.05	9.08	8.92	8.94	8.94	8.97	9.22	8.83	8.70	8.60	8.45	8.36

WTR YR 1994 MEAN 8.87 MAX 9.43 MIN 8.31

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099670 FISH LAKE NEAR PLATO, IN

LOCATION.--Lat 41°37'27", long 85°19'56", in SW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--930.75 ft above sea level, as corrected on the basis of levels of the U.S. Geological Survey, 1966.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is mounted on a tree stump on the northern bank of the outlet channel at the same site.

ESTABLISHED LEGAL LEVEL.--6.50 ft gage datum or 936.50 ft above sea level as decreed on May 7, 1959, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 6.50 ft gage datum or 937.25 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--One inlet enters at the extreme southern tip from Royer Lake 700 ft upstream. The other enters on the north shore of the east lobe from Grass Lake, approximately 1.4 mi upstream. The outlet, East Fly Creek, flows from the lake on the northwest shore and joins Fly Creek, which empties into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.23 ft June 14, 15, 1981; minimum stage, 5.32 ft Nov. 17-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.69	6.72	6.88	6.63	6.96	7.01	6.80	6.93	6.48	6.51	6.31	6.35
10	6.74	6.68	6.86	6.61	6.96	7.11	6.86	6.84	6.43	6.45	6.28	6.33
15	6.68	6.75	6.79	6.56	6.96	6.96	7.33	6.76	6.52	6.40	6.53	6.32
20	7.01	6.77	6.78	6.56	7.30	6.85	7.02	6.69	6.44	6.37	6.54	6.28
25	6.88	6.79	6.72	6.56	7.24	6.83	6.88	6.62	6.57	6.38	6.47	6.27
EOM	6.75	6.81	6.64	6.96	7.24	6.80	6.97	6.55	6.55	6.36	6.39	6.25

WTR YR 1994 MEAN 6.69 MAX 7.35 MIN 6.25

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099760 FISH LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°45'25", long 85°38'54", in NW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1954-69, 1978 to current year.

DATUM OF GAGE.--809.84 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1975.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the dam at the same site.

ESTABLISHED LEGAL LEVEL.--4.42 ft gage datum or 814.42 ft above sea level as decreed on September 11, 1959, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.42 ft gage datum or 814.26 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed concrete sill with removable boards.

INLET AND OUTLET.--The inlet, Fetch Ditch, enters on the southeastern shore. The outlet flows from the lake at the lower west shore and empties into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.61 ft Feb. 26, 1985; minimum stage, 1.54 ft Nov. 26, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.30	4.37	4.41	4.29	4.29	4.29	4.34	---	---	4.12	3.90	3.69
10	4.33	4.35	4.38	4.29	4.29	4.30	4.33	---	---	4.09	3.83	3.63
15	4.30	4.38	4.35	4.29	4.29	4.28	4.42	---	---	4.11	3.89	3.56
20	4.66	4.38	4.36	4.29	4.29	4.35	---	---	---	4.07	3.94	3.50
25	4.53	4.40	4.32	4.29	4.29	4.36	---	---	---	4.07	3.88	3.44
EOM	4.38	4.39	4.32	4.29	4.29	4.35	---	---	4.12	3.99	3.79	3.35

WTR YR 1994 MEAN 4.19 MAX 4.66 MIN 3.35

## ILLINOIS RIVER BASIN

05517700 FLINT LAKE NEAR VALPARAISO, IN

LOCATION.--Lat 41°30'41", long 87°02'23", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>, revised.

PERIOD OF RECORD.--1946 to current year. From Jan. 1, 1911, to Aug. 14, 1946, readings of the lake level were taken approximately once per week by Water Works personnel. These data are available upon request.

DATUM OF GAGE.--780.00 ft above sea level.

GAGE.--A water-stage recorder is installed inside the Valparaiso Water Works. An auxiliary staff gage is located lakeward of the concrete block pumping station.

ESTABLISHED LEGAL LEVEL.--17.66 ft gage datum or 797.66 ft above sea level as decreed on August 19, 1963, by the Porter County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel and two 30-inch corrugated metal pipes under the road, 600 ft downstream.

INLET AND OUTLET.--There are three inlets. One drains Long Lake to the northwest and another drains Loomis Lake to the west and Listenberger drain enters from the south. The outlet flows from the lake at the southeast corner and into the West Branch of Crooked Creek approximately 5.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 21.18 ft July 2, 1983 as recorded by the Valparaiso Water Company; minimum stage, 12.59 ft Dec. 29, 1948.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.45	19.62	19.75	19.35	19.44	19.61	19.32	19.41	19.01	19.30	19.27	19.19
10	19.46	19.59	19.63	19.29	19.38	19.63	19.26	19.39	18.93	19.43	19.24	19.28
15	19.38	19.67	19.53	19.28	19.32	19.54	19.54	19.34	19.25	19.36	19.30	19.21
20	19.90	19.66	19.51	19.24	19.58	19.46	19.47	19.25	19.16	19.44	19.42	19.26
25	19.68	19.66	19.46	19.26	19.60	19.40	19.39	19.19	19.31	19.39	19.34	19.26
EOM	19.66	19.78	19.38	19.50	19.56	19.37	19.45	19.10	19.38	19.27	19.23	19.24

WTR YR 1994 MEAN 19.41 MAX 19.91 MIN 18.93

## WABASH RIVER BASIN

03330160 GILBERT LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat 41°19'50", long 85°35'48", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1954-59, 1961 to current year.

DATUM OF GAGE.--884.85 ft above sea level, as corrected on the basis of levels of the Indiana Department of Natural Resources, 1974-75.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is driven into the lake bed approximately 100 ft south of the primary gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level is controlled by the outlet through the swamp, east of the lake.

INLET AND OUTLET.--The lake has no inlet. The outlet leaves from the southeastern side and flows into Stump Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.81 ft Dec. 4-5, 1987; minimum stage, 3.53 ft Nov. 1, 1963.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.67	4.88	5.26	5.19	---	---	---	5.11	4.82	5.23	4.76	5.30
10	5.84	4.94	5.19	5.19	---	---	---	5.24	4.58	5.30	4.76	5.39
15	5.56	5.07	5.16	5.19	---	---	4.80	5.39	4.89	5.39	5.00	5.42
20	4.42	5.10	5.22	5.19	---	---	4.77	5.47	4.94	5.44	5.13	5.43
25	4.60	5.16	5.20	5.19	---	---	4.93	5.55	5.02	5.55	5.22	5.47
EOM	4.77	5.17	5.20	---	---	---	5.16	5.65	5.17	5.61	5.28	5.48

WTR YR 1994 MEAN 5.18 MAX 5.85 MIN 4.42

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100110 HACKENBURG LAKE NEAR WOLCOTTVILLE, IN

LOCATION.--Lat 41°33'25", long 85°26'17", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--890.00 ft above sea level.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch diameter stilling well. An auxiliary staff gage is bolted to the downstream side of the bridge at the same site.

ESTABLISHED LEGAL LEVEL.--7.36 ft gage datum or 897.36 ft above sea level as decreed on February 2, 1954, by the Lagrange County Circuit Court. Witmer, Westler, Dallas, and Messick Lakes, all near Wolcottville, have the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with removable stop logs located at the outlet of Messick Lake.

INLET AND OUTLET.--One inlet enters on the north shore from Oliver Lake 1.6 mi upstream. The other inlet enters on the east shore from Dallas Lake 0.5 mi upstream, which is part of a chain of lakes including Westler and Witmer Lakes. The outlet flows from the lake on the southwest shore and into Messick Lake about 0.5 mi downstream. Messick Lake empties into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.17 ft Apr. 7, 1978; minimum stage, 6.34 ft Oct. 10, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.65	7.64	7.87	7.44	7.95	8.13	7.76	8.07	7.58	7.61	7.52	7.53
10	7.68	7.51	7.85	7.41	7.79	8.30	7.83	7.90	7.57	7.59	7.49	7.55
15	7.56	7.55	7.77	7.37	7.63	8.19	8.53	7.71	7.65	7.56	7.63	7.52
20	8.00	7.67	7.71	7.32	8.02	8.00	8.55	7.53	7.59	7.55	7.64	7.49
25	8.06	7.72	7.63	7.30	8.41	7.91	8.21	7.56	7.67	7.56	7.59	7.51
DOM	7.83	7.81	7.51	7.87	8.33	7.82	8.16	7.60	7.65	7.57	7.54	7.52

WTR YR 1994 MEAN 7.74 MAX 8.61 MIN 7.28

STREAMS TRIBUTARY TO LAKE ERIE

04177700 HAMILTON LAKE AT HAMILTON, IN

LOCATION.--Lat 41°32'10", long 84°54'45", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--890.12 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1978.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.83 ft gage datum or 898.83 ft above sea level as decreed on July 3, 1947, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.83 ft gage datum or 898.95 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by two dams. The northernmost dam is concrete and steel sheet piling with a fixed crest. The southern dam has a fixed concrete sill.

INLET AND OUTLET.--Black Creek enters the lake on the northeast shore. Two small ditches enter from the east and the north. There are two outlets, both on the southern lobe, that flow into Fish Creek thence into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.14 ft Dec. 30, 1965; minimum stage, 7.27 ft Jan. 4-9, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.48	8.50	8.65	8.56	8.56	8.72	8.61	8.62	8.42	8.44	8.41	8.37
10	8.56	8.48	8.62	8.56	8.56	8.72	8.66	8.57	8.37	8.50	8.35	8.34
15	8.50	8.56	8.55	8.56	8.56	8.61	8.91	8.55	8.38	8.45	8.47	8.32
20	8.63	8.59	8.56	8.56	8.74	8.59	8.65	8.50	8.41	8.43	8.50	8.26
25	8.54	8.59	8.56	8.56	8.73	8.58	8.58	8.49	8.42	8.48	8.46	8.26
DOM	8.49	8.60	8.56	8.56	8.65	8.59	8.71	8.46	8.48	8.44	8.43	8.25

WTR YR 1994 MEAN 8.53 MAX 9.10 MIN 8.23

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04099860 HEATON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°44'14", long 85°54'42", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1946-53, 1970-75, 1977 to current year.

DATUM OF GAGE.--760.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--7.30 ft gage datum or 767.30 ft above sea level as decreed on September 25, 1950, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

INLET AND OUTLET.--The one inlet enters the lake at the extreme northern point of the lake. The outlet, Puterbaugh Creek, flows from the west end of the lake and enters the St. Joseph River approximately 4.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.73 ft Feb. 26, 1985; minimum stage, 4.55 ft Nov. 12-18, 1971.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.08	8.28	8.20	8.08	8.08	8.09	8.22	---	---	---	---	---
10	8.07	8.26	8.17	8.08	8.08	8.22	8.21	---	---	---	---	---
15	8.05	8.24	8.10	8.08	8.08	8.31	8.36	---	---	---	---	---
20	8.58	8.23	8.09	8.08	8.08	8.29	---	---	---	---	---	---
25	8.42	8.18	8.08	8.08	8.08	8.28	---	---	---	---	---	---
BOM	8.32	8.20	8.08	8.08	8.08	8.26	---	---	---	---	---	---

WTR YR 1994 MEAN 8.18 MAX 8.63 MIN 8.05

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04100258 HIGH LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°18'51", long 85°31'49", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1961-68, 1970 to current year.

DATUM OF GAGE.--890.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed at the same site.

ESTABLISHED LEGAL LEVEL.--6.35 ft gage datum or 896.35 ft above sea level as decreed on February 25, 1963, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete, fixed-crest dam with a rectangular notch.

INLET AND OUTLET.--The one inlet, Beal Branch, enters the lake on the southeast shore. The outlet flows from the east side of the north lobe, through Bear Lake, 0.6 mi downstream, into Carrol Creek, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.70 ft June 28, 1968; minimum stage, 5.30 ft Nov. 15, 25-28, 1964, Oct. 13, 26-31, Nov. 1-3, 1966.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.58	6.60	6.78	6.65	6.65	6.65	6.66	6.77	6.52	6.61	6.44	6.30
10	6.63	6.60	6.73	6.65	6.65	6.65	6.78	6.72	6.50	6.58	6.39	6.33
15	6.60	6.68	6.67	6.65	6.65	6.68	7.19	6.69	6.58	6.49	6.46	6.17
20	6.73	6.77	6.66	6.65	6.65	6.69	6.86	6.61	6.56	6.44	6.46	5.96
25	6.65	6.72	6.65	6.65	6.65	6.65	6.71	6.59	6.56	6.47	6.44	5.91
BOM	6.61	6.72	6.65	6.65	6.65	6.65	6.88	6.57	6.64	6.44	6.41	5.86

WTR YR 1994 MEAN 6.59 MAX 7.27 MIN 5.82

WABASH RIVER BASIN

03331300 HILL LAKE NEAR SILVER LAKE, IN

LOCATION.--Lat 41°06'16", long 85°54'35", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1952 to current year.

DATUM OF GAGE.--860.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located on the southernmost tip of the lake. The staff is mounted on a board driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--11.50 ft gage datum or 871.50 ft above sea level as decreed on September 10, 1959, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed sill with removable boards.

INLET AND OUTLET.--There are no surface inlets. The one outlet flows from the western edge of the lake and empties into Diamond Lake 1.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.54 ft July 21, 1963; minimum stage, 9.86 ft Jan. 18, 19, 1954.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.35	11.43	11.50	11.42	11.42	11.40	11.40	11.40	11.22	11.38	11.20	11.04
10	11.35	11.43	11.46	11.42	11.42	11.40	11.68	11.36	11.23	11.46	11.15	11.09
15	11.33	11.53	11.43	11.42	11.42	11.35	11.78	11.32	11.46	11.34	11.15	11.06
20	11.47	11.55	11.44	11.42	11.42	11.30	11.45	11.28	11.32	11.29	11.16	11.01
25	11.45	11.51	11.42	11.42	11.42	11.31	11.35	11.32	11.28	11.28	11.14	11.04
DOM	11.42	11.47	11.42	11.42	11.42	11.34	11.50	11.27	11.47	11.25	11.10	11.00

WTR YR 1994 MEAN 11.36 MAX 12.01 MIN 10.97

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099500 HOGBACK LAKE NEAR ANGOLA, IN

LOCATION.--Lat 41°37'39", long 85°04'59", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1946-73, 1977 to current year.

DATUM OF GAGE.--940.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to a tree at the same site.

ESTABLISHED LEGAL LEVEL.--8.50 ft gage datum or 948.50 ft above sea level as decreed on October 28, 1959, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel (Pigeon Creek).

INLET AND OUTLET.--There are three inlets to the lake. One unnamed ditch enters from the north. A small tributary enters on the eastern tip from Silver Lake, 0.7 mi upstream. Pigeon Creek flows through the lake, entering at the southeastern shore from Golden Lake, 1.2 mi upstream and leaving at the north end of the western lobe. Pigeon Creek joins Turkey Creek to become Pigeon River and eventually empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.07 ft Mar. 22, 1982; minimum stage, 7.24 ft Sept. 9, 10, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.25	---	---	---	---	---	---	10.20	9.25	9.23	9.01	8.92
10	9.30	---	---	---	---	---	---	9.96	9.17	9.12	8.92	8.87
15	9.33	---	---	---	---	---	12.02	9.80	9.18	9.00	9.27	8.84
20	10.08	---	---	---	---	---	10.77	9.60	9.18	8.96	9.25	8.82
25	9.73	---	---	---	---	---	10.07	9.43	9.17	9.12	9.18	8.83
DOM	---	---	---	---	---	---	10.18	9.35	9.42	9.07	8.98	8.86

WTR YR 1994 MEAN 9.40 MAX 12.02 MIN 8.80

## 05514741 HUDSON LAKE AT HUDSON LAKE, IN

LOCATION.--Lat 41°42'42", long 86°32'13", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.28, T.38 N., R.1 W., LaPorte County, Hydrologic Unit 07120001 (NEW CARLISLE, IN quadrangle). The gage is on the southeast shore of lake, and 0.7 mi west of the town line of New Carlisle.

SURFACE AREA.--432 acres.

DRAINAGE AREA.--7.92 mi<sup>2</sup>.

PERIOD OF RECORD.--1946-76, 1978 to current year.

DATUM OF GAGE.--750.00 ft above sea level. Prior to Oct. 1, 1965, the datum of the gage was 760.00 ft above sea level. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--13.09 ft gage datum or 763.09 ft above sea level as decreed on August 31, 1949, by the St. Joseph County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a 24-inch reinforced concrete pipe with a gate chamber and slide gate.

INLET AND OUTLET.--The one inlet flows into the lake at the extreme northeast tip from Saugany Lake, approximately 1.7 mi upstream. The outlet flows from the lake on the east shore to Geyer Ditch and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 16.90 ft May 3, 1983; minimum stage, 7.60 ft Nov. 15, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.04	13.98	14.06	14.08	14.08	14.08	14.06	13.53	13.34	13.55	13.43	13.45
10	13.95	13.96	14.06	14.08	14.08	14.08	13.91	13.52	13.33	13.78	13.36	13.43
15	13.83	14.00	14.03	14.08	14.08	14.08	13.97	13.54	13.47	13.69	13.48	13.34
20	14.17	13.97	14.08	14.08	14.08	14.08	13.85	13.51	13.46	13.61	13.71	13.29
25	14.12	13.96	14.08	14.08	14.08	14.39	13.74	13.50	13.53	13.55	13.68	13.36
EOM	14.02	14.03	14.08	14.08	14.08	14.22	13.68	13.46	13.56	13.41	13.57	13.35

WTR YR 1994 MEAN 13.82 MAX 14.58 MIN 13.26

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04097680 JIMMERSON LAKE AT NEVADA MILLS, IN

LOCATION.--Lat 41°43'31", long 85°04'55", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1937-44, 1946 to current year. (Lake level readings were made once a week by employees of Northern Indiana Public Service Company from 1937 to 1944.)

DATUM OF GAGE.--960.27 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources in June 1972.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well attached to the control structure. An auxiliary staff gage is bolted to the same wall.

ESTABLISHED LEGAL LEVEL.--4.66 ft gage datum or 964.66 ft above sea level as decreed on July 3, 1947, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.66 ft gage datum or 964.93 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam.

INLET AND OUTLET.--Crooked Creek flows through the lake, entering from Lake James at the extreme southeast end, and leaving from the northwest. Crooked Creek flows through Tamarack Lake and becomes Fawn River, which eventually empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.22 ft May 27, 1943; minimum stage, 3.71 ft Feb. 16, 17, 1948.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.91	5.01	5.11	5.02	---	---	---	---	---	---	---	---
10	4.94	5.00	5.02	5.01	---	---	---	---	---	---	---	---
15	4.90	5.03	5.02	5.01	---	---	---	---	---	---	---	---
20	5.21	5.04	5.04	5.01	---	---	---	---	---	---	---	---
25	5.16	5.08	5.03	---	---	---	---	---	---	---	---	---
EOM	5.06	5.08	5.03	---	---	---	---	---	---	---	---	---

WTR YR 1994 MEAN 5.03 MAX 5.21 MIN 4.89

WABASH RIVER BASIN

03331438 KING LAKE NEAR DELONG, IN

LOCATION.--Lat 41°07'48", long 86°25'23", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1970-72, 1975 to current year.

DATUM OF GAGE.--730.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is normally controlled by the outlet channel bed. At high stages the control changes to the outlet culvert under old State Highway 17. The culvert is located about 700 ft north of the lake.

INLET AND OUTLET.--The inlet is an unnamed ditch which enters the lake from the southeastern side. The outlet exits the lake on the northern side and flows north approximately 1.5 mi to the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.69 ft June 14, 1981; minimum stage, 3.60 ft Oct. 23-26, 28-31, November 1, 2, 1974.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.69	6.17	6.90	5.38	5.33	5.32	6.54	6.66	5.66	5.69	5.57	5.39
10	6.32	6.66	6.85	5.33	5.33	5.77	6.48	6.78	5.64	5.81	5.54	5.37
15	6.05	6.44	6.81	5.33	5.33	6.13	5.81	6.82	5.72	5.85	5.59	5.28
20	6.50	6.77	6.81	5.33	5.34	6.24	6.06	6.74	5.62	5.79	5.61	5.19
25	5.90	6.89	6.80	5.33	5.35	6.29	6.09	5.93	5.64	5.76	5.55	5.41
DOM	6.09	6.81	6.80	5.33	5.35	6.46	6.46	5.76	5.77	5.66	5.48	5.34

WTR YR 1994 MEAN 5.96 MAX 7.22 MIN 5.17

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100390 KNAPP LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat. 41°20'36", long 85°36'17", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, sec.4, T.33 N., R.8 E., Noble County, Hydrologic Unit 04050001 (ORMAS, IN quadrangle). The gage is at a public fishing site on the east side of the lake, and 5.8 mi west of the town of Wolflake.

SURFACE AREA.--88 acres.

DRAINAGE AREA.--6.02 mi<sup>2</sup>.

PERIOD OF RECORD.--1946-74, 1976 to current year.

DATUM OF GAGE.--870.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.25 ft gage datum or 878.25 ft above sea level as decreed on October 7, 1954, by the Noble County Circuit Court. Harper Lake, Moss Lake, and Hindman Lake, all near Washington Center, have the same established level as Knapp Lake and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel.

INLET AND OUTLET.--There are three inlets. The outlet of Little Knapp Lake enters at the southeastern corner, the outlet of Harper Lake enters at the southernmost tip, and Galloway Ditch enters on the eastern shore. The outlet flows from the lake on the western shore, through a series of lakes, into Turkey Creek and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.10 ft June 27, 1968; minimum stage, 6.14 ft Mar. 26, 1994.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.32	7.73	7.37	6.90	6.84	6.84	7.01	7.34	7.07	7.06	6.84	6.68
10	7.68	7.72	7.24	6.87	6.84	6.84	7.23	7.23	7.23	7.02	6.80	6.70
15	7.89	7.51	7.09	6.81	6.84	6.83	8.41	7.17	7.54	6.94	6.86	6.67
20	7.96	7.35	7.05	6.81	6.84	6.81	7.69	7.11	7.33	6.92	6.86	6.70
25	7.52	7.18	7.00	6.81	6.84	6.15	7.28	7.08	7.15	6.91	6.79	6.77
DOM	7.63	7.19	6.91	6.84	6.84	6.27	7.43	7.04	7.14	6.87	6.72	6.82

WTR YR 1994 MEAN 7.08 MAX 8.60 MIN 6.15

## ILLINOIS RIVER BASIN

## 05515600 KOONTZ LAKE AT KOONTZ LAKE, IN

LOCATION.--Lat 41°24'42", long 86°29'18", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--710.12 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1978.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--4.56 ft gage datum or 714.56 ft above sea level as decreed on September 15, 1948, by the Starke County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 4.56 ft gage datum or 714.68 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--Lawrence Pontius Ditch and an unnamed ditch enter the lake on the south shore of the east lobe. The outlet flows from the lake at the western tip and into Robbins Ditch 1400 ft downstream. Robbins Ditch empties into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.10 ft Oct. 11, 1954; minimum stage, 3.10 ft Oct. 12, 1970.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.52	4.56	4.65	4.58	4.58	4.64	4.57	4.55	4.44	4.60	4.50	4.46
10	4.57	4.56	4.61	4.58	4.58	4.62	4.55	4.54	4.44	4.73	4.53	4.50
15	4.52	4.63	4.58	4.58	4.58	4.62	4.73	4.52	4.93	4.65	4.61	4.47
20	4.82	4.60	4.60	4.58	4.65	4.59	4.60	4.49	4.59	4.61	4.59	4.48
25	4.65	4.63	4.58	4.58	4.65	4.58	4.55	4.49	4.62	4.59	4.53	4.51
DOM	4.57	4.62	4.58	4.58	4.65	4.58	4.60	4.46	4.68	4.53	4.48	4.49

WTR YR 1994 MEAN 4.59 MAX 5.08 MIN 4.44

## ILLINOIS RIVER BASIN

## 05517800 LAKE ELIZA NEAR BEATRICE, IN

LOCATION.--Lat 41°25'55", long 87°10'33", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1954-74, 1976 to current year.

DATUM OF GAGE.--735.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the bridge piling.

ESTABLISHED LEGAL LEVEL.--3.70 ft gage datum or 738.70 ft above sea level as decreed on February 7, 1982, by the Porter County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a reinforced concrete dam with fixed crest.

INLET AND OUTLET.--Two small inlets enter the lake from the northwest and the northeast. The outlet flows from the lake on the south side through a dredged channel, forms the head waters of Wolf Creek, and eventually joins the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.24 ft June 14, 1981; minimum stage, 2.45 ft Oct. 13-15, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.14	4.21	4.23	4.17	4.18	4.36	4.13	4.13	3.77	3.90	4.10	3.54
10	4.14	4.18	4.19	4.18	4.18	4.23	4.10	4.13	3.71	3.93	4.05	3.38
15	4.11	4.25	4.18	4.15	4.18	4.20	4.25	4.09	3.86	4.07	4.02	3.26
20	4.40	4.22	4.21	4.15	4.37	4.18	4.16	4.03	3.76	4.33	3.97	3.20
25	4.22	4.23	4.18	4.22	4.23	4.14	4.11	3.98	3.81	4.27	3.79	3.23
DOM	4.22	4.22	4.18	4.24	4.19	4.18	4.16	3.88	3.97	4.10	3.63	3.19

WTR YR 1994 MEAN 4.06 MAX 4.83 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<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--950.00 ft above sea level.

GAGE.--A water-stage recorder is installed in a wooden shelter over a 24-inch diameter stilling well at the downstream side of the bridge. An auxiliary staff gage is at the same site.

ESTABLISHED LEGAL LEVEL.--4.25 ft gage datum or 954.25 ft above sea level as decreed on July 3, 1947, by the Steuben County Circuit Court. Lime Lake at Panama has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and one adjustable gate at the outlet of Lime Lake.

INLET AND OUTLET.--The one inlet flows into the lake on the extreme eastern shore from the Third Basin of Crooked Lake, 1.4 mi upstream. The outlet flows from the northern tip into Lime Lake approximately 600 ft downstream, then eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.55 ft Apr. 25, 1950; minimum stage, 3.41 ft Nov. 13, 15-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.49	4.47	4.31	4.09	4.24	4.36	4.20	4.69	4.37	4.47	4.30	4.19
10	4.52	4.31	4.30	4.08	4.23	4.40	4.18	4.64	4.34	4.40	4.29	4.18
15	4.50	4.35	4.25	4.07	4.22	4.42	4.52	4.62	4.49	4.36	4.35	4.16
20	4.71	4.33	4.23	4.07	4.30	4.40	4.61	4.55	4.45	4.31	4.38	4.13
25	4.64	4.32	4.18	4.09	4.32	4.29	4.63	4.49	4.55	4.32	4.36	4.17
BOM	4.58	4.31	4.13	4.24	4.33	4.22	4.79	4.44	4.44	4.31	4.31	4.17

WTR YR 1994 MEAN 4.36 MAX 4.79 MIN 4.07

STREAMS TRIBUTARY TO LAKE MICHIGAN

04092990 LAKE GEORGE AT HOBART, IN

LOCATION.--Lat 41°32'07", long 87°15'30", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1947 to current year.

DATUM OF GAGE.--600.00 ft above sea level.

GAGE.--A water-stage recorder is installed in a steel shelter over an 18-inch diameter clay stilling well.

ESTABLISHED LEGAL LEVEL.--2.23 ft gage datum or 602.23 ft above sea level as decreed on September 18, 1959, by the Lake County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

INLET AND OUTLET.--The two principal inlets are Turkey Creek, entering from the extreme southwestern tip, and Deep River, entering on the northeastern shore of the southern lobe. Three unnamed tributaries enter from the northwest, south, and southeast. The outlet, Deep River, flows from the lake at the northeast end and eventually joins the Calumet River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.14 ft Oct. 11, 1954; minimum stage, 0.27 ft Nov. 6, 1978 (while the lake was being drained).

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.27	2.46	2.11	2.18	2.22	2.81	2.20	2.23	2.04	2.06	2.20	2.01
10	2.30	2.32	2.17	2.15	2.12	2.44	2.18	2.22	2.06	2.05	2.05	2.04
15	2.18	2.61	2.08	2.13	2.23	2.50	2.42	2.22	2.41	2.14	2.11	1.99
20	3.12	2.58	2.28	2.10	3.22	2.34	2.33	2.13	2.12	2.18	2.16	1.99
25	2.50	2.39	2.17	2.37	2.41	2.26	2.21	2.12	2.19	2.08	2.02	2.07
BOM	2.46	2.24	---	2.32	2.39	2.27	2.36	2.05	2.13	2.02	2.00	2.00

WTR YR 1994 MEAN 2.26 MAX 4.39 MIN 1.98

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04097550 LAKE GEORGE AT JAMESTOWN, IN

LOCATION.--Lat 41°44'58", long 85°01'01", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--980.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--5.28 ft gage datum or 985.28 ft above sea level as decreed on October 12, 1945, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

INLET AND OUTLET.--The inlet flows from Silver Lake, 0.8 mi upstream, and enters on the north shore. The outlet flows from the southwest end of the lake and forms Crooked Creek. Crooked Creek flows into Mud Lake 0.8 mi downstream, then enters Snow Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.20 ft Apr. 4, 25, 1950; minimum stage, 4.20 ft Dec. 6, 7, 1946; Oct. 23-31, 1948.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.61	5.67	5.72	5.68	5.68	5.68	5.65	5.74	5.51	5.58	5.49	5.43
10	5.64	5.66	5.70	5.68	5.68	5.53	5.69	5.69	5.49	5.55	5.44	5.41
15	5.61	5.70	5.68	5.68	5.68	5.57	5.78	5.65	5.57	5.52	5.54	5.38
20	5.80	5.69	5.68	5.68	5.68	5.60	5.68	5.60	5.61	5.49	5.54	5.34
25	5.75	5.70	5.69	5.68	5.68	5.64	5.62	5.58	5.65	5.53	5.52	5.33
ROM	5.69	5.72	5.68	5.68	5.68	5.61	5.77	5.53	5.59	5.50	5.49	5.35

WTR YR 1994 MEAN 5.62 MAX 5.84 MIN 5.31

## WABASH RIVER BASIN

## 03331380 LAKE MANITOU AT ROCHESTER, IN

LOCATION.--Lat 41°03'00", long 86°10'06", NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.14, T.30 N., R.3 E., Fulton County, Hydrologic Unit 05120106 (ROCHESTER, IN quadrangle). The gage is located at the Public Fishing Site on the eastern side of the lake, and 2.6 mi southeast of the courthouse in Rochester.

SURFACE AREA.--1,158 acres.

DRAINAGE AREA.--44.2 mi<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--770.00 ft above sea level.

GAGE.--A water-stage recorder is installed in a aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located at the northwest end of the lake at the fish hatchery.

ESTABLISHED LEGAL LEVEL.--8.41 ft gage datum or 778.41 ft above sea level as decreed on September 27, 1948, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by a concrete dam and the gate of a feeder canal at the lake outlet.

INLET AND OUTLET.--Rain Creek is the main inlet and enters at the southeastern edge of the lake. The other inlet is located on the eastern shore of the lake at the site of the gage. The outlet is Mill Creek, which exits at the northwestern tip of the lake and flows 3.5 mi to the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.87 ft Aug. 19, 1990; minimum stage, 6.48 ft Nov. 14, 25-27, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.45	9.48	9.62	9.46	9.52	9.55	9.55	9.72	9.45	9.45	9.35	9.33
10	9.45	9.44	9.56	9.45	9.46	9.67	9.76	9.63	9.45	9.58	9.39	9.34
15	9.44	9.55	9.51	9.43	9.47	9.58	10.24	9.59	9.61	9.48	9.40	9.32
20	9.67	9.62	9.54	9.39	9.66	9.50	9.79	9.53	9.49	9.42	9.42	9.28
25	9.55	9.54	9.50	9.51	9.56	9.51	9.64	9.58	9.50	9.41	9.37	9.36
ROM	9.49	9.55	9.45	9.79	9.50	9.51	9.89	9.54	9.48	9.39	9.36	9.34

WTR YR 1994 MEAN 9.52 MAX 10.47 MIN 9.25

WABASH RIVER BASIN

03331440 LAKE MAXINKUCKEE AT CULVER, IN

LOCATION.--Lat 41°11'48", long 86°25'00", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.28, T.32 N., R.1 E., Marshall County, Hydrologic Unit 05120106 (CULVER, IN quadrangle). The gage is on the lower west side of the lake, at the public fishing site, 1.4 mi south of the center of Culver.

SURFACE AREA.--1,864 acres.

DRAINAGE AREA.--13.7 mi<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--730.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the upstream side of the north abutment of the outlet dam.

ESTABLISHED LEGAL LEVEL.--3.12 ft gage datum or 733.12 ft above sea level as decreed on August 9, 1948, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest at the outlet channel.

INLET AND OUTLET.--Wilson Ditch enters the lake at the northeast corner, Curtiss Ditch enters at the east center, and Norris Inlet enters at the southeast corner. The outlet leaves the lake at the western shore, north of the point, and flows into Lost Lake 1,600 ft downstream, thence into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.48 ft June 14, 15, 1981; minimum stage, 2.12 ft Nov. 19, 1953 and Nov. 19, 1956.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.40	3.68	3.76	3.52	3.48	3.48	3.52	3.71	3.24	3.31	3.07	2.98
10	3.46	3.60	3.72	3.52	3.48	3.49	3.54	3.68	3.21	3.33	3.03	2.98
15	3.41	3.69	3.68	3.47	3.48	3.52	3.91	3.60	3.35	3.28	3.08	2.97
20	3.99	3.70	3.69	3.47	3.48	3.51	3.87	3.49	3.28	3.22	3.11	2.94
25	3.92	3.71	3.65	3.47	3.48	3.51	3.75	3.44	3.28	3.24	3.08	2.98
DOM	3.77	3.71	3.58	3.48	3.48	3.52	3.79	3.33	3.35	3.14	3.03	2.92

WTR YR 1994 MEAN 3.45 MAX 3.99 MIN 2.89

ILLINOIS RIVER BASIN

05516200 LAKE OF THE WOODS NEAR BREMEN, IN

LOCATION.--Lat 41°25'04", long 86°13'44", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.7, T.34 N., R.3 E., Marshall County, Hydrologic Unit 07120001 (BREMAN, 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<sup>2</sup>.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--800.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the outlet channel.

ESTABLISHED LEGAL LEVEL.--3.85 ft gage datum or 803.85 ft above sea level as decreed on August 9, 1948, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a 13 ft by 1 ft notch. The dam is equipped with a lift gate.

INLET AND OUTLET.--Three ditches, Kimble, Martin, and Seltenright, enter the lake on the northwest shore. Scofield Ditch enters at the west lobe. The outlet, Clark Ditch, flows from the lake at the southern end and eventually into Yellow River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.68 ft Oct. 12, 1954; minimum stage, 2.75 ft Nov. 18-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.22	3.31	3.58	3.19	3.35	3.49	3.20	3.29	3.18	4.01	3.82	3.78
10	3.30	3.23	3.48	3.17	3.22	3.58	3.19	3.26	3.18	3.91	3.89	3.91
15	3.23	3.37	3.38	3.14	3.36	3.45	3.67	3.21	4.07	3.94	3.70	3.74
20	3.94	3.41	3.37	3.10	3.60	3.32	3.45	3.21	3.99	4.05	3.79	3.28
25	3.64	3.43	3.33	3.24	3.51	3.28	3.29	3.23	4.00	3.83	3.81	3.17
DOM	3.39	3.49	3.22	3.54	3.40	3.25	3.39	3.22	3.86	3.85	3.81	3.03

WTR YR 1994 MEAN 3.49 MAX 4.29 MIN 3.03

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04099580 LAKE OF THE WOODS NEAR HELMER, IN

LOCATION.--Lat 41°32'30", long 85°11'42", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1951-74, 1977 to current year.

DATUM OF GAGE.--940.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--11.09 ft gage datum or 951.09 ft above sea level as decreed on July 21, 1960, by the Lagrange County Circuit Court. McClish Lake near Helmer has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed sill.

INLET AND OUTLET.--There are four inlets to the lake. Spectacle Lake drains into the west shore, Maumee Ditch enters from the south, Goose Pond flows through a short channel to the southwest shore, and McClish Lake drains into the lake on the southeast shore. The outlet flows to the north from the east end of the lake and through Taylor, Mud, and Little Turkey Lakes to Turkey Creek, thence into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.00 ft Dec. 24, 25, 1967; minimum stage, 9.81 ft Nov. 17-20, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.30	11.34	11.51	11.45	11.45	11.44	11.45	---	---	---	11.14	11.05
10	11.40	11.32	11.50	11.45	11.45	11.65	11.54	---	---	11.23	11.07	11.02
15	11.42	11.40	11.46	11.45	11.45	11.53	---	---	---	11.17	11.17	11.00
20	11.69	11.44	11.46	11.45	11.44	11.47	---	---	---	11.13	11.20	10.95
25	11.51	11.45	11.45	11.45	11.44	11.47	---	---	---	11.20	11.17	10.91
DOM	11.38	11.45	11.45	11.45	11.44	11.44	---	---	---	11.18	11.11	10.87

WTR YR 1994 MEAN 11.35 MAX 11.94 MIN 10.87

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04097520 LAKE PLEASANT NEAR NEVADA MILLS, IN

LOCATION.--Lat 41°45'18", long 85°06'10", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1954-69, 1971, 1976 to current year.

DATUM OF GAGE.--960.40 ft above sea level as corrected on the basis of levels of Indiana Department of Natural Resources, 1977-78.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the southwest bridge abutment at the site.

ESTABLISHED LEGAL LEVEL.--1.10 ft gage datum or 961.50 ft above sea level as decreed on April 11, 1986, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a metal plate welded across the bottom of a corrugated metal pipe.

INLET AND OUTLET.--The one inlet enters the lake on the west side. The outlet flows from the northern shore, enters Michigan, and eventually empties into Prairie River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 2.04 ft Mar. 17, 1980; minimum stage, -0.14 ft Nov. 6-14, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.41	1.49	1.56	1.50	1.51	1.43	1.49	1.52	1.24	1.27	.99	.92
10	1.43	1.46	1.55	1.50	1.50	1.41	1.49	1.49	1.16	1.20	.99	.88
15	1.41	1.51	1.51	1.51	1.50	1.44	1.59	1.46	1.27	1.17	1.05	.83
20	1.63	1.50	1.51	1.51	1.45	1.46	1.52	1.40	1.23	1.15	1.08	.77
25	1.58	1.52	1.50	1.51	1.35	1.47	1.48	1.36	1.31	1.11	1.04	.78
DOM	1.51	1.52	1.50	1.51	1.35	1.48	1.57	1.30	1.27	1.03	.98	.78

WTR YR 1994 MEAN 1.35 MAX 1.63 MIN .73

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100160 LITTLE LONG LAKE AT KENDALLVILLE, IN

LOCATION.--Lat 41°27'49", long 85°15'27", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--950.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to the west wingwall on the south side of the bridge.

ESTABLISHED LEGAL LEVEL.--4.50 ft gage datum or 954.50 ft above sea level as decreed on March 26, 1970. Round Lake at Kendallville has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

INLET AND OUTLET.--The one inlet enters on the east side from Round Lake. The outlet, Waterhouse Ditch, flows from the lake at the southwest end and into Henderson Lake Ditch, thence into Sylvan Lake 4.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.75 ft Jan. 31, 1969; minimum stage, 3.33 ft Nov. 17, 18, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.69	4.69	4.83	4.71	4.71	4.71	4.79	4.79	4.59	4.59	4.59	4.42
10	4.79	4.68	4.77	4.71	4.71	4.71	4.86	4.77	4.54	4.63	4.51	4.39
15	4.71	4.78	4.73	4.71	4.71	4.67	5.18	4.76	4.55	4.56	4.58	4.35
20	4.82	4.80	4.73	4.71	4.71	4.79	4.85	4.73	4.50	4.52	4.59	4.29
25	4.75	4.79	4.72	4.71	4.71	4.78	4.77	4.69	4.54	4.62	4.55	4.24
DOM	4.69	4.78	4.72	4.71	4.71	4.78	4.88	4.65	4.64	4.63	4.49	4.20

WTR YR 1994 MEAN 4.68 MAX 5.44 MIN 4.20

WABASH RIVER BASIN

03328100 LONG LAKE AT LAKETON, IN

LOCATION.--Lat 40°59'08", long 85°50'20", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1946-51, 1959 to current year.

DATUM OF GAGE.--740.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage, driven into the lake bed, is located 50 ft lakeward of the primary gage.

ESTABLISHED LEGAL LEVEL.--11.19 ft gage datum or 751.19 ft above sea level as decreed on July 26, 1951, by the Wabash County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an 18-inch corrugated metal pipe draining into a clay tile.

INLET AND OUTLET.--Two tile ditches flow into the lake. The outlet flows from the west end of the lake, joins the outlet of Mud Lake, continues through Round Lake, then into Bel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.66 ft Mar. 22, 1982; minimum stage, 8.68 ft Dec. 1-3, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.79	11.74	11.95	11.90	11.90	11.89	11.88	12.44	11.85	11.89	11.52	11.13
10	11.79	11.69	11.93	11.90	11.90	12.21	12.03	12.37	11.81	11.91	11.44	11.07
15	11.74	11.81	11.91	11.90	11.90	11.93	12.66	12.33	11.90	11.83	11.43	10.99
20	11.90	11.90	11.92	11.90	11.89	11.88	12.56	12.16	11.81	11.77	11.39	10.89
25	11.84	11.92	11.90	11.90	11.89	11.87	12.43	12.09	11.76	11.72	11.31	10.86
DOM	11.77	11.92	11.90	11.90	11.89	11.86	12.56	11.95	11.96	11.61	11.23	10.78

WTR YR 1994 MEAN 11.82 MAX 12.66 MIN 10.78

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04099200 LONG LAKE AT MOONLIGHT, IN

LOCATION.--Lat 41°35'01", long 85°01'43", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--940.10 ft above sea level as corrected on the basis of levels of Indiana Department of Natural Resources, 1977.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located near the gage in two sections. One section is mounted on a post which is driven into the lake bed. The other section is mounted to a tree near the gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by the downstream channel.

INLET AND OUTLET.--Pigeon Creek flows into Long Lake at the eastern end of the lake and exits at the western end.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 17.42 ft Mar. 22, 1982; minimum stage, 8.58 ft Sept. 22 and 23, 1994.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.11	9.19	9.96	9.13	11.22	---	---	9.84	8.90	8.88	8.75	8.68
10	9.44	9.14	9.86	9.09	11.22	---	---	9.58	8.85	8.84	8.69	8.64
15	9.15	9.32	9.49	9.07	11.01	---	12.29	9.36	8.95	8.78	9.12	8.62
20	10.06	9.53	9.37	9.04	12.48	---	10.43	9.16	8.88	8.82	8.92	8.62
25	9.52	9.50	9.26	9.15	12.78	---	9.64	9.06	8.98	8.85	8.79	8.67
BOM	9.26	9.68	9.14	11.22	---	---	10.14	8.96	9.18	8.88	8.71	8.69

WTR YR 1994 MEAN 9.42 MAX 12.79 MIN 8.58

## WABASH RIVER BASIN

## 03331460 LOST LAKE NEAR CULVER, IN

LOCATION.--Lat 41°12'02", long 86°25'17", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1954-61, 1963-74, 1976 to current year. (Formerly published as Hawks Lake near Culver.)

DATUM OF GAGE.--720.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--12.00 ft gage datum or 732.00 ft above sea level as decreed on February 17, 1960, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam and sill with removable boards in the outlet channel approximately 850 ft downstream from the main body of the lake.

INLET AND OUTLET.--The one inlet flows into the lake from Maxinkuckee Lake and enters on the north shore. The outlet flows from the south end of the lake to the Tippecanoe River 3.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.05 ft June 15, 1981; minimum stage, 10.12 ft July 9, 1959.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.01	12.19	12.23	12.10	12.13	12.15	12.07	12.19	11.86	11.91	11.70	11.27
10	12.06	12.14	12.20	12.10	12.13	12.19	12.07	12.17	11.83	11.93	11.51	11.21
15	12.02	12.18	12.17	12.08	12.13	12.14	12.27	12.13	11.95	11.88	11.48	11.19
20	12.35	12.20	12.18	12.08	12.14	12.10	12.23	12.08	11.90	11.86	11.47	11.17
25	12.31	12.21	12.15	12.07	12.15	12.07	12.21	12.03	11.91	11.81	11.43	11.30
BOM	12.22	12.20	12.11	12.13	12.15	12.08	12.24	11.94	11.95	11.75	11.35	11.27

WTR YR 1994 MEAN 11.97 MAX 12.35 MIN 11.15

WABASH RIVER BASIN

03328400 LUKENS LAKE NEAR DISKO, IN

LOCATION.--Lat 40°58'09", long 85°56'06", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1948-49, 1959 to current year.

DATUM OF GAGE.--760.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is driven into the lake bed about 5 ft upstream from the outlet culvert.

ESTABLISHED LEGAL LEVEL.--3.60 ft gage datum or 763.60 ft above the sea level as decreed on March 29, 1978, by the Wabash County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by two 18-inch corrugated metal culverts at the outlet.

INLET AND OUTLET.--The principal inlet is a tile drain from McColley Lake, 0.5 mi to the north. The outlet flows from the southwestern shore, into Bolley Ditch 0.7 mi downstream, thence into Squirrel Creek, and eventually into Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.10 ft May 16, 1968; minimum stage, 2.32 ft Oct. 12, 1983.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.57	3.58	3.78	3.61	3.64	3.61	3.76	3.96	3.67	3.73	3.51	3.40
10	3.57	3.55	3.73	3.62	3.64	3.65	3.96	3.96	3.62	3.92	3.49	3.38
15	3.53	3.65	3.70	3.61	3.64	3.72	4.16	3.94	3.68	3.86	3.51	3.34
20	3.72	3.76	3.70	3.61	3.64	3.79	3.98	3.90	3.59	3.78	3.52	3.26
25	3.67	3.78	3.66	3.61	3.63	3.74	3.93	3.94	3.58	3.69	3.49	3.25
BOM	3.60	3.76	3.62	3.64	3.63	3.74	4.08	3.80	3.76	3.57	3.46	3.20

WTR YR 1994 MEAN 3.68 MAX 4.43 MIN 3.20

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100280 MUNCIE LAKE NEAR BURR OAK, IN

LOCATION.--Lat 41°19'37", long 85°27'28", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--880.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--There are three inlets to the lake. Forker Creek flows into the lake from the east, Brown Ditch from the southeast, and Carrol Creek from the west. The outlet flows from the northwest shore into Williams Lake, then into the South Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.47 ft Mar. 24, 25, 1978, Feb. 25, 26, 1985; minimum stage, 1.88 ft Aug. 8, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.64	2.62	3.44	2.53	3.96	3.96	3.38	3.59	2.60	2.50	2.34	2.41
10	2.80	2.53	3.17	2.49	3.96	3.97	3.98	3.28	2.50	2.60	2.28	2.39
15	2.70	2.78	2.89	2.49	3.96	2.96	6.50	3.14	2.54	2.43	2.48	2.27
20	3.04	3.41	2.83	2.49	3.96	2.81	4.33	2.99	2.37	2.31	2.51	2.21
25	2.91	3.20	2.73	2.49	3.96	3.34	3.33	2.96	2.48	2.38	2.46	2.28
BOM	2.70	3.20	2.57	3.96	3.96	3.34	4.03	2.77	2.79	2.28	2.43	2.25

WTR YR 1994 MEAN 2.99 MAX 6.81 MIN 2.19

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04099700 NORTH TWIN LAKE NEAR HOWE, IN

LOCATION.--Lat 41°43'45", long 85°27'49", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1953 to current year.

DATUM OF GAGE.--840.00 ft above sea level.

GAGE.--A staff gage is attached to the east concrete retaining wall of the control dam.

ESTABLISHED LEGAL LEVEL.--3.56 ft gage datum or 843.56 ft above sea level as decreed on September 11, 1959, by the Lagrange County Circuit Court. South Twin Lake near Howe has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--Prior to October 1, 1982, the low water control was a fixed-crest dam with removable boards at the upstream end of the channel between the two lakes. At high stages the outlet channel of South Twin Lake was the control. After October 1, 1982, a concrete dam with a fixed crest was installed in the outlet of South Twin Lake. This is now the control structure for both North and South Twin Lakes, although the original structure is still in place.

INLET AND OUTLET.--There are two inlets to the lake. One enters at the southeast shore from Still Lake 0.9 mi upstream, and the other, which drains the adjacent marsh land, enters on the northwest shore. The outlet flows from the southwest shore and into South Twin Lake approximately 200 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.20 ft Feb. 26, 1985; minimum stage, 2.97 ft Aug. 20, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.71	3.73	3.72	3.66	3.70	3.71	3.62	3.65	3.48	3.58	3.38	3.40
10	3.71	3.69	3.71	3.66	3.68	3.68	3.62	3.61	3.46	3.52	3.39	3.42
15	3.70	3.70	3.70	3.66	3.66	3.67	3.70	3.58	3.56	3.46	3.45	3.42
20	3.91	3.71	3.68	3.66	3.72	3.64	3.66	3.54	3.52	3.44	3.53	3.42
25	3.84	3.72	3.64	3.74	3.74	3.64	3.62	3.52	3.66	3.40	3.50	3.40
DOM	3.76	3.73	3.64	3.74	3.74	3.67	3.68	3.50	3.62	3.39	3.44	3.40

WTR YR 1994 MEAN 3.61 MAX 3.92 MIN 3.38

## WABASH RIVER BASIN

## 03331400 NYONA LAKE NEAR GREENOAK, IN

LOCATION.--Lat 40°57'40", long 86°11'20", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.16, T.29 N., R.3 E., Fulton County, Hydrologic Unit 05120106 (MACY, IN quadrangle). The gage is on the northwest shore of the southern lobe of the lake, at the public fishing site, and 2.4 mi south of Greenoak.

SURFACE AREA.--104 acres.

DRAINAGE AREA.--7.59 mi<sup>2</sup>.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--790.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--3.91 ft gage datum or 793.91 ft above sea level as decreed on September 27, 1948, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest.

INLET AND OUTLET.--The lake is fed by two small ditches entering from the east and northeast. The outlet flows from the lake at the southwest corner and into Mud Creek, which eventually joins the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.13 ft Aug. 18, 1990; minimum stage, 2.98 ft Oct. 12-19, 25, 26, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.07	4.15	4.33	4.12	4.06	4.26	4.20	4.29	4.03	4.12	3.98	3.98
10	4.08	4.10	4.23	4.09	4.06	4.29	4.59	4.26	4.05	4.15	4.00	4.01
15	4.07	4.24	4.19	4.06	4.07	4.21	4.76	4.18	4.30	4.12	4.04	4.01
20	4.31	4.28	4.22	4.06	4.30	4.15	4.34	4.12	4.07	4.10	4.07	3.98
25	4.20	4.22	4.16	4.06	4.27	4.14	4.22	4.14	4.08	4.05	4.00	4.08
DOM	4.14	4.23	4.10	4.06	4.27	4.15	4.52	4.07	4.08	4.00	3.99	4.01

WTR YR 1994 MEAN 4.15 MAX 5.52 MIN 3.97

WABASH RIVER BASIN

03371700 OGLE LAKE NEAR NASHVILLE, IN

LOCATION.--Lat 39°09'35", long 86°14'54", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.1, T.8 N., R.2 E., Brown County, Hydrologic Unit 05120208 (NASHVILLE, IN quadrangle). The gage is on the dam, near the concrete intake structure on the west side of the lake, 3.3 mi south of Nashville.

SURFACE AREA.--20 acres.

DRAINAGE AREA.--1.03 mi<sup>2</sup>.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--710.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete flood spillway with a fixed crest.

INLET AND OUTLET.--Two ditches enter the lake, one from the east and one from the southeast. The outlet flows into Upper Schooner Creek, which joins Lower Schooner Creek, then flows into the North Fork of Salt Creek. The North Fork of Salt Creek empties into Monroe Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.80 ft June 23, 1960; minimum stage, -2.70 ft Feb. 12, 13, 1977.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.57	4.60	4.77	4.59	4.72	4.58	4.66	4.59	4.17	3.82	3.51	3.01
10	4.59	4.58	4.63	4.59	4.71	4.57	4.94	4.62	4.08	3.76	3.38	2.91
15	4.55	4.70	4.65	4.61	4.71	4.58	4.65	4.60	3.97	3.65	3.34	2.82
20	5.05	4.66	4.65	4.61	4.65	4.58	4.59	4.54	3.84	3.50	3.27	2.69
25	4.61	4.65	4.62	4.88	4.63	4.60	4.56	4.44	3.69	3.36	3.14	2.84
BOM	4.59	4.61	4.59	4.72	4.60	4.58	5.02	4.30	3.74	3.42	3.11	2.78

WTR YR 1994 MEAN 4.23 MAX 5.40 MIN 2.66

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100100 OLIVER LAKE NEAR VALENTINE, IN

LOCATION.--Lat 41°34'37", long 85°24'44", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.18, T.36 N., R.10 E., Lagrange County, Hydrologic Unit 04050001 (OLIVER LAKE, IN quadrangle). The gage is at the public fishing site on the northwest side of the lake, and 1.6 mi southwest of Valentine.

SURFACE AREA.--362 acres.

DRAINAGE AREA.--11.1 mi<sup>2</sup>.

PERIOD OF RECORD.--1945 to current year.

DATUM OF GAGE.--899.78 ft above sea level as corrected on the basis of levels of Indiana Department of Natural Resources, 1975-76.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the dam in the outlet.

ESTABLISHED LEGAL LEVEL.--9.45 ft gage datum or 899.45 ft above sea level as decreed on September 29, 1952, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 9.45 ft gage datum or 899.23 ft above sea level. Martin and Olin Lakes near Valentine have the same established level as Oliver Lake and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed sill and dam with movable boards.

INLET AND OUTLET.--The lake has several inlets. Dove Creek enters on the northwest, the outlet of Holsinger Hole on the north, Hart Ditch on the east, and the channel between Oliver and Olin Lakes on the southeast shore. The Oliver Lake outlet flows from the southwest lobe of the lake, through a wetland, into Hackenburg Lake 1.6 mi downstream, and eventually into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.77 ft June 14, 1981; minimum stage, 8.42 ft Jan. 18, 19, and Feb. 3-5, 1961.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.82	9.82	9.81	9.62	9.64	9.65	9.66	9.73	9.65	9.73	9.61	9.62
10	9.89	9.80	9.75	9.65	9.64	9.65	9.71	9.76	9.63	9.72	9.57	9.63
15	9.82	9.89	9.71	9.64	9.64	9.60	9.97	9.76	9.75	9.68	9.71	9.62
20	10.05	9.88	9.71	9.64	9.64	9.56	9.76	9.73	9.71	9.68	9.74	9.58
25	9.92	9.88	9.68	9.64	9.65	9.57	9.68	9.71	9.76	9.67	9.72	9.61
BOM	9.82	9.79	9.64	9.64	9.65	9.67	9.78	9.68	9.77	9.65	9.66	9.61

WTR YR 1994 MEAN 9.71 MAX 10.08 MIN 9.51

## WABASH RIVER BASIN

03331180 PALESTINE LAKE AT PALESTINE, IN

LOCATION.--Lat 41°10'48", long 85°56'54", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--815.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is driven into the lake bed just north of the public access site.

ESTABLISHED LEGAL LEVEL.--1.62 ft gage datum or 816.62 ft above sea level as decreed on August 5, 1965, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an old mill dam of stone and concrete (fixed crest) at the west lobe of the far northern shore.

INLET AND OUTLET.--There are four inlets to the lake. Magee Ditch enters from the north, Williamson Ditch from the west and the confluence of Adams and Sloan Ditches from the southeast. Trimble Creek flows through the lake, entering on the extreme southeastern end, leaving at the northwestern lobe and flowing into the Tippecanoe River 7.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.35 ft June 13, 1981; minimum stage, below -0.90 ft, lake drained, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.83	1.85	2.02	1.87	1.87	2.19	1.91	2.06	1.82	1.93	1.81	1.78
10	1.85	1.84	1.94	1.87	1.87	1.98	2.14	2.00	1.83	2.13	1.81	1.83
15	1.86	1.94	1.90	1.87	1.87	1.89	2.38	1.95	2.31	1.91	1.81	1.76
20	1.95	1.93	1.91	1.87	2.21	1.88	2.08	1.95	1.91	1.87	1.86	1.72
25	1.88	1.93	1.87	1.87	2.14	1.86	1.99	1.94	1.92	1.89	1.80	1.81
EOM	1.84	1.93	1.87	1.87	2.14	1.87	2.24	1.86	2.05	1.82	1.79	1.75

WTR YR 1994 MEAN 1.93 MAX 2.91 MIN 1.71

## WABASH RIVER BASIN

03331040 PIKE LAKE AT WARSAW, IN

LOCATION.--Lat 41°15'44", long 85°51'00", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1954 to current year.

DATUM OF GAGE.--800.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well attached to the upstream abutment of the control structure.

ESTABLISHED LEGAL LEVEL.--5.64 ft gage datum or 805.64 ft above sea level as decreed on December 12, 1963, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and removable boards.

INLET AND OUTLET.--The one inlet, Deeds Creek, flows from Little Chapman Lake 3.4 mi upstream, and enters the lake on the lower northern shore. The outlet flows to the west from the extreme northern end of the lake through Lones Ditch and enters the Tippecanoe River 0.9 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.79 ft Oct. 15, 1954; minimum stage, 3.71 ft Sept. 21, 22, 1955.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.79	4.90	5.28	4.92	5.97	5.43	5.01	5.61	5.78	6.01	5.79	5.71
10	5.83	4.87	5.24	4.88	5.44	5.40	5.48	6.00	5.75	6.06	5.80	5.75
15	5.78	5.03	5.10	4.88	5.04	5.29	7.16	5.96	6.54	5.89	5.83	5.68
20	5.95	5.10	5.02	4.88	5.65	5.15	6.54	5.89	5.92	5.83	5.83	5.67
25	6.03	5.05	4.93	5.01	5.36	5.01	5.81	5.87	5.87	5.86	5.76	5.71
EOM	5.22	5.09	4.89	6.23	5.32	4.99	5.93	5.81	6.29	5.83	5.72	5.68

WTR YR 1994 MEAN 5.59 MAX 7.48 MIN 4.85

## ILLINOIS RIVER BASIN

## 05515220 PINE LAKE AT LAPORTE, IN

LOCATION.--Lat 41°37'01", long 86°44'58", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1946-75, 1980 to current year.

DATUM OF GAGE.--780.00 ft above sea level. Prior to Oct. 1, 1964, the datum of the gage was 790.00 ft. All levels given below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed at the same site.

ESTABLISHED LEGAL LEVEL.--16.20 ft gage datum or 796.20 ft above sea level, as decreed on August 31, 1949, by the LaPorte County Circuit Court. Stone Lake at LaPorte has the same established level and hence the same lake levels during the periods of record when the channel between the two lakes is open and flowing, water years 1946-63 and 1968-85.

LAKE-LEVEL CONTROL.--Pine and Stone Lakes form a closed basin; however, there is a capability of pumping water from the lakes into the Little Kankakee River during times of high water.

INLET AND OUTLET.--Kabelin Ditch enters Pine Lake from the northwest through a large drain tile. Pine Lake is connected to Stone Lake by a channel on the southern tip.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 20.98 ft June 2, 3, 1993; minimum stage, 9.00 ft Nov. 14, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.58	20.68	20.84	20.75	20.77	20.91	20.78	20.67	20.16	20.23	19.95	19.86
10	20.54	20.65	20.83	20.79	20.76	20.96	20.72	20.63	20.10	20.20	19.84	19.82
15	20.46	20.71	20.80	20.77	20.77	20.93	20.86	20.57	20.35	20.17	19.90	19.76
20	20.79	20.72	20.84	20.77	20.80	20.89	20.79	20.46	20.25	20.13	20.10	19.68
25	20.73	20.72	20.80	20.77	20.83	20.86	20.73	20.39	20.34	20.11	20.04	19.67
EOM	20.69	20.80	20.75	20.76	20.83	20.83	20.74	20.31	20.33	19.99	19.96	19.59

WTR YR 1994 MEAN 20.50 MAX 20.96 MIN 19.59

## ILLINOIS RIVER BASIN

## 05516600 PRETTY LAKE NEAR PLYMOUTH

LOCATION.--Lat 41°19'39", long 86°22'15", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec. 11, T. 33 N., R. 1 E., Marshall County, Hydrologic Unit 07120001, the gage is on the north shore of the lake, 3.3 mi southwest of Plymouth.

SURFACE AREA.--97 acres.

DRAINAGE AREA.--0.85 mi<sup>2</sup>.

PERIOD OF RECORD.--1954-66. 1989 to current year.

DATUM OF GAGE.--780.00 ft above sea level.

GAGE.--A staff gage in one section is driven into the lake bed near house at 10099 Pretty Lake Trail.

ESTABLISHED LEGAL LEVEL.--7.36 ft gage datum or 787.36 ft above sea level as decreed on July 16, 1965, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the banks. At times of very high water levels, water overflows the southeastern shore.

INLET AND OUTLET.--There are no inlets. There is no well-defined outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.10 ft June 1, 1991; minimum stage, 4.90 ft Nov. 26, 27, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	9.08	8.68	9.25	9.08	8.84
10	---	---	---	---	---	---	---	9.06	8.64	9.52	9.02	8.81
15	---	---	---	---	---	---	---	8.98	9.02	9.44	9.03	8.77
20	---	---	---	---	---	---	---	8.90	9.02	9.32	9.04	8.75
25	---	---	---	---	---	---	---	8.86	9.11	9.28	8.97	8.73
EOM	---	---	---	---	---	---	---	8.78	9.32	9.17	8.90	8.68

WTR YR 1994 MEAN 9.01 MAX 9.56 MIN 8.62

## ILLINOIS RIVER BASIN

05515800 RIDDLES LAKE NEAR LAKEVILLE, IN

LOCATION.--Lat 41°30'19", long 86°15'31", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1946-71, 1976 to current year.

DATUM OF GAGE.--810.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to a wingwall of the control dam.

ESTABLISHED LEGAL LEVEL.--7.50 ft gage datum or 817.50 ft above sea level as decreed on July 3, 1953, by the St. Joseph County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel and concrete dam with a fixed crest. Boards may be added to raise the water level.

INLET AND OUTLET.--Heston Ditch flows through the lake, entering on the northern shore and leaving on the southern. The outflow eventually enters Yellow River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.49 ft Apr. 5, 1950; minimum stage, 6.40 ft July 25-31, Aug. 1-9, 22-31, Sept. 1-30, 1971.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.30	7.29	7.42	7.27	7.29	7.40	7.28	7.27	7.15	7.35	7.27	7.22
10	7.31	7.27	7.31	7.27	7.27	7.36	7.27	7.26	7.17	7.41	7.34	7.37
15	7.30	7.32	7.30	7.23	7.27	7.32	7.45	7.26	7.43	7.33	7.34	7.24
20	7.55	7.32	7.31	7.25	7.60	7.33	7.34	7.23	7.26	7.29	7.41	7.21
25	7.37	7.37	7.29	7.28	7.35	7.29	7.27	7.24	7.46	7.34	7.30	7.24
ROM	7.29	7.32	7.27	7.37	7.31	7.30	7.34	7.20	7.47	7.31	7.25	7.20

WTR YR 1994 MEAN 7.32 MAX 8.20 MIN 7.15

## WABASH RIVER BASIN

03330300 RIDINGER LAKE NEAR PIERCETON, IN

LOCATION.--Lat 41°15'07", long 85°39'34", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--840.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well attached to the right downstream wingwall of the bridge. An auxiliary staff gage in two sections is at the control dam.

ESTABLISHED LEGAL LEVEL.--3.12 ft gage datum or 843.12 ft above sea level, as decreed on April 11, 1949, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and a sluice-way with a steel gate for controlling high water. The dam is located in the outlet, 300 ft downstream from the lake.

INLET AND OUTLET.--Grassy Creek flows through the lake, entering at the southwestern end. Grassy Creek is formed 1.5 mi upstream by the outlet of Robinson Lake and Cedar Lake Branch. Grassy Creek leaves the lake at the northwestern end and flows into Big Barbee Lake, 3.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.01 ft Feb. 24, 1985; minimum stage, 1.35 ft Jan. 17-19, 1944.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.67	2.86	3.08	2.77	3.13	3.01	2.74	2.94	2.54	2.66	2.52	2.49
10	2.72	2.87	2.89	2.77	3.13	2.95	3.28	2.82	2.55	2.77	2.65	2.55
15	2.64	2.93	2.79	2.77	3.13	2.81	3.79	2.77	3.38	2.58	2.54	2.49
20	3.01	2.96	2.80	2.77	3.41	2.71	3.00	2.66	2.68	2.61	2.55	2.48
25	2.91	2.90	2.77	2.77	2.90	2.69	2.78	2.65	2.65	2.61	2.51	2.50
ROM	2.85	2.89	2.77	2.78	2.90	2.70	3.37	2.59	2.83	2.54	2.50	2.48

WTR YR 1994 MEAN 2.81 MAX 5.48 MIN 2.48

WABASH RIVER BASIN

03330460 SAWMILL LAKE NEAR NORTH WEBSTER, IN

LOCATION.--Lat 41°17'22", long 85°42'52", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1945-1970, 1972 to current year.

DATUM OF GAGE.--830.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the stilling well.

ESTABLISHED LEGAL LEVEL.--7.50 ft gage datum or 837.50 ft above sea level as decreed on October 18, 1949, by the Kosciusko County Circuit Court. All lakes in the Barbee Chain have the same established level and hence the same lake levels for the period of record. The lakes are as follows: Kuhn, Big Barbee, Little Barbee, Irish, Banning, Sechrist and Sawmill.

LAKE-LEVEL CONTROL.--The level of the lakes is controlled by a concrete dam with a fixed crest, located 600 ft upstream of the County Road 500 North bridge over the outlet of Sawmill Lake.

INLET AND OUTLET.--There are four inlets to the Barbee Chain. Grassy Creek flows into Big Barbee Lake at the southeastern side. The outlet of Heron Lake flows into Kuhn Lake from the north. Puntney ditch enters Little Barbee Lake from the south. The outlet from Shoe Lake flows into Banning Lake on the northeastern shore. The outlet, Grassy Creek, leaves Sawmill Lake at the northwestern tip and flows into Tippecanoe Lake 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.53 ft Mar. 20, 1982; minimum stage, 5.45 ft Jan. 29-31, Feb. 1-28, Mar. 1, 2, 1978.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.34	7.26	7.64	7.38	7.53	7.65	7.51	7.87	7.32	7.58	7.24	7.18
10	7.39	7.20	7.62	7.33	7.53	7.77	7.73	7.67	7.28	7.54	7.22	7.19
15	7.34	7.32	7.53	7.29	7.39	7.64	9.06	7.57	7.99	7.40	7.32	7.18
20	7.55	7.53	7.53	7.29	7.91	7.56	8.40	7.49	7.68	7.37	7.30	7.16
25	7.48	7.54	7.49	7.59	7.65	7.46	7.84	7.44	7.47	7.40	7.26	7.15
DOM	7.33	7.59	7.38	7.81	7.53	7.45	7.94	7.39	7.87	7.34	7.21	7.15

WTR YR 1994 MEAN 7.51 MAX 9.06 MIN 7.15

WABASH RIVER BASIN

03331120 SHERBURN LAKE NEAR PIERCETON, IN

LOCATION.--Lat 41°09'40", long 85°44'43", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1954 to current year. (Formerly published as Johnson Lake near Pierceton.)

DATUM OF GAGE.--870.00 ft above sea level. Prior to Oct. 1, 1980, the datum of the gage was 880.00 ft. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the lake bed just south of the western lobe of the lake, 400 ft south of County Road 500 South on the first drive west of the outlet.

ESTABLISHED LEGAL LEVEL.--11.00 ft gage datum or 881.00 ft above sea level as decreed on December 19, 1974, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the invert of the culvert under the first east-west road north of the lake.

INLET AND OUTLET.--The one inlet flows from Sellers Lake 0.35 mi upstream. The outlet flows from the northern shore through Wyland ditch and into Winona Lake 6.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.34 ft Dec. 30, 1990; minimum stage, 9.20 ft Sept. 14-18, 1983.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

( NO DATA COLLECTED DUE TO CONSTRUCTION )

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04099740 SHIPSEWANA LAKE NEAR SHIPSEWANA, IN

LOCATION.--Lat 41°40'53", long 85°36'03", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec.9, T.37 N., R.8 E., Lagrange County, Hydrologic Unit 04050001 (SHIPSEWANA, IN quadrangle). The gage is on the south shore of the lake at the public fishing site, 1.1 mi northwest of Shipsewana.

SURFACE AREA.--202 acres.

DRAINAGE AREA.--6.74 mi<sup>2</sup>.

PERIOD OF RECORD.--1951 to current year.

DATUM OF GAGE.--850.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to a wingwall of the control dam at the extreme eastern end of the lake.

ESTABLISHED LEGAL LEVEL.--2.04 ft gage datum or 852.04 ft above sea level as decreed on March 8, 1956, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a sheet piling dam with a fixed crest at three elevations.

INLET AND OUTLET.--The principal inlet enters on the southern shore from Cotton Lake 2.0 mi upstream. Another small ditch enters on the western shore. The outlet is on the extreme eastern tip of the lake and flows to the northeast through Page Ditch, which empties into Pigeon River, 6.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.33 ft Mar. 20, 1982; minimum stage, 1.39 ft Sept. 19-22, 1955.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.37	2.45	2.49	2.38	2.40	2.41	2.41	2.46	2.16	2.30	2.17	---
10	2.43	2.42	2.49	2.40	2.40	2.41	2.41	2.42	2.12	2.25	2.15	---
15	2.39	2.46	2.44	2.40	2.40	2.41	2.54	2.37	2.16	2.27	2.26	---
20	2.70	2.45	2.45	2.40	2.41	2.39	2.46	2.31	2.15	2.23	2.34	---
25	2.60	2.47	2.42	2.40	2.41	2.43	2.40	2.26	2.28	2.27	2.29	---
DOM	2.48	2.47	2.39	2.40	2.41	2.42	2.50	2.20	2.27	2.22	---	---

WTR YR 1994 MEAN 2.37 MAX 2.70 MIN 2.10

## WABASH RIVER BASIN

## 03330380 SHOE LAKE NEAR OSWEGO, IN

LOCATION.--Lat 41°18'32", long 85°45'10", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, 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<sup>2</sup>.

PERIOD OF RECORD.--1946-52, 1972-74, 1977 to current year.

DATUM OF GAGE.--830.00 ft above sea level. Prior to 1972, the datum of the gage was 840.00 ft above sea level. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--11.57 ft gage datum or 841.57 ft above sea level as decreed on October 18, 1948, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by removable boards placed in wooden support posts in the outlet channel, upstream of the culvert under County Road 450 North.

INLET AND OUTLET.--There is no inlet except for small drainage ditches. The outlet leaves the lake at the southeastern end and flows into Banning Lake 0.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.95 ft Dec. 13-15, 1972; minimum stage, 10.50 ft Oct. 15, 16, 1988.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.62	11.71	11.81	11.74	11.74	11.75	11.99	12.11	11.80	11.79	11.49	11.18
10	11.65	11.67	11.80	11.74	11.74	11.76	12.01	12.10	11.75	11.78	11.44	11.19
15	11.59	11.75	11.77	11.73	11.74	11.78	12.18	12.06	11.87	11.71	11.47	11.11
20	11.85	11.77	11.79	11.72	11.74	11.80	12.10	12.00	11.78	11.66	11.44	11.02
25	11.80	11.77	11.77	11.73	11.75	11.84	12.05	11.96	11.72	11.63	11.36	10.99
DOM	11.73	11.77	11.74	11.74	11.75	11.96	12.17	11.89	11.85	11.55	11.27	10.91

WTR YR 1994 MEAN 11.72 MAX 12.22 MIN 10.91

WABASH RIVER BASIN

03327650 SHRINER LAKE AT TRI-LAKES, IN

LOCATION.--Lat 41°14'37", long 85°26'24", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943-74, 1976-78, 1980 to current year.

DATUM OF GAGE.--900.19 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to the concrete head wall at the outlet.

ESTABLISHED LEGAL LEVEL.--7.04 ft gage datum or 907.04 ft above sea level as decreed on May 22, 1949, by the Whitley County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 7.04 ft gage datum or 907.23 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam in the outlet channel 300 ft downstream of the lake.

INLET AND OUTLET.--A ditch from Catfish Lake, 650 ft upstream, enters at the extreme western end of the lake. Two small ditches enter on the southern shore. The outlet is a dredged channel at the eastern edge of the lake that empties into Round Lake 930 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.26 ft Dec. 31, 1990; minimum stage, 5.44 ft Dec. 9-11, 23-30, 1944.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.72	6.80	7.29	6.82	6.82	6.82	6.93	6.98	6.66	6.76	---	---
10	6.76	6.78	7.06	6.82	6.82	6.82	7.15	6.90	6.61	---	---	---
15	6.72	6.89	6.91	6.82	6.82	7.03	7.58	6.84	6.78	---	---	---
20	6.88	7.06	6.86	6.82	6.82	7.02	7.19	6.75	6.71	---	---	---
25	6.86	7.11	6.82	6.82	6.82	6.87	6.98	6.70	6.87	---	---	---
ROM	6.82	7.16	6.82	6.82	6.82	6.90	7.11	6.72	6.85	---	---	---

WTR YR 1994 MEAN 6.89 MAX 7.81 MIN 6.59

WABASH RIVER BASIN

03328350 SILVER LAKE AT SILVER LAKE, IN

LOCATION.--Lat 41°04'49", long 85°54'29", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.1, T.30 N., R.5 E., Kosciusko County, Hydrologic Unit 05120104 (SILVER LAKE, IN quadrangle). The gage is located at the outlet channel on the west side of the lake, approximately 30 feet above the control structure and 1.1 mi northwest of the town of Silver Lake.

SURFACE AREA.--102 acres.

DRAINAGE AREA.--6.31 mi<sup>2</sup>.

PERIOD OF RECORD.--1947 to current year.

DATUM OF GAGE.--859.85 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1974.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to the dam.

ESTABLISHED LEGAL LEVEL.--1.73 ft gage datum or 861.73 ft above sea level as decreed on September 20, 1948, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 1.73 ft gage datum or 861.58 ft above sea level. North Little Lake at Silver Lake has the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--The outlet from North Little Lake enters from the north and two ditches enter from the east and southeast. The outlet leaves from the western side and flows into South Little Lake, then into Silver Creek, which joins Eel River 12 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.80 ft Dec. 10, 1966; minimum stage, -0.20 ft Sept. 21, 1959.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.48	1.49	1.66	1.57	1.57	1.61	1.58	1.65	1.45	1.62	1.44	1.37
10	1.49	1.49	1.60	1.57	1.57	1.68	1.81	1.61	1.48	1.95	1.42	1.42
15	1.46	1.60	1.57	1.57	1.57	1.60	2.31	1.57	1.61	1.61	1.43	1.39
20	1.60	1.61	1.58	1.57	1.67	1.56	1.71	1.53	1.48	1.59	1.46	1.35
25	1.54	1.59	1.57	1.57	1.61	1.58	1.68	1.55	1.50	1.53	1.41	1.42
ROM	1.49	1.59	1.57	1.57	1.60	1.58	1.83	1.51	1.78	1.47	1.40	1.37

WTR YR 1994 MEAN 1.57 MAX 2.82 MIN 1.30

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04099880 SIMONTON LAKE NEAR ELKHART, IN

LOCATION.--Lat 41°45'05", long 85°57'28", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.16, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001 (ELKHART, IN quadrangle). The gage is on the southern shore between the two large lobes of the lake, at the public fishing site, 4.5 mi north of the main Post Office in Elkhart.

SURFACE AREA.--303 acres.

DRAINAGE AREA.--7.44 mi<sup>2</sup>.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--770.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--2.19 ft gage datum or 772.19 ft above sea level as decreed on September 25, 1950, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--Two small drainage ditches enter the lake on the eastern shore. The outlet, Osolo Township Ditch, flows from the lake at the southeastern tip and into the St. Joseph River, 4.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.42 ft Feb. 24, 1985; minimum stage, 1.36 ft Sept. 7, 1946.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.27	2.35	2.37	2.39	2.48	2.38	2.28	2.26	2.07	2.18	2.11	2.12
10	2.29	2.33	2.33	2.42	2.45	2.36	2.26	2.25	2.01	2.21	2.10	2.15
15	2.27	2.36	2.33	2.43	2.40	2.32	2.35	2.25	2.09	2.20	2.20	2.09
20	2.46	2.34	2.34	2.43	2.45	2.32	2.27	2.19	2.02	2.20	2.30	2.13
25	2.37	2.37	2.34	2.41	2.46	2.29	2.25	2.16	2.15	2.20	2.21	2.15
BOM	2.33	2.35	2.37	2.51	2.42	2.29	2.30	2.11	2.14	2.12	2.16	2.10

WTR YR 1994 MEAN 2.27 MAX 2.53 MIN 1.97

## STREAMS TRIBUTARY TO LAKE MICHIGAN

04100300 SKINNER LAKE NEAR ALBION, IN

LOCATION.--Lat 41°24'12", long 85°22'37", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1945-72, 1976 to current year.

DATUM OF GAGE.--920.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed at the same site.

ESTABLISHED LEGAL LEVEL.--7.74 ft gage datum or 927.74 ft above sea level, as decreed on August 31, 1955, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam with a fixed crest.

INLET AND OUTLET.--Rimmell Branch enters the lake on the southern shore, a small ditch enters on the southeast tip, and the outlet channel of Sweet Lake flows into the lake from the northeast. The outlet, Croft Ditch, flows from the lake on the south shore of the northwest lobe, and into the South Branch of the Elkhart River 5.6 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.60 ft Apr. 5, 1950; minimum stage, 6.14 ft Oct. 16, 17, 1946.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.77	7.80	8.05	7.83	8.59	8.14	7.92	7.93	7.76	7.75	7.71	7.64
10	7.90	7.79	7.90	7.83	8.36	8.04	8.13	7.88	7.75	7.77	7.67	7.66
15	7.81	7.94	7.86	7.83	8.37	7.95	8.55	7.88	7.76	7.74	7.73	7.63
20	7.91	7.94	7.88	7.83	8.45	7.89	7.97	7.82	7.74	7.74	7.75	7.56
25	7.84	7.94	7.86	7.83	7.96	7.90	7.88	7.82	7.78	7.75	7.73	7.59
BOM	7.80	7.90	7.86	8.59	7.90	7.91	8.12	7.78	7.76	7.72	7.68	7.58

WTR YR 1994 MEAN 7.89 MAX 9.52 MIN 7.54

WABASH RIVER BASIN

03330140 SMALLEY LAKE NEAR WASHINGTON CENTER, IN

LOCATION.--Lat 41°18'52", long 85°35'04", in SW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub> sec.15, T.33 N., R.8 E., Noble County, Hydrologic Unit 05120106 (ORMAS, IN quadrangle). The gage is located on the north side of the outlet channel, 300 ft upstream from the first bridge over the outlet, and 0.9 mi southeast of Washington Center.

SURFACE AREA.--69 acres.

DRAINAGE AREA.--27.1 mi<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--880.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 24-inch diameter stilling well. An auxiliary staff gage is driven into the channel bed.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a riffle in the outlet channel 500 ft below the lake.

INLET AND OUTLET.--The Tippecanoe River flows through the lake, entering at the south end from Big Lake, 4.2 mi upstream, and flowing from the lake at the northwestern end into Baugher Lake, 1.2 mi downstream. Another inlet enters on the north shore from Gilbert Lake 0.9 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.00 ft Mar. 24, 1978; minimum stage, 1.10 ft Aug. 7, 1963.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.34	2.05	2.47	1.95	2.84	2.72	2.01	2.39	1.60	1.54	1.45	1.17
10	2.59	1.65	2.30	1.95	2.83	2.67	2.51	2.00	1.39	1.53	1.26	1.24
15	1.87	1.99	2.13	1.91	2.80	2.20	4.38	1.90	1.65	1.48	1.26	1.23
20	2.20	2.47	2.11	1.86	2.94	1.95	3.09	1.69	1.54	1.31	1.23	1.21
25	1.86	2.25	2.06	1.85	2.76	1.94	2.27	1.57	1.44	1.30	1.18	---
DOM	1.88	2.27	1.97	3.03	2.76	1.92	2.76	1.48	1.83	1.25	1.18	---

WTR YR 1994 MEAN 1.99 MAX 4.57 MIN 1.17

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099780 STONE LAKE NEAR SCOTT, IN

LOCATION.--Lat 41°44'32", long 85°39'03", in SE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1954-71, 1975-76, 1978 to current year.

DATUM OF GAGE.--810.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--8.76 ft gage datum or 818.76 ft above sea level as decreed on July 28, 1966, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete sill.

INLET AND OUTLET.--The inlet enters on the eastern end of the south shore from Brokesha Lake 0.2 mi upstream. The outlet flows from the lake at the northern shore.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.60 ft Apr. 16-30, 1969; minimum stage, 5.34 ft Nov. 26, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.51	8.56	8.60	8.54	8.59	8.64	8.49	8.47	8.18	8.21	8.11	7.95
10	8.54	8.53	8.57	8.57	8.58	8.62	8.48	8.46	8.12	8.19	8.06	7.91
15	8.49	8.57	8.55	8.56	8.54	8.60	8.58	8.43	8.18	8.20	8.11	7.85
20	8.73	8.57	8.56	8.56	8.57	8.55	8.51	8.37	8.11	8.16	8.17	7.83
25	8.67	8.58	8.55	8.55	8.63	8.51	8.46	8.33	8.17	8.16	8.11	7.79
DOM	8.59	8.59	8.54	8.62	8.61	8.51	8.53	8.25	8.17	8.18	8.03	7.72

WTR YR 1994 MEAN 8.39 MAX 8.73 MIN 7.72

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04100180 SYLVAN LAKE AT ROME CITY, IN

LOCATION.--Lat 41°29'53", long 85°22'38", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.9, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is at the south, upstream side of the bridge over the outlet on the extreme western end of the lake, and at the northern edge of Rome City.

SURFACE AREA.--669 acres.

DRAINAGE AREA.--33.8 mi<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--907.00 ft above sea level. Prior to Oct. 1, 1978, the datum of the gage was 910.00 ft. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the north downstream wall of the footbridge.

ESTABLISHED LEGAL LEVEL.--9.20 ft present gage datum or 916.20 ft above sea level as decreed on June 14, 1951, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with movable gates.

INLET AND OUTLET.--Barr Lake, 0.2 mi upstream, empties into Sylvan Lake on the southeast shore of the northwest lobe. Oviatt Ditch and Henderson Lake Ditch both enter the lake on the extreme eastern end. The outlet flows from the lake at the western tip, into Jones Lake 2.8 mi downstream and eventually into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.76 ft Feb. 25 1985; minimum stage, below -.29 ft Sept. 22, 1994.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	.05	.14	.53	.12	.75	.75	.41	.81	---	.04	.03	---
10	.20	.08	.47	.13	.66	1.07	.74	.61	---	.06	---	---
15	.13	.21	.37	.10	.49	.81	2.18	.41	---	---	.08	---
20	.57	.38	.33	.10	1.05	.72	1.65	.23	---	---	.08	---
25	.45	.38	.26	.09	1.17	.57	.96	.12	---	---	.03	---
EOM	.23	.41	.15	1.00	.93	.46	1.01	---	.12	.07	---	---

WTR YR 1994 MEAN .46 MAX 2.18 MIN .01

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04100460 SYRACUSE LAKE AT SYRACUSE, IN

LOCATION.--Lat 41°25'26", long 85°44'59", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--849.85 ft above sea level as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

GAGE.--A water-stage recorder is installed in a concrete shelter over a stilling well in the south abutment of the control structure. Two auxiliary staff gages are at the site. One is attached to the upstream side of the south abutment and the other is bolted to the seawall just west of the bridge over the outlet.

ESTABLISHED LEGAL LEVEL.--8.87 ft gage datum or 858.87 ft above sea level as decreed on September 20, 1948, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 8.87 ft gage datum or 858.72 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with two steel lift gates.

INLET AND OUTLET.--The one inlet is the outlet channel from Lake Wawasee on the southern shore of the lake. The outlet, Turkey Creek, flows from the lake at the southwest end and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.15 ft Jan. 27, 28, 1950; minimum stage, 7.00 ft Nov. 19-21, 1953.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.75	8.54	8.63	8.37	8.37	8.61	8.60	8.71	8.51	8.55	8.42	8.36
10	8.73	8.51	8.49	8.37	8.37	8.57	8.67	8.58	8.47	8.55	8.43	8.37
15	8.57	8.63	8.42	8.37	8.37	8.44	8.96	8.53	8.53	8.49	8.49	8.33
20	8.90	8.77	8.36	8.37	8.82	8.51	8.93	8.54	8.51	8.47	8.51	8.28
25	8.85	8.71	8.36	8.37	8.80	8.50	8.86	8.57	8.51	8.46	8.47	8.26
EOM	8.66	8.63	8.37	8.37	8.80	8.53	8.86	8.55	8.57	8.46	8.41	8.20

WTR YR 1994 MEAN 8.54 MAX 8.96 MIN 8.19

WABASH RIVER BASIN

03330480 TIPPECANOE LAKE AT OSWEGO, IN

LOCATION.--Lat 41°19'15", long 85°47'20", in NW<sup>1</sup>/<sub>4</sub>/NE<sup>1</sup>/<sub>4</sub>/NE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--830.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the upstream side of the south abutment of the dam.

ESTABLISHED LEGAL LEVEL.--6.40 ft gage datum or 836.40 ft above sea level as decreed on October 18, 1949, by the Kosciusko County Circuit Court. James Lake at Oswego and Oswego Lake at Oswego have the same established level and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with multiple slide gates on the outlet channel of the lake.

INLET AND OUTLET.--The lake has two principal inlets. The Tippecanoe River flows from Webster Lake, enters James Lake, and flows into Tippecanoe Lake on the eastern side. The outlet from the Barbee Chain of Lakes enters from the southeast. The outlet, the Tippecanoe River, leaves the lake on the southwestern side.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.43 ft May 21, 1943; minimum stage, 4.90 ft Feb. 13-17, 1963.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.56	5.65	6.19	5.59	6.50	6.35	6.21	6.80	6.55	6.56	6.52	6.52
10	---	5.51	6.28	5.52	6.43	6.26	6.54	6.57	6.57	6.52	6.54	6.57
15	---	5.50	6.00	5.44	5.85	6.36	7.81	6.61	6.60	6.56	6.58	6.52
20	---	5.86	5.83	5.44	6.05	6.07	7.79	6.58	6.56	6.09	6.57	6.45
25	---	5.95	5.73	5.43	6.54	5.83	7.11	6.52	6.62	6.15	6.58	6.50
DOM	5.77	6.05	5.61	6.23	6.52	5.77	7.01	6.63	6.57	6.40	6.57	6.48

WTR YR 1994 MEAN 6.30 MAX 7.97 MIN 5.40

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100320 UPPER LONG LAKE NEAR WOLFLAKE, IN

LOCATION.--Lat 41°21'33", long 85°29'09", in NE<sup>1</sup>/<sub>4</sub>/NE<sup>1</sup>/<sub>4</sub>/SE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1956 to current year.

DATUM OF GAGE.--880.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is also located in the boat slip.

ESTABLISHED LEGAL LEVEL.--11.19 ft gage datum or 891.19 ft above sea level as decreed on February 20, 1968, by Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by a fixed-sill concrete dam.

INLET AND OUTLET.--There is one inlet that enters the lake from the eastern side. The outlet flows to the north through Dollar Lake, and eventually into the South Branch Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.40 ft June 27, 1968; minimum stage, 9.95 ft May 11, 1970.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.42	11.42	11.57	11.42	11.42	11.42	11.47	11 7	11.39	11.35	11.32	11.27
10	11.48	11.41	11.51	11.42	11.42	11.42	11.61	11 4	11.36	11.36	11.29	11.30
15	11.44	11.50	11.47	11.42	11.42	11.42	11.87	11 5	11.39	11.32	11.36	11.29
20	11.54	11.53	11.47	11.42	11.42	11.42	11.59	11 2	11.40	11.33	11.38	11.24
25	11.48	11.52	11.45	11.42	11.42	11.37	11.54	11 0	11.38	11.38	11.35	11.24
DOM	11.42	11.51	11.42	11.42	11.42	11.42	11.65	11 5	11.38	11.33	11.31	11.23

WTR YR 1994 MEAN 11.43 MAX 12.27 MIN 11.22

## LAUGHERY CREEK BASIN

## 03276800 VERSAILLES LAKE NEAR VERSAILLES, IN

LOCATION.--Lat 39°04'50", long 85°14'02", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1958 to current year.

DATUM OF GAGE.--760.74 ft above sea level.

GAGE.--A water-stage recorder installed in an aluminum shelter over a 12-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete spillway dam with a movable gate.

INLET AND OUTLET.--The inlets are Laughery Creek, Falling Timber Creek, and Cedar Creek. The outlet is Laughery Creek, which flows southeasterly and empties into the Ohio River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 36.43 ft Jan. 21, 1959, as determined by the U.S. Geological Survey from high-water marks during an indirect measurement of discharge; minimum stage, 18.05 ft Apr. 12, 1970.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.21	29.28	30.33	29.43	29.43	29.44	29.68	29.51	29.19	29.31	29.13	29.16
10	29.38	29.25	29.43	29.86	30.05	29.45	33.38	29.56	29.20	29.22	29.12	29.13
15	29.20	30.36	29.85	29.73	29.70	29.67	29.76	30.50	29.24	29.54	29.21	29.12
20	30.83	29.54	29.48	29.73	30.03	29.56	29.52	29.33	29.19	29.24	29.14	29.09
25	29.30	29.34	29.38	30.87	29.63	29.53	29.44	29.23	29.19	29.27	29.15	29.14
ROM	29.25	29.44	29.39	29.63	29.44	29.59	32.05	29.19	29.36	29.14	29.27	29.15

WTR YR 1994 MEAN 29.51 MAX 33.38 MIN 29.08

## STREAMS TRIBUTARY TO LAKE MICHIGAN

## 04100220 WALDRON LAKE NEAR COSPERVILLE, IN

LOCATION.--Lat 41°29'34", long 85°26'55", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.14, T.35 N., R.9 E., Noble County, Hydrologic Unit 04050001 (ALBION, IN quadrangle). The gage is on a dredged channel at the public fishing site west of County Road 125 West at Dukes Bridge, and 6.8 mi northwest of Albion.

SURFACE AREA.--216 acres.

DRAINAGE AREA.--134 mi<sup>2</sup>.

PERIOD OF RECORD.--1948 to current year.

DATUM OF GAGE.--880.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary wire-weight gage is attached to the upstream side of Dukes Bridge.

ESTABLISHED LEGAL LEVEL.--5.55 ft gage datum or 885.55 ft above sea level as decreed on May 6, 1968, by the Noble County Circuit Court. Jones, Steinbarger and Tamarack Lakes, all near Cosperville, have the same established level as Waldron Lake and hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam with removable boards.

INLET AND OUTLET.--The North Branch of the Elkhart River flows through the lake, entering through Jones Lake at the north and leaving at the west end of Waldron Lake. Another inlet enters at the southeast from Steinbarger Lake, 0.1 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.16 ft Mar. 22, 1982; minimum stage, 4.44 ft Aug. 9-11, Sept. 14-17, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.23	5.55	5.93	5.31	6.32	6.32	5.71	6.13	5.68	5.69	5.66	5.67
10	5.43	5.42	5.88	5.31	6.32	6.32	5.87	5.89	5.65	5.69	5.63	5.71
15	5.43	5.54	5.73	5.28	6.32	6.10	7.10	5.61	5.69	5.67	5.74	5.69
20	6.08	5.72	5.67	5.32	6.31	5.91	6.88	5.39	5.64	5.63	5.74	5.68
25	6.01	5.72	5.55	5.39	6.32	5.89	6.42	5.66	5.75	5.66	5.66	5.73
ROM	5.73	5.78	5.40	6.32	6.32	5.84	6.29	5.69	5.73	5.67	5.68	5.72

WTR YR 1994 MEAN 5.81 MAX 7.10 MIN 5.19

## ILLINOIS RIVER BASIN

273

05517600 WAUHOB LAKE NEAR VALPARAISO, IN

LOCATION.--Lat 41°32'02", long 87°02'42", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1946 to current year.

DATUM OF GAGE.--790.00 ft above sea level.

GAGE.--A staff gage in one section is driven into the lake bed, 75 ft from Arthur J. Knoblich's cottage. An auxiliary staff gage is 20 ft lakeward of the main gage.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The lake has one inlet entering on the northeast side from Mink Lake 0.3 mi upstream. The outlet flows from the southeast shore, southwesterly through a swamp to Canada Lake 0.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.05 ft Apr. 23, 1973; minimum stage, 6.58 ft Sept. 17, 1964.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	10.05	10.15	10.24	10.05	10.10	9.70	10.00	10.00	9.96
10	---	---	10.20	10.05	10.15	10.30	9.00	10.10	9.66	10.10	10.06	9.92
15	---	---	10.06	10.05	10.15	10.19	10.20	10.00	9.96	10.12	10.00	9.82
20	---	---	10.04	10.05	10.31	10.16	10.20	9.92	10.00	10.02	10.04	9.90
25	---	---	10.05	10.05	10.26	10.18	10.05	9.90	10.00	10.04	10.00	9.90
BOM	---	---	10.05	10.05	10.25	10.05	10.05	9.78	10.08	10.00	10.00	9.90

WTR YR 1994 MEAN 10.03 MAX 10.31 MIN 9.00

## WABASH RIVER BASIN

03330240 WEBSTER LAKE AT NORTH WEBSTER, IN

LOCATION.--Lat 41°19'09", long 85°41'20", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943 to current year.

DATUM OF GAGE.--839.93 ft above sea level, as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is bolted to the southeast face of the concrete wall of the approach channel to the control dam.

ESTABLISHED LEGAL LEVEL.--12.75 ft gage datum or 852.75 ft above sea level as decreed July 2, 1945, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 12.75 ft gage datum or 852.68 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete notch dam with seven adjustable gates at the head of the outlet channel. North of this dam is another which used to serve as a mill race. This dam has one metal gage.

INLET AND OUTLET.--The Tippecanoe River flows through Webster Lake, entering at the southeast end and leaving at the southwest side. The Tippecanoe River enters James Lake, 2.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.15 ft Feb. 11, 1984; minimum stage, 9.79 ft (during repair of the dam) Oct. 5, 1962.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.06	12.88	13.05	12.88	12.88	13.00	13.13	13.15	13.21	13.17	12.95	12.97
10	13.09	12.93	12.82	12.88	12.88	13.24	12.93	13.12	13.21	13.15	12.98	13.02
15	13.11	13.16	12.85	12.88	12.88	13.00	13.35	12.94	13.23	13.14	13.00	13.00
20	13.01	12.95	12.91	12.88	12.88	12.97	13.08	13.13	---	12.92	13.03	12.96
25	12.98	13.04	12.88	12.88	13.05	13.01	13.02	13.22	---	12.89	13.03	12.98
BOM	13.03	13.04	12.88	12.88	13.05	12.89	12.92	13.27	13.18	12.90	13.00	12.97

WTR YR 1994 MEAN 13.01 MAX 13.37 MIN 12.75

## ILLINOIS RIVER BASIN

05514770 WHARTON LAKE NEAR SOUTH BEND, IN

LOCATION.--Lat 41°36'11", long 86°18'36", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1960-76, 1982 to current year.

DATUM OF GAGE.--770.00 ft above sea level.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a 48-inch round concrete tile in the outlet channel.

INLET AND OUTLET.--The one inlet enters the lake on the southeastern shore and drains the immediately surrounding area. The outlet flows from the lake on the western shore, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.51 ft Jan. 8, 9, 10, 1989; minimum stage, 4.90 ft Oct. 2, 1991.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24.00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.51	6.69	6.76	6.65	6.89	---	6.62	6.61	6.05	6.64	6.22	6.08
10	6.61	6.65	6.73	6.65	6.89	---	6.59	6.60	5.95	6.68	6.14	6.15
15	6.51	6.72	6.70	6.65	---	---	6.75	6.52	6.49	6.52	6.29	6.00
20	7.14	6.72	6.73	6.65	---	---	6.61	6.41	6.20	6.35	6.58	5.94
25	6.78	6.77	6.69	6.61	---	---	6.55	6.27	6.56	6.59	6.32	6.01
EOM	6.68	6.73	6.62	7.07	---	6.62	6.72	6.14	6.65	6.33	6.16	5.96

WTR YR 1994 MEAN 6.53 MAX 7.52 MIN 5.87

## WABASH RIVER BASIN

03331140 WINONA LAKE AT WARSAW, IN

LOCATION.--Lat 41°13'34", long 85°50'46", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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<sup>2</sup>.

PERIOD OF RECORD.--1943-78, 1980 to current year.

DATUM OF GAGE.--800.10 ft above sea level. Prior to Nov. 17, 1977, the datum of the gage was 810.10 ft above sea level as corrected on the basis of levels of Indiana Department of Natural Resources, 1973-74. All levels listed below are at the present datum.

GAGE.--A water-stage recorder is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the stilling well.

ESTABLISHED LEGAL LEVEL.--11.06 ft gage datum or 811.06 ft above sea level as decreed on June 17, 1949, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "DATUM OF GAGE") and the correct elevation of the legal level should be 11.06 ft gage datum or 811.16 ft above sea level.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam with steel lift gates.

INLET AND OUTLET.--There are three inlets to the lake. Wyland Ditch enters on the eastern shore from Sherburn Lake 6.7 mi upstream. Keefer-Evans Ditch enters on the southeastern shore and Paterson Ditch on the southwestern shore. The outlet, Eagle Creek, flows from the western lobe of the lake into Walnut Creek 1.4 mi downstream, thence into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.31 ft June 14, 1981; minimum stage, 9.40 ft Feb. 15, 1982.

LAKE LEVEL, IN FEET ABOVE GAGE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994  
24.00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.00	9.93	10.01	9.82	10.29	9.97	9.91	11.03	10.90	11.18	10.99	10.87
10	11.01	9.80	9.93	9.82	9.89	10.07	10.16	11.17	10.90	11.07	10.96	10.92
15	10.96	9.90	9.88	9.81	9.84	9.94	11.01	11.10	11.66	11.22	11.01	10.86
20	10.90	9.97	9.89	9.81	10.14	9.88	10.15	11.02	10.96	11.12	11.02	10.80
25	11.04	9.93	9.86	9.90	9.99	9.87	9.97	11.03	11.04	11.12	10.96	10.82
EOM	10.99	9.94	9.83	10.35	9.91	9.88	10.24	10.95	10.86	11.08	10.92	10.80

WTR YR 1994 MEAN 10.51 MAX 11.80 MIN 9.78

RECORDS AVAILABLE ON LAKES

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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
<b>LAUGHERY CREEK BASIN</b>								
03276800	Versailles Lake near Versailles	Ripley	168.0	232	-----	-----	-	1957-
<b>BAYOU DRAIN BASIN</b>								
03322300	Hovey Lake near Mount Vernon	Posey	6.36	253	-----	-----	-	1950-69
<b>WABASH RIVER BASIN</b>								
03327550	Everett Lake at Levert	Allen	1.07	43	835.13	650	+	1946-66
03327600	Blue Lake near Churubusco	Whitley	3.58	239	850.28	5,010	+	1946-69, 1976-
03327650	Shriner Lake at Tri-Lakes	Whitley	.94	111	907.04	-----	-	1943-
03327700	Cedar Lake at Tri-Lakes	Whitley	.79	131	901.90	-----	-	1943-49
03327750	Round Lake at Tri-Lakes	Whitley	3.36	125	901.90	-----	-	1943-53
03327800	Wilson Lake near Larwill	Whitley	.46	29	865.39	390	+	1946-52
03327850	Little Wilson Lake near Larwill	Whitley	.52	8	865.39	130	+	1946-52
03328100	Long Lake at Laketon	Wabash	.55	48	751.19	760	+	1946-51, 1959-
03328250	North Little Lake at Silver Lake	Kosciusko	2.89	12	861.73	170	+	1947-
03328350	Silver Lake at Silver Lake	Kosciusko	6.31	102	861.73	1,520	+	1947-
03328400	Lukens Lake near Disko	Wabash	1.76	46	763.60	1,010	+	1948-49, 1959-
03330020	Crooked Lake near Wolflake	Noble	1.51	206	905.69	9,040	+	1943-53
03330040	Big Lake near Wolflake	Noble	8.89	228	898.18	5,630	+	1943-75, 1976-
03330060	Goose Lake near Lorane	Whitley	1.51	84	910.96	2,180	+	1945-53
03330080	Loon Lake at Ormas	Whitley	11.1	222	895.14	5,730	+	1943-66
03330100	New Lake near Etna	Whitley	.29	50	903.91	880	+	1945-53
03330120	Old Lake near Etna	Whitley	2.81	32	898.07	620	+	1949-66
03330140	Smalley Lake near Washington Center	Noble	27.1	69	-----	1,520	+	1943-
03330160	Gilbert Lake near Washington Center	Noble	.37	28	-----	490	+	1954-
03330180	Horseshoe Lake nr Washington Center	Noble	1.62	18	901.80	250	+	1945-66
03330200	Baughner Lake near Washington Center	Noble	31.0	32	878.52	390	+	1945-51
03330220	Wilmot Pond at Wilmot <sup>1</sup>	Noble	35.2	10	-----	-----	-	1945-51
03330240	Webster Lake at North Webster	Kosciusko	49.2	774	852.75	7,170	+	1943-
03330243	James Lake at Oswego	Kosciusko	55.9	282	836.40	7,580	+	1943-
03330260	Robinson Lake near Piercetown	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 Piercetown	Kosciusko	34.6	136	843.12	2,900	+	1943-
03330320	Kuhn Lake near North Webster	Kosciusko	3.85	137	837.50	1,290	+	1945-
03330340	Big Barbee Lake near North Webster	Kosciusko	44.7	304	837.50	5,640	+	1945-
03330360	Little Barbee Lake nr North Webster	Kosciusko	49.0	74	837.50	960	+	1945-
03330380	Shoe Lake near Oswego	Kosciusko	.34	40	841.57	-----	-	1946-53, 1972, 74, 1976-
03330400	Banning Lake near North Webster	Kosciusko	.48	12	837.50	110	+	1945-
03330420	Irish Lake near North Webster	Kosciusko	50.9	182	837.50	2,330	+	1945-
03330440	Sechrist Lake near North Webster	Kosciusko	.58	105	837.50	2,490	+	1945-
03330460	Sawmill Lake near North Webster	Kosciusko	51.8	36	837.50	370	+	1945-
03330480	Tippicanoe Lake at Oswego	Kosciusko	113	768	836.40	28,380	+	1943-
03330495	Oswego Lake at Oswego	Kosciusko	113	83	836.40	780	+	1943-
03331010	Big Chapman Lake near Warsaw <sup>2</sup>	Kosciusko	4.17	581	827.75	6,080	+	1945-72, 1976-
03331020	Little Chapman Lake near Warsaw	Kosciusko	7.13	77	827.75	1,990	+	1945-72, 1976-
03331040	Pike Lake at Warsaw	Kosciusko	41.5	203	805.64	2,830	+	1954-
03331060	Fish Lake near Warsaw	Kosciusko	4.93	15	845.52	-----	-	1951-66
03331080	Muskellunge Lake near Warsaw	Kosciusko	11.8	32	842.67	300	+	1943-53, 1959-71
03331100	Carr Lake near Claypool	Kosciusko	2.27	79	848.88	1,340	+	1947-53
03331120	Sherburn Lake near Piercetown <sup>3</sup>	Kosciusko	5.51	15	881.00	230	+	1954-
03331140	Winona Lake at Warsaw	Kosciusko	32.1	562	811.06	16,680	+	1943-

## RECORDS AVAILABLE ON LAKES--Continued

## 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	Tbwn Lake near Akron	Fulton	2.77	23	-----	220	+	1949-50
03331380	Lake Manitou at Rochester	Fulton	44.2	1,158	778.41	10,165	+	1943-
03331390	Zink Lake near Rochester	Fulton	1.11	19	810.68	-----	-	1952-55
03331400	Nyona Lake near Greenoak	Fulton	7.59	104	793.91	1,340	+	1946-
03331420	South Mud Lake near Fulton	Fulton	4.53	94	793.42	1,020	+	1946-66
03331438	King Lake near Delong	Fulton	1.98	18	-----	180	+	1971-
03331440	Maxinkuckee Lake at Culver	Marshall	13.7	1,864	733.12	45,600	+	1943-
03331460	Lost Lake near Culver <sup>4</sup>	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 <sup>5</sup>	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	<sup>a</sup> 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	<sup>a</sup> 40.2	310	964.96	7,998	+	1943-49
04097660	Lake James at Lake James	Steuben	<sup>a</sup> 47.8	1,034	964.96	33,585	+	1943-49
04097680	Jimmerson Lake at Nevada Mills <sup>6</sup>	Steuben	<sup>a</sup> 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	<sup>a</sup> 17.3	332	954.25	10,140	+	1946-
04097960	Lime Lake at Panama	Steuben	<sup>a</sup> 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	<sup>a</sup> 35.2	61	988.24	930	+	1954-63
04099100	Fox Lake near Angola	Steuben	<sup>a</sup> 1.25	142	1,018.83	3,150	+	1946-53
04099190	Pleasant Lake at Pleasant Lake	Steuben	<sup>a</sup> 1.12	53	963.52	1,190	+	1946-66
04099200	Long Lake at Moonlight	Steuben	<sup>a</sup> 67.9	92	-----	1,540	+	1946-
04099250	Bower Lake near Pleasant Lake	Steuben	<sup>a</sup> 84.6	25	948.50	280	+	1946-71, 1976-
04099260	Golden Lake near Pleasant Lake	Steuben	<sup>a</sup> 88.8	119	948.50	1,810	+	1946-71, 1976-
04099400	Silver Lake near Angola	Steuben	<sup>a</sup> 3.79	238	959.40	2,540	+	1945-53
04099430	Bass Lake near Angola	Steuben	<sup>a</sup> .39	61	979.68	450	+	1954-66
04099440	Howard Lake near Angola	Steuben	<sup>a</sup> 3.90	27	977.34	130	+	1954-63
04099500	Hogback Lake near Angola	Steuben	<sup>a</sup> 103	146	948.50	1,450	+	1946-
04099520	Otter Lake near Flint	Steuben	<sup>a</sup> 6.91	118	934.15	1,960	+	1954-66
04099540	Story Lake near Hudson	DeKalb	3.16	77	942.20	1,020	+	1946, 1954-66
04099560	Big Turkey Lake at Stroh	Lagrange	35.8	450	926.61	7,300	+	1945-66
04099575	McClish Lake near Helmer	Lagrange	1.28	35	951.09	1,210	+	1951-74, 1976-
04099580	Lake of the Woods near Helmer	Lagrange	5.25	136	951.09	5,470	+	1951-74, 1976-
04099600	Big Long Lake near Stroh	Lagrange	4.77	388	956.2	-----	-	1954-
04099620	Pretty Lake near Stroh	Lagrange	2.89	184	965.50	4,720	+	1949-53, 1963-65
04099640	Little Turkey Lake at Elmira	Lagrange	56.5	135	925.72	1,550	+	1945-66
04099660	Royer Lake near Plato	Lagrange	4.69	69	936.50	1,630	+	1952-
04099670	Fish Lake near Plato	Lagrange	<sup>a</sup> 10.6	100	936.50	4,050	+	1945-
04099700	North Twin Lake near Howe	Lagrange	1.54	135	843.56	2,120	+	1953-
04099710	South Twin Lake near Howe	Lagrange	2.22	116	843.56	3,600	+	1953-70
04099740	Shipshewana Lake near Shipshewana	Lagrange	<sup>a</sup> 6.74	202	852.04	1,350	+	1951-

Lakes in the St. Lawrence River basin for which records are available

Station Number	Lake	County	Drainage (square miles)	Surface area (acres)	Established level*	Capacity (acre-feet)	Contour map available	Records available
<b>STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued</b>								
04099760	Fish Lake near Scott	Lagrange	6.21	139	814.42	2,560	+	1954-73, 1976-
04099780	Stone Lake near Scott	Lagrange	1.51	152	818.76	2,060	+	1954-73, 1976-
04099800	Emma Lake near Emma	Lagrange	13.6	42	880.87	700	+	1954-66
04099810	Cass Lake near Shipshewana	Lagrange	.68	89	-----	873	+	1970-
04099820	Hunter Lake near Middlebury	Elkhart	.51	99	856.90	1,120	+	1946-53
04099840	Wolf Lake near Goshen	Elkhart	1.29	100	813.00	-----	-	1947-57
04099860	Heaton Lake near Elkhart	Elkhart	9.33	87	767.30	640	+	1946-53, 1969-74, 1976-
04099880	Simonton Lake near Elkhart	Elkhart	7.44	303	772.19	1,560	+	1946-
04099950	Indiana Lake near Bristol	Elkhart	.62	122	759.73	3,400	+	1946-53
04100010	Cree Lake near Kendallville	Noble	4.85	58	945.23	910	+	1949-66
04100020	Blackman Lake near Wolcottville	Lagrange	.98	67	974.20	1,210	+	1953-59
04100030	Adams Lake near Wolcottville	Lagrange	5.62	308	953.59	7,690	+	1946-
04100040	Atwood Lake near Wolcottville	Lagrange	1.23	170	899.99	1,560	+	1948-53
04100050	Witmer Laker near Wolcottville	Lagrange	36.1	204	897.36	7,040	+	1945-
04100060	Westler Lake near Wolcottville	Lagrange	37.8	88	897.36	1,770	+	1945-
04100070	Dallas Lake near Wolcottville	Lagrange	39.8	283	897.36	9,970	+	1945-
04100080	Martin Lake near Valentine	Lagrange	4.93	26	899.45	890	+	1945-
04100090	Olin Lake near Valentine	Lagrange	5.81	103	899.45	9,180	+	1945-
04100100	Oliver Lake near Valentine	Lagrange	11.1	362	899.45	15,358	+	1945-
04100110	Hackenburg Lake near Wolcottville	Lagrange	55.4	42	897.36	510	+	1945-
04100120	Messick Lake near Wolcottville	Lagrange	56.4	68	897.36	1,450	+	1945-
04100130	Jones Lake near Cosperville	Noble	70.3	114	885.55	960	+	1948-
04100140	Bixler Lake at Kendallville	Noble	5.28	120	963.65	2,090	+	1945-
04100150	Round Lake at Kendallville	Noble	3.47	99	954.50	2,140	+	1954-
04100160	Little Long Lake at Kendallville	Noble	4.55	71	954.50	1,750	+	1954-
04100170	Latta Lake near Rome City	Noble	2.52	42	918.71	900	+	1943-66
04100180	Sylvan Lake at Rome City	Noble	33.8	669	916.20	5,986	+	1943-
04100190	Sacarider Lake near Kendallville	Noble	1.43	33	-----	740	+	1954-63
04100200	Tamarack Lake near Cosperville	Noble	15.9	50	885.55	880	+	1948-
04100210	Steinbarger Lake near Cosperville	Noble	24.3	73	885.55	1,590	+	1948-
04100220	Waldron Lake near Cosperville	Noble	134	216	885.55	3,120	+	1948-
04100230	Long Lake near Burr Oak	Noble	12.0	40	895.82	630	+	1954-71
04100240	Sand Lake near Burr Oak	Noble	14.9	47	893.56	1,270	+	1946-51
04100250	Rivir Lake near Burr Oak	Noble	18.6	24	-----	380	+	1954-65
04100258	High Lake near Wolflake	Noble	4.43	123	896.35	1,240	+	1961-
04100260	Bear Lake near Wolflake	Noble	6.98	136	894.60	3,030	+	1943-
04100280	Muncie Lake near Burr Oak	Noble	42.8	47	-----	580	+	1954-
04100290	Silver Lake near Wolflake	Noble	.28	34	-----	220	+	1953-63
04100300	Skinner Lake near Albion	Noble	14.0	125	927.74	1,750	+	1945-72, 1977-
04100310	Pleasant Lake near Wolflake	Noble	.29	20	-----	540	+	1952-53
04100320	Upper Long Lake near Wolflake	Noble	2.08	86	891.19	1,900	+	1956-
04100330	Lower Long Lake near Albion	Noble	4.35	66	889.81	1,560	+	1946-52
04100340	Eagle Lake near Kimmel	Noble	3.22	81	-----	1,050	+	1946-48
04100350	Diamond Lake near Wawaka	Noble	4.80	105	-----	2,580	+	1946-
04100360	Sparta Lake at Kimmel	Noble	.69	31	888.50	170	+	1946-51
04100370	Engle Lake near Ligonier	Noble	4.19	48	878.90	670	+	1956-71, 1977-
04100380	Harper Lake near Washington Center	Noble	2.76	11	878.25	160	+	1946-
04100390	Knapp Lake near Washington Center	Noble	6.02	88	878.25	3,040	+	1946-
04100400	Moss Lake near Washington Center	Noble	6.12	9	878.25	80	+	1946-
04100410	Hindman Lake near Washington Center	Noble	8.66	13	878.25	140	+	1946-
04100420	Gordy Lake near Cromwell	Noble	9.40	31	876.68	680	+	1953-66
04100425	Rider Lake near Cromwell	Noble	10.9	5	876.68	30	+	1953-66
04100430	Duely Lake near Cromwell	Noble	11.2	21	876.68	180	+	1953-66
04100440	Village Lake near Cromwell	Noble	12.0	12	876.68	160	+	1953-66
04100446	Flatbelly Lake near Syracuse	Kosciusko	4.66	326	-----	-----	-	1964-69
04100448	Papakeechee Lake near Syracuse	Kosciusko	5.52	300	-----	-----	-	1964-69
04100450	Wawasee Lake at Wawasee	Kosciusko	36.9	3,060	858.89	67,210	+	1943-66
04100460	Syracuse Lake at Syracuse	Kosciusko	38.2	414	858.87	5,360	+	1943-
04100470	Dewart Lake near Leesburg	Kosciusko	8.05	551	867.70	9,000	+	1945-
04100480	Wabee Lake near Milford	Kosciusko	14.6	187	829.79	4,750	+	1946-53
<b>STREAMS TRIBUTARY TO LAKE ERIE</b>								
04177200	Clear Lake at Clear Lake	Steuben	6.86	800	1,037.38	24,990	+	1943-
04177210	Round Lake at Clear Lake	Steuben	7.25	30	1,037.38	340	+	1943-
04177300	Long Lake near Ray	Steuben	2.80	154	-----	1,840	+	1961-63
04177680	Ball Lake near Hamilton	Steuben	11.6	87	894.76	3,520	+	1961-
04177700	Hamilton Lake at Hamilton	Steuben	16.5	802	898.83	16,600	+	1943-
04179200	Indian Lake near Corunna	DeKalb	3.76	56	-----	1,220	+	1957
04179300	Cedar lake near Waterloo	DeKalb	23.4	28	896.76	230	+	1943-56

## RECORDS AVAILABLE ON LAKES--Continued

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	<sup>a</sup> 2.34	74	781.21	2,190	+	1946-50
05514741	Hudson Lake at Hudson Lake	LaPorte	7.92	432	763.09	5,060	+	1946-
05514750	North Chain Lake at Lydick	St. Joseph	<sup>a</sup> 3.89	88	721.17	1,400	+	1946-53
05514760	South Chain Lake at Westfield	St. Joseph	<sup>a</sup> 6.32	90	717.04	270	-	1946-53
05514770	Wharton Lake near South Bend	St. Joseph	<sup>a</sup> 1.85	-----	-----	-----	-	1960-
05514900	Silver Lake near Rolling Prairie	LaPorte	1.72	54	795.20	-----	-	1946-66
05515200	Upper Fish Lake near Stillwell	LaPorte	<sup>a</sup> 9.65	139	688.22	1,040	+	1946-53
05515210	Lower Fish Lake near Stillwell	LaPorte	<sup>a</sup> 10.4	134	688.22	870	+	1946-53
05515220	Pine Lake at LaPorte	LaPorte	<sup>a</sup> 10.7	564	796.20	-----	-	1946-75 1980-
05515230	Stone Lake at LaPorte	LaPorte	<sup>a</sup> 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	<sup>a</sup> 6.25	346	714.56	3,170	+	1943-
05515800	Riddles Lake near Lakeville	St. Joseph	<sup>a</sup> 11.7	77	817.50	640	+	1946-73, 1976-
05516200	Lake of the Woods near Bremen	Marshall	<sup>a</sup> 9.45	416	803.85	6,810	+	1945-
05516600	Pretty Lake near Plymouth	Marshall	.85	97	787.36	2,140	+	1954-66
05516700	Myers Lake near Twin Lakes	Marshall	1.41	96	768.69	2,000	+	1945-53
05516800	Mill Pond and Kreighbaum Lake near Twin Lakes	Marshall	<sup>a</sup> 5.34	168	767.75	1,020	+	1945-53
05516900	Eagle Lake near Ober	Starke	<sup>a</sup> 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 Druley Lake near Cromwell, and Druley Lake near Cromwell.

<sup>a</sup> Contains drainage area (5 percent or greater) that does not contribute directly to surface-water runoff.

OTHER LAKE MAPS AVAILABLE

The lakes in Indiana which are not included in the cooperative stabilization program but which have been mapped for recreational purposes are shown in the following table. Surface area and capacities are related to reference mean sea level elevation at time of mapping. Additional data is shown on map, which are available for sale by the Indiana Department of Natural Resources, State Office Building, Indianapolis, Indiana.

Lake	County	Surface area (acres)	Capacity (acre-feet)	Lake	County	Surface area (acres)	Capacity (acre-feet)
<b>OHIO RIVER BASIN</b>							
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

Duntion 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



## GROUND-WATER DATA

281

## ALLEN COUNTY

410426084495201. Local number, AL 5.

LOCATION.--Lat 41°04'26", long 84°49'52", in NW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, sec.9, T.30 N., R.15 E., Allen County, Hydrologic Unit 04100005, 1.3 mi west of Edgerton.  
 Owner: Noel Gerig.

AQUIFER.--Limestone of Salina Formation of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 4 in., depth 97 ft, cased to 40 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 0.10 ft above land-surface datum.

REMARKS.--Nearby quarry operations were shut down in 1980, and since that time water levels have been rising. Quarry operations no longer affect water levels in this well, however, nearby pumping (domestic) creates a daily drawdown of about 0.70 ft, which may affect the mean.

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 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.56	12.76	13.26	14.08	14.25	13.87	13.33	13.19	12.78	13.22	12.90	12.90
10	12.70	13.28	13.10	14.35	14.73	14.08	13.68	13.30	12.88	13.09	12.97	12.92
15	12.54	12.88	13.34	14.62	14.12	13.68	13.25	12.83	13.19	13.05	12.85	13.05
20	12.41	13.19	13.41	14.54	13.69	13.70	13.38	13.03	13.34	13.17	12.66	13.14
25	12.72	13.38	13.74	13.87	14.07	13.94	13.00	12.63	12.73	12.87	12.99	12.87
EOM	12.94	13.90	14.16	14.33	14.45	13.96	13.41	12.91	12.91	13.01	12.76	13.12

WTR YR 1994 HIGH 12.16 OCT 9

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.13	13.35	13.83	14.52	14.71	14.44	14.19	13.91	12.95	13.69	13.29	13.03
10	13.19	13.80	13.68	15.02	15.22	14.63	14.19	13.79	12.96	13.54	13.06	13.27
15	13.18	13.60	13.82	15.19	14.71	14.28	13.70	13.23	13.82	13.42	12.95	13.68
20	13.12	13.78	14.12	15.07	14.26	14.49	13.96	13.68	13.77	13.78	13.20	13.45
25	13.01	14.15	14.51	14.36	14.78	14.53	13.48	13.54	12.94	13.14	13.54	13.03
EOM	13.43	14.35	14.60	14.82	15.07	14.57	14.11	13.31	13.54	13.37	12.88	13.55

WTR YR 1994 LOW 15.47 JAN 19

## ALLEN COUNTY

410932084561101. Local number, AL 6.

LOCATION.--Lat 41°09'32", long 84°56'11", in SW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.10, T.31 N., R.14 E., Allen County, Hydrologic Unit 04100005, at the intersection of Ehle and Thimler Roads, 10 mi northeast of New Haven.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 84 ft, cased to 81.5 ft, screened to 83.5 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.90 ft below land-surface datum, Feb. 24, 1990; lowest, 14.78 ft below land-surface datum, Sept. 23, 1994.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	12.12	10.40	11.25	---	10.72	10.67	10.00	11.79	12.64	13.31	14.02
10	11.94	12.29	10.31	11.45	---	9.61	9.57	10.30	11.97	12.47	13.39	14.21
15	12.03	12.00	10.60	11.51	11.43	9.57	8.26	10.53	12.18	12.61	13.44	14.41
20	11.98	11.01	10.83	11.76	10.71	10.02	9.21	10.85	12.45	12.96	13.55	14.56
25	12.04	11.06	10.91	11.76	10.44	10.41	9.82	11.11	12.47	12.93	13.71	14.55
EOM	12.09	10.87	11.13	---	10.75	10.62	9.97	11.39	12.45	13.11	13.89	14.58

WTR YR 1994 HIGH 8.10 APR 13

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	12.23	10.62	11.43	---	10.92	10.83	10.19	11.93	12.77	13.46	14.15
10	12.11	12.45	10.43	11.60	---	9.82	10.09	10.49	12.12	12.61	13.54	14.31
15	12.24	12.21	10.78	11.73	11.62	9.78	8.47	10.70	12.38	12.76	13.62	14.61
20	12.14	11.19	11.01	11.91	10.99	10.27	9.42	11.03	12.69	13.16	13.66	14.71
25	12.25	11.21	11.09	11.89	10.64	10.59	10.01	11.23	12.65	13.07	13.89	14.68
EOM	12.17	11.09	11.32	---	10.97	10.78	10.19	11.60	12.65	13.28	14.09	14.76

WTR YR 1994 LOW 14.78 SEP 23

## GROUND-WATER DATA

## ALLEN COUNTY

410335085190701. Local number, AL 8.

LOCATION.--Lat 41°03'35", long 85°19'07", in SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec. 8, T.30N., R.11E., Allen County, Hydrologic Unit 05120101, on Covington Road about 5 mi west of Interstate Highway 69 on the northeast corner of the United Telephone Company property.  
Owner: U.S. Geological Survey.

AQUIFER.--Limestone.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 193 ft, cased to 173 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 850.60 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.--Water level data is affected by nearby pumpage. Daily fluctuations greater than 3 ft are common.

PERIOD OF RECORD.--July 1988 to current year. Records for WY1988, WY1989, WY1990 published as AL 7.

REVISED RECORDS.--WDR IN 94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.70 ft below land-surface datum, April 26, 1989; lowest, unknown. Recorder was unable to record levels below the previous known low extreme of 70.83 ft below land-surface datum, Sept. 5, 6, 1993.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	63.45	62.02	61.82	61.51	62.15	61.31	61.48	61.24	62.63	65.48	65.22	69.63
10	62.12	62.56	61.41	61.65	61.30	60.99	60.88	62.91	62.36	63.41	65.50	64.63
15	62.39	62.03	62.07	61.38	61.56	62.02	61.36	61.34	62.54	63.93	67.33	64.56
20	62.36	61.55	61.63	61.96	60.54	61.44	61.45	62.73	63.26	63.30	---	64.57
25	61.71	62.15	61.78	62.33	61.84	61.23	61.15	62.11	63.48	63.47	---	63.74
DOM	61.79	62.11	61.43	61.03	61.79	61.31	61.45	61.30	68.04	66.55	---	63.89

WTR YR 1993 HIGH 60.54 FEB 20

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	65.51	63.68	64.60	63.47	64.28	62.79	62.68	63.15	64.69	65.76	67.70	70.83
10	64.46	64.61	63.34	64.17	62.89	62.40	62.88	65.72	64.25	65.76	68.04	66.71
15	64.16	64.63	64.31	62.77	63.01	63.39	62.39	64.53	64.46	65.82	69.56	66.52
20	63.97	63.88	63.99	63.46	63.05	63.82	62.94	64.36	65.39	65.10	---	66.84
25	64.38	64.09	63.52	63.39	62.94	63.53	63.11	63.96	65.50	67.19	---	65.96
DOM	64.13	64.10	63.54	62.98	64.07	62.81	63.79	64.95	68.04	68.04	---	65.91

WTR YR 1993 LOW 70.83 SEP 5

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	64.72	63.91	62.61	63.14	---	---	62.01	63.39	---	66.14	66.63	---
10	63.86	63.95	62.35	64.06	---	---	62.02	63.42	66.99	65.62	67.54	---
15	63.99	63.26	62.85	62.94	---	---	62.21	63.65	66.83	67.56	66.53	---
20	63.76	62.57	63.52	64.19	---	---	63.12	65.28	---	67.81	66.50	---
25	64.23	63.81	62.95	63.68	---	62.58	63.53	65.71	65.75	66.46	67.32	67.78
DOM	63.25	63.98	63.17	---	---	62.85	63.96	67.88	65.66	---	66.47	67.21

WTR YR 1994 HIGH 61.96 APR 9

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	66.98	65.71	65.02	64.77	---	---	63.04	65.11	---	70.07	69.32	---
10	66.27	65.22	63.83	66.08	---	---	64.82	65.65	70.65	68.38	69.77	---
15	66.11	64.85	64.58	67.16	---	---	64.32	66.59	70.61	70.47	68.90	---
20	65.52	65.36	65.09	65.72	---	---	64.95	68.02	---	69.97	69.15	---
25	66.30	66.20	64.94	67.20	---	63.86	65.66	67.79	68.32	68.79	70.26	70.56
DOM	65.78	65.65	65.41	---	---	64.45	66.04	69.97	67.80	---	68.63	69.68

WTR YR 1994 LOW 70.80 AUG 27

## GROUND-WATER DATA

283

## BARTHOLOMEW COUNTY

391627085534401. Local number, BA 4.

LOCATION.--Lat 39°16'27", long 85°53'44", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.31, T.10 N., R.6 E., Bartholomew County, Hydrologic Unit 05120205, by a cemetery on the north side of Bakalar AFB at the northern city limits of Columbus.  
Owner: Bartholomew County.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 93 ft, cased to 85 ft, screened to 90 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 654.04 ft above sea level. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

REMARKS.--Water level affected by agricultural withdrawals during May - August growing season.

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

REVISED RECORDS.--WDR IN-80-1: 1979.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.11 ft below land-surface datum, April 8, 9, 1991;  
lowest, 21.18 ft below land-surface datum, July 2, 1992.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.30	16.81	15.14	15.40	15.15	15.64	16.21	15.18	15.84	16.33	18.25	18.19
10	18.28	16.84	15.12	15.55	15.22	15.71	16.32	15.23	16.49	16.69	18.64	18.26
15	18.24	16.84	15.13	15.65	15.31	15.77	15.92	15.22	16.81	16.88	18.54	18.37
20	18.13	16.33	15.14	15.81	15.42	15.89	15.36	15.25	16.55	17.66	18.20	18.48
25	17.49	15.49	15.14	15.83	15.48	15.99	15.23	15.24	16.62	17.54	18.13	18.54
ROM	16.95	15.22	15.29	15.25	15.58	16.13	15.16	15.37	16.12	18.54	18.19	18.59

WTR YR 1994 HIGH 15.12 DEC 10

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.32	16.82	15.18	15.42	15.17	15.66	16.24	15.19	16.01	16.42	18.63	18.19
10	18.29	16.84	15.17	15.56	15.24	15.75	16.34	15.25	16.74	16.98	18.95	18.30
15	18.26	16.88	15.17	15.70	15.36	15.82	16.05	15.24	17.13	17.03	18.94	18.37
20	18.21	16.53	15.16	15.84	15.45	15.90	15.44	15.27	16.60	17.90	18.22	18.49
25	17.67	15.61	15.22	15.93	15.55	16.02	15.32	15.26	16.70	17.73	18.15	18.54
ROM	17.00	15.24	15.31	15.25	15.59	16.14	15.22	15.52	16.14	18.70	18.19	18.60

WTR YR 1994 LOW 19.12 AUG 14

## BARTHOLOMEW COUNTY

390950085553501. Local number, BA 8.

LOCATION.--Lat 39°09'50", long 85°55'35", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.1, T.8 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, on property of Meadows Metal Products Co., 4 mi south of Columbus.  
Owner: Meadows Metal Products Co., Inc.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 49 ft, casing length unknown.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 615.48 ft above sea level. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.06 ft below land-surface datum, June 3, 1968; lowest,  
24.13 ft below land-surface datum, Dec. 27, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.65	20.03	14.70	15.42	15.17	15.41	16.55	13.78	14.36	---	---	18.60
10	20.68	20.05	14.66	15.72	14.96	15.58	16.51	13.51	14.70	---	---	18.82
15	20.72	19.86	14.59	15.94	15.01	15.70	15.67	13.37	15.05	---	---	18.96
20	20.65	17.42	14.68	16.22	15.19	15.92	14.50	13.52	15.38	---	---	19.13
25	20.48	15.17	14.81	16.37	15.24	16.14	14.15	13.70	---	---	18.21	19.25
ROM	20.17	14.83	15.16	15.85	15.34	16.40	14.00	14.05	---	---	18.39	19.42

WTR YR 1994 HIGH 13.37 MAY 14

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.67	20.04	14.77	15.47	15.27	15.44	16.59	13.83	14.41	---	---	18.63
10	20.69	20.06	14.70	15.76	15.02	15.65	16.73	13.55	14.79	---	---	18.86
15	20.73	19.92	14.66	16.03	15.09	15.78	15.96	13.39	15.13	---	---	19.02
20	20.70	18.22	14.72	16.28	15.23	15.94	14.64	13.57	15.47	---	---	19.17
25	20.53	15.39	14.93	16.44	15.34	16.19	14.18	13.76	---	---	18.28	19.27
ROM	20.20	14.87	15.20	15.95	15.37	16.46	14.15	14.11	---	---	18.45	19.47

WTR YR 1994 LOW 20.75 OCT 18

## GROUND-WATER DATA

## BARTHOLOMEW COUNTY

391035085560401. Local number, BA 9.

LOCATION.--Lat 39°10'35", long 85°56'04", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.35, T.9 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, at the Bartholomew County Home on the 4-H Fairgrounds, 3.0 mi south of Columbus.  
 Owner: City of Columbus.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 115 ft, cased to 106 ft, screened to 111 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 621.58 ft above sea level. Measuring point: Top of floor of shelter, 1.65 ft above land-surface datum.

REMARKS.--Water level affected by pumpage from municipal supply well field.

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

REVISED RECORDS.--WDR IN-80-1: 1979.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.75 ft below land-surface datum, Apr. 27-30, 1973; lowest, 42.01 ft below land-surface datum, Nov. 14, 1992.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	35.21	34.69	26.72	33.31	27.70	25.92	25.45	22.84	25.24	24.92	26.20	27.29
10	35.34	37.00	26.77	33.57	28.90	25.54	25.64	22.88	25.64	24.86	26.18	29.05
15	35.29	34.57	32.57	27.98	25.84	24.98	25.23	22.63	25.95	24.90	26.51	29.66
20	35.23	27.50	28.35	33.99	25.40	26.02	24.19	22.92	24.84	26.67	26.69	29.85
25	34.62	26.51	27.01	30.72	28.49	25.33	23.52	23.26	24.93	25.23	26.99	28.73
ROM	34.54	26.62	27.29	29.83	28.35	25.29	23.42	23.75	25.06	25.57	27.20	31.38

WTR YR 1994 HIGH 22.63 MAY 15

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.53	39.69	32.39	33.38	32.56	29.16	26.83	23.28	25.30	25.09	28.03	28.71
10	40.36	39.58	32.57	33.60	29.02	25.75	26.87	23.12	25.71	25.21	28.07	31.16
15	40.41	39.65	32.72	33.82	28.47	28.47	25.53	23.05	26.04	27.88	29.82	29.75
20	40.18	33.42	32.86	34.05	28.30	28.85	24.57	23.17	26.26	28.49	29.97	31.85
25	39.95	32.38	32.89	30.83	28.58	27.88	23.95	23.29	26.36	26.69	29.91	31.54
ROM	39.59	32.36	33.10	29.94	28.44	25.48	23.69	24.69	26.41	26.89	28.56	31.46

WTR YR 1994 LOW 40.53 OCT 5

## BARTHOLOMEW COUNTY

390317085523701. Local number, BA 10.

LOCATION.--Lat 39°03'17", long 85°52'08", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.16, T.17 N., R.6 E., Bartholomew County, Hydrologic Unit 05120206, 0.8 mi east of State Highway 11 and 1.0 mi southeast of Jonesville.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 85 ft, cased to 80 ft, screened to 85 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 580 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

REMARKS.--Hourly record indicates water level is affected by domestic pumpage. Not significant in monthly-annual report.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.66 ft below land-surface datum, Nov. 17, 1993; lowest, 12.65 ft below land-surface datum, Oct. 29, Nov. 2, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.96	7.26	3.56	7.47	5.50	7.10	8.48	5.98	7.77	8.21	9.16	9.92
10	8.97	7.75	5.02	7.66	6.18	7.39	6.00	5.61	8.10	8.36	9.34	10.10
15	8.92	2.07	5.95	7.94	6.76	7.58	3.49	5.81	8.37	8.48	9.45	10.19
20	8.26	1.73	6.23	8.05	6.92	7.85	5.94	6.34	8.52	8.68	9.58	10.32
25	5.13	5.14	6.52	7.73	6.33	8.08	6.57	6.86	8.75	8.62	9.77	10.40
ROM	6.65	5.99	7.16	2.46	6.68	8.28	5.68	7.44	8.33	8.97	9.83	10.44

WTR YR 1994 HIGH .66 NOV 17

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.03	7.45	5.01	7.56	5.81	7.20	8.61	6.16	7.90	8.34	9.32	10.05
10	9.15	7.92	5.53	7.83	6.35	7.58	8.48	5.86	8.24	8.50	9.45	10.17
15	9.08	5.87	6.09	8.06	6.90	7.74	4.43	6.29	8.44	8.52	9.54	10.31
20	9.04	2.24	6.32	8.15	7.03	7.89	6.15	6.52	8.68	8.83	9.71	10.43
25	5.55	5.40	6.89	8.16	6.66	8.22	6.74	7.04	8.90	8.73	9.85	10.47
ROM	6.94	6.15	7.26	3.40	6.78	8.36	6.74	7.50	8.40	9.04	9.95	10.58

WTR YR 1994 LOW 10.58 SEP 30

## GROUND-WATER DATA

285

## BARTHOLOMEW COUNTY

390658085572201. Local number, BA 13.

LOCATION.--Lat 39°06'58", long 85°57'22", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.22, T.8 N., R.5 E., Bartholomew County, Hydrologic Unit 05120206, at the end of farm access road, 0.3 mi north of County Road 600 South at its intersection with Interstate Highway 65.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 55.6 ft, cased to 50.6 ft, screened to 55.6 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 633.91 ft above sea level. Measuring point: Top of floor of shelter, 3.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.55 ft below land-surface datum, March 18, 1994; lowest, 24.17 ft below land-surface datum, Feb. 16, 1989.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.06	20.59	20.31	20.37	20.23	20.11	19.93	20.13	20.05	20.37	20.47	20.79
10	21.09	21.17	20.29	20.76	20.49	---	19.98	20.07	20.17	20.50	20.72	20.90
15	20.97	20.70	20.21	20.53	20.40	19.81	19.75	19.89	20.32	20.42	20.65	20.82
20	20.82	20.74	20.25	20.94	20.25	19.88	20.25	20.20	20.22	20.43	20.38	20.94
25	21.00	20.86	20.11	20.31	19.90	20.14	19.94	19.78	19.95	20.27	20.80	20.64
ROM	20.81	21.13	20.63	20.52	20.44	20.36	19.92	20.12	20.18	20.59	20.58	20.85

WTR YR 1994 HIGH 19.55 MAR 18

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.30	20.87	20.62	20.66	20.37	20.24	20.03	20.24	20.23	20.46	20.71	20.93
10	21.23	21.29	20.61	21.00	20.69	---	20.32	20.27	20.26	20.58	20.83	21.00
15	21.15	21.19	20.52	20.99	20.67	20.01	19.97	20.05	20.45	20.54	20.73	20.93
20	21.06	20.95	20.56	21.11	20.39	20.10	20.42	20.31	20.35	20.53	20.51	21.08
25	21.14	21.01	20.57	20.57	20.36	20.35	20.07	19.98	20.14	20.39	20.91	20.79
ROM	21.06	21.30	20.78	20.65	20.61	20.51	20.41	20.28	20.33	20.68	20.84	21.00

WTR YR 1994 LOW 21.44 OCT 22

## BENTON COUNTY

402851087213501. Local number, BE 4.

LOCATION.--Lat 40°28'51", long 87°21'35", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.31, T.24 N., R.8 W., Benton County, Hydrologic Unit 05120108, on north side of county road, 3.6 mi southeast of Boswell.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 310 ft, cased to 300 ft, screened to 305 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 710 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.19 ft above land-surface datum.

PERIOD OF RECORD.--November 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.57 ft below land-surface datum, May 4, 1993; lowest, 16.55 ft below land-surface datum, Dec. 4, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.33	10.97	10.70	10.61	11.17	11.66	11.83	10.96	10.98	11.75	12.51	13.38
10	11.32	11.18	10.61	---	11.34	11.78	11.87	10.80	11.10	11.79	12.73	13.53
15	11.36	11.01	10.54	---	11.41	11.70	11.52	10.66	11.17	11.90	12.75	13.68
20	11.18	11.01	10.51	---	11.47	11.68	11.54	10.79	11.42	12.01	12.74	13.88
25	11.22	11.01	10.46	---	11.48	11.84	11.22	10.66	11.34	12.08	13.04	13.77
ROM	11.08	11.01	10.63	---	11.76	11.95	11.07	10.87	11.54	12.37	13.15	13.95

WTR YR 1994 HIGH 10.46 DEC 25

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.41	11.02	10.75	10.65	11.21	11.71	11.87	11.02	11.04	11.81	12.60	13.43
10	11.38	11.22	10.72	---	11.36	11.85	11.99	10.85	11.15	11.87	12.76	13.58
15	11.40	11.17	10.61	---	11.51	11.75	11.60	10.69	11.26	11.96	12.79	13.71
20	11.30	11.05	10.60	---	11.57	11.76	11.57	10.82	11.46	12.05	12.88	13.89
25	11.27	11.06	10.55	---	11.57	11.89	11.29	10.72	11.44	12.10	13.08	13.81
ROM	11.14	11.06	10.66	---	11.76	11.98	11.21	10.89	11.62	12.41	13.25	13.99

WTR YR 1994 LOW 13.99 SEP 30

## GROUND-WATER DATA

## BOONE COUNTY

400532086183901. Local number, BO 17.

LOCATION.--Lat 40°05'32", long 86°18'39", in SW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.16, T.19 N., R.2 E., Boone County, Hydrologic Unit 05120201, 0.6 mi north along U.S. Highway 421 from the intersection of U.S. Highway 421 and County Road 300 North at Waugh on the west side of the highway at the residence of John Sheets.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 171.8 ft, cased to 166.8 ft, screened to 171.8 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 956.50 ft above sea level. Measuring point: Mark on top of casing, 3.50 ft above land-surface datum.

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

REVISED RECORDS.--WDR IN-94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.87 ft below land-surface datum, July 11-13, 1986; lowest, 51.98 ft below land-surface datum, Oct. 13, 14, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.67	48.19	47.74	47.33	47.31	47.09	47.12	46.71	47.46	47.48	48.01	---
10	48.56	48.15	47.49	47.43	47.29	47.16	46.95	46.76	47.47	47.52	48.24	---
15	48.48	48.06	47.47	47.38	47.24	47.28	46.77	46.68	47.46	47.57	48.34	---
20	48.46	47.91	47.55	47.35	47.15	47.29	46.79	46.96	47.41	47.60	48.43	---
25	48.39	47.74	47.52	47.36	47.23	47.24	46.77	47.27	47.55	47.58	48.43	---
DOM	48.34	47.73	47.48	47.22	47.30	46.98	46.84	47.37	47.52	47.72	---	---

WTR YR 1993 HIGH 46.67 MAY 12

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.70	48.22	47.80	47.49	47.41	47.21	47.18	46.78	47.59	47.50	48.04	---
10	48.58	48.25	47.60	47.50	47.31	47.24	47.02	46.77	47.51	47.53	48.26	---
15	48.52	48.09	47.62	47.40	47.30	47.33	46.88	46.75	47.49	47.60	48.37	---
20	48.55	48.01	47.66	47.50	47.25	47.33	46.91	47.03	47.47	47.64	48.43	---
25	48.41	47.85	47.64	47.39	47.34	47.27	46.87	47.38	47.56	47.59	48.47	---
DOM	48.34	47.78	47.59	47.31	47.34	47.13	46.87	47.49	47.58	47.79	---	---

WTR YR 1993 LOW 48.83 OCT 1

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	48.11	47.70	47.38	47.49	47.59	47.59	47.78	48.64	49.95	50.30	50.52
10	---	48.22	47.59	47.46	47.60	47.66	47.53	47.75	48.97	49.88	50.44	50.52
15	---	47.95	47.53	47.40	47.58	47.60	47.39	47.62	49.45	49.88	50.40	50.56
20	---	47.97	47.46	47.58	47.59	47.61	47.57	47.77	50.08	50.04	50.34	50.68
25	48.32	47.97	47.36	47.42	47.50	47.72	47.53	47.97	50.24	50.06	50.43	50.70
DOM	48.21	47.99	47.45	47.52	47.67	47.72	47.69	48.34	50.12	50.29	50.48	50.67

WTR YR 1994 HIGH 47.28 JAN 28

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	48.15	47.75	47.43	47.54	47.65	47.62	47.82	48.67	50.00	50.37	50.53
10	---	48.28	47.70	47.55	47.64	47.75	47.63	47.81	49.03	49.92	50.45	50.52
15	---	48.13	47.60	47.54	47.66	47.67	47.46	47.62	49.62	49.93	50.41	50.56
20	---	48.03	47.54	47.64	47.67	47.67	47.60	47.81	50.15	50.08	50.40	50.69
25	48.32	48.05	47.47	47.54	47.63	47.77	47.58	47.99	50.25	50.09	50.43	50.70
DOM	48.27	48.01	47.48	47.55	47.71	47.77	47.80	48.37	50.12	50.33	50.51	50.67

WTR YR 1994 LOW 50.70 SEP 21

## GROUND-WATER DATA

287

## CASS COUNTY

403407086175701. Local number, CS 3.

LOCATION.--Lat 40°34'07", long 86°17'57", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, sec.33, T.25 N., R.2 E., Cass County, Hydrologic Unit 05120105, at intersection of State Highway 18 and County Road 400 East, 2.5 mi east of Young America.  
 Owner: U.S. Geological Survey.

AQUIFER.--Dolomitic limestone of Devonian-Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 130 ft, cased to 78ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 781.74 ft above sea level. Measuring point: Top of floor of shelter, 2.65 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.85 ft below land-surface datum, Feb. 2, 1968; lowest, 10.12 ft below land-surface datum, Nov. 26, 1991.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.38	6.33	6.12	6.41	8.44	---	7.18	6.04	6.15	6.75	7.11	6.88
10	6.32	6.72	6.06	7.80	---	8.05	7.18	5.99	6.21	6.80	6.85	7.17
15	6.29	6.42	6.18	8.14	---	7.49	6.40	5.87	6.51	7.00	7.01	7.41
20	6.17	6.36	6.01	8.81	---	7.42	6.09	5.89	7.83	7.11	6.91	7.64
25	6.23	6.23	6.20	8.20	---	6.93	5.89	5.99	7.13	6.84	6.93	6.90
EOM	6.40	6.42	6.48	8.36	---	7.46	5.98	6.03	6.65	6.96	7.11	7.04

WTR YR 1994 HIGH 5.85 APR 26

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.44	6.45	6.22	6.50	8.55	---	7.43	6.16	6.30	6.85	7.29	7.13
10	6.39	6.85	6.34	7.90	---	8.24	7.38	6.10	6.30	7.01	7.01	7.29
15	6.44	6.67	6.28	8.50	---	7.63	6.68	6.06	7.04	7.15	7.12	7.57
20	6.30	6.47	6.10	8.88	---	7.68	6.31	5.98	8.04	7.28	7.11	7.82
25	6.34	6.29	6.49	8.47	---	7.19	6.08	6.14	7.31	7.01	7.08	7.09
EOM	6.59	6.50	6.60	8.42	---	7.57	6.07	6.16	6.78	7.22	7.24	7.15

WTR YR 1994 LOW 8.88 JAN 20

## GROUND-WATER DATA

## CLAY COUNTY

392653087120501. Local number, CY 6.

LOCATION.--Lat 39°26'53", long 87°12'05", in SE<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub> sec.29, T.12 N., R.7 W., Clay County, Hydrologic Unit 05120111, 2.8 mi southwest of Staunton and 4.0 mi west of State Highway 59 just north of State Highway 42.  
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of the Mansfield Formation, Pennsylvanian Period.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 400 ft, cased to 347 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 653.16 ft above sea level. Measuring point: Top of casing, 3.40 ft above land-surface datum.

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

REVISED RECORDS.--WDR IN94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 151.36 ft below land-surface datum, Jan. 19, 1988; lowest, 165.28 ft below land-surface datum, June 8, 1992.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	154.92	154.61	154.77	154.45	154.39	154.10	154.21	154.18	154.18	154.40	154.68	154.56
10	154.68	154.69	154.26	154.47	154.34	154.06	154.09	154.30	154.31	154.52	154.74	154.52
15	154.72	154.76	154.29	154.46	154.34	154.40	153.81	154.11	154.37	154.54	154.59	---
20	154.76	154.46	154.57	154.42	154.12	154.37	153.96	154.19	154.39	154.51	154.45	---
25	154.68	154.40	154.50	154.58	154.26	154.31	154.07	154.28	154.45	154.52	154.57	---
EOM	154.72	154.54	154.43	154.26	154.46	153.89	154.22	154.13	154.38	154.62	154.50	---

WTR YR 1993 HIGH 153.81 APR 15

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	155.06	154.82	154.92	154.69	154.74	154.40	154.42	154.43	154.52	154.56	154.86	154.63
10	154.87	154.95	154.57	154.64	154.47	154.37	154.26	154.37	154.41	154.61	154.85	154.74
15	154.92	154.86	154.57	154.55	154.53	154.52	153.98	154.23	154.53	154.72	154.82	---
20	154.94	154.74	154.84	154.80	154.40	154.54	154.30	154.35	154.58	154.71	154.58	---
25	154.93	154.69	154.80	154.71	154.59	154.47	154.33	154.50	154.53	154.63	154.73	---
EOM	154.83	154.67	154.74	154.48	154.55	154.07	154.32	154.37	154.54	154.84	154.68	---

WTR YR 1993 LOW 155.15 OCT 22

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	154.54	154.60	154.83	154.92	155.08
10	---	---	---	---	---	---	154.50	154.52	154.71	154.92	155.05	155.16
15	---	---	---	---	---	---	154.27	154.37	154.79	154.84	155.00	---
20	---	---	---	---	---	---	154.62	154.61	154.76	154.87	154.85	---
25	---	---	---	---	---	---	154.34	154.35	154.60	154.77	155.11	---
EOM	---	---	---	---	---	---	154.46	154.66	154.73	155.00	154.98	---

WTR YR 1994 HIGH 154.27 APR 15

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	154.62	154.77	154.95	155.14	155.22
10	---	---	---	---	---	---	154.63	154.72	154.82	155.08	155.15	155.27
15	---	---	---	---	---	---	154.41	154.50	154.87	154.92	155.13	---
20	---	---	---	---	---	---	154.68	154.71	154.93	155.03	154.98	---
25	---	---	---	---	---	---	154.52	154.54	154.81	154.85	155.19	---
EOM	---	---	---	---	---	---	154.69	154.70	154.83	155.06	155.13	---

WTR YR 1994 LOW 155.35 SEP 3

## GROUND-WATER DATA

289

## CLAY COUNTY

391124087134701. Local number, CY 7.

LOCATION.--Lat 39°11'24", long 87°13'47", in SW<sup>1</sup>/<sub>4</sub>/NW<sup>1</sup>/<sub>4</sub>/SE<sup>1</sup>/<sub>4</sub> sec. 30, T.9N., R.7W., Clay County, Hydrologic Unit 05120111, 300 ft east of State Highway 159 just south of Coalmont and about 3.6 mi northwest of Jasonville.  
 Owner: U.S. Geological Survey

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 121 ft, cased to 80 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 616.80 ft (revised) above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--September 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.59 ft below land-surface datum, Sept. 4, 5, 1988; lowest, 33.05 ft below land-surface datum, Dec. 26, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.80	28.59	28.19	28.14	28.04	27.92	27.90	27.74	28.03	28.63	29.22	29.65
10	28.72	28.68	28.16	28.19	28.03	27.92	27.77	27.72	28.12	28.74	29.36	29.77
15	28.71	28.50	28.15	28.16	28.03	27.89	27.75	27.61	28.19	28.73	29.29	29.89
20	28.62	28.44	28.16	28.16	28.01	27.90	27.81	27.75	28.31	28.87	29.39	30.02
25	28.64	28.38	28.11	28.07	27.93	27.96	27.79	27.80	28.38	28.95	29.54	29.90
EOM	28.61	28.35	28.17	28.08	27.95	27.97	27.70	27.95	28.52	29.13	29.60	30.00

WTR YR 1994 HIGH 27.61 MAY 15

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.83	28.62	28.22	28.16	28.07	27.94	27.93	27.76	28.05	28.66	29.27	29.74
10	28.75	28.70	28.22	28.23	28.05	27.96	27.88	27.76	28.15	28.78	29.39	29.80
15	28.75	28.56	28.19	28.21	28.05	27.92	27.77	27.72	28.23	28.77	29.33	29.92
20	28.66	28.45	28.19	28.18	28.03	27.92	27.83	27.78	28.34	28.91	29.44	30.04
25	28.66	28.42	28.17	28.11	27.97	27.99	27.82	27.83	28.43	28.97	29.56	29.93
EOM	28.65	28.36	28.19	28.09	27.98	27.98	27.77	27.97	28.56	29.16	29.63	30.02

WTR YR 1994 LOW 30.05 SEP 21

GROUND-WATER DATA

DECATUR COUNTY

392022085371801. Local number, DC 2.

LOCATION.--Lat 39°20'22", long 85°37'18", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.3, T.10 N., R.8 E., Decatur County, Hydrologic Unit 05120206, at the intersection of County Roads 50 North and 750 West and 7.5 mi west of Greensburg.  
 Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 49 ft, cased to 12.5 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 940.8 ft above sea level. Measuring point: Top of floor of shelter, 3.02 ft above land-surface datum.

PERIOD OF RECORD.--September 1966 to October 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.12 ft below land-surface datum, Dec. 30, 1991; lowest, 9.25 ft below land-surface datum, Feb. 9-11, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

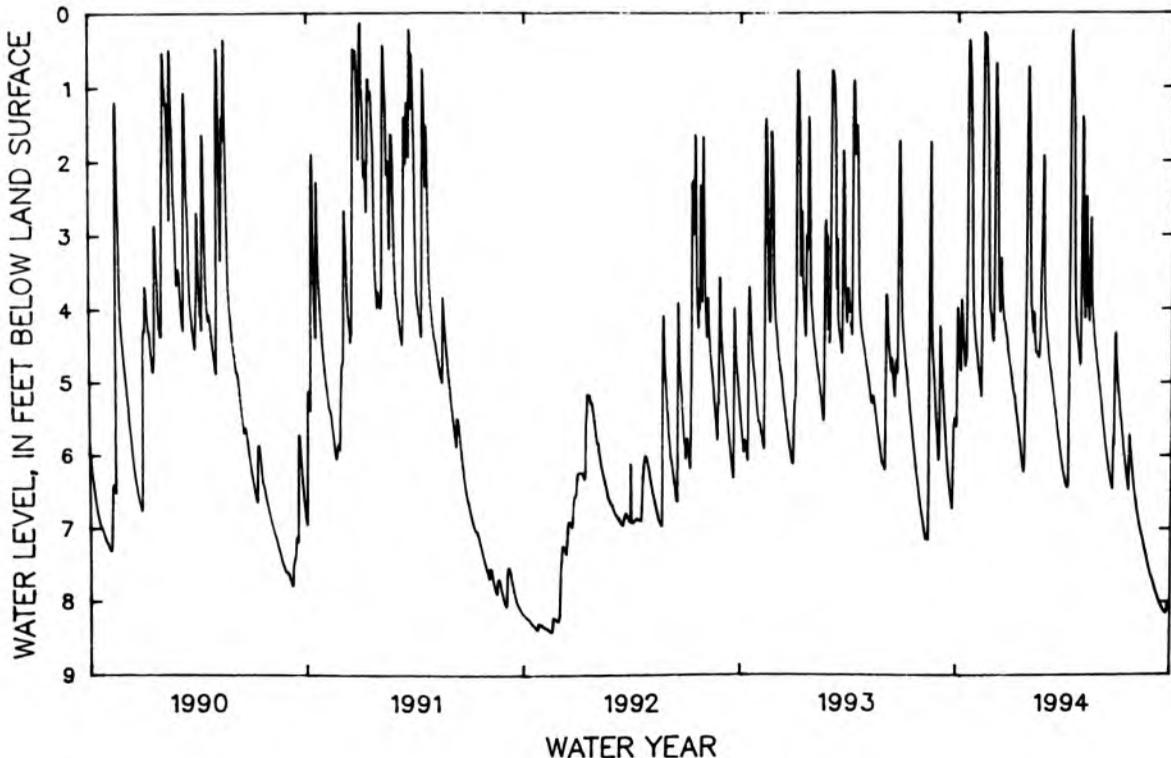
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.49	4.64	.70	5.11	4.07	4.58	6.39	3.98	5.42	5.39	6.81	7.84
10	3.97	5.05	3.07	5.40	4.42	4.88	.41	3.77	5.79	5.78	7.01	7.96
15	4.72	.33	3.30	5.70	4.62	5.19	1.09	2.75	6.10	6.15	7.18	8.06
20	.36	.92	4.16	6.06	3.47	5.54	4.04	4.21	6.35	6.48	7.36	8.13
25	1.65	3.81	4.37	4.75	2.87	5.87	4.53	4.59	5.87	6.07	7.55	8.13
ROM	4.24	4.36	4.80	1.72	4.09	6.20	1.39	5.04	4.89	6.54	7.70	8.05

WTR YR 1994 HIGH .23 APR 11

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.63	4.74	.96	5.17	4.22	4.65	6.43	4.15	5.49	5.49	6.85	7.87
10	4.21	5.13	3.72	5.46	4.51	4.96	6.42	3.99	5.85	5.87	7.05	7.99
15	4.80	.61	3.66	5.80	4.74	5.28	1.40	3.61	6.16	6.23	7.23	8.09
20	.53	1.31	4.19	6.12	4.38	5.60	4.17	4.31	6.39	6.54	7.39	8.15
25	2.18	3.96	4.49	6.04	3.65	5.94	4.62	4.66	5.93	6.15	7.58	8.15
ROM	4.38	4.42	4.85	2.30	4.21	6.24	4.79	5.10	5.01	6.60	7.75	8.07

WTR YR 1994 LOW 8.17 SEP 23



## GROUND-WATER DATA

291

## DELAWARE COUNTY

400541085213701. Local number, DW 4.

LOCATION.--Lat 40°05'41", long 85°21'37", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.9, T.19 N., R.10 E., Delaware County, Hydrologic Unit 05120201, on property owned by Monroe Township Conservation Club, and 8.0 mi south of Muncie.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 91 ft, cased to 89 ft, screened to 91 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,005 ft above sea level, from topographic map. Measuring point:  
Top of floor of shelter, 2.88 ft above land-surface datum.

PERIOD OF RECORD.--October 1966 to October 1971, October 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.21 ft below land-surface datum, Dec. 30, 1990; lowest,  
49.50 ft below land-surface datum, Oct. 13, 14, 1966.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.21	48.19	46.56	47.69	47.15	47.71	48.01	47.68	47.97	48.17	48.41	48.52
10	48.19	48.27	47.06	47.80	47.53	47.73	47.00	47.67	48.03	48.19	48.45	48.55
15	48.26	42.52	47.17	47.85	47.52	47.77	46.42	47.74	48.08	48.23	48.47	48.57
20	47.86	45.06	47.29	47.94	47.21	47.85	47.06	47.84	48.15	48.28	48.50	48.59
25	47.93	46.60	47.39	46.99	47.39	47.91	47.41	47.79	48.16	48.33	48.54	48.58
ROM	48.11	47.12	47.58	46.39	47.57	47.98	47.58	47.89	48.10	48.38	48.50	48.58

WTR YR 1994 HIGH 42.48 NOV 14

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	48.24	48.21	46.69	47.71	47.25	47.71	48.02	47.71	47.98	48.18	48.41	48.54
10	48.20	48.28	47.15	47.81	47.57	47.76	47.78	47.70	48.05	48.20	48.45	48.55
15	48.27	44.26	47.19	47.88	47.76	47.80	46.59	47.77	48.10	48.25	48.48	48.58
20	48.24	45.58	47.29	47.96	47.23	47.87	47.15	47.85	48.15	48.30	48.51	48.59
25	47.96	46.73	47.44	47.72	47.45	47.93	47.46	47.89	48.18	48.34	48.55	48.59
ROM	48.13	47.19	47.61	46.61	47.62	47.98	47.63	47.91	48.12	48.39	48.53	48.58

WTR YR 1994 LOW 48.59 SEP 18

## GROUND-WATER DATA

## ELKHART COUNTY

413121085481301. Local number, EH 4.

LOCATION.--Lat 41°31'21", long 85°48'13", in SW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.35, T.36 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, at the southwest corner of Goshen Municipal Airport.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 62 ft, cased to 58 ft, screened to 60 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 818 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.60 ft below land-surface datum, Apr. 14, 1985; lowest, 16.18 ft below land-surface datum, Dec. 1-5, 1971.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

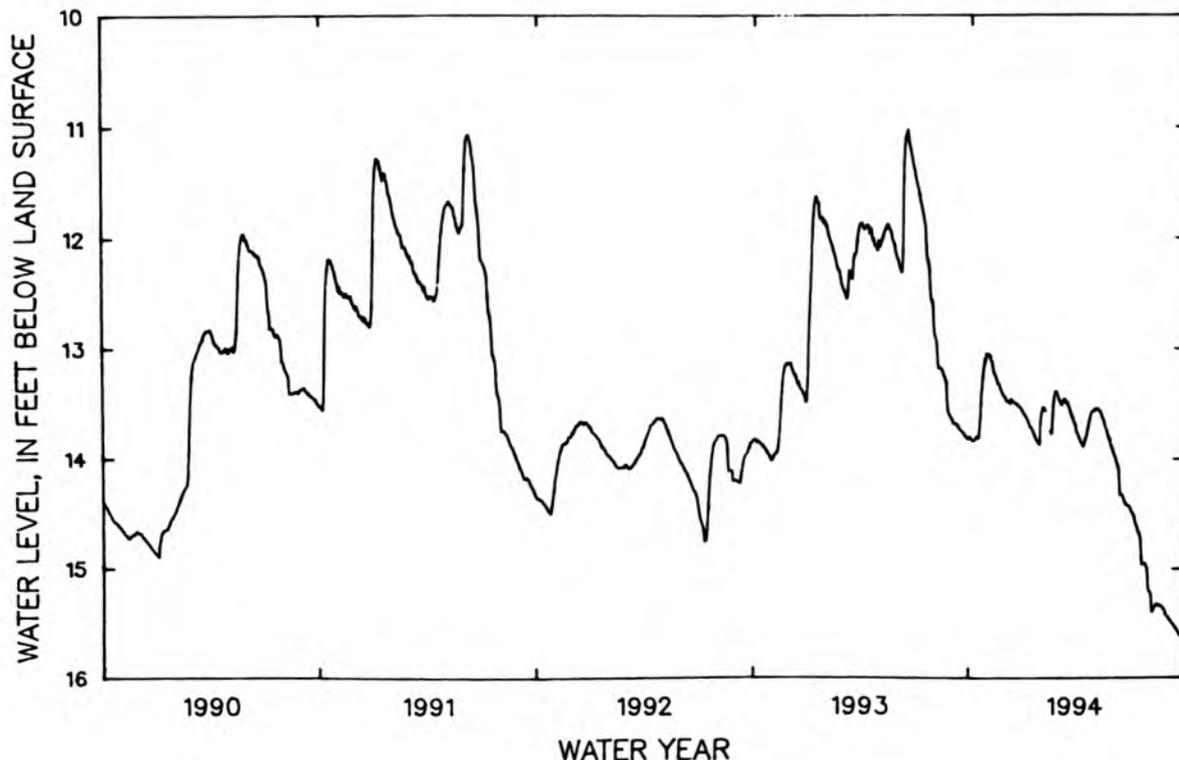
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.84	---	13.48	13.63	13.56	13.51	13.82	13.54	14.00	14.50	15.22	15.45
10	13.82	13.22	13.45	13.70	---	13.45	13.87	13.58	14.08	14.59	15.38	15.49
15	13.81	13.28	13.48	13.74	13.75	13.48	13.80	13.64	14.32	14.68	15.33	15.53
20	13.39	13.35	13.51	13.81	13.43	13.58	13.68	13.73	14.38	14.90	15.34	15.57
25	13.13	13.42	13.53	13.86	13.39	13.65	13.57	13.82	14.42	14.95	15.35	15.61
EOB	13.04	13.46	13.59	13.55	13.46	13.76	13.54	13.92	14.44	15.09	15.43	15.64

WTR YR 1994 HIGH 13.04 OCT 30

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.84	---	13.49	13.64	13.57	13.52	13.84	13.55	14.02	14.51	15.24	15.46
10	13.84	13.23	13.48	13.71	---	13.47	13.89	13.59	14.16	14.60	15.40	15.50
15	13.82	13.32	13.49	13.76	13.78	13.52	13.82	13.66	14.32	14.71	15.33	15.54
20	13.51	13.36	13.51	13.82	13.46	13.59	13.70	13.75	14.39	14.98	15.34	15.58
25	13.16	13.42	13.54	13.86	13.41	13.67	13.58	13.84	14.42	14.95	15.36	15.62
EOB	13.05	13.47	13.60	13.57	13.46	13.77	13.56	13.94	14.45	15.16	15.44	15.65

WTR YR 1994 LOW 15.65 SEP 30



## GROUND-WATER DATA

293

## ELKHART COUNTY

414419085544601. Local number, EH 5.

LOCATION.--Lat 41°44'19", long 85°54'46", in NW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.23, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on the inlet to Heaton Lake, and 3.5 mi east of Elkhart.  
 Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 13 ft, cased to 11 ft, screened to 13 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 770 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.10 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.37 ft below land-surface datum, June 16, 1981; lowest, 5.65 ft below land-surface datum, Sept. 17-19, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.38	2.90	3.01	3.39	3.35	3.08	3.31	3.31	3.88	3.90	3.85	3.78
10	3.35	2.99	3.05	3.50	3.49	2.95	3.34	3.35	3.95	3.74	3.86	3.91
15	3.45	2.95	3.18	3.51	3.56	3.05	3.04	3.41	3.91	3.64	3.53	4.01
20	2.43	2.98	3.21	3.61	2.89	3.19	3.21	3.51	4.15	3.66	3.37	4.07
25	2.65	3.05	3.25	3.61	2.99	3.20	3.30	3.59	3.91	3.62	3.46	4.19
EOM	2.81	3.01	3.38	3.22	3.11	3.25	3.24	3.76	3.90	3.81	3.63	4.26

WTR YR 1994 HIGH 2.42 OCT 19

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.41	2.92	3.01	3.41	3.39	3.16	3.32	3.32	3.90	4.06	3.87	3.82
10	3.35	3.01	3.12	3.50	3.51	3.01	3.38	3.38	4.00	3.76	3.88	3.95
15	3.46	2.98	3.21	3.56	3.56	3.08	3.08	3.44	3.98	3.65	3.56	4.05
20	2.47	3.02	3.22	3.62	3.05	3.20	3.22	3.52	4.18	3.77	3.57	4.10
25	2.70	3.06	3.31	3.62	3.02	3.22	3.32	3.60	3.91	3.65	3.48	4.19
EOM	2.86	3.06	3.39	3.22	3.14	3.26	3.31	3.76	3.94	3.83	3.64	4.26

WTR YR 1994 LOW 4.31 JUN 22

## ELKHART COUNTY

414351085540401. Local number, EH 6.

LOCATION.--Lat 41°43'51", long 85°54'04", in NW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.24, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on the southeast shore of Heaton Lake, and 4.0 mi east of Elkhart.  
 Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 22 ft, cased to 20 ft, screened to 22 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 770 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.10 ft below land-surface datum, June 16-19, 1981; lowest, 10.68 ft below land-surface datum, Oct. 16, 17, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.06	7.16	7.80	8.22	8.33	7.99	7.95	7.93	8.56	8.91	9.01	8.71
10	8.06	7.30	7.83	8.30	8.39	7.87	8.00	7.98	8.77	8.84	8.99	8.83
15	8.13	7.39	7.93	8.35	8.44	7.77	7.85	8.06	8.86	8.80	8.75	8.95
20	---	7.48	7.98	8.39	8.18	7.83	7.84	8.19	8.96	8.84	8.58	9.05
25	---	7.65	8.06	8.46	7.98	7.85	7.84	8.26	8.93	8.80	8.46	9.06
EOM	---	7.75	8.14	8.33	7.99	7.92	7.87	8.42	8.85	8.89	8.49	9.18

WTR YR 1994 HIGH 7.02 OCT 19

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.10	7.17	7.80	8.23	8.34	8.01	8.00	7.94	8.59	8.91	9.03	8.72
10	8.07	7.34	7.86	8.30	8.40	7.87	8.03	8.01	8.80	8.86	9.01	8.85
15	8.15	7.39	7.93	8.37	8.49	7.77	7.89	8.07	8.88	8.80	8.78	8.98
20	---	7.51	7.98	8.40	8.30	7.84	7.85	8.21	8.99	8.86	8.69	9.08
25	---	7.65	8.07	8.48	7.98	7.86	7.84	8.27	8.95	8.82	8.47	9.07
EOM	---	7.79	8.16	8.34	8.00	7.95	7.88	8.43	8.86	8.92	8.52	9.21

WTR YR 1994 LOW 9.21 SEP 30

## GROUND-WATER DATA

## ELKHART COUNTY

414514085505001. Local number, EH 7.

LOCATION.--Lat 41°45'14", long 85°50'50", in SW<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub> SW<sup>1</sup>/<sub>4</sub> sec.9, T.38 N., R.6 E., Elkhart County, Hydrologic Unit 04050001, on north side of County Road 2, 200 ft east of County Road 21, and 2.7 mi northwest of Bristol.

Owner: U.S. Geological Survey.

AQUIFER.--Fine to medium sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 61 ft, cased to 56 ft, screened to 61 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 781 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.70 ft above land-surface datum.

PERIOD OF RECORD.--June 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.50 ft below land-surface datum, Feb. 24, 1985; lowest, 12.73 ft below land-surface datum, Aug. 5, 6, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.65	8.70	9.42	9.74	9.98	9.54	9.63	9.80	10.11	10.84	10.53	10.45
10	9.71	8.91	9.45	9.80	10.05	9.33	9.71	9.84	10.20	9.82	10.47	10.51
15	9.76	9.01	9.53	9.85	10.08	9.33	9.71	9.85	10.35	9.77	10.45	10.56
20	8.74	9.14	9.56	9.94	9.52	9.42	9.78	9.93	10.55	9.83	10.39	10.61
25	8.61	9.27	9.60	9.98	9.40	9.53	9.76	9.96	10.81	9.92	10.37	10.65
DOM	8.62	9.37	9.67	9.95	9.52	9.60	9.76	10.02	10.65	10.21	10.38	10.70

WTR YR 1994 HIGH 8.54 OCT 28

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.68	8.78	9.44	9.76	10.00	9.59	9.67	9.81	10.13	10.89	10.54	10.45
10	9.72	8.93	9.51	9.81	10.07	9.35	9.74	9.85	10.22	9.87	10.48	10.52
15	9.77	9.07	9.55	9.89	10.12	9.39	9.74	9.89	10.36	9.79	10.45	10.57
20	8.89	9.17	9.58	9.95	9.60	9.45	9.79	9.93	10.61	9.91	10.40	10.61
25	8.63	9.28	9.63	9.99	9.48	9.54	9.77	9.97	10.84	9.92	10.38	10.65
DOM	8.67	9.39	9.70	9.96	9.53	9.62	9.81	10.03	10.66	10.29	10.41	10.71

WTR YR 1994 LOW 10.89 JUL 5

## ELKHART COUNTY

414419085595801. Local number, EH 9.

LOCATION.--Lat 41°44'19", long 85°59'58", in NE<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub> sec.19, T.38 N., R.5 E., Elkhart County, Hydrologic Unit 04050001, on the west side of Iris Avenue, about 6 mi northwest of Elkhart.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in, depth 33.8 ft, cased to 28.8 ft with 5 ft stainless steel screen.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 785.27 ft above sea level. Measuring point: Top of casing, 2.80 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.09 ft below land-surface datum, Jan. 16, 1991; lowest, 21.36 ft below land-surface datum, Sept. 23, 1994.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.73	18.68	19.34	19.78	19.75	19.85	20.03	20.80	21.04	20.48	20.46	20.50
10	19.65	18.68	19.57	19.76	19.93	19.92	20.04	20.77	20.91	20.25	20.60	20.98
15	19.73	18.74	19.62	19.80	20.11	19.92	20.08	20.84	20.76	20.19	20.36	21.23
20	19.56	18.77	19.75	19.97	19.86	19.97	20.30	21.06	20.73	20.20	20.54	21.05
25	19.22	18.99	19.64	19.93	19.82	19.87	20.46	21.25	20.67	20.15	20.65	21.10
DOM	18.55	19.15	19.65	19.91	19.76	20.16	20.71	21.29	20.53	20.25	20.65	20.98

WTR YR 1994 HIGH 18.52 NOV 1

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.78	18.76	19.43	19.87	19.79	19.95	20.12	20.86	21.15	20.54	20.53	20.53
10	19.66	18.75	19.67	19.81	20.03	20.00	20.08	20.80	20.92	20.30	20.66	21.02
15	19.78	18.85	19.72	19.83	20.17	19.97	20.14	20.92	20.84	20.25	20.39	21.29
20	19.63	18.88	19.86	20.08	19.99	19.99	20.34	21.10	20.86	20.29	20.56	21.16
25	19.30	19.03	19.68	20.07	19.91	19.98	20.60	21.29	20.71	20.18	20.77	21.25
DOM	18.57	19.22	19.68	19.99	19.92	20.19	20.79	21.31	20.58	20.33	20.70	21.06

WTR YR 1994 LOW 21.36 SEP 23

## GROUND-WATER DATA

295

## FOUNTAIN COUNTY

401200087121701. Local number, FO 3.

LOCATION.--Lat 40°12'00", long 87°12'17", in NW<sup>1</sup>/<sub>4</sub>/NW<sup>1</sup>/<sub>4</sub> sec.10, T.20 N., R.7 W., Fountain County, Hydrologic Unit 05120108, on the southwest corner of the Union Church property on County Road 520 North, about 6.5 mi southeast of Attica.  
Owner: U.S. Geological Survey.

AQUIFER.--Shale and sandstone of the Mississippian Period.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 102 ft, cased to 22 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670.99 ft above sea level. Measuring point: Top of casing, 3.60 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.02 ft below land-surface datum, Mar. 11, 1990; lowest, 13.53 ft below land-surface datum, Dec. 21, 22, 25-27, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.32	7.34	5.52	7.22	7.74	8.02	8.39	5.86	7.69	8.73	9.83	10.73
10	7.04	7.78	5.99	7.57	8.12	7.35	6.90	5.82	7.96	8.92	10.02	10.83
15	7.43	6.24	6.08	7.78	8.27	7.50	4.65	6.46	8.08	9.11	10.12	10.95
20	6.07	5.62	6.10	8.04	8.12	7.90	5.80	7.04	8.35	9.30	10.27	11.06
25	6.46	6.08	6.41	7.62	8.17	8.23	6.41	6.59	8.21	9.45	10.43	11.07
EOM	7.05	6.09	7.00	7.40	8.38	8.43	5.25	7.36	8.52	9.70	10.58	11.20

WTR YR 1994 HIGH 4.15 APR 12

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.43	7.49	5.63	7.27	7.82	8.09	8.46	6.03	7.73	8.79	9.88	10.74
10	7.09	7.82	6.25	7.60	8.15	7.52	7.94	6.03	8.01	8.97	10.05	10.86
15	7.47	6.45	6.17	7.88	8.35	7.67	4.81	6.62	8.15	9.16	10.15	10.97
20	6.62	5.80	6.31	8.11	8.18	7.93	5.97	7.12	8.38	9.33	10.29	11.08
25	6.54	6.37	6.64	8.06	8.30	8.27	6.53	6.69	8.29	9.49	10.46	11.07
EOM	7.18	6.15	7.06	7.48	8.39	8.44	5.83	7.41	8.58	9.73	10.62	11.21

WTR YR 1994 LOW 11.21 SEP 30

## FRANKLIN COUNTY

392416085004301. Local number, FR 5.

LOCATION.--Lat 39°24'16", long 85°00'43", in SE<sup>1</sup>/<sub>4</sub>/NE<sup>1</sup>/<sub>4</sub> sec.32, T.9 N., R.2 W., Franklin County, Hydrologic Unit 05080003, adjacent to property of Franklin County Conservation Club, 1.0 mi south of Brookville.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 61 ft, cased to 57 ft, screened to 59 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 621.79 ft above sea level. Measuring point: Top of floor of shelter, 2.70 ft above land-surface datum.

PERIOD OF RECORD.--March 1968 to October 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.95 ft below land-surface datum, May 24, 1968; lowest, 27.32 ft below land-surface datum, Feb. 1, 1977.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.16	25.11	21.17	24.86	23.09	24.61	25.42	24.03	25.51	25.23	26.37	26.65
10	26.14	25.38	22.30	25.02	23.13	24.84	21.32	24.06	25.70	25.69	26.46	26.71
15	26.16	21.04	22.62	25.13	23.39	24.86	21.46	24.32	25.88	25.75	26.46	26.78
20	25.45	20.65	22.98	25.41	23.79	25.06	22.38	24.64	26.01	26.08	26.51	26.82
25	25.00	22.36	23.68	24.73	23.57	25.28	23.64	24.95	26.07	26.23	26.53	26.86
EOM	25.06	22.84	24.58	22.23	23.85	25.43	23.79	25.22	25.36	26.27	26.51	26.83

WTR YR 1994 HIGH 19.37 NOV 18

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.16	25.18	22.18	24.92	23.11	24.69	25.45	24.09	25.57	25.42	26.39	26.66
10	26.20	25.41	22.45	25.05	23.19	24.88	25.11	24.14	25.75	25.75	26.46	26.73
15	26.18	23.93	22.66	25.21	23.49	24.89	21.66	24.41	25.92	25.84	26.47	26.79
20	25.97	21.32	23.06	25.43	23.83	25.10	22.77	24.70	26.07	26.13	26.51	26.83
25	25.00	22.52	23.86	25.31	23.63	25.33	23.80	25.00	26.08	26.25	26.54	26.86
EOM	25.08	22.95	24.66	22.60	24.06	25.45	24.25	25.27	25.41	26.31	26.56	26.84

WTR YR 1994 LOW 26.86 SEP 24

## GROUND-WATER DATA

## FULTON COUNTY

405829086175801. Local number, FU 7.

LOCATION.--Lat 40°58'29", long 86°17'58", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.10, T.29 N., R.2 E., Fulton County, Hydrologic Unit 05120106, 2.5 mi northwest of Fulton.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 102 ft, cased to 96 ft, screened to 102 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 776.45 ft above sea level. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.35 ft below land-surface datum, Apr. 23-27, 1973; lowest, 13.21 ft below land-surface datum, Oct. 13, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.92	9.28	8.78	9.39	9.90	10.08	9.66	7.75	9.30	9.26	10.02	10.93
10	9.99	9.60	8.70	9.64	10.13	9.61	9.32	7.92	9.62	8.90	10.24	11.05
15	10.13	9.57	8.85	9.69	10.23	9.42	7.53	8.21	9.24	9.01	10.24	11.13
20	9.24	9.16	8.98	9.91	10.09	9.51	7.63	8.59	9.23	9.34	10.39	11.27
25	8.99	9.17	9.00	9.96	9.92	9.62	7.96	8.78	9.20	9.46	10.59	11.23
EOM	9.14	9.01	9.26	9.83	10.13	9.73	7.81	9.03	9.05	9.74	10.73	11.37

WTR YR 1994 HIGH 7.48 APR 16

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.97	9.35	8.84	9.45	9.94	10.08	9.68	7.78	9.45	9.29	10.13	10.95
10	10.04	9.62	8.79	9.67	10.16	9.64	9.44	8.01	9.63	8.91	10.26	11.07
15	10.14	9.62	8.92	9.80	10.28	9.45	7.69	8.28	9.31	9.08	10.27	11.15
20	9.45	9.17	9.01	9.96	10.15	9.52	7.72	8.64	9.27	9.43	10.40	11.28
25	9.00	9.19	9.06	9.98	10.00	9.67	8.03	8.79	9.27	9.47	10.62	11.29
EOM	9.20	9.05	9.28	9.84	10.14	9.76	8.00	9.08	9.10	9.79	10.80	11.38

WTR YR 1994 LOW 11.38 SEP 30

## GRANT COUNTY

402322085481901. Local number, GT 8.

LOCATION.--Lat 40°23'22", long 85°48'19", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.1, T.22 N., R.6 E., Grant County, Hydrologic Unit 05120107, located on County Road 700 West right-of-way, and 1.0 mi northwest of Rigdon.  
 Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 35 ft, cased to 20 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 880 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--October 1966 to October 1971, July 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.16 ft below land-surface datum, Mar. 21, 1984; lowest, 10.66 ft below land-surface datum, Oct. 29, 1966.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.88	4.85	2.06	3.92	---	3.83	3.96	3.35	4.18	5.06	6.66	7.77
10	4.84	5.19	2.65	4.13	---	3.26	2.23	3.27	4.38	5.34	7.06	8.01
15	4.87	2.86	2.69	4.20	---	3.01	1.56	3.45	4.48	5.60	7.13	8.19
20	4.75	1.98	2.79	---	3.76	3.56	2.88	3.86	4.59	5.88	7.29	8.44
25	4.78	3.01	3.01	---	3.77	3.87	3.45	3.70	4.60	6.09	7.62	8.45
EOM	4.88	2.73	3.67	---	4.12	4.01	3.28	3.99	4.87	6.48	7.61	8.63

WTR YR 1994 HIGH 1.22 APR 13

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.25	5.05	2.14	4.15	---	3.92	4.03	3.43	4.41	5.47	7.09	8.02
10	5.04	5.26	2.88	4.28	---	3.48	2.92	3.41	4.52	5.76	7.41	8.22
15	5.15	3.45	2.80	4.40	---	3.20	1.82	3.63	4.76	5.90	7.50	8.53
20	4.97	2.36	2.88	---	3.91	3.61	3.07	4.05	4.99	6.34	7.60	8.54
25	4.92	3.13	3.28	---	3.91	3.96	3.55	3.91	4.89	6.43	8.00	8.69
EOM	5.11	2.84	3.74	---	4.19	4.09	3.65	4.14	5.23	6.80	7.93	8.87

WTR YR 1994 LOW 8.87 SEP 30

## GROUND-WATER DATA

297

## GRANT COUNTY

403836085374401. Local number, GT 10.

LOCATION.--Lat 40°38'36", long 85°37'44", in NE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.4, T.25 N., R.8 E., Grant County, Hydrologic Unit 05120103, 0.20 mi north of intersection of State Highway 9 and County Road 600 North on west side of road.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 198 ft, cased to 193 ft, screened to 198 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 912.16 ft above sea level. Measuring point: Top of casing, 3.16 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 107.39 ft below land-surface datum, Apr. 6, 1988; lowest, 120.87 ft below land-surface datum, June 29, 1989.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	117.74	117.02	118.76	117.88	118.74	117.82	117.84	119.82	118.31	119.90	117.67
10	---	117.79	116.84	118.68	119.59	119.75	117.66	117.76	120.65	118.14	120.15	120.12
15	---	117.29	118.55	117.70	119.90	118.36	119.26	119.45	119.61	117.77	119.51	120.27
20	---	119.16	116.91	119.00	117.74	116.79	118.47	117.98	120.61	117.51	119.94	118.63
25	---	117.58	119.53	117.65	119.76	119.71	117.55	118.82	120.30	117.43	120.02	117.49
DOM	118.42	118.13	117.30	120.60	120.71	120.60	120.08	118.57	119.03	119.92	120.08	118.10

WTR YR 1994 HIGH 116.68 MAR 21

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	118.18	117.19	119.27	118.32	119.96	118.15	118.11	119.98	119.47	120.20	118.74
10	---	118.24	118.31	120.32	119.85	120.41	117.77	118.93	120.74	118.75	120.34	120.34
15	---	118.16	119.19	118.06	120.21	119.34	119.56	119.83	120.70	117.92	119.99	120.34
20	---	119.49	118.02	120.23	118.08	117.25	119.35	118.23	120.70	118.65	120.06	119.34
25	---	118.25	119.92	118.18	120.11	120.03	117.77	119.09	120.60	117.87	120.15	118.36
DOM	119.61	119.12	117.49	120.72	120.78	120.69	120.35	119.82	120.06	120.00	120.37	118.71

WTR YR 1994 LOW 120.85 FEB 27

## HAMILTON COUNTY

400000086023001. Local number, HA 5.

LOCATION.--Lat 40°00'00", long 86°02'30", in NE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.23, T.18 N., R.4 E., Hamilton County, Hydrologic Unit 05120201, on south side of 146th Street, 1.0 mi west of White River, 1.2 mi west of Allisonville Road, and 3.5 mi southwest of Noblesville.  
Owner: Earlham College.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 86 ft, cased to 82 ft, screened to 86 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 757.69 ft (revised) above sea level. Measuring point: Top of floor of shelter, 2.76 ft above land-surface datum.

PERIOD OF RECORD.--July 1965 to September 1971, July 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.39 ft below land-surface datum, Dec. 31, 1991; lowest, 11.99 ft below land-surface datum, Oct. 30-Nov. 4, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.04	10.23	8.64	9.40	9.14	9.57	9.99	9.53	10.10	10.10	10.61	10.83
10	10.02	10.27	8.83	9.57	9.36	9.64	9.57	9.58	10.18	10.23	10.68	10.87
15	10.08	8.62	8.90	9.66	9.43	9.70	8.76	9.69	10.24	10.34	10.65	10.94
20	10.10	7.96	9.04	9.80	9.32	9.80	9.04	9.83	10.33	10.44	10.69	11.00
25	10.13	8.46	9.12	9.55	9.35	9.87	9.27	9.89	10.41	10.47	10.75	11.03
DOM	10.18	8.63	9.30	8.90	9.50	9.94	9.39	10.02	10.14	10.57	10.75	11.07

WTR YR 1994 HIGH 7.86 NOV 19

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.07	10.23	8.68	9.43	9.18	9.59	10.00	9.57	10.11	10.12	10.62	10.83
10	10.02	10.28	8.88	9.59	9.39	9.66	9.86	9.61	10.20	10.26	10.69	10.89
15	10.09	9.08	8.95	9.70	9.53	9.72	8.79	9.72	10.26	10.36	10.67	10.95
20	10.12	8.08	9.05	9.82	9.34	9.80	9.10	9.86	10.35	10.45	10.74	11.02
25	10.14	8.53	9.16	9.73	9.41	9.89	9.31	9.93	10.43	10.48	10.76	11.04
DOM	10.19	8.69	9.32	8.94	9.52	9.95	9.44	10.04	10.18	10.58	10.82	11.07

WTR YR 1994 LOW 11.07 SEP 29

## GROUND-WATER DATA

## HARRISON COUNTY

382323086044501. Local number, HR 8.

LOCATION.--Lat 38°23'23", long 86°04'45", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.33, T.1 S., R.4 E., Harrison County, Hydrologic Unit 05140104, on Harrison County right-of-way, 2.0 mi southeast of Palmyra.

Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 93 ft, cased to 54 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 827 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.10 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.56 ft below land-surface datum, June 7, 1990; lowest, 20.29 ft below land-surface datum, Dec. 17, 1992.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.20	18.57	8.33	9.56	4.90	4.98	4.26	3.48	8.08	12.41	15.28	17.57
10	17.55	18.77	6.67	9.30	4.73	5.78	3.21	3.52	9.03	12.96	15.71	17.81
15	17.89	15.66	6.89	9.21	5.28	3.43	3.32	2.78	9.97	13.43	16.10	18.02
20	18.11	12.36	7.38	9.75	4.65	4.83	4.38	3.98	10.71	13.90	16.47	18.06
25	18.16	11.80	7.82	8.19	2.90	4.76	5.66	5.24	11.29	14.33	16.85	18.09
DOM	18.39	11.75	9.02	3.63	4.06	3.42	2.18	7.00	11.83	14.86	17.25	18.21

WTR YR 1994 HIGH 2.10 MAY 1

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.28	18.62	9.60	9.61	5.12	5.22	4.41	3.79	8.24	12.52	15.37	17.60
10	17.61	18.81	6.79	9.36	4.85	6.01	4.74	3.89	9.22	13.07	15.78	17.86
15	17.95	17.01	7.12	9.38	5.51	3.82	3.63	3.45	10.15	13.54	16.17	18.03
20	18.16	12.59	7.47	9.93	5.70	4.93	4.68	4.29	10.83	13.99	16.54	18.07
25	18.18	11.85	8.13	9.77	3.37	4.82	5.92	5.43	11.41	14.41	16.93	18.10
DOM	18.44	11.77	9.16	3.95	4.22	3.67	5.14	7.19	11.95	14.95	17.33	18.26

WTR YR 1994 LOW 18.87 NOV 12

## HENDRICKS COUNTY

394025086400801. Local number, HD 4.

LOCATION.--Lat 39°40'25", long 86°40'08", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.8, T.14 N., R.2 W., Hendricks County, Hydrologic Unit 05120203, at the intersection of State Highway 75 and County Road 600 South on county right-of-way, and 1.0 mi south of Coatesville.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 85 ft, cased to 70 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 860 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 1.92 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

PERIOD OF RECORD.--October 1966 to September 1971, November 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.65 ft below land-surface datum, Jan. 30, 1976; lowest, 29.02 ft below land-surface datum, Nov. 30, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.23	21.64	20.01	21.28	21.68	---	22.07	21.14	21.77	21.79	23.42	24.73
10	21.41	21.91	20.12	21.73	---	---	21.45	20.94	22.06	21.93	23.77	24.87
15	21.33	21.24	20.39	21.73	---	---	20.44	21.25	21.87	22.19	24.04	25.01
20	21.43	20.43	20.39	21.98	---	21.60	20.81	21.71	22.13	22.49	24.08	25.32
25	21.31	20.73	20.50	22.09	---	21.93	21.16	21.48	22.11	22.78	24.28	25.20
DOM	21.42	20.57	21.14	21.72	---	22.11	21.35	21.55	21.94	23.38	24.51	25.20

WTR YR 1994 HIGH 20.00 DEC 6

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.34	21.73	20.06	21.37	21.73	---	22.15	21.29	22.00	21.99	23.50	24.85
10	21.56	21.99	20.22	21.82	---	---	21.77	21.02	22.13	22.07	23.93	24.93
15	21.38	21.32	20.46	21.84	---	---	20.53	21.33	22.08	22.28	24.12	25.15
20	21.52	20.60	20.48	22.04	---	21.70	20.91	21.98	22.20	22.61	24.27	25.43
25	21.38	20.85	20.68	22.19	---	21.99	21.25	21.55	22.25	23.21	24.36	25.33
DOM	21.54	20.67	21.18	21.81	---	22.18	21.51	21.60	22.09	23.76	24.56	25.25

WTR YR 1994 LOW 25.56 SEP 16

## GROUND-WATER DATA

299

## HUNTINGTON COUNTY

404858085284301. Local number, HU 2.

LOCATION.--Lat 40°48'58", long 85°28'43", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec. 2, T.27N., R.9E., Huntington County, Hydrologic Unit 05120101, on the property of Luther Fusselman, 3.0 mi south of Huntington and 0.5 mi west of State Highway 5.

AQUIFER.--Sand and gravel of the Pleistocene Epoch.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 148 ft, cased to 143 ft, screened to 148 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 819.70 ft above sea level. Measuring point: Top of casing, 3.30 ft above land-surface datum.

PERIOD OF RECORD.--August 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.46 ft below land-surface datum, Dec. 24, 1988; lowest, 73.78 ft below land-surface datum, Sept. 3, 1994.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	70.72	70.88	71.48	71.80	72.11	72.39	72.49	72.89	72.92	73.21	73.28	73.47
10	70.72	71.65	71.36	72.18	72.61	72.50	72.78	72.95	73.10	73.37	73.49	73.57
15	70.54	71.29	71.56	72.00	72.33	72.14	72.40	72.67	73.23	73.29	73.36	73.36
20	70.49	71.38	71.62	72.63	72.29	72.31	73.02	73.11	73.15	73.31	72.99	73.49
25	70.83	71.81	71.56	72.11	72.08	72.76	72.63	72.63	72.73	73.04	73.39	73.03
EOM	71.02	72.11	71.94	72.42	72.80	72.91	72.75	73.01	73.01	73.38	73.19	73.15

WTR YR 1994 HIGH 70.12 OCT 17

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	70.97	71.16	71.68	72.05	72.29	72.54	72.67	73.02	73.15	73.34	73.53	73.63
10	70.84	71.78	71.80	72.49	72.80	72.86	73.18	73.13	73.23	73.52	73.62	73.69
15	70.74	71.88	71.83	72.55	72.75	72.51	72.67	72.91	73.38	73.46	73.43	73.48
20	70.71	71.65	71.89	72.77	72.57	72.60	73.18	73.24	73.30	73.38	73.16	73.62
25	71.20	71.96	71.82	72.32	72.53	72.89	72.73	72.79	72.98	73.16	73.50	73.30
EOM	71.24	72.32	72.08	72.47	72.95	73.10	73.24	73.17	73.20	73.47	73.52	73.40

WTR YR 1994 LOW 73.78 SEP 3

## GROUND-WATER DATA

## JASPER COUNTY

410249087011201. Local number, JP 4.

LOCATION.--Lat 41°02'49", long 87°01'12", in SW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.17, T.30 N., R.5 W., Jasper County, Hydrologic Unit 07120002, on property of William Gehring, Inc., 0.9 mi east of Newland.  
 Owner: William Gehring, Inc.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 16 in., depth 300 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 676.93 ft above sea level. Measuring point: Top of floor of shelter, 0.00 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--July 1956 to current year.

REVISED RECORDS.--WDR IN-94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.95 ft below land-surface datum, Apr. 9, 1962; lowest, 40.17 ft below land-surface datum, July 25, 1980.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.22	3.45	2.81	2.30	1.92	2.24	1.90	2.01	2.53	2.07	3.92	3.83
10	3.89	3.27	2.38	2.08	2.03	2.11	1.84	2.15	2.46	2.24	7.71	3.56
15	3.82	3.15	2.39	1.96	2.20	---	1.66	2.12	2.37	2.28	5.88	3.36
20	3.71	2.71	2.65	1.96	---	2.27	1.73	2.38	2.28	2.34	4.81	2.91
25	3.67	2.59	2.46	2.06	---	2.20	1.89	2.52	2.43	2.41	4.40	2.60
EOM	3.77	2.62	2.48	1.71	---	1.81	2.00	2.40	2.32	3.37	4.03	2.67

WTR YR 1993 HIGH 1.66 APR 15

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.33	3.59	2.94	2.45	2.19	2.45	2.10	2.22	2.79	2.22	4.13	3.89
10	4.04	3.50	2.71	2.25	2.11	2.35	1.99	2.22	2.56	2.34	7.99	3.71
15	3.99	3.23	2.69	2.01	2.25	---	1.86	2.32	2.51	2.43	6.30	3.52
20	3.88	2.96	2.87	2.28	---	2.40	2.09	2.52	2.44	2.48	4.95	3.07
25	3.88	2.87	2.79	2.17	---	2.33	2.11	2.73	2.51	2.49	4.53	2.87
EOM	3.84	2.71	2.76	1.85	---	1.99	2.09	2.67	2.43	3.56	4.17	2.95

WTR YR 1993 LOW 7.99 AUG 10

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.80	1.78	1.76	2.15	---	2.60	2.67	2.34	3.21	4.06	4.33	4.54
10	2.69	2.18	1.58	---	---	2.53	2.79	2.38	5.16	3.78	4.52	4.68
15	2.49	2.23	1.74	---	2.84	2.40	2.41	2.32	5.25	3.77	4.48	4.57
20	1.64	2.16	1.75	---	2.61	2.53	2.60	2.60	5.65	3.63	4.23	4.65
25	1.70	2.24	---	2.50	---	2.82	2.31	2.52	4.68	3.50	4.53	4.78
EOM	1.82	2.30	---	---	2.68	2.81	2.39	2.88	4.46	4.01	4.50	4.92

WTR YR 1994 HIGH 1.54 OCT 28

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.88	2.00	1.91	2.27	---	2.68	2.89	2.44	4.23	4.24	4.50	4.70
10	2.81	2.32	1.99	---	---	2.76	3.02	2.57	5.40	3.94	4.65	4.79
15	2.71	2.48	1.94	---	3.07	2.63	2.57	2.50	5.56	3.85	4.62	4.78
20	1.91	2.26	1.87	---	2.88	2.67	2.68	2.73	5.88	3.79	4.37	4.77
25	1.82	2.38	---	2.74	---	2.97	2.48	2.68	4.78	3.61	4.63	4.91
EOM	2.02	2.41	---	---	2.86	2.95	2.60	2.94	4.51	4.12	4.68	5.03

WTR YR 1994 LOW 6.65 JUN 12

## GROUND-WATER DATA

301

## JASPER COUNTY

410809087580801. Local number, JP 7.

LOCATION.--Lat 41°08'09", long 86°58'08", in SE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub> sec.15, T.31 N., R.5 W., Jasper County, Hydrologic Unit 07120002, in northwest corner of intersection of County Roads 850 North and 400 East, 4.0 mi south of Tefft.  
 Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Middle Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 130 ft, cased to 94 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 699.38 ft above sea level. Measuring point: Top of floor of shelter, 2.75 ft above land-surface datum.

REMARKS.--Water level affected by pumpage.

PERIOD OF RECORD.--May 1967 to current year. (Semi-annual tape-down readings only September 1971 to May 1978.)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.04 ft below land-surface datum, Apr. 5, 1985; lowest, 18.15 ft below land-surface datum, Aug. 30, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.78	7.01	6.90	7.21	7.14	7.17	7.09	7.12	10.54	8.02	7.79	9.72
10	7.68	7.37	6.79	7.37	7.41	7.17	7.28	7.15	9.96	7.99	8.54	9.41
15	7.50	7.25	7.01	7.37	7.26	6.94	6.92	7.00	9.25	7.81	8.89	9.00
20	7.16	7.12	6.98	7.63	7.12	7.02	7.35	7.40	8.65	7.72	9.96	8.92
25	7.21	7.25	6.94	7.23	7.00	7.37	7.01	8.86	8.21	7.55	10.04	8.59
EOM	7.19	7.42	7.21	7.37	7.36	7.34	7.14	10.33	8.10	7.75	10.22	8.60

WTR YR 1994 HIGH 6.77 MAR 18

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.89	7.23	7.06	7.36	7.32	7.27	7.34	7.24	10.86	8.20	8.02	9.98
10	7.83	7.53	7.29	7.73	7.60	7.45	7.56	7.37	10.17	8.17	8.96	9.60
15	7.75	7.57	7.23	7.65	7.54	7.19	7.10	7.20	9.36	7.92	8.99	9.19
20	7.46	7.24	7.13	7.78	7.45	7.21	7.45	7.89	8.90	7.92	10.16	9.10
25	7.35	7.42	7.29	7.52	7.38	7.53	7.21	9.21	8.36	7.68	10.38	8.80
EOM	7.43	7.53	7.34	7.47	7.53	7.51	7.39	10.50	8.22	7.86	10.35	8.82

WTR YR 1994 LOW 11.11 JUN 3

## JASPER COUNTY

410535087035801. Local number, JP 8.

LOCATION.--Lat 41°05'35", long 87°03'58", in NE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub> sec.35, T.31 N., R.6 W., Jasper County, Hydrologic Unit 07120002, 1.7 mi north of Gifford.  
 Owner: William Gehring, Inc.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 12 in., depth 310 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 686 ft above sea level, from topographic map. Measuring point: Lower lip of 2 in. tapedown pipe, 2.10 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--May 1978 to current year. Record prior to October 1, 1978 available in District files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.51 ft below land-surface datum, Oct. 20, 1993; lowest, 25.11 ft below land-surface datum, July 26, 1980.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.89	9.12	9.14	---	---	10.38	10.42	9.98	10.94	10.95	11.34	12.46
10	9.80	9.47	9.19	---	10.43	10.24	10.50	10.00	11.10	10.96	11.84	12.52
15	9.83	9.47	9.42	---	10.47	10.16	10.04	10.07	10.77	10.85	12.05	---
20	8.51	9.36	9.51	---	10.41	10.23	10.10	10.29	10.86	10.94	12.05	12.55
25	8.74	9.51	9.57	---	10.32	10.37	10.12	10.39	10.80	10.95	12.18	12.39
EOM	9.01	9.38	---	---	10.48	10.43	9.98	10.65	10.85	11.18	12.39	12.37

WTR YR 1994 HIGH 8.51 OCT 20

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.93	9.23	9.19	---	---	10.43	10.50	9.99	10.98	11.00	11.49	12.51
10	9.87	9.52	9.36	---	10.47	10.32	10.60	10.05	11.13	11.01	11.90	12.55
15	9.89	9.59	9.51	---	10.62	10.24	10.12	10.13	10.80	10.90	12.08	---
20	8.65	9.43	9.56	---	10.48	10.28	10.12	10.37	10.90	11.01	12.09	12.63
25	8.79	9.54	9.68	---	10.44	10.45	10.15	10.46	10.88	10.99	12.21	12.47
EOM	9.11	9.43	---	---	10.51	10.46	10.09	10.68	10.90	11.21	12.47	12.41

WTR YR 1994 LOW 12.63 SEP 20

## GROUND-WATER DATA

## JASPER COUNTY

410713087063201. Local number, JP 9.

LOCATION.--Lat 41°07'13", long 87°06'32", in SE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.21, T.31 N., R.6 W., Jasper County, Hydrologic Unit 07120002, 4.4 mi northwest of Gifford.

Owner: William Gehring, Inc.

AQUIFER.--Silurian limestone.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 18 in., depth 260 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 685 ft above sea level, from topographic map. Measuring point: Lower lip of 2 in. tapedown pipe, 2.10 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--July 1978 to current year. Record prior to October 1, 1978 available in District files.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.03 ft below land-surface datum, Mar. 27, 1991; lowest, 32.05 ft below land-surface datum, Aug. 5, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.06	4.33	4.22	4.80	5.18	5.09	5.21	5.04	10.55	5.94	14.06	11.28
10	5.06	4.69	4.23	5.10	5.35	5.05	5.31	5.01	8.41	5.85	15.56	9.38
15	5.10	4.48	4.35	5.04	5.40	4.89	4.92	5.07	7.09	5.80	11.62	8.61
20	4.47	4.41	4.44	5.31	5.29	4.99	5.09	5.36	6.46	9.81	9.26	8.35
25	4.40	4.58	4.49	5.24	5.10	5.14	5.03	5.61	6.06	7.05	8.48	7.98
EOM	4.38	4.48	4.80	5.22	5.31	5.30	5.03	6.20	5.94	6.89	13.35	7.92

WTR YR 1994 HIGH 4.19 DEC 6

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.17	4.38	4.25	4.85	5.22	5.11	5.24	5.06	11.79	6.01	16.08	12.23
10	5.11	4.70	4.33	5.13	5.41	5.08	5.40	5.08	8.74	5.90	17.85	9.59
15	5.14	4.65	4.42	5.19	5.47	4.94	5.02	5.12	7.25	5.85	12.42	8.75
20	4.62	4.47	4.48	5.41	5.35	5.02	5.14	5.37	6.59	10.86	9.61	8.41
25	4.44	4.61	4.56	5.29	5.18	5.22	5.06	5.63	6.10	7.27	8.63	8.08
EOM	4.43	4.58	4.80	5.24	5.36	5.33	5.13	7.85	6.00	6.93	14.22	7.97

WTR YR 1994 LOW 18.39 AUG 11

## JASPER COUNTY

410322087163101. Local number, JP 11.

LOCATION.--Lat 41°03'22", long 87°16'31", in NW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.18, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, on Prudential Life Insurance Company of America property, 3.2 mi north of State Highway 14, and 1.5 mi southwest of Fair Oaks.

Owner: Prudential Insurance Company of America.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 16 in., depth 630 ft, cased to 63 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 680 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--March 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.04 ft above land-surface datum, Apr. 3, 1982; lowest, 52.19 ft below land-surface datum, July 9, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.58	2.55	1.76	---	---	2.10	---	1.88	12.10	9.97	39.12	23.02
10	4.22	2.75	---	---	---	2.08	---	1.87	12.99	8.55	45.15	25.43
15	3.88	2.50	---	---	---	2.00	1.91	1.89	9.10	9.82	27.30	21.99
20	3.14	2.26	---	---	---	2.06	2.03	2.18	6.72	21.57	35.06	16.45
25	2.86	2.34	---	---	---	---	1.95	2.07	9.36	13.09	32.04	13.36
EOM	2.76	2.21	---	---	---	---	1.90	3.69	6.75	36.52	31.44	11.86

WTR YR 1994 HIGH 1.74 DEC 6

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.63	2.62	1.81	---	---	2.10	---	1.91	12.48	11.81	41.80	25.77
10	4.29	2.81	---	---	---	2.10	---	1.98	14.88	9.02	47.21	29.00
15	3.96	2.63	---	---	---	2.06	1.97	1.97	9.88	11.48	30.86	25.37
20	3.33	2.31	---	---	---	2.10	2.09	2.23	7.05	23.87	40.20	17.51
25	2.92	2.36	---	---	---	---	2.01	2.13	10.48	14.17	34.42	13.90
EOM	2.80	2.24	---	---	---	---	2.04	3.81	7.00	38.83	34.91	12.21

WTR YR 1994 LOW 47.57 AUG 11

## GROUND-WATER DATA

303

## JASPER COUNTY

410145087130401. Local number, JP 12.

LOCATION.--Lat 41°01'45", long 87°13'04", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.22, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, in Old Union Township school yard, 200 ft east of County Road 900 West, 750 ft north of State Highway 14, and in Parr.

Owner: Prudential Insurance Company of America.

AQUIFER.--Limestone/dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 150 ft, cased to 103 ft, open end.

INSTRUMENTATION.--Water-level recorder, data-collection platform, and incremental encoder.

DATUM.--Elevation of land-surface datum is 695 ft above sea level, from topographic map. Measuring point: Top of well casing, 2.6 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.08 ft below land-surface datum, May 22, 1983; lowest, 53.41 ft below land-surface datum, Aug. 18, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.96	17.20	16.18	16.04	16.02	16.06	15.94	15.72	17.39	20.67	---	---
10	19.42	17.19	16.00	16.12	16.18	16.07	16.06	15.71	20.06	21.17	---	---
15	19.00	17.00	16.01	16.15	16.08	15.88	15.76	15.64	20.98	21.91	---	---
20	18.25	16.77	15.91	16.30	16.01	15.90	16.00	15.83	20.42	25.66	---	34.74
25	17.93	16.70	---	16.04	15.98	16.06	15.79	15.78	20.92	---	---	31.08
ROM	17.53	16.67	16.01	16.19	16.21	16.08	15.77	16.30	20.59	---	---	28.91

WTR YR 1994 HIGH 15.61 MAY 9

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.26	17.62	16.59	16.23	16.29	16.21	16.46	16.21	18.09	21.48	---	---
10	19.87	17.48	16.43	16.41	16.53	16.57	16.75	15.94	20.38	21.69	---	---
15	19.21	17.37	16.40	16.46	16.51	16.35	15.92	16.03	21.50	22.19	---	---
20	18.53	16.99	16.34	16.45	16.42	16.27	16.17	16.37	20.92	26.10	---	35.85
25	18.41	16.94	---	16.40	16.60	16.41	15.99	16.18	21.52	---	---	31.81
ROM	17.99	16.99	16.42	16.30	16.49	16.32	15.99	16.95	20.73	---	---	29.34

WTR YR 1994 LOW 41.64 SEP 16

## JASPER COUNTY

405902087141501. Local number, JP 13.

LOCATION.--Lat 40°59'02", long 87°14'15", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.9, T.29 N., R.7 W., Jasper County, Hydrologic Unit 07120002, at southwest corner of North Newton school, and 4.6 mi northwest of Rensselaer.

Owner: Prudential Insurance Company of America.

AQUIFER.--Dolomite of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 150 ft, cased to 106 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 700 ft above sea level, from topographic map. Measuring point: Top of well casing, 3.4 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--March 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.98 ft below land-surface datum, Apr. 3, 1982; lowest, 55.85 ft below land-surface datum, Aug. 19, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.11	25.90	24.52	24.09	23.91	23.97	23.86	23.64	24.58	28.60	38.94	---
10	28.44	25.87	24.33	24.18	24.04	24.01	23.97	23.61	26.73	29.12	42.97	---
15	27.84	25.55	24.32	24.15	23.93	23.79	23.70	23.52	28.00	29.09	---	---
20	27.15	25.26	24.20	24.28	23.86	23.84	23.93	23.72	28.10	29.94	---	42.31
25	26.79	25.15	24.08	24.01	23.85	24.06	23.67	23.61	28.50	31.40	---	40.06
ROM	26.33	25.10	24.16	24.11	24.10	24.00	23.67	23.89	28.62	33.79	---	38.45

WTR YR 1994 HIGH 23.52 MAY 14

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.19	26.00	24.68	24.21	24.03	24.07	24.04	23.69	24.81	28.77	39.93	---
10	28.56	25.99	24.66	24.44	24.18	24.19	24.17	23.74	27.07	29.21	43.73	---
15	28.06	25.73	24.44	24.34	24.13	23.98	23.80	23.58	28.16	29.23	---	---
20	27.44	25.33	24.30	24.38	24.13	23.98	24.00	23.79	28.17	30.40	---	42.73
25	26.93	25.28	24.31	24.19	24.12	24.17	23.79	23.69	28.69	31.41	---	40.58
ROM	26.45	25.20	24.26	24.18	24.22	24.12	23.83	23.93	28.62	35.08	---	38.85

WTR YR 1994 LOW 44.43 AUG 11

## GROUND-WATER DATA

## JASPER COUNTY

410839087130301. Local number, JP 14.

LOCATION.--Lat 41°08'39", long 87°13'03", in NW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.15, T.31 N., R.7 W., Jasper County, Hydrologic Unit 07120001, at the southeast corner of the intersection of State Highway 10 and County Road 900 West, about 3.5 mi southwest of Demotte.  
Owner: U.S. Geological Survey

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 97.4 ft, cased to 56 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 690 ft above sea level, from topographic map. Measuring point: Top of casing, 3.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.06 ft below land-surface datum, Oct. 17, 1993; lowest, 8.80 ft below land-surface datum, July 13, 1989.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.86	5.01	5.30	6.19	6.05	5.41	6.42	6.07	6.11	5.87	6.17	6.50
10	4.62	5.38	5.61	6.27	6.31	5.51	6.40	6.12	6.35	5.35	6.40	6.63
15	4.92	5.10	5.85	6.37	6.26	5.68	5.52	5.87	4.44	5.09	6.40	6.70
20	3.17	5.40	5.87	6.35	5.79	5.95	6.14	5.93	5.54	5.58	6.16	6.96
25	3.98	5.61	5.95	6.20	5.72	6.21	5.86	5.90	5.66	5.77	6.31	6.98
BOM	4.96	5.59	6.12	6.01	5.81	6.25	5.87	6.14	5.79	6.01	6.42	7.06

WTR YR 1994 HIGH 3.06 OCT 17

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.93	5.22	5.38	6.28	6.15	5.69	6.50	6.15	6.19	5.93	6.24	6.56
10	4.67	5.41	5.84	6.37	6.39	5.71	6.50	6.23	6.38	5.43	6.43	6.65
15	4.98	5.24	5.92	6.44	6.40	5.90	5.88	6.00	5.00	5.25	6.43	6.76
20	3.52	5.49	5.92	6.40	5.89	6.04	6.18	5.97	5.60	5.66	6.47	6.99
25	4.07	5.76	6.09	6.29	5.90	6.26	5.90	5.92	5.69	5.80	6.34	7.04
BOM	5.07	5.62	6.19	6.02	5.84	6.31	5.97	6.16	5.83	6.05	6.55	7.14

WTR YR 1994 LOW 7.16 SEP 29

## JEFFERSON COUNTY

384949085251901. Local number, JP 5.

LOCATION.--Lat 38°49'49", long 85°25'19", in SE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.33, T.5 N., R.10 E., Jefferson County, Hydrologic Unit 05120207, on Jefferson Proving Ground, 500 ft north of Airfield Road, 1,000 ft southwest of the water tower, and 2.2 mi west of main gate.  
Owner: U.S. Army

AQUIFER.--Limestone, dolomite, and shale of Silurian and Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth 200 ft, cased to 33 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 855 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

REMARKS.--This well was drilled on a mapped fracture trace.

PERIOD OF RECORD.--March 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.97 ft below land-surface datum, Jan. 21, 1991; lowest, 9.22 below land-surface datum, Sept. 7, 16, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.49	---	---	---	---	4.13	4.35	4.56	5.62	7.19	7.36	7.56
10	5.41	---	---	3.51	---	4.19	4.34	4.56	5.98	7.32	7.59	7.72
15	5.14	---	---	---	---	4.09	4.30	4.52	6.38	7.36	7.57	7.72
20	4.97	---	---	---	---	4.26	4.56	4.73	6.63	7.23	7.41	7.86
25	4.85	---	---	---	3.89	4.45	4.52	4.73	6.75	7.18	7.61	7.83
BOM	---	---	---	---	4.09	4.50	4.58	5.32	6.97	7.39	7.53	7.94

WTR YR 1994 HIGH 3.23 JAN 6

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.59	---	---	---	---	4.25	4.43	4.65	5.74	7.32	7.57	7.70
10	5.54	---	---	3.76	---	4.40	4.57	4.72	6.14	7.44	7.68	7.78
15	5.35	---	---	---	---	4.20	4.40	4.63	6.48	7.42	7.69	7.83
20	5.14	---	---	---	---	4.32	4.64	4.85	6.79	7.39	7.52	7.97
25	4.95	---	---	---	4.18	4.56	4.70	4.91	7.01	7.26	7.71	7.91
BOM	---	---	---	---	4.21	4.57	4.80	5.39	7.09	7.46	7.65	8.09

WTR YR 1994 LOW 8.09 SEP 30

## GROUND-WATER DATA

305

## JENNINGS COUNTY

385601085365701. Local number, JN 3.

LOCATION.--Lat 38°56'01", long 85°36'57", in SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec.27, T.6 N., R.8 E., Jennings County, Hydrologic Unit 05120207, 200 ft west of State Highway 3, 1.6 mi south of Crosley Fish and Game Office and 3.0 mi south of Vernon.

Owner: U.S. Geological Survey.

AQUIFER.--Limestones and dolomites of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 180 ft, cased to 45 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 718 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.50 ft above land-surface datum.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.64 ft below land-surface datum, Jan. 21, 1979; lowest, 40.87 ft below land-surface datum, July 6, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	39.09	38.64	38.18	38.59	38.48	38.54	38.53	38.39	39.16	39.36	39.85	39.68
10	39.20	39.02	38.21	38.79	38.63	38.64	38.46	38.32	39.37	39.55	40.03	39.79
15	39.23	38.55	38.26	38.56	38.63	38.36	38.23	38.38	39.55	39.54	39.71	39.86
20	38.84	38.30	38.30	38.86	38.58	38.62	38.58	38.49	39.59	39.66	39.48	39.99
25	38.67	38.55	38.30	38.53	38.34	38.80	38.65	38.56	39.06	39.68	39.81	39.85
DOM	38.73	38.70	38.66	38.47	38.61	38.83	38.34	39.04	39.09	39.95	39.65	39.86

WTR YR 1994 HIGH 38.08 JAN 28

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	39.28	38.77	38.32	38.68	38.54	38.67	38.60	38.44	39.23	39.41	39.99	39.77
10	39.31	39.07	38.37	38.91	38.71	38.82	38.54	38.45	39.40	39.61	40.06	39.85
15	39.30	38.66	38.38	38.83	38.73	38.49	38.34	38.43	39.64	39.64	39.83	39.90
20	39.09	38.47	38.46	38.94	38.62	38.72	38.69	38.55	39.65	39.72	39.54	40.04
25	38.72	38.61	38.54	38.70	38.50	38.89	38.69	38.63	39.19	39.72	39.85	39.92
DOM	38.85	38.80	38.71	38.52	38.71	38.91	38.66	39.09	39.21	39.99	39.74	39.93

WTR YR 1994 LOW 40.06 AUG 10

## KNOX COUNTY

383247087361001. Local number, KN 7.

LOCATION.--Lat 38°32'47", long 87°36'10", in SE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.2, T.1 N., R.11 W., Knox County, Hydrologic Unit 05120113, in the right-of-way of Sixth Street Road, 9.8 mi south of Vincennes.

Owner: Michael J. Kelley.

AQUIFER.--Sand and gravel Quaternary age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 43 ft, cased to 16 ft, slotted to 19 ft, open end.

INSTRUMENTATION.--Water-level recorder. Prior to April 1968, hand-taped monthly.

DATUM.--Elevation of land-surface datum is 405 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.42 ft above land-surface datum.

PERIOD OF RECORD.--November 1956 to December 1972, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.57 ft below land-surface datum, May 3, 1983; lowest, 11.35 ft below land-surface datum, Feb. 1-13, 1977.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.44	9.55	---	9.09	6.27	8.83	9.39	7.24	9.16	9.89	10.28	10.59
10	9.50	9.72	4.00	9.29	7.44	9.10	7.86	7.57	9.35	9.95	10.38	10.66
15	9.31	3.82	5.92	9.39	8.53	8.92	7.18	7.24	9.49	10.00	10.44	10.69
20	9.28	3.30	7.46	9.52	8.85	9.29	7.77	8.06	9.62	9.95	10.53	10.72
25	9.30	3.50	8.15	9.13	7.65	9.44	8.02	8.58	9.72	10.08	10.59	10.73
DOM	9.33	3.65	8.79	6.09	8.11	9.33	6.18	8.99	9.82	10.20	10.64	10.75

WTR YR 1994 HIGH 2.90 NOV 17

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.47	9.61	---	9.11	6.34	8.92	9.43	7.39	9.19	9.90	10.30	10.66
10	9.51	9.73	4.36	9.31	7.73	9.12	9.17	7.66	9.38	9.96	10.39	10.67
15	9.34	5.07	6.37	9.45	8.67	9.08	7.25	7.44	9.53	10.01	10.46	10.70
20	9.41	3.38	7.64	9.56	8.94	9.35	7.85	8.21	9.65	9.97	10.53	10.72
25	9.31	3.63	8.32	9.58	7.82	9.46	8.06	8.64	9.74	10.09	10.60	10.74
DOM	9.40	3.70	8.85	6.16	8.31	9.34	7.20	9.03	9.83	10.22	10.64	10.76

WTR YR 1994 LOW 10.76 SEP 29

## GROUND-WATER DATA

## KNOX COUNTY

384951087202501. Local number, KN 8.

LOCATION.--Lat 38°49'51", long 87°20'25", in M.D. 240, T.5 N., R.8 W., Knox County, Hydrologic Unit 05120111, on the northwest side of road at the southwest boundary of Chambers Cemetery about 2.5 mi southwest of Freelandville.

Owner: U.S. Geological Survey

AQUIFER.--Interbedded sandstone, shale, and coal of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 137 ft, cased to 41 ft, open hole.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 460 ft above sea level, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 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 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.29	12.48	11.88	12.13	12.04	12.20	12.44	12.28	12.52	12.96	13.71	14.32
10	13.26	12.62	11.92	12.22	12.18	12.29	12.41	12.18	12.60	13.07	13.91	14.42
15	13.24	12.10	11.98	12.19	12.21	12.27	12.14	12.18	12.65	13.16	14.01	14.52
20	---	11.95	12.06	12.28	12.22	12.35	12.35	12.36	12.75	13.29	14.07	14.65
25	12.87	12.15	12.03	12.11	12.11	12.48	12.33	12.33	12.74	13.41	14.26	14.58
BOM	12.60	12.17	12.15	11.98	12.23	12.54	12.24	12.50	12.89	13.63	14.26	14.70

WTR YR 1994 HIGH 11.86 JAN 28

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.37	12.54	11.91	12.17	12.08	12.26	12.47	12.31	12.56	13.00	13.79	14.43
10	13.31	12.65	12.03	12.30	12.20	12.36	12.48	12.26	12.64	13.12	13.94	14.46
15	13.29	12.12	12.06	12.31	12.28	12.32	12.20	12.23	12.71	13.22	14.07	14.56
20	---	12.04	12.13	12.34	12.26	12.39	12.39	12.39	12.80	13.34	14.13	14.67
25	12.94	12.16	12.16	12.22	12.18	12.53	12.38	12.38	12.83	13.43	14.29	14.62
BOM	12.63	12.22	12.19	12.03	12.28	12.57	12.37	12.52	12.95	13.66	14.32	14.73

WTR YR 1994 LOW 14.73 SEP 30

## KOSCIUSKO COUNTY

412556085513401. Local number, KO 9.

LOCATION.--Lat 41°25'56", long 85°51'34", in SW<sup>1</sup>/<sub>4</sub>E<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.5, T.34 N., R.6 E., Kosciusko County, Hydrologic Unit 04050001, on the north edge of property owned by the Dome Pipeline Corporation, on County Road 50 West, 1.5 mi northwest of Milford.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 4 in., depth 102 ft, cased to 99 ft, screened to 102 ft.

INSTRUMENTATION.--Water-stage recorder.

DATUM.--Elevation of land-surface datum is 830.90 ft above sea level. Measuring point: Top of floor of shelter, 3.2 ft above land-surface datum.

PERIOD OF RECORD.--October 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.24 ft below land-surface datum, Apr. 8, 9, 1985; lowest, 14.33 ft below land-surface datum, Aug. 10, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.25	10.86	11.16	11.32	11.43	11.56	11.58	10.88	11.59	12.14	12.97	---
10	12.23	11.04	11.05	11.44	11.60	11.42	11.64	10.94	11.83	12.25	---	---
15	12.15	11.12	10.98	---	11.71	11.35	11.31	11.02	12.03	12.36	---	---
20	11.52	11.17	10.98	---	11.45	11.37	11.00	11.15	12.23	12.47	---	---
25	11.08	11.28	---	11.73	11.38	11.44	10.85	11.30	12.26	12.55	---	---
BOM	10.88	11.29	11.23	---	11.50	11.55	10.85	11.41	12.16	12.68	---	---

WTR YR 1994 HIGH 10.84 APR 26

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.26	10.90	11.19	11.32	11.47	11.56	11.60	10.89	11.62	12.19	13.02	---
10	12.25	11.05	11.07	11.47	11.62	11.43	11.66	10.97	11.88	12.26	---	---
15	12.16	11.17	10.99	---	11.74	11.36	11.40	11.06	12.04	12.36	---	---
20	11.67	11.21	10.98	---	11.49	11.39	11.04	11.21	12.24	12.52	---	---
25	11.14	11.29	---	11.75	11.39	11.47	10.87	11.31	12.27	12.59	---	---
BOM	10.90	11.30	11.26	---	11.51	11.55	10.89	11.44	12.17	12.71	---	---

WTR YR 1994 LOW 13.12 AUG 8

## GROUND-WATER DATA

307

## LAGRANGE COUNTY

414318085200601. Local number, LG 2.

LOCATION.--Lat 41°43'18", long 85°20'06", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec.26, T.38 N., R.10 E., Lagrange County, Hydrologic Unit 04050001, on northeast corner of intersection of State Highway 120 and County Road 475 East, and 1.2 mi west of Brighton.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 5 in., depth 86 ft, cased to 80 ft, screened to 86 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 911.02 ft above sea level. Measuring point: Top of floor of shelter, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--May 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.00 ft below land-surface datum, July 1, 2, 1993; lowest, 16.93 ft below land-surface datum, Aug. 14, 15, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.68	12.45	12.85	13.15	13.04	12.95	13.25	13.41	13.82	14.45	15.45	15.51
10	12.74	12.57	12.88	13.20	13.17	12.91	13.33	13.44	13.95	14.54	15.58	15.55
15	12.79	12.60	12.96	13.25	13.21	12.97	13.35	13.44	14.02	14.66	15.50	15.56
20	12.59	12.67	13.00	13.33	12.81	13.08	13.41	13.52	14.21	14.95	---	15.59
25	12.49	12.77	13.03	13.37	12.83	13.16	13.38	13.62	14.28	15.01	---	15.61
ROM	12.46	12.83	13.09	12.96	12.95	13.22	13.38	13.75	14.25	15.28	15.46	15.64

WTR YR 1994 HIGH 12.44 OCT 28

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.70	12.49	12.87	13.16	13.07	13.01	13.28	13.43	13.84	14.46	15.47	15.53
10	12.75	12.59	12.93	13.22	13.19	12.97	13.36	13.45	14.00	14.57	15.61	15.55
15	12.80	12.67	12.98	13.28	13.27	13.03	13.38	13.47	14.04	14.73	15.51	15.57
20	12.67	12.71	13.01	13.34	12.87	13.09	13.42	13.55	14.26	14.99	---	15.60
25	12.51	12.78	13.06	13.39	12.88	13.17	13.40	13.68	14.30	15.09	---	15.62
ROM	12.47	12.85	13.12	12.98	12.96	13.23	13.43	13.76	14.26	15.31	15.47	15.65

WTR YR 1994 LOW 15.65 SEP 30

## LAGRANGE COUNTY

414158085253401. Local number, LG 3.

LOCATION.--Lat 41°41'58", long 85°25'34", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, sec.36, T.38 N., R.9 E., Lagrange County, Hydrologic Unit 04050001, at northwest corner of intersection of State Highway 9 and County Road 400 North, at edge of woods, and 1.4 mi south of Howe.  
Owner: U.S. Geological Survey.

AQUIFER.--Fine to medium sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 40 ft, cased to 35 ft, screened to 40 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.7 ft above land-surface datum.

PERIOD OF RECORD.--June 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.48 ft below land-surface datum, Mar. 21, 1982; lowest, 8.82 ft below land-surface datum, Sept. 2, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.48	6.87	7.10	7.31	7.18	7.08	7.19	6.91	7.44	7.85	8.32	8.48
10	7.47	7.00	7.07	7.38	7.31	6.92	7.22	6.98	7.56	7.92	8.39	8.52
15	7.51	7.06	7.06	7.43	7.42	6.89	6.89	7.05	7.67	8.00	8.40	8.56
20	6.96	7.07	7.11	7.50	7.09	6.98	6.79	7.14	7.76	8.08	8.31	8.59
25	6.80	7.14	7.16	7.57	6.99	7.06	6.82	7.23	7.77	8.14	8.34	8.63
ROM	6.80	7.14	7.25	7.12	7.04	7.14	6.89	7.34	7.78	8.23	8.43	8.65

WTR YR 1994 HIGH 6.77 OCT 28

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.49	6.90	7.12	7.32	7.20	7.10	7.20	6.92	7.46	7.86	8.33	8.49
10	7.48	7.01	7.09	7.39	7.34	6.94	7.24	7.00	7.59	7.94	8.41	8.53
15	7.52	7.08	7.08	7.45	7.44	6.91	6.94	7.07	7.69	8.01	8.41	8.56
20	7.04	7.10	7.12	7.52	7.16	7.00	6.80	7.16	7.78	8.09	8.43	8.60
25	6.81	7.14	7.17	7.58	7.00	7.08	6.84	7.25	7.84	8.15	8.35	8.63
ROM	6.82	7.15	7.26	7.12	7.06	7.14	6.93	7.36	7.80	8.25	8.44	8.66

WTR YR 1994 LOW 8.66 SEP 30

## GROUND-WATER DATA

## LAKE COUNTY

411038087284701. Local number, LK 12.

LOCATION.--Lat 41°10'38", long 87°28'47", in SW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.32, T.32 N., R.9 W., Lake County, Hydrologic Unit 07120001, on the northern edge of Kankakee River State Park, 2.0 mi southwest of Schneider.  
 Owner: U.S. Geological Survey.

AQUIFER.--Dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 82 ft, cased to 52 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 630.59 ft above sea level. Measuring point: Top of floor of shelter, 2.55 ft above land-surface datum.

REMARKS.--Water level may be affected by pumping.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.15 ft below land-surface datum, Jan. 12, 1973; lowest, 17.92 ft below land-surface datum, Aug. 27, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.83	2.14	1.92	2.41	2.36	2.46	2.57	2.64	3.55	3.93	8.30	8.68
10	2.83	2.40	1.99	2.53	2.49	2.25	2.65	2.68	3.80	4.41	10.08	8.28
15	2.80	2.29	2.15	2.57	2.53	2.31	2.36	2.75	3.69	6.19	10.75	7.89
20	1.92	2.09	2.20	2.70	2.40	2.45	2.40	2.96	3.70	6.45	10.68	7.73
25	1.85	2.20	---	2.72	2.30	2.59	2.49	3.13	3.91	6.02	9.87	7.36
EOM	2.00	2.05	---	2.38	2.46	2.59	2.59	3.32	3.90	6.46	9.24	7.17

WTR YR 1994 HIGH 1.84 OCT 24

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.98	2.23	2.06	2.56	2.43	2.55	2.79	2.83	3.60	4.00	8.70	8.84
10	2.95	2.56	2.14	2.70	2.64	2.40	2.74	2.76	4.00	4.93	10.33	8.45
15	2.98	2.39	2.27	2.74	2.71	2.42	2.49	2.92	3.82	6.46	10.89	8.01
20	2.13	2.27	2.38	2.77	2.55	2.66	2.45	3.01	3.95	6.80	10.90	7.88
25	2.10	2.29	---	2.86	2.42	2.69	2.69	3.32	4.03	6.14	10.09	7.52
EOM	2.19	2.24	---	2.56	2.63	2.64	2.67	3.52	4.11	6.82	9.42	7.35

WTR YR 1994 LOW 11.08 AUG 19

## LAKE COUNTY

413559087270301. Local number, LK 13.

LOCATION.--Lat 41°35'59", long 87°27'03", in SW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.34, T.36 N., R.9 W., Lake County, Hydrologic Unit 04040001, at the Gibson Woods Nature Preserve on the north side of Hammond.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6.0 in., depth 23 ft, cased to 18 ft, screened to 23 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 591.91 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.00 ft below land-surface datum, June 30, July 2, 1993; lowest, 5.15 ft below land-surface datum, Sept. 10, 1986.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	1.87	.85	.83	1.69	1.66	.53	1.25	1.10	2.95	3.24	3.55	4.03
10	1.81	1.05	.93	1.91	2.02	.71	1.44	1.27	3.09	3.50	3.99	4.14
15	2.23	.87	1.12	2.04	1.17	.75	.74	1.32	2.39	3.69	3.19	4.36
20	.73	1.02	1.05	2.39	.56	.93	1.21	1.91	3.21	3.41	3.18	4.48
25	1.21	.74	1.30	1.71	.85	1.13	1.38	2.11	2.00	3.88	3.74	4.37
EOM	.86	.89	1.67	1.34	.97	1.15	.51	2.74	2.83	4.05	3.89	4.53

WTR YR 1994 HIGH .34 OCT 17

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.00	.91	.86	1.79	1.75	.73	1.34	1.19	3.18	3.45	3.74	4.08
10	1.95	1.08	1.07	1.98	2.06	.77	1.55	1.37	3.26	3.65	4.09	4.31
15	2.28	.99	1.18	2.20	1.99	.84	.97	1.65	2.85	3.85	3.35	4.53
20	1.10	1.05	1.12	2.42	.83	.95	1.23	2.11	3.47	4.02	3.35	4.64
25	1.24	1.16	1.41	1.84	.96	1.15	1.47	2.48	2.54	4.07	3.93	4.46
EOM	1.13	.95	1.76	1.39	1.00	1.18	1.11	2.93	3.02	4.25	3.99	4.69

WTR YR 1994 LOW 4.69 SEP 30

## GROUND-WATER DATA

309

## LAKE COUNTY

411146087204101. Local number, LK 14.

LOCATION.--Lat 41°11'46", long 87°20'41", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.28, T.32 N., R.8 W., Lake County, Hydrologic Unit 07120001, in Shelby on northwest corner of the intersection of Tyler Road and State Highway 55.  
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 96.2 ft, cased to 50 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 641 ft above sea level, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.77 ft below land-surface datum, Dec. 5, 1993; lowest, 22.86 ft below land-surface datum, July 28, 1991.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.74	5.86	5.77	6.68	7.21	7.37	7.24	7.45	9.03	7.93	9.70	8.78
10	7.82	6.14	5.78	6.88	7.39	7.09	7.39	7.54	10.94	8.01	8.90	8.78
15	7.87	6.21	5.96	7.03	7.50	6.87	7.23	7.59	10.41	7.78	8.59	8.81
20	7.02	6.15	6.12	7.23	7.47	6.89	7.24	7.76	8.74	7.62	11.56	8.90
25	6.85	6.19	6.24	7.32	7.26	7.03	7.24	8.02	8.04	7.54	9.66	8.90
ROM	5.79	6.01	6.52	7.21	7.36	7.17	7.34	8.14	7.93	8.64	9.00	9.01

WTR YR 1994 HIGH 5.77 DEC 5

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.80	5.95	5.80	6.71	7.25	7.39	7.29	7.48	10.33	8.29	10.06	8.85
10	7.87	6.18	5.87	6.93	7.42	7.14	7.46	7.59	11.87	8.04	8.94	8.80
15	7.94	6.28	6.03	7.11	7.57	6.90	7.28	7.64	10.94	7.79	9.57	8.83
20	7.23	6.16	6.14	7.29	7.52	6.90	7.26	7.79	8.96	7.71	12.33	8.92
25	6.90	6.22	6.33	7.37	7.36	7.07	7.27	8.07	8.09	7.56	9.90	8.93
ROM	5.86	6.03	6.55	7.23	7.38	7.19	7.39	8.17	7.96	9.16	9.02	9.04

WTR YR 1994 LOW 12.42 AUG 19

## LA PORTE COUNTY

413700086445401. Local number, LP 8.

LOCATION.--Lat 41°37'00", long 86°44'54", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.34, T.37 N., R.3 W., La Porte County, Hydrologic Unit 07120001, at the west end of Soldiers Memorial Park in La Porte.  
Owner: State of Indiana.

AQUIFER.--Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 1.5 in., depth 22 ft, cased to 20 ft, screened to 22 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 802.79 ft above sea level. Measuring point: Top of floor of shelter, 3.70 ft above land-surface datum.

PERIOD OF RECORD.--May 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.37 ft below land-surface datum, Jan. 28, 1994; lowest, 7.04 ft below land-surface datum, Mar. 8-11, 1978.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.05	1.85	1.70	1.80	1.79	1.53	1.77	1.85	2.34	2.34	2.64	2.71
10	2.06	1.93	1.71	1.82	1.83	1.61	1.82	1.91	2.44	2.34	2.73	2.83
15	2.10	1.79	1.76	1.84	1.82	1.59	1.52	1.99	2.21	2.41	2.65	2.83
20	1.61	1.85	1.71	1.85	1.60	1.68	1.79	2.07	2.32	2.44	2.58	2.96
25	1.82	1.78	1.74	1.85	1.63	1.73	1.80	2.13	2.22	2.47	2.64	2.98
ROM	1.90	1.80	1.79	1.78	1.71	1.73	1.68	2.28	2.27	2.62	2.67	2.99

WTR YR 1994 HIGH 1.37 JAN 28

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.07	1.92	1.72	1.86	1.79	1.64	1.79	1.90	2.34	2.36	2.66	2.71
10	2.06	1.93	1.79	1.86	1.86	1.67	1.86	1.93	2.46	2.40	2.73	2.83
15	2.12	1.88	1.79	1.88	1.89	1.66	1.70	2.02	2.26	2.43	2.71	2.87
20	1.82	1.85	1.73	1.87	1.72	1.72	1.79	2.08	2.32	2.53	2.65	2.96
25	1.82	1.88	1.79	1.87	1.72	1.73	1.82	2.15	2.27	2.52	2.64	2.98
ROM	1.92	1.80	1.81	1.78	1.71	1.73	1.86	2.28	2.28	2.63	2.67	2.99

WTR YR 1994 LOW 2.99 SEP 23

## GROUND-WATER DATA

## LA PORTE COUNTY

412350086512801. Local number, LP 9.

LOCATION.--Lat 41°23'50", long 86°51'28", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.15, T.34 N., R.4 W., La Porte County, Hydrologic Unit 07120001, at the intersection of County Roads 1450 South and 825 West, 3.0 mi southeast of Wanatah.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 32 ft, cased to 27 ft, screened to 32 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 706.81 ft above sea level. Measuring point: Top of floor of shelter, 1.60 ft above land-surface datum.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.56 ft below land-surface datum, Apr. 5, 1985; lowest, 8.28 ft below land-surface datum, Oct. 16, 17, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.84	3.95	3.58	4.96	4.91	4.56	5.16	5.24	6.04	4.61	5.77	6.10
10	5.02	4.34	3.82	5.14	5.32	4.22	5.37	5.38	6.21	4.70	6.01	6.08
15	5.16	4.27	4.23	5.31	5.01	4.32	4.78	5.45	4.98	4.59	5.98	6.22
20	2.39	4.08	4.36	5.49	4.09	4.62	4.82	5.65	5.17	5.06	5.77	6.32
25	3.20	4.16	4.49	5.53	4.58	4.96	4.85	5.75	4.46	5.30	5.80	6.39
DOM	3.73	3.84	4.76	4.34	4.93	5.09	5.03	5.93	4.22	5.65	5.92	6.47

WTR YR 1994 HIGH 2.20 OCT 17

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.90	4.14	3.70	5.04	5.01	4.81	5.28	5.28	6.06	4.71	5.86	6.12
10	5.04	4.38	4.13	5.20	5.34	4.42	5.46	5.42	6.23	4.80	6.03	6.25
15	5.20	4.42	4.37	5.38	5.55	4.56	5.08	5.54	5.01	4.83	6.03	6.24
20	2.91	4.15	4.39	5.53	4.27	4.73	4.86	5.67	5.20	5.11	6.04	6.33
25	3.28	4.41	4.66	5.57	4.86	4.98	4.88	5.77	4.65	5.33	5.81	6.40
DOM	3.86	3.89	4.87	4.52	4.98	5.13	5.14	5.95	4.31	5.69	5.98	6.48

WTR YR 1994 LOW 6.48 SEP 29

## LA PORTE COUNTY

413139086341401. Local number, LP 10.

LOCATION.--Lat 41°31'40", long 86°34'10", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.31, T.36 N., R.1 W., La Porte County, Hydrologic Unit 07120001, 200 ft north of the manager's residence at the Mixsawbah Fish Hatchery and 2.6 mi southeast of Stillwell.  
 Owner: State of Indiana.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 104 ft, cased to 102 ft, screened to 104 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 695 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.60 ft above land-surface datum.

PERIOD OF RECORD.--August 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.65 ft below land-surface datum, Dec. 29, 1990; lowest, 9.61 ft below land-surface datum, Sept. 17, 18, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.73	6.98	6.05	7.44	7.05	6.42	7.35	7.50	8.13	7.26	7.13	7.76
10	7.80	7.31	6.39	7.49	7.32	5.74	7.50	7.55	8.22	3.92	7.34	7.87
15	7.87	7.21	6.86	7.56	7.38	6.28	6.77	7.60	7.94	4.63	7.31	7.97
20	5.76	6.97	7.06	7.65	6.10	6.95	7.03	7.76	8.00	5.85	7.36	8.11
25	6.09	7.16	7.13	7.62	6.36	7.24	7.22	7.85	7.93	6.48	7.49	8.23
DOM	6.80	6.40	7.39	6.96	6.84	7.26	7.43	8.00	6.90	6.92	7.61	8.33

WTR YR 1994 HIGH 3.65 JUL 9

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.76	7.16	6.18	7.51	7.11	6.78	7.45	7.53	8.14	7.30	7.20	7.77
10	7.82	7.33	6.74	7.57	7.36	6.10	7.59	7.59	8.24	4.30	7.37	7.89
15	7.89	7.31	7.01	7.63	7.46	6.66	6.92	7.68	7.97	4.99	7.35	7.98
20	5.98	7.04	7.11	7.69	6.46	7.00	7.11	7.78	8.04	6.03	7.43	8.13
25	6.22	7.23	7.26	7.67	6.63	7.26	7.29	7.87	7.96	6.51	7.52	8.23
DOM	6.94	6.50	7.46	6.99	6.85	7.30	7.51	8.02	6.97	6.97	7.66	8.35

WTR YR 1994 LOW 8.35 SEP 30

## GROUND-WATER DATA

311

## LA PORTE COUNTY

412839086533101. Local number, LP 11.

LOCATION.--Lat 41°28'39", long 86°53'31", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.16, T.35 N., R.4 W., La Porte County, Hydrologic Unit 07120001, in the northeast corner of intersection of U.S. Highway 421 and County Road 900 South.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 100 ft, cased to 95 ft, screened to 100 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 760 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 4.1 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--June 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.82 ft below land-surface datum, Dec. 30, 1990; lowest, 10.18 ft below land-surface datum, Oct. 17, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.41	3.87	3.67	4.69	5.18	5.14	5.36	5.65	6.25	5.01	6.21	7.01
10	4.60	4.12	3.85	4.85	5.43	4.73	5.52	5.74	6.42	5.24	6.40	7.05
15	4.73	4.02	4.12	5.00	5.54	4.75	5.34	5.77	5.64	5.41	6.57	7.13
20	3.11	3.89	4.23	5.19	4.79	4.98	5.33	5.92	5.60	5.59	6.51	7.29
25	3.33	4.16	4.31	5.25	4.92	5.18	5.36	6.00	5.50	5.77	6.67	7.38
DOM	3.71	3.82	4.53	4.92	5.17	5.30	5.51	6.16	4.77	6.02	6.83	7.55

WTR YR 1994 HIGH 3.10 OCT 21

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.46	3.97	3.71	4.74	5.25	5.27	5.44	5.68	6.28	5.06	6.25	7.04
10	4.61	4.13	4.03	4.88	5.47	4.79	5.60	5.78	6.44	5.30	6.44	7.21
15	4.75	4.10	4.20	5.08	5.62	4.88	5.40	5.86	5.71	5.46	6.60	7.15
20	3.32	3.95	4.25	5.23	4.87	5.03	5.36	5.94	5.63	5.64	6.56	7.31
25	3.39	4.21	4.41	5.30	5.09	5.20	5.40	6.03	5.57	5.81	6.70	7.38
DOM	3.78	3.88	4.60	4.98	5.19	5.33	5.61	6.19	4.81	6.05	6.91	7.57

WTR YR 1994 LOW 7.57 SEP 30

## LA PORTE COUNTY

413434086434701. Local number, LP 12.

LOCATION.--Lat 41°34'34", long 86°43'47", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.14, T.36 N., R.3 W., La Porte County, Hydrologic Unit 07120001, on County Road 150 West, at La Porte Municipal Airport, 1.6 mi south of La Porte.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 77 ft, cased to 71 ft, screened to 77 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 805 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.70 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--July 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.96 ft below land-surface datum, Jan. 16, 1991; lowest, 22.82 ft below land-surface datum, Jan. 27, 28, 31, 1990..

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.29	16.56	16.73	16.90	17.32	17.27	17.20	17.57	17.91	18.06	18.24	18.66
10	17.31	16.64	16.66	17.00	17.41	17.25	17.31	17.61	18.04	18.06	18.32	18.72
15	17.33	16.63	16.66	17.07	17.44	17.16	17.31	17.60	18.10	18.05	18.41	18.77
20	17.08	16.70	16.66	17.18	17.29	17.10	17.46	17.70	18.09	18.07	18.44	18.85
25	16.83	16.83	16.69	17.23	17.23	17.18	17.45	17.72	18.13	18.11	18.51	18.91
DOM	16.65	16.91	16.82	17.30	17.32	17.21	17.49	17.83	18.12	18.18	18.58	18.99

WTR YR 1994 HIGH 16.56 NOV 5

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	17.33	16.61	16.78	16.96	17.34	17.30	17.27	17.58	17.93	18.07	18.26	18.66
10	17.33	16.66	16.75	17.04	17.43	17.28	17.38	17.63	18.05	18.08	18.33	18.73
15	17.36	16.74	16.70	17.12	17.50	17.20	17.38	17.66	18.11	18.07	18.43	18.78
20	17.19	16.75	16.69	17.21	17.33	17.17	17.47	17.71	18.11	18.10	18.47	18.86
25	16.88	16.86	16.76	17.26	17.31	17.20	17.46	17.75	18.14	18.12	18.52	18.92
DOM	16.66	16.93	16.88	17.30	17.35	17.25	17.56	17.84	18.13	18.19	18.61	18.99

WTR YR 1994 LOW 18.99 SEP 29

## GROUND-WATER DATA

## MARION COUNTY

393855086120701. Local number, MA 34.

LOCATION.--Lat 39°38'55", long 86°12'07", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.21, T.14 N., R.3 E., Marion County, Hydrologic Unit 05120201, about 0.5 mi northwest of Glens Valley.  
 Owner: U.S. Geological Survey.

AQUIFER.--Coarse sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 66 ft, cased to 61 ft, screened to 66 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670.73 ft above sea level. Measuring point: Top of casing, 3.70 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.55 ft below land-surface datum, Nov. 17, 1993; lowest, 8.84 ft below land-surface datum, Nov. 23-25, 1987.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.66	5.82	3.87	5.00	4.88	5.22	5.59	4.92	5.61	5.80	6.11	6.80
10	5.51	5.91	4.29	5.12	5.03	5.30	3.95	4.90	5.73	5.96	6.33	6.86
15	5.69	3.18	4.37	5.23	5.01	5.36	4.28	5.03	5.74	5.48	6.32	6.96
20	5.51	3.84	4.51	5.35	4.99	5.45	4.66	5.20	5.55	5.81	6.52	7.03
25	5.68	4.05	4.66	4.80	4.99	5.53	4.80	5.19	5.90	5.91	6.65	6.70
BOM	5.77	4.26	4.88	4.66	5.13	5.60	4.44	5.47	5.39	6.04	6.69	6.84

WTR YR 1994 HIGH 2.55 NOV 17

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.68	5.86	4.06	5.02	4.91	5.24	5.66	4.97	5.64	5.84	6.16	6.83
10	5.58	5.92	4.37	5.15	5.06	5.34	5.37	4.95	5.78	6.00	6.37	6.89
15	5.70	4.01	4.46	5.28	5.10	5.41	4.53	5.07	5.81	5.61	6.39	6.99
20	5.70	3.92	4.56	5.38	5.09	5.48	4.69	5.22	5.80	5.86	6.56	7.05
25	5.70	4.16	4.74	5.31	5.07	5.55	4.84	5.28	5.96	5.95	6.68	6.77
BOM	5.80	4.30	4.90	4.74	5.15	5.62	4.90	5.50	5.63	6.09	6.76	6.88

WTR YR 1994 LOW 7.08 SEP 22

## MARION COUNTY

394632086092701. Local number, MA 35.

LOCATION.--Lat 39°46'32", long 86°09'27", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.1, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, in the northeast corner of the intersection of Meridian and North Streets in Indianapolis.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 83 ft, cased to 77.5 ft, screened to 83 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 716.40 ft above sea level. Measuring point: Top of casing, 2.50 ft above land-surface datum.

REMARKS.--Water levels are affected by pumpage.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.30 ft below land-surface datum, Mar. 27, 1991; lowest, 36.95 ft below land-surface datum, Sept. 25, 1987.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	31.50	30.98	30.81	31.24	31.26	31.65	31.87	32.78	---	---	---
10	31.70	31.49	30.91	30.93	31.27	31.25	31.73	31.95	33.00	---	---	---
15	31.66	31.42	30.71	31.26	31.32	31.25	31.71	32.10	---	---	---	---
20	31.61	31.23	30.62	31.59	31.26	31.27	31.79	32.23	---	---	---	---
25	31.54	31.13	30.70	31.44	31.25	31.56	31.72	32.49	---	---	---	---
BOM	31.54	31.07	30.76	31.28	31.30	31.60	31.88	32.60	---	---	---	---

WTR YR 1994 HIGH 30.49 DEC 19

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	31.81	31.54	31.01	30.85	31.28	31.26	31.74	32.10	32.86	---	---	---
10	31.73	31.53	31.00	31.06	31.32	31.25	31.73	32.19	33.20	---	---	---
15	31.84	31.45	30.80	31.46	31.35	31.27	31.78	32.13	---	---	---	---
20	31.79	31.27	30.67	31.87	31.26	31.30	31.83	32.47	---	---	---	---
25	31.76	31.15	30.86	31.51	31.48	31.56	31.88	32.74	---	---	---	---
BOM	31.60	31.13	30.94	31.32	31.34	31.66	31.96	32.83	---	---	---	---

WTR YR 1994 LOW 33.22 JUN 11

## GROUND-WATER DATA

313

## MARION COUNTY

394626086100201. Local number, MA 36.

LOCATION.--Lat 39°46'26", long 86°10'02", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec. 2, T.15 N., R.3 E., Marion County, Hydrologic Unit 05120201, in the southwest corner of the intersection of West and Michigan Streets in Indianapolis.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 70.6 ft, cased to 65.1 ft, screened to 70.6 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 710.06 ft above sea level. Measuring point: Top of casing, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.86 ft below land-surface datum, May 14, 1991; lowest, 33.12 ft below land-surface datum, Sept. 24, 25, 1987.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.78	28.78	27.68	27.52	28.15	28.13	28.33	28.28	28.95	30.20	31.22	31.84
10	28.71	28.82	27.56	27.69	28.15	28.12	28.37	28.34	29.11	30.38	31.33	31.88
15	28.68	28.67	27.46	27.82	28.16	28.09	28.18	28.41	29.28	30.57	31.43	31.95
20	28.70	28.38	27.38	28.02	28.16	28.13	28.17	28.52	29.54	30.74	31.53	32.03
25	28.75	28.10	27.33	28.19	28.13	28.22	28.14	28.63	29.80	30.90	31.61	32.12
BOM	28.80	27.88	27.42	28.21	28.16	28.30	28.21	28.79	30.01	31.10	31.75	32.16

WTR YR 1994 HIGH 27.33 DEC 25

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	28.79	28.80	27.71	27.54	28.17	28.14	28.34	28.30	28.97	30.23	31.24	31.85
10	28.72	28.82	27.57	27.71	28.16	28.13	28.38	28.36	29.15	30.42	31.35	31.89
15	28.70	28.74	27.47	27.87	28.18	28.10	28.20	28.43	29.30	30.60	31.45	31.96
20	28.72	28.43	27.40	28.07	28.18	28.14	28.17	28.54	29.59	30.77	31.55	32.05
25	28.75	28.16	27.37	28.21	28.16	28.23	28.14	28.66	29.85	30.95	31.64	32.14
BOM	28.81	27.91	27.44	28.22	28.18	28.31	28.24	28.82	30.05	31.12	31.77	32.16

WTR YR 1994 LOW 32.16 SEP 28

## MARION COUNTY

394732086115501. Local number, MA 37.

LOCATION.--Lat 39°47'32", long 86°11'55", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec. 33, T.16N., R.3W., Marion County, Hydrologic Unit 05120201, on the South Grove Municipal Golf Course property, west of the 11th fairway and east of White River Parkway in Indianapolis.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene Epoch.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 74 ft, cased to 69 ft, screened to 74 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 690 ft above sea level, from topographic map. Measuring point: Top of casing, 3.35 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--July 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.22 ft below land-surface datum, Mar. 20, 1991; lowest, 13.73 ft below land-surface datum, June 20, 1992.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.48	5.75	3.66	5.48	5.62	5.19	5.31	4.92	5.77	6.67	8.18	6.72
10	5.46	5.85	3.99	6.39	6.63	5.06	4.82	4.94	6.02	6.37	8.33	7.08
15	6.27	3.99	4.09	6.96	6.60	5.06	5.57	5.08	6.44	6.81	7.35	7.27
20	5.88	3.88	4.14	7.31	5.13	5.06	4.91	5.83	6.06	6.92	7.10	7.13
25	5.78	4.11	5.86	5.69	6.22	5.45	5.03	5.88	6.64	6.86	7.32	6.90
BOM	5.59	3.97	6.36	5.35	6.23	5.29	4.83	5.67	6.48	6.60	6.88	6.95

WTR YR 1994 HIGH 3.65 DEC 6

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.77	5.89	3.91	6.29	5.69	5.33	5.38	5.16	5.90	6.78	8.43	6.82
10	5.61	6.00	4.19	6.79	6.92	5.17	5.24	5.09	8.91	6.51	8.57	7.16
15	6.97	4.89	4.25	7.23	6.97	5.22	5.76	5.20	6.60	6.91	8.52	7.34
20	7.01	4.14	4.26	7.42	5.26	5.15	5.03	6.77	8.16	7.10	7.22	7.36
25	5.95	4.29	6.07	7.18	6.30	6.71	5.37	7.16	7.95	6.98	7.55	7.12
BOM	5.69	4.09	6.47	5.82	6.38	5.40	5.13	5.91	6.71	6.77	7.07	7.10

WTR YR 1994 LOW 8.91 JUN 10

## GROUND-WATER DATA

## MARTIN COUNTY

383659086545901. Local number, MT 5.

LOCATION.--Lat 38°36'59", long 86°54'59", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.12, T.2 N., R.5 W., Martin County, Hydrologic Unit 05120208, on private property 0.25 mi southwest of Whitfield.

Owner: Marjorie A. Arvin.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 143 ft, cased to 53 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 565 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.80 ft above land-surface datum.

PERIOD OF RECORD.--May 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.91 ft below land-surface datum, Apr. 14, 1980; lowest, 34.10 ft below land-surface datum, Jan. 1, 5, 22, 23, 1960, and Dec. 18, 19, 1964.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

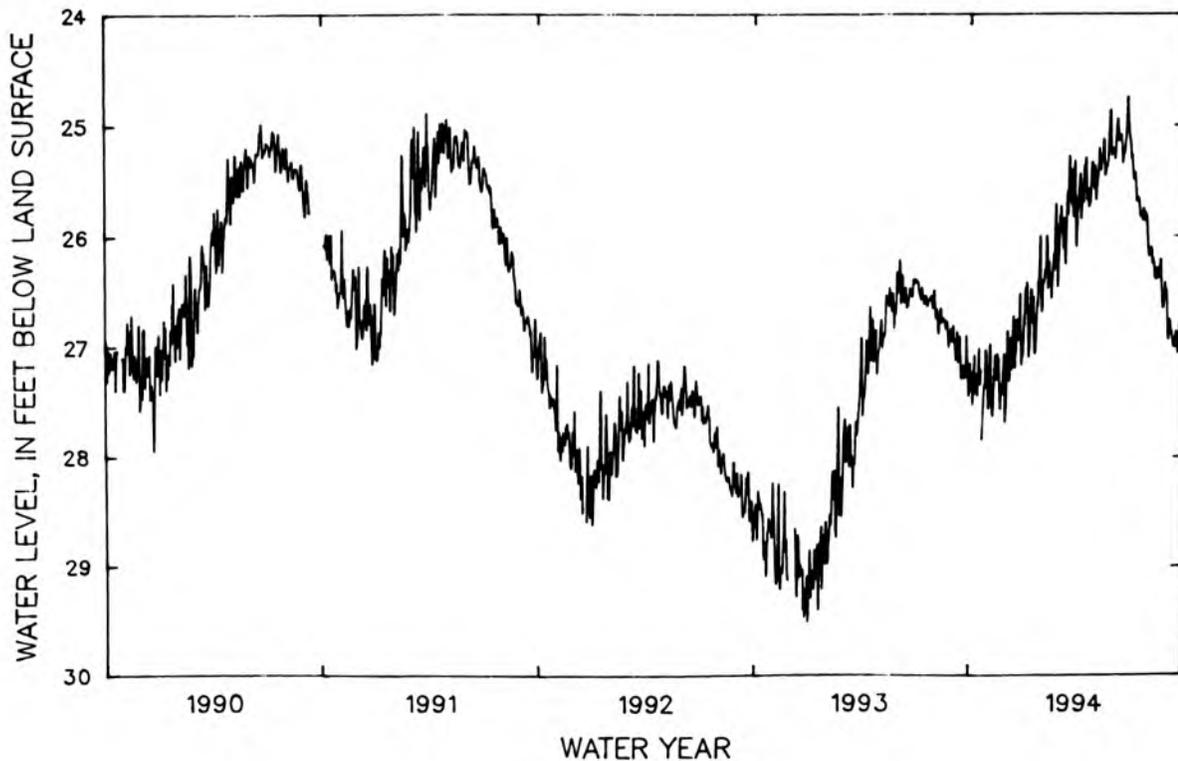
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.33	26.97	26.95	26.65	26.30	25.91	25.44	25.48	25.07	25.50	26.13	26.74
10	27.43	27.54	26.91	27.02	26.48	25.93	25.52	25.41	25.14	25.69	26.38	26.93
15	27.36	27.16	26.75	26.79	26.38	25.59	25.29	25.12	25.22	25.75	26.38	26.89
20	27.21	27.29	26.74	27.07	26.15	25.48	25.74	25.37	25.18	25.86	26.21	27.06
25	27.42	27.43	26.51	26.40	25.90	25.83	25.33	24.86	24.92	25.78	26.65	26.84
BOM	27.22	27.69	26.99	26.69	26.24	25.98	25.36	25.22	25.20	26.18	26.49	27.07

WTR YR 1994 HIGH 24.74 JUN 24

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.62	27.25	27.20	26.95	26.41	26.04	25.52	25.58	25.23	25.59	26.35	26.88
10	27.58	27.65	27.21	27.24	26.65	26.22	25.87	25.57	25.22	25.79	26.47	27.01
15	27.52	27.62	27.02	27.20	26.61	25.81	25.56	25.30	25.35	25.88	26.46	27.00
20	27.38	27.49	27.03	27.25	26.31	25.71	25.86	25.46	25.30	25.93	26.32	27.19
25	27.55	27.50	27.02	26.65	26.30	25.99	25.46	25.05	25.10	25.89	26.74	26.95
BOM	27.48	27.83	27.13	26.77	26.46	26.10	25.75	25.35	25.35	26.26	26.74	27.21

WTR YR 1994 LOW 27.93 OCT 22



## GROUND-WATER DATA

315

## MONTGOMERY COUNTY

400247086482101. Local number, MY 7.

LOCATION.--Lat 40°02'47", long 86°48'21", in NE<sup>1</sup>/<sub>4</sub>/NW<sup>1</sup>/<sub>4</sub>/SW<sup>1</sup>/<sub>4</sub> sec.31, T.19 N., R.3 W., Montgomery County, Hydrologic Unit 05120110, on the county right-of-way at the intersection of State Highway 32 and County Road 525 East, and 4.5 mi east of Crawfordsville.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 111 ft, cased to 107 ft, screened to 109 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 801 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.38 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 26.10 ft below land-surface datum, Apr. 13, 1974; lowest, 34.13 ft below land-surface datum, Nov. 9, 1991.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.55	29.06	27.87	28.68	29.11	29.44	29.83	28.81	28.92	30.00	30.71	32.07
10	29.45	29.41	28.06	29.00	29.25	29.53	29.82	28.68	29.16	30.26	30.93	31.93
15	29.42	29.11	28.03	28.99	29.34	29.48	29.42	28.50	29.29	30.31	31.20	31.89
20	29.12	28.59	28.16	29.34	29.26	29.59	29.42	28.69	29.67	30.46	31.49	31.91
25	29.04	28.21	28.35	29.27	29.19	29.73	29.00	28.64	29.69	30.54	31.89	31.60
EOM	29.00	28.08	28.65	29.16	29.47	29.94	28.84	28.83	29.83	30.66	32.04	31.62

WTR YR 1994 HIGH 27.86 DEC 6

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.61	29.13	27.89	28.74	29.17	29.48	29.87	28.83	28.96	30.08	30.79	32.19
10	29.50	29.44	28.14	29.03	29.29	29.62	29.89	28.73	29.19	30.31	30.98	31.95
15	29.48	29.19	28.10	29.15	29.41	29.54	29.47	28.53	29.43	30.40	31.29	31.92
20	29.24	28.63	28.21	29.45	29.30	29.64	29.44	28.76	29.73	30.54	31.55	31.94
25	29.09	28.32	28.48	29.38	29.40	29.79	29.06	28.68	29.76	30.57	31.98	31.68
EOM	29.09	28.14	28.66	29.19	29.50	29.97	28.98	28.84	29.90	30.69	32.13	31.67

WTR YR 1994 LOW 32.29 SEP 3

## MORGAN COUNTY

393423086161001. Local number, MG 4.

LOCATION.--Lat 39°34'23", long 86°16'10", in NW<sup>1</sup>/<sub>4</sub>/NW<sup>1</sup>/<sub>4</sub>/NW<sup>1</sup>/<sub>4</sub> sec.13, T.13 N., R.2 E., Morgan County, Hydrologic Unit 05120201, on east side of County Road 850 East, 0.4 mi north of County Road 950 North, and 1.1 mi north of Waverly.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 64 ft, cased to 60 ft, screened to 64 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 645 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.90 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.93 ft below land-surface datum, Jan. 1, 1991; lowest, 16.09 ft below land-surface datum, Nov. 2-4, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.73	12.00	7.48	9.60	9.42	10.35	11.39	10.12	11.13	12.17	13.10	14.00
10	11.69	12.14	7.79	9.88	9.69	10.50	11.14	10.21	11.34	12.31	13.27	14.14
15	11.60	9.52	8.23	10.05	9.88	10.66	9.56	10.31	11.54	12.43	13.40	14.28
20	11.72	4.61	8.63	10.40	10.02	10.85	9.55	10.52	11.76	12.60	13.56	14.42
25	11.76	6.34	8.92	10.27	10.08	11.03	9.73	10.70	11.95	12.74	13.71	14.52
EOM	11.88	7.18	9.32	9.27	10.21	11.24	9.97	10.92	12.04	12.94	13.86	14.63

WTR YR 1994 HIGH 3.14 NOV 18

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.76	12.03	7.51	9.64	9.47	10.39	11.42	10.16	11.16	12.20	13.13	14.03
10	11.73	12.17	7.91	9.94	9.73	10.54	11.43	10.24	11.38	12.34	13.30	14.17
15	11.61	10.70	8.32	10.05	9.95	10.71	9.58	10.36	11.60	12.47	13.43	14.31
20	11.73	4.95	8.69	10.44	10.04	10.87	9.58	10.56	11.80	12.63	13.58	14.45
25	11.79	6.53	8.97	10.46	10.11	11.07	9.78	10.72	11.99	12.78	13.73	14.54
EOM	11.91	7.31	9.39	9.29	10.24	11.27	9.99	10.95	12.07	12.97	13.89	14.65

WTR YR 1994 LOW 14.65 SEP 30

## GROUND-WATER DATA

## NEWTON COUNTY

405105087173301. Local number, NE 6.

LOCATION.--Lat 40°51'05", long 87°17'33", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.23, T.28 N., R.8 W., Newton County, Hydrologic Unit 07120002, on the right-of-way of County Road 1000 South, 1.0 mi south of Foresman.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 80 ft, cased to 76 ft, screened to 78 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 654.10 ft above sea level. Measuring point: Top of floor of shelter, 2.15 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.94 ft below land-surface datum, Mar. 20, 21, 1982; lowest, 18.82 ft below land-surface datum, Oct. 29, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.81	10.18	9.78	11.30	11.95	12.00	11.88	10.99	12.94	12.96	13.70	14.87
10	10.93	10.90	9.90	11.65	12.34	11.40	11.89	11.18	12.88	12.62	13.86	15.06
15	10.95	11.03	10.38	11.84	12.45	11.28	9.76	11.35	12.42	12.75	13.95	15.28
20	8.25	10.40	10.53	12.18	11.99	11.51	9.68	11.80	12.04	12.98	14.15	15.49
25	8.22	10.63	10.56	12.24	11.82	11.83	10.38	12.19	12.23	12.85	14.41	15.54
DOM	9.46	10.22	11.03	11.97	12.14	11.98	10.94	12.49	12.55	13.23	14.64	15.60

WTR YR 1994 HIGH 8.11 OCT 24

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.92	10.41	9.84	11.37	11.95	12.08	11.99	11.09	13.04	13.02	13.79	14.94
10	11.04	11.01	10.20	11.70	12.34	11.51	11.97	11.26	12.94	12.65	13.91	15.17
15	10.99	11.10	10.53	11.99	12.55	11.45	10.12	11.51	12.61	12.82	14.00	15.34
20	8.57	10.45	10.60	12.23	12.10	11.56	9.86	11.89	12.12	13.04	14.22	15.59
25	8.38	10.68	10.80	12.34	11.99	11.90	10.52	12.31	12.31	12.90	14.47	15.60
DOM	9.71	10.26	11.10	12.00	12.14	12.02	11.07	12.65	12.64	13.27	14.74	15.65

WTR YR 1994 LOW 15.66 SEP 29

## NEWTON COUNTY

405959087282901. Local number, NE 7.

LOCATION.--Lat 40°59'59", long 87°28'29", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.32, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120002, in the Willow Slough Game Preserve, 2.0 mi southwest of Enos.  
 Owner: State of Indiana.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 136 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 680.83 ft above sea level. Measuring point: Top of floor of shelter, 2.03 ft above land-surface datum.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.65 ft below land-surface datum, Apr 14, 1980; lowest, 97.33 ft below land-surface datum, Aug. 29, 30, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	50.89	47.66	45.19	43.09	41.79	40.82	40.19	41.71	56.63	72.85	81.92
10	54.15	50.52	47.23	44.91	42.91	41.71	40.80	40.08	44.47	---	76.04	81.24
15	53.47	49.88	46.84	44.58	42.66	41.44	40.43	39.96	45.67	---	78.94	80.35
20	52.65	49.35	46.37	44.34	42.36	41.24	40.47	40.00	46.84	66.00	80.57	---
25	52.18	48.85	45.96	43.81	42.05	41.15	40.31	40.04	50.26	68.74	81.80	---
DOM	51.52	48.44	45.58	43.44	42.11	41.03	40.25	40.36	53.52	70.33	81.89	---

WTR YR 1994 HIGH 39.96 MAY 14

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	50.93	47.78	45.28	43.23	41.79	40.88	40.24	42.32	57.35	73.54	82.08
10	54.23	50.66	47.33	45.05	42.91	41.71	40.82	40.09	44.81	---	76.57	81.35
15	53.65	49.89	46.86	44.60	42.67	41.45	40.51	39.96	45.83	---	79.38	80.53
20	52.88	49.36	46.50	44.34	42.44	41.24	40.47	40.01	47.21	66.71	80.87	---
25	52.32	48.95	46.06	43.93	42.14	41.17	40.35	40.05	51.15	68.98	81.89	---
DOM	51.61	48.44	45.69	43.44	42.11	41.03	40.29	40.40	54.06	70.72	81.92	---

WTR YR 1994 LOW 82.12 SEP 1

## GROUND-WATER DATA

317

## NEWTON COUNTY

410428087231501. Local number, NE 8.

LOCATION.--Lat 41°04'28", long 87°25'44", in NW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, in the Beaver Lake Prairie Chicken Refuge, 3.0 mi north of Enos.  
 Owner: State of Indiana.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 97 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 663.34 ft above sea level. Measuring point: Top of floor of shelter, 2.83 ft above land-surface datum.

REMARKS.--Water level may be affected by irrigation pumpage.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.04 ft below land-surface datum, May 31, 1976; lowest, 98.40 ft below land-surface datum, July 29, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.51	16.30	13.73	11.93	10.52	9.63	8.78	8.31	26.94	---	51.89	50.75
10	19.64	15.93	13.42	11.86	10.48	9.54	8.78	8.15	24.78	---	55.32	45.51
15	18.87	15.53	13.20	11.66	10.23	9.27	8.43	7.92	20.06	---	54.49	42.01
20	17.96	15.04	12.83	11.50	9.99	9.19	8.59	12.46	25.66	---	61.29	39.57
25	17.48	14.56	12.53	11.05	9.78	9.26	8.89	16.07	27.49	---	50.97	37.36
EOM	16.89	14.41	12.25	10.84	9.86	9.04	8.49	12.20	25.40	46.86	59.30	35.68

WTR YR 1994 HIGH 7.92 MAY 14

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.63	16.36	13.88	12.12	10.58	9.66	8.88	8.35	29.92	---	55.19	51.91
10	19.79	16.09	13.63	12.00	10.59	9.64	8.90	8.24	27.59	---	57.22	46.31
15	19.08	15.64	13.29	11.74	10.33	9.38	8.52	7.99	22.10	---	57.74	42.62
20	18.21	15.11	12.93	11.55	10.14	9.31	8.89	14.65	30.30	---	65.98	40.05
25	17.61	14.79	12.66	11.15	9.98	9.33	9.09	19.66	29.47	---	52.96	37.89
EOM	16.98	14.49	12.38	10.90	9.97	9.15	8.69	12.98	28.88	52.95	62.10	36.08

WTR YR 1994 LOW 67.24 AUG 19

## NEWTON COUNTY

405959087282902. Local number, NE 9.

LOCATION.--Lat 40°59'59", long 87°28'29", in SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, sec.32, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120002, in the Willow Slough Game Preserve, 2.0 mi southwest of Enos.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 45 ft, cased to 42 ft, screened to 45 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 681 ft above sea level, from topographic map. Measuring point: Top of "Y" in well casing, 3.10 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year. Fragmentary record prior to March 1981.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.07 ft below land-surface datum, May 3, 1978; lowest, 15.44 ft below land-surface datum, Oct. 19-21, 26-31, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.95	---	---	8.70	8.97	8.81	9.08	8.25	---	10.90	---	---
10	8.18	---	---	8.92	9.18	8.68	9.04	8.35	---	10.90	---	---
15	8.27	---	---	9.02	9.36	8.71	8.24	8.73	9.77	11.14	---	---
20	---	---	---	9.22	9.00	8.85	8.37	9.04	10.02	11.40	---	---
25	---	---	---	9.20	8.90	8.96	8.60	9.27	10.27	11.63	---	---
EOM	---	---	8.72	8.82	9.00	8.99	8.17	9.64	10.55	---	---	---

WTR YR 1994 HIGH 8.11 OCT 7

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.04	---	---	8.74	9.01	8.90	9.09	8.34	---	10.93	---	---
10	8.22	---	---	8.93	9.22	8.69	9.13	8.46	---	10.95	---	---
15	8.31	---	---	9.08	9.37	8.73	8.40	8.78	9.83	11.18	---	---
20	---	---	---	9.27	9.10	8.87	8.43	9.10	10.09	11.47	---	---
25	---	---	---	9.29	8.91	9.00	8.66	9.28	10.36	11.69	---	---
EOM	---	---	8.73	8.82	9.00	9.01	8.25	9.68	10.65	---	---	---

WTR YR 1994 LOW 11.76 JUL 26

## GROUND-WATER DATA

## NEWTON COUNTY

410428087231502. Local number, NE 10.

LOCATION.--Lat 41°04'28", long 87°25'44", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>/SW<sup>1</sup>/<sub>4</sub> sec.2, T.30 N., R.9 W., Newton County, Hydrologic Unit 07120001, in the Beaver Lake Prairie Chicken Refuge, 3.0 mi north of Enos.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 2 in., depth 45 ft, cased to 41 ft, screened to 44 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 663 ft above sea level, from topographic map. Measuring point: Top of "Y" in well casing, 2.65 ft above land-surface datum.

PERIOD OF RECORD.--May 1978 to current year. Fragmentary record prior to March 1981.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.03 ft below land-surface datum, Mar. 16, 1982; lowest, 6.48 ft below land-surface datum, Sept. 30, Oct. 1, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	2.59	---	---	---	---	---	---	---	---	5.29	---
10	2.82	2.64	---	---	---	---	---	---	---	---	5.40	---
15	3.05	---	3.07	---	---	---	---	4.08	---	---	5.43	5.79
20	---	---	3.19	---	---	---	---	4.32	---	---	5.49	5.87
25	1.55	---	3.33	---	---	---	---	4.54	---	---	---	5.88
ROM	2.23	---	3.60	---	---	---	---	4.62	---	5.23	---	5.94

WTR YR 1994 HIGH 1.30 OCT 22

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	2.59	---	---	---	---	---	---	---	---	5.31	---
10	2.82	2.65	---	---	---	---	---	---	---	---	5.40	---
15	3.14	---	3.07	---	---	---	---	4.20	---	---	5.44	5.83
20	---	---	3.21	---	---	---	---	4.37	---	---	5.49	5.91
25	1.58	---	3.42	---	---	---	---	4.54	---	---	---	5.93
ROM	2.23	---	3.62	---	---	---	---	4.64	---	5.23	---	5.98

WTR YR 1994 LOW 5.98 SEP 30

## NEWTON COUNTY

410235087305901. Local number, NE 11.

LOCATION.--Lat 41°02'35", long 87°30'59", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>/SE<sup>1</sup>/<sub>4</sub> sec.13, T.30 N., R.10 W., Newton County, Hydrologic Unit 07120001, on right-of-way of County Road 300 North, 0.5 mi west of County Road 600 West, and 4.0 mi northwest of Enos.  
 Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 5 in., depth of 150 ft, cased to 90 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 670 ft above sea level, from topographic map. Measuring point: Top of casing, 3.30 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.78 ft below land-surface datum, May 6, 1982; lowest recorded, 98.83 ft below land-surface datum, Aug. 5, 6, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	44.01	39.07	35.59	33.10	31.11	29.69	28.42	27.84	36.64	46.07	---	---
10	43.08	38.79	35.10	33.00	31.12	29.59	28.54	27.77	36.38	48.57	---	---
15	42.19	38.08	34.84	32.68	30.68	29.10	27.99	27.47	35.98	57.15	---	---
20	41.30	37.48	34.30	32.63	30.27	28.89	28.38	36.65	36.06	68.53	---	---
25	40.72	36.97	33.85	31.81	29.88	29.17	27.85	32.60	42.91	66.67	---	---
ROM	39.97	36.74	33.54	31.67	30.14	28.87	27.92	31.26	43.54	69.05	---	---

WTR YR 1994 HIGH 27.47 MAY 14

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	44.11	39.22	35.87	33.39	31.29	29.78	28.67	27.95	36.95	46.67	---	---
10	43.28	39.01	35.54	33.36	31.31	29.81	28.79	27.94	36.59	49.01	---	---
15	42.45	38.35	34.97	32.93	30.97	29.38	28.24	27.67	36.08	57.45	---	75.36
20	41.65	37.56	34.49	32.72	30.57	29.19	28.48	37.77	36.21	69.30	---	---
25	40.92	37.22	34.13	32.08	30.28	29.29	27.99	33.20	43.04	67.07	---	---
ROM	40.04	36.85	33.74	31.77	30.31	29.10	28.21	34.71	43.81	72.12	---	---

WTR YR 1994 LOW 75.36 SEP 15

## GROUND-WATER DATA

319

## NEWTON COUNTY

410917087285801. Local number, NE 14.

LOCATION.--Lat 41°09'17", long 87°28'58", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.8, T.31 N., R.9 W., Newton County, Hydrologic Unit 07120001, 100 ft south of wildlife area parking lot in La Salle State Fish and Wildlife Area.  
Owner: U.S. Geological Survey.

AQUIFER.--Dolomitic limestone of Silurian/Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 82 ft, open end.

INSTRUMENTATION.--Water-level recorder, data-collection platform, and incremental encoder.

DATUM.--Elevation of land-surface datum is 636.62 ft (revised) above sea level. Measuring point: Top of casing, 3.30 ft above land-surface datum.

REMARKS.--Water level may be affected by pumpage.

PERIOD OF RECORD.--August 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.18 ft below land-surface datum, Mar. 27, 1991; lowest, 31.19 ft below land-surface datum, Aug. 26, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.99	7.28	6.81	6.81	6.77	6.74	6.67	6.75	7.80	8.81	18.54	17.59
10	7.95	7.41	6.74	6.92	6.91	6.76	6.73	6.76	8.20	11.89	20.94	16.88
15	7.90	7.26	6.79	6.87	6.81	6.65	6.54	6.76	8.25	15.20	21.16	16.46
20	7.51	7.13	6.78	7.02	6.75	6.68	6.70	7.01	8.32	14.81	20.86	16.42
25	7.88	7.17	6.74	6.90	6.72	6.81	6.58	7.30	8.51	13.98	19.26	15.55
BOM	7.40	7.15	6.83	6.90	6.86	6.80	6.73	7.70	8.62	15.26	18.41	15.16

WTR YR 1994 HIGH 6.54 APR 15

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.09	7.41	6.88	6.87	6.86	6.82	6.78	6.82	7.90	8.98	19.06	17.79
10	7.99	7.47	7.08	7.05	6.98	6.85	6.83	6.97	8.36	12.71	21.28	17.01
15	7.97	7.40	6.88	7.02	6.92	6.70	6.62	6.83	8.48	15.43	21.44	16.53
20	7.65	7.20	6.83	7.10	6.90	6.75	6.89	7.27	8.55	15.09	21.29	16.54
25	7.92	7.24	6.86	7.02	6.83	6.87	6.65	7.51	8.68	14.40	19.65	15.75
BOM	7.46	7.26	6.94	6.96	6.97	6.88	6.83	8.12	8.74	15.97	18.47	15.31

WTR YR 1994 LOW 21.71 AUG 13

## NOBLE COUNTY

411922085221801. Local number, NO 8.

LOCATION.--Lat 41°19'22", long 85°22'18", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.9, T.33 N., R.10 E., Noble County, Hydrologic Unit 04050001, near the east edge of Chain O'Lakes State Park, and 5.0 mi south of Albion.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian (revised) well, diameter 6 in., depth 149 ft, cased to 146 ft, screened to 148 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 928 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.65 ft above land-surface datum.

PERIOD OF RECORD.--December 1966 to September 1971, August 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 27.88 ft below land-surface datum, Feb. 14, 1991; lowest, 32.49 ft below land-surface datum, Jan. 18, 1967.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.55	29.36	29.54	29.83	29.85	29.85	29.77	29.54	29.45	29.83	29.99	30.18
10	29.57	29.76	29.48	30.02	30.16	29.89	29.86	29.55	29.61	29.88	30.13	30.28
15	29.54	29.57	29.64	29.87	29.93	29.60	29.56	29.35	29.69	29.84	30.07	30.23
20	29.41	29.53	29.64	30.21	29.87	29.80	29.87	29.58	29.66	29.88	29.92	30.36
25	29.56	29.81	29.65	29.91	29.74	30.04	29.53	29.29	29.39	29.82	30.20	30.18
BOM	29.56	29.97	29.86	30.06	30.11	30.02	29.55	29.53	29.70	30.06	30.09	30.36

WTR YR 1994 HIGH 29.26 OCT 9

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.72	29.54	29.66	29.98	29.97	29.97	29.88	29.62	29.59	29.87	30.15	30.29
10	29.66	29.88	29.74	30.27	30.26	30.09	30.09	29.67	29.68	29.99	30.21	30.35
15	29.64	29.94	29.81	30.21	30.17	29.84	29.70	29.49	29.79	29.95	30.12	30.27
20	29.62	29.74	29.80	30.28	30.05	29.96	29.96	29.66	29.75	29.92	30.00	30.42
25	29.62	29.92	29.79	30.00	30.01	30.13	29.58	29.36	29.63	29.91	30.24	30.30
BOM	29.68	30.11	29.93	30.13	30.23	30.19	29.86	29.60	29.84	30.11	30.26	30.51

WTR YR 1994 LOW 30.51 SEP 30

## GROUND-WATER DATA

## NOBLE COUNTY

413106085232701. Local number, NO 9.

LOCATION.--Lat 41°31'06", long 85°23'27", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.5, T.35 N., R.10 E., Noble County, Hydrologic Unit 04050001, at the intersection of County Roads 175 East and 1150 North, and 2.0 mi west of Wolcottville.

Owner: U.S. Geological Survey.

AQUIFER.--Sand of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 44 ft, cased to 39 ft, screened to 42 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 930 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.60 ft above land-surface datum.

PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.37 ft below land-surface datum, Jan. 5, 1993; lowest, 17.55 ft below land-surface datum, Dec. 27, 28, 1978.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.47	14.70	14.06	14.58	14.07	13.44	13.41	12.16	13.78	14.90	15.75	16.47
10	15.54	14.98	13.76	14.85	14.35	12.58	13.15	12.40	14.06	15.06	15.95	16.60
15	15.50	15.01	13.95	14.86	14.53	12.70	11.03	12.65	14.23	15.18	15.98	16.70
20	14.43	14.59	14.12	15.11	13.46	13.16	11.56	13.03	14.40	15.36	16.03	16.86
25	14.34	14.64	14.22	15.12	13.15	13.16	12.00	13.19	14.44	15.50	16.21	16.94
EOB	14.79	14.35	14.46	13.96	13.58	13.36	12.26	13.58	14.68	15.68	16.32	17.06

WTR YR 1994 HIGH 11.03 APR 15

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.58	14.80	14.14	14.68	14.08	13.55	13.44	12.19	13.81	14.93	15.84	16.48
10	15.57	14.99	13.83	14.92	14.45	12.64	13.18	12.53	14.08	15.12	15.96	16.64
15	15.53	15.07	14.00	15.02	14.60	12.78	11.13	12.72	14.30	15.24	16.02	16.73
20	14.55	14.64	14.15	15.15	13.84	13.21	11.72	13.07	14.42	15.39	16.05	16.87
25	14.38	14.68	14.27	15.14	13.23	13.25	12.09	13.23	14.59	15.51	16.23	16.97
EOB	14.83	14.42	14.49	14.05	13.58	13.39	12.45	13.61	14.78	15.69	16.38	17.10

WTR YR 1994 LOW 17.10 SEP 30

## NOBLE COUNTY

412405085154501. Local number, NO 11.

LOCATION.--Lat 41°24'05", long 85°15'45", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.16, T.34 N., R.11 E., Noble County, Hydrologic Unit 04100003, on the property of Ron Karst on the south side of County Road 350 North, 0.6 mi west of State Highway 3 and about 22 mi north of Fort Wayne.

Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 216 ft, cased to 211 ft, screened to 216 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,036.94 ft above sea level. Measuring point: Top of casing, 3.45 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 113.24 ft below land-surface datum, Nov. 6, 1988; lowest, 115.00 ft below land-surface datum, Feb. 17, 1989.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	114.10	113.79	113.95	114.03	114.10	113.94	113.95	114.17	114.07	114.28	114.21	114.42
10	114.11	114.37	113.80	114.54	114.36	114.15	114.10	114.12	114.19	114.24	114.50	114.41
15	114.23	113.99	113.91	114.09	114.18	113.85	113.79	113.93	114.21	114.22	114.26	114.32
20	114.00	113.90	113.88	114.62	114.16	113.95	114.19	114.29	114.26	114.25	114.01	114.42
25	114.22	114.33	113.85	114.25	113.93	114.05	113.94	113.84	113.69	114.08	114.42	114.09
EOB	113.98	114.36	114.21	114.36	114.51	114.31	114.09	114.12	113.98	114.35	114.22	114.21

WTR YR 1994 HIGH 113.64 MAR 18

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	114.38	113.89	114.04	114.20	114.22	114.13	114.04	114.26	114.24	114.33	114.41	114.56
10	114.29	114.49	113.99	114.67	114.51	114.33	114.34	114.26	114.26	114.38	114.53	114.48
15	114.29	114.39	114.03	114.46	114.39	113.95	113.91	114.01	114.33	114.32	114.39	114.37
20	114.19	114.12	114.11	114.74	114.29	114.07	114.35	114.35	114.34	114.29	114.18	114.47
25	114.28	114.42	114.01	114.37	114.13	114.24	114.03	113.95	113.91	114.16	114.47	114.21
EOB	114.05	114.64	114.27	114.41	114.60	114.43	114.38	114.19	114.19	114.40	114.37	114.33

WTR YR 1994 LOW 114.74 JAN 20

## GROUND-WATER DATA

321

412405085154504. Local number, NO 14.

## NOBLE COUNTY

LOCATION.--Lat 41°24'05", long 85°15'45", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.16, T.34 N., R.11 E., Noble County, Hydrologic Unit 04100003, on the property of Ron Karat on the south side of County Road 350 North, 0.6 mi west of State Highway 3 and about 22 mi north of Fort Wayne.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 145 ft, cased to 140 ft, screened to 145 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 1,037.24 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 112.21 ft below land-surface datum, Dec. 15, 1987; lowest, 114.29 ft below land-surface datum, Feb. 17, 1989.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	113.30	112.67	112.93	113.06	113.02	113.03	---	113.13	112.94	113.23	113.27	113.34
10	113.33	113.34	112.66	113.44	113.50	---	---	113.16	113.15	113.30	113.42	113.40
15	113.16	112.95	112.88	113.12	113.12	---	---	112.86	113.25	113.22	113.32	113.24
20	112.87	112.94	112.83	113.75	113.07	---	113.32	113.20	113.14	113.21	112.98	113.38
25	113.18	113.33	112.77	113.26	112.79	---	112.90	112.75	112.63	113.02	113.39	112.96
DOM	112.99	113.58	113.19	113.40	113.52	---	113.00	113.11	112.99	113.35	113.13	113.11

WTR YR 1994 HIGH 112.55 JUN 24

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	113.54	112.95	113.09	113.35	113.22	113.20	---	113.26	113.22	113.32	113.48	113.51
10	113.43	113.52	113.14	113.81	113.70	---	---	113.34	113.29	113.46	113.58	113.53
15	113.37	113.55	113.16	113.68	113.56	---	---	113.09	113.38	113.38	113.38	113.35
20	113.28	113.22	113.11	113.91	113.38	---	113.44	113.40	113.33	113.28	113.11	113.49
25	113.30	113.53	113.00	113.43	113.26	---	112.98	112.90	112.94	113.14	113.48	113.20
DOM	113.18	113.81	113.35	113.49	113.66	---	113.52	113.25	113.20	113.43	113.44	113.38

WTR YR 1994 LOW 113.91 JAN 20

## PARKE COUNTY

393619087043001. Local number, PA 6.

LOCATION.--Lat 39°36'19", long 87°04'30", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.33, T.14 N., R.6 W., Parke County, Hydrologic Unit 05120111, on county right-of-way on north side of road at the Parke-Clay county line, 1.7 mi east of Carbon, 2.6 mi east of State Highway 59, and 6.2 mi north of Brazil.  
Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 155 ft, cased to 46 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 703.24 ft above sea level. Measuring point: Top of casing, 2.40 ft above land-surface datum.

PERIOD OF RECORD.--July 1967 to August 1971, October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.53 ft below land-surface datum, Apr. 19, 1970; lowest, 16.87 ft below land-surface datum, Oct. 30, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.74	13.11	12.66	12.38	12.32	12.37	12.45	12.59	12.97	13.39	14.11	14.83
10	13.64	13.22	12.54	12.44	12.39	12.35	12.46	12.62	13.10	13.52	14.29	14.94
15	13.49	13.06	12.52	12.41	12.38	12.24	12.41	12.54	13.12	13.53	14.38	15.04
20	13.61	13.00	12.43	12.51	12.34	12.31	12.59	12.68	13.22	13.63	14.43	15.19
25	13.39	12.95	12.34	12.27	12.31	12.47	12.47	12.67	13.23	13.68	14.66	15.11
DOM	13.25	12.97	12.46	12.42	12.46	12.54	12.47	12.90	13.33	13.90	14.71	15.22

WTR YR 1994 HIGH 12.19 JAN 28

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.81	13.19	12.74	12.47	12.39	12.40	12.50	12.63	13.06	13.44	14.24	14.90
10	13.70	13.30	12.70	12.56	12.48	12.45	12.60	12.71	13.16	13.58	14.34	14.98
15	13.60	13.20	12.60	12.53	12.47	12.34	12.49	12.63	13.18	13.58	14.45	15.10
20	13.96	13.05	12.53	12.58	12.45	12.37	12.63	12.75	13.30	13.70	14.49	15.24
25	13.46	13.04	12.53	12.41	12.45	12.54	12.56	12.76	13.34	13.72	14.70	15.18
DOM	13.33	13.03	12.51	12.46	12.53	12.58	12.59	12.93	13.40	13.95	14.82	15.30

WTR YR 1994 LOW 15.30 SEP 30

## GROUND-WATER DATA

## POSEY COUNTY

380758087551001. Local number, FY 3.

LOCATION.--Lat 38°07'58", long 87°55'10", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.31, T.4 S., R.13 W., Posey County, Hydrologic Unit 05120113, on property of the New Harmony Park Board, at the east edge of New Harmony.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 58 ft, cased to 54ft, screened to 56 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 383.55 ft above sea level. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by Wabash River floods.

PERIOD OF RECORD.--April 1967 to September 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.95 ft below land-surface datum, May 14, 1983; lowest, 21.40 ft below land-surface datum, Nov. 4, 8-15, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.83	16.14	9.02	12.23	10.50	11.93	13.83	9.69	12.90	14.80	16.67	18.16
10	16.08	16.50	9.33	12.71	10.68	12.39	13.58	9.82	13.30	15.10	16.97	18.35
15	16.22	14.68	9.65	13.08	11.40	12.33	12.36	10.11	13.81	15.32	17.23	18.53
20	16.32	11.61	10.42	13.53	12.00	12.79	9.17	10.75	14.15	15.64	17.46	18.72
25	15.97	7.54	10.91	13.26	11.44	13.27	8.91	11.51	14.48	15.97	17.71	18.89
EOM	15.86	8.51	11.77	11.49	11.49	13.65	9.25	12.41	14.55	16.36	17.95	19.06

WTR YR 1994 HIGH 7.51 NOV 26

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.87	16.26	9.18	12.36	10.71	12.03	13.92	9.76	12.99	14.86	16.74	18.19
10	16.13	16.53	9.63	12.79	10.76	12.51	13.79	9.94	13.41	15.14	17.01	18.39
15	16.24	15.50	9.92	13.22	11.62	12.57	12.56	10.19	13.91	15.39	17.28	18.57
20	16.38	12.59	10.58	13.66	12.14	12.85	10.18	10.92	14.21	15.71	17.50	18.76
25	16.05	7.78	11.28	13.56	11.67	13.34	9.23	11.65	14.55	16.03	17.75	18.92
EOM	15.98	8.79	11.88	11.65	11.53	13.69	9.84	12.50	14.61	16.42	18.00	19.09

WTR YR 1994 LOW 19.09 SEP 30

## GROUND-WATER DATA

323

380546087474301. Local number, PY 5.

## POSEY COUNTY

LOCATION.--Lat 38°05'46", long 87°47'43", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec. 18, T.5S., R.12W., Posey County, Hydrologic Unit 05120113, about 0.5 mi southwest of Wadesville along the west edge of Laurel Hill Cemetery.  
 Owner: U.S. Geological Survey

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 221 ft, cased to 160 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 460.60 ft above sea level. Measuring point: Top of casing, 3.60 ft above land-surface datum.

REMARKS.--Well record may be affected by pumpage.

PERIOD OF RECORD.--September 1988 to current year.

REVISED RECORDS.--WDR IN 94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.83 ft below land-surface datum, Mar. 27, 1991; lowest, 146.52 ft below land-surface datum, Sept. 13, 1994.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	140.80	140.40	140.11	140.11	139.66	138.93	138.52	138.41	139.62	140.62	142.75	143.27
10	140.51	140.37	139.69	139.99	139.55	138.88	138.33	138.74	139.62	140.94	142.89	143.33
15	140.86	140.29	139.66	139.97	139.23	139.09	138.08	139.09	139.79	141.60	142.73	---
20	140.56	139.97	139.88	139.88	139.21	138.92	138.31	139.09	140.16	141.97	142.79	---
25	140.47	139.88	139.90	140.24	139.13	138.74	138.45	139.12	140.45	142.02	143.09	---
DOM	140.48	140.00	139.97	139.77	139.38	138.38	138.54	139.16	140.31	142.71	143.66	---

WTR YR 1993 HIGH 138.08 APR 15

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	140.89	140.54	140.38	140.26	139.93	139.13	138.67	138.58	139.77	140.76	143.24	143.36
10	140.75	140.57	139.97	140.19	139.61	139.12	138.44	139.07	139.67	141.10	143.26	143.51
15	141.01	140.33	139.88	140.13	139.41	139.16	138.34	139.45	139.91	141.74	142.87	---
20	140.75	140.12	140.12	140.10	139.41	139.07	138.60	139.24	140.31	142.07	142.93	---
25	140.60	140.08	140.13	140.35	139.45	138.89	138.62	139.27	140.53	142.13	143.21	---
DOM	141.08	140.11	140.21	139.99	139.49	138.54	138.64	139.46	140.42	143.27	143.82	---

WTR YR 1993 LOW 143.94 AUG 30

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	139.24	138.50	139.57	139.04	141.19	143.35	145.13	144.75
10	---	---	---	---	139.20	138.56	139.96	138.98	141.70	143.83	145.10	145.29
15	---	---	---	139.66	139.15	138.49	139.17	139.07	142.47	144.06	144.87	145.58
20	---	---	---	140.07	138.89	138.27	139.23	140.19	143.01	144.20	144.84	145.42
25	---	---	---	139.61	138.54	138.54	138.94	140.51	143.60	144.47	145.06	145.11
DOM	---	---	---	139.35	138.72	138.82	139.01	141.13	143.25	144.81	144.90	144.67

WTR YR 1994 HIGH 138.19 MAR 21

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	139.36	138.60	139.72	139.14	141.33	143.60	145.29	144.99
10	---	---	---	---	139.34	138.80	140.18	139.11	141.92	144.33	145.30	145.46
15	---	---	---	139.93	139.19	138.57	139.33	140.12	142.67	144.23	145.06	145.93
20	---	---	---	140.20	139.01	138.38	139.33	140.61	143.19	144.50	145.13	145.71
25	---	---	---	139.88	138.89	138.69	139.16	140.83	143.99	144.75	145.28	145.28
DOM	---	---	---	139.59	138.82	139.04	139.25	141.52	143.32	145.46	145.10	144.85

WTR YR 1994 LOW 146.52 SEP 13

## GROUND-WATER DATA

## PULASKI COUNTY

405916086530701. Local number, PU 6.

LOCATION.--Lat 40°59'16", long 86°53'07", in NW<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.4, T.29 N., R.4 W., Pulaski County, Hydrologic Unit 05120106, on private property at the north edge of Francesville.  
Owner: Earl Overmeyer.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 8 in., depth 663 ft, cased to 11 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 678.60 ft above sea level. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

REMARKS.--Water level affected by pumpage and earthquakes.

PERIOD OF RECORD.--July 1956 to February 1971, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.03 ft below land-surface datum, June 15, 1958; lowest, 25.98 ft below land-surface datum, Oct. 25, 1991.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.56	13.61	13.25	15.39	17.10	17.53	17.20	15.09	17.75	17.18	18.27	---
10	14.30	14.82	13.37	16.10	17.88	16.55	17.12	15.44	17.96	15.95	18.95	---
15	13.94	14.90	13.89	16.15	18.12	15.96	14.04	15.60	17.09	15.93	19.42	21.74
20	11.92	14.04	14.01	16.92	17.51	16.42	13.96	16.49	16.35	16.47	19.67	22.14
25	12.13	14.33	14.11	17.10	17.10	17.17	14.28	16.41	16.24	17.02	20.30	22.39
DOM	13.20	13.74	14.84	17.14	17.69	17.38	15.10	17.50	16.79	17.83	---	22.62

WTR YR 1994 HIGH 11.92 OCT 20

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.80	14.13	13.28	15.58	17.51	17.59	17.48	15.32	18.27	17.85	18.73	---
10	14.61	14.92	14.73	16.39	18.23	16.90	17.45	15.72	18.34	16.11	19.35	---
15	14.18	15.31	14.25	16.71	18.33	16.26	14.44	15.87	17.40	16.13	19.92	22.39
20	12.31	14.25	14.29	17.13	18.01	16.59	14.29	16.73	16.64	16.92	20.10	22.53
25	12.41	14.51	14.53	17.47	17.45	17.56	14.74	16.84	16.38	17.43	20.89	22.84
DOM	13.64	13.89	15.06	17.37	17.95	17.58	15.39	18.42	16.98	18.31	---	23.15

WTR YR 1994 LOW 23.35 SEP 29

## PULASKI COUNTY

410739086365201. Local number, PU 7.

LOCATION.--Lat 41°07'39", long 86°36'52", in NE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.23, T.31 N., R.2 W., Pulaski County, Hydrologic Unit 05120106, in the Winamac State Fish and Game Area, 0.8 mi southwest of Beardstown.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 105 ft, cased to 98 ft, screened to 100 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 715.26 ft above sea level. Measuring point: Top of floor of shelter, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1967 to September 1971, September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.69 ft below land-surface datum, June 15, 1981; lowest, 11.86 ft below land-surface datum, Nov. 6-9, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.37	7.35	6.65	7.59	7.76	7.71	7.92	6.90	8.43	8.69	9.67	10.35
10	8.21	7.61	6.77	7.75	8.08	7.45	7.86	6.96	8.55	8.74	9.84	10.45
15	8.24	7.36	7.05	7.88	8.17	7.46	6.63	7.21	8.26	8.88	9.84	10.56
20	6.77	7.03	7.10	8.05	7.83	7.70	6.82	7.58	8.46	9.07	9.93	10.65
25	6.86	7.16	7.20	8.08	7.65	7.90	7.05	7.81	8.45	9.24	10.08	10.67
DOM	7.21	6.96	7.48	7.61	7.84	7.92	6.83	8.06	8.41	9.71	10.31	10.76

WTR YR 1994 HIGH 6.61 APR 16

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.41	7.47	6.69	7.63	7.83	7.82	8.00	6.97	8.47	8.74	9.70	10.39
10	8.31	7.64	6.94	7.81	8.10	7.53	7.90	7.05	8.60	8.78	9.87	10.52
15	8.26	7.38	7.12	7.96	8.25	7.59	6.73	7.33	8.29	8.93	9.86	10.58
20	6.88	7.09	7.13	8.10	7.91	7.72	6.87	7.61	8.50	9.09	9.97	10.67
25	6.92	7.23	7.33	8.15	7.76	7.93	7.11	7.84	8.47	9.26	10.12	10.73
DOM	7.29	6.99	7.52	7.62	7.85	7.94	7.00	8.28	8.47	9.74	10.37	10.79

WTR YR 1994 LOW 10.79 SEP 30

## GROUND-WATER DATA

325

## PULASKI COUNTY

405605086551701. Local number, PU 8.

LOCATION.--Lat 40°56'05", long 86°55'17", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.30, T.29 N., R.4 W., Pulaski County, Hydrologic Unit 05120106, at the Arrowhead Country Resource Conservation and Development Office property, 11 mi east of Rensselaer on State Highway 114.  
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Middle Silurian Period, Wabash Formation.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 102 ft, cased to 12 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 683.76 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.54 ft below land-surface datum, Oct. 17, 1994; lowest, 11.74 ft below land-surface datum, Aug. 25, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	2.90	1.42	2.92	3.26	1.83	2.66	2.79	3.84	3.20	4.43	5.57
10	1.84	3.15	2.20	3.20	3.57	2.20	1.75	2.78	3.41	1.93	4.70	5.74
15	2.82	1.85	2.27	3.24	3.46	2.49	.76	3.07	2.10	3.02	4.77	5.38
20	1.05	2.03	1.85	3.58	2.44	2.89	2.55	3.36	---	3.46	4.93	6.05
25	2.32	1.56	2.48	3.10	2.64	3.18	2.95	3.44	---	3.72	5.23	6.02
DOM	2.86	2.31	2.92	2.89	2.99	2.93	2.22	3.63	3.89	4.14	5.42	6.17

WTR YR 1994 HIGH .54 OCT 17

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	3.08	1.66	3.05	3.39	2.12	2.84	2.92	3.90	4.05	4.49	5.64
10	2.15	3.18	2.53	3.27	3.66	2.44	2.44	2.89	3.51	2.42	4.76	5.80
15	2.87	2.18	2.36	3.40	3.59	2.76	1.55	3.24	2.56	3.18	4.83	5.93
20	1.73	2.28	2.18	3.64	2.59	2.99	2.67	3.39	---	3.58	5.03	6.09
25	2.44	2.45	2.72	3.25	2.95	3.22	3.03	3.49	---	3.80	5.27	6.16
DOM	2.96	2.39	3.02	2.96	3.02	2.98	2.90	3.68	3.95	4.20	5.56	6.27

WTR YR 1994 LOW 6.28 SEP 29

## RANDOLPH COUNTY

401532085085301. Local number, RA 3.

LOCATION.--Lat 40°15'32", long 85°08'53", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.23, T.21 N., R.12 E., Randolph County, Hydrologic Unit 05120103, at the east edge of Purdue University Agriculture Experiment Station, about 5.5 mi north of Farmland.  
Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 54 ft, cased to 33 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 970 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.85 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.68 ft below land-surface datum, Dec. 30, 1990; lowest, 15.18 ft below land-surface datum, Oct. 12, 13, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.95	12.89	10.27	11.26	11.01	10.91	10.93	10.47	11.17	12.17	12.60	13.36
10	12.99	13.17	10.31	11.51	11.56	10.49	9.52	10.50	11.45	11.73	12.88	13.61
15	12.97	10.79	10.68	11.54	11.46	10.11	9.20	10.50	11.82	11.80	12.92	13.78
20	12.88	10.45	10.68	11.80	10.90	10.45	9.94	10.89	11.90	12.09	13.01	13.96
25	12.86	11.03	10.61	11.80	10.67	10.83	10.27	10.79	11.75	12.28	13.31	13.91
DOM	12.99	11.39	11.14	10.69	11.06	11.03	10.51	10.97	11.93	12.49	13.26	14.05

WTR YR 1994 HIGH 8.67 APR 12

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.05	13.10	10.36	11.41	11.12	10.96	11.02	10.54	11.22	12.24	12.74	13.42
10	13.04	13.24	10.61	11.67	11.64	10.67	10.08	10.65	11.50	11.79	12.93	13.68
15	13.03	11.33	10.88	11.81	11.69	10.32	9.39	10.64	11.94	11.91	12.99	13.86
20	13.05	10.71	10.88	11.91	10.97	10.57	10.08	10.96	11.94	12.17	13.09	13.99
25	12.91	11.10	10.92	11.46	10.90	10.92	10.40	11.00	11.90	12.39	13.36	14.02
DOM	13.16	11.46	11.21	10.80	11.14	11.10	10.82	11.03	12.06	12.51	13.40	14.14

WTR YR 1994 LOW 14.14 SEP 30

## GROUND-WATER DATA

## ST. JOSEPH COUNTY

413120086055601. Local number, SJ 31.

LOCATION.--Lat 41°31'20", long 86°05'56", in SW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.31, T.36 N., R.4 E., St. Joseph County, Hydrologic Unit 07120001, 4 mi west of Wakarusa.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 109 ft, cased to 104 ft, screened to 109 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 830.50 ft above sea level. Measuring point: Top of casing, 3.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.71 ft below land-surface datum, Jan. 23, 1991; lowest, 12.64 ft below land-surface datum, Oct. 6,7, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.51	9.92	---	9.47	9.56	9.64	9.59	9.53	10.85	10.84	11.05	11.43
10	10.42	9.81	9.20	9.68	9.68	9.58	9.65	9.52	11.11	10.72	11.20	11.43
15	10.36	9.67	9.26	9.60	9.78	9.45	9.35	9.57	10.90	10.73	11.16	11.50
20	9.88	9.68	9.27	9.88	9.83	9.50	9.45	9.77	11.19	10.81	11.09	11.62
25	9.72	9.48	9.27	9.90	9.59	9.59	9.48	9.97	11.09	10.83	11.22	11.53
EOM	9.73	9.35	9.43	9.75	9.75	9.65	9.52	10.34	10.86	10.97	11.26	11.58

WTR YR 1994 HIGH 9.20 DEC 10

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.56	9.94	---	9.52	9.61	9.68	9.62	9.56	10.89	10.87	11.10	11.46
10	10.44	9.84	9.29	9.70	9.72	9.61	9.72	9.57	11.15	10.76	11.24	11.51
15	10.40	9.74	9.30	9.74	9.84	9.49	9.41	9.61	10.93	10.76	11.18	11.53
20	9.93	9.73	9.32	9.94	9.88	9.53	9.50	9.81	11.24	10.88	11.17	11.65
25	9.77	9.56	9.31	9.94	9.70	9.64	9.51	10.04	11.12	10.86	11.25	11.57
EOM	9.80	9.43	9.46	9.80	9.78	9.68	9.63	10.36	10.90	10.98	11.31	11.61

WTR YR 1994 LOW 11.65 SEP 20

## SHELBY COUNTY

393943085490901. Local number, SH 2.

LOCATION.--Lat 39°39'43", long 85°49'09", in SW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.13, T.14 N., R.6 E., Shelby County, Hydrologic Unit 05120204, on the county right-of-way at the intersection of County Roads 950 North and 200 West, 3.0 mi south of Carrollton.  
 Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Devonian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 150 ft, cased to 128 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 816.10 ft above sea level. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.90 ft below land-surface datum, May 27, 1968; lowest, 22.65 ft below land-surface datum, Feb. 7, 1977.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	---	20.04	20.44	21.09
10	18.22	---	---	---	---	---	---	---	---	20.05	20.63	21.25
15	---	---	---	---	---	---	---	---	---	19.99	20.68	21.38
20	---	---	---	---	---	---	---	---	---	20.13	20.79	21.52
25	---	---	---	---	---	---	---	---	20.11	20.33	21.01	21.47
EOM	---	---	---	---	---	---	---	---	20.09	20.44	20.97	21.58

WTR YR 1994 HIGH 18.07 OCT 3

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	---	20.08	20.48	21.12
10	18.37	---	---	---	---	---	---	---	---	20.11	20.65	21.31
15	---	---	---	---	---	---	---	---	---	20.00	20.72	21.41
20	---	---	---	---	---	---	---	---	---	20.21	20.82	21.54
25	---	---	---	---	---	---	---	---	20.26	20.35	21.03	21.50
EOM	---	---	---	---	---	---	---	---	20.11	20.44	21.05	21.62

WTR YR 1994 LOW 21.62 SEP 30

## GROUND-WATER DATA

327

## STARKE COUNTY

411342086365601. Local number, SK 2.

LOCATION.--Lat 41°13'42", long 86°36'56", in NW<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.14, T.32 N., R.2 W., Starke County, Hydrologic Unit 07120001, on private property in the southeast angle of intersection of U.S. Highway 35 and County Road 500 South, and 5.0 mi south of Knox.  
Owner: Samuel A. Craigmile.

AQUIFER.--Gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 85 ft, cased to 77 ft, screened to 85 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 712.97 ft above sea level. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1935 to December 1952 (random instantaneous measurements only), August 1963 to October 1966, June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.83 ft below land-surface datum, June 17, 1949; lowest, 6.99 ft below land-surface datum, Aug. 2, 1939, Sept. 17, 18, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.98	4.18	3.69	4.69	4.68	4.26	4.79	4.19	5.21	5.08	5.74	6.03
10	4.67	4.41	3.99	4.80	4.92	4.19	4.79	4.32	5.28	4.85	5.76	6.05
15	4.90	4.11	4.25	4.87	4.88	4.30	3.70	4.55	4.77	5.06	5.74	6.15
20	3.16	3.95	4.21	4.97	4.36	4.54	4.17	4.75	5.08	5.27	5.77	6.13
25	3.54	4.21	4.39	4.81	4.49	4.67	4.45	4.90	4.99	5.38	5.89	5.95
ROM	4.00	3.89	4.62	4.40	4.66	4.70	3.89	5.05	4.88	5.55	5.97	6.08

WTR YR 1994 HIGH 2.83 OCT 17

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	5.00	4.26	3.76	4.73	4.73	4.36	4.83	4.27	5.25	5.10	5.77	6.04
10	4.70	4.43	4.12	4.84	4.93	4.28	4.82	4.39	5.30	4.91	5.78	6.07
15	4.92	4.19	4.30	4.93	4.98	4.40	3.94	4.63	4.86	5.12	5.77	6.18
20	3.28	4.10	4.27	5.00	4.45	4.56	4.25	4.78	5.11	5.32	5.82	6.16
25	3.63	4.24	4.48	4.91	4.58	4.70	4.50	4.94	5.05	5.40	5.91	6.12
ROM	4.07	3.99	4.65	4.45	4.68	4.72	4.13	5.12	4.94	5.57	6.01	6.10

WTR YR 1994 LOW 6.19 SEP 23

## STUBEN COUNTY

414204085054002. Local number, SB 6.

LOCATION.--Lat 41°42'04", long 85°05'40", in SE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec.36, T.38 N., R.12 W., Steuben County, Hydrologic Unit 04050001, 0.5 east of Panama on the north side of the Lake Gage Congregational Church.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 76 ft, cased to 71 ft, screened to 76 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 987.89 ft above sea level. Measuring point: Top of casing, 3.60 ft above land-surface datum.

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

REVISED RECORDS.--WDR IN-91-1: 1989.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.68 ft below land-surface datum, July 1, 1993; lowest, 19.12 ft below land-surface datum, Oct. 17, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.96	16.19	16.55	16.91	17.09	17.03	17.05	16.88	17.12	17.41	17.79	18.12
10	16.01	16.30	16.54	16.96	17.17	16.96	17.10	16.91	17.19	17.47	17.83	18.20
15	16.05	16.35	16.65	17.03	17.19	16.92	16.99	16.89	17.24	17.52	17.89	18.26
20	16.01	16.41	16.69	17.10	17.09	16.96	16.95	16.95	17.28	17.58	17.90	18.33
25	16.11	16.48	16.72	17.12	16.95	17.05	16.89	16.96	17.30	17.63	17.99	18.36
ROM	16.17	16.56	16.83	17.09	17.03	17.06	16.85	17.07	17.36	17.73	18.04	18.41

WTR YR 1994 HIGH 15.80 OCT 1

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.98	16.27	16.59	16.96	17.15	17.05	17.11	16.92	17.16	17.44	17.82	18.16
10	16.03	16.34	16.67	17.01	17.23	17.03	17.17	16.96	17.23	17.51	17.87	18.23
15	16.08	16.43	16.71	17.08	17.26	17.00	17.03	16.94	17.26	17.55	17.92	18.29
20	16.09	16.45	16.71	17.12	17.14	17.01	16.98	17.00	17.34	17.62	17.94	18.36
25	16.15	16.51	16.80	17.18	17.08	17.08	16.93	17.00	17.36	17.65	18.01	18.40
ROM	16.23	16.58	16.87	17.11	17.06	17.08	16.94	17.09	17.40	17.74	18.11	18.47

WTR YR 1994 LOW 18.47 SEP 29

## GROUND-WATER DATA

## TIPPECANOE COUNTY

402734087033401. Local number, TC 17.

LOCATION.--Lat 40°27'34", long 87°03'34", NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.11, T.23 N., R.6 W., Tippecanoe County, Hydrologic Unit 05120108, on the property of Purdue University and at the southeast corner of the intersection of County Roads 300 North and 825 West, about 3.0 mi southeast of Otterbein.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age (Teays Valley aquifer).

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 212.5 ft, cased to 207.5 ft, screened to 212.5 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 681 ft above sea level, from topographic map. Measuring point: Top of casing, 3.60 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 110.98 ft below land-surface datum, October 2, 1989; lowest, 121.28 ft below land-surface datum, August 18, 1989.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	115.71	115.82	115.65	115.52	115.29	115.09	115.02	114.86	114.88
10	---	---	---	115.29	115.48	115.31	115.17	115.20	115.01	115.08	115.04	114.93
15	---	---	---	115.35	115.48	115.62	115.72	115.40	114.92	114.94	114.88	114.80
20	---	---	115.77	115.20	115.65	115.55	115.27	115.05	114.91	114.90	114.55	114.96
25	---	---	115.80	115.78	115.68	115.13	115.64	115.43	115.19	114.73	114.95	114.60
BOM	---	---	115.60	115.66	115.21	114.93	115.13	115.11	114.95	114.98	114.71	114.82

WTR YR 1994 HIGH 114.52 SEP 26

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	115.89	115.98	115.80	115.62	115.36	115.27	115.07	115.06	115.03
10	---	---	---	115.52	115.57	115.53	115.46	115.37	115.09	115.20	115.13	114.99
15	---	---	---	115.76	115.76	115.83	115.88	115.53	115.06	115.06	114.94	114.88
20	---	---	115.98	115.35	115.90	115.75	115.41	115.13	115.02	114.94	114.69	115.04
25	---	---	116.08	115.97	115.94	115.30	115.74	115.58	115.40	114.83	115.00	114.75
BOM	---	---	115.70	115.71	115.37	115.11	115.47	115.18	115.08	115.03	114.94	114.97

WTR YR 1994 LOW 116.42 JAN 28

## TIPPECANOE COUNTY

402734087033402. Local number, TC 18.

LOCATION.--Lat 40°27'34", long 87°03'34", NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.11, T.23 N., R.6 W., Tippecanoe County, Hydrologic Unit 05120108, on the property of Purdue University and at the southeast corner of the intersection of County Roads 300 North and 825 West, about 3.0 mi southeast of Otterbein.  
Owner: U.S. Geological Survey

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 64 ft, cased to 59 ft, screened to 64 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 681 ft above sea level, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.67 ft below land-surface datum, Mar. 27, 1991; lowest, 21.74 ft below land-surface datum, Nov. 16, 1991.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.01	19.65	18.93	19.40	19.93	20.22	17.20	18.08	19.43	20.24	20.65	21.17
10	20.10	19.92	18.89	19.60	20.11	19.73	17.76	18.55	19.61	19.87	20.78	21.24
15	20.17	19.82	19.03	19.70	20.15	19.73	18.14	---	19.74	20.14	20.81	21.31
20	19.65	19.28	19.07	19.89	20.05	19.83	16.83	---	19.94	20.26	20.88	21.38
25	19.49	19.33	19.01	19.83	20.10	19.99	17.20	18.78	19.98	20.38	20.99	21.42
BOM	19.56	19.18	19.29	19.68	20.26	19.67	17.66	19.16	20.11	20.55	21.06	21.52

WTR YR 1994 HIGH 16.82 APR 21

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	20.06	19.73	18.98	19.44	19.97	20.22	17.39	18.23	19.45	20.27	20.69	21.17
10	20.13	19.92	19.00	19.63	20.12	19.82	17.85	18.63	19.65	19.94	20.79	21.26
15	20.18	19.82	19.09	19.79	20.17	19.80	18.23	---	19.79	20.18	20.83	21.32
20	19.75	19.29	19.13	19.95	20.09	19.86	17.04	---	19.96	20.30	20.89	21.40
25	19.50	19.34	19.11	19.94	20.19	20.03	17.33	18.80	20.03	20.40	21.01	21.43
BOM	19.63	19.20	19.31	19.75	20.26	19.81	17.69	19.20	20.20	20.57	21.10	21.54

WTR YR 1994 LOW 21.54 SEP 30

## GROUND-WATER DATA

329

## VANDERBURGH COUNTY

380608087395901. Local number, VA 6.

LOCATION.--Lat 38°06'08", long 87°39'59", in SE<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.8, T.5 S., R.11 W., Vanderburgh County, Hydrologic Unit 05120113, on county right-of-way at the intersection of Buente and New Harmony Roads, 1.0 mi southwest of Armstrong.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 125 ft, cased to 80 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 446.57 ft above sea level. Measuring point: Top of floor of shelter, 3.40 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.88 ft below land-surface datum, Apr. 3, 4, 1968; lowest, 35.50 ft below land-surface datum, Nov. 27, 1991.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.61	34.26	33.67	33.34	33.24	32.84	32.99	32.94	33.83	34.33	34.81	34.90
10	34.61	34.55	33.53	33.69	33.22	32.95	32.96	32.89	33.82	34.43	34.84	35.05
15	34.54	34.26	33.38	33.49	33.10	33.00	32.88	32.83	34.14	34.52	34.88	35.12
20	34.38	34.15	33.33	33.65	33.02	32.92	33.21	33.17	34.50	34.56	34.82	35.17
25	34.47	34.15	33.20	33.41	32.81	33.13	33.05	33.29	34.27	34.65	35.02	34.97
EOM	34.40	34.19	33.49	33.50	33.01	33.20	32.84	33.77	34.16	34.84	35.01	34.98

WTR YR 1994 HIGH 32.70 MAY 7

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.73	34.40	33.79	33.47	33.36	32.96	33.15	33.04	33.98	34.43	34.97	35.07
10	34.71	34.62	33.78	33.92	33.36	33.08	33.19	33.03	33.96	34.53	34.99	35.18
15	34.68	34.47	33.53	33.75	33.21	33.15	33.06	32.99	34.27	34.61	34.98	35.26
20	34.54	34.22	33.47	33.78	33.15	33.02	33.29	33.30	34.61	34.69	35.00	35.28
25	34.58	34.18	33.50	33.62	33.07	33.23	33.18	33.44	34.39	34.79	35.13	35.09
EOM	34.58	34.28	33.59	33.58	33.14	33.29	33.15	33.95	34.19	34.89	35.11	35.10

WTR YR 1994 LOW 35.29 SEP 18

## VANDERBURGH COUNTY

380626087344401. Local number, VA 7.

LOCATION.--Lat 38°06'26", long 87°34'44", in NE<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, NW<sup>1</sup>/<sub>4</sub>, sec.7, T.5 S., R.10 W., Vanderburgh County, Hydrologic Unit 05120113, on north side of Salem United Church of Christ 0.5 mi north of Darmstadt.

Owner: U.S. Geological Survey.

AQUIFER.--Inglefield Sandstone Member, Patoka Formation of Pennsylvanian Period.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 70 ft, cased to 39.3 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 475.35 ft above sea level. Measuring point: Top of floor of shelter, 4.04 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.93 ft below land-surface datum, Mar. 27, 1991; lowest, 25.06 ft below land-surface datum, Oct. 29, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.04	22.42	21.35	21.44	20.99	20.74	20.85	20.55	21.17	22.06	22.69	23.40
10	23.13	22.98	21.21	21.79	21.24	20.97	20.80	20.54	21.46	22.25	22.97	23.60
15	23.00	22.61	21.18	21.68	21.22	20.52	20.34	20.40	21.66	22.22	23.02	23.56
20	22.85	22.24	21.23	21.91	21.01	20.57	20.70	20.87	21.65	22.33	22.95	23.75
25	22.75	22.06	21.12	21.27	20.72	21.12	20.50	20.63	21.62	22.33	23.35	23.65
EOM	22.71	22.27	21.64	21.40	20.97	21.29	20.67	21.22	21.88	22.73	23.25	23.86

WTR YR 1994 HIGH 20.28 MAR 18

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.29	22.77	21.60	21.80	21.09	20.87	20.93	20.71	21.30	22.15	22.92	23.49
10	23.26	23.14	21.54	22.02	21.50	21.25	21.08	20.70	21.55	22.38	23.05	23.75
15	23.21	22.97	21.52	22.02	21.42	20.75	20.63	20.70	21.80	22.39	23.17	23.68
20	23.07	22.39	21.50	22.08	21.21	20.78	20.86	20.95	21.84	22.46	23.01	23.91
25	22.90	22.12	21.65	21.48	21.14	21.29	20.64	20.79	21.80	22.44	23.48	23.73
EOM	22.99	22.41	21.79	21.47	21.18	21.45	21.05	21.38	22.01	22.80	23.49	24.00

WTR YR 1994 LOW 24.00 SEP 30

## GROUND-WATER DATA

## VIGO COUNTY

392820087242601. Local number, VI 7.

LOCATION.--Lat 39°28'20", long 87°24'26", in SE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec. 21, T.12 N., R.9 W., Vigo County, Hydrologic Unit 05120111, on the campus of Indiana State University, in Terre Haute.  
 Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 70 ft, cased to 67 ft, screened to 70 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 502 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.35 ft below land-surface datum, Dec. 13, 1993; lowest, 51.90 ft below land-surface datum, Sept. 29 to Oct. 1, 1972.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.59	40.54	38.63	39.43	40.22	40.51	41.33	38.90	40.24	41.44	42.33	43.32
10	40.72	40.83	38.38	39.73	40.02	40.68	41.53	38.88	40.58	41.47	42.56	43.45
15	40.87	40.94	38.38	40.09	40.10	40.53	41.19	38.93	40.91	41.48	42.72	43.60
20	40.93	40.36	38.64	40.47	40.32	40.64	40.06	39.18	41.11	41.63	42.83	43.77
25	40.57	39.47	38.84	40.80	40.34	40.83	39.16	39.55	41.28	41.84	42.99	43.90
ROM	40.39	38.98	39.13	40.79	40.41	41.12	39.04	39.96	41.45	42.10	43.17	44.03

WTR YR 1994 HIGH 38.35 DEC 13

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.61	40.62	38.69	39.47	40.33	40.56	41.38	38.94	40.30	41.46	42.39	43.34
10	40.77	40.88	38.40	39.79	40.04	40.68	41.55	38.90	40.65	41.49	42.60	43.48
15	40.89	40.97	38.46	40.18	40.16	40.54	41.30	38.97	40.98	41.50	42.75	43.63
20	40.97	40.53	38.68	40.56	40.37	40.65	40.28	39.25	41.13	41.68	42.86	43.80
25	40.66	39.63	38.90	40.85	40.40	40.87	39.28	39.63	41.33	41.89	43.03	43.93
ROM	40.43	39.06	39.18	40.86	40.41	41.16	39.07	40.01	41.46	42.15	43.20	44.04

WTR YR 1994 LOW 44.04 SEP 30

## GROUND-WATER DATA

331

404424085422801. Local number, WB 3.

## WABASH COUNTY

LOCATION.--Lat 40°44'24", long 85°42'28", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, sec.35, T.27 N., R.7 E., Wabash County, Hydrologic Unit 05120101, on State Highway 124, 3.5 mi west of the county line and in the southwest corner of United Telephone Company property.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 105 ft, cased to 100 ft, screened to 105 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 850.45 ft above sea level. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

REVISED RECORDS.--WDR IN-94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.85 ft below land-surface datum, Mar. 27, 1991 and Apr. 1, 1993; lowest, 48.25 ft below land-surface datum, Sept. 30, 1994.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.55	45.15	44.95	44.70	44.72	44.67	44.21	44.03	44.61	44.73	---	---
10	45.43	45.33	44.81	44.63	44.74	44.50	44.00	44.21	44.75	---	---	---
15	45.51	45.10	44.93	44.65	44.80	44.60	43.90	44.05	44.70	---	---	---
20	45.53	45.04	44.99	44.80	44.85	44.64	43.96	44.34	44.76	---	---	---
25	45.46	44.79	45.00	44.65	45.02	44.43	43.99	44.48	44.96	---	---	45.21
BOM	45.50	44.86	44.97	44.42	45.11	43.89	44.15	44.54	44.88	---	---	---

WTR YR 1993 HIGH 43.85 APR 1

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	45.67	45.20	45.17	44.84	44.85	44.81	44.32	44.16	44.82	44.77	---	---
10	45.44	45.44	45.03	44.77	44.77	44.71	44.12	44.26	44.79	---	---	---
15	45.52	45.18	45.22	44.69	44.87	44.66	44.09	44.17	44.80	---	---	---
20	45.68	45.21	45.20	44.99	44.99	44.70	44.15	44.42	44.82	---	---	---
25	45.51	44.90	45.17	44.73	45.13	44.49	44.25	44.65	44.90	---	---	45.35
BOM	45.55	44.94	45.14	44.52	45.18	44.16	44.20	44.69	44.91	---	---	---

WTR YR 1993 LOW 45.75 OCT 22

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	45.44	45.15	45.47	45.94	46.15	46.06	45.89	46.31	46.99	47.29	47.79
10	---	45.87	45.02	45.92	46.22	46.13	46.01	45.81	46.41	47.00	47.49	47.90
15	45.50	45.54	45.14	45.72	46.22	45.90	45.39	45.70	46.53	47.04	47.37	48.00
20	45.42	45.14	45.22	46.22	46.15	45.94	45.60	45.99	46.78	47.14	47.23	48.04
25	45.55	45.39	45.20	46.00	46.00	46.03	45.87	45.73	46.57	47.12	47.54	48.00
BOM	45.42	45.46	45.55	46.05	46.49	46.25	45.78	46.17	46.80	47.27	47.48	48.17

WTR YR 1994 HIGH 45.02 DEC 10

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	45.51	45.19	45.57	46.03	46.27	46.13	45.98	46.40	47.01	47.40	47.85
10	---	45.93	45.16	46.01	46.30	46.34	46.11	45.91	46.47	47.08	47.51	47.98
15	45.54	45.72	45.25	46.01	46.37	45.96	45.52	45.76	46.64	47.07	47.42	48.06
20	45.48	45.26	45.34	46.31	46.24	46.02	45.70	46.04	46.91	47.15	47.32	48.08
25	45.60	45.45	45.32	46.12	46.15	46.12	45.94	45.84	46.67	47.13	47.57	48.09
BOM	45.55	45.60	45.60	46.06	46.55	46.30	45.99	46.20	46.89	47.31	47.65	48.25

WTR YR 1994 LOW 48.25 SEP 30

## GROUND-WATER DATA

## WABASH COUNTY

403948085414601. Local number, WB 4.

LOCATION.--Lat 40°39'48", long 85°41'46", in NE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>, sec. 35, T.26N., R.7E., Wabash County, Hydrologic Unit 05120103, on America Road, 1.3 mi southeast of La Fontaine.

Owner: U.S. Geological Survey

AQUIFER.--Sand and gravel of the Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 118 ft, cased to 113 ft, screened to 118 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 837.40 ft (revised) above sea level. Measuring point: Top of casing, 3.30 ft above land-surface datum.

PERIOD OF RECORD.--August 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.19 ft below land-surface datum, Nov. 5, 1988; lowest, 44.58 ft below land-surface datum, Dec. 23, 1989.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.46	43.08	43.11	43.25	43.64	43.63	43.51	43.53	43.44	43.61	43.90	44.19
10	43.52	43.63	43.00	43.61	43.93	43.79	43.64	43.45	43.53	43.68	44.11	44.23
15	43.57	43.35	43.05	43.46	43.75	43.46	43.19	43.22	43.58	43.61	43.96	44.19
20	43.35	43.26	43.08	43.99	43.65	43.59	43.51	43.56	43.58	43.68	43.77	44.34
25	43.43	43.46	43.03	43.60	43.53	43.66	43.29	43.18	43.18	43.63	44.18	44.06
DOM	43.24	43.61	43.33	43.83	43.97	43.87	43.43	43.51	43.43	43.97	44.02	44.26

WTR YR 1994 HIGH 43.00 DEC 10

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	43.68	43.24	43.22	43.38	43.75	43.77	43.63	43.60	43.57	43.69	44.08	44.31
10	43.66	43.72	43.21	43.79	44.03	43.91	43.79	43.58	43.60	43.77	44.17	44.30
15	43.70	43.72	43.22	43.85	43.94	43.57	43.32	43.32	43.69	43.72	44.00	44.24
20	43.55	43.43	43.27	44.10	43.79	43.70	43.65	43.63	43.66	43.73	43.90	44.39
25	43.54	43.57	43.19	43.73	43.77	43.85	43.38	43.31	43.40	43.69	44.21	44.19
DOM	43.36	43.77	43.38	43.87	44.09	43.99	43.71	43.60	43.58	44.00	44.21	44.39

WTR YR 1994 LOW 44.43 SEP 3

## WARRICK COUNTY

380624087164801. Local number, WK 4.

LOCATION.--Lat 38°06'24", long 87°16'48", in S<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub>, sec. 2, T.5 S., R.8 W., Warrick County, Hydrologic Unit 05140201, on State Highway 61, 4.2 mi north of Boonville.

Owner: U.S. Geological Survey.

AQUIFER.--Sandstone from lower Dugger Formation of Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 105 ft, cased to 30 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 446.18 ft above sea level. Measuring point: Top of floor of shelter, 4.09 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.01 ft below land-surface datum, Mar. 22, 1991; lowest, 18.20 ft below land-surface datum, Oct. 30, 1988.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.32	9.44	8.34	8.77	8.59	8.61	8.78	8.74	9.55	9.92	10.97	11.50
10	10.24	9.55	8.38	8.93	8.70	8.77	8.60	8.68	9.67	9.92	11.12	11.64
15	10.16	9.12	8.45	8.80	8.79	8.58	8.37	8.78	9.86	9.92	11.19	11.82
20	9.88	8.76	8.52	8.98	8.80	8.67	8.56	8.94	10.05	10.14	11.32	11.98
25	9.65	8.78	8.61	8.81	8.38	8.88	8.82	9.12	10.08	10.45	11.55	12.05
DOM	9.57	8.68	8.90	8.48	8.54	8.88	8.76	9.45	9.73	10.87	11.47	12.15

WTR YR 1994 HIGH 8.34 DEC 4

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.34	9.46	8.39	8.83	8.62	8.66	8.84	8.76	9.57	9.98	11.02	11.53
10	10.27	9.57	8.45	8.96	8.72	8.83	8.66	8.73	9.70	9.96	11.15	11.68
15	10.19	9.14	8.48	8.88	8.82	8.60	8.43	8.80	9.92	9.96	11.22	11.85
20	10.03	8.77	8.55	9.04	8.87	8.68	8.62	8.99	10.08	10.20	11.35	12.01
25	9.68	8.83	8.71	8.94	8.45	8.94	8.86	9.14	10.11	10.51	11.59	12.07
DOM	9.60	8.73	8.91	8.51	8.56	8.90	9.01	9.49	9.75	10.94	11.48	12.17

WTR YR 1994 LOW 12.17 SEP 30

## GROUND-WATER DATA

333

## WASHINGTON COUNTY

383012086124501. Local number, WA 2.

LOCATION.--Lat 38 30'12", long 86 12'45", IN NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.20, T.1 N., R.3 E., Washington County, Hydrologic Unit 05140104, on West Washington School Road, 5.1 mi north of Fredericksburg.  
 Owner: U.S. Geological Survey.

AQUIFER.--Limestone of Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depty 142.5 ft, cased to 101 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 780 ft above sea level, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

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

REVISED RECORDS.--WDR IN-94-1: 1993.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 65.57 ft below land-surface datum, June 8, 1990; lowest, 74.58 ft below land-surface datum, Jan. 3, 1993.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.50	73.75	73.62	73.79	72.30	70.81	71.16	70.37	71.25	72.12	72.96	73.17
10	73.48	73.96	73.72	73.75	72.39	71.59	70.95	70.68	71.33	72.21	73.01	73.17
15	73.56	73.75	73.89	73.68	72.22	72.19	70.19	70.78	71.60	72.36	73.02	---
20	73.69	73.75	74.05	73.40	72.21	72.05	70.29	70.94	71.73	72.53	72.80	---
25	73.69	73.34	74.16	72.38	71.85	71.42	70.50	71.17	71.83	72.64	73.07	---
EOM	73.82	73.48	74.26	---	72.06	71.37	70.46	71.45	71.90	72.80	73.22	---

WTR YR 1993 HIGH 70.14 APR 16

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	73.67	73.91	73.79	74.02	72.47	71.23	71.29	70.56	71.35	72.16	72.99	73.20
10	73.63	74.20	74.07	73.95	72.53	71.96	71.02	70.76	71.45	72.27	73.02	73.23
15	73.90	73.94	74.08	73.84	72.37	72.30	70.43	70.98	71.75	72.63	73.04	---
20	73.75	74.08	74.21	73.70	72.39	72.26	70.45	71.09	71.81	72.62	72.87	---
25	74.12	73.62	74.46	72.56	71.95	71.56	70.57	71.34	71.89	72.69	73.17	---
EOM	73.98	73.74	74.57	---	72.23	71.56	70.52	71.59	71.97	72.85	73.26	---

WTR YR 1993 LOW 74.58 JAN 3

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	72.90	71.87	72.68	73.19	72.79	72.58	72.19	72.33	73.21	73.53	73.30
10	---	73.33	72.27	72.91	73.12	72.73	72.21	72.24	72.37	73.11	73.34	73.36
15	---	72.33	72.34	72.94	72.96	72.58	72.40	72.10	72.52	73.21	73.60	73.37
20	---	72.65	72.36	73.26	72.79	72.57	72.50	72.11	72.85	73.32	73.46	73.66
25	---	72.68	72.40	72.97	72.42	72.64	72.45	72.08	72.96	73.41	73.37	73.43
EOM	72.74	72.79	72.66	73.02	72.82	72.63	69.42	72.20	72.98	73.66	73.29	73.43

WTR YR 1994 HIGH 69.42 APR 30

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	73.01	72.20	72.74	73.28	72.86	72.64	72.27	72.40	73.29	73.64	73.47
10	---	73.36	72.40	73.01	73.17	72.84	72.57	72.32	72.47	73.21	73.43	73.49
15	---	72.69	72.43	73.07	73.00	72.66	72.47	72.17	72.61	73.27	73.70	73.48
20	---	72.74	72.43	73.36	72.83	72.65	72.57	72.18	72.93	73.42	73.53	73.81
25	---	72.71	72.58	73.28	72.82	72.72	72.56	72.21	73.07	73.50	73.46	73.50
EOM	72.80	72.84	72.69	73.09	72.88	72.66	72.39	72.28	73.05	73.78	73.38	73.54

WTR YR 1994 LOW 73.81 SEP 20

GROUND-WATER DATA

WAYNE COUNTY

394426085080601. Local number, WE 5.

LOCATION.--Lat 39 44'26", long 85 08'06", in SE<sup>1</sup>/<sub>4</sub>/NW<sup>1</sup>/<sub>4</sub>/NE<sup>1</sup>/<sub>4</sub>, sec.24, T.15 N., R.12 E., Wayne County, Hydrologic Unit 05080603, on county right-of-way, 750 ft east of State Highway 1, and 4.0 mi south of East Germantown. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 49 ft, cased to 47 ft, screened to 49 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 888 ft above sea level, from topographic map. Measuring point: Top of collar in shelter, 3.60 ft above land-surface datum.

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

REVISED RECORDS.--WDR IN-81-1: 1980.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.03 ft below land-surface datum, Jan. 1, 1991; lowest, 21.68 ft below land-surface datum, Feb. 1, 1977.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.58	14.90	11.17	12.63	11.45	12.77	13.60	12.30	13.39	14.12	15.35	16.89
10	15.60	15.04	10.97	12.84	12.16	12.96	12.74	12.40	13.64	14.24	15.61	17.09
15	15.67	13.18	11.48	13.04	12.52	13.10	10.71	12.55	13.89	14.41	15.86	17.29
20	15.60	10.24	11.80	13.26	12.50	13.20	11.13	12.69	14.14	14.59	16.12	17.50
25	15.14	10.74	12.07	13.18	12.43	13.33	11.72	12.88	14.38	14.79	16.37	17.70
EOM	14.90	11.39	12.40	10.68	12.56	13.49	12.12	13.16	14.21	15.08	16.66	17.89

WTR YR 1994 HIGH 10.24 NOV 20

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	15.58	14.93	11.64	12.67	11.63	12.82	13.62	12.34	13.43	14.13	15.40	16.93
10	15.61	15.07	11.09	12.88	12.26	13.00	13.42	12.43	13.69	14.27	15.66	17.13
15	15.69	14.46	11.54	13.09	12.59	13.13	10.77	12.58	13.94	14.45	15.91	17.33
20	15.65	10.30	11.85	13.31	12.54	13.23	11.26	12.72	14.19	14.63	16.16	17.54
25	15.22	10.89	12.13	13.46	12.47	13.36	11.81	12.92	14.43	14.84	16.42	17.75
EOM	14.91	11.52	12.45	10.79	12.60	13.51	12.15	13.20	14.23	15.13	16.71	17.92

WTR YR 1994 LOW 17.92 SEP 30

WELLS COUNTY

404331085064701. Local number, WL 4.

LOCATION.--Lat 40 43'31", long 85 06'47", in SE<sup>1</sup>/<sub>4</sub>/NW<sup>1</sup>/<sub>4</sub>/NE<sup>1</sup>/<sub>4</sub>, sec.12, T.26 N., R.12 E., Wells County, Hydrologic Unit 05120101, 1000 ft south of north entrance to Ouabache State Recreation Area, and 3.5 mi southeast of Bluffton. Owner: U.S. Geological Survey.

AQUIFER.--Silty dolomite of Silurian age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 79 ft, cased to 46 ft, open end.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 826.04 ft above sea level. Measuring point: Top of floor of shelter, 2.35 ft above land-surface datum.

PERIOD OF RECORD.--January 1967 to current year. (Semi-annual tape-down readings only September 1971 to December 1981.)

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.70 ft below land-surface datum, Apr. 4, 1973; lowest, 25.21 ft below land-surface datum, Sept. 24, 1988.

HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.09	23.11	21.94	22.76	22.17	22.48	22.48	22.42	22.74	23.40	---	---
10	23.15	23.38	21.83	22.96	22.76	22.27	22.01	22.13	22.94	23.54	---	---
15	23.11	23.08	22.17	23.03	22.74	22.00	20.88	21.97	23.24	23.69	---	---
20	22.92	21.53	22.28	23.32	22.09	22.25	21.80	22.42	23.53	23.76	---	---
25	23.06	22.22	22.27	23.09	22.15	22.52	21.81	22.42	23.22	23.86	---	---
EOM	23.12	22.52	22.69	21.58	22.60	22.62	21.98	22.63	23.35	---	---	---

WTR YR 1994 HIGH 20.88 APR 15

LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.17	23.30	22.10	22.94	22.33	22.56	22.66	22.85	22.84	23.52	---	---
10	23.25	23.47	22.23	23.17	22.91	22.53	22.13	22.28	23.07	23.66	---	---
15	23.22	23.15	22.40	23.30	22.93	22.27	21.16	22.18	23.39	23.83	---	---
20	23.14	21.64	22.42	23.40	22.24	22.44	21.92	22.50	23.62	23.88	---	---
25	23.15	22.30	22.58	23.29	22.49	22.64	21.91	22.56	23.36	23.95	---	---
EOM	23.31	22.59	22.78	21.67	22.66	22.74	22.27	22.74	23.49	---	---	---

WTR YR 1994 LOW 24.06 JUL 30

## GROUND-WATER DATA

335

404914086403001. Local number, WT 4.

## WHITE COUNTY

LOCATION.--Lat 40°49'14", long 86°40'30", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.5, T.27 N., R.2 E., White County, Hydrologic Unit 05120106, in the southwest corner of the Pious Chapel property, 4.25 mi north of Idiville.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table well, diameter 6 in., depth 134 ft, cased to 129 ft, screened to 134 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 683.06 ft above sea level. Measuring point: Top of casing, 3.20 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.65 ft below land-surface datum, Jan. 7, 1993; lowest, 13.66 ft below land-surface datum, Aug. 3, 1991.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.48	3.19	3.07	3.77	4.18	3.96	---	---	5.89	3.93	4.75	5.33
10	3.66	3.56	3.08	3.94	4.31	3.50	---	---	4.21	3.10	5.83	5.28
15	3.78	3.54	3.34	4.03	4.34	3.46	---	---	3.37	3.45	4.79	5.51
20	2.46	3.03	3.35	4.20	4.00	3.62	---	---	3.42	3.79	4.95	5.58
25	2.45	3.25	3.34	4.18	4.01	3.90	---	---	3.99	4.01	4.97	5.56
BOM	2.98	3.25	3.64	4.03	4.06	3.93	---	3.73	3.67	5.63	5.16	5.66

WTR YR 1994 HIGH 2.38 OCT 23

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	3.56	3.33	3.15	3.82	4.27	4.02	---	---	6.92	3.99	4.79	5.55
10	3.69	3.60	3.27	4.03	4.36	3.58	---	---	4.47	3.15	5.86	5.33
15	3.82	3.57	3.41	4.16	4.42	3.58	---	---	3.60	3.56	5.03	5.73
20	2.63	3.08	3.42	4.26	4.04	3.69	---	---	4.81	3.87	5.28	5.61
25	2.54	3.28	3.47	4.26	4.10	3.94	---	---	4.43	4.12	5.25	5.63
BOM	3.09	3.32	3.66	4.06	4.08	3.97	---	3.75	3.75	5.64	5.19	5.70

WTR YR 1994 LOW 7.55 JUN 8

## WHITLEY COUNTY

410337085264201. Local number, WY 3.

LOCATION.--Lat 41°03'37", long 85°26'42", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>2</sub> sec.18, T.30 N., R.10 E., Whitley County, Hydrologic Unit 05120104, on the county right-of-way of Evergreen Road, and 0.75 mi north of Laud.  
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 191 ft, cased to 187 ft, screened to 191 ft.

INSTRUMENTATION.--Water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above sea level, from topographic map. Measuring point: Top of floor of shelter, 2.68 ft above land-surface datum.

PERIOD OF RECORD.--December 1966 to September 1971, August 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 49.30 ft below land-surface datum, Mar. 27, 1976; lowest, 52.96 ft below land-surface datum, Dec. 7, 1989.

## HIGHEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

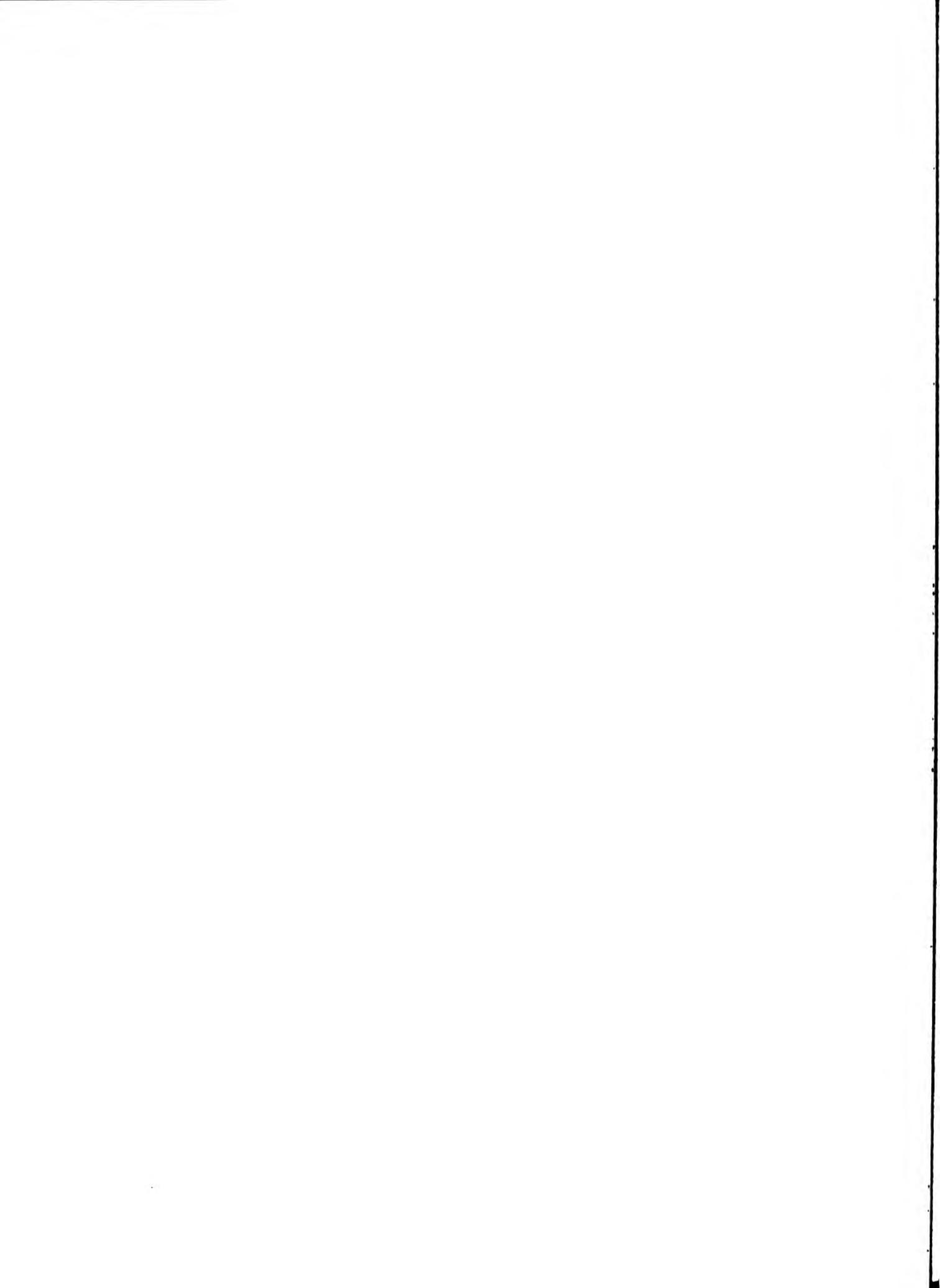
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.21	50.99	50.89	51.06	51.26	51.31	51.19	50.86	51.07	51.33	51.58	51.81
10	51.19	51.27	50.75	51.24	51.48	51.37	51.25	50.84	51.20	51.39	51.68	51.91
15	51.12	51.13	50.91	51.20	51.41	51.18	50.91	50.73	51.23	51.40	51.61	51.90
20	50.95	51.11	50.86	51.48	51.38	51.18	51.10	50.94	51.37	51.44	51.48	52.04
25	51.11	51.22	50.82	51.28	51.13	51.31	50.85	50.75	51.15	51.34	51.73	51.88
BOM	51.03	51.28	51.08	51.41	51.48	51.39	50.86	50.99	51.20	51.57	51.69	52.02

WTR YR 1994 HIGH 50.71 MAY 26

## LOWEST WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1993 TO SEPTEMBER 1994

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	51.29	51.11	50.99	51.19	51.38	51.41	51.33	50.96	51.20	51.45	51.72	51.97
10	51.28	51.38	51.05	51.43	51.58	51.56	51.47	50.97	51.30	51.50	51.76	51.97
15	51.26	51.38	51.06	51.43	51.60	51.32	51.03	50.82	51.36	51.47	51.68	52.00
20	51.16	51.22	50.98	51.58	51.54	51.30	51.17	51.07	51.52	51.54	51.60	52.12
25	51.20	51.31	51.01	51.47	51.44	51.42	50.99	50.89	51.30	51.44	51.77	51.99
BOM	51.19	51.35	51.14	51.46	51.57	51.49	51.06	51.05	51.30	51.63	51.83	52.13

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## CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	$2.54 \times 10^1$	millimeter
foot (ft)	$2.54 \times 10^{-2}$	meter
mile (mi)	$3.048 \times 10^{-1}$	meter
	$1.609 \times 10^0$	kilometer
<i>Area</i>		
acre	$4.047 \times 10^{-3}$	square meter
	$4.047 \times 10^{-1}$	square hectometer
square mile (mi <sup>2</sup> )	$4.047 \times 10^{-3}$	square kilometer
	$2.590 \times 10^0$	square kilometer
<i>Volume</i>		
gallon (gal)	$3.785 \times 10^0$	liter
	$3.785 \times 10^0$	cubic decimeter
million gallons (Mgal)	$3.785 \times 10^{-3}$	cubic meter
	$3.785 \times 10^3$	cubic meter
cubic foot (ft <sup>3</sup> )	$3.785 \times 10^{-3}$	cubic hectometer
	$2.832 \times 10^1$	cubic decimeter
cubic-foot-per-second day [(ft <sup>3</sup> /s) d]	$2.832 \times 10^{-2}$	cubic meter
	$2.447 \times 10^3$	cubic meter
acre-foot (acre-ft)	$2.447 \times 10^{-3}$	cubic hectometer
	$1.233 \times 10^3$	cubic meter
	$1.233 \times 10^{-3}$	cubic hectometer
	$1.233 \times 10^{-6}$	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liter per second
	$2.832 \times 10^1$	cubic decimeter per second
	$2.832 \times 10^{-2}$	cubic meter per second
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second
	$6.309 \times 10^{-2}$	cubic decimeter per second
	$6.309 \times 10^{-5}$	cubic meter per second
million gallons per day (Mgal/d)	$4.381 \times 10^1$	cubic decimeter per second
	$4.381 \times 10^{-2}$	cubic meter per second
<i>Mass</i>		
ton (short)	$9.072 \times 10^{-1}$	megagram or metric ton

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

