

ANNUAL MAXIMUM AND MINIMUM LAKE LEVELS FOR INDIANA, WATER YEARS 1942-85

by Kathleen K. Fowler

U.S. GEOLOGICAL SURVEY

Open-File Report 88-331

Prepared in cooperation with the

INDIANA DEPARTMENT OF NATURAL RESOURCES



Indianapolis, Indiana

1988

DEPARTMENT OF THE INTERIOR
DONALD PAUL HODEL, Secretary
U.S. GEOLOGICAL SURVEY
Dallas L. Peck, Director

For additional information,
write to:

District Chief
U.S. Geological Survey
5957 Lakeside Boulevard
Indianapolis, Indiana 46278

Copies of this report can
be purchased from:

U.S. Geological Survey
Books and Open-File Reports Section
Federal Center, Building 810
Box 25425
Denver, Colorado 80225

CONTENTS

	Page
Abstract.....	1
Introduction.....	1
Purpose and scope.....	2
Previous work.....	2
Acknowledgments.....	3
Available information.....	3
Method of data presentation.....	10
Summary.....	18
References cited.....	19
Appendix A: Lake-station descriptions and annual maximum and minimum lake levels.....	20
Appendix B: Index of lake stations.....	359

FIGURES

Figures 1-6. Maps showing:	
1. Location of lake stations in Indiana except those in Kosciusko, Lagrange, Noble, Steuben, and Whitley Counties.....	4
2. Location of lake stations in Kosciusko County, Indiana....	5
3. Location of lake stations in Lagrange County, Indiana.....	6
4. Location of lake stations in Noble County, Indiana.....	7
5. Location of lake stations in Steuben County, Indiana.....	8
6. Location of lake stations in Whitley County, Indiana.....	9

TABLE

Table 1. Lake stations and period of record.....	11
--	----

CONVERSION FACTORS AND ABBREVIATIONS

For those readers who prefer to use metric (International System) units, rather than the inch-pound terms in this report, the following conversion factors may be used:

<u>Multiply Inch-Pound Unit</u>	<u>By</u>	<u>To Obtain Metric Unit</u>
acre	4,047	square meter
foot (ft)	0.3048	meter
inch (in.)	25.4	millimeter
mile (mi)	1.609	kilometer
square mile (mi ²)	2.590	square kilometer

DATUM

The National Geodetic Vertical Datum of 1929 (NGVD) 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. 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.

ANNUAL MAXIMUM AND MINIMUM LAKE LEVELS FOR INDIANA, WATER YEARS 1942-85

By Kathleen K. Fowler

ABSTRACT

Indiana has many natural and manmade lakes. Lake-level data are available for 217 lakes. These data were collected during water years 1942-85 by use of staff gages and, more recently, continuous recorders. The period of record at each site ranges from 1 to 43 years. Data from the lake stations have been compiled, and maximum and minimum lake levels for each year of record are reported. In addition to annual maximum and minimum lake levels, each lake station is described by gage location, surface area, drainage area, period of record, datum of gage, gage type, established legal level, lake-level control, inlets and outlets, and extremes for the period of record.

INTRODUCTION

The natural lakes in Indiana are located primarily in the northern part of the State. Natural lakes and the manmade lakes and reservoirs have contributed to the State's vast surface-water resource. Use of this resource has resulted in conflicts among water users regarding water levels. Low lake levels are beneficial with respect to flood control, but greatly diminish the usefulness of a lake for boating, fishing, and other recreation. High lake levels provide abundant water supplies to cities and towns, but increase the risk of flooding to homes and agricultural areas in close proximity to the lakes.

The usefulness of a lake often is increased substantially by minimizing lake-level fluctuations. However, many problems can arise from attempts to control lake levels. Seepage to or from ground water, transpiration, and evaporation influence lake levels, but are difficult or impractical to control. Generally, lake levels are maintained by the installation of control structures on the lake-outlet channel.

In 1935, the Indiana State Legislature recognized the benefits of minimizing lake-level fluctuations and adopted a procedure for establishing and maintaining lake levels (Acts of Indiana General Assembly, 1935, Chapter 102). However, sufficient data were not available for properly establishing legal lake levels; therefore, in 1942, the U.S. Geological Survey, in cooperation with the Indiana Department of Conservation (now the Indiana Department of Natural Resources (IDNR)), began establishing lake stations on many Indiana lakes. In 1947, a law was passed authorizing the Indiana Department of Conservation to establish legal levels for all the natural and manmade lakes in the State.

The 1947 law stated in part:

The Indiana Department of Conservation of the State of Indiana is hereby authorized and empowered to establish, by appropriate monuments, the average normal water level of all natural and artificial lakes of the State of Indiana and to construct or sponsor and supervise the construction of dams, spillways, and control works necessary to maintain the average normal lake level. Such water level monuments shall be as permanent in character as practicable and shall fix the average normal level, and indicate the elevation of the highest point to which the water of such lake or lakes shall have risen within the past ten years prior to the passage of this act***

(Acts of the Indiana General Assembly, 1947, Chapter 350).

Solutions to lake-level problems depend on the availability of basic data. Information about normal levels, maximum and minimum levels, and the frequency and duration of extreme levels are needed to manage the State's lake resources (Perrey and Corbett, 1956, p. 4, 5.). Since 1942, the U.S. Geological Survey has maintained a lake-level monitoring program on many of Indiana's lakes. The data collected are used in the establishment of legal lake levels; in flood studies; in the design and construction of bridges, piers, and dams; and in many other projects requiring the knowledge of past and present lake levels.

Purpose and Scope

The purpose of this report is to present the annual maximum and minimum lake levels from water years 1942-85 for 217 natural and manmade lakes in Indiana. Most of these data were previously unpublished and were stored in the U.S. Geological Survey's Indiana District Office files. The information in this report consists of lake-gage location, lake surface area, lake drainage area, period of record, datum of gage, gage type, established legal lake levels, lake-level controls, lake inlets and outlets, extreme lake levels for the period of record, and annual extreme lake levels for the period of record through September 1985.

Previous Work

The first major study of Indiana lakes (Perrey and Corbett, 1956) described a historical and modern overview of natural and manmade lakes. Results from several lake studies discussed in the report include rate of sedimentation in lakes, variations in lake temperature, evaporation from lake surfaces, and ice conditions on northern Indiana lakes. The report contains level data for 28 lakes that have periods of record ranging from 7 to 11 years. Tables of maximum and minimum levels, average levels, maximum thickness of ice cover, discharge measurements at the outlet, and hydrographs are included for each lake.

Since the publication of Perrey and Corbett's report in 1956, the U.S. Geological Survey has completed the topographic mapping of Indiana. The maps (at a scale of 1:24,000), which were completed in 1965 and are updated periodically, have provided a more accurate base for determining drainage areas and surface areas of lakes. The present report uses the more accurate information. Also revised from Perrey and Corbett (1956) are the datums of several of the lake stations. Minor errors in the original surveys have been corrected, and the updated values are included. A note has been added where previously published data has been revised.

Acknowledgments

Lew Trent of the Indiana Department of Natural Resources, Division of Water, provided valuable assistance by supplying information detailing the type of control structure and the date of its installation for many of the lakes included in this report. Lake-level data for the 11 reservoirs in this report were supplied by the U.S. Army Corps of Engineers, the Indianapolis Water Company, and the City of Indianapolis, Flood Control Division.

AVAILABLE INFORMATION

Water-level records have been collected for many of the State's lakes for more than 40 years. Beginning in 1942, records were based on once-daily staff-gage readings by a local observer. After 1976, digital water-stage recorders were installed, in addition to the staff gages, at most lake stations in the network. A standard U.S. Geological Survey staff gage consists of porcelain-enameled iron sections, each 4 in. wide, 3.4 ft long, and graduated every 0.02 ft. Digital water-stage recorders produce a punched-tape record of the water level (in gage datum) with respect to time. Staff gages and digital water-stage recorders are described in Rantz and others (1982).

Because all the data on file for the 217 lake stations are too voluminous for publication, only annual maximum and minimum lake levels, period-of-record extremes, and lake-station characteristics (gage location, surface area, drainage area, period of record, gage, legal level, control structure, and inlet and outlet), through water year 1985, are included in this report. The locations of the lake stations are shown in figures 1-6. Daily water levels are available at the Indiana District Office of the U.S. Geological Survey. In addition, the IDNR, Division of Water, and the U.S. Army Corps of Engineers have information about outlet control structures for many of the lakes described in this report. Lake-level data for subsequent water years will be published annually in the U.S. Geological Survey report "Water Resources Data for Indiana."

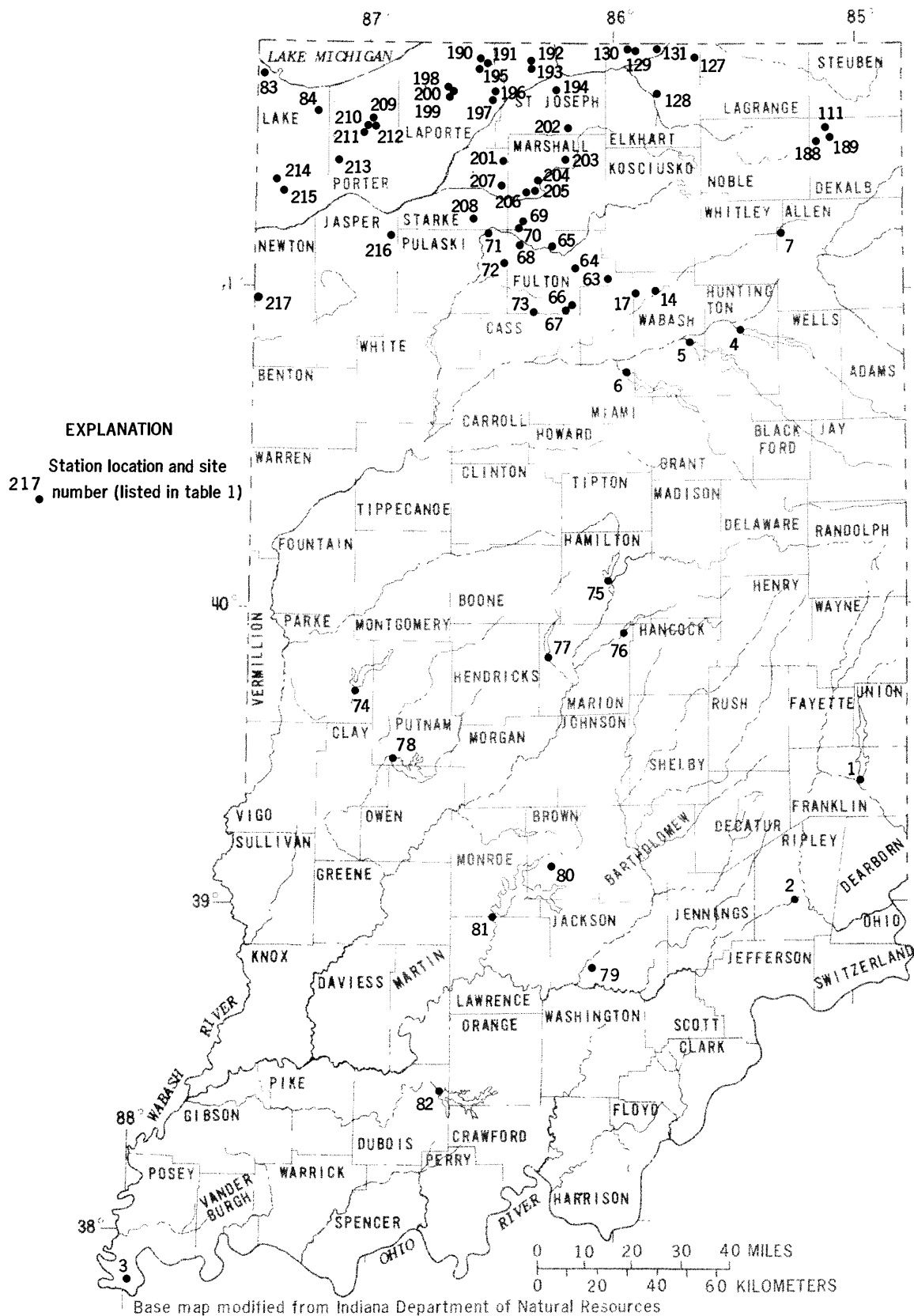


Figure 1.- Location of lake stations in Indiana except those in Kosciusko, Lagrange, Noble, Steuben, and Whitley Counties.

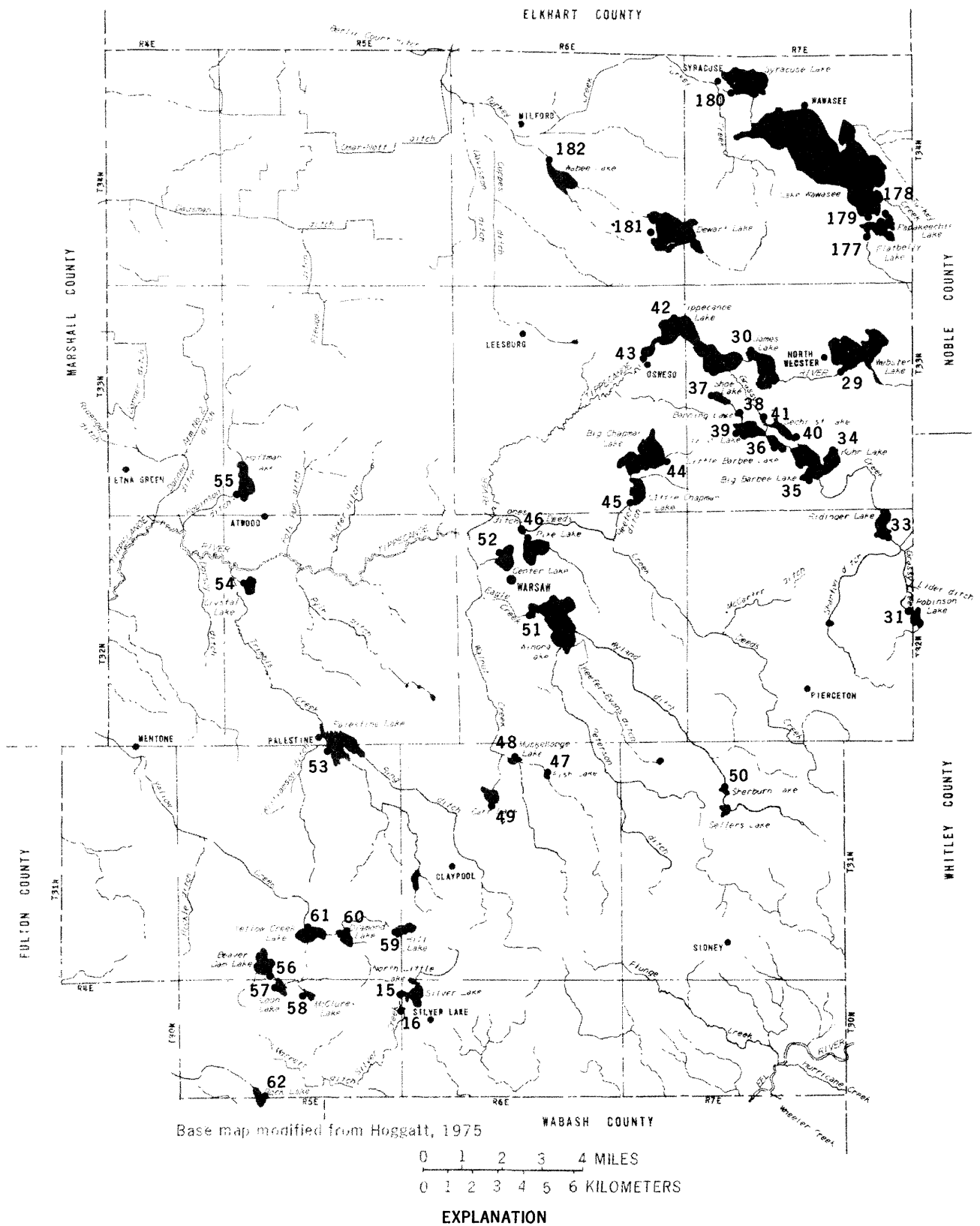


Figure 2.-- Location of lake stations in Kosciusko County, Indiana.

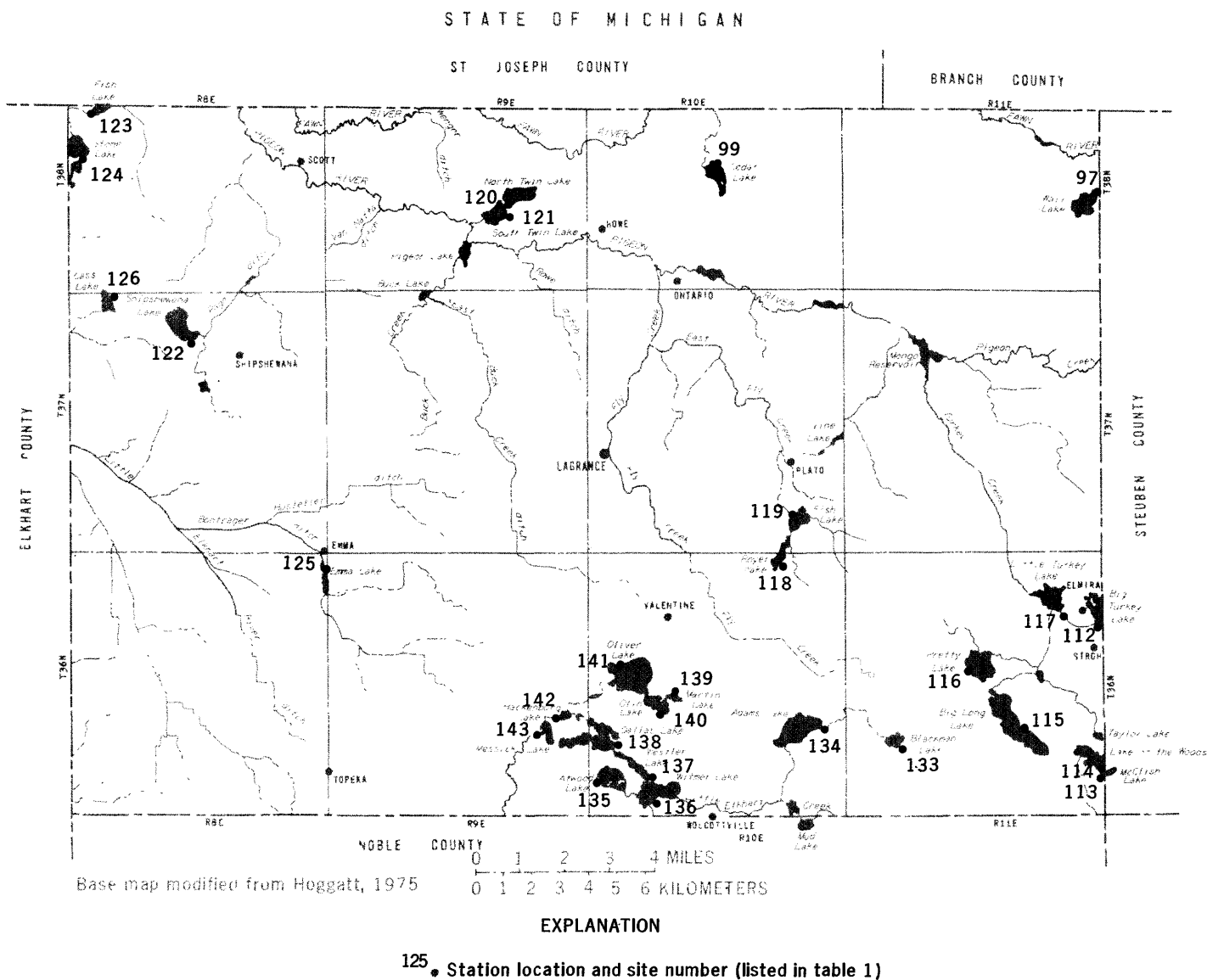
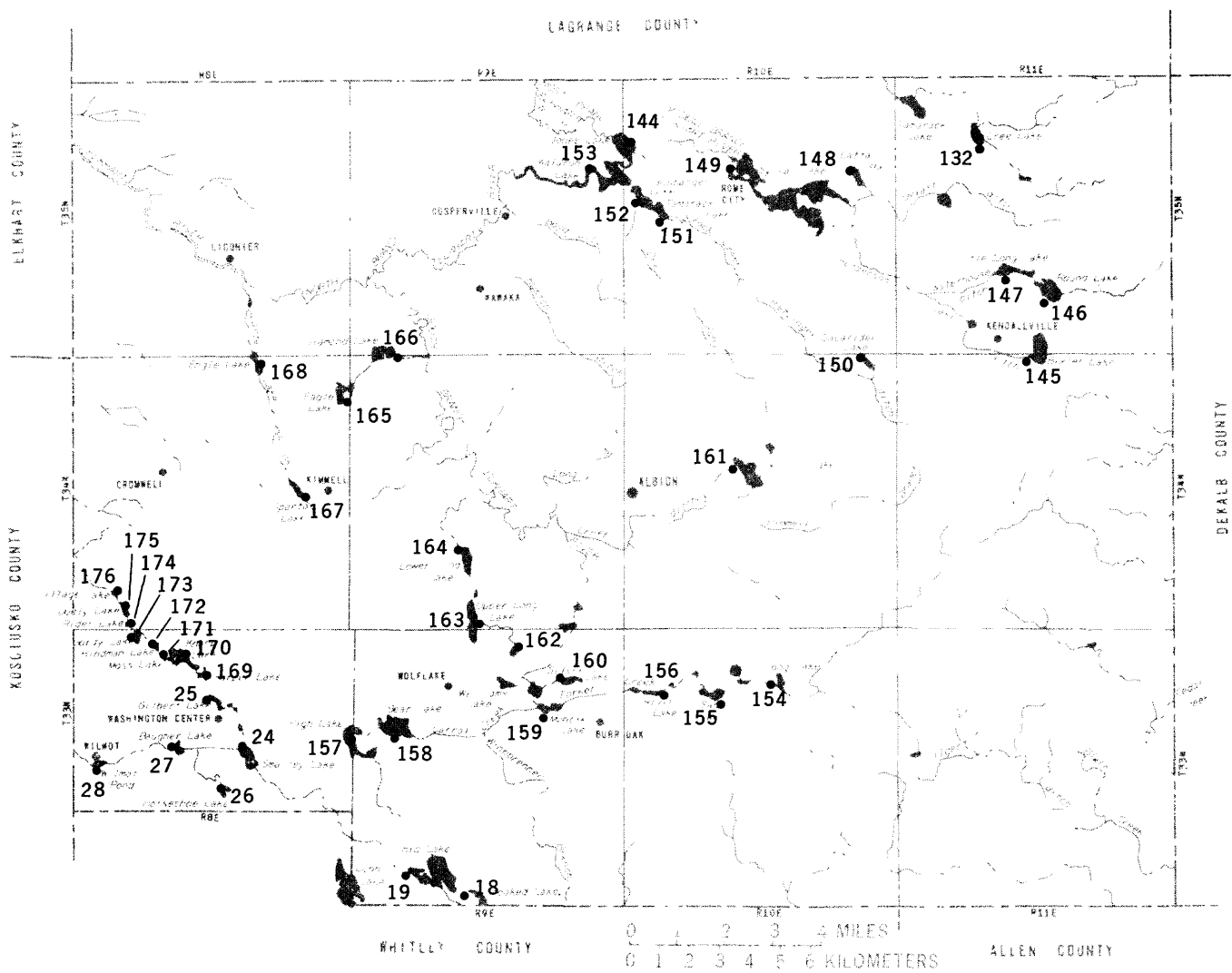


Figure 3.-- Location of lake stations in Lagrange County, Indiana.



EXPLANATION

19. Station location and site number (listed in table 1)

Figure 4.-- Location of lake stations in Noble County, Indiana.

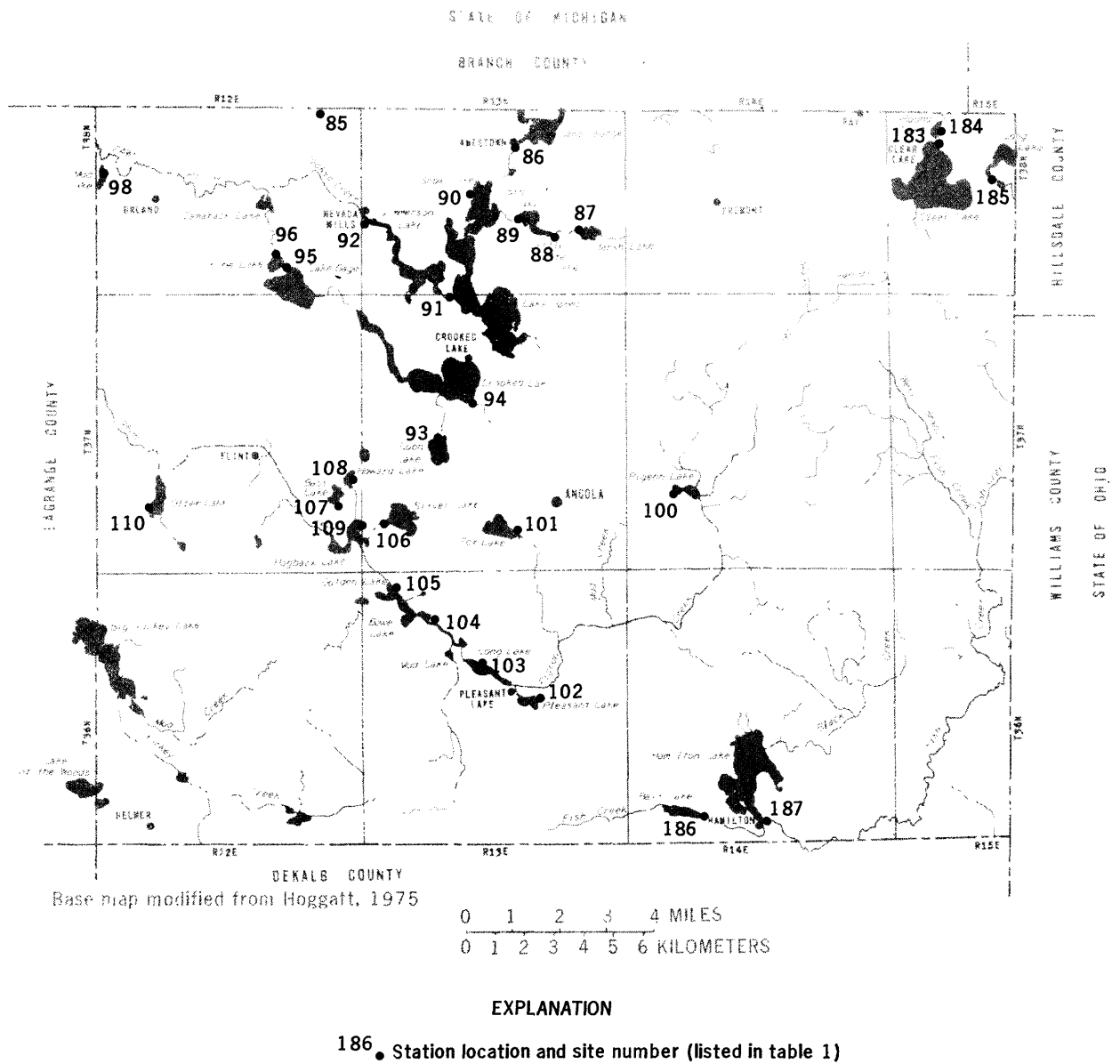


Figure 5.-- Location of lake stations in Steuben County, Indiana.

METHOD OF DATA PRESENTATION

This report presents lake-station information in three parts: the bar chart in table 1, which indicates period of record; the lake-station description; and the annual extreme levels for the period of record. The bar chart in table 1 indicates the water years when data were collected; it is blank if the station was discontinued or if 1 or more years of data are missing. The site number in table 1 refers to the lake-station locations in figures 1 through 6. The eight-digit number preceding the station name is an identification number assigned according to downstream order by the U.S. Geological Survey. The first two digits of the number designates the major river basin and are the Part numbers. Lakes in this report are in Part 03 (Ohio River basin), Part 04 (St. Lawrence River basin), and Part 05 (upper Mississippi River basin). The remaining six digits indicate relative positions in downstream order.

A brief lake-station description and the annual extreme levels for each of the 217 lake stations in the lake network are contained in the "Lake-Station Description" section. The lake network includes the lakes currently being gaged and lakes that have been gaged in the past by the U.S. Geological Survey or by other agencies. The descriptions are those of the lake or lake station during the time when data were being collected. If the lake station is still active, the current (1985) conditions are included.

Not all of the 217 lakes included in this report have individual "Lake-Station Descriptions." If two or more lakes share the same control structure, usually only one of the lakes is gaged. The lake levels of the gaged lake are approximations of the levels of the ungaged lakes with the same control structure and established legal level. These ungaged lakes are listed in the "Established Legal Level" paragraph of the "Lake-Station Descriptions."

Table 1.--Lake stations and period of record

Site number (fig. 1-6.)	Station number	Station name	Period of record											
			1940	1945	1950	1955	1960	1965	1970	1975	1980	1985		
1	03275990	Brookville Lake at Brookville												
2	03276800	Versailles Lake near Versailles												
3	03322300	Hovey Lake near Mount Vernon												
4	03323450	Huntington Lake near Huntington												
5	03324450	Salamonie Lake at Dora												
6	03326950	Mississinewa Lake at Peoria												
7	03327550	Everett Lake at Levert												
8	03327600	Blue Lake near Churubusco												
9	03327650	Shriner Lake at Tri-Lakes												
10	03327700	Cedar Lake at Tri-Lakes												
11	03327750	Round Lake at Tri-Lakes												
12	03327800	Wilson Lake near Larwill												
13	03327850	Little Wilson Lake near Larwill												
14	03328100	Long Lake at Laketon												
15	03328250	North Little Lake at Silver Lake												
16	03328350	Silver Lake at Silver Lake												
17	03328400	Lukens Lake near Disko												
18	03330020	Crooked Lake near Wolflake												
19	03330040	Big Lake near Wolflake												
20	033330060	Goose Lake near Lorane												
21	03330080	Loon Lake at Ormas												
22	03330100	New Lake near Etna												
23	03330120	Old Lake near Etna												
24	033330140	Smalley Lake near Washington Center												
25	033330160	Gilbert Lake near Washington Center												
26	03330180	Horseshoe Lake near Washington Center												
27	03330200	Baughner Lake near Washington Center												
28	03330220	Wilmot Pond at Wilmot												
29	03330240	Webster Lake at North Webster												
30	033330243	James Lake at Oswego												
31	03330260	Robinson Lake near Pierceton												
32	03330280	Troy Cedar Lake near Lorane												
33	03330300	Ridinger Lake near Pierceton												
34	033330320	Kuhn Lake near North Webster												
35	033330340	Big Barbee Lake near North Webster												

Table 1.--Lake stations and period of record--Continued

Site number (fig. 1-6.)	Station number	Station name	Period of record										
			1940	1945	1950	1955	1960	1965	1970	1975	1980	1985	
36	03330360	Little Barbee Lake near North Webster											
37	03330380	Shoe Lake near Oswego											
38	03330400	Banning Lake near North Webster											
39	03330420	Irish Lake near North Webster											
40	03330440	Sechrist Lake near North Webster											
41	03330460	Sawmill Lake near North Webster											
42	03330480	Tippecanoe Lake at Oswego											
43	03330495	Oswego Lake at Oswego											
44	03331010	Big Chapman Lake near Warsaw											
45	03331020	Little Chapman Lake near Warsaw											
46	03331040	Pike Lake at Warsaw											
47	03331060	Fish Lake near Warsaw											
48	03331080	Muskellunge Lake near Warsaw											
49	03331100	Carr Lake near Claypool											
50	03331120	Sherburn Lake near Pierceton											
51	03331140	Winona Lake at Warsaw											
52	03331160	Center Lake at Warsaw											
53	03331180	Palestine Lake at Palestine											
54	03331200	Crystal Lake near Atwood											
55	03331220	Hoffman Lake at Atwood											
56	03331240	Beaver Dam Lake near Silver Lake											
57	03331260	Loon Lake near Silver Lake											
58	03331280	McClures Lake near Silver Lake											
59	03331300	Hill Lake near Silver Lake											
60	03331320	Diamond Lake near Silver Lake											
61	03331340	Yellow Creek Lake near Silver Lake											
62	03331360	Rock Lake near Akron											
63	03331370	Town Lake near Akron											
64	03331380	Lake Manitou at Rochester											
65	03331390	Zink Lake near Rochester											
66	03331400	Nyona Lake near Greenoak											
67	03331420	South Mud Lake near Fulton											
68	03331438	King Lake near Delong											
69	03331440	Lake Maxinkuckee at Culver											
70	03331460	Lost Lake near Culver											

Table 1.--Lake stations and period of record--Continued

Site number (fig. 1-6.)	Station number	Station name	Period of record											
			1940	1945	1950	1955	1960	1965	1970	1975	1980	1985		
71	03331480	Langenbaum Lake near Monterey												
72	03331700	Bruce Lake at Lake Bruce												
73	03332200	Fletcher Lake at Fletcher Lake												
74	03340870	Cecil M. Hardin Lake at Ferndale												
75	03350300	Morse Reservoir near Noblesville												
76	03351700	Geist Reservoir near Oaklandon												
77	03353450	Eagle Creek Reservoir near Indianapolis												
78	03358900	Cagles Mill Lake near Manhattan												
79	03370900	Starve Hollow Lake near Vallonia												
80	03371700	Ogle Lake near Nashville												
81	03372400	Monroe Lake near Harrodsburg												
82	03374498	Patoka Lake near Cuzco												
83	04092500	Wolf Lake at Hammond												
84	04092990	Lake George at Hobart												
85	04097520	Lake Pleasant near Nevada Mills												
86	04097550	Lake George at Jamestown												
87	04097596	Marsh Lake near Fremont												
88	04097600	Little Otter Lake near Fremont												
89	04097640	Big Otter Lake near Fremont												
90	04097650	Snow Lake at Lake James												
91	04097660	Lake James at Lake James												
92	04097680	Jimmerson Lake at Nevada Mills												
93	04097780	Loon Lake near Angola												
94	04097850	Crooked Lake at Crooked Lake												
95	04097950	Lake Gage at Panama												
96	04097960	Lime Lake at Panama												
97	04098100	Wall Lake near Orland												
98	04098110	Mud Lake near Orland												
99	04098300	Cedar Lake near Ontario												
100	04099050	Pigeon Lake near Angola												
101	04099100	Fox Lake near Angola												
102	04099190	Pleasant Lake at Pleasant Lake												
103	04099200	Long Lake at Moonlight												
104	04099250	Bower Lake near Pleasant Lake												
105	04099260	Golden Lake near Pleasant Lake												

Table 1.--Lake stations and period of record--Continued

Site number (fig. 1-6.)	Station number	Station name	Period of record											
			1940	1945	1950	1955	1960	1965	1970	1975	1980	1985		
106	04099400	Silver Lake near Angola												
107	04099430	Bass Lake near Angola												
108	04099440	Howard Lake near Angola												
109	04099500	Hogback Lake near Angola												
110	04099520	Otter Lake near Flint												
111	04099540	Story Lake near Hudson												
112	04099560	Big Turkey Lake at Stroh												
113	04099575	McClish Lake near Helmer												
114	04099580	Lake of the Woods near Helmer												
115	04099600	Big Long Lake near Stroh												
116	04099620	Pretty Lake near Stroh												
117	04099640	Little Turkey Lake at Elmira												
118	04099660	Royer Lake near Plato												
119	04099670	Fish Lake near Plato												
120	04099700	North Twin Lake near Howe												
121	04099710	South Twin Lake near Howe												
122	04099740	Shipshewana Lake near Shipshewana												
123	04099760	Fish Lake near Scott												
124	04099780	Stone Lake near Scott												
125	04099800	Emma Lake near Emma												
126	04099810	Cass Lake near Shipshewana												
127	04099820	Hunter Lake near Middlebury												
128	04099840	Wolf Lake near Goshen												
129	04099860	Heaton Lake near Elkhart												
130	04099880	Simonton Lake near Elkhart												
131	04099950	Indiana Lake near Bristol												
132	04100010	Cree Lake near Kendallville												
133	04100020	Blackman Lake near Wolcottville												
134	04100030	Adams Lake near Wolcottville												
135	04100040	Atwood Lake near Wolcottville												
136	04100050	Witmer Lake near Wolcottville												
137	04100060	Westler Lake near Wolcottville												
138	04100070	Dallas Lake near Wolcottville												
139	04100080	Martin Lake near Valentine												
140	04100090	Olin Lake near Valentine												

Table 1.--Lake stations and period of record--Continued

Site number (fig. 1-6.)	Station number	Station name	Period of record											
			1940	1945	1950	1955	1960	1965	1970	1975	1980	1985		
141	04100100	Oliver Lake near Valentine												
142	04100110	Hackenburg Lake near Wolcottville												
143	04100120	Messick Lake near Wolcottville												
144	04100130	Jones Lake near Cosperville												
145	04100140	Bixler Lake at Kendallville												
146	04100150	Round Lake at Kendallville												
147	04100160	Little Long Lake at Kendallville												
148	04100170	Latta Lake near Rome City												
149	04100180	Sylvan Lake at Rome City												
150	04100190	Sacarider Lake near Kendallville												
151	04100200	Tamarack Lake near Cosperville												
152	04100210	Steinbarger Lake near Cosperville												
153	04100220	Waldron Lake near Cosperville												
154	04100230	Long Lake near Burr Oak												
155	04100240	Sand Lake near Burr Oak												
156	04100250	Rivir Lake near Burr Oak												
157	04100258	High Lake near Wolflake												
158	04100260	Bear Lake near Wolflake												
159	04100280	Muncie Lake near Burr Oak												
160	04100290	Silver Lake near Wolflake												
161	04100300	Skinner Lake near Albion												
162	04100310	Pleasant Lake near Wolflake												
163	04100320	Upper Long Lake near Wolflake												
164	04100330	Lower Long Lake near Albion												
165	04100340	Eagle Lake near Kimmel												
166	04100350	Diamond Lake near Wawaka												
167	04100360	Sparta Lake at Kimmel												
168	04100370	Engle Lake near Ligonier												
169	04100380	Harper Lake near Washington Center												
170	04100390	Knapp Lake near Washington Center												
171	04100400	Moss Lake near Washington Center												
172	04100410	Hindman Lake near Washington Center												
173	04100420	Gordy Lake near Cromwell												
174	04100425	Rider Lake near Cromwell												
175	04100430	Duely Lake near Cromwell												

Table 1.--Lake stations and period of record---Continued

Site number (fig. 1-6.)	Station number	Station name	Period of record															
			1940	1945	1950	1955	1960	1965	1970	1975	1980	1985						
176	04100440	Village Lake near Cromwell																
177	04100446	Flatbelly Lake near Syracuse																
178	04100448	Papakee Lake near Syracuse																
179	04100450	Lake Wawasee at Wawasee																
180	04100460	Syracuse Lake at Syracuse																
181	04100470	Dewart Lake near Leesburg																
182	04100480	Wabee Lake near Milford																
183	04177200	Clear Lake at Clear Lake																
184	04177210	Round Lake at Clear Lake																
185	04177300	Long Lake near Ray																
186	04177680	Ball Lake near Hamilton																
187	04177700	Hamilton Lake at Hamilton																
188	04179200	Indian Lake near Corunna																
189	04179300	Cedar Lake near Waterloo																
190	05514740	Saugany Lake near Rolling Prairie																
191	05514741	Hudson Lake at Hudson Lake																
192	05514750	North Chain Lake at Lydick																
193	05514760	South Chain Lake at Westfield																
194	05514770	Wharton Lake near South Bend																
195	05514900	Silver Lake near Rolling Prairie																
196	05515200	Upper Fish Lake near Stillwell																
197	05515210	Lower Fish Lake near Stillwell																
198	05515220	Pine Lake at LaPorte																
199	05515230	Stone Lake at LaPorte																
200	05515240	Clear Lake at LaPorte																
201	05515600	Koontz Lake at Koontz Lake																
202	05515800	Riddle's Lake near Lakeville																
203	05516200	Lake of the Woods near Bremen																
204	05516600	Pretty Lake near Plymouth																
205	05516700	Myers Lake near Twin Lakes																
206	05516800	Mill Pond and Kreighbaum Lake near Twin Lakes																
207	05516900	Eagle Lake near Ober																
208	05517200	Bass Lake at Bass Lake																
209	05517600	Wauhab Lake near Valparaiso																
210	05517650	Long Lake near Valparaiso																

Table 1.--Lake stations and period of record--Continued

Site number fig. 1-6.)	Station number	Station name	Period of record											
			1940	1945	1950	1955	1960	1965	1970	1975	1980	1985		
211	05517670	Loomis Lake near Valparaiso												
212	05517700	Flint Lake near Valparaiso												
213	05517800	Lake Eliza near Beatrice												
214	05518700	Cedar Lake at Cedar Lake												
215	05518800	Dalecarlia Lake near Creston												
216	05521300	Ringneck Lake near Medaryville												
217	05525700	J.C. Murphey Lake near Morocco												

SUMMARY

This report contains annual maximum and minimum lake-level data and lake-station descriptions for 217 lakes in Indiana. The period of record ranges from 1 to 43 years and includes data collected through the 1985 water year. Lake-level data collected in subsequent water years will be published annually in the U.S. Geological Survey report "Water Resources Data for Indiana."

The data in this report have been collected in cooperation with the Indiana Department of Natural Resources, the U.S. Army Corps of Engineers, and other agencies in response to the need for long-term lake-level data. These data have been and continue to be used in the establishment of legal lake levels; in flood control studies; and in the planning and construction of lake-level control structures, bridges, piers, housing, and recreational facilities.

REFERENCES CITED

- Hoggatt, R.E., 1975, Drainage areas of Indiana streams: Indianapolis, U.S. Geological Survey, 232 p.
- Perrey, J.I., and Corbett, D.M., 1956, Hydrology of Indiana lakes: U.S. Geological Survey Water-Supply Paper 1363, 347 p.
- Rantz, S.E., and others, 1982, Measurement and computation of streamflow, v. 1--Measurement of stage and discharge: U.S. Geological Survey Water-Supply Paper 2175, 284 p.
- Trent, L.G., 1975, Engineer's field survey report on conditions of lake control structures: Unpublished data on file at the Indiana Department of Natural Resources, Division of Water.

APPENDIX A: LAKE-STATION DESCRIPTIONS AND ANNUAL MAXIMUM AND MINIMUM LAKE LEVELS

The lake-station descriptions include various paragraphs of pertinent hydrologic information. An explanation of each paragraph follows:

GAGE LOCATION.--This paragraph includes latitude, longitude, section, township, range, county, and reference to nearby landmarks. Distances are straight-line measurements from the gage to a city courthouse or town center (others as noted) and were determined from U.S. Geological Survey topographic maps.

SURFACE AREA.--The surface area is measured from the most accurate maps available or, in many descriptions, from actual boat surveys of the lakes. Many of the lake-surface areas have been revised from those reported in previous publications because of the availability of more accurate topographic maps and lake surveys.

DRAINAGE AREA.--The drainage area is measured from aerial photographs and topographic maps. Many of the drainage areas have been revised from previous publications because of the availability of more accurate maps.

PERIOD OF RECORD.--This paragraph includes the water years (October 1 to September 30) for which lake-level data are available.

DATUM OF GAGE.--This paragraph provides information to convert recorded or observed readings (gage heights) to feet above the National Geodetic Vertical Datum of 1929 (NGVD of 1929). The elevation of the water surface of the lake above NGVD of 1929 can be obtained by adding the gage height to the datum of the gage.

GAGE.--This paragraph includes a description of the most recent type of gage at the lake during the period of record.

ESTABLISHED LEGAL LEVEL.--This paragraph delineates the legal level as set by the county in which the lake is located. The established legal level is in feet above NGVD of 1929.

LAKE-LEVEL CONTROL.--This paragraph describes the natural or manmade structure that affects the outflow and, hence, the lake level. Lake-level controls vary from the bed of an outlet channel (natural control) to a concrete dam (manmade control). Control structure information for several of the lakes in this report was supplied by Trent (1975).

INLET AND OUTLET.--This paragraph describes the streams and ditches that drain into or discharge from a lake. Much of the data in this paragraph is from Hoggatt (1975).

EXTREMES FOR PERIOD OF RECORD.--This paragraph includes the maximum and minimum lake levels (gage heights) recorded or observed and the dates on which they occurred. Following the paragraph is a list of annual extreme gage heights for each water year in which data were collected, and the date on which each extreme occurred. All years with incomplete record are footnoted.

GREAT MIAMI RIVER BASIN

03275990 BROOKVILLE LAKE AT BROOKVILLE

GAGE LOCATION.--Lat 39°26'27", long 85°00'10", in NE¼SE¼ sec. 17, T. 9 N., R. 2 W. (BROOKVILLE, IN quadrangle). The gage is in the discharge tower of the reservoir on the East Fork Whitewater River, 1.4 mi northeast of Brookville, Franklin County, Indiana.

SURFACE AREA.--4,510 acres (winter pool), 5,260 acres (summer pool), 7,790 acres (flood pool).

DRAINAGE AREA.--379 mi².

PERIOD OF RECORD.--1974 to present, furnished by U.S. Army Corps of Engineers.

DATUM OF GAGE.--700.00 ft above NGVD of 1929.

GAGE.--A water-stage recorder is installed in the discharge tower of the reservoir.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an earth and rock-fill dam.

INLET AND OUTLET.--East Fork Whitewater River flows through the lake. The other main inlets are: Simpson Creek, Silver Creek, Ellys Creek, Hanna Creek, Dubois Creek, Salt Well Creek, Wolf Creek, and Templeton Creek. East Fork Whitewater River flows from the lake at the southern end and joins Whitewater River, 2.2 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 55.43 ft, May 4, 1983; minimum stage, -10.00 ft, January 30, 1974, while pool was filling. After reaching seasonal pool, minimum stage, 35.93 ft, February 3, 1976.

ANNUAL EXTREME LEVELS FOR BROOKVILLE LAKE, 1974-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1974	September 14	49.00	January 30	-10.00
1975	April 28	51.01	December 22	39.96
1976	August 28	47.05	February 3	35.93
1977	May 9	49.00	March 2	40.02
1978	March 22	51.39	January 22,23	40.00
1979	August 3	54.15	February 6	39.93
1980	August 20	51.56	December 26	37.25
1981	May 19	49.77	December 22	39.98

03275990 BROOKVILLE LAKE AT BROOKVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1982	May 30	49.84	March 8	39.55
1983	May 4	55.43	February 1	39.96
1984	May 24	49.30	December 1	40.00
1985	May 3	50.40	December 5	40.00

LAUGHERY CREEK BASIN

03276800 VERSAILLES LAKE NEAR VERSAILLES

GAGE LOCATION.--Lat 39°04'50", long 85°14'02", in NE¼NE¼SW¼ sec. 6, T. 7 N., R. 12 E. (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, Ripley County, Indiana.

SURFACE AREA.--232 acres.

DRAINAGE AREA.--168 mi².

PERIOD OF RECORD.--1958 to present.

DATUM OF GAGE.--760.74 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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, January 21, 1959, as determined by the USGS from high-water marks during an indirect measurement of discharge; minimum stage, 18.05 ft, April 12, 1970.

ANNUAL EXTREME LEVELS FOR VERSAILLES LAKE, 1958-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1958*	July 23	32.65	December 13	24.20
1959*	January 21	36.43	March 30,31	23.80
1960*	January 15	31.79	October 1-5	28.89
1961*	May 8	34.00	September 30	28.94
1962	February 26	33.06	September 29,30	28.78
1963	March 5	33.93	September 29,30	28.54
1964	March 10	34.40	September 16-19	19.72
1965	February 10	31.94	October 10	19.10
1966	February 10	32.34	September 16-18	28.96
1967*	May 2,15	31.90	September 27	28.70
1968	May 24	35.90	October 2-17	28.70

03276800 VERSAILLES LAKE NEAR VERSAILLES--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1969*	May 19	30.90	November 19	27.30
1970*	April 30	32.50	April 12	18.05
1971*	February 23	31.70	October 7-9	29.10
			August 20,21	29.10
1972	April 16	32.40	September 23	28.50
1973	June 27	31.90	September 21-25	29.15
1974*	April 8	31.95	July 29-31	29.15
			August 1,2,8	29.15
1975*	April 24	31.50	September 30	24.80
1976*	December 16	31.10	May 2	28.95
1977*	March 4	31.72	November	24.00
1978*	December 14	32.76	October 1,7,18-25	29.18
1979*	February 23	33.80	October 22-29,31	29.28
			November 1,5,	29.28
1980*	November 26	32.40	July 21	29.18
1981	July 5	32.04	September 30	28.94
1982*	January 30	31.98	October 5	28.86
1983*	May 3	32.73	August 26	28.64
1984*	April 5	31.48	October 3,11	28.59
1985	March 30	33.33	September 30	28.43

* Incomplete record.

BAYOU DRAIN BASIN

03322300 HOVEY LAKE NEAR MOUNT VERNON

GAGE LOCATION.--Lat 37°49'24", long 87°57'28", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 14, T. 8 S., R. 14 W. (UNIONTOWN, KY-IN quadrangle). The gage is on the western shore of the lake, on State Road 69, and 9.0 mi southwest of Mt. Vernon, Posey County, Indiana.

SURFACE AREA.--253 acres.

DRAINAGE AREA.--6.36 mi².

PERIOD OF RECORD.--1950-68.

DATUM OF GAGE.--330.00 ft above NGVD of 1929.

GAGE.--A staff gage in three sections is on the western shore.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--At low stages the control is a sheet-piling dam, which is not regulated. At high stages, the Ohio River backs up into the lake and serves as the control.

INLET AND OUTLET.--The inlet is an unnamed stream that enters on the northern tip of the lake. The outlet, Bayou drain, flows from the lake on the southeastern shore and into the Ohio River approximately, 2.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 37.74 ft, January 22, 1950; minimum stage, 1.84 ft, July 11, 1953.

ANNUAL EXTREME LEVELS FOR HOVEY LAKE, 1950-68

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1950*	January 22	37.74	December 4-7	4.29
1951	December 16	28.13	September 11	3.99
1952*	February 8, 9	30.80	September 7	3.55
1953*	March 10	17.69	July 11	1.84
1954	April 16, 17	4.94	September 18-19	2.40
1955	March 14	31.75	October 1, 4, 5, 20-22	2.54
1956	February 28	28.85	October 4	2.65
1957	April 17	29.12	November 9-15, 17-19	2.88
1958	May 15	29.05	October 14, 15	3.26
1959	January 31	29.18	August 4	4.28
1960	April 11	20.34	September 30	3.92

03322300 HOVEY LAKE NEAR MOUNT VERNON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961	May 15	35.00	October 5-7, November 7,8	3.90 3.90
1962	March 9	33.40	June 29,30, July 1-7	3.80
1963*	March 22-25	34.14	September 30	3.72
1964	March 19	37.72	January 3,4	3.03
1965	April 4	22.40	November 6-19	3.80
1966*	February 21	24.10	September 14,18,24, 25,29	3.76 3.76
1967	March 17,18	30.60	November 2-5	3.60
1968	June 4	30.55	October 3,4 September 13-15	4.30 4.30

* Incomplete record.

WABASH RIVER BASIN

03323450 HUNTINGTON LAKE NEAR HUNTINGTON

GAGE LOCATION.--Lat 40°50'45", long 85°28'07", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 28 N., R. 9 E. (MAJENICA, IN quadrangle). The gage is in the operating pylon of the reservoir on the Wabash River, 1.5 mi southeast of Huntington, Huntington County, Indiana.

SURFACE AREA.--500 acres (winter pool), 900 acres (summer pool), 7,900 acres (flood pool).

DRAINAGE AREA.--717 mi².

PERIOD OF RECORD.--1969 to present, furnished by U.S. Army Corps of Engineers. Prior to 1970, Huntington Lake was published as Huntington "Reservoir".

DATUM OF GAGE.--700.00 ft above NGVD of 1929.

GAGE.--A water-stage recorder is installed in the operating pylon of the dam.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete and earth-fill dam.

INLET AND OUTLET.--The Wabash River flows through the lake. The other main inlets are Rock Creek and Tah Kum Wah Creek. The Wabash River flows from the lake at the western end and eventually empties into the Ohio River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 92.46 ft, March 25, 1978; minimum stage, 31.27 ft, November 18, 1974 (reservoir lowered for repairs).

ANNUAL EXTREME LEVELS FOR HUNTINGTON LAKE, 1969-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1969	February 4	69.71	March 5	33.84
1970	April 26	66.13	February 12	36.32
1971	February 24	60.55	December 5	35.73
1972	April 25	80.00	January 12	35.46
1973	March 21	72.67	December 27	36.65
1974	January 28	83.64	November 26	32.05
1975	February 27	67.70	November 18	31.27
1976	February 22	86.60	April 7	35.00
1977	May 6	52.84	April 8	35.19
1978	March 25	92.46	October 5	33.05

03323450 HUNTINGTON LAKE NEAR HUNTINGTON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1979	March 7	76.37	January 6, 8	36.95
			February 13	36.95
1980	June 10	80.74	January 24	36.78
1981	June 18	83.90	December 25	36.40
1982	March 20	90.94	December 8	37.00
1983	May 6	68.68	February 8	36.98
1984	March 22	63.10	April 11	36.60
1985	February 28	82.00	December 7	37.00

WABASH RIVER BASIN

03324450 SALAMONIE LAKE AT DORA

GAGE LOCATION.--Lat 40°48'25", long 85°40'38", in SW¼NW¼ sec. 7, T. 27 N., R. 8 E. (LAGRO, IN quadrangle). The gage is in the discharge tower of the reservoir on Salamonie River, 1.1 mi northwest of Dora, Wabash County, Indiana.

SURFACE AREA.--980 acres (winter pool), 2,860 acres (summer pool), 9,340 acres (flood pool).

DRAINAGE AREA.--553 mi².

PERIOD OF RECORD.--1967 to present, furnished by U.S. Army Corps of Engineers. Prior to September 1970, Salamonie Lake was published as Salamonie "Reservoir".

DATUM OF GAGE.--700.00 ft above NGVD of 1929.

GAGE.--A water-stage recorder is installed in the discharge tower of the reservoir.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an earth-fill dam.

INLET AND OUTLET.--Salamonie River flows through the lake. The other major inlets are: Pond Creek, Richland Creek, Majenica Creek, Little Majenica Creek, Rush Creek, Rockaway Creek, and Indian Creek. Salamonie River flows from the lake at the northwestern end and empties into the Wabash River, approximately 3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 86.91 ft, March 23, 1982; minimum stage, 26.44 ft, March 11, 1969.

ANNUAL EXTREME LEVELS FOR SALAMONIE LAKE, 1967-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1967	June 11	55.30	September 30	39.60
1968	February 6	63.60	October 16	28.95
1969	February 4	63.91	March 11	26.44
1970	May 1	62.32	March 7	29.90
1971	July 12	56.09	December 5	29.82
1972	April 26	78.43	January 27	29.85
1973	April 3	74.42	January 21	30.03

03324450 SALAMONIE LAKE AT DORA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1974	January 31	72.58	January 11	29.39
1975	June 18	59.47	December 12	29.92
1976	March 7	74.42	January 5	29.78
1977	September 19	57.56	December 6	30.09
1978	March 30	80.20	November 25	30.00
1979	March 10	69.22	January 7	29.68
1980	June 11	68.32	November 5	27.02
1981	June 29	81.63	February 9	29.97
1982	March 23	86.91	December 19	29.99
1983	May 11	66.63	January 17	30.00
1984	March 28	66.60	December 11	30.00
1985	March 6	70.10	December 10	29.20

WABASH RIVER BASIN

03326950 MISSISSINewa LAKE AT PEORIA

GAGE LOCATION.--Lat 40°42'52", long 85°57'27", in NW¼SW¼ sec. 10, T. 26 N., R. 5 E. (PEORIA, IN quadrangle). The gage is in the discharge tower of the reservoir on Mississinewa River, 6.8 mi southeast of Peru, Miami County, Indiana.

SURFACE AREA.--1,280 acres (winter pool), 3,180 acres (summer pool), 12,830 acres (flood pool).

DRAINAGE AREA.--807 mi².

PERIOD OF RECORD.--1968 to present, furnished by U.S. Army Corps of Engineers. Prior to September 1970, Mississinewa Lake was published as Mississinewa "Reservoir".

DATUM OF GAGE.--700.00 ft above NGVD of 1929.

GAGE.--A water-stage recorder is installed in the discharge tower of the reservoir.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an earth-fill dam.

INLET AND OUTLET.--Mississinewa River flows through the lake. There are numerous other inlets. The main ones are: Grant Creek, Cart Creek, Termile Creek, Goose Creek, and Liston Creek. Mississinewa River flows from the lake at the northwestern end and empties into the Wabash River, approximately 7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 71.48 ft, March 22, 1982; minimum stage, 3.30 ft, January 20, 1983.

ANNUAL EXTREME LEVELS FOR MISSISSINewa LAKE, 1968-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1968	June 27	39.38	September 30	33.12
1969	September 19	41.49	January 13	11.73
1970	May 1	47.63	February 27	11.98
1971	July 12	37.83	March 18	11.91
1972	April 25	52.34	December 13	11.85
1973	April 3	57.73	February 24	11.92
1974	February 1	56.34	December 18	12.00

03326950 MISSISSINEWA LAKE AT PEORIA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1975	June 18	43.83	December 11	11.69
1976	February 23	57.80	December 11	12.10
1977	September 19	39.28	January 4	12.07
1978	March 28	63.54	January 29	11.95
1979	March 11	55.02	December 27	11.95
1980	June 11	58.03	March 5	7.03
1981	June 29	59.68	December 20	11.92
1982	March 22	71.48	December 1	11.96
1983	May 7	49.10	January 20	3.30
1984	March 28	46.80	December 5	12.00
1985	February 28	52.80	December 7	10.20

WABASH RIVER BASIN

03327550 EVERETT LAKE AT LEVERT

GAGE LOCATION.--Lat 41°09'24", long 85°18'43", in NW¼SW¼NE¼ sec. 8, T. 31 N., R. 11 E. (CHURUBUSCO, IN quadrangle). The gage is on the northeastern shore of the lake, 3.5 mi northwest of Arcola, Allen County, Indiana.

SURFACE AREA.--43 acres.

DRAINAGE AREA.--1.07 mi².

PERIOD OF RECORD.--1946-60, 1963-66.

DATUM OF GAGE.--830.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is located on the northeastern shore. An auxiliary staff gage is at the outlet.

ESTABLISHED LEGAL LEVEL.--5.13 ft gage datum or 835.13 ft above NGVD of 1929 as decreed on July 27, 1965, by the Allen County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the invert of two 12-inch culverts.

INLET AND OUTLET.--The one inlet enters the lake on the southern shore. The outlet flows from the lake at the eastern tip, into Johnson ditch, and eventually into Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.92 ft, December 19, 1957; minimum stage, 3.71 ft, December 17-20, 1953.

ANNUAL EXTREME LEVELS FOR EVERETT LAKE, 1946-60, 1963-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 17	5.83	September 30	4.57
1947	May 3	6.13	October 17	4.39
1948	March 22, 25, 26, 29	6.49	October 17	4.57
1949	February 16	6.46	September 30	4.34
1950	January 6	6.88	October 2	4.32
	February 14	6.88		
1951	February 21	6.34	September 23, 24, 28-30	4.53
1952	November 16, 17	5.58	October 1-4	4.49
1953	March 4, 5	6.13	September 27-30	4.25
1954	April 10, 11, 12	5.76	December 17-20	3.71
1955	October 15	6.51	September 29, 30	4.84
1956	April 29	5.81	September 18-30	4.56

03327550 EVERETT LAKE AT LEVERT--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1957	April 14,15	6.02	November 24-30	4.21
			December 1-5	4.21
1958	December 19	6.92	October 1-22	4.83
1959	April 29,30	6.46	July 22-31	4.56
			August 1,2	4.56
			September 20-26	4.56
1960	February 12-18	5.71	December 19	4.61
1963	March 21	5.61	January 30,31	3.98
1964	April 22	5.92	October 30,31	4.10
			November 1-3	4.10
1965	February 10	6.02	November 11-18,26-30	4.08
			December 1-5	4.08
1966	May 14	6.10	October 15	4.31

* Incomplete record.

WABASH RIVER BASIN

03327600 BLUE LAKE NEAR CHURUBUSCO

GAGE LOCATION.--Lat 41°14'30", long 85°21'04", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 32 N., R. 10 E. (CHURUBUSCO, IN quadrangle). The gage is located on a dredged channel at the extreme eastern end of the lake, approximately 2.0 mi west of Churubusco, Whitley County, Indiana.

SURFACE AREA.--239 acres.

DRAINAGE AREA.--3.58 mi².

PERIOD OF RECORD.--1946-68, 1976 to present.

DATUM OF GAGE.--840.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on July 23, 1948, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--A concrete dam with a fixed crest is located in the outlet channel about 300 ft downstream from the lake.

INLET AND OUTLET.--Maloney ditch enters at the eastern tip of the lake. The outlet flows from the lake at the northwestern end and joins Carter Creek (Blue River), 0.2 mi downstream. Carter Creek eventually flows into Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.80 ft, December 10, 1966; minimum stage, 7.64 ft, November 19, 20, 1952.

ANNUAL EXTREME LEVELS FOR BLUE LAKE, 1946-68, 1976-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	June 19	10.43	February 11,12	9.05
1947	February 1	11.49	October 17	8.95
1948	March 24	11.02	October 17	9.41
1949	February 15	13.32	September 30	8.82
1950	April 5	13.80	August 28	8.26
1951	July 13	12.09	September 30	8.01
1952	January 27	12.10	July 18	7.87
1953	March 16	11.00	November 19,20	7.64
1954	March 26	12.57	October 22,23	9.24
			November 14,15,18,19	9.24

03327600 BLUE LAKE NEAR CHURUBUSCO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1955	October 16	14.50	September 28	9.51
1956	May 1	14.16	September 30	9.42
1957	April 11	13.43	November 13-15,18,19	9.13
1958	December 20	12.90	October 14,15	9.46
1959	February 14	14.53	September 21	9.46
1960	April 19	13.68	September 30	9.60
1961	March 18	12.50	September 22	9.34
1962	March 14	13.62	September 30	9.00
1963	March 18	10.77	February 16,17	8.80
1964	April 29	11.01	January 8,9	9.16
1965	April 25,26	11.78	November 13-15	9.08
			December 9,10	9.08
1966	January 3	13.40	September 30	9.42
1967	December 10	15.80	November 1-6	9.20
1968	February 3	15.40	October 4-15	9.20
1976*	May 1	10.25	September 25	9.38
1977	March 29	10.75	February 1	8.96
1978*	March 24	11.96	September 30	9.13
1979*	March 5,6	11.01	October 31	9.02
1980*	March 21	11.06	October 14	9.53
1981*	June 15	11.84	August 25	9.75
1982	March 17	12.99	September 24-26	9.37
1983	May 3	11.46	September 14,15,18	8.99
1984*	March 21	11.13	October 10-12	8.98
1985*	March 31	11.38	September 29	9.33

* Incomplete record.

WABASH RIVER BASIN

03327650 SHRINER LAKE AT TRI-LAKES

GAGE LOCATION.--Lat 41°14'37", long 85°26'24", in SE¼SW¼NW¼ sec. 12, T. 32 N., R. 9 E. (COLUMBIA CITY, IN quadrangle). The gage is at the head of the outlet channel at the eastern end of the lake, 6.2 mi northeast of Columbia City, Whitley County, Indiana.

SURFACE AREA.--111 acres.

DRAINAGE AREA.--0.94 mi², revised.

PERIOD OF RECORD.--1943-74, 1976-78, 1980 to present.

DATUM OF GAGE.--900.19 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1976.

GAGE.--A digital water-stage recorder (hourly) 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 of the lake.

ESTABLISHED LEGAL LEVEL.--7.04 ft gage datum or 907.04 ft above NGVD of 1929 as decreed on May 22, 1949, by the Whitley County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 7.04 ft gage datum or 907.23 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam in the outlet channel, 300 ft downstream from 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, 8.16 ft, April 4, 5, 1950; minimum stage, 5.44 ft, December 9-11, 23-30, 1944.

ANNUAL EXTREME LEVELS FOR SHRINER LAKE, 1943-74, 1976-78, 1980-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	December 28-30	7.54	September 27-30	6.46
	March 17-20	7.54		
	May 17-20, 25, 26	7.54		
1944	April 11-17	7.56	September 28-30	5.56
1945	May 17-19	7.44	December 9-11, 23-30	5.44
1946	October 4	7.18	September 30	5.98

03327650 SHRINER LAKE AT TRI-LAKES--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947	April 21	7.40	October 15-17	5.76
1948	February 28	7.50	November 20,21	6.06
1949	February 17,18	7.98	November 2,3	6.14
1950	April 4,5	8.16	October 2	6.12
1951	February 21,22	7.54	November 6	6.24
1952	January 27	7.54	September 28-30	6.30
1953	May 23-25	7.40	November 12-18	5.96
1954	April 25-27	7.59	January 1,2	5.68
1955	October 12	8.06	September 27	6.58
1956	April 30	7.84	September 30	6.18
1957	April 10	7.86	November 12-14	5.94
			December 4-6	5.94
1958	August 21	7.72	October 15	6.14
1959	February 14,15	7.64	September 24	6.52
1960	June 13	7.80	September 17,18	6.72
1961	April 18	7.65	January 15-17,23,24	6.44
1962	March 13	7.62	September 30	5.80
1963	April 24	7.66	October 2	5.76
1964	April 29	7.38	December 7,8	6.12
1965	April 27	7.47	November 26,27	5.94
1966	December 26	7.72	September 19,30	6.25
1967	December 9,10	8.10	October 26-31	6.00
			November 1,2	6.00
			September 13-30	6.00
1968	February 2	8.00	October 1-14	5.90
1969	January 30	7.90	October 27-31	6.50
			November 1-14	6.50
1970	April 22-24	7.60	September 2,3	6.20
1971	February 5-7,20-24, 27,28	7.30 7.30	October 3-9	6.40
1972	March 16,17	7.80	November 22-27	6.40
1973	November 14,15	7.70	September 21-28	6.50
1974	January 23,28	7.50	September 11	6.10
	March 6	7.50		
1976*	August 6	6.82	September 25-26	6.22
1977*	October 6-9	6.34	November 23	6.04
1978*	March 22	7.62	September 28	6.11
1980*	March 20	7.40	November 15-20	6.21
1981	June 13	7.76	August 25	6.51
1982*	April 17	7.32	September 26	6.23
1983*	December 5	7.46	September 30	5.72
1984	March 21	7.47	October 11	5.59
1985	February 24	8.09	August 4	6.18

* Incomplete record.

WABASH RIVER BASIN

03327700 CEDAR LAKE AT TRI-LAKES

GAGE LOCATION.--Lat 41°14'54", long 85°26'38", in SE¼NE¼NE¼ sec. 11, T. 32 N., R. 9 E., (COLUMBIA CITY, IN quadrangle). The gage is on the northeastern side of the bridge, on State Highway 102, which crosses over the channel connecting Cedar and Little Cedar Lakes, at Tri-Lakes, Whitley County, Indiana.

SURFACE AREA.--131 acres.

DRAINAGE AREA.--0.79 mi².

PERIOD OF RECORD.--1943-1949.

DATUM OF GAGE.--900.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to a bridge piling.

ESTABLISHED LEGAL LEVEL.--1.90 ft gage datum or 901.90 ft above NGVD of 1929 as decreed on June 29, 1948, by the Whitley County Circuit Court.

LAKE LEVEL CONTROL.--The level of the lake is controlled by a round-crested weir at the outlet of Round Lake at Tri-Lakes.

INLET AND OUTLET.--Several small ditches drain into the lake at various points. The outlet is on the southeastern corner of the lake and flows into Little Cedar Lake, approximately 200 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 2.82 ft, May 17, 1945; minimum stage, 0.36 ft, November 1-3, 12, 13, 1944.

ANNUAL EXTREME LEVELS FOR CEDAR LAKE, 1943-49

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	May 17-21, 25, 26	2.42	July 1-6	1.42
			December 23	0.51
1944	March 15-20	2.40	September 26-28	0.51
1945	May 17	2.82	November 1-3, 12, 13	0.36
1946	October 2, 3	1.99	September 30	0.62
1947	April 21	2.00	October 16	0.42
1948*	June 25-27	1.94	September 28-30	1.10
1949	January 19	2.28	October 27-31	0.96
			November 1	0.96

* Incomplete record.

WABASH RIVER BASIN

03327750 ROUND LAKE AT TRI-LAKES

GAGE LOCATION.--Lat 41°14'29", long 85°25'58", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 32 N., R. 9 E. (COLUMBIA CITY, IN quadrangle). The gage is located on the outlet channel, 1,500 ft downstream from the lake, at the concrete control dam, and 0.3 mi east of the town of Tri-Lakes, Whitley County, Indiana.

SURFACE AREA.--125 acres.

DRAINAGE AREA.--3.36 mi² (includes Little Cedar Lake), revised.

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--900.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is bolted to the eastern side of the northern dam abutment.

ESTABLISHED LEGAL LEVEL.--1.90 ft gage datum or 901.90 ft above NGVD of 1929 as decreed on June 29, 1948, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete round-crested dam.

INLET AND OUTLET.--Round Lake is fed by the outlets of Shriner and Cedar Lakes, the former entering at the western end and the latter on the northern side of the lake. The outlet, Thorn Creek, flows from the lake on the southern side, then into Blue River, 3.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 2.59 ft, April 4, 1950; minimum stage, 0.39 ft, October 15, 1946.

ANNUAL EXTREME LEVELS FOR ROUND LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 15-17	1.74	September 30	0.40
1947	April 21	1.96	October 15	0.39
1948	March 27, May 13	2.20	October 15-17	0.68
1949	February 15	2.52	October 27-31	0.96
			November 1	0.96
1950	April 4	2.59	October 2	1.16
1951	February 21	2.38	November 6, 7	1.68
1952	January 27	2.30	October 5, 6	1.59
1953*	October 1	1.70	November 15-18	1.40

* Incomplete record.

WABASH RIVER BASIN

03327800 WILSON LAKE NEAR LARWILL

GAGE LOCATION.--Lat 41°11'03", long 85°34'11", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T. 32 N., R. 8 E. (LORANE, IN quadrangle). The gage is on the southern shore of the lake, 4.3 mi northwest of Columbia City, Whitley County, Indiana.

SURFACE AREA.--29 acres.

DRAINAGE AREA.--0.46 mi².

PERIOD OF RECORD.--1946-52.

DATUM OF GAGE.--860.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is driven into the lake bed on the southern shore.

ESTABLISHED LEGAL LEVEL.--5.39 ft gage datum or 865.39 ft above NGVD of 1929 as decreed on July 22, 1948, by the Whitley County Circuit Court. Little Wilson Lake near Larwill has the same control structure and established level, hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete weir that has a trapezoidal notch.

INLET AND OUTLET.--Three small ditches enter the lake, one from the west, one from the northwest, and one from Ice House Lake to the southeast. The outlet is on the eastern side of the lake and flows into Little Wilson Lake, 220 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.56 ft, April 4, 1950; minimum stage, 4.93 ft, October 16, 1947.

ANNUAL EXTREME LEVELS FOR WILSON LAKE, 1946-52

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 15	6.85	September 29,30	5.35
1947	April 22	6.71	September 28,30	5.13
1948	May 17	6.50	October 16	4.93
1949	February 15	7.20	October 20-31	5.13
			November 1,2	5.13
1950	April 4	7.56	October 1,2	5.89
1951	February 21	7.36	November 6,7	5.84
1952	January 27,28	7.46	September 28-30	5.44

* Incomplete record.

WABASH RIVER BASIN

03328100 LONG LAKE AT LAKETON

GAGE LOCATION.--Lat 40°59'08", long 85°50'20", in NE¼NW¼NE¼ sec. 10, T. 29 N., R. 6 E. (NORTH MANCHESTER SOUTH, IN quadrangle). The gage is located on the northern shore of the lake, 0.3 mi west of Crill Road, and 0.8 mi north of Laketon, Wabash County, Indiana.

SURFACE AREA.--48 acres.

DRAINAGE AREA.--0.55 mi².

PERIOD OF RECORD.--1946-51, 1959 to present.

DATUM OF GAGE.--740.00 ft above the NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage, driven into the lake bed, is located fifty ft lakeward of the primary gage.

ESTABLISHED LEGAL LEVEL.--11.19 ft gage datum or 751.19 ft above the NGVD of 1929 as decreed on July 26, 1951, by the Wabash County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an 18-inch corrugated metal pipe draining into a clay tile.

INLET AND OUTLET.--Two tile ditches flow into the lake. The outlet flows from the western end of the lake, joins the outlet of Mud Lake, continues through Round Lake, then into Eel River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.66 ft, March 22, 1982; minimum stage, 8.68 ft, December 1-3, 1964.

ANNUAL EXTREME LEVELS FOR LONG LAKE, 1946-51, 1959-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 14-16	12.28	September 30	10.02
1947	June 7,8	11.78	October 16,17	9.84
1948	May 15	12.08	November 28-30	10.60
			December 1	10.60
1949	February 16,17	12.62	October 27,31	10.48
1950	April 6,7,12,13,14	13.34	October 1,2	11.02
1951	February 26,27	12.78	September 29,30	11.32
1959*	April 29,30	12.12	September 21	10.08
1960*	May 7	11.31	November 3	10.00

03328100 LONG LAKE AT LAKETON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961	August 7,8	12.09	February 9-15	9.98
1962	March 12	12.10	September 30	10.06
1963	April 22	10.74	September 30	9.32
1964	July 10	9.96	January 2,3,7,8	8.81
1965	May 6-8	11.00	December 1-3	8.68
1966	May 25,26	10.16	September 13,14	9.10
1967	April 13-28	12.40	November 3-6	8.80
1968	May 17-20	12.50	October 3-16,24	10.60
1969	January 30,31	12.70	November 1-6,10-14	11.00
	February 1-10	12.70		
1970	April 21-30	12.20	September 1-4,9-13	11.00
	May 1,13-19	12.20		
1971*	April 1, June 7-8	12.10	August 30,31	10.90
			September 2,16-19, 21-24	10.90 10.90
1972	May 16,17	11.90	November 17-30	10.50
			December 1-6	10.50
1973	April 2-6,9-12, 18-23	12.60 12.60	September 19-30	11.10
1974	May 16-18	12.30	November 19-23	10.60
1975	June 25-30, July 1	12.40	October 24-29	10.50
1976	March 5-15	12.60	September 25	10.40
1977*	May 5,6	11.30	December 29-31	9.46
1978*	May 15	12.42	September 30	10.46
1979*	May 3	12.14	September 30	10.48
1980*	June 19	12.25	November 20	10.32
1981*	May 17	12.52	December 22-23	10.91
1982	March 22	13.66	December 20	11.05
1983	May 3	12.66	September 30	10.28
1984	May 26	12.54	October 19	10.11
1985	April 6,7	13.04	October 5,6	10.75

* Incomplete record.

WABASH RIVER BASIN

03328350 SILVER LAKE AT SILVER LAKE

GAGE LOCATION.--Lat 41°04'49", long 85°54'29", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 30 N., R. 5 E. (SILVER LAKE, IN quadrangle). The gage is located at the outlet channel on the western side of the lake, approximately 30 ft north of the control structure and 1.1 mi northwest of the town of Silver Lake, Kosciusko County, Indiana.

SURFACE AREA.--102 acres.

DRAINAGE AREA.--6.31 mi².

PERIOD OF RECORD.--1947 to present.

DATUM OF GAGE.--859.85 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1974.

GAGE.--A digital water-stage recorder (hourly) 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 the NGVD of 1929 as decreed on September 20, 1948, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 1.73 ft gage datum or 861.58 ft above NGVD of 1929. North Little Lake at Silver Lake has the same control structure and established level, 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 that has 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 is on the western side of the lake 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, December 10, 1966; minimum stage, -0.20 ft, September 21, 1959.

ANNUAL EXTREME LEVELS FOR SILVER LAKE, 1947-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947*	June 9	2.54	August 27, 28	1.32
			September 1	1.32

03328350 SILVER LAKE AT SILVER LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1948	May 13	2.67	September 28,29	0.72
1949	February 15	2.74	October 24,25	0.58
1950	April 4	3.31	October 1	0.77
1951	July 9	2.94	November 7	1.08
1952	May 26	3.00	October 22	1.01
1953	March 16-18	1.70	September 28-30	0.30
1954	April 11	1.50	November 17-25	-0.04
1955	October 15,16	2.44	September 25-28	0.08
1956	November 16	2.60	October 3,4	0.08
1957	April 19,20	2.40	October 25	0.00
1958	August 16	2.20	October 12-15	0.32
1959	February 14	2.94	September 21	-0.20
1960	March 31, April 2-5	2.23	October 2,3	0.20
1961	April 26	2.52	October 22-25	0.14
1962	March 18	2.75	September 30	0.88
1963	July 20	3.60	October 1,2	0.88
1964	July 8	3.42	October 29,30	1.16
1965	April 9	2.24	November 13,14	1.10
1966	December 26	2.16	September 14,18	0.84
1967	December 10	3.80	October 7-17	0.80
1968*	December 21,22	2.60	October 6-16	1.00
1969*	April 19-23,	1.70	October 14-17,31	1.20
	May 12,13, July 4-15	1.70	November 1-6	1.20
			August 31	1.20
			September 1-16	1.20
1970*	April 22	2.00	August 10-21,26-31	1.20
			September 1-3	1.20
1971*	March 1,2	1.80	October 4-7	1.30
	September 7	1.80	November 26-30	1.30
			December 1-11	1.30
			June 25-30, July 1-8	1.30
			August 26-31	1.30
			September 1-3	1.30
1972*	September 14	2.10	October 5-7	1.30
			July 7,8	1.30
			September 6-7	1.30
1973*	December 31	2.00	September 10-29	1.20
1974*	January 27	2.20	August 28-31	1.00
			September 1-12	1.00
1975*	May 1-3, June 5-8	1.70	October 7,14,22-31	1.00
			November 1-3	1.00
1976*	February 22	1.70	September 25	0.86
1977	August 6	1.75	October 4,5	0.90
1978*	April 6	1.98	September 12	1.03
1979	March 29	1.71	December 27	0.82

03328350 SILVER LAKE AT SILVER LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1980*	June 2	2.77	October 14	1.16
1981*	May 15	2.70	August 25	1.38
1982	March 17	3.16	September 16, 23	1.20
1983*	May 1	2.11	September 18	0.82
1984	June 5-24	2.66	October 11, 12	0.79
1985*	January 1	2.29	July 24	1.22

* Incomplete record.

WABASH RIVER BASIN

03328400 LUKENS LAKE NEAR DISKO

GAGE LOCATION.--Lat 40°58'09", long 85°56'06", in SW¼NW¼NE¼ sec. 14, T. 29 N., R. 5 E. (ROANN, IN quadrangle). The gage is 25 ft north of the outlet on the southwestern side of the lake, 4.1 mi north of Roann, Wabash County, Indiana.

SURFACE AREA.--46 acres.

DRAINAGE AREA.--1.76 mi².

PERIOD OF RECORD.--1948-49, 1959 to present.

DATUM OF GAGE.--760.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 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 October 12, 1983.

ANNUAL EXTREME LEVELS FOR LUKENS LAKE, 1948-49, 1959-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1948*	August 10	3.83	September 4	3.60
1949*	July 11	4.34	October 15	3.34
1959*	April 28	4.45	September 21	3.02
1960	June 14	4.28	October 23	3.15
1961	August 2	4.54	October 25	3.49
1962	March 21	4.38	September 26-28	2.96
1963	March 18-22, 25-27, 31	4.09	December 20-29	2.81
	April 3, 4	4.09		

03328400 LUKENS LAKE NEAR DISKO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1964	July 7,8	4.33	November 13	2.93
1965	February 10	4.24	November 25,26	3.30
	May 26,27	4.24		
1966	January 1	4.31	September 13,14	3.04
1967	December 8,9	4.40	October 28-31	2.85
			November 1-6	2.85
1968	May 16	5.10	October 11-14	3.30
1969	January 30	4.55	September 14,15	3.40
1970	April 20-22, May 14	4.40	September 11,12	3.50
1971	May 6,7	4.45	August 17,18,18,28-31	3.60
			September 1	3.60
1972	April 20-23	4.40	November 9-28	3.70
			July 29,30	3.70
1973	March 17,18	4.60	September 20-28	3.50
1974	March 9, May 17,18	4.45	November 12-20	3.35
			September 26,27,30	3.35
1975	April 3, June 16,17	4.50	October 28	3.20
1976	February 17,18	4.60	September 22-25,27-30	3.40
1977	August 14	4.46	November 19-25	3.26
1978	April 7	4.52	September 29,30	3.48
1979	March 5,30,31	4.50	October 10,18,23-25, 28-31, November 1-13	3.36
1980*	March 17	4.54	September 15	3.32
1981*	May 14,15	4.15	August 25	3.00
1982*	March 19	4.37	September 14	2.82
1983	April 2, May 2	4.22	September 30	2.52
1984	March 25	4.32	October 12	2.32
1985*	February 23	4.39	October 4-6	2.95

* Incomplete record.

WABASH RIVER BASIN

03330020 CROOKED LAKE NEAR WOLFLAKE

GAGE LOCATION.--Lat 41°16'09", long 85°29'18", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.33, T. 33. N, R. 9 E. (MERRIAM, IN quadrangle). The gage is on the extreme western end of the northwestern lobe of the lake, 4.6 mi south of Wolflake, Noble County, Indiana.

SURFACE AREA.--206 acres, revised.

DRAINAGE AREA.--1.51 mi², revised.

PERIOD OF RECORD.--1943-53.

DATUM OF GAGE.--900.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to a 12-inch maple tree, 250 ft east of the road.

ESTABLISHED LEGAL LEVEL.--5.69 ft gage datum or 905.69 ft above NGVD of 1929 as decreed on June 29, 1948, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the riffle at the head of the outlet.

INLET AND OUTLET.--A ditch from Little Crooked Lake enters from the extreme eastern end of the lake. The outlet flows from the western end and into Big Lake, 0.25 mi downstream, and eventually into Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.91 ft, April 4, 1950; minimum stage, 4.66 ft, October 20-22, 1948.

ANNUAL EXTREME LEVELS FOR CROOKED LAKE, 1943-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	August 28	5.79	August 21	5.63
1944*	May 15	6.30	February 16	5.32
1945*	May 17-18	6.56	September 21, 22	5.38
1946*	March 9, 19-23	6.14	September 28-30	4.85
1947*	April 21-23	6.27	October 15-17	4.71
1948	March 27	6.08	September 28	4.73
1949	February 15	6.48	October 20-22	4.66
1950	April 4	6.91	October 1, 2	5.13
1951	February 22	6.47	November 7	5.35
1952	June 27	6.17	September 30	5.20
1953*	November 26	5.25	November 12-17	4.97

* Incomplete record.

WABASH RIVER BASIN

03330040 BIG LAKE NEAR WOLFLAKE

GAGE LOCATION.--Lat 41°16'33", long 85°30'43", in NW¼SE¼NW¼ sec. 32, T. 33 N., R. 9 E. (ORMAS, IN quadrangle). The gage is at the head of the outlet channel, approximately 20 ft north of the control structure and 4.0 mi southwest of the town of Wolflake, Noble County, Indiana.

SURFACE AREA.--228 acres, revised.

DRAINAGE AREA.--8.89 mi², revised.

PERIOD OF RECORD.--1943-74, 1978 to present.

DATUM OF GAGE.--890.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on July 18, 1956, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel-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 western end and forms the head waters of the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.76 ft, April 4, 1950; minimum stage, 7.18 ft, December 11-31, 1953, January 1-30, 1954.

ANNUAL EXTREME LEVELS FOR BIG LAKE, 1943-74, 1978-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	August 4,5	9.20	August 24	8.79
1944	April 16	11.65	September 29,30	8.51
1945	May 19,20	11.29	October 31	8.47
			November 1,2	8.47
1946	October 7	9.95	September 30	8.02
1947	April 23	11.18	October 17	7.82
1948	March 29	11.01	September 28	8.70
1949	February 18,19	11.36	October 29-31	8.59
			November 1,2	8.59
1950	April 4	12.76	October 1-3	9.02

03330040 BIG LAKE NEAR WOLFLAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951	October 1	9.96	September 29,30	7.80
1952	January 28	9.88	September 17	7.66
1953	May 24-26	8.60	September 22-30	7.32
1954	April 27	9.26	December 11-31	7.18
			January 1-30	7.18
1955	October 15,16	11.06	September 26-30	7.58
1956	May 1	10.18	October 4	7.54
1957	April 11	9.77	November 15-17	7.32
1958	September 21,22	10.10	October 14,15	7.70
1959	February 17-21	10.80	September 18-23	8.18
1960	June 16,17	11.83	September 18	8.22
1961	April 24	9.85	October 25,26	8.10
			November 6	8.10
1962	March 14,15	10.00	September 30	7.68
1963	March 20	9.72	February 14-16	7.52
1964	July 9,10	9.64	December 30,31	7.55
			January 1,2	7.55
1965	April 26	9.54	November 26,27	8.14
1966	December 26	9.84	September 30	7.98
1967	December 10	11.00	October 4-11,19-31	7.90
			November 1-5	7.90
1968	June 27	10.80	October 11-14	8.30
1969	January 24	10.70	September 11-20,	8.60
			27-30	8.60
1970	October 14	9.98	September 14-16	8.30
1971	March 16	9.60	October 1	8.50
1972	April 20,22,23	9.90	October 12-18	8.70
1973	November 15,16	10.00	September 18-30	8.70
	March 18-20,	10.00		
	June 6-9	10.00		
1974	January 4-6	10.40	September 4-30	8.40
1978*	August 30	8.41	September 29	8.18
1979	March 4	9.30	November 10-11	8.07
1980*	March 21	10.31	October 14,15	8.50
1981*	June 15	11.48	August 25	8.90
1982*	March 17	12.43	September 5	8.54
1983	May 3	10.35	September 30	8.05
1984	May 27	10.12	October 11	7.95
1985*	March 31	10.33	August 12	8.31

* Incomplete record.

WABASH RIVER BASIN

03330060 GOOSE LAKE NEAR LORANE

GAGE LOCATION.--Lat 41°14'28", long 85°33'08", in NW¼NE¼SW¼ sec. 12, T. 32 N. R. 8 E. (LORANE, IN quadrangle). The gage is located on the northern shore of the lake near the outlet and 2.2 mi south of Etna, Whitley County, Indiana.

SURFACE AREA.--84 acres.

DRAINAGE AREA.--1.51 mi².

PERIOD OF RECORD.--1945-53.

DATUM OF GAGE.--900.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is located at a boat pier on the northern shore of the lake. The low-water section is bolted to the pier and the high-water section is attached to a tree northwest of the pier.

ESTABLISHED LEGAL LEVEL.--10.96 ft gage datum or 910.96 ft above NGVD of 1929 as decreed on July 22, 1948, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete weir at the outlet. The weir has grooves for removable boards.

INLET AND OUTLET.--The lake has no well defined inlet; however, two small ditches enter from the south and southwest. The outlet flows from the northern shore into Winters Lake and Loon Lake, and eventually joins the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.72 ft, April 23-25, 1947; minimum stage, 9.34 ft, October 20-22, 26-31, November 1, 2, 1948.

ANNUAL EXTREME LEVELS FOR GOOSE LAKE, 1945-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	August 17	11.37	August 30	11.12
1946*	January 8-10	12.30	September 28-30	10.48
1947	April 23-25	12.72	September 10	9.60
1948	May 14	10.92	September 28	9.42
1949	February 15, 16	11.48	October 20-22, 26-31	9.34
			November 1, 2	9.34
1950	April 5	12.00	October 1	9.78
1951	February 22	11.82	November 6, 7	10.07
1952*	January 29	11.84	October 22	10.14

03330060 GOOSE LAKE NEAR LORANE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1953*	October 1	10.17	November 17, 21	9.89
	November 30	10.17		

* Incomplete record.

WABASH RIVER BASIN

03330080 LOON LAKE AT ORMAS

GAGE LOCATION.--Lat 41°16'53", long 85°32'30", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 33 N., R. 8 E. (ORMAS, IN quadrangle). The gage is located at the northern tip of the lake at the outlet and 1.0 mi south of Ormas, Whitley County, Indiana.

SURFACE AREA.--222 acres, revised.

DRAINAGE AREA.--11.1 mi², revised.

PERIOD OF RECORD.--1943-66.

DATUM OF GAGE.--890.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is located at the outlet of the lake. The low-water section is attached to a piling and driven into the bed of the outlet. The high-water section is on the right bank of the outlet.

ESTABLISHED LEGAL LEVEL.--5.14 ft gage datum or 895.14 ft above NGVD of 1929 as decreed on September 28, 1959, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest, 100 ft downstream from the lake outlet.

INLET AND OUTLET.--The lake has three inlets. Friskney ditch enters from the southeast, Winters ditch from the south and the outlet ditch of Old Lake from the west. The outlet flows from the lake at the northern tip and into the Tippecanoe River, 0.4 mile downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.94 ft, May 20, 21, 1943; minimum stage, 3.56 ft, November 21, 1953.

ANNUAL EXTREME LEVELS FOR LOON LAKE, 1943-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	May 20,21	8.94	September 30	4.66
1944	April 17	8.06	September 26-28	3.66
1945	May 20,21	7.51	October 29-31	3.63
			November 1-4	3.63
1946	January 12	6.16	September 30	3.84
1947	April 24	7.18	October 16,17	3.66
1948	March 2,3	7.16	September 27,28	4.06
1949	February 18	7.10	October 29	3.96
1950	April 5	8.40	October 1,2	4.38

03330080 LOON LAKE AT ORMAS--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951	February 23	7.18	November 7	4.76
1952	January 28-31	6.70	September 28-30	4.48
1953	March 17,18	5.84	September 30	3.88
1954	April 27	6.12	November 21	3.56
1955	October 15,16	7.28	September 26	4.78
1956	May 1	7.11	October 2-4	4.74
1957	April 13	6.40	November 14	4.48
1958	September 18	6.32	October 14,15	4.41
1959	February 15	7.36	September 20-23	4.90
1960	June 17	7.84	November 28	5.00
1961	March 14,15	6.06	October 13,14	5.14
1962	March 14	6.68	September 27-30	4.52
1963	March 9-11	6.08	October 1,4	4.56
1964	March 27	5.89	November 16-18	4.60
1965	May 26	6.12	November 27	4.65
1966	December 26	6.35	September 23-28	4.79

* Incomplete record.

WABASH RIVER BASIN

03330100 NEW LAKE NEAR ETNA

GAGE LOCATION.--Lat 41°15'43", long 85°33'31", in SW¼NW¼ sec. 1, T. 32 N., R. 8 E. (ORMAS, IN quadrangle). The gage is on the southern shore of the lake, 1.2 mi southeast of Etna, Whitley County, Indiana.

SURFACE AREA.--50 acres.

DRAINAGE AREA.--0.29 mi².

PERIOD OF RECORD.--1945-53.

DATUM OF GAGE.--900.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is on the southern shore of the western lobe of the lake.

ESTABLISHED LEGAL LEVEL.--3.91 ft gage datum or 903.91 ft above NGVD of 1929 as decreed on August 15, 1950, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet ditch leading to Old Lake. At high flows, the level is controlled by the culvert at County Road 700 North.

INLET AND OUTLET.--The lake has no surface inlets. The outlet flows from the extreme northern end of the lake to Old Lake. The outlet of Old Lake flows into Loon Lake to the east and eventually into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.88 ft, April 4, 1950; minimum stage, 2.71 ft, October 16, 17, 1946.

ANNUAL EXTREME LEVELS FOR NEW LAKE, 1945-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	August 16	4.19	September 22	3.73
1946	February 14	4.39	September 30	2.89
1947	April 22	4.57	October 16,17	2.71
1948	April 1	4.43	September 28,29	3.27
1949	February 16,17	4.60	October 22-28	3.17
1950	April 4	4.88	October 1,2	3.62
1951	February 21,22	4.62	November 7-11	3.82
1952	January 27	4.54	September 29,30	3.82
1953*	October 1,2	3.80	November 12-17	3.54

* Incomplete record.

WABASH RIVER BASIN

03330120 OLD LAKE NEAR ETNA

GAGE LOCATION.--Lat 41°16'11", long 85°33'10", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T. 33 N., R. 8 E. (ORMAS, IN quadrangle). The gage is on the southern shore of the lake, 1.1 mi southeast of Etna, Whitley County, Indiana.

SURFACE AREA.--32 acres.

DRAINAGE AREA.--2.81 mi².

PERIOD OF RECORD.--1949-66.

DATUM OF GAGE.--890.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed on the southern shore.

ESTABLISHED LEGAL LEVEL.--8.07 ft gage datum or 898.07 ft above NGVD of 1929, as decreed on August 29, 1954, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards in the outlet.

INLET AND OUTLET.--The principal inlet to Old Lake enters on the southern shore from New Lake, 0.3 mi upstream. Two other ditches flow into the lake, one from the southwest and one from the northwest. The outlet flows from the eastern end of the lake and into Loon Lake, 0.4 mi downstream. The outlet of Loon Lake flows north and empties into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.18 ft, June 12, 1960; minimum stage, 7.15 ft, October 25, 26, 1953.

ANNUAL EXTREME LEVELS FOR OLD LAKE, 1949-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949*	August 19	7.68	September 3	7.34
1950	December 22	9.74	October 1	7.30
1951	July 11	9.20	February 10	7.78
1952	June 14	8.90	August 29,30	7.80
1953	March 15,16	8.40	September 30	7.29
1954	April 12	9.25	October 25,26	7.15
1955	October 12	9.86	September 26-28	7.52
1956	April 29	10.00	September 28-30	7.49
1957	April 11	9.04	September 9-11	7.34

03330120 OLD LAKE NEAR ETNA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1958	September 18	8.92	October 15	7.27
1959	July 1	9.05	September 22,23	7.51
1960	June 12	10.18	October 22	7.81
1961	April 19	9.04	October 24,25	7.76
1962	March 13	9.70	August 24	7.70
			September 30	7.70
1963	March 12,13	8.94	October 2	7.68
1964	July 9	9.00	October 27-31	7.60
			November 3	7.60
1965	April 27	9.48	November 13-15	7.56
1966	December 26	9.94	October 14	8.14

* Incomplete record.

WABASH RIVER BASIN

03330140 SMALLEY LAKE NEAR WASHINGTON CENTER

GAGE LOCATION.--Lat 41°18'52", long 85°35'04", in SW¼NW¼SE¼ sec. 15, T. 33 N., R. 8 E. (ORMAS, IN quadrangle). The gage is located on the northern side of the outlet channel, 300 ft upstream from the first bridge over the outlet, and 0.9 mi southeast of Washington Center, Noble County, Indiana.

SURFACE AREA.--69 acres, revised.

DRAINAGE AREA.--27.1 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--880.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 downstream from the lake.

INLET AND OUTLET.--The Tippecanoe River flows through the lake, entering at the southern 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 northern shore from Gilbert Lake, 0.9 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.00 ft, March 24, 1978; minimum stage, 1.10 ft, August 7, 1963.

ANNUAL EXTREME LEVELS FOR SMALLEY LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	August 4	2.17	September 30	1.72
1944	May 16	4.13	August 25, 26	1.40
1945	May 17	3.41	October 1, 2, 14-31	1.43
			November 1-11	1.43
1946	October 2	2.98	September 3-9	1.31
1947	April 21	2.95	October 6-17	1.31
1948	February 29	2.95	September 18, 19	1.39
1949	February 14	3.36	October 3-6	1.45
			September 30	1.45
1950	April 4, 5	4.48	October 3	1.48
1951	February 22	3.84	September 30	1.58

03330140 SMALLEY LAKE NEAR WASHINGTON CENTER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952	January 27	3.25	October 6	1.49
1953	April 4	3.20	July 26,29	1.32
1954	March 25	3.60	October 1-3	1.44
1955	October 15	4.93	September 15,19,20	1.46
1956	May 1	4.66	September 20-21	1.43
1957	April 11	3.96	September 7-9	1.43
1958	September 17	3.73	October 1-11	1.44
1959	February 17-20	4.28	September 17-20	1.48
1960	June 16	4.53	September 29	1.59
1961	April 22	3.62	February 7,8	1.49
1962	March 12,13,21	4.03	August 24	1.43
1963	March 9	3.43	August 7	1.10
1964	April 29,30	3.06	September 14-17	1.38
1965	April 26	4.23	October 4	1.39
1966	December 26	5.05	September 19	1.43
1967	December 9,10	6.00	October 1-8, August 17, September 11-19	1.50 1.50
1968	February 3	5.60	October 7	1.55
1969	January 31	5.95	October 2-5, August 22-31	1.65 1.65
			September 1-6, 8-16, 22-30	1.65 1.65
1970	April 21-23	4.20	July 4-19,21-27	1.60
			August 16-21,24-31	1.60
			September 1-13	1.60
1971	February 6	3.90	September 5	1.50
1972	April 22	4.30	September 9,10	1.70
1973*	June 7	4.45	September 13-24	1.80
1974	March 9,10	4.80	July 29-31, August 1-10,13-31, September 1-10,24-26	1.80 1.80 1.80
1975	June 17	4.00	September 24-30	1.65
1976	February 17,18	5.20	October 17, June 17 July 13,14	1.60 1.60
1977	March 5,6	4.25	May 18	1.40
1978*	March 24	7.00	July 30,31, August 1	1.89
1979*	March 8	4.79	September 24,25	1.51
1980	March 19	4.08	October 1	1.62
1981*	April 15,16	6.21	August 25	1.85
1982	March 17	6.51	August 28-31	1.73
1983	May 3	4.59	September 5	1.59
1984	May 27	4.43	October 2-7	1.64
1985	February 25	5.97	September 20-22	1.48

* Incomplete record.

WABASH RIVER BASIN

03330160 GILBERT LAKE NEAR WASHINGTON CENTER

GAGE LOCATION.--Lat 41°19'50", long 85°35'48", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 33 N., R. 8 E. (ORMAS, IN quadrangle). The gage is at the extreme western end of the lake, on the eastern side of County Road 925 West, approximately 400 ft south of Gilbert Lake Road, and 0.4 mi north of Washington Center, Noble County, Indiana.

SURFACE AREA.--28 acres.

DRAINAGE AREA.--0.37 mi².

PERIOD OF RECORD.--1954-59, 1961 to present.

DATUM OF GAGE.--884.85 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1974-75.

GAGE.--A digital water-stage recorder (hourly) 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, 5.76 ft, May 25, 1984; minimum stage, 3.53 ft, November 1, 1963.

ANNUAL EXTREME LEVELS FOR GILBERT LAKE, 1954-59, 1961-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	August 26	4.68	September 30	4.23
1955	October 12	5.08	September 25	4.04
1956	May 12	5.12	October 2	4.10
1957	April 8,9	4.71	September 11,12	3.93
1958	September 17	5.10	October 17,18	3.84
1959	April 6	4.90	September 18,19	4.04
1961	May 8	5.12	October 22	4.28
1962	April 23	5.16	September 30	3.74
1963	March 10	4.18	October 2	3.71

03330160 GILBERT LAKE NEAR WASHINGTON CENTER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1964	April 29	4.47	November 1	3.53
1965	May 27	4.99	November 11-14	3.84
1966	December 26	4.96	September 18,19,23, 27-30	3.76 3.76
1967	December 9,10	5.00	October 8,9,11,12	3.70
1968	January 26	4.95	October 1-14	3.95
1969	January 31	4.95	August 30,31	4.10
			September 1-6, 15-21	4.10
1970	August 1	4.98	October 5,6	4.13
1971	October 28-30	4.80	September 1,2	3.85
1972	April 17-21, May 15	4.55	October 1-3,5,6-20	3.95
			November 8-17	3.95
1973	June 6	4.85	September 22-24	4.10
1974	March 4-7	5.00	September 1-10	4.00
1975	June 17	4.70	October 11,12	4.00
1976*	February 16,17	4.70	July 29	4.00
			September 5-8	4.00
1977*	March 28, April 2	4.70	June 4	4.00
1978*	July 13	5.62	October 27-30	4.30
1979*	November 14	5.04	July 23	4.08
1980*	October 7-9	4.92	July 21	4.16
1981	July 27,28	5.56	October 13	4.20
1982*	December 17-20	5.41	September 5	4.32
1983	June 16	5.34	September 13,14	4.16
1984	May 25	5.76	November 9	4.35
1985*	November 11	5.51	December 25,26	4.32

* Incomplete record.

WABASH RIVER BASIN

03330180 HORSESHOE LAKE NEAR WASHINGTON CENTER

GAGE LOCATION.--Lat 41°18'09", long 85°35'23", in SE¼SW¼NW¼ sec. 22, T. 33 N., R. 8 E. (ORMAS, IN quadrangle). The gage is on the southern side of the highway bridge over the outlet, 75 ft north of the lake and 1.5 mi south-east of Washington Center, Noble County, Indiana.

SURFACE AREA.--18 acres.

DRAINAGE AREA.--1.62 mi².

PERIOD OF RECORD.--1945-66.

DATUM OF GAGE.--900.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the eastern bank of the outlet channel.

ESTABLISHED LEGAL LEVEL.--1.80 ft gage datum or 901.80 ft above NGVD of 1929 as decreed on October 7, 1954, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the invert of a 48-inch corrugated metal culvert.

INLET AND OUTLET.--The one inlet enters the lake on the southern side from Indian Lake, 0.6 mile upstream. The outlet flows from the lake on the northern side, into Johnson Lake, 1.2 mi downstream, and then into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.80 ft, April 2, 1956; minimum stage, -0.55 ft, October 31, 1963.

ANNUAL EXTREME LEVELS FOR HORSESHOE LAKE, 1945-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 29	1.04	August 23-30	0.52
1946	June 17	2.37	September 20-22, 26-30	0.40
1947	September 22	4.28	October 14-16	0.28
1948	November 16-20	4.44	February 12-14	1.10
1949	May 22, 23	2.68	December 12-14	1.00
1950	April 4	4.26	June 24	1.61
1951	March 19	3.69	September 24-30	1.08
1952	January 1	2.24	August 29-31	0.82
			September 16, 30	0.82
1953	May 24	2.06	October 11-13	0.73

03330180 HORSESHOE LAKE NEAR WASHINGTON CENTER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954	May 17	3.38	January 14-19	0.98
1955	October 10	4.41	December 10,11	1.58
1956	April 2	4.80	June 12	1.40
1957	April 6	2.82	August 24-26	1.16
1958	September 16	3.36	April 17-21	0.42
1959	February 10	2.32	September 23-26	0.25
1960	June 12	3.80	December 11	0.36
1961	April 19	1.45	October 20-25	0.37
1962	March 12	2.41	September 30	0.04
1963	March 9	3.81	October 2	0.01
1964	March 30	1.57	October 31	-0.55
1965	June 8	3.11	November 5-14	0.30
1966	December 25	2.90	September 30	0.45

* Incomplete record.

WABASH RIVER BASIN

03330200 BAUGHER LAKE NEAR WASHINGTON CENTER

GAGE LOCATION.--Lat 41°18'52", long 85°36'49", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, T. 33 N., R. 8 E. (ORMAS, IN quadrangle). The gage is on the northern side of the outlet, at the bridge on County Road 1000 West and 1.1 mi southwest of Washington Center, Noble County, Indiana.

SURFACE AREA.--32 acres.

DRAINAGE AREA.--31.0 mi².

PERIOD OF RECORD.--1945-51.

DATUM OF GAGE.--870.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is bolted to the northeastern abutment of the county bridge over the outlet, 1000 ft downstream from the lake.

ESTABLISHED LEGAL LEVEL.--8.52 ft gage datum or 878.52 ft above NGVD of 1929 as decreed on October 7, 1954, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The Tippecanoe River flows through the lake, entering at the northern side of the eastern lobe, from Smalley Lake, 1.2 mi upstream, and leaving from the western side and flowing into Rider Lake, which is downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.85 ft, January 19, 1950; minimum stage, 7.55 ft, September 5, 6, 1946.

ANNUAL EXTREME LEVELS FOR BAUGHER LAKE, 1945-51

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	August 16	8.80	September 21,22	7.88
1946	October 3	9.60	September 5,6	7.55
1947	April 22	10.24	October 9,16	7.57
1948	March 1	10.12	September 18	7.62
1949	February 20	10.38	September 30	7.71
1950	January 19	10.85	October 1	7.71
1951*	October 2	8.52	October 21	8.10

* Incomplete record.

WABASH RIVER BASIN

03330220 WILMOT POND AT WILMOT

GAGE LOCATION.--Lat 41°18'32", long 85°38'39", in NE¼NE¼NW¼ sec. 19, T. 33 N., R. 8 E. (NORTH WEBSTER, IN quadrangle). The gage is at the outlet dam, at the extreme western side of the lake, on State Highway 5, and at the southern edge of the town of Wilmot, Noble County, Indiana.

SURFACE AREA.--10 acres.

DRAINAGE AREA.--35.2 mi².

PERIOD OF RECORD.--1946-51. (Formerly published as Rider Lake at Wilmot.)

DATUM OF GAGE.--870.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to an 8-inch piling in the lake bed near the southern abutment of the outlet dam.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with three openings. Removable boards form the crest.

INLET AND OUTLET.--The Tippecanoe River flows through the lake. It enters on the eastern side from Baugher Lake, 1.8 mi upstream, and flows from the lake on the western side.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.40 ft, January 4, June 10, 1950, and February 19, 1951; minimum stage, 5.44 ft, October 2, 1946.

ANNUAL EXTREME LEVELS FOR WILMOT POND, 1946-51

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 16	7.32	September 30	5.48
1947	April 21	6.89	October 2	5.44
1948	May 14	7.04	September 28	6.02
1949	March 2, 3	7.20	September 30	5.80
1950*	January 4, June 10	7.40	October 4	5.60
1951*	February 19	7.40	October 7, 13 November 21	6.58 6.58

* Incomplete record.

WABASH RIVER BASIN

03330240 WEBSTER LAKE AT NORTH WEBSTER

GAGE LOCATION.--Lat 41°19'09", long 85°41'20", in NE¼SW¼NW¼ sec. 14, T. 33 N., R. 7 E. (NORTH WEBSTER, IN quadrangle). The gage is on the southwestern 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, Kosciusko County, Indiana.

SURFACE AREA.--774 acres, revised.

DRAINAGE AREA.--49.2 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--839.93 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1973-74.

GAGE.--A digital water-stage recorder (hourly) is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is bolted to the southeastern face of the control dam.

ESTABLISHED LEGAL LEVEL.--12.75 ft gage datum or 852.75 ft above NGVD of 1929 as decreed on July 27, 1954, 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 NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete notch dam with seven adjustable gates at the head of the outlet channel. North of this dam is another which used to serve as a mill race. This dam has one metal gate.

INLET AND OUTLET.--The Tippecanoe River flows through Webster Lake, entering at the southeastern end and leaving at the southwestern side. The Tippecanoe River enters James Lake, 2.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.15 ft, February 11, 1984; minimum stage, 9.79 ft (during repair of the dam), October 5, 1962.

ANNUAL EXTREME LEVELS FOR WEBSTER LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	March 20, May 19	13.51	August 24	12.27
			September 29, 30	12.27
1944	May 16	13.51	February 1-5	10.75

03330240 WEBSTER LAKE AT NORTH WEBSTER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945	June 18, August 5,6	13.27	December 10	11.01
1946	October 11	13.33	September 30	11.55
	December 31	13.33		
	February 16	13.33		
1947	June 1	13.11	October 17	11.43
1948	May 11,12	13.17	October 25,26	11.17
1949	June 18	13.39	October 21-24	11.25
1950	April 5	13.26	February 5	11.38
1951	December 7	13.32	October 20	11.94
1952	January 3	13.24	September 30	10.58
1953	May 26	13.04	October 4-31	10.16
			November 1-15	10.16
1954	March 26	13.28	September 27,28	10.98
1955	December 30,31	12.94	October 1	11.07
	July 28	12.94		
1956	April 30	13.16	May 29	12.44
1957	July 6	12.95	September 30	11.16
1958	September 17	13.27	October 1-9	11.16
1959	April 3	13.20	October 3	11.87
1960	June 13	13.24	September 25,27-29	11.80
1961	April 22	13.18	October 1,2	11.86
1962	November 25	13.36	September 27-30	9.90
1963	July 15-20	13.30	October 5	9.79
1964	March 30	13.22	February 10	11.88
1965	August 28	13.35	December 22,23	12.70
			March 1,27,28	12.70
1966	December 31	13.54	February 26,27	12.65
1967	December 11-13	14.00	February 27,28	12.50
			March 1,3-5, June 30	12.50
1968	February 5	13.40	January 4-22	12.50
	June 27,28	13.40	February 19-29	12.50
			March 1-15	12.50
1969	February 1	14.50	March 2-7	11.80
1970	July 30	13.13	February 14-22	12.00
1971	February 7-9	13.20	February 17-20	12.20
1972	April 23,24	13.20	January 16,17	12.10
	September 15,16	13.20		
1973	August 2	13.40	January 17-20	12.40
			March 1-4	12.40
1974	March 13-15	13.60	January 14-17	12.40
			February 18-21	12.40
			March 26-28	12.40
1975	June 2-6	13.40	July 17	12.00
1976	February 22,23	13.85	January 17	12.00
1977	March 12	13.49	February 13,14	12.24

03330240 WEBSTER LAKE AT NORTH WEBSTER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1978	March 27	14.28	January 13	12.38
			February 13-21	12.38
			March 1-8	12.38
1979*	March 9	13.25	February 3-22	12.16
1980*	April 10, 11	13.46	March 4	12.16
1981*	June 16	14.23	March 14	12.61
1982	March 19	14.90	February 16	11.46
			March 10	11.46
1983	May 6	13.69	December 20	12.24
1984	February 11	15.15	March 14	11.78
1985*	January 3	13.81	October 2, 3	12.62

* Incomplete record.

WABASH RIVER BASIN

03330260 ROBINSON LAKE NEAR PIERCETON

GAGE LOCATION.--Lat 41°13'28", long 85°39'12", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 32 N., R. 7 E. (PIERCETON, IN quadrangle). The gage is 200 ft downstream from the head of the outlet, at the bridge on the northwestern side of the lake and 3.2 mi northeast of Pierceton, Kosciusko County, Indiana.

SURFACE AREA.--59 acres.

DRAINAGE AREA.--7.15 mi².

PERIOD OF RECORD.--1946-51.

DATUM OF GAGE.--840.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the outlet channel, near the farm bridge, on the northern side of the lake.

ESTABLISHED LEGAL LEVEL.--11.09 ft gage datum or 851.09 ft above NGVD of 1929 as decreed on September 20, 1959, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The one inlet enters at the southeastern side of the lake from Rine Lake, 0.4 mi upstream. The outlet, Grassy Creek, flows from the lake at the northwestern shore and into Rldinger Lake, 2.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 14.30 ft, April 4, 1950; minimum stage, 9.86 ft, October 16, 17, 1946.

ANNUAL EXTREME LEVELS FOR ROBINSON LAKE, 1946-51

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 14	13.57	September 30	9.95
1947	April 21	13.53	October 16, 17	9.86
1948	February 27	14.11	September 11	10.08
1949	February 16	13.91	October 11	10.16
1950	April 4	14.30	November 12	10.70
1951*	October 1-4	10.86	November 3-5	10.70

* Incomplete record.

WABASH RIVER BASIN

03330280 TROY CEDAR LAKE NEAR LORANE

GAGE LOCATION.--Lat 41°14'13", long 85°34'38", in SE¹₄SE¹₄SE¹₄ sec. 10, T. 32 N., R. 8 E. (LORANE, IN quadrangle). The gage is on the southern shore of the lake, 0.2 mi southeast of the outlet and 2.3 mi northwest of Lorane, Whitley County, Indiana.

SURFACE AREA.--93 acres.

DRAINAGE AREA.--5.33 mi².

PERIOD OF RECORD.--1945-52.

DATUM OF GAGE.--900.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is installed on the southern shore. Section one is driven into the lake bed. Section two is attached to a tree at the edge of the lake.

ESTABLISHED LEGAL LEVEL.--5.41 ft gage datum or 905.41 ft above NGVD of 1929 as decreed on July 22, 1948, by the Whitley County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake was controlled by the outlet channel during the period of record. Later, a concrete sill with end walls and optional stop logs was installed.

INLET AND OUTLET.--One inlet enters on the northern shore from Mud and Scott Lakes, about 1.4 mi upstream. The other inlet enters at the southern end from Little Troy Cedar Lake, 0.5 mi upstream. The outlet, Cedar Lake Branch, flows from the lake at the southwestern shore and into Ridinger Lake, 5.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.36 ft, April 5, 1950; minimum stage, 4.32 ft, October 15, 16, 1946.

ANNUAL EXTREME LEVELS FOR TROY CEDAR LAKE, 1945-52

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 30	5.42	August 30	5.14
1946	February 15	6.30	September 30	4.46
1947	April 22	6.96	October 15, 16	4.32
1948	March 22, 27	6.76	September 27	4.62
1949	February 19, 20	6.99	October 20, 21, 30, 31	4.56
			November 1	4.56
1950	April 5	8.36	October 2	5.02

03330280 TROY CEDAR LAKE NEAR LORANE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951	February 23	7.50	November 3-6	5.28
1952*	January 28	7.20	May 6,7	4.98

* Incomplete record.

WABASH RIVER BASIN

03330300 RIDINGER LAKE NEAR PIERCETON

GAGE LOCATION.--Lat 41°15'07", long 85°39'34", in SW¹/₄SW¹/₄SE¹/₄ sec. 1, T. 32 N., R. 7 E. (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, Kosciusko County, Indiana.

SURFACE AREA.--136 acres, revised.

DRAINAGE AREA.--34.6 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--840.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929, as decreed on April 11, 1949, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and a sluice-way with a steel gate. 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, February 24, 1985; minimum stage, 1.35 ft, January 17-19, 1944.

ANNUAL EXTREME LEVELS FOR RIDINGER LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	August 4	3.13	September 30	2.12
1944	April 13	8.06	January 17-19	1.35
1945	May 18	7.49	October 23,31	1.45
			November 1	1.45
1946	October 3	6.03	September 6,7	1.44
1947	April 23	6.21	October 3-9,15-17	1.56
1948	February 29	4.93	October 5	2.00

03330300 RIDINGER LAKE NEAR PIERCETON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949	February 16	5.55	March 14-18	2.80
			April 8-10	2.80
1950	April 5	7.44	May 1,2, July 15	2.90
1951	February 22	6.28	April 29,30, May 1-8	2.85
1952	January 2	5.45	February 17,21-29	2.84
			March 1-9	2.84
1953	March 5	3.92	March 29-31, April 1	2.86
1954	April 26	5.11	October 23-27	3.04
1955	October 12	8.92	February 9	2.44
1956	April 30	7.99	March 19-27	2.85
1957	April 7	5.31	October 10-31	2.99
			November 1-7	2.99
1958	September 18	6.52	April 15,16	2.90
1959	February 14	7.76	April 18	2.74
			September 25-27	2.94
1960	April 19	6.51	March 8-26	2.94
1961	April 21	5.14	May 22-27,30	2.86
1962	March 13	6.38	April 7	2.60
1963	March 9	5.70	March 3	2.68
1964	March 27	4.24	September 16,17	2.96
1965	April 27	5.62	June 15	3.08
1966	December 27	6.60	February 26,27	2.68
1967	December 10	8.80	September 20,21	2.80
1968	June 27	8.50	March 13,14	2.90
1969	January 31	8.20	February 26-28	2.30
1970	April 22	5.60	February 19	2.46
			March 3	2.46
1971	February 20	5.00	April 26-28	3.00
1972	April 17	5.30	February 9-15	2.60
1973*	June 7	5.90	June 18	3.20
1974*	January 23	5.70	July 13,15-19,22,23, 29-31, August 1-7	3.10
				3.10
1975*	June 15	5.00	June 10	3.10
1976*	February 17	6.10	April 9	3.05
1977	September 17	5.59	August 2,3	3.11
1978	March 21	6.93	September 11	3.09
1979*	February 16	6.80	July 23	3.11
1980*	March 17	5.03	August 28	3.01
1981	June 13	8.84	September 22-25	3.14
1982*	March 14	8.33	August 19	3.10
			September 3-5	3.10
1983*	May 2	5.87	September 5	3.10
1984	May 26	6.33	August 31	3.15
			September 6,16	3.15

03330300 RIDINGER LAKE NEAR PIERCETON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1985	February 24	9.01	July 22,23	3.14
			August 12	3.14

* Incomplete record.

WABASH RIVER BASIN

03330380 SHOE LAKE NEAR OSWEGO

GAGE LOCATION.--Lat 41°18'32", long 85°45'10", in SE¼SW¼SE¼ sec. 18, T. 33 N., R. 7 E. (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, Kosciusko County, Indiana.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--0.34 mi².

PERIOD OF RECORD.--1946-52, 1972-74, 1977 to present.

DATUM OF GAGE.--830.00 ft above NGVD of 1929. Prior to 1972, the datum of the gage was 840.00 ft above NGVD of 1929. All levels listed below are at the present datum.

GAGE.--A digital water-stage recorder (hourly) is installed in an aluminum shelter over a 15-inch diameter stilling well.

ESTABLISHED LEGAL LEVEL.--11.57 ft present gage datum or 841.57 ft above NGVD of 1929 as decreed on October 18, 1948, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by removable boards placed in wooden support posts in the outlet channel, upstream of the culvert, under County Road 450 North.

INLET AND OUTLET.--There are no inlets, except for small drainage ditches. The outlet is at the southeastern end and flows into Banning Lake, 0.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.95 ft, December 13-15, 1972; minimum stage, 10.52 ft, February 10, 1977.

ANNUAL EXTREME LEVELS FOR SHOE LAKE, 1946-52, 1972-74, 1977-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 19-20	12.06	September 30	10.88
1947	April 30, May 1	12.07	October 15,16	10.68
1948	March 25,26	12.24	September 30	11.18
1949	February 15-17	12.08	October 29-31	10.98
			November 1,2	10.98
1950	April 4,5	12.55	October 1-4	11.40
1951*	July 12	12.30	April 6,7	11.14

03330380 SHOE LAKE NEAR OSWEGO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952*	July 23	12.15	July 18	11.62
1972*	September 29,30	12.25	August 4-6	11.75
1973	December 13-15	12.95	September 22-28	11.30
1974*	March 10	12.35	November 14,17-20	11.15
1977	May 6	11.44	February 10	10.52
1978	May 14,19	12.36	January 18	11.06
1979*	May 6	12.09	September 30	10.84
1980	June 7,15	12.18	November 17-21	10.71
1981*	April 14	12.60	November 26	11.65
1982	July 3	12.62	September 5	11.85
1983	May 1	12.58	September 18,30	11.02
1984	May 25	12.39	October 19,20	10.88
			November 9,14	10.88
1985	March 28, April 5	12.58	September 30	11.14

* Incomplete record.

WABASH RIVER BASIN

03330460 SAWMILL LAKE NEAR NORTH WEBSTER

GAGE LOCATION.--Lat 41°17'22", long 85°42'52", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 33 N., R. 7 E. (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, Kosciusko County, Indiana.

SURFACE AREA.--36 acres.

DRAINAGE AREA.--51.8 mi².

PERIOD OF RECORD.--1945-1970, 1972 to present.

DATUM OF GAGE.--830.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court. All lakes in the Barbee Chain have the same control structure and established level, 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 of 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, March 20, 1982; minimum stage, 5.45 ft, January 29-31, February 1-28, March 1, 2, 1978.

ANNUAL EXTREME LEVELS FOR SAWMILL LAKE, 1945-1970, 1972-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 29,30	7.31	September 22	6.89

03330460 SAWMILL LAKE NEAR NORTH WEBSTER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946	October 7	8.39	September 29,30	5.89
1947*	April 26	8.42	October 16	5.77
1948	May 17	8.70	September 28	5.96
1949	February 19-21	8.65	October 12-16,18-24	5.92
1950	April 6	9.92	October 1,2	6.22
1951	February 25,26	8.96	September 30	6.29
1952	February 7	8.68	October 22	6.19
1953	March 21	7.57	September 10	5.94
1954	April 30	8.47	December 30,31	6.04
			January 1	6.04
1955	October 17	10.32	September 7-14,20	6.24
1956	May 5,6	9.20	September 19,20	6.04
1957	April 21	8.38	October 9, August 15	6.07
1958	September 21	9.42	June 7	6.05
1959	February 16-18	9.64	September 20,21	7.37
1960	June 20	9.04	March 28	7.20
1961	April 28,29	8.34	November 5	5.88
1962	March 22	8.64	January 4,5	6.90
1963	March 11	8.14	December 17,18	6.67
1964	October 24-26	7.60	March 24	6.40
1965	April 29	8.35	October 5,6	6.60
1966	January 2,3	8.70	August 9	7.12
			September 16-20	7.12
1967	December 13-15	9.60	October 1-14,28-31	7.20
			November 1-3	7.20
			August 7-31	7.20
			September 1-29	7.20
1968*	June 30	9.70	October 1-8	7.40
	July 1,2	9.70	September 16,17,28-30	7.40
1969	February 2-6	8.80	January 16,17	7.10
1970*	April 25	8.40	January 23	7.16
1972*	April 21-23	8.90	October 1-21	7.40
			November 1-11,18-20,	7.40
			26-30, June 12,27,28,	7.40
			30, July 1-14,25-31	7.40
			August 1-6,22,31	7.40
			September 1-10	7.40
1973	June 9,10	9.10	September 11-28	7.30
1974*	March 10-13	9.00	October 22-26,28-31	7.30
			November 4-21, July 31	7.30
			August 1-10, 14-15	7.30
			September 1,5-10	7.30

03330460 SAWMILL LAKE NEAR NORTH WEBSTER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1975*	June 17-19	9.10	October 1-4, 7-24, 28	7.40
			November 23-30	7.40
			December 1, 5-12, 14	7.40
			September 25-30	7.40
1976*	February 23	9.09	September 6-8	7.15
1977*	September 20	8.48	August 3	7.11
1978*	March 25	9.76	January 29-31	5.45
			February 1-28	5.45
			March 1, 2	5.45
1979	March 6	9.01	September 24, 25	7.03
1980	June 7	8.48	December 21	7.14
			February 21	7.14
1981*	June 17	10.27	January 24, 26	7.16
1982	March 20	10.53	September 5	7.20
1983	May 4	9.07	September 14, 15	6.97
1984	May 29	9.27	October 7, 9-11	7.15
1985	February 27	10.25	August 12	7.00

* Incomplete record.

WABASH RIVER BASIN

03330480 TIPPECANOE LAKE AT OSWEGO

GAGE LOCATION.--Lat 41°19'15", long 85°47'20", in NW¼NE¼NE¼ sec. 14, T. 33 N., R. 6 E. (LEESBURG, IN quadrangle). The gage is in the outlet channel at the extreme southwestern end of the lake, at Oswego, Kosciusko County, Indiana.

SURFACE AREA.--768 acres, revised.

DRAINAGE AREA.--113 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--830.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 southern abutment of the dam.

ESTABLISHED LEGAL LEVEL.--6.40 ft gage datum or 836.40 ft above NGVD of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court. James Lake at Oswego and Oswego Lake at Oswego have the same control structure and established level, 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, February 13-17, 1963.

ANNUAL EXTREME LEVELS FOR TIPPECANOE LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	May 21	9.43	October 29	6.32
			November 5	6.32
1944	April 14	8.75	August 27,28	5.36
1945	May 24	8.04	October 28,29,30,31	5.16
			November 1,2	5.16

03330480 TIPPECANOE LAKE AT OSWEGO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946	February 20	7.50	September 30	5.20
1947	April 26	7.92	October 16	5.02
1948	March 5	7.96	September 27	5.52
1949	February 21	8.28	October 28-31	5.46
			November 1, 2	5.46
1950	April 10	9.18	November 23	5.66
1951	February 26, 27	8.38	November 6, 7	5.58
1952	February 4, 5	8.02	October 21, 22	5.58
1953	March 23, 24	7.02	November 14-18	5.25
1954	April 30	7.86	October 24-26	5.00
1955	October 17	9.28	September 27, 29, 30	5.46
1956	May 13, 14	8.55	October 4, 5	5.34
1957	April 18, 20, 22	7.90	November 16	4.94
1958	September 20	8.76	October 22	5.38
1959	February 18	8.94	June 24	6.18
1960	June 20, 21	8.19	March 21, 22, 23	6.00
1961	April 27	7.73	November 25	5.20
1962	March 24, 25	8.04	October 30, 31	5.80
			November 8	5.80
1963	March 16-19	7.32	February 13-17	4.90
1964	July 9, 10	7.08	February 26, 27	5.20
1965	May 1-5	7.57	November 26, 27	4.96
1966	January 4, 5	8.22	November 14-19	5.58
1967	December 14-18	8.90	January 19	5.80
1968	February 7-9	8.60	March 13-15	5.90
	July 1-4	8.60		
1969	February 5, 6	8.80	March 14-16	5.70
1970*	April 4	7.16	January 28	5.92
1971*	February 25, 26, 28	7.40	February 2, 3	5.80
1972	April 24, 25	7.90	February 20-29	5.50
1973	November 19-24	7.70	October 20	6.30
	January 7	7.70	March 5, 6	6.30
	March 27-31	7.70	August 4	6.30
	April 1, 24-28	7.70	September 1, 6	6.30
1974	January 30-31	8.10	August 31	5.60
	February 1	8.10	September 1-11	5.60
	March 12, 13	8.10		5.60
1975*	June 20, 21	7.80	October 7-28	6.00
1976*	February 22-26	8.25	January 15-17	5.85
1977*	April 3	7.68	February 22	5.68
1978*	March 25	8.70	March 15	5.60
1979*	March 9	8.15	February 20	5.57
1980*	April 10	7.79	February 20, 21	5.67
1981*	June 19, 22	8.70	January 31	5.79
1982	March 21	9.35	November 25	6.16

03330480 TIPPECANOE LAKE AT OSWEGO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1983	May 6	8.07	September 18	5.94
1984	May 31, June 1	8.18	November 14	5.76
1985	March 1	8.92	August 3	6.10

* Incomplete record.

WABASH RIVER BASIN

03331010 BIG CHAPMAN LAKE NEAR WARSAW

GAGE LOCATION.--Lat 41°16'53", long 85°46'47", in NW¼SE¼SW¼ sec. 25, T. 33 N., R. 6 E. (LEESBURG, IN quadrangle). The gage is on the southeastern shore of the lake, at the public fishing site, 4.9 mi northeast of Warsaw, Kosciusko County, Indiana.

SURFACE AREA.--581 acres.

DRAINAGE AREA.--4.17 mi².

PERIOD OF RECORD.--1945-68, 1971, 1976 to present.

DATUM OF GAGE.--820.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court. Little Chapman Lake has the same control structure and established level, 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 on the outlet channel of Little Chapman Lake.

INLET AND OUTLET.--Several small ditches enter the lake at various locations. 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, October 11, 1954; minimum stage, 6.75 ft, October 20, 1953.

ANNUAL EXTREME LEVELS FOR BIG CHAPMAN LAKE, 1945-68, 1971, 1976-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 30	7.64	September 22	7.18
1946	June 30, July 1	8.24	December 20-25	7.14
1947	April 20	8.31	October 29,30	7.11
1948	March 2,21	8.37	September 28	7.49
1949	February 15,16	8.49	September 30	7.28
1950	April 4	9.03	October 2	7.45
1951	July 9,10	8.71	September	7.77
1952	July 19	8.46	September 12,13,27-30	7.64

03331010 BIG CHAPMAN LAKE NEAR WARSAW--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1953	March 25	8.38	September 29,30	6.91
1954	March 31, April 1,2	8.65	October 20	6.75
1955	October 11	9.37	September 26	7.43
1956	May 12	8.88	October 4	7.43
1957	April 27-29	8.62	September 9	7.56
1958	September 17	9.06	October 9-14	7.56
1959	February 11	8.86	September 19	7.60
1960	April 18	8.65	September 16,17	7.80
1961	April 28,29	8.34	January 3,8	7.52
1962	March 28	8.42	September 29,30	7.42
1963	April 30	8.37	October 1,2	7.42
1964	July 8	8.18	October 29,31	7.54
1965	April 26	8.69	October 26-29	7.59
			November 3-15	7.59
1966	December 25	8.68	September 18,19,26-30	7.62
1967	December 9	8.90	September 25,26	7.50
1968	February 3-10	8.90	October 1-14	7.60
1971*	February 5-7,19-21	8.40	August 21-28	7.60
			September 3,5,10	7.60
1976*	February 17,18	8.46	September 8	7.55
1977	March 29, April 2	8.33	October 3,4	7.65
1978	April 6	8.56	September 8	7.40
1979	March 4,5	8.10	March 22,26	6.98
1980*	December 25,26	8.16	October 15	7.43
1981*	April 14	8.66	August 25	7.57
1982*	March 16,19,20	8.37	September 5	7.45
1983*	May 2	8.21	September 14,15,17,18	7.08
1984*	March 21	7.93	October 7,9-11	7.13
1985	February 24	8.32	August 12	7.28

* Incomplete record.

WABASH RIVER BASIN

03331040 PIKE LAKE AT WARSAW

GAGE LOCATION.--Lat 41°15'44", long 85°51'00", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T. 32 N., R. 6 E. (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, Kosciusko County, Indiana.

SURFACE AREA.--203 acres.

DRAINAGE AREA.--41.5 mi².

PERIOD OF RECORD.--1954 to present.

DATUM OF GAGE.--800.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on December 12, 1963, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest and removable boards.

INLET AND OUTLET.--The one inlet, Deeds Creek, flows from Little Chapman Lake, 3.4 mi upstream, and enters the lake on the lower northern shore. The outlet flows to the west from the extreme northern end of the lake and enters the Tippecanoe River, 0.9 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.79 ft, October 15, 1954; minimum stage, 3.71 ft, September 21, 22, 1955.

ANNUAL EXTREME LEVELS FOR PIKE LAKE, 1954-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 12	6.27	September 28	4.41
1955	October 15	10.79	September 21, 22	3.71
1956	May 9	7.99	October 1	4.05
1957	April 21	6.94	September 25-29	4.48
1958	September 19	8.30	October 1-15	4.52
1959	February 15, 16	8.73	September 19-21	4.62
1960	April 20	7.30	September 14-18	4.56
1961	April 29, 30	7.02	September 4	4.46

03331040 PIKE LAKE AT WARSAW--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1962	March 13,14	7.55	July 28-31	4.44
			August 1	4.44
1963	March 7	6.80	December 19	4.62
1964	July 9	6.20	January 2-4	4.62
1965	April 26,27	6.70	November 23	4.56
1966	December 27	7.15	November 20	4.74
1967	December 10,11	8.50	October 17-31	4.70
			November 1-7	4.70
1968	February 3	8.10	August 29-31	4.70
			September 1-3	4.70
1969	January 31	8.40	August 12-16,19-31	5.10
			September 1-6,9-16,	5.10
			20-24,27-30	5.10
1970*	April 19,21	6.15	September 2	4.70
1971*	February 6	6.80	January 29-31	4.50
1972*	April 21,22	7.20	January 19-22	4.50
1973*	November 18	7.00	January 16-18	4.10
	January 1,2	7.00		
	April 23	7.00		
1974*	March 8-12	7.10	January 16	4.60
1975*	June 2	7.20	December 2-9	4.90
1976*	March 6	7.21	February 8	4.64
1977*	September 19	7.13	January 26-31	4.75
			February 1	4.75
1978	March 23	8.38	March 8,9	5.00
1979*	March 3	7.77	November 8,10	4.72
1980	June 4	7.47	October 30	4.73
1981	June 15	9.36	November 9-11	4.97
1982	March 14	9.36	October 15,16	4.90
1983	May 3	7.87	October 29,30	4.81
1984	May 27	7.83	November 8,9	4.81
1985	February 25	9.40	February 9,10	5.00

* Incomplete record.

WABASH RIVER BASIN

03331060 FISH LAKE NEAR WARSAW

GAGE LOCATION.--Lat 41°10'06", long 85°50'12", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 31 N., R. 6 E. (WARSAW, IN quadrangle). The gage is on the outlet channel, northwest of the lake, east of County Farm Road, and 4.9 mi south of Warsaw, Kosciusko County, Indiana.

SURFACE AREA.--15 acres.

DRAINAGE AREA.--4.93 mi².

PERIOD OF RECORD.--1951-1966.

DATUM OF GAGE.--840.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to the downstream side of the foot bridge, approximately 300 ft downstream of the lake.

ESTABLISHED LEGAL LEVEL.--5.52 ft gage datum or 845.52 ft above NGVD of 1929 as decreed on September 10, 1959, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by removable boards on the upstream side of a metal culvert in the outlet.

INLET AND OUTLET.--The one inlet enters the lake on the southern side from Tibbitts Lake, 1.4 mi upstream. The outlet flows from the extreme northern end of the lake, into Muskellunge Lake, 0.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.20 ft, February 11, 1959; minimum stage, 3.52 ft, March 22, 1964.

ANNUAL EXTREME LEVELS FOR FISH LAKE, 1951-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951*	February 22	6.96	July 7	4.90
1952	January 30	6.96	September 14	4.78
1953	March 16	5.88	June 21-24	3.70
1954	January 28, July 8,9	5.72	May 18-27	3.68
1955	October 13	6.32	May 22,27,28	3.64
1956	April 29	6.40	June 7	3.70
1957	January 25	5.80	May 14-17	3.78
1958	August 16,17	6.60	March 15-20	3.60
1959	February 11	7.20	June 6	3.80
1960	March 30, April 19	5.56	April 11-15, May 17	3.86
1961	September 26	5.74	May 31, June 1	3.62

03331060 FISH LAKE NEAR WARSAW--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1962	February 27	5.59	May 30,31, June 1-3	3.70
1963	July 21	6.66	May 13,14	3.62
1964	July 9	6.70	March 22	3.52
1965	March 18	5.40	June 9-12	3.84
1966	December 26,27	6.50	June 1-5	3.90

* Incomplete record.

WABASH RIVER BASIN

03331080 MUSKELLUNGE LAKE NEAR WARSAW

GAGE LOCATION.--Lat 41°10'16", long 85°51'17", in SW¼NW¼NW¼ sec. 3, T. 31 N., R. 6 E. (WARSAW, IN quadrangle). The gage is near the northwestern shore, in the outlet channel, about 50 ft downstream from the lake, and 4.7 mi south of Warsaw, Kosciusko County, Indiana.

SURFACE AREA.--32 acres, revised.

DRAINAGE AREA.--11.8 mi², revised.

PERIOD OF RECORD.--1943-53, 1959-68.

DATUM OF GAGE.--840.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to the southern side of a willow tree, on the northern bank of the outlet channel, 50 ft downstream from the lake.

ESTABLISHED LEGAL LEVEL.--2.67 ft gage datum or 842.67 ft above NGVD of 1929 as decreed on September 20, 1948, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a riffle in Walnut Creek, 2,600 ft downstream of the lake. Beaver dams, upstream of the riffle, occasionally affect the level.

INLET AND OUTLET.--One inlet flows into the lake on the eastern shore from Fish Lake, 0.7 mi upstream. The other inlet is a ditch that enters the lake from the south. The outlet leaves the lake from the extreme western end, enters Walnut Creek, 0.2 mi downstream, and eventually flows into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.22 ft, April 13, 1944; minimum stage, 1.02 ft, August 21, 22, 1944.

ANNUAL EXTREME LEVELS FOR MUSKELLUNGE LAKE, 1943-53, 1959-68

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	August 15	2.73	September 3	1.66
1944	April 13	5.22	August 21, 22	1.02
1945	May 17	4.76	October 1	1.21
1946	October 1	4.98	September 27-30	1.20
1947	April 25	3.44	October 5-16	1.19
1948	February 29	3.68	September 28	1.04
1949	February 16	3.58	October 4-7, 11-15	1.10

03331080 MUSKELLUNGE LAKE NEAR WARSAW--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1950	April 5	3.90	October 2	1.36
1951	July 11	3.50	September 28-30	1.32
1952	May 25	3.46	October 1-6	1.32
1953*	November 27	1.98	October 1	1.80
1959*	April 29	2.86	September 16-21	1.36
1960	May 21,22	3.04	August 19	1.82
1961	May 10	3.14	February 15	2.00
1962	March 12	3.50	September 29,30	2.04
1963	July 21	4.09	February 17	1.27
1964	July 9	4.88	February 12-14	2.16
1965	January 24	3.36	June 15-21,26,27	2.10
	April 26	3.36	July 16,28-31	2.10
			August 1-7	2.10
			September 13,14	2.10
1966	December 27	3.36	June 27-30, July 1-5	1.86
1967	December 9	5.00	July 15-17	1.70
			September 6-24	1.70
1968*	June 26,27	3.90	October 1,2	1.90

* Incomplete record.

WABASH RIVER BASIN

03331100 CARR LAKE NEAR CLAYPOOL

GAGE LOCATION.--Lat 41°09'12", long 85°51'48", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 31 N., R. 6 E. (WARSAW, IN quadrangle). The gage is at the extreme southern tip of the lake, 1.8 mi northeast of Claypool, Kosciusko County, Indiana.

SURFACE AREA.--79 acres.

DRAINAGE AREA.--2.27 mi².

PERIOD OF RECORD.--1947-51.

DATUM OF GAGE.--840.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed near the pier at the extreme southern tip of the lake.

ESTABLISHED LEGAL LEVEL.--8.88 ft gage datum or 848.88 ft above NGVD of 1929 as decreed on September 20, 1948, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a riffle near the head of the outlet.

INLET AND OUTLET.--The principal inlet enters the lake on the northwestern shore from Reed Lake, 0.35 mi upstream. Small ditches enter at various other points. The outlet flows from the northern side of the lake to join Walnut Creek, 1.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.03 ft, April 8, 1950; minimum stage, 7.20 ft, October 21, 1948.

ANNUAL EXTREME LEVELS FOR CARR LAKE, 1947-51

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947*	April 21	9.44	August 24	7.63
1948	March 27	8.90	September 28	7.35
1949	February 15	9.30	October 21	7.20
1950*	April 8	10.03	October 2	7.73
1951*	July 15	8.71	September 9	7.48

* Incomplete record.

WABASH RIVER BASIN

03331120 SHERBURN LAKE NEAR PIERCETON

GAGE LOCATION.--Lat 41°09'40", long 85°44'43". in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 31 N., R. 7 E. (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, Kosciusko County, Indiana.

SURFACE AREA.--15 acres.

DRAINAGE AREA.--5.51 mi².

PERIOD OF RECORD.--1954 to present. (Formerly published as Johnson Lake near Pierceton.)

DATUM OF GAGE.--870.00 ft above NGVD of 1929. Prior to October 1, 1980, the datum of the gage was 880.00 ft. All levels listed below are at the present datum.

GAGE.--A digital water-stage recorder (hourly) 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 present gage datum or 881.00 ft above NGVD of 1929 as decreed on December 19, 1974, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the invert of the culvert under the first east-west road north of the lake.

INLET AND OUTLET.--The one inlet flows from Sellers Lake, 0.35 mi upstream. The outlet flows from the northern shore, through Wyland ditch, and into Winona Lake, 6.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.10 ft, February 24, 1985; minimum stage, 9.20 ft, September 14-18, 1983.

ANNUAL EXTREME LEVELS FOR SHERBURN LAKE, 1954-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 10	12.18	September 30	10.67
1955	October 15	13.72	September 27	10.25
1956	May 1	13.40	October 4	10.24
1957	April 7	13.37	November 13,14	10.27

03331120 SHERBURN LAKE NEAR PIERCETON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1958	August 21	13.58	October 14,15	10.42
1959	February 14	13.77	August 29	10.92
1960	January 15	14.46	September 14-18	11.12
1961	April 20	13.34	February 7,8	11.02
1962	March 12	14.30	September 29,30	9.92
1963	March 6	12.64	October 3,4	9.86
1964	July 8,9	13.10	October 18,19	9.92
1965	February 11	12.92	November 9-15	10.00
1966	December 26	12.86	September 30	9.76
1967	December 9	14.65	October 8-15,19-31	9.65
			November 1-8	9.65
1968	December 22	13.90	October 1-13	9.98
1969	January 30	13.85	October 1	10.06
1970	April 20	12.66	September 2,3	10.18
1971	February 5	12.70	January 31	10.40
			February 1-3	10.40
			June 30, July 1-9	10.40
			August 3	10.40
			September 2	10.40
1972	April 17	12.35	July 12,13,31	10.30
			August 1,2	10.30
1973*	November 15	12.70	July 16-21	10.50
			September 13-27	10.50
1974	January 22	13.00	July 17-31	9.50
			August 1-10,12-16	9.50
1975	June 16	12.50	October 7-13,16-28	9.70
1976	February 18	13.15	September 23-25	10.05
1977	September 18	12.95	June 22-27	10.00
			July 30,31	10.00
			August 1-4	10.00
1978	March 21	13.54	August 5,6	9.92
			September 8-12	9.92
1979	March 5	13.08	October 13	9.98
1980*	March 17, June 5	13.17	July 18,20,21	9.97
1981*	June 14	14.92	August 25	9.67
1982	March 13	14.89	September 5-7,9-13, 15,16	9.57 9.57
1983	May 2	13.04	September 14-18	9.20
1984	February 13	12.35	October 11	9.30
	May 26	12.35		
1985	February 24	15.10	July 23,24	9.41

* Incomplete record.

WABASH RIVER BASIN

03331140 WINONA LAKE AT WARSAW

GAGE LOCATION.--Lat 41°13'34", long 85°50'46", in NW¼NE¼SE¼ sec. 17, T. 32 N., R. 6 E. (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, Kosciusko County, Indiana.

SURFACE AREA.--562 acres, revised.

DRAINAGE AREA.--32.1 mi².

PERIOD OF RECORD.--1943-78, 1980 to present.

DATUM OF GAGE.--800.10 ft above NGVD of 1929. Prior to November 17, 1977, the datum of the gage was 810.10 ft NGVD as corrected on the basis of levels of IDNR, 1973-74. All levels listed below are at the present datum.

GAGE.--A digital water-stage recorder (hourly) 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 present gage datum or 811.06 ft above NGVD of 1929 as decreed on June 17, 1949, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 11.06 ft gage datum or 811.16 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam with steel lift gates.

INLET AND OUTLET.--There are three inlets to the lake. Wyland ditch enters on the eastern shore from Sherburn Lake, 6.7 mi upstream. Keefer-Evans ditch enters on the southeastern shore and Paterson ditch on the southwestern shore. The outlet, Eagle Creek, flows from the western lobe of the lake into Walnut Creek, 1.4 mi downstream, thence into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.31 ft, June 14, 1981; minimum stage, 9.40 ft, February 15, 1982.

ANNUAL EXTREME LEVELS FOR WINONA LAKE, 1943-78, 1980-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	August 4	11.25	August 28	10.78
1944	April 13	12.36	January 9-20	10.20

03331140 WINONA LAKE AT WARSAW--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945	May 18	12.26	February 2-5	10.16
1946	October 2	12.18	May 2,4	10.32
1947	February 1	12.05	October 2	10.30
1948	March 1	11.72	February 10-12	10.32
1949	February 17	12.32	March 20,21	10.54
1950	April 5	12.90	June 6	10.64
1951	February 22	12.38	February 10	10.47
1952	May 26	12.04	October 1,2	10.79
1953	March 16,17	11.44	September 27-30	10.42
1954	April 12	11.66	October 3	10.40
1955	October 13	13.02	February 8,9,16	10.82
			September 25,26	10.82
1956	May 1	12.54	December 28	10.68
			January 1,2	10.68
1957	April 8	11.90	September 9,10	10.69
1958	August 17	12.74	June 4,5	10.57
1959	February 14	12.83	December 27-30	10.68
1960	April 20	11.71	September 17,18	10.67
1961	April 25,26	11.85	October 1,4,7-10, 22-25	10.82 10.82
1962	March 12	12.06	July 20	10.50
1963	July 21	11.98	September 28	10.32
1964	July 9	12.00	January 6-9	10.00
1965	April 26,27	11.66	November 13-15,17	10.06
1966	December 27	11.53	November 5	10.02
1967	December 10	13.00	November 3	9.99
1968	February 3	12.60	October 30,31	10.00
			November 1,2,6-10	10.00
1969	January 31	12.60	November 13-15	10.10
			December 12-17	10.10
1970	April 24	11.91	March 2	10.18
1971	February 7-9,20-23	11.40	January 16-31	9.90
			February 1	9.90
1972	April 20-23	11.80	February 5-15	10.00
1973	June 7-9	11.70	October 30	10.50
			February 26-28	10.50
			March 1-4	10.50
1974	January 23,24,28	11.80	December 20-25	9.90
	March 6,7,10,11	11.80		
1975*	January 16,17	11.90	October 22-31	10.00
			November 1-6,14-30	10.00
			December 1-18	10.00
1976	February 17,18	12.00	November 9-12	10.05
			January 12	10.05

03331140 WINONA LAKE AT WARSAW--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1977*	March 29	11.56	November 4-27, 29, 30	10.00
			December 1-31	10.00
			January 3-31	10.00
			February 1-7	10.00
1978	March 23	11.58	January 28-31	9.80
			February 1-12	9.80
1980*	June 2	11.88	November 6	9.73
1981*	June 14	13.31	November 22	9.81
1982*	March 17	12.86	February 15	9.40
1983	May 2	11.43	October 29, 30	9.69
1984	May 26	11.71	November 6, 8, 9	9.73
1985	February 25	12.78	October 30	9.84
			November 8, 24-26	9.84

* Incomplete record.

WABASH RIVER BASIN

03331160 CENTER LAKE AT WARSAW

GAGE LOCATION.--Lat 41°15'02", long 85°51'32", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 32 N., R. 6 E. (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, Kosciusko County, Indiana.

SURFACE AREA.--120 acres.

DRAINAGE AREA.--0.73 mi².

PERIOD OF RECORD.--1943-1968, 1971 to present.

DATUM OF GAGE.--800.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on December 3, 1963, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam at the western end of the lake.

INLET AND OUTLET.--The one inlet flows through a 24-inch diameter tile from Pike Lake and enters the lake on the southeastern side. The outlet flows from the western shore and joins Walnut Creek, 0.65 mi downstream, which in turn flows into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.24 ft, October 15, 1954; minimum stage, 0.17 ft, October 4, 1955.

ANNUAL EXTREME LEVELS FOR CENTER LAKE, 1943-68, 1971-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	June 2	6.71	June 12	5.38
1944*	July 6	4.26	September 2	3.75
1945*	November 22	4.73	September 19, 20, 22	3.97
1946	October 9	4.94	September 30	3.33
1947	May 2	5.17	October 29, 30	3.07
1948	May 21-23	4.91	September 30	2.64
1949	March 1, 2	5.52	October 24, 26, 29-31	2.22
1950	April 16, 17, 19	6.79	December 8, 9, 10, 16	2.56
1951	April 26	4.95	November 18	3.27

03331160 CENTER LAKE AT WARSAW--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952*	April 28, June 4	5.14	September 30	2.54
1953	May 30	3.52	September 30	1.18
1954	July 10	4.42	November 20	0.59
1955	October 15	7.24	September 30	0.30
1956	May 19	5.73	October 4	0.17
1957	April 23	5.78	October 19, 20, 25	2.17
1958	August 25	6.35	October 13-15	2.43
1959	October 1	5.68	September 25	0.88
1960	August 1	3.99	November 12	0.98
1961	May 3, 9, 10	5.71	September 22	3.28
1962	April 10	4.83	August 24, 25	2.12
1963	March 15	4.84	October 1	2.76
1964	July 6	4.80	October 18, 19	3.02
1965	February 13	4.97	August 7	3.26
1966	January 1	5.37	August 15-17	1.53
1967	March 27	5.80	May 4, 5	3.30
1968	February 5	6.80	September 16-30	2.70
1971*	February 23, 24	4.90	July 3-5	3.10
1972	April 25	5.60	November 8	2.50
1973	June 8-12	5.30	September 27, 28	2.70
1974*	March 12-17	6.00	September 25-30	2.60
1975*	March 4-26	4.80	October 10-15, 17-24	2.40
1976*	March 28-31	5.00	November 21-25	2.40
	April 1-6	5.00		
1977*	March 18, April 2-6	4.90	November 11-15	2.20
	July 7	4.90		
1978*	December 20, 21	5.75	September 6-14	2.75
1979*	March 11	4.65	September 27	2.50
1980*	April 2	5.27	October 1	2.78
1981*	June 22	7.07	September 21	2.98
1982	March 25	6.76	September 14, 17	3.12
1983*	May 11	5.00	September 28	2.59
1984*	December 16, 17	5.08	October 21	2.62
1985*	January 6	6.15	August 4	2.71

* Incomplete record.

WABASH RIVER BASIN

03331180 PALESTINE LAKE AT PALESTINE

GAGE LOCATION.--Lat 41°10'48", long 85°56'54", in NE¹₄NE¹₄SW¹₄ sec. 33, T. 32 N., R. 5 E. (BURKET, IN quadrangle). The gage is near the extreme northwestern corner of the lake, at the public access site, in the town of Palestine, Kosciusko County, Indiana.

SURFACE AREA.--290 acres.

DRAINAGE AREA.--32.4 mi².

PERIOD OF RECORD.--1954 to present.

DATUM OF GAGE.--815.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on August 5, 1965, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an old mill dam of concrete-capped rubble at the western 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, 0.48 ft, October 2, 1962.

ANNUAL EXTREME LEVELS FOR PALESTINE LAKE, 1954-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 7	1.90	September 28, 29	1.29
1955	October 12	2.24	September 23, 24, 30	0.76
1956	April 29, 30	2.56	October 3, 4	0.74
1957	April 19	2.14	October 15-20, 24, 25	0.60
1958	September 16	2.66	October 15	1.27
1959	February 10	2.76	September 19-21	1.08
1960	April 18	2.34	September 18	1.30

03331180 PALESTINE LAKE AT PALESTINE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961	April 19	2.05	January 16-18	1.26
			February 8-11	1.26
1962	March 12	2.47	September 30	0.50
1963	July 20	3.13	October 2	0.48
1964	July 8	3.04	January 1-8	1.80
1965	April 26	2.58	September 14	1.84
1966	December 26	2.90	September 14	1.60
1967	December 8	3.20	October 4-12	1.75
			August 17	1.75
			September 15-19, 26	1.75
1968	June 25	3.30	October 3, 4, 12	1.80
1969	January 30	2.80	October 1-5, 8, 15, 16, 23-31, November 1-5, 11-13	1.85
				1.85
1970	April 20	2.78	August 17, 18	1.84
1971	February 6	2.60	June 27-30, July 1-4	1.85
			August 1-10, 14-22, 27-31, September 1-5	1.85
1972	April 17, 20	2.70	November 6-8	1.85
1973	December 31	2.80	September 6, 7, 21-27	1.85
1974	January 22	2.70	October 17, 19	1.85
			November 5-12	1.85
			August 22-31	1.85
			September 1-10, 17-27	1.85
1975*	May 24	2.75	October 1-7	1.85
1976	February 16, 17	2.95	October 16, 17	1.85
1977*	March 29-31	2.50	October 9-11	1.90
1978*	April 1-3	3.00	September 11-12	1.65
1979*	March 7	2.60	October 1, 2	1.80
1980*	June 2	3.05	July 20	1.79
1981*	June 13	4.35	August 22-25	1.82
1982*	March 14, 15	2.65	August 18	1.77
1983*	July 2	2.70	September 14	1.71
1984	May 26	2.96	October 6-10	1.76
			August 31	1.76
1985	February 23	3.59	July 24	1.71

* Incomplete record.

WABASH RIVER BASIN

03331200 CRYSTAL LAKE NEAR ATWOOD

GAGE LOCATION.--Lat 41°14'08", long 85°59'33", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 32 N., R. 5 E. (BURKET, IN quadrangle). The gage is near the western tip of the lake, approximately 300 ft north of the outlet, at a pier, and 2.0 mi southwest of Atwood, Kosciusko County, Indiana.

SURFACE AREA.--76 acres.

DRAINAGE AREA.--0.45 mi².

PERIOD OF RECORD.--1945-51.

DATUM OF GAGE.--780.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to a pier piling driven into the lake bed, approximately 300 ft north of the culvert.

ESTABLISHED LEGAL LEVEL.--9.69 ft gage datum or 789.69 ft above NGVD of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a riffle near the head of the outlet.

INLET AND OUTLET.--There are no surface inlets. The outlet flows from the western tip of the lake and into the Tippecanoe River, 0.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.78 ft, April 5, 1950; minimum stage, 9.04 ft, October 14-17, 1946.

ANNUAL EXTREME LEVELS FOR CRYSTAL LAKE, 1945-51

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 26,30	9.72	September 17-22	9.56
1946*	October 2	9.95	September 6,7	9.14
1947*	May 21	10.12	October 14-17	9.04
1948	March 22-25, May 15	10.12	September 27-30	9.24
1949	February 17	10.18	October 24-30	9.17
1950	April 5	10.78	October 7,8	9.32
1951*	December 8-31	10.16	November 7	9.64
	January 1-6	10.16		

* Incomplete record.

WABASH RIVER BASIN

03331220 HOFFMAN LAKE AT ATWOOD

GAGE LOCATION.--Lat 41°16'05", long 85°59'38", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 33 N., R. 5 E. (ATWOOD, IN quadrangle). The gage is at the bridge over the outlet channel, 900 ft downstream from the southwestern shore of the lake, and 1.0 mi northwest of Atwood, Kosciusko County, Indiana.

SURFACE AREA.--180 acres.

DRAINAGE AREA.--8.07 mi².

PERIOD OF RECORD.--1945-53.

DATUM OF GAGE.--780.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is attached to the abutments of the bridge over the outlet channel.

ESTABLISHED LEGAL LEVEL.--5.85 ft gage datum or 785.85 ft above NGVD of 1929 as decreed on September 20, 1948, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the concrete sill between the bridge abutments on the outlet channel.

INLET AND OUTLET.--The principal inlet is Easterday ditch which enters at the extreme northern end of the lake. A smaller inlet, Wolf Arm, flows into the lake on the eastern side of the northern lobe. The outlet, Robinson ditch, leaves from the western side of the lake and flows southwesterly to join the Tippecanoe River, 2.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.88 ft, April 4, 1950; minimum stage, 4.72 ft, October 15, 16, 1946.

ANNUAL EXTREME LEVELS FOR HOFFMAN LAKE, 1945-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 30	6.37	September 22	5.21
1946	October 2	7.17	September 30	4.77
1947	April 21	6.42	October 15,16	4.72
1948	February 29	6.22	January 30,31	5.16
			February 1-7	5.16
1949	January 19	7.15	October 22,23,28,29	4.98
1950	April 4	7.88	November 10-12	5.10
1951*	July 13	7.30	February 10	5.28

03331220 HOFFMAN LAKE AT ATWOOD--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952	June 15, 16	6.78	September 30	5.39
1953*	November 26	5.62	October 7-14	5.28

* Incomplete record.

WABASH RIVER BASIN

03331240 BEAVER DAM LAKE NEAR SILVER LAKE

GAGE LOCATION.--Lat 41°05'21", long 85°58'23", in NW¼SW¼SE¼ sec. 33, T. 31 N., R. 5 E. (SILVER LAKE, IN quadrangle). The gage is on the southeastern side of the lake, 150 ft southwest of the outlet, 4.4 mi northwest of Silver Lake, Kosciusko County, Indiana.

SURFACE AREA.--146 acres.

DRAINAGE AREA.--2.83 mi².

PERIOD OF RECORD.--1947-53.

DATUM OF GAGE.--860.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed, 150 ft southwest of the outlet.

ESTABLISHED LEGAL LEVEL.--8.95 ft gage datum or 868.95 ft above NGVD of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by riffles, 600 ft downstream of the lake.

INLET AND OUTLET.--The one inlet, Eaton ditch, enters the lake on the southwestern shore. The outlet leaves the lake on the southeastern side and flows into Loon Lake, 0.25 mi downstream. The outlet of Loon Lake flows into Yellow Creek, which empties into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.44 ft, April 5, 1950; minimum stage, 8.19 ft, October 30, 1948.

ANNUAL EXTREME LEVELS FOR BEAVER DAM LAKE, 1947-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947*	April 21	9.59	August 31	8.28
1948	February 29	9.69	September 28	8.40
	March 1	9.69		
1949	February 16	9.91	October 30	8.19
1950	April 5	10.44	October 2	8.32
1951	April 16	9.84	November 3, 4	8.48
1952	January 27	9.90	October 22	8.41
1953*	October 3	8.72	November 18	8.35

* Incomplete record.

WABASH RIVER BASIN

03331260 LOON LAKE NEAR SILVER LAKE

GAGE LOCATION.--Lat 41°05'09", long 85°58'44" in NE¹₄NW¹₄NE¹₄ sec. 4, T. 30 N., R. 5 E. (SILVER LAKE, IN quadrangle). The gage is on the northwestern shore, just south of the inlet from Beaver Dam Lake, 4.2 mi northwest of Silver Lake, Kosciusko County, Indiana.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--3.59 mi².

PERIOD OF RECORD.--1947-53.

DATUM OF GAGE.--860.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to the northern side of a boat pier, south of the inlet on the northwestern shore.

ESTABLISHED LEGAL LEVEL.--5.74 ft gage datum or 865.74 ft above NGVD of 1929 as decreed on September 20, 1948, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a riffle in the outlet channel, 20 ft downstream.

INLET AND OUTLET.--The principle inlet flows from Beaver Dam Lake, 0.25 mi upstream, and enters the lake on the northwestern shore. A small ditch flows into the lake from the southeast. The outlet, Yellow Creek, flows through Yellow Creek Lake, 1.7 mi downstream, and eventually empties into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.90 ft, April 6, 1950; minimum stage, 4.42 ft, November 17, 18, 1952.

ANNUAL EXTREME LEVELS FOR LOON LAKE, 1947-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947*	April 16	6.15	August 19, 23, 29, 30	4.85
1948	May 14	6.11	September 28	4.54
1949	February 16	6.28	October 29, 30	4.43
1950	April 6	6.90	October 1	4.83
			August 31	4.83
			September 30	4.83
1951	July 12	6.28	September 30	4.64
1952	January 29	6.30	October 22	4.57
1953*	November 26	4.80	November 17, 18	4.42

* Incomplete record.

WABASH RIVER BASIN

03331280 MCCLURES LAKE NEAR SILVER LAKE

GAGE LOCATION.--Lat 41°04'57", long 85°57'23", in SE¼NE¼NW¼ sec. 3, T. 30 N., R. 5 E. (SILVER LAKE, IN quadrangle). The gage is on the northwestern shore of the lake, 400 ft south of the outlet, and 3.4 mi northwest of Silver Lake, Kosciusko County, Indiana.

SURFACE AREA.--32 acres.

DRAINAGE AREA.--1.29 mi².

PERIOD OF RECORD.--1945-53.

DATUM OF GAGE.--860.00 ft above NGVD of 1929.

GAGE.--A staff gage is driven into the lake bed, 12 ft east of the boat pier. A second staff is located at the shoreward end of the pier.

ESTABLISHED LEGAL LEVEL.--5.85 ft gage datum or 865.85 ft above NGVD of 1929 as decreed on September 20, 1949, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--One small ditch enters at the southern end. The outlet leaves the lake at the extreme northern point and enters Yellow Creek, 0.2 mi downstream. Yellow Creek flows through Yellow Creek Lake and eventually empties into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.00 ft, April 5, 1950; minimum stage, 4.09 ft, October 26-28, 1948.

ANNUAL EXTREME LEVELS FOR MCCLURES LAKE, 1945-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 30	5.95	September 22	5.17
1946*	October 2	6.53	September 30	4.64
1947	January 30	5.63	October 16	4.47
1948	February 29	5.68	September 28	4.14
	March 1	5.68		
1949	February 24-26	5.64	October 26-28	4.09
1950	April 5	7.00	October 1,2,3	4.62
1951*	July 10	6.14	April 1,6	4.74
1952*	June 15	5.84	August 14,15	5.07
1953*	December 4,5,22,23	5.47	October 13,14	4.97

* Incomplete record.

WABASH RIVER BASIN

03331300 HILL LAKE NEAR SILVER LAKE

GAGE LOCATION.--Lat 41°06'16", long 85°54'35", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 31 N., R. 5 E. (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, Kosciusko County, Indiana.

SURFACE AREA.--67 acres.

DRAINAGE AREA.--0.85 mi².

PERIOD OF RECORD.--1952 to present.

DATUM OF GAGE.--860.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located on the southern most 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 the NGVD of 1929 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, January 18, 19, 1954.

ANNUAL EXTREME LEVELS FOR HILL LAKE, 1952-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952*	August 17	11.26	September 30	10.99
1953	March 19-21	11.72	September 30	10.28
1954	May 2	11.90	January 18, 19	9.86
1955	March 8	12.26	September 29, 30	10.57
1956	April 30, May 1	12.38	October 4, 5	10.55
1957	April 10	12.07	November 14	10.42
1958	June 14	12.04	October 14, 15	10.80
1959	February 14	12.16	September 21	10.64

03331300 HILL LAKE NEAR SILVER LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1960	April 18	12.26	October 3	10.76
1961	April 25	12.22	October 24,25	10.92
1962	March 22	12.52	September 30	10.62
1963	July 21	12.54	January 25-31	10.51
			February 1	10.51
1964	July 8	12.25	November 16-21	10.75
			January 4-7	10.75
1965	March 5,5	12.06	November 27,28	10.45
1966	December 25	11.74	September 14,19,20, 24,30	10.40
			October 22-31	10.20
1967	December 9,10	12.30	November 1-8	10.20
1968	December 22,23	12.20	October 10-15	10.50
1969	June 14-16, July 7	11.70	October 29-30	11.00
			November 3-5	11.00
			September 15,15	11.00
1970	April 21	11.88	July 17,18	11.14
			August 18	11.18
1971	February 8,9,20,21, 28	11.80 11.80	July 3,4	11.10
			August 29-31	11.10
			September 1-3	11.10
1972*	April 20,21	12.00	October 11-21	11.20
	September 19,20	12.00	November 5-30	11.20
			December 1-6	11.20
			June 12-14,25-28	11.20
			July 12	11.20
1973	October 1	11.80	September 17-30	11.00
	November 15,16	11.80		
1974*	January 22	12.20	September 4-12,24-30	10.70
1975	June 16,17	12.30	October 27-29	10.50
1976	February 17-22	11.90	September 22-27,29, 30	11.00
				11.00
1977*	March 6,7	11.90	November 17	10.83
1978*	March 21-24	11.95	September 12	10.60
1979*	March 4-10	11.78	November 2-11	10.58
1980	June 2	11.87	October 13	10.84
1981	May 15, June 13	12.05	August 25	11.16
1982*	March 30	12.01	September 23	10.83
1983	May 2	11.84	September 18	10.62
1984*	May 25,26	11.96	October 10,11	10.56
1985	February 24	12.09	October 5	11.04

* Incomplete record.

WABASH RIVER BASIN

03331320 DIAMOND LAKE NEAR SILVER LAKE

GAGE LOCATION.--Lat 41°06'23", long 85°56'05", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 31 N., R. 5 E. (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, Kosciusko County, Indiana.

SURFACE AREA.--79 acres.

DRAINAGE AREA.--3.92 mi².

PERIOD OF RECORD.--1954-72, 1975 to present.

DATUM OF GAGE.--849.90 ft above NVGD of 1929, as corrected on the basis of levels of IDNR, 1976.

GAGE.--A digital water-stage recorder (hourly) 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 northeast from Hill Lake, the other 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 ft, July 9, 1964; minimum stage, 9.87 ft, June 3, 4, 7, 1977; September 18, October 11, 1983.

ANNUAL EXTREME LEVELS FOR DIAMOND LAKE, 1954-72, 1975-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 8	10.97	September 28,29	10.21
1955	October 15	11.31	September 23-28	9.91
1956	May 2,3	12.00	October 1-5	9.93
1957	April 21,22,23	11.38	October 19-25	9.97
1958	June 14,15,17	11.80	October 9-15	10.16
1959	February 14	11.49	September 16-19	10.08
1960	April 1,2	11.56	September 15	10.30
1961	April 26,29,30	11.50	October 24,25	10.26
	May 1	11.50		

03331320 DIAMOND LAKE NEAR SILVER LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height; (feet)	Date	Gage height (feet)
1962	March 22	11.62	September 28-30	10.40
1963	July 21	12.52	January 6	10.20
1964	July 9	13.47	October 29,30	10.06
1965	April 9	11.76	November 13,14	9.97
1966	January 1	11.61	September 14	10.12
1967	December 12-17	12.80	October 20-31	10.10
			November 1-8	10.10
			September 24-27	10.10
1968	February 2,3,4	12.70	October 1-17	10.00
1969	January 31	12.10	September 10-15	10.20
1970	April 20,21	12.45	October 1,2	10.28
1971	February 8-13	11.10	January 23-31	10.30
	May 25, June 7,8	11.10	February 1-3	10.30
			August 28-31	10.30
			September 1-3	10.30
1972	September 14,15	11.75	April 28, July 30	10.50
1975	June 15	12.15	October 1-6	10.15
1976	February 16-18	11.90	September 5-8	9.90
1977*	March 28	10.93	June 3,4,7	9.87
1978	March 22	11.61	September 12	10.01
1979	March 4,5	11.65	October 2	10.06
1980*	June 2	11.71	October 13,14	10.12
1981	June 13	12.06	August 25	10.33
1982	March 13	12.32	September 16,23	10.12
1983	May 2	11.61	September 18	9.87
1984	May 26	11.78	October 11	9.87
1985	February 24	12.38	October 5	10.25

* Incomplete record.

WABASH RIVER BASIN

03331340 YELLOW CREEK LAKE NEAR SILVER LAKE

GAGE LOCATION.--Lat 41°06'25", long 85°57'23", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T. 31 N., R. 5 E. (SILVER LAKE, IN quadrangle). The gage is on the northern shore of the lake, 30 ft south of the concrete outlet dam, and 4.2 mi northwest of the town of Silver Lake, Kosciusko County, Indiana.

SURFACE AREA.--151 acres.

DRAINAGE AREA.--11.1 mi².

PERIOD OF RECORD.--1945-52.

DATUM OF GAGE.--850.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is mounted on a piling in the lake bed, 30 ft south of the control dam.

ESTABLISHED LEGAL LEVEL.--10.50 ft gage datum or 860.50 ft above NGVD of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake was controlled by a concrete dam with a fixed crest, 30 ft downstream of the gage, during the period of record. Currently, a steel sheet piling dam with a fixed crest controls the lake level.

INLET AND OUTLET.--There are two inlets to the lake. One enters on the eastern shore from Diamond Lake, 0.3 mi upstream. The other, Yellow Creek, flows through the lake, entering from the south and leaving from the northern side, to eventually empty into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.16 ft, April 5, 1950; minimum stage, 9.47 ft, October 16, 1946.

ANNUAL EXTREME LEVELS FOR YELLOW CREEK LAKE, 1945-52

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 29,30	11.01	September 22	10.46
1946	October 2,3	11.45	September 30	9.71
1947	February 1	11.09	October 16	9.47
1948	February 29	11.34	September 28-30	9.95
	March 1	11.34		
1949	February 16	11.46	October 20-31	9.86
1950	April 5	12.16	October 1,2	10.22

03331340 YELLOW CREEK LAKE NEAR SILVER LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951*	April 23	11.80	September 30	10.18
1952*	February 5	11.28	October 2-5	10.18

* Incomplete record.

WABASH RIVER BASIN

03331360 ROCK LAKE NEAR AKRON

GAGE LOCATION.--Lat 41°02'35", long 85°58'40", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, T. 30 N., R. 5 E. (SILVER LAKE, IN quadrangle). The gage is on the eastern shore of the lake, at the public access site, and 2.7 mi east of Akron, Fulton County, Indiana.

SURFACE AREA.--56 acres.

DRAINAGE AREA.--2.74 mi².

PERIOD OF RECORD.--1949-66.

DATUM OF GAGE.--840.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed at the public access site.

ESTABLISHED LEGAL LEVEL.--7.29 ft gage datum or 847.29 ft above NGVD of 1929 as decreed on April 21, 1952, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a gravel and clay bar in the outlet channel.

INLET AND OUTLET.--The principal inlet, Lautzenhizer ditch, enters from the southeast from Mud Lake, 0.5 mi upstream. Landis ditch flows into the lake on the eastern shore. The outlet, Chippewanuck Creek, leaves the lake at the extreme northern end and flows into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.57 ft, April 5, 1950; minimum stage, 5.58 ft, June 5-7, 1958.

ANNUAL EXTREME LEVELS FOR ROCK LAKE, 1949-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949*	September 20,21	7.48	August 25-27	7.04
1950	April 5	9.57	June 6-9	6.76
1951	April 12	8.13	September 16-20,23	6.00
1952	May 27	7.28	October 1-3,5	6.08
1953	January 23	6.88	September 30	6.02
1954	August 26	6.78	October 26	5.92
	September 19	6.78	November 8-20	5.92
1955	October 16	7.26	September 20,21	6.05
1956	May 12	8.15	October 2-4	6.06

03331360 ROCK LAKE NEAR AKRON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1957	April 10	7.10	August 7,8	5.86
			September 10-12	5.86
1958	June 15-17	7.58	June 5-7	5.58
1959	March 27	7.50	October 7,8	5.81
1960*	May 21,23	7.27	September 12-15	5.80
1961	March 28	7.60	January 14	5.84
	August 5	7.60		
1962	March 22	7.54	September 24-30	6.55
1963	April 23	7.46	September 30	5.90
1964	April 27	7.36	October 20-30	5.76
1965	April 10	7.38	November 12-14	5.68
1966	May 17	7.12	October 19	5.96

* Incomplete record.

WABASH RIVER BASIN

03331370 TOWN LAKE NEAR AKRON

GAGE LOCATION.--Lat 41°01'56", long 86°02'10", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 30 N., R. 4 E. (AKRON, IN quadrangle). The gage is on the northwestern shore near the gravel road that enters from State Road 14, 0.45 mi to the north. The town of Akron, Fulton County, Indiana, is 0.6 mi to the northeast.

SURFACE AREA.--23 acres.

DRAINAGE AREA.--2.77 mi².

PERIOD OF RECORD.--1949-50.

DATUM OF GAGE.--The gage was established at an arbitrary datum.

GAGE.--A staff gage is installed on the northwestern shore of the lake.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The inlet to the lake enters on the southeastern shore from L Lake, 1.1 mi upstream. The outlet, on the western shore, flows into Curtis ditch, which drains into Lake 16, 2.8 mi downstream. Lake 16 empties into Chippewanuck Creek, which eventually flows into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.70 ft, December 23, 24, 1949; minimum stage, 1.27 ft, August 8, 9, 1949.

ANNUAL EXTREME LEVELS FOR TOWN LAKE, 1949-50

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949*	May 23	3.40	August 8,9	1.27
1950*	December 23,24	3.70	October 1,2	1.37

* Incomplete record.

WABASH RIVER BASIN

03331380 LAKE MANITOU AT ROCHESTER

GAGE LOCATION.--Lat 41°03'00", long 86°10'06", NW¼SW¼NW¼ sec. 14, T. 30 N., R. 3 E. (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, Fulton County, Indiana.

SURFACE AREA.--1,158 acres, revised.

DRAINAGE AREA.--44.2 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--770.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) is installed in a aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is located at the northwestern end of the lake at the fish hatchery.

ESTABLISHED LEGAL LEVEL.--8.41 ft gage datum or 778.41 ft above NGVD of 1929 as decreed on September 27, 1948, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by a concrete dam at the 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, 10.14 ft, March 13, 1982; minimum stage, 6.48 ft, November 14, 25-27, 1964.

ANNUAL EXTREME LEVELS FOR LAKE MANITOU, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	May 18,19	9.25	September 28,29	8.11
1944	April 12	9.13	September 26	6.94
1945	May 17	8.91	October 1	7.07
1946	February 14	8.84	September 30	6.71
1947	April 22	8.91	October 16	6.49
1948	February 28	9.19	September 20	7.67
1949	February 16	9.24	October 28-31	7.00
1950	April 5	9.38	October 2	7.94

03331380 LAKE MANITOU AT ROCHESTER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951	February 21	8.94	November 4,5	8.00
1952	February 6,7	8.58	November 2-10	8.24
			September 3,5,6,12, 14-16	8.24
1953	October 18	8.48	September 30	7.48
1954	April 11	8.80	November 17-23	7.18
1955	March 6,7, April 26	8.80	September 30	6.98
1956	April 30	9.30	October 2-4	7.20
1957	April 20	8.86	November 14	7.66
1958	June 10	9.52	December 31	7.40
1959	February 11	9.39	September 22,23	7.56
1960	April 18	8.80	September 13,14	7.80
1961	August 2,7	8.80	October 28,29	7.55
1962	March 13	8.91	September 30	7.32
1963	March 6	9.22	September 30	7.14
1964	April 6,21	8.82	January 5,6	6.50
1965	February 11	8.92	November 14,25-27	6.48
1966	January 2	8.84	September 14	7.84
1967	December 9-15	9.80	October 8-18,24-31	7.90
			November 1-7	7.90
1968	February 2,3	9.70	October 3	8.20
1969	January 30,31	9.50	November 5	8.30
			August 22-31	8.30
			September 1-16	8.30
1970	April 21	9.24	August 21	8.27
1971*	February 6	9.20	August 16-18	8.10
1972	April 30, May 1-3	9.20	October 16-22,26,27	8.30
			November 10-22,28	8.30
1973	January 13	9.10	September 7-28	8.30
1974	December 28-30	8.90	August 10-31	8.20
			September 1-9	8.20
1975	June 26	9.00	August 1,2,13,14	8.30
1976*	February 17	9.20	September 22-25	7.80
1977*	September 15,16	8.68	October 1-5,23	7.86
1978*	April 10,11	8.98	September 29,30	8.03
1979	March 3	9.48	October 4	8.02
1980	March 18	9.06	October 1	8.10
1981*	May 15	9.55	October 13	8.37
1982	March 13	10.14	September 7	8.10
1983	May 3	9.43	September 15,17,19	7.85
1984*	May 27	9.35	October 11	7.78
1985*	April 6	9.10	September 21,22	8.33

* Incomplete record.

WABASH RIVER BASIN

03331390 ZINK LAKE NEAR ROCHESTER

GAGE LOCATION.--Lat 41°08'20", long 86°15'47", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 31 N., R. 2 E. (RUTLAND, IN quadrangle). The gage is on the eastern shore of the lake, approximately 5.0 mi northwest of Rochester, Fulton County, Indiana.

SURFACE AREA.--19 acres.

DRAINAGE AREA.--1.11 mi².

PERIOD OF RECORD.--1952-55.

DATUM OF GAGE.--800.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is installed on the eastern side of the lake.

ESTABLISHED LEGAL LEVEL.--10.68 ft gage datum or 810.68 ft above NGVD of 1929 as decreed on May 2, 1957, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The one inlet enters the lake on the far southeastern side. The outlet flows from the southwest through a wetland, and into O'Blennis Lake, 0.35 mi downstream. The outlet of O'Blennis Lake, McGee ditch, empties into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.26 ft, April 14, 15, 1952; minimum stage, 9.46 ft, November 18-20, 1953.

ANNUAL EXTREME LEVELS FOR ZINC LAKE, 1952-55

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952*	April 14, 15	11.26	September 30	10.52
1953	March 15	11.14	September 30	9.84
1954	April 26, 27	11.10	November 18-20	9.46
1955*	October 15	10.78	October 2	10.02

* Incomplete record.

WABASH RIVER BASIN

03331400 NYONA LAKE NEAR GREENOAK

GAGE LOCATION.--Lat 40°57'40", long 86°11'20", in SE¹₄SE¹₄NE¹₄ sec. 16, T. 29 N., R. 3 E. (MACY, IN quadrangle). The gage is on the northwestern shore of the southern lobe of the lake, at the public fishing site, and 2.4 mi south of Green Oak, Fulton County, Indiana.

SURFACE AREA.--104 acres.

DRAINAGE AREA.--7.59 mi².

PERIOD OF RECORD.--1946 to present.

DATUM OF GAGE.--790.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on September 27, 1948, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest.

INLET AND OUTLET.--The lake is fed by two small ditches entering from the east and northeast. The outlet flows from the lake at the southwestern corner and into Mud Creek, which eventually joins the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.00 ft, June 14, 1958; minimum stage, 2.98 ft, October 12-19, 25, 26, 1953.

ANNUAL EXTREME LEVELS FOR NYONA LAKE, 1946-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 18	5.56	September 30	3.51
1947	June 8	5.68	October 14,15	3.42
1948*	March 27	5.16	September 15	3.47
1949	February 15	5.58	September 2,4,5	3.16
1950	April 4	5.95	October 1	3.18
1951	February 22	5.40	August 25	3.40
1952	May 25,26	5.15	September 28,29	3.28
1953	June 12	4.51	September 10,11	3.01
1954	April 11	4.43	October 12-19,25,26	2.98
1955	March 4	4.76	September 19-21,25	3.58
1956	April 29	5.18	October 4	3.58

03331400 NYONA LAKE NEAR GREENOAK--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1957	April 6	4.70	November 14	3.72
1958	June 14	6.00	October 3-15,	3.96
			September 4,13-15	3.96
			September 27-30	3.96
1959	February 10	5.71	September 21,22	3.82
1960	February 11	4.92	September 13-16	3.90
1961	August 1,6	4.84	October 1,2,12-18	3.92
1962	March 12	5.15	September 29,30	3.84
1963	March 6	5.28	September 30	3.78
1964	April 22	4.64	September 17	3.56
1965	February 11	4.74	October 6-8,11-16,	3.88
			22-31, November 1-14	3.88
1966	December 25	4.66	September 14	3.68
1967	December 9	5.70	October 7-9,14,15	3.80
1968	February 2	5.60	October 1-14	3.90
1969	January 30	5.70	October 5	3.90
			August 28-31	3.90
			September 1-5,6,9-16	3.90
1970	April 20,21	5.20	August 30,31	3.90
			September 1-3	3.90
1971	February 5-8	5.20	August 17-19,29-31	3.90
			September 1,2,18,19	3.90
1972	April 8,17,20,22	4.70	September 6	3.90
	May 15,16	4.70	October 20,21	3.90
1973	December 31	4.80	July 13-19	3.90
	April 22,23	4.80	September 3-13,21-25	3.90
1974	January 21	5.10	July 31	3.90
			August 1,4-10,16,24-26	3.90
			September 5-10,22-27	3.90
1975	June 16, July 20	5.10	October 9-11	3.90
1976	February 17	4.90	August 5	3.90
			September 1-8,19,23-25	3.90
1977	August 6	5.15	August 4,5	3.85
1978	March 22	5.30	September 11,12,27-30	3.95
1979*	February 23,24	4.92	September 22-25	3.94
1980*	March 17	4.66	August 5-8	3.94
1981	May 15	5.03	October 12	3.91
			September 22-24	3.91
1982*	June 1	4.62	August 19	3.90
			September 5,6,8-13,23	3.90
1983*	May 2	5.30	September 5,14	3.86
1984	February 13	4.96	August 20,21	3.89
1985*	February 23	5.91	September 14-17	3.89

* Incomplete record.

WABASH RIVER BASIN

03331420 SOUTH MUD LAKE NEAR FULTON

GAGE LOCATION.--Lat 40°56'46", long 86°11'22", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T. 29 N., R. 3 E. (MACY, IN quadrangle). The gage is on the far southwestern shore of the lake, 3.7 mi east of Fulton, Fulton County, Indiana.

SURFACE AREA.--94 acres.

DRAINAGE AREA.--4.53 mi².

PERIOD OF RECORD.--1946-66.

DATUM OF GAGE.--790.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to the lakeward side of the boat pier at the southern end of the lake.

ESTABLISHED LEGAL LEVEL.--3.42 ft gage datum or 793.42 ft above NGVD of 1929 as decreed on April 25, 1951, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed spillway.

INLET AND OUTLET.--There are three inlets to the lake. Zanger ditch enters from the southwest, Fannels ditch from the south, and a small ditch from the southeast. The outlet flows from the northwestern shore and forms the South Branch of Mud Creek, which enters Mud Creek, 0.6 mi downstream. Mud Creek drains into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.39 ft, June 8, 9, 1947; minimum stage, 2.91 ft, September 17, 1964.

ANNUAL EXTREME LEVELS FOR SOUTH MUD LAKE, 1946-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 18, 19	6.21	September 30	4.35
1947	June 8, 9	6.39	October 13, 14, 15	4.19
1948	March 28	5.70	September 19, 20, 28	3.78
1949	February 16	5.85	October 24	3.75
1950	April 5	6.19	October 2	3.94
1951	February 21	6.17	September 21	3.74
1952	February 5	5.30	August 8	3.59
1953	March 15	4.02	September 30	3.30
1954	April 11	4.00	October 26	3.21
1955	March 4	4.25	September 25, 26	3.17
1956	April 29	4.48	October 4	3.18

03331420 SOUTH MUD LAKE NEAR FULTON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1957	April 5	4.10	November 14	3.08
1958	June 14	5.59	October 13,14,15	3.48
1959	February 10	4.69	September 21	3.27
1960	February 11	4.32	September 14,17	3.46
1961	August 1	4.45	October 25	3.45
1962	February 27	4.28	August 25	3.34
1963	March 6	4.96	September 30	3.25
1964	April 21	4.05	September 17	2.91
1965	February 10,11	4.18	November 13,14,15	3.11
1966	December 26	4.18	September 14	3.34

* Incomplete record.

WABASH RIVER BASIN

03331438 KING LAKE NEAR DELONG

GAGE LOCATION.--Lat 41°07'48", long 86°25'23", in NW¼SW¼SE¼ sec. 16, T. 31 N., R. 1 E. (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, Fulton County, Indiana.

SURFACE AREA.--18 acres.

DRAINAGE AREA.--1.98 mi²

PERIOD OF RECORD.--1970-72, 1975 to present.

DATUM OF GAGE.--730.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 bed of the outlet channel. 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 that enters the lake from the southeastern side. The outlet is 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, October 23-26, 28-31, November 1, 2, 1974.

ANNUAL EXTREME LEVELS FOR KING LAKE, 1970-72, 1975-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1970*	April 22	7.00	August 29-31	4.40
			September 1,2,3	4.40
1971	February 5-10	6.35	September 19-25	4.30
1972	April 21,22	6.85	August 20	4.00
1975*	June 16,17	7.40	October 23-26,28-31	3.60
			November 1,2	3.60
1976*	February 19,20	7.40	September 25	4.12
1977	March 29	6.46	November 23,24	4.02
1978*	April 7	6.38	September 29,30	3.84
1979	March 6,7	6.79	November 12	3.70

03331438 KING LAKE NEAR DELONG--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1980*	June 3	6.91	October 14, 15	4.17
1981*	June 14	8.69	November 21, 22, 26	4.69
1982*	May 29	7.24	September 29, 30	5.08
1983	April 14	7.56	September 29, 30	4.20
1984	May 28	7.47	October 19	4.05
1985*	April 6	7.01	July 30	4.53

* Incomplete record.

WABASH RIVER BASIN

03331440 LAKE MAXINKUCKEE AT CULVER

GAGE LOCATION.--Lat 41°11'48", long 86°25'00", in NE¹₄SE¹₄NW¹₄ sec. 28, T. 32 N., R. 1 E., (CULVER, IN quadrangle). The gage is on the lower west side of the lake, at the public fishing site, and 1.4 mi south of the center of Culver, Marshall County, Indiana.

SURFACE AREA.--1,864 acres, revised.

DRAINAGE AREA.--13.7 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--730.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 northern abutment of the outlet dam.

ESTABLISHED LEGAL LEVEL.--3.12 ft gage datum or 733.12 ft above NGVD of 1929 as decreed on August 9, 1948, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest at the outlet channel.

INLET AND OUTLET.--Wilson ditch enters the lake at the northeastern corner, Curtiss ditch enters on the eastern shore, and Norris inlet enters at the southeastern corner. The outlet leaves the lake at the western shore, 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, November 19, 1953 and November 19, 1956.

ANNUAL EXTREME LEVELS FOR LAKE MAXINKUCKEE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	May 20	4.58	October 27,28	2.90
1944	April 24	3.92	September 25-27	2.54
1945	May 18,19	3.72	October 30,31	2.54
1946	October 2	3.48	September 30	2.30
1947	June 8	3.52	October 15	2.15
1948	May 14	3.69	September 28	2.62
1949	February 16,17	3.65	September 30	2.44
1950	April 11	4.38	October 2	2.42

03331440 LAKE MAXINKUCKEE AT CULVER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951	April 15	3.72	November 6,7	2.75
1952	May 26-28	3.52	September 29,30	2.66
1953	March 18-22	3.32	November 13-17	2.40
1954	April 28	3.60	November 19	2.12
1955	March 5,6	3.58	September 26	2.42
1956	May 14-16	3.70	September 30	2.50
1957	May 23	3.93	November 19	2.12
1958	July 15	3.82	May 30	2.70
1959	February 12	4.10	September 19,20	2.45
1960	April 18	4.03	October 4	2.85
1961	April 25-27	4.28	November 5-7	3.00
1962	March 22	3.81	July 10	2.67
1963	July 20,21	3.66	December 10	2.73
1964	April 28-30	3.50	September 17	2.63
1965	April 25-27	3.80	November 23	2.48
1966	May 17	3.84	September 29,30	2.74
1967	December 8-16	4.20	October 7-14,26-31	2.60
			November 1-5	2.60
1968	February 3-6	4.20	October 1-14	2.90
1969	January 30,31	3.80	September 10-16,22,23,	2.90
	February 1-7	3.80	29,30	2.90
	April 18-21	3.80		
1970	May 15-17	4.30	October 1-6	2.90
1971*	February 22-28	3.50	May 26-31	3.00
			June 1-5	3.00
			August 5-9,17,19,24,	3.00
			30,31, September 1-4	3.00
1972	April 20-26	4.00	December 2-9	2.70
1973*	January 3-7	4.00	September 22,23	2.80
1974*	May 23-25	4.20	September 5-10,26-28	2.60
1975*	July 7	3.80	October 20-28	2.50
1976	March 6	4.23	September 25	2.88
1977	March 29	4.18	October 29	2.91
1978	April 6	4.60	September 11,30	2.80
1979*	April 12,13	4.13	October 20-22	2.70
			November 2-5,9-11	2.70
1980	April 15	4.18	October 15	2.90
1981	June 14,15	5.48	November 13,21,22	3.02
1982	March 23	4.62	September 30	2.66
1983	May 3	4.14	September 29,30	2.57
1984	March 27	3.71	October 17,18,19	2.46
1985*	March 4	4.35	September 28,29	2.72

* Incomplete record.

WABASH RIVER BASIN

03331460 LOST LAKE NEAR CULVER

GAGE LOCATION.--Lat 41°12'02", long 86°25'17", in NE¼NW¼NW¼ sec. 28, T. 32 N., R. 1 E. (CULVER, IN quadrangle). The gage is on the northern shore of the lake, at the eastern end of West 19th Road (lake access road), and 1.1 mi south of the center of Culver, Marshall County, Indiana.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--14.2 mi².

PERIOD OF RECORD.--1954-61, 1963-74, 1976 to present. (Formerly published as Hawks Lake near Culver.)

DATUM OF GAGE.--720.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on February 17, 1960, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam and sill with removable boards in the outlet channel, approximately 850 ft downstream from the main body of the lake.

INLET AND OUTLET.--The one inlet flows into the lake from Lake Maxinkuckee and enters on the northern shore. The outlet flows from the southern end of the lake, and into 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.

ANNUAL EXTREME LEVELS FOR LOST LAKE, 1954-61, 1963-74, 1976-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 11	12.03	September 27-29	11.10
1955	October 16	12.30	September 20, 25	10.78
1956	May 11, 12	11.78	September 27-30	10.37
1957	July 17	12.05	March 9, 10	10.32
1958	July 14	11.50	June 7	10.26
1959	September 30	11.69	July 9	10.12
1960	April 18	12.40	October 22	11.54
1961*	September 24	12.15	December 1, 29, 31	11.78
			March 8	11.78

03331460 LOST LAKE NEAR CULVER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1963	July 20-23	12.19	October 2	11.18
1964	April 6-13, 21	12.40	November 12, 13	10.98
1965	May 12, 13	12.32	October 18, 20-31	11.08
			November 1-19	11.08
1966	January 1, 2	12.50	September 21-30	10.90
	April 30	12.50		
1967	December 11-14	12.50	October 1-31	10.90
			November 1	10.90
1968	February 1, 2	12.60	May 6, 11	11.70
1969	January 28-31	12.20	August 30, 31	11.00
	February 1-18	12.20	September 1, 2	11.00
	April 9-22, 26-28, 30	12.20		
	May 1-3	12.20		
1970	May 15, 16	12.50	October 5	11.62
1971	February 4-18	12.20	May 27-31, June 1-5	11.70
			July 3, 6-8, 23, 24	11.70
			August 2-10, 14-22, 24,	11.70
			29-31, September 1-5,	11.70
			19-25	11.70
1972*	April 23-27	12.30	October 20, 21	11.60
	May 9, 13-19	12.30	November 27-29	11.60
	September 26, 29	12.30	July 5-8, 10-14	11.60
1973*	January 24	12.30	September 10, 11	11.30
	April 1, 4, 7, 16, 23	12.30		
	June 5	12.30		
1974*	May 21, 22	12.20	August 30	11.30
			September 1, 8	11.30
1976*	May 7	12.00	September 8	11.52
1977*	May 3-6	11.94	August 27	11.30
1978	January 28-31	12.44	September 12	11.41
	February 1-11	12.44		
1979	May 2	12.19	September 30	11.34
1980*	April 8-11	12.19	October 1	11.46
1981*	June 15	13.05	April 1	11.27
1982*	March 19	12.27	August 17	11.13
1983	May 1, 2	12.27	September 14	10.79
1984	May 25	12.02	October 9	10.76
1985*	March 11	12.24	September 29	10.86

* Incomplete record.

WABASH RIVER BASIN

03331480 LANGENBAUM LAKE NEAR MONTEREY

GAGE LOCATION.--Lat 41°10'17", long 86°28'47", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T. 32 N., R. 1 W., Starke County (CULVER, IN quadrangle). The gage is on the southeastern shore of the lake, 1.0 mi north of Monterey, Pulaski County, Indiana.

SURFACE AREA.--48 acres.

DRAINAGE AREA.--0.72 mi².

PERIOD OF RECORD.--1954-66.

DATUM OF GAGE.--710.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed on the northern side of a pier, approximately 20 ft lakeward from the shore.

ESTABLISHED LEGAL LEVEL.--7.96 ft gage datum or 717.96 ft above NGVD of 1929 as decreed on September 14, 1957, by the Starke County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a 30-inch galvanized culvert in the outlet.

INLET AND OUTLET.--Wolfram ditch flows into the lake from the northeast. Another small ditch enters on the northwestern shore. The outlet flows from the southern end of the lake, through a culvert, and into the Tippecanoe River, 0.4 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.34 ft, April 18, 1960; minimum stage, 6.93 ft, November 19, 1956.

ANNUAL EXTREME LEVELS FOR LANGENBAUM LAKE, 1954-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 8	8.35	September 29	7.66
1955	March 4,5	8.65	September 26,27	7.09
1956	May 11	8.86	October 4	7.13
1957	July 18	8.70	November 19	6.93
1958	June 10	9.08	October 15	7.77
1959	February 10,11	9.20	September 21	7.18
1960	April 18	9.34	October 4	7.46
1961	April 23,24,25	9.23	October 25	8.12
1962	March 22	9.12	September 30	7.49
1963	May 1, June 9	8.86	October 2	7.46

03331480 LANGENBAUM LAKE NEAR MONTEREY--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1964	April 27-29	8.68	September 16,17	7.52
1965	April 25	9.02	November 24	7.42
1966	May 11,16-18	8.90	September 14	7.52

* Incomplete record.

WABASH RIVER BASIN

03331700 BRUCE LAKE AT LAKE BRUCE

GAGE LOCATION.--Lat 41°04'35", long 86°28'07", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 30 N., R. 1 W. (KEWANNA, IN quadrangle). The gage is on the southwestern shore of the lake in Pulaski County, 0.3 mi south of the outlet, and at the northern edge of the town of Lake Bruce, Fulton County, Indiana.

SURFACE AREA.--245 acres, revised.

DRAINAGE AREA.--6.38 mi², revised.

PERIOD OF RECORD.--1943-53.

DATUM OF GAGE.--720.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to a piling in the lake bed.

ESTABLISHED LEGAL LEVEL.--3.69 ft gage datum or 723.69 ft above NGVD of 1929 as decreed on June 20, 1950, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam at the head of the outlet.

INLET AND OUTLET.--There are two inlets to the lake. Baker ditch enters at the southern tip and Overmyer ditch from the east. The outlet, Bruce Lake outlet, flows from the northwestern end of the lake and joins the Tippecanoe River, 6.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.90 ft, April 12, 1944; minimum stage, 2.90 ft, October 14-17, 1946.

ANNUAL EXTREME LEVELS FOR BRUCE LAKE, 1943-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	August 5	4.39	September 29,30	3.76
1944	April 12	4.90	September 26	3.04
1945	May 17,18	4.80	November 2	3.06
1946	June 15	4.52	September 28-30	3.06
1947	April 21	4.71	October 14-17	2.90
1948	February 28,29	4.58	October 12-17	3.18
1949	January 19	4.64	October 29	3.16
1950	April 4	4.64	October 1,2	3.36
1951	July 10	4.42	November 6-8	3.46
1952	June 15	4.28	August 7,8	3.42
1953*	November 25,26,29,30	3.68	October 11-14	3.42

* Incomplete record.

WABASH RIVER BASIN

03332200 FLETCHER LAKE AT FLETCHER LAKE

GAGE LOCATION.--Lat 40°54'39", long 86°20'03", in SE¼SW¼SW¼ sec. 32, T. 29 N., R. 2 E. (FULTON, IN quadrangle). The gage is on the southeastern shore of the lake, at the town of Fletcher Lake, and 4.5 mi southwest of Fulton, Fulton County, Indiana.

SURFACE AREA.--45 acres.

DRAINAGE AREA.--0.67 mi².

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--780.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed near the boat pier.

ESTABLISHED LEGAL LEVEL.--3.20 ft gage datum or 783.20 ft above NGVD of 1929 as decreed on June 20, 1950, by the Fulton County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a riffle at the remains of an old tile culvert, 200 ft downstream from the lake.

INLET AND OUTLET.--The lake is fed by a small ditch which enters on the eastern shore. The outlet flows from the western shore and into Grassy Creek, 0.9 mi downstream. Grassy Creek flows into Indian Creek, which eventually empties into the Tippecanoe River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.10 ft, January 4, 1950; minimum stage, 2.67 ft, October 16, 1946.

ANNUAL EXTREME LEVELS FOR FLETCHER LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	January 3	4.52	September 26, 27, 30	2.81
1947	June 2, 8	4.21	October 16	2.67
1948	February 29, May 13	4.53	September 19, 27, 28, 29	3.07
1949	February 15	4.70	October 28-30	2.90
1950	January 4	5.10	October 2	3.18
1951	March 16	4.88	November 4-7, 11, 15-17	3.26
1952	March 20	5.04	October 22	3.26
1953*	January 31	3.60	November 15-17	3.02

* Incomplete record.

WABASH RIVER BASIN

03340870 CECIL M. HARDIN LAKE AT FERNDALE

GAGE LOCATION.--Lat 39°43'02", long 87°04'20", in SE¼NE¼ sec. 28, T. 15 N. R. 6 W. (MANSFIELD, IN quadrangle). The gage is in the discharge tower of the reservoir on Big Raccoon Creek, 0.7 mi north of Ferndale, Parke County, Indiana.

SURFACE AREA.--1,100 acres (winter pool), 2,060 acres (summer pool), 3,910 acres (flood pool).

DRAINAGE AREA.--216 mi².

PERIOD OF RECORD.--1961 to present, furnished by U.S. Army Corps of Engineers. Published as "Mansfield Reservoir" prior to October 1970 and as "Mansfield Lake" October 1970 to September 1974.

DATUM OF GAGE.--600.00 ft above NGVD of 1929.

GAGE.--A water-stage recorder is installed in the discharge tower of the reservoir.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an earth-fill dam.

INLET AND OUTLET.--Big Raccoon Creek flows through the lake. The other main inlets are: Ramp Creek, Byrd Branch, and Troutman branch. Big Raccoon Creek flows from the lake at the southern end and eventually empties into the Wabash River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 76.52 ft, May 4, 1964; minimum stage, 39.78 ft, February 10, 1977.

ANNUAL EXTREME LEVELS FOR CECIL M. HARDIN LAKE, 1961-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961	May 15	74.93		a
1962	July 20	70.30	February 24	40.13
1963	March 25	63.94	November 30	40.05
			December 9, 10, 12-14	40.05
1964	May 4	76.52	November 30	40.04
			December 1, 2	40.04
1965	May 27	62.06	February 4, 5	40.13

03340870 CECIL M. HARDIN LAKE AT FERNDALE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1966	October 1	55.35	January 12	40.04
			February 6,7	40.04
1967	May 22	62.07	February 23,24	40.03
1968	June 4	71.77	Many days	40.00
1969	February 10	70.22	January 8,16	40.02
1970	May 20	62.70	December 24	40.01
1971	July 30	62.00	December 3	40.00
1972	April 26	64.77	January 26	40.02
1973	May 3	69.13	February 17	40.03
1974	June 2	76.32	December 22	40.05
1975	April 30	66.05	January 5	40.07
1976	March 15	65.95	January 15	39.99
1977	July 9	62.59	February 10	39.78
1978	April 12	75.43	February 24	40.07
1979	August 9	75.29	February 6,7	40.08
1980	June 10	64.49	December 17	40.03
1981	June 16	69.82	January 20-22	39.84
1982	March 29	70.98	December 11	40.08
1983	May 10	67.25	January 21	40.02
1984	April 28	64.20	January 23	40.00
1985	March 14	74.50	January 22	39.90

^a Pool filling.

WABASH RIVER BASIN

03350300 MORSE RESERVOIR NEAR NOBLESVILLE

GAGE LOCATION.--Lat 40°04'21", long 86°02'47", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 19 N., R. 4 E. (NOBLESVILLE, IN quadrangle). The gage is in the intake structure of the reservoir on Cicero Creek, 2.5 mi northwest of the courthouse in Noblesville, Hamilton County, Indiana.

SURFACE AREA.--1,500 acres.

DRAINAGE AREA.--214 mi².

PERIOD OF RECORD.--1961 to present, furnished by Indianapolis Water Company.

DATUM OF GAGE.--760.00 ft above NGVD of 1929.

GAGE.--A water-stage recorder is installed in the intake structure of the reservoir.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an earth-fill dam.

INLET AND OUTLET.--Cicero Creek flows through the reservoir. The major inlets are: Little Cicero Creek, Bear Slide Creek, and Hinkle Creek. Cicero Creek flows from the reservoir at the southern tip and empties into the White River, approximately 4.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 52.20 ft, April 21, 1964 (maximum stage outside period of record, 52.95 ft, June 28, 1957); minimum stage, 44.02 ft, October 31, 1966.

ANNUAL EXTREME LEVELS FOR MORSE RESERVOIR, 1961-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961	April 26	51.40	November 25	49.63
1962	January 27	52.11	November 8	46.70
1963	March 5	51.91	September 30	47.55
1964	April 21	52.20	January 5	44.26
1965	April 17	50.88	September 14	47.90
1966	April 30	50.30	September 30	44.30
1967	March 31	50.42	October 31	44.02
1968	December 22	51.80	October 5	47.60
1969	January 30	51.55	November 2,3	48.60
1970	November 20	51.25	September 30	49.48

03350300 MORSE RESERVOIR NEAR NOBLESVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1971	February 20	51.03	September 5	49.84
1972	December 16	50.97	August 1	49.70
1973	August 15	51.28	August 9	49.95
1974	December 27	51.50	October 29	49.71
1975	February 24	51.38	October 11	49.90
1976	February 17	51.60	September 25	48.97
1977	March 29	50.68	August 6	47.93
1978	March 22	51.52	October 1	49.50
1979	March 5	51.53	October 10	49.90
1980	June 3	51.48	July 20	49.79
1981	May 28	50.84	October 14	49.91
1982	March 12	51.36	September 24	49.71
1983	May 3	51.29	September 30	47.78
1984	March 21	51.31	October 12	47.58
1985	February 24	52.04	September 22	49.69

WABASH RIVER BASIN

03351700 GEIST RESERVOIR NEAR OAKLANDON

GAGE LOCATION.--Lat 39°54'26", long 85°59'07", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 17 N., R. 5 E. (McCORDSVILLE, IN quadrangle). The gage is in the intake structure of the reservoir on Fall Creek, 2.6 mi northwest of Oaklandon, Marion County, Indiana.

SURFACE AREA.--1,900 acres.

DRAINAGE AREA.--215 mi².

PERIOD OF RECORD.--1961 to present, furnished by Indianapolis Water Company.

DATUM OF GAGE.--755.00 ft above NGVD of 1929.

GAGE.--A water-stage recorder is installed in the intake structure of the reservoir.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an earth-fill dam.

INLET AND OUTLET.--Fall Creek flows through the reservoir. The other inlets are: Thor Run, Thorpe Creek, Mount Zion Branch, Bee Camp Creek, Bills Branch, North Fork, Middle Fork, and Dry Branch. Fall Creek flows from the reservoir at the southwestern end and empties into White River, 17.6 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 32.75 ft, April 21, 1964 (maximum stage outside period of record, 33.02 ft, May 18, 1943); minimum stage, 23.42 ft, January 5, 1964.

ANNUAL EXTREME LEVELS FOR GEIST RESERVOIR, 1961-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961	April 26	32.15	January 14	26.35
1962	January 25	31.47	November 15	27.87
1963	March 8	32.33	December 30	26.95
1964	April 21	32.75	January 5	23.42
1965	March 9	31.12	November 15	25.66
1966	April 30	30.44	September 30	25.44
1967	March 31	30.58	October 31	24.38
1968	May 25	31.36	October 5	25.21
1969	January 31	31.62	November 6	29.25

03351700 GEIST RESERVOIR NEAR OAKLANDON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1970	January 30	31.26	September 22-30	28.39
1971	February 20	31.44	November 19	27.51
1972	February 11	31.01	November 6	28.65
1973	February 24	31.90	September 30	29.00
1974	June 24	31.25	October 31	29.47
			November 1	29.47
1975	November 15	31.21	October 1	29.57
1976	December 16	31.24	October 21,22	28.65
1977	February 28	30.60	February 11	26.47
1978	March 16	31.63	August 28	30.11
1979	February 24	31.76	October 10	30.11
1980	June 8	31.14	July 20	30.05
1981	May 28	31.48	November 23	29.54
1982	February 24	31.24	September 30	28.93
1983	May 3	31.38	September 30	26.24
1984	March 17	31.16	October 22	25.72
1985	February 24	31.90	September 29	29.12

WABASH RIVER BASIN

03353450 EAGLE CREEK RESERVOIR NEAR INDIANAPOLIS

GAGE LOCATION.--Lat 39°49'20", long 86°18'11", in NW¼NW¼ sec. 22, T. 16 N., R. 2 E. (CLERMONT, IN quadrangle). The gage is in the outlet structure of the reservoir of Eagle Creek, 1.0 mi northeast of Clermont, Marion County, Indiana.

SURFACE AREA.--1,350 acres.

DRAINAGE AREA.--162 mi².

PERIOD OF RECORD.--1970 to present, furnished by Indianapolis Flood Control Division.

DATUM OF GAGE.--780.00 ft above NGVD of 1929.

GAGE.--A water-stage recorder is installed in the outlet structure of the reservoir.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an earth-filled dam.

INLET AND OUTLET.--Eagle Creek flows through the lake. There are many inlets. The main ones include: Irishman Run, Cotton Creek, Sheets Creek, Hopewell Creek, McCurdy Creek, and Fishback Creek. Eagle Creek flows from the lake at the southern end and eventually empties into White River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.39 ft, June 26, 1978; minimum stage, 1.25 ft, November 28, 1971.

ANNUAL EXTREME LEVELS FOR EAGLE CREEK RESERVOIR, 1970-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1970	March 7	8.59	September 30	2.61
1971	February 5	10.34	September 19	2.01
1972	April 20	10.31	November 28	1.25
1973	August 12	10.48	December 23	5.92
1974	May 18	10.60	February 18, 19	3.02
1975	April 25	10.29	November 26-30	3.05
			December 2-6	3.05
1976	June 30	10.20	March 3	3.27
1977	March 28	10.23	February 11	3.60
1978	June 26	12.39	October 1	7.41

03353450 EAGLE CREEK RESERVOIR NEAR INDIANAPOLIS--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1979	July 25	10.65	November 13	9.25
1980	June 2	10.44	October 16	9.17
1981	August 31	11.15	September 17	4.93
1982	February 21	11.24	October 1	5.48
1983	December 25	10.67	November 19	1.90
1984	March 16	10.85	October 19	6.23
1985	February 23	10.78	September 30	7.68

WABASH RIVER BASIN

03358900 CAGLES MILL LAKE NEAR MANHATTAN

GAGE LOCATION.--Lat 39°29'14", long 86°55'02", in NE¼NW¼ sec. 13, T. 12 N., R. 5 W. (POLAND, IN quadrangle). The gage is in the discharge tower of the reservoir on Mill Creek, 5.8 mi south of Manhattan, Putnam County, Indiana.

SURFACE AREA.--1,400 acres (winter pool), 1,400 acres (summer pool), 4,840 acres (flood pool).

DRAINAGE AREA.--293 mi².

PERIOD OF RECORD.--1961 to present, furnished by U.S. Army Corps of Engineers. Prior to September 1970, Cagles Mill Lake was published as Cagles Mill "Reservoir".

DATUM OF GAGE.--600.00 ft above NGVD of 1929. Prior to October 1, 1975, the datum of the gage was 581.83 ft above NGVD of 1929. All gage heights listed below are at the present datum.

GAGE.--A water-stage recorder is installed in the discharge tower of the reservoir.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an earth and rock-fill dam.

INLET AND OUTLET.--Mill Creek flows through the lake. The major inlets are Doe Creek from the northeast and Fall Creek from the north. Several other streams drain into the lake at various points. Mill Creek flows from the lake at the far eastern end and together with Big Walnut Creek forms the head of Eel River, approximately 2.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 89.61 ft, August 30, 1979; minimum stage, 29.80 ft, November 10, 1983. Pool lowered to stage of -2.43 ft, October 23, 1971, (contents, dry) due to drainage for fish kill.

ANNUAL EXTREME LEVELS FOR CAGLES MILL LAKE, 1961-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961	May 15	79.30	November 6,7	35.91
1962	March 31	58.31	January 14	35.54
1963	March 25	74.76	September 29,30	35.83

03358900 CAGLES MILL LAKE NEAR MANHATTAN--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1964	May 4	64.00	September 18	35.58
1965	February 17	51.83	October 21-26	31.89
1966	February 21	45.26	January 8	35.83
1967	December 21	60.03	May 29	35.68
1968	June 4	69.01	May 14	35.76
1969	February 11	77.02	December 5	35.46
1970	May 5	54.31	February 11	35.89
1971	March 1	60.08	March 17	35.93
1972	April 26	56.73	June 2,3,23	35.98
1973	April 1	65.40	October 28,29	36.02
1974	February 3	62.46	October 17,18	36.02
1975	April 3	63.02	June 10	36.02
1976	February 26	49.04	December 11	36.05
1977	March 7	50.56	October 19	36.00
1978	March 31	74.28	February 28	36.13
1979	August 30	89.61	February 2,7	36.16
1980	April 17	54.35	May 4	36.19
1981	June 14	81.16	January 13	36.00
1982	March 24	75.77	January 18	35.16
1983	January 2	59.48	September 30	34.13
1984	March 28	57.10	November 10	29.80
1985	April 9	70.80	October 10	35.40

WABASH RIVER BASIN

03370900 STARVE HOLLOW LAKE NEAR VALLONIA

GAGE LOCATION.--Lat 38°48'33", long 86°04'51", in SE¼NW¼SE¼ sec. 4, T. 4 N., R. 4 E. (VALLONIA, IN quadrangle). The gage is on the southern side of the lake, at the spillway of Driftwood Dam, and 2.6 mi southeast of Vallonia, Jackson County, Indiana.

SURFACE AREA.--145 acres.

DRAINAGE AREA.--6.67 mi².

PERIOD OF RECORD.--1946-57, 1959-61, 1963-67.

DATUM OF GAGE.--547.21 ft above NGVD of 1929.

GAGE.--A staff gage in three sections is installed at the outlet of the lake. Section one is driven into the lake bed. Sections two and three are bolted to the upstream end of the western abutment of the spillway.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the concrete spillway of Driftwood Dam.

INLET AND OUTLET.--There are four inlets to the lake; two entering from the north, one from the northeast, and one from southeast. The outlet, Mill Creek, is on the southern side of the lake and flows into the Muscatatuck River, 2.6 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.90 ft, January 21, 1959; minimum stage, -0.28 ft, October 4, 5, 9, 10, 1954.

ANNUAL EXTREME LEVELS FOR STARVE HOLLOW LAKE, 1946-57, 1959-61, 1963-67

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 14	1.80	July 16, 17	0.30
1947	June 2	1.98	October 3-11, 14-17, 23, 24	0.76 0.76
1948	March 27	2.28	July 15, 19	0.62
1949*	March 26, 27	2.10	October 1-5, 8, 9, 13-16	0.76
1950*	January 4	2.42	October 15	0.36
1951	February 21	1.96	August 24-26	0.88
1952	March 11	2.06	July 30, 31	0.86
			August 28-30	0.86
1953*	May 18	1.68	September 14	0.20

03370900 STARVE HOLLOW LAKE NEAR VALLONIA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	January 27,28	1.04	September 28-30	-0.24
1955	March 15	2.09	October 4,5,9,10	-0.28
1956	July 23	2.33	October 1	0.49
1957*	April 4	2.33	September 9-12	0.81
1959*	January 21	3.90	January 19	0.76
1960*	June 23	3.40	September 30	0.80
1961*	May 7	3.02	September 19	0.10
1963*	March 17	1.80	September 28-30	0.06
1964*	March 9	3.25	November 4-17	-0.06
1965	February 10	1.66	November 3-18	0.20
1966*	April 28	1.84	September 1,12	0.50
1967*	May 2	2.30	September 20-22,25-29	0.80

* Incomplete record.

WABASH RIVER BASIN

03371700 OGLE LAKE NEAR NASHVILLE

GAGE LOCATION.--Lat 39°09'35", long 86°14'54", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 8 N., R. 2 E. (NASHVILLE, IN quadrangle). The gage is on the dam, near the concrete intake structure, on the western side of the lake, and 3.3 mi south of Nashville, Brown County, Indiana.

SURFACE AREA.--20 acres.

DRAINAGE AREA.--1.03 mi².

PERIOD OF RECORD.--1954 to present.

DATUM OF GAGE.--710.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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, joins Lower Schooner Creek, then flows into the North Fork of Salt Creek. The North Fork of Salt Creek empties into Monroe Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.80 ft, June 23, 1960; minimum stage, -2.70 ft, February 12, 13, 1977.

ANNUAL EXTREME LEVELS FOR OGLE LAKE, 1954-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	August 14, 15, 20	1.76	September 29, 30	0.76
1955	April 13	5.14	December 11	0.34
1956	May 28	5.20	October 4	2.27
1957	May 22	5.63	September 30	2.68
1958	May 6	5.22	November 7	2.14
1959	January 21	6.22	September 26	2.38
1960	June 23	6.80	November 3	2.26
1961	May 8	5.64	February 13	0.84
1962	February 26	5.28	December 4	0.28
1963	March 17	5.00	February 28	1.52

03371700 OGLE LAKE NEAR NASHVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1964	March 10	5.26	January 19	-0.62
			February 5	-0.62
1965	April 25	5.18	January 7,8	-2.02
1966	February 10	5.00	September 19	1.18
1967	December 10	5.10	November 2,5-8	0.30
1968	May 25	5.80	November 29	0.60
1969	April 18	5.55	November 14,15	1.65
1970	January 25-31	5.00	September 3	3.35
	February 1-5, 11,12	5.00		
1971	February 22,23	5.02	October 7	3.20
1972	April 16,17,20-24	4.80	September 20,21	2.35
1973	April 22,23	5.00	October 2	2.55
1974	May 31	5.00	November 13,14	2.45
	June 1	5.00		
1975	March 28	5.15	September 8-10	2.50
1976	December 31	5.00	September 27-30	-0.50
1977*	April 3-6	5.00	February 12,13	-2.70
1978*	April 26,27	4.80	November 28,29	0.60
1979*	July 13	5.50	October 11,12	2.05
1980*	December 24,25	5.75	October 28,30,31	3.40
1981*	May 28	4.90	September 28,30	3.94
1982	January 22	5.61	September 30	3.30
1983*	May 2	5.26	September 30	1.54
1984	April 4	5.72	October 19	1.39
1985*	May 1	5.46	October 6	3.11

* Incomplete record.

WABASH RIVER BASIN

03372400 MONROE LAKE NEAR HARRODSBURG

GAGE LOCATION.--Lat 39°00'24", long 86°30'56", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T. 7 N., R. 1 W. (CLEAR CREEK, IN quadrangle). The gage is in the discharge tower of the reservoir on Salt Creek, 2.2 mi southeast of Harrodsburg, Monroe County, Indiana.

SURFACE AREA.--10,750 acres (winter pool), 10,750 acres (summer pool), 18,450 acres (flood pool).

DRAINAGE AREA.--432 mi².

PERIOD OF RECORD.--1966 to present, furnished by U.S. Army Corps of Engineers. Prior to September 1970, Monroe Lake was published as Monroe "Reservoir".

DATUM OF GAGE.--500.00 ft above NGVD of 1929.

GAGE.--A water-stage recorder is installed in the discharge tower of the reservoir.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an earth and rock-fill dam.

INLET AND OUTLET.--Salt Creek flows through Monroe Lake. There are many inlets. The main ones include: Crooked Creek, North Fork Salt Creek, Middle Fork Salt Creek, South Fork Salt Creek, Saddle Creek, Moore Creek, Brummett Creek, Stevens Creek, Kerr Creek, Ramp Creek, and Allens Creek. Salt Creek flows from the lake at the southwestern end and eventually empties into the East Fork White River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 51.53 ft, May 17, 1983; minimum stage, 29.60 ft, February 27, 1984.

ANNUAL EXTREME LEVELS FOR MONROE LAKE, 1966-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1966	May 4	40.04	September 19	35.14
1967	May 22	44.57	November 7	34.77
1968	May 31	47.24	October 31	36.88
1969	February 10	48.62	November 15	36.53
1970	May 3	43.82	September 30	36.70
1971	March 1	43.54	October 7	36.52
1972	April 26	47.45	December 10	35.68

03372400 MONROE LAKE NEAR HARRODSBURG--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1973	May 2	50.60	October 31	37.04
1974	June 9, 10	42.25	November 14,15	36.34
1975	April 3	49.27	September 30	36.73
1976	January 5	41.65	September 26	36.45
1977	April 7	42.92	February 8,9	35.11
1978	March 30	46.11	July 23	37.95
1979	April 19	48.55	June 28,29	37.86
1980	December 4	46.68	March 5	36.06
1981	June 11	47.58	January 28	36.28
1982	March 25	49.09	November 20	37.06
1983	May 17	51.53	September 30	36.39
1984	April 29	44.40	February 27	29.60
1985	January 8	45.80	October 12	37.70

WABASH RIVER BASIN

03374498 PATOKA LAKE NEAR CUZCO

GAGE LOCATION.--Lat 38°25'58", long 86°42'30", in SW¼NE¼ sec. 14, T. 1 S., R. 3 W. (CUZCO, IN quadrangle). The gage is in the discharge tower of the reservoir on the Patoka River, 2.9 mi south of Cuzco, Dubois County, Indiana.

SURFACE AREA.--8,100 acres (winter pool), 8,750 acres (summer pool), 11,250 acres (flood pool).

DRAINAGE AREA.--168 mi².

PERIOD OF RECORD.--1978 to present, furnished by U.S. Army Corps of Engineers.

DATUM OF GAGE.--500.00 ft above NGVD of 1929.

GAGE.--A water-stage recorder is installed in the reservoir discharge tower.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an earth and rock-fill dam.

INLET AND OUTLET.--The Patoka River flows through the lake. There are many inlets. The major ones are: Painter Creek from the northeast, Little Patoka River from the southeast, Fleming Creek from the south, and Lick Fork Creek from the south. The Patoka River leaves the lake at the western end and eventually empties into the Wabash River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 47.17 ft, May 16, 1983; minimum stage, 11.57 ft, June 12, 1978.

ANNUAL EXTREME LEVELS FOR PATOKA LAKE, 1978-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1978	May 16	14.26	June 12	11.57
1979	August 3, 4	45.97	October 5	13.67
1980	November 30	44.15	February 29	35.69
			March 1	35.69
1981	October 1	37.49	March 29	32.82
1982	February 10	41.84	January 22	34.98
1983	May 16	47.17	March 1-3	32.39
1984	May 11	37.50	January 24	32.70
1985	January 4	40.90	March 29	34.10

STREAMS TRIBUTARY TO LAKE MICHIGAN

04092500 WOLF LAKE AT HAMMOND

GAGE LOCATION.--Lat 41°41'33", long 87°30'50", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 37 N., R. 10 W. (LAKE CALUMET, IL-IN quadrangle). The gage is on the extreme northern tip of the lake, at the U.S. Highway 41 bridge, at Hammond, Lake County, Indiana.

SURFACE AREA.--999 acres.

DRAINAGE AREA.--5.72 mi².

PERIOD OF RECORD.--1946-49.

DATUM OF GAGE.--580.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to the concrete wall 10 ft west of the bridge.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a wooden dam with wire netting across the crest at the outlet.

INLET AND OUTLET.--The lake has no inlet, but is surrounded by swamp and marsh land. The outlet flows from the western side and joins the Calumet River, 1.2 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 2.48 ft, April 10, June 23, 1948; minimum stage, 1.50 ft, July 11, 1946.

ANNUAL EXTREME LEVELS FOR WOLF LAKE, 1946-49

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	September 24	1.87	July 11	1.50
1947*	April 11	2.38	October 7	1.60
1948*	April 10, June 23	2.48	August 4	1.85
1949*	October 7	2.32	November 2	1.96

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04092990 LAKE GEORGE AT HOBART

GAGE LOCATION.--Lat 41°32'07", long 87°15'30", in NW¼NW¼NW¼ sec. 32, T. 36 N., R. 7 W. (GARY, IN quadrangle). The gage is on the northeastern end of the lake, 70 ft northwest of the dam, and 400 ft upstream of the Ridge Road bridge, in Hobart, Lake County, Indiana.

SURFACE AREA.--282 acres.

DRAINAGE AREA.--124 mi².

PERIOD OF RECORD.--1947 to present.

DATUM OF GAGE.--600.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on September 18, 1959, by the Lake County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

INLET AND OUTLET.--The two principal inlets are Turkey Creek, entering from the extreme southwestern tip, and Deep River, entering on the northeastern shore of the southern lobe. Three unnamed tributaries enter from the northwest, south, and southeast. The outlet, Deep River, flows from the lake at the northeastern end and eventually joins the Calumet River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.14 ft, October 11, 1954; minimum stage, 0.27 ft, November 6, 1978 (while the lake was being drained).

ANNUAL EXTREME LEVELS FOR LAKE GEORGE, 1947-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947*	April 6	5.19	August 21-24, 27	1.91
1948	May 11	5.63	September 14	1.91
1949	February 14, 15	3.43	October 5, 6, 14-16, 21-30, December 1-4	1.92
1950	December 22	4.83	November 3-10, 15-17	1.96
			August 16, 18, 21-23	1.96
			September 14-19, 27	1.96

04092990 LAKE GEORGE AT HOBART--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951	May 12	4.24	October 3-5	1.96
			September 5-9,24,25	1.96
1952	November 14	4.35	August 28,29	1.91
			September 17	1.91
1953	March 16	3.79	September 3	1.85
1954	March 26	4.38	October 1	1.88
			September 25	1.88
1955	October 11	7.14	August 13-21	1.87
1956	May 11	4.56	September 14,17-22	1.87
1957	July 14	4.62	October 7-10	1.83
1958	June 10	3.54	October 1-3	1.91
1959	July 23	4.82	September 10	1.93
1960	February 11	4.22	August 31	1.90
			September 11	1.90
1961	April 25	4.34	February 13	1.80
1962	March 12	3.87	September 18	1.89
1963	March 6	3.32	July 12	1.87
1964	April 22	3.00	August 8	1.86
1965	April 26	3.98	November 13,22,23	1.91
			June 21, July 5,29	1.91
1966	December 25	5.35	September 5,6	1.89
1967	December 8	4.00	October 1,2,4-8,20-23,	1.90
			30,31, November 1,3	1.90
			December 14	1.90
			May 3, August 7,	1.90
			10-17, 23-25,30,31	1.90
			September 1-20	1.90
1968	February 2	4.70	October 6,7	1.90
			August 14	1.90
1969	January 29,30	3.30	April 22	1.90
	May 10,11	3.30	August 22-31	1.90
			September 1-3,6-8,	1.90
			12-22,26,30	1.90
1970	May 14	5.60	January 7-16,18-25	1.95
			July 12-18	1.95
			August 6-15,26-31	1.95
			September 1-6,10-12	1.95
1971	February 6,19	3.30	June 29,30, July 1-4	1.90
			August 8,13-23,30,31	1.90
			September 1-3	1.90
1972	May 8,9	3.50	October 20,27-31	1.90
			November 5-8,20-24,28	1.90
1973	April 22	4.60	May 7, August 7,22,29	1.90
			September 3-8,10-16	1.90

04092990 LAKE GEORGE AT HOBART--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1974	January 21	4.20	October 25,26	1.90
			July 16-21,30,31	1.90
			August 6-9,22-29,31	1.90
			September 1-4,6,8-11,	1.90
			21,25,27,28	1.90
1975	January 11	4.60	October 7,9	1.90
			November 2	1.90
1976*	March 5	4.95	February 29	1.65
1977*	September 18	3.05	February 1-9	1.90
			April 15, June 1,2,29	1.90
1978*	May 14	4.43	September 29	0.48
1979*	March 7	4.27	November 6	0.27
1980	March 17	3.69	July 2	1.80
1981*	June 14	6.44	May 23	1.71
1982	March 13	6.07	May 14,16	1.92
1983	July 2	7.02	June 27	1.32
1984	May 23	4.19	May 10	0.98
1985*	February 23	5.95	November 5	1.90
			July 24	1.90

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097520 LAKE PLEASANT NEAR NEVADA MILLS

GAGE LOCATION.--Lat 41°45'18", long 85°06'10", in NW¼SW¼NW¼ sec. 13, T. 38 N., R. 12 E. (KINDERHOOK, MI-IN quadrangle). The gage is at a bridge over a boat channel on the southern shore of the lake, and 2.3 mi northwest of Nevada Mills, Steuben County, Indiana.

SURFACE AREA.--424 acres.

DRAINAGE AREA.--3.18 mi².

PERIOD OF RECORD.--1954-69, 1971, 1976 to present.

DATUM OF GAGE.--960.40 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1977-78.

GAGE.--A digital water-stage recorder (hourly) is installed in an aluminum shelter over a 15-in diameter stilling well. An auxiliary staff gage is attached to the southwestern bridge abutment at the site.

ESTABLISHED LEGAL LEVEL.--1.10 ft gage datum or 961.50 ft above NGVD of 1929 as decreed on April 11, 1986, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a metal plate welded across the bottom of a corrugated metal pipe.

INLET AND OUTLET.--The one inlet enters the lake on the western 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, March 17, 1980; minimum stage, -0.14 ft, November 6-14, 1964.

ANNUAL EXTREME LEVELS FOR LAKE PLEASANT, 1954-69, 1971, 1976-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 8	0.91	September 29	0.29
1955	March 1,2	1.33	September 27	0.35
1956	May 12	1.48	October 3,4	0.37
1957	February 27,28	1.27	September 27-30	0.50
1958	March 6,7	1.24	October 12-15	0.40
1959	February 14	1.44	September 18-23	0.08
1960	April 17	1.34	October 4	0.22
	July 3	1.34		
1961	April 25	1.50	July 23	0.78

04097520 LAKE PLEASANT NEAR NEVADA MILLS--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1962	March 12	1.72	September 30	0.38
1963	March 27	1.29	September 29,30	0.05
1964	April 29	0.96	November 13	-0.06
1965	March 18-21	1.29	November 6-14	-0.14
	April 9,23-27	1.29		
1966*	December 26	1.54	October 7,14-16,19	0.84
1967*	February 17-28	1.40	September 15-19	0.20
	March 1,2,5,6,17,22, 23,26,27, April 5-7	1.40		
1968	February 2,3	1.65	October 11-13	0.45
1969*	January 30,31	1.60	October 8-22,28-31	1.10
	February 1	1.60	November 1-12	1.10
			August 25-27	1.10
1971*	February 25	1.95	August 30,31	0.45
1976*	March 9	1.57	September 8	0.97
1977	March 4	1.93	October 3,4	1.08
1978*	March 27	1.78	September 8	0.93
1979	March 4	1.99	October 2,4	1.11
1980*	March 17	2.04	October 4,5	1.13
1981*	February 20	1.90	October 10,12-15	1.42
	June 14	1.90		
1982	March 17	2.00	September 16	1.13
1983	May 1	1.86	September 15,17	0.71
1984	April 16,17	1.66	July 23	0.71
1985	February 25	1.95	July 24	0.76

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097550 LAKE GEORGE AT JAMESTOWN

GAGE LOCATION.--Lat 41°44'58", long 85°01'01", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.15, T. 38 N., R. 13 E. (ANGOLA WEST, IN quadrangle). The gage is 25 ft east of the outlet dam on the southwestern end of the lake, at Jamestown, 8.0 mi north of Angola, Steuben County, Indiana.

SURFACE AREA.--488 acres.

DRAINAGE AREA.--14.7 mi².

PERIOD OF RECORD.--1946 to present.

DATUM OF GAGE.--980.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on October 12, 1945, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

INLET AND OUTLET.--The inlet flows from Silver Lake, 0.8 mi upstream, and enters on the northern shore. The outlet flows from the southwestern 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, April 4, 25, 1950; minimum stage, 4.20 ft, December 6, 7, 1946; October 23-31, 1948.

ANNUAL EXTREME LEVELS FOR LAKE GEORGE, 1946-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946	June 29,30	5.78	November 25-30	4.32
			December 1-31	4.32
1947	April 22	6.06	December 6,7	4.20
1948	May 15-18	5.80	October 25-27	4.30
			February 7,8	4.30
1949	February 15	5.86	October 23-31	4.20
1950	April 4,25	6.20	September 30	5.16
1951	April 30	5.94	November 4-6	4.50
1952	May 25,26	5.94	December 29	4.82
1953	March 23	5.68	October 21-28	4.50

04097550 LAKE GEORGE AT JAMESTOWN--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954	April 11,25,26	5.82	November 14-21	5.00
1955	October 15	5.90	September 17	5.21
1956	May 12,13	6.10	October 2-4	5.26
1957	April 8,26-28	5.78	August 23	5.28
1958	December 20,21	5.74	October 11-15	5.24
	April 7	5.74		
1959	April 4	5.88	September 21	5.26
1960	April 17,18	5.96	August 18-20	5.46
1961	April 25	6.00	August 21,22	5.44
1962	March 22,23	5.92	September 24,29,30	5.20
1963	April 19	5.74	September 27-30	4.98
1964	March 26-31	5.62	October 31	4.76
	April 1-3	5.62	November 1-4,8-11, 16-18	4.76
1965	March 29-31	5.79	November 27,28	4.75
	April 1-7	5.79		
1966	January 24-31	5.86	September 24-30	5.25
	February 1-6	5.86		
1967	March 24-29	5.90	September 9-20	5.10
1968	February 2,3	6.10	October 1-14	5.30
1969	February 1-3	6.00	August 23-31	5.50
	April 21	6.00	September 1-30	5.50
1970	April 22-25	5.90	October 1-6	5.50
	May 1,2	5.90	July 11,12,15,16	5.50
			August 30,31	5.50
			September 1-13	5.50
1971*	February 20,28	5.90	October 8, April 30	5.50
	March 1-11	5.90	May 1-11,20-31	5.50
			June 1-7,11-30	5.50
1972*	March 16,17	5.80	May 28	5.50
	April 16,17	5.80	June 11-14,19-29	5.50
			July 2-7,9-11,28-31	5.50
			August 1-28,31	5.50
			September 1-13	5.50
1973*	March 15-20	5.90	September 19-21	5.40
	May 30,31	5.90		
	June 1-7	5.90		
1974*	January 27-29	5.90	July 21-31	5.40
	March 5-13	5.90	August 1-10	5.40
	May 19,20	5.90	September 13-16	5.40
1975*	August 22	6.00	October 1-16	5.50
			July 31, August 1	5.50
1976*	March 4-6	6.15	September 7,8	5.40
1977*	March 4,29-31	5.90	June 3,4	5.46
	April 1	5.90		

04097550 LAKE GEORGE AT JAMESTOWN--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1978*	April 7-9	6.06	August 6	5.46
			September 6-11	5.46
1979	March 30	5.87	June 27	5.38
1980	April 3,4	5.84	June 30	5.49
1981	June 14	5.97	October 13	5.47
1982*	March 26,27	5.95	August 29,30	5.37
			September 5	5.37
1983	May 2	5.86	September 15-17	5.27
1984	April 16,17	5.79	August 29	5.27
1985	April 5,6	5.93	July 8	5.37

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097596 MARSH LAKE NEAR FREMONT

GAGE LOCATION.--Lat 41°43'18", long 84°59'17", in NE¼NW¼SW¼ sec. 25, T. 38 N., R. 13 E. (ANGOLA EAST, IN quadrangle). The gage is on the northwestern shore of the lake, 0.4 mi south of State Road 120 on a farm lane, and 2.9 mi southwest of Freemont, Steuben County, Indiana.

SURFACE AREA.--58 acres.

DRAINAGE AREA.--14.9 mi².

PERIOD OF RECORD.--1967-68.

DATUM OF GAGE.--960.00 ft above NGVD of 1929.

GAGE.--A staff gage is driven into the lake bed on the western side of a dredged boat slip.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The principal inlet, at the eastern end of the lake, drains Eaton and Cemetery Lakes. Seven Sisters Lakes and Failing Lake flow into the inlet that enters on the southwestern side. Two other small inlets enter the lake from the northeast and southeast. The outlet, on the western end, flows into Follette Creek, which enters Little Otter Lake, 0.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.70 ft, January 28, 1968; minimum stage, 5.25 ft, September 8-19, 1967.

ANNUAL EXTREME LEVELS FOR MARSH LAKE, 1967-68

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1967*	June 22-25	6.80	September 8-19	5.25
1968*	January 28	7.70	April 12	5.70

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097600 LITTLE OTTER LAKE NEAR FREMONT

GAGE LOCATION.--Lat 41°43'17", long 85°00'24", in NE¼NW¼SW¼ sec. 26, T. 38 N., R. 13 E. (ANGOLA WEST, IN quadrangle). The gage is on the southeastern shore, 0.3 mi west of U.S. Highway 27, and 3.8 mi southwest of Fremont, Steuben County, Indiana.

SURFACE AREA.--34 acres.

DRAINAGE AREA.--15.7 mi².

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--960.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to a piling on the southeastern shore.

ESTABLISHED LEGAL LEVEL.--5.18 ft gage datum or 965.18 ft above NGVD of 1929. Big Otter Lake near Fremont 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 the outlet channel.

INLET AND OUTLET.--Follette Creek flows through the lake, entering on the extreme eastern point from Marsh Lake, 0.8 mi upstream, and leaving at the northern shore through the channel that joins Little Otter and Big Otter Lakes. These lakes are eventually tributary to the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.48 ft, July 11, 1951; minimum stage, 4.25 ft, October 16, 17, 1946.

ANNUAL EXTREME LEVELS FOR LITTLE OTTER LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	June 30	6.09	September 22	4.34
1947	April 22	6.84	October 16, 17	4.25
1948	March 22	6.17	February 13-15	4.36
1949	June 18	6.60	October 6, 7	4.48
1950	April 5	7.38	October 1, 2, 5	5.00
1951	July 11	7.48	February 10	4.81
1952	May 27	6.28	October 1, 2	4.86
			August 30	4.86
1953*	December 24, 25	5.24	October 11, 12	4.79

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097660 LAKE JAMES AT LAKE JAMES

GAGE LOCATION.--Lat 41°41'57", long 85°02'54, in NW¼NW¼NW¼ sec. 4, T. 37 N., R. 13 E. (ANGOLA WEST, IN quadrangle). The gage is at the bridge over the outlet, 600 ft downstream of the lake, at the town of Lake James, and 5.1 mi northwest of Angola, Steuben County, Indiana.

SURFACE AREA.--1,034 acres.

DRAINAGE AREA.--47.8 mi², revised.

PERIOD OF RECORD.--1943-49.

DATUM OF GAGE.--960.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is bolted to the eastern side of the southern abutment of the highway bridge.

ESTABLISHED LEGAL LEVEL.--4.96 ft gage datum or 964.96 ft above NGVD of 1929 as decreed on July 3, 1947, by the Steuben County Circuit Court. Snow Lake at Lake James 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 the dam on Jimmerson Lake at Nevada Mills, Steuben County, Indiana.

INLET AND OUTLET.--Crooked Creek flows through Lake James, entering at the northern end and leaving at the outlet of the Middle Basin. Various unnamed ditches enter the lake from the south, southeast, and east. Crooked Creek flows into Jimmerson Lake, 0.3 mi downstream from Lake James, and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.56 ft, May 21, 27, 1943; minimum stage, 3.98 ft, October 11-16, 1946.

ANNUAL EXTREME LEVELS FOR LAKE JAMES, 1943-49

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	May 21, 27	6.56	July 31, August 1, 26	4.80
1944	March 17-19	5.62	September 15	4.25
1945	May 23	5.97	February 10	4.04
1946	October 2	5.34	September 21, 22	4.00
	March 10	5.34		
1947	April 24	5.82	October 11-16	3.98

04097660 LAKE JAMES AT LAKE JAMES--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1948	December 10-12	5.30	February 12	4.07
1949	June 21	5.65	October 7-22	4.48

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097680 JIMMERSON LAKE AT NEVADA MILLS

GAGE LOCATION.--Lat 41°43'31", long 85°04'55", in SW¼NW¼ sec. 30, T. 38 N., R. 13 E. (ANGOLA WEST, IN quadrangle). The gage is at the extreme western end of the lake on the abutment of the concrete spillway structure and dam in the town of Nevada Mills, and 4.6 mi east of Orland, Steuben County, Indiana.

SURFACE AREA.--434 acres, revised.

DRAINAGE AREA.--51.6 mi².

PERIOD OF RECORD.--1946 to present. (Lake-level readings were made once a week by employees of Northern Indiana Public Service Company from 1937 to 1944. These data are available upon request.)

DATUM OF GAGE.--960.27 ft above NGVD of 1929 as corrected on the basis of levels of IDNR in June, 1972.

GAGE.--A digital water-stage recorder (hourly) is installed in an aluminum shelter over a 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 NGVD of 1929 as decreed on July 3, 1947, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 4.66 ft gage datum or 964.93 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam.

INLET AND OUTLET.--Crooked Creek flows through the lake, entering from Lake James at the extreme southeastern 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, 6.16 ft, March 22, 23, 1982; maximum stage outside period of record, 6.22 ft, May 27, 1943; minimum stage, 3.71 ft, February 16, 17, 1948.

ANNUAL EXTREME LEVELS FOR JIMMERSON LAKE, 1946-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946	March 12	5.17	September 16-22	3.85
1947	April 25	5.55	October 13-17	3.81

04097680 JIMMERSON LAKE AT NEVADA MILLS--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1948	December 12	5.15	February 16,17	3.71
1949	February 21	5.32	October 4-7	4.22
1950	April 7	6.00	September 30	4.35
1951	July 14-16	5.48	October 5-10	4.08
1952	May 30,31	5.20	April 4	4.54
1953	April 30	4.98	September 14-16	4.32
1954	April 2-4,25	5.35	November 7-10	4.18
1955	October 16	5.47	October 1,2	4.63
1956	May 16,17	5.93	September 30	4.59
1957	April 14-19	5.24	October 6,8	4.51
1958	December 27	5.26	October 6,7	4.60
1959	April 8	5.33	September 19,20	4.34
1960	April 17,18	5.47	September 13	4.59
1961	April 28,29	5.64	July 13	4.55
1962	March 27	5.41	September 27,28	4.19
1963	March 28	5.35	November 23	3.95
1964	April 5	5.09	October 29	3.80
1965	April 14	5.36	October 21,25	4.19
1966	January 1	5.63	September 23	4.56
1967	December 9	5.70	September 12-19	4.40
1968	February 3-8	5.70	October 1-14	4.60
1969	January 31	5.70	August 27-31	4.70
1970	February 1-6	5.70	September 1-30	4.70
	April 22-28	5.50	October 1	4.70
			August 30,31	4.70
			September 1-5,8-13	4.70
			August 25-31	4.50
1971	February 23,24	5.60	September 1-27	4.50
1972	April 21	5.40	October 6,7	4.50
1973*	March 18-25	5.50	October 18-21	4.80
1973*	June 2-7	5.50		
	March 8-12	5.70	August 27-31	4.60
1974*			September 1-10	4.60
1975*	April 23,24	5.60	October 1,2,5-28	4.70
	May 4-9	5.60		
1976*	March 6,8	6.08	September 5,8	4.62
1977	April 3	5.54	August 1,2	4.69
1978*	April 9	5.89	August 5,6	4.70
			September 8	4.70
1979*	April 11	5.48	September 24,25,29,30	4.64
1980*	April 6	5.61	October 1	4.67
1981*	June 17	5.68	October 11	4.85
1982*	March 22,23	6.16	August 30	4.76
1983*	May 5,6	5.77	September 14	4.65

04097680 JIMMERSON LAKE AT NEVADA MILLS--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1984	April 22	5.61	August 27	4.63
1985*	February 28	5.99	August 3,4	4.76

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097780 LOON LAKE NEAR ANGOLA

GAGE LOCATION.--Lat 41°39'20", long 85°02'55", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 37 N., R. 13 E. (ANGOLA WEST, IN quadrangle). The gage is on the northern shore of the lake at the public fishing site, 2.9 mi northwest of Angola, Steuben County, Indiana.

SURFACE AREA.--138 acres.

DRAINAGE AREA.--2.13 mi².

PERIOD OF RECORD.--1954-66.

DATUM OF GAGE.--1010.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed on the northern shore at the public fishing site.

ESTABLISHED LEGAL LEVEL.--1.98 ft gage datum or 1011.98 ft above NGVD of 1929 as decreed on July 27, 1965, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The lake has one inlet that enters on the southern shore from Buck Lake, 0.4 mi upstream. The outlet flows from the north and empties into Crooked Lake, 1.2 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.00 ft, April 28, 1961; minimum stage, 0.88 ft, October 31, November 1, 1963 and November 17-22, 1964.

ANNUAL EXTREME LEVELS FOR LOON LAKE, 1954-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 7-9	2.15	September 27,28	1.61
1955	March 5,6	2.53	September 26,27	1.08
1956	April 30	2.85	October 3	1.12
	May 1	2.85		
1957	April 30	2.69	October 19	1.50
1958	March 7	2.54	October 14,15	1.66
1959	April 3	2.82	September 22	1.26
1960	June 17-19	2.72	October 2	1.62
1961	April 28	3.00	October 20,23,24	1.74
1962	March 21	2.91	September 30	1.20

04097780 LOON LAKE NEAR ANGOLA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1963	April 3	2.25	November 27-30	1.20
			December 1-3	1.20
1964	May 27-31, June 1	1.90	October 31	0.88
			November 1	0.88
1965	May 15-23	2.94	November 17-22	0.88
1966	May 17-19	2.88	September 29,30	1.80

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097850 CROOKED LAKE AT CROOKED LAKE

GAGE LOCATION.--Lat 41°40'14", long 85°02'04", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 37 N., R. 13 E. (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, Steuben County, Indiana.

SURFACE AREA.--828 acres.

DRAINAGE AREA.--10.4 mi².

PERIOD OF RECORD.--1946-70, 1972 to present.

DATUM OF GAGE.--980.26 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1977-78.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on June 17, 1948, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 8.17 ft gage datum or 988.43 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest dam with an adjustable gate at the western end of the Third Basin.

INLET AND OUTLET.--The principal inlets enter the lake from the south, from Loon and Buck Lakes, and the southeast, from Center Lake. Another ditch enters from the east. The outlet flows from the western end of the Third Basin into Lake Gage, 1.4 mi downstream, and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.07 ft, April 6, 1985; minimum stage, 7.05 ft, November 13-15, 1964.

ANNUAL EXTREME LEVELS FOR CROOKED LAKE, 1946-70, 1972-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 17-20,24	8.62	September 18-30	7.42
1947	May 3	8.84	October 12-16	7.26
1948	April 1,2	8.76	September 17-19	7.47

04097850 CROOKED LAKE AT CROOKED LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949	February 28	8.86	October 30,31	7.35
	March 1,2	8.86	November 1	7.35
1950	April 5,6,9	9.69	October 6-8	7.94
1951	July 11	9.32	September 30	8.40
1952	February 5	9.25	September 30	8.14
1953	May 17,18,25	8.76	September 30	7.46
1954	May 4	9.07	November 19,20	7.17
	June 4	9.07		
1955	October 17,18	9.18	September 29	8.35
1956	May 12	9.47	October 4	8.33
1957	June 29	9.07	November 14,15	8.19
1958	September 17,18	8.88	October 15	8.24
1959	April 9	9.22	September 20,21	7.83
1960	May 22	9.11	October 3	8.11
1961	April 28,29	9.27	October 25	8.30
1962	March 24,26	8.95	September 30	7.94
1963	June 10	8.66	September 30	7.72
1964	May 9	8.20	September 17	7.29
1965	April 27,28	9.34	November 13-15	7.05
1966	April 24-30	9.30	September 25-30	8.40
	May 1,12-19	9.30		
1967	April 2-11	9.40	September 18	8.00
1968	June 26-29	9.30	October 4-7,10-13	8.10
1969	January 31	9.30	October 27-31	8.50
	February 1-17	9.30	November 1-15	8.50
1970	May 25-31	9.20	January 3-31	8.50
	June 1-8,24-26	9.20	February 1-18,21-28	8.50
			March 1-3	8.50
1972*	May 14,15	9.30	June 30	8.70
			July 2-12	8.70
			August 19-22,27-31	8.70
			September 1-13	8.70
1973*	June 5,6	9.60	September 27	8.50
1974	February 20-23	9.50	September 3-11,22-30	8.00
1975	May 7-16	9.10	October 8-31	7.90
	June 4-9,11-19	9.10	November 1,2	7.90
1976	March 6-8	9.48	September 7,8,19-21	8.34
1977*	April 5-7	8.96	February 6-11,19,20	8.24
1978*	April 16	9.50	March 11-17	8.40
1979*	April 13,14	9.36	November 21,22	8.44
1980*	June 7	9.53	May 9	8.11
1981*	June 14	9.72	November 25,26	8.64
1982*	October 1	9.08	June 4	8.02
1983	May 3,7	9.50	September 14,15	8.73

04097850 CROOKED LAKE AT CROOKED LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1984	April 17	9.38	September 6	8.50
1985*	April 6	10.07	October 5,6	8.73

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04097950 LAKE GAGE AT PANAMA

GAGE LOCATION.--Lat 41°42'32", long 85°06'53", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 38 N., R. 12 E. (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, Steuben County, Indiana.

SURFACE AREA.--332 acres.

DRAINAGE AREA.--17.3 mi².

PERIOD OF RECORD.--1946 to present.

DATUM OF GAGE.--950.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on July 3, 1947, by the Steuben County Circuit Court. Lime Lake at Panama has the same control structure and established level, 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, April 25, 1950; minimum stage, 3.41 ft, November 13, 15-20, 1953.

ANNUAL EXTREME LEVELS FOR LAKE GAGE, 1946-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946	March 17-20, 24	4.82	September 6, 19-21	3.65
1947	May 2-4	5.15	October 14-17	3.53
1948	March 27	5.08	September 19	3.68
1949	March 4, 31	4.80	October 11, 12, 19-21	3.68
	April 1, 2	4.80		
1950	April 25	5.55	October 1, 2	3.84

04097950 LAKE GAGE AT PANAMA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951	April 29,30	5.15	October 15	4.32
1952	February 4,5	5.08	September 30	4.32
			August 7,8,30	4.16
1953	March 23, May 2,17	4.66	September 28-30	4.16
			September 27,28,30	3.54
1954	July 9,10	4.83	November 13,15-20	3.41
1955	October 15,16	4.92	September 23,26,27	3.95
1956	May 12,13	5.28	October 4	3.95
1957	April 27	4.92	November 12-14	3.94
1958	July 31	4.72	October 14	3.94
1959	April 1,7-10	4.73	September 19,20	3.72
1960	April 17	4.91	October 4	4.03
1961	April 22,25	4.88	July 12,13	4.18
			August 21,22	4.18
			September 21,22	4.18
			September 30	3.76
1962	March 12,13	4.72	September 30	3.73
1963	April 2	4.52	October 30	3.57
1964	April 28, May 8	4.46	November 12-14	3.72
1965	April 25-27	4.86	September 24-28	4.04
1966	December 24	4.76	January 19-23	3.90
1967	April 21,22	4.80	September 12-19	3.90
			November 28-30	3.70
			December 1	3.70
1968	June 26	4.90	November 5,6,11-14	4.00
1969	April 17-21	4.90	January 8-27	3.80
1970	April 19-21	4.90	February 5-17,20,21,	3.80
			26-28, March 1,2	3.80
			February 2,3	3.80
			February 7-14,16,	3.60
1971	March 15	4.70	18-27, March 9-12	3.60
			August 6-11	4.20
1972*	May 8-11,14-18	4.80	November 18-27	4.10
			July 21-31	4.10
			August 1-15,27-31	4.10
			September 1-10	4.10
1973	June 7-9	4.90	July 16	4.10
1974	May 17-19	5.00		
1975	April 2-7, May 6-16,	4.80		
1976*	21-23,30,31	4.80		
1977	June 1,14-20	4.80		
1978	March 4-6	4.85		
1979*	March 28	4.85		
1980	April 10	4.72		
1981	April 29	4.90		
1982	June 7	4.83		
1983	June 14	4.87		

04097950 LAKE GAGE AT PANAMA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1982	April 3	4.94	May 15	4.04
1983	May 7	4.70	March 16	3.89
1984	June 7,8	4.56	October 9	3.75
1985	April 5,8,9	5.04	December 10	3.70

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04098100 WALL LAKE NEAR ORLAND

GAGE LOCATION.--Lat 41°43'32", long 85°12'14", in NW¼SW¼NE¼ sec. 25, T. 38 N., R. 11 E., Lagrange County (ORLAND, IN quadrangle). The gage is on the southern shore of the lake, 1.7 mi southwest of Orland, Steuben County, Indiana.

SURFACE AREA.--141 acres.

DRAINAGE AREA.--1.61 mi².

PERIOD OF RECORD.--1953-54.

DATUM OF GAGE.--940.86 ft above NGVD of 1929, as corrected on the basis of levels of the USGS, 1957, and IDNR, 1970.

GAGE.--A staff gage in one section is driven into the lake bed on the southern shore.

ESTABLISHED LEGAL LEVEL.--2.25 ft gage datum or 942.25 ft above NGVD of 1929 as decreed on October 6, 1955, 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 2.25 ft gage datum or 943.11 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the culvert under the road at the outlet on the northeastern shore.

INLET AND OUTLET.--The lake drains the surrounding lowlands, but has no major surface inlets. The outlet flows into Mud Lake, 400 ft downstream, which empties into Fawn River and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 2.24 ft, April 21-23, 1954; minimum stage, 0.68 ft, November 25-29, 1953.

ANNUAL EXTREME LEVELS FOR WALL LAKE, 1953-54

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1953*	January 31	2.14	September 30	1.02
	February 1-23	2.14		
1954*	April 21-23	2.24	November 25-29	0.68

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04098110 MUD LAKE NEAR ORLAND

GAGE LOCATION.--Lat 41°44'16", long 85°11'38", in SW¼NW¼ sec. 19, T. 38 N., R. 12 E. (ORLAND, IN quadrangle). The gage is on the northern shore of the lake, approximately 200 ft east of the outlet, and 1.3 mi northwest of Orland, Steuben County, Indiana.

SURFACE AREA.--25 acres.

DRAINAGE AREA.--1.85 mi².

PERIOD OF RECORD.--1956-66.

DATUM OF GAGE.--930.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is located on the northern shore.

ESTABLISHED LEGAL LEVEL.--9.01 ft gage datum or 939.01 ft above NGVD of 1929 as decreed on July 27, 1967, 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 one inlet enters on the southwestern shore from Wall Lake. The outlet flows north to Fawn River and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.58 ft, April 25, 26, 1961; minimum stage, 5.62 ft, November 14, 15, 1964.

ANNUAL EXTREME LEVELS FOR MUD LAKE, 1956-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1956*	June 27	10.78	September 30	8.89
1957	June 2	10.72	November 14, 15	8.27
1958	August 22	9.97	October 15	8.17
1959	March 16, 17	11.47	September 20, 21	8.36
1960	April 18	11.44	January 6	8.30
1961	April 25, 26	11.58	February 10, 12	8.62
1962	April 9-11, 13, 14	11.36	September 30	8.20
1963	April 2-4	8.31	September 30	6.78
1964	May 14	7.39	September 18, 26, 30	6.06
1965	April 26-30	8.46	November 14, 15	5.62
	May 1, 5-8	8.46		
1966	May 18	11.39	October 19, 20	7.34

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04098300 CEDAR LAKE NEAR ONTARIO

GAGE LOCATION.--Lat 41°44'30", long 85°21'58", in NE¼NW¼NW¼ sec. 22, T. 38 N., R. 10 E. (MONGO, IN quadrangle). The gage is on the northeastern shore of the lake, 2.8 mi northeast of Ontario, Lagrange County, Indiana.

SURFACE AREA.--120 acres.

DRAINAGE AREA.--1.6 mi².

PERIOD OF RECORD.--1948-51.

DATUM OF GAGE.--870.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is on the northeastern shore of the lake.

ESTABLISHED LEGAL LEVEL.--1.90 ft gage datum or 871.90 ft above NGVD of 1929 as decreed on April 22, 1952, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete fixed-crest dam on the western shore.

INLET AND OUTLET.--The one inlet enters at the southern shore from Duff Lake, 0.5 mi upstream. The outlet flows from the lake on the western shore and empties into Fawn River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 2.42 ft, April 25, 1950; minimum stage, 1.16 ft, January 7-9, 1951.

ANNUAL EXTREME LEVELS FOR CEDAR LAKE, 1948-51

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1948*	September 29,30	2.02	September 23-25	1.92
1949	June 30, July 1,6	2.24	May 12-14	1.60
1950	April 25	2.42	October 1,2	1.76
1951*	November 21	2.20	January 7-9	1.16

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099050 PIGEON LAKE NEAR ANGOLA

GAGE LOCATION.--Lat 41°37'55", long 84°56'16", in NW¼SE¼SE¼ sec. 29, T. 37 N., R. 14 E. (ANGOLA EAST, IN quadrangle). The gage is on the eastern upstream wingwall of the U.S. 20 bridge over the outlet channel, 0.3 mi downstream from the lake, and 3.2 mi east of Angola, Steuben County, Indiana.

SURFACE AREA.--61 acres.

DRAINAGE AREA.--35.2 mi².

PERIOD OF RECORD.--1954-64.

DATUM OF GAGE.--985.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is installed on the eastern, upstream wing-wall of the U.S. Highway 20 bridge.

ESTABLISHED LEGAL LEVEL.--3.24 ft gage datum or 988.24 ft above NGVD of 1929 as decreed on July 27, 1965, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--There are three inlets. An unnamed ditch enters from the northwest, Ewing ditch enters from the north, and Pigeon Creek enters on the eastern shore. The outlet, Pigeon Creek, flows from the southern shore, through a small lake, 700 ft downstream, and eventually empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.50 ft, April 29, 1956; minimum stage, 2.31 ft, October 1-5, 7-9, 1963.

ANNUAL EXTREME LEVELS FOR PIGEON LAKE, 1954-64

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 8	4.32	August 12, 13	2.46
			September 10, 11	2.46
1955	January 6	6.30	September 23	2.38
1956	April 29	7.50	October 1-4	2.48
			January 26, 27	2.48
1957	April 6	6.10	August 23, 24	2.55
1958	December 20	6.40	September 2	2.55
1959	February 14	6.89	July 10	2.45

04099050 PIGEON LAKE NEAR ANGOLA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1960*	January 13	7.03	September 7	2.64
1961	April 25	7.16	February 18	2.59
1962	March 12	6.62	September 25	2.35
1963	March 18	5.64	August 23,25-30	2.33
1964*	March 26	3.66	October 1-5,7-9	2.31

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099100 FOX LAKE NEAR ANGOLA

GAGE LOCATION.--Lat 41°37'30", long 85°00'58", in NW¼NE¼ sec. 34, T. 37 N., R. 13 E. (ANGOLA WEST, IN quadrangle). The gage is on the northern end of the extreme eastern shore of the lake, 600 ft north of the outlet, and 1.1 mi southwest of Angola, Steuben County, Indiana.

SURFACE AREA.--142 acres.

DRAINAGE AREA.--1.25 mi².

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--1010.00 ft above NGVD of 1929.

GAGE.--A staff gage is one section is attached to a piling on the northern side of the boat pier.

ESTABLISHED LEGAL LEVEL.--8.83 ft gage datum or 1018.83 ft above NGVD of 1929 as decreed on November 2, 1949, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete, fixed-crest dam, 50 ft east of the lake in the outlet.

INLET AND OUTLET.--The lake drains the immediate surrounding area, but has no major inlets. The outlet flows from the lake at the southeastern tip and empties into Pigeon Creek, 3.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.27 ft, April 6, 1950; minimum stage, 7.92 ft, October 11, 1952.

ANNUAL EXTREME LEVELS FOR FOX LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946	June 30, July 1	9.11	September 30	8.19
1947	April 20	9.79	October 15-17	8.01
1948	February 21,22	9.62	September 19	8.11
1949	March 6	10.12	October 28	7.99
1950	April 6	10.27	October 1,2	8.44
1951*	May 10	9.29	September 30	8.38
1952*	April 18	9.19	September 29	8.17
1953*	October 1	8.16	October 11	7.92

* Incomplete record.

STREAMS TRIBUTARY FOR LAKE MICHIGAN

04099190 PLEASANT LAKE AT PLEASANT LAKE

GAGE LOCATION.--Lat 41°34'22", long 85°00'26", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 14, T. 36 N., R. 13 E. (ASHLEY, IN quadrangle). The gage is on the far northeastern shore of the lake, west of the intersection of U.S. Highway 27 and State Road 727, at the town of Pleasant Lake, Steuben County, Indiana.

SURFACE AREA.--53 acres.

DRAINAGE AREA.--1.12 mi².

PERIOD OF RECORD.--1946-66.

DATUM OF GAGE.--960.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is located on the northeastern shore of the lake.

ESTABLISHED LEGAL LEVEL.--3.52 ft gage datum or 963.52 ft above NGVD of 1929 as decreed on October 31, 1950, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--There is no artificial control. The lake is a closed basin.

INLET AND OUTLET.--The lake drains the immediate area, but has no major inlets. There is no outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.32 ft, April 30, May 1-3, 6, 7, 1950; minimum stage, 1.02 ft, November 27, 1964.

ANNUAL EXTREME LEVELS FOR PLEASANT LAKE, 1946-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 14, 15, 19-22, 24-30	3.74 3.74	September 5, 6	2.35
1947	June 17, 18	4.31	October 17	2.09
1948	May 16, 17	4.98	September 19	3.50
1949	April 5, 6	4.32	September 30	3.18
1950	April 30	6.32	December 9	3.00
	May 1-3, 6, 7	6.32		
1951*	May 11	5.78	September 30	4.38
1952	May 25, 26	5.64	September 30	3.84
1953	October 1	3.84	September 30	2.28
1954	July 7	3.08	November 18-20	1.90
1955	April 25, 26	3.98	October 1, 2	2.57

04099190 PLEASANT LAKE AT PLEASANT LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1956	May 17	4.62	October 3	2.90
1957	July 8	4.05	December 5,6	3.28
			January 20	3.28
1958	September 17,18	3.94	October 18-20	3.08
1959	April 30, May 1	4.81	September 20,21	3.22
1960	June 15	4.76	October 23	3.28
1961	May 10	4.17	February 14-16	3.26
1962	March 22,23	4.04	September 30	2.56
1963	March 26	2.95	September 30	1.95
1964	April 5	2.12	September 17	1.32
1965	May 7-9	3.10	November 27	1.02
1966	May 13,14	3.65	November 24-26	2.45
			December 9	2.45

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099200 LONG LAKE AT MOONLIGHT

GAGE LOCATION.--Lat 41°35'01", long 85°01'43", in NE¼NE¼NE¼ sec. 16, T. 36 N., R. 13 E. (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, Steuben County, Indiana.

SURFACE AREA.--92 acres.

DRAINAGE AREA.--67.9 mi².

PERIOD OF RECORD.--1946 to present.

DATUM OF GAGE.--940.10 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1977.

GAGE.--A digital water-stage recorder (hourly) 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, March 22, 1982; minimum stage, 8.98 ft, October 5-8, 1964.

ANNUAL EXTREME LEVELS FOR LONG LAKE, 1946-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 17	12.47	September 2-6	9.07
1947	April 24	14.71	October 16, 17	9.07
1948	March 1	13.88	September 15-19	9.24
1949	February 18	14.06	September 30	9.23
1950	April 6	16.41	October 3	9.21
1951	February 23, 24	14.60	September 30	9.47
1952	January 20, 21	13.86	August 27-31	9.30
			September 1	9.30
1953	March 7, 8	12.20	September 25-30	9.00
1954	March 28	13.54	October 1-4	9.00

04099200 LONG LAKE AT MOONLIGHT--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1955	October 17	13.60	October 1,2	9.18
			September 23	9.18
1956	May 2	15.40	October 1,2,4,5	9.24
1957	April 13	13.36	October 7-26	9.26
			September 12,19	9.26
1958	September 20	13.18	October 15	9.18
1959	February 16	14.70	September 17-21	9.18
1960	January 16	13.78	September 15	9.38
1961	April 28	14.93	February 3	9.25
1962	March 23	14.20	September 21,22	9.14
1963	March 19,20	13.20	July 13	9.00
1964	April 5	11.60	October 8-16	9.00
			January 5	9.00
			August 10,15	9.00
1965	March 8	14.61	October 5-8	8.98
1966	January 2	14.65	October 17,18	9.22
			September 18-20	9.22
1967	December 12-14	14.36	September 14-20	9.20
1968	February 5,6	15.10	October 6-15	9.30
1969	February 3	15.65	October 19-21	9.45
			September 1-6,11-16	9.45
1970	April 24	13.35	September 1-5,7,11-13	9.35
1971	March 2	13.50	September 1	9.16
1972	March 19,20	12.60	October 2-8,14-20	9.20
			November 8-10	9.20
1973*	June 1,2	14.20	September 18-28	9.50
1974*	January 29,30	14.60	September 2,23-29	9.40
1975*	June 3,4,6	13.60	October 5-14,17-19,26	9.45
1976*	March 6,7	15.50	September 7-9	9.40
1977*	March 7	14.02	September 13	9.36
1978*	March 26	15.74	September 10,11,28	9.40
1979*	March 7	14.32	October 31	9.36
			November 1-11	9.36
			September 30	9.36
1980*	March 21,22	14.14	October 1-6,22	9.38
1981	February 23	14.46	October 13,14,23	9.30
1982	March 22	17.42	September 16,20-24	9.30
1983*	May 4	14.07	September 15-18	9.24
1984	March 21	13.17	August 25-28	9.11
1985*	February 24	15.15	September 21,22,29	9.14

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099250 BOWER LAKE NEAR PLEASANT LAKE

GAGE LOCATION.--Lat 41°36'03", long 85°03'24", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5, T. 36 N., R. 13 E. (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, Steuben County, Indiana.

SURFACE AREA.--25 acres.

DRAINAGE AREA.--84.6 mi².

PERIOD OF RECORD.--1946-1970, 1977 to present.

DATUM OF GAGE.--940.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929, as decreed on October 28, 1959, by Steuben County Circuit Court. Golden Lake near Pleasant Lake has the same control structure and established level, hence the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel 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, March 22, 1982; minimum stage, 7.88 ft, September 14, 15, 1964.

ANNUAL EXTREME LEVELS FOR BOWER LAKE, 1946-70, 1977-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946	February 18	11.32	September 6	7.91
1947	April 24	13.90	October 1-3	7.93
1948	March 2	13.02	September 15, 16, 19	7.98
1949	February 19	13.08	October 6, 7	8.02
1950	April 7, 8	15.70	October 1, 2	8.08
1951	February 24	13.70	September 24, 25, 30	8.30
1952	January 21	13.04	August 9-15, 23-31	8.24
			September 1, 2, 6-17	8.24

04099250 BOWER LAKE NEAR PLEASANT LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1953	March 19	10.26	August 29-31	8.07
			September 1-12,16-19, 25-30	8.07
1954	March 30	12.48	October 28	8.03
			November 9-20	8.03
1955	October 17	12.63	August 3-5,10,11	8.03
1956	May 3	14.48	August 19-22	8.08
1957	April 12	12.46	October 4,5	8.15
1958	September 20	12.12	September 9,10	8.10
1959	February 17	13.69	October 7,10-14	8.12
1960	January 17	12.82	September 16-21	8.06
1961	April 28,29	14.02	September 7,8,14-18	8.20
			January 31	8.10
1962	March 23	13.50	February 1-9	8.10
1963	March 20	12.54	September 21-30	8.06
			January 13	8.05
1964	May 2	11.05	February 8-23	8.05
1965	March 10	13.70	September 14,15	7.88
1966	January 1	14.22	October 22-27	7.90
1967	December 13-15	14.00	September 18	8.14
1968	February 6	14.70	September 11-20	8.00
1969	February 3	15.30	October 1,6,7-9	8.30
			August 31	8.50
1970	April 24	12.90	September 1-17	8.50
1977*	March 8	13.31	September 11	8.30
1978*	March 10	15.24	February 8	8.16
1979	March 7	13.51	September 11	8.17
1980	March 22	13.52	September 28,29,30	8.17
1981*	February 24	13.94	October 5	8.17
1982*	March 22	17.13	October 13-15	8.56
1983	May 5	13.53	February 15	7.99
1984	March 22	12.83	September 13,14	8.24
1985*	February 27	15.23	October 9-11	8.29
			August 3,4	8.40

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099400 SILVER LAKE NEAR ANGOLA

GAGE LOCATION.--Lat 41°37'45", long 85°04'22", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 37 N., R. 13 E. (ANGOLA WEST, IN quadrangle). The gage is at the head of the outlet on the northern side of the western lobe, 3.9 mi southwest of Angola, Steuben County, Indiana.

SURFACE AREA.--238 acres.

DRAINAGE AREA.--3.79 mi².

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--950.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to a walnut tree at the head of the outlet.

ESTABLISHED LEGAL LEVEL.--9.40 ft gage datum or 959.40 ft above NGVD of 1929 as decreed on November 2, 1949, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the riffle in the outlet channel, 75 ft downstream from the gage.

INLET AND OUTLET.--The one inlet enters the lake at the northern side from Mud Lake, 0.5 mi upstream. The outlet leaves the lake at the western lobe, flows southwest, and into Hogback Lake, 0.7 mi downstream. The outlet of Hogback Lake flows into Pigeon Creek and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.90 ft, April 6, 1950; minimum stage, 8.85 ft, September 5, 6, October 10, 11, 1946.

ANNUAL EXTREME LEVELS FOR SILVER LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 19	9.65	September 5,6	8.85
1947	April 22	10.17	October 10,11	8.85
1948*	March 24	10.10	September 15-19	8.94
1949	February 16-18	10.06	October 21-24	9.01
1950	April 6	10.90	October 1,2	9.16
1951	July 10,11	10.26	November 8	9.45
1952	May 27	10.28	October 1,2	9.46
1953*	November 26	9.76	October 7-14	9.46
			November 2,11-18	9.46

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099430 BASS LAKE NEAR ANGOLA

GAGE LOCATION.--Lat 41°38'05", long 85°05'41", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 25, T. 37 N., R. 12 E. (ANGOLA WEST, IN quadrangle). The gage is on the southeastern shore of the lake, north of the bend in U.S. Highway 20, and 4.9 mi west of Angola, Steuben County, Indiana.

SURFACE AREA.--61 acres.

DRAINAGE AREA.--0.39 mi².

PERIOD OF RECORD.--1954-67.

DATUM OF GAGE.--970.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed at the southeastern shore, behind the tourist cottages.

ESTABLISHED LEGAL LEVEL.--9.68 ft gage datum or 979.68 ft above NGVD of 1929 as decreed on July 27, 1965, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The lake drains the wetland area to the west. During high water the outlet flows into Howard Lake to the northeast. During medium and low water conditions the lake is a closed basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.28 ft, June 14, 15, 17, 1960; minimum stage, 6.03 ft, November 22, 1964.

ANNUAL EXTREME LEVELS FOR BASS LAKE, 1954-67

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 7	9.26	September 28	8.56
1955	April 26	10.84	October 1	8.68
1956	May 15-21	10.94	October 1	9.34
1957	June 28, July 8	10.56	November 14, 18, 19	9.44
1958	April 16, 17	10.34	October 15	9.46
1959	May 1-3	11.10	November 6-8, 12, 13	9.40
1960	June 14, 15, 17	11.28	October 22	9.71
1961	May 9, 10	11.08	February 8-16	9.92
1962	May 6, 7	10.66	September 30	9.04
1963	October 3-7	9.08	September 29, 30	7.60
1964	October 1, 2	7.60	September 17	6.34

04099430 BASS LAKE NEAR ANGOLA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1965	April 26,27	8.03	November 22	6.03
1966	May 22-24	8.90	October 7	7.16
1967*	January 30,31	8.53	October 30,31	7.72
			November 1,2	7.72

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099440 HOWARD LAKE NEAR ANGOLA

GAGE LOCATION.--Lat 41°38'30", long 85°05'19", in NE¼NW¼NE¼ sec. 25, T. 37 N., R. 12 E. (ANGOLA WEST, IN quadrangle). The gage is on the eastern side of the lake, 600 ft north of the outlet, and 4.6 mi northwest of Angola, Steuben County, Indiana.

SURFACE AREA.--27 acres.

DRAINAGE AREA.--3.90 mi².

PERIOD OF RECORD.--1954-63.

DATUM OF GAGE.--970.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed, 600 ft north of the outlet.

ESTABLISHED LEGAL LEVEL.--7.34 ft gage datum or 977.34 ft above NGVD of 1929 as decreed on July 27, 1965, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an 18-inch corrugated metal outlet pipe.

INLET AND OUTLET.--The one inlet enters on the southwestern shore from Bass Lake, approximately 900 ft upstream. The outlet flows from the eastern shore, into an 18-inch corrugated metal pipe under the Tri-State Airport.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.54 ft, May 18-20, 1956; minimum stage, 5.81 ft, June 30, 1963.

ANNUAL EXTREME LEVELS FOR HOWARD LAKE, 1954-63

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 7	7.64	September 29	6.90
1955	November 24, 28, 29	7.94	September 23-30	6.92
1956	May 18-20	8.54	October 4	6.90
1957	April 27, 28	7.80	September 17-19, 29, 30	7.00
1958	February 14-22	7.61	October 15	6.82
			September 15	6.82
1959	April 2-8	8.00	September 22	6.66
1960	June 17, 18	8.07	October 1-3	7.08
1961	April 26	7.98	February 10-16	7.26
1962	May 7, 8	7.74	September 30	6.40
1963*	March 18, 19	6.56	June 30	5.81

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099500 HOGBACK LAKE NEAR ANGOLA

GAGE LOCATION.--Lat 41°37'39", long 85°04'59", in SE¼SE¼SE¼ sec. 25, T. 37 N., R. 12 E. (ANGOLA WEST, IN quadrangle). The gage is on the northeastern shore, 0.5 mi south of the Tri-State Airport, on County Road 500 West, and 4.4 mi southwest of Angola, Steuben County, Indiana.

SURFACE AREA.--146 acres.

DRAINAGE AREA.--103 mi².

PERIOD OF RECORD.--1946-73, 1977 to present.

DATUM OF GAGE.--940.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on October 28, 1959, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel (Pigeon Creek).

INLET AND OUTLET.--There are three inlets to the lake. One unnamed ditch enters from the north. A small tributary enters on the eastern tip from Silver Lake, 0.7 mi upstream. Pigeon Creek flows through the lake, entering at the southeastern shore from Golden Lake, 1.2 mi upstream, and leaving at the northern 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, March 22, 1982; minimum stage, 7.24 ft, September 9, 10, 1953.

ANNUAL EXTREME LEVELS FOR HOGBACK LAKE, 1946-73, 1977-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 19	10.37	September 21	7.29
1947	April 24	12.56	October 16	7.31
1948	March 2	11.77	September 3-5, 7	7.36
1949	February 19	11.92	October 4-6	7.52
1950	April 8	14.93	October 1-3	7.37
1951	February 24	12.49	September 24-28	7.70

04099500 HOGBACK LAKE NEAR ANGOLA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952	January 21	11.84	September 30	7.50
1953	March 19	9.28	September 9,10	7.24
1954	March 30	11.29	October 20-24	7.50
1955	October 17	11.52	September 20-22	7.41
1956	May 4	13.37	October 2-4	7.50
1957	April 14	11.28	September 9-11	7.49
1958	September 21	11.03	October 15	7.47
1959	February 19	12.42	September 17-24	7.60
1960	January 18	11.69	September 14-18	7.82
1961	April 29	13.16	October 13,14	7.83
1962	March 23,24	12.45	September 29,30	7.70
1963	March 20	11.64	March 2,3	7.54
1964	May 2	10.49	September 17	7.64
1965	March 9	12.92	October 6,7	7.62
1966	January 1	13.59	September 19	7.82
1967	December 14	13.30	September 8-20	7.80
1968	February 6,7	14.00	October 1-8	8.10
1969*	February 3	14.40	September 1-16	8.20
1970	April 24-27	12.10	September 10-12	8.10
1971	February 24-28	12.60	August 23-31	7.80
	March 1	12.60	September 18,19	7.80
1972	March 21-23	11.30	September 11	7.90
	April 22-25	11.30		
1973*	March 23-30	12.40	September 21-25,27,28	8.50
1977*	March 31, April 2-4	12.23	July 31, August 1-6	8.02
1978*	April 14,15	13.26	November 1-13	8.52
1979*	April 1-3	11.00	January 1-25,28-31	7.40
			February 1,4-10	7.40
1980*	December 29	11.42	October 3,4	8.08
1981*	June 17	13.39	October 13	8.47
1982*	March 22	17.07	September 13,15,16	8.35
1983	May 5	13.00	September 14,15	7.99
1984	March 22	12.37	October 11	8.06
1985*	April 2	13.48	August 3,4	8.25

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099520 OTTER LAKE NEAR FLINT

GAGE LOCATION.--Lat 41°38'08", long 85°10'18", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 29, T. 37 N., R. 12 E. (ORLAND, IN quadrangle). The gage is on the western shore of the lake, 500 ft east of State Road 327, and 6.5 mi south of Orland, Steuben County, Indiana.

SURFACE AREA.--118 acres.

DRAINAGE AREA.--6.91 mi².

PERIOD OF RECORD.--1954-66.

DATUM OF GAGE.--929.86 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1969 and 1977.

GAGE.--A staff gage in two sections is located on the western shore of the lake, 500 ft east of State Road 327.

ESTABLISHED LEGAL LEVEL.--4.15 ft gage datum or 934.15 ft above NGVD of 1929 as decreed on July 27, 1965, 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 4.15 ft gage datum or 934.01 ft above NGVD of 1919.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed crest sill during medium and low stages. During high water, a wooden gate can be installed on the downstream side of the culvert at U.S. Highway 21, in an effort to prevent Pigeon Creek from backing up into Otter Lake through the outlet.

INLET AND OUTLET.--The one inlet enters the lake on the southern shore from Gravel Lake, 0.9 mi upstream. The outlet flows from the extreme northern tip and empties into Pigeon Creek, approximately 0.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.83 ft, May 3-5, 1956; minimum stage, 2.69 ft, September 26, 27, 1954.

ANNUAL EXTREME LEVELS FOR OTTER LAKE, 1954-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 10	3.63	September 26, 27	2.69
1955	March 5	5.58	October 1	2.83
1956	May 3-5	7.83	July 13, 14	2.80
1957	April 14	6.00	August 5	3.27

04099520 OTTER LAKE NEAR FLINT--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1958	September 22	5.50	December 17	3.26
1959	April 8	6.80	October 19	3.60
1960	February 13	6.20	August 3	3.04
1961	April 30	7.12	January 31	3.28
			February 1-7	3.28
1962	March 27	6.40	January 4,5	4.10
1963	March 22	5.54	January 31	4.01
			February 1	4.01
1964	June 21,22	4.41	October 9-12	4.10
			July 2-7	4.10
			September 14	4.10
1965	March 11	6.25	May 30, August 5-7	3.99
1966	January 2	6.63	November 24,25	4.09
			July 3	4.09
			September 18,19	4.09

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099540 STORY LAKE NEAR HUDSON

GAGE LOCATION.--Lat 41°30'48", long 85°08'01", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 35 N., R. 12 E. (STROH, IN quadrangle). The gage is on the eastern side of the southern lobe of the lake in Dekalb County, 2.3 mi southeast of Helmer, Steuben County, Indiana.

SURFACE AREA.--77 acres.

DRAINAGE AREA.--3.16 mi².

PERIOD OF RECORD.--1946, 1954-66.

DATUM OF GAGE.--940.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections, one driven into the lake bed, the other mounted on a tree, is located on the eastern side of the southern lobe.

ESTABLISHED LEGAL LEVEL.--2.20 ft gage datum or 942.20 ft above NGVD of 1929 as decreed on October 4, 1960, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The one inlet enters on the southern shore from an unnamed lake, 0.3 mi upstream. The outlet flows from the northern tip of the lake and empties into Turkey Creek, 1.6 mi downstream. Turkey Creek flows into Pigeon River, which empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.87 ft, June 15, 17, 1960; minimum stage, 2.16 ft, November 14, 23-25, 1964.

ANNUAL EXTREME LEVELS FOR STORY LAKE, 1946, 1954-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	June 14	3.96	September 26	2.21
1954*	July 9	3.77	September 28	2.34
1955	October 15	4.91	September 26	2.30
1956	May 1	5.66	October 3, 4	2.27
1957	April 11	4.54	October 24, 25	2.38
			November 14	2.38
1958	September 18	5.40	October 15	2.26
1959	February 15	5.16	September 20	2.70
1960	June 15, 17	5.87	September 15, 16	2.82
1961	April 25	5.06	September 11	2.70

04099540 STORY LAKE NEAR HUDSON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1962	March 12	5.08	September 29,30	2.45
1963	March 14	5.29	October 1,2	2.44
1964	April 29	4.22	August 20	2.34
			September 16	2.34
1965	May 5	5.62	November 14,23-25	2.16
1966	December 25,26	5.52	September 27,28,30	2.52

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099560 BIG TURKEY LAKE AT STROH

GAGE LOCATION.--Lat 41°35'17", long 85°11'59", in NE¼SW¼SE¼ sec. 12, T. 36 N., R. 11 E. (STROH, IN quadrangle). The gage is in the outlet channel, 500 ft downstream from the lake, and 0.4 mi north of Stroh, Lagrange County, Indiana.

SURFACE AREA.--450 acres.

DRAINAGE AREA.--35.8 mi².

PERIOD OF RECORD.--1945-66.

DATUM OF GAGE.--920.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the bed of the outlet channel.

ESTABLISHED LEGAL LEVEL.--6.61 ft gage datum or 926.61 ft above NGVD of 1929 as decreed on June 16, 1952, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest.

INLET AND OUTLET.--There are two small inlets that enter on the southern tip of the lake. The larger of the two flows from Henry Lake, which drains Mud Creek. Turkey Creek flows through the lake, entering on the southwestern shore and leaving on the western, and into Little Turkey Lake, 1.1 mi downstream. Turkey Creek then flows into Pigeon River and eventually empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.24 ft, April 8, 1950; minimum stage, 5.33 ft, October 12-17, 1946.

ANNUAL EXTREME LEVELS FOR BIG TURKEY LAKE, 1945-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	August 13-20	5.99	September 18-24	5.64
	September 29,30	5.99		
1946	February 18,19	7.63	September 28-30	5.41
1947	April 24	9.93	October 12-17	5.33
1948	May 15,17	9.35	September 12-15	5.66
1949	February 18	9.09	October 10-16,18-24	5.76
1950	April 8	12.24	October 2	5.94
1951	December 6	9.85	September 15	5.90

04099560 BIG TURKEY LAKE AT STROH--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952	January 21-23	8.90	September 30	5.79
1953	March 22	7.50	September 17,18	5.60
1954	April 13	8.60	October 1-4,6-14	5.60
1955	October 19,20	9.48	September 22,25-30	5.94
1956	May 7	10.80	October 1-4	5.94
1957	April 14-17	9.19	September 13	5.98
1958	September 23,24	8.96	October 11-15	5.96
1959	February 18	10.08	September 20,21	5.98
1960	June 20	9.88	September 14-18	6.16
1961	April 29,30	9.98	February 11	6.05
1962	March 22	9.70	September 29,30	6.08
1963	March 21	9.36	October 1-3	6.08
1964	April 29	8.18	August 10	6.62
1965	May 10,11	10.16	October 4-7,14,15	6.74
1966	January 2-4	10.20	August 7-9	6.60

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099580 LAKE OF THE WOODS NEAR HELMER

GAGE LOCATION.--Lat 41°32'30", long 85°11'42", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 36 N., R. 11 E., Lagrange County (STROH, IN quadrangle). The gage is on the western 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, Steuben County, Indiana.

SURFACE AREA.--136 acres.

DRAINAGE AREA.--5.25 mi².

PERIOD OF RECORD.--1951-74, 1977 to present.

DATUM OF GAGE.--940.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on July 21, 1960, by the Lagrange County Circuit Court. McClish Lake near Helmer has the same established level and, hence, the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed sill.

INLET AND OUTLET.--There are four inlets to the lake. Spectacle Lakes drain into the western shore, Maumee ditch enters from the south, Goose Pond flows through a short channel to the southwestern shore, and McClish Lake drains into the lake on the southeastern shore. The outlet flows to the north from the eastern 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, December 24, 25, 1967; minimum stage, 9.81 ft, November 17-20, 1953.

ANNUAL EXTREME LEVELS FOR LAKE OF WOODS, 1951-74, 1977-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951*	July 9	11.68	September 30	10.96
1952*	January 30	11.88	September 30	10.58
1953	March 10, 11, 13-16	11.46	September 30	10.10
1954	March 26, 27	11.81	November 17-20	9.81
1955	October 15	12.24	September 21-23, 27	10.75

04099580 LAKE OF THE WOODS NEAR HELMER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1956	April 30	12.57	September 30	10.70
1957	April 12	12.08	November 15	10.50
1958	September 18,19	12.21	October 15	10.45
1959	February 7	12.70	August 22	10.72
1960	June 17	12.31	September 4	11.00
1961	April 26	12.29	October 15,16,18	10.95
			September 23	10.95
1962	March 13	12.28	September 30	10.45
1963	March 18	12.09	November 14	10.39
			December 2-5	10.39
1964	April 7	11.67	November 15-19	10.47
1965	May 7	12.42	November 25-27	10.28
1966	December 27	12.48	September 28,30	10.79
1967	December 11	12.60	September 12-20,	10.50
			24-27,29,30	10.50
1968	December 24,25	13.00	October 1-4,7-14	10.50
1969	April 20,21	12.00	September 14,15	10.90
1970	April 21-24	11.90	September 7,8	10.70
1971	February 20	12.40	August 20	10.00
1972*	March 18	12.00	October 1-23	10.40
	September 14-16	12.00	November 9-30	10.40
			December 1-9	10.40
1973*	January 10-23	12.00	October 1	10.90
	June 3-8	12.00		
1974*	December 27-31	11.80	September 30	10.60
	January 1-15	11.80		
	March 15	11.80		
1977*	March 31	12.19	October 22	11.00
1978	March 27	12.36	October 29	11.12
1979	March 20	11.73	September 28-30	10.87
1980	March 19,21, June 3	11.99	October 14-19	10.95
1981*	June 14	12.27	October 14	11.08
1982	March 18	12.73	September 5	10.59
1983*	May 2	12.29	October 29,30	10.81
1984	March 20	12.17	October 10,11	10.77
1985	February 25	12.51	August 4	11.12

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099600 BIG LONG LAKE NEAR STROH

GAGE LOCATION.--Lat 41°33'17", long 85°13'47", in NE¼NW¼NW¼ sec. 26, T. 36 N., R. 11 E. (STROH, IN quadrangle). The gage is on the northeastern shore near the eastern end of the Shady Nook Addition in the vicinity of the Shady Nook Tavern, 2.4 mi southwest of Stroh, Lagrange County, Indiana.

SURFACE AREA.--388 acres.

DRAINAGE AREA.--4.77 mi².

PERIOD OF RECORD.--1954 to present.

DATUM OF GAGE.--950.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on July 22, 1965, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed sill and removable boards.

INLET AND OUTLET.--The one inlet is a small ditch that enters at the extreme western tip. The outlet flows from the extreme northern tip, northeastward to Mud and Little Turkey Lakes, thence to Turkey Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.49 ft, March 31, 1978; minimum stage, 4.58 ft, November 27, 1964.

ANNUAL EXTREME LEVELS FOR BIG LONG LAKE, 1954-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 8-10	6.60	September 28,29	5.84
1955	October 17	7.00	September 28-30	5.90
1956	May 10	7.32	October 3	5.86
1957	April 30, May 1,2	7.00	November 16,17	5.54
			September 4-6	5.54
1958	September 18,19	6.90	October 10-12	5.40
1959	February 27,28	7.24	September 17,21,22	5.64
	March 1,2	7.24		
1960	January 14,15	7.04	November 2,3	5.90
1961	April 29	7.27	January 18,19	5.66
			February 5-13	5.66

04099600 BIG LONG LAKE NEAR STROH--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1962	March 12	7.20	September 30	5.46
1963	March 22	6.48	December 4,5	5.20
1964	May 3-9	6.18	September 30	5.02
1965	May 6,7	7.18	November 27	4.58
1966	December 31	7.08	September 30	5.96
	January 1, May 13,14	7.08		
1967	April 2-7	6.90	September 13-19,25,26	5.40
1968	June 26-28	7.40	October 3-14	5.40
1969	January 30,31	7.20	September 14,15	6.00
	February 1-4	7.20		
1970*	April 2-6	6.90	September 11-16	5.90
	May 1,2	6.90		
1971	February 19-28	7.00	September 14-30	5.40
1972*	April 25-30	6.70	November 14-28,30	5.10
	May 1-22	6.70	December 1-7	5.10
	September 27-30	6.70		
1973*	February 5	7.10	September 21,23,24,26, 28,30	6.20 6.20
1974*	May 23	6.80	September 4,26,28,30	5.70
1975*	May 1,3,5,7,9	7.30	October 3,5,21,23,26, 28,30, November 1	5.50 5.50
	June 17,19,21	7.30	September 25	6.14
1976*	July 30	6.98	November 23	5.96
1977	March 24,29	7.37	September 11,29,30	6.14
1978	March 31	7.49	November 11,12	5.93
1979	May 3-6,12,14	6.89	November 8,16-18,20	6.07
1980*	March 24,28,29	7.28	November 13,21-26	6.01
1981	June 14	7.20	September 16	5.87
1982*	March 23	7.26	September 14	5.68
1983	May 2	6.65	October 11	5.59
1984	April 22,23	6.59	August 2	5.97
1985	February 25	6.85		

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099620 PRETTY LAKE NEAR STROH

GAGE LOCATION.--Lat 41°34'31", long 85°15'22", in SW¼NE¼SE¼ sec. 16, T. 36 N., R. 11 E. (WOLCOTTVILLE, IN quadrangle). The gage is at the public fishing site on the western side of the lake, 3.0 mi southwest of Stroh, Lagrange County, Indiana.

SURFACE AREA.--184 acres.

DRAINAGE AREA.--2.89 mi².

PERIOD OF RECORD.--1949-53, 1963-65.

DATUM OF GAGE.--960.00 ft above NGVD of 1929.

GAGE.--A water-stage recorder is installed in a shelter over a stilling well in the boat slip at the public fishing site.

ESTABLISHED LEGAL LEVEL.--5.50 ft gage datum or 965.50 ft above NGVD of 1929 as decreed on November 20, 1951, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with a movable slide gage.

INLET AND OUTLET.--The one inlet enters at the northern shore. The outlet flows from the northeastern corner to the outlet of Mud Lake and thence to Turkey Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.52 ft, February 22, 1951; minimum stage, 4.54 ft, November 27, 1964.

ANNUAL EXTREME LEVELS FOR PRETTY LAKE, 1949-53, 1963-65

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949	August 18	5.34	September 30	5.00
1950	April 8	6.34	October 1,2	5.00
1951	February 22	6.52	September 30	5.13
1952	May 25,26	5.82	March 2,3,9,10	4.69
1953	November 25	5.30	November 11-18	5.08
1963	May 9,10	5.84	February 9,11-13, 16-19	4.70 4.70
1964	April 28,29	5.75	January 2-4,7	4.77
1965	May 5	5.99	November 27	4.54

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099640 LITTLE TURKEY LAKE AT ELMIRA

GAGE LOCATION.--Lat 41°35'32", long 85°12'50", in SE¹₄SE¹₄NE¹₄ sec. 11, T. 36 N., R. 11 E. (STROH, IN quadrangle). The gage is at the bridge over the inlet on County Road 350 South, at the southeastern end of the lake, 0.4 mi west of Elmira, Lagrange County, Indiana.

SURFACE AREA.--135 acres.

DRAINAGE AREA.--56.5 mi².

PERIOD OF RECORD.--1945-66.

DATUM OF GAGE.--920.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to the northern side of the western abutment of the bridge over the inlet.

ESTABLISHED LEGAL LEVEL.--5.72 ft gage datum or 925.72 ft above NGVD of 1929 as decreed on April 22, 1952, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a riffle in the outlet channel, 1,000 ft downstream of the county highway bridge.

INLET AND OUTLET.--There are two inlets to the lake. One enters on the southern shore and drains the lakes upstream. The other, Turkey Creek, flows through the lake, entering at the southeastern lobe and leaving from the western shore. Turkey Creek eventually empties into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.33 ft, April 7, 8, 1950; minimum stage, 4.63 ft, September 6, 7, October 8-10, 12, 15, 16, 1946.

ANNUAL EXTREME LEVELS FOR LITTLE TURKEY LAKE, 1945-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 30	6.11	September 19,20	4.89
1946*	February 19	6.63	September 6,7	4.63
1947	April 23,25	8.37	October 8-10,12,15,16	4.63
1948	May 17-19	8.07	September 15,16	4.80
1949	February 20	7.79	October 8-11	4.84
1950	April 7,8	10.33	October 2	5.03
1951*	February 26	8.42	September 15	4.98
1952*	January 22,23	8.00	September 13	5.27
1953	March 19	6.32	September 25,29,30	5.10
1954	April 30, May 1	7.20	October 9,10,13,14	5.08

04099640 LITTLE TURKEY LAKE AT ELMIRA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1955	October 18	8.18	September 26	5.32
1956	May 15	9.08	December 5	4.98
1957	April 29	7.60	October 18,19	5.32
1958	December 28,29	7.88	September 30	5.28
1959	February 18,19	8.80	September 19-21	5.40
1960	June 19-21	8.60	September 15-17	5.50
1961	April 30	8.63	February 10-16	5.49
1962	March 22	8.51	September 30	5.49
1963	March 23	7.73	July 13	5.33
1964	April 30, May 1-4	6.80	August 20	5.28
1965	May 7	8.79	October 6,7,23-28	5.39
1966	January 3,4	8.80	September 29,30	5.80

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099660 ROYER LAKE NEAR PLATO

GAGE LOCATION.--Lat 41°36'35", long 85°20'14", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 36 N., R. 10 E. (WOLCOTTVILLE, IN quadrangle). The gage is on the southeastern shore of the lake, 6.0 mi northeast of Wolcottville, Lagrange County, Indiana.

SURFACE AREA.--69 acres.

DRAINAGE AREA.--4.69 mi².

PERIOD OF RECORD.--1952 to present.

DATUM OF GAGE.--930.75 ft above NGVD of 1929, as corrected on the basis of levels of the USGS, 1966.

GAGE.--A staff gage in one section is driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--6.50 ft gage datum or 936.50 ft above NGVD of 1929 as decreed on May 7, 1959, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 6.50 ft gage datum or 937.25 ft above NGVD of 1929. Royer Lake has the same established level as Fish Lake near Plato and hence the same lake levels for the period of record 1966 to 1985, subsequent to the removal of the staff gage at Royer Lake.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--There are two unnamed inlets to the lake, one enters at the extreme southern tip and the other at the northeastern shore. The outlet flows from the extreme northern end of the lake and empties into Fish Lake, 700 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.88 ft, May 13, 1956; minimum stage 5.19 ft, November 20, 1953.

ANNUAL EXTREME LEVELS FOR ROYER LAKE, 1952-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952*	August 16	6.51	September 28-30	6.15
1953	January 25, 26	6.61	September 28-31	5.61
1954	July 9	7.59	November 20	5.19
1955	October 13, 16, 17	7.77	September 25, 26	6.21

04099660 ROYER LAKE NEAR PLATO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1956	May 13	8.88	June 12-29	6.10
1957	April 12,13	7.35	September 11,12	6.02
1958	September 20	7.04	October 13-15	5.94
1959	April 6	7.96	September 20,21	6.34
1960	April 19	8.07	September 8	6.24
1961	April 26	8.80	February 5-13	6.20
1962	March 14	8.24	September 28-30	6.24
1963	March 20	7.56	February 19,20	6.02
1964	April 6-9	7.40	September 16,26	5.88
1965	April 25-27	8.18	November 13-17	5.62
1966	December 29	8.54	October 18,19	6.40

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099670 FISH LAKE NEAR PLATO

GAGE LOCATION.--Lat 41°37'27", long 85°19'56", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 37 N., R. 10 E. (WOLCOTTVILLE, IN quadrangle). The gage is on the northeastern bank of the outlet channel, approximately 15 ft downstream of the lake on the northwestern side, and 1.2 mi south of Plato, Lagrange County, Indiana.

SURFACE AREA.--100 acres.

DRAINAGE AREA.--10.6 mi².

PERIOD OF RECORD.--1945 to present.

DATUM OF GAGE.--930.75 ft above NGVD of 1929, as corrected on the basis of levels of the USGS, 1966.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on May 7, 1959, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 6.50 ft gage datum or 937.25 ft above NGVD of 1929.

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 inlet enters on the northern shore of the eastern lobe from Grass Lake, approximately 1.4 mi upstream. The outlet, East Fly Creek, flows from the lake on the northwestern 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, November 17-20, 1953.

ANNUAL EXTREME LEVELS FOR FISH LAKE, 1945-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 29,30	6.32	August 29	6.04
1946*	January 10,11	7.04	September 30	5.80

04099670 FISH LAKE NEAR PLATO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947	April 22	8.54	October 16	5.60
1948	March 24,25	8.23	September 17-19,27,28	5.94
1949	February 17	7.84	October 20-30	5.90
1950	April 5	9.19	October 1,2	6.30
1951*	October 1	6.86	November 4,5	6.50
1952*	August 17	6.54	September 28-30	6.19
1953	March 16-18	6.84	September 29,30	5.62
1954	July 9	7.64	November 17-20	5.32
1955	October 15	7.70	September 26,27	6.30
1956	May 13	8.98	January 12-19,22-27	6.12
1957	April 12,13	7.42	September 11,12	6.06
1958	September 20	7.14	October 13-15	5.96
1959	April 8	7.95	September 21	6.40
1960	April 19	8.04	August 26-29	6.31
1961	April 26	8.78	January 22	6.00
1962	March 14	8.32	September 29,30	6.33
1963	March 21-23	7.69	February 19,20	6.10
1964	April 7	7.54	September 17-19,27-30	6.02
1965	April 28	8.36	November 24-27	5.76
1966	December 29	8.70	October 19	6.51
1967	December 12	9.00	September 13-20	6.00
1968	June 28,29	9.10	October 3-15	6.10
1969	January 31	8.90	August 30,31	6.20
			September 1-5	6.20
1970	April 22-25	7.90	September 2-4,11-14	6.20
1971	February 8,9,20-23	7.60	September 1-30	5.90
	March 18-20	7.60		
1972*	April 19-21	7.70	October 26-31	5.90
	May 16-18	7.70	November 1-3	5.90
			December 1-8	5.90
1973	January 1-5	8.10	July 2	5.90
1974*	March 9-11	8.40	October 1	6.20
			August 9-11,26-31	6.20
			September 1-11,21-30	6.20
1975*	June 30	7.70	October 6-10	6.20
1976*	March 7	8.75	October 1-19	6.30
1977*	March 29-31	8.20	February 4,5	6.20
	April 1	8.20		
1978*	March 24	8.84	September 5-9	6.46
1979*	March 8	8.35	September 27-30	6.43
1980	April 10	7.80	October 1	6.47
1981	June 14,15	9.23	October 11-13	6.70
1982	March 17	9.08	September 5,16	6.47
1983	May 3	8.12	September 15	6.42

04099670 FISH LAKE NEAR PLATO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1984	March 21	7.76	July 23	6.39
1985	February 25	8.98	August 4	6.50

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099700 NORTH TWIN LAKE NEAR HOWE

GAGE LOCATION.--Lat 41°43'45", long 85°27'49", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 38 N., R. 9 E. (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, Lagrange County, Indiana.

SURFACE AREA.--135 acres.

DRAINAGE AREA.--1.54 mi².

PERIOD OF RECORD.--1953 to present.

DATUM OF GAGE.--840.00 ft above NGVD of 1929.

GAGE.--A staff gage is attached to the eastern concrete retaining wall of the control dam.

ESTABLISHED LEGAL LEVEL.--3.56 ft gage datum or 843.56 ft above NGVD of 1929 as decreed on September 11, 1959, by the Lagrange County Circuit Court. South Twin Lake near Howe has the same established level and, hence, the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--Prior to October 1, 1982, the low water control was a fixed-crest dam with removable boards at the upstream end of the channel between the two lakes. At high stages the outlet channel of South Twin Lake was the control. After October 1, 1982, a concrete dam with a fixed crest was installed in the outlet of South Twin Lake. This is now the control structure for both North and South Twin Lakes, although the original structure is still in place.

INLET AND OUTLET.--There are two inlets to the lake. One enters at the southeastern shore from Still Lake, 0.9 mi upstream, and the other, which drains the adjacent marsh land, enters on the northwestern shore. The outlet flows from the southwestern shore and into South Twin Lake, approximately 200 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.20 ft, February 26, 1985; minimum stage, 2.97 ft, August 20, 1964.

ANNUAL EXTREME LEVELS FOR NORTH TWIN LAKE, 1953-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1953*	May 19	3.57	September 18	3.21
1954	July 7	3.92	October 11	3.28

04099700 NORTH TWIN LAKE NEAR HOWE--Continued

Water year	Maximum		Minimum	
	Date	Cage height (feet)	Date	Cage height (feet)
1955	October 14	4.00	September 21,22	3.33
1956	May 14	4.61	September 30	3.23
1957	May 24	3.74	December 21-31	3.00
			January 1-6	3.00
1958	July 4	3.80	November 25	3.20
1959	April 4	3.80	September 20,21	3.14
1960	April 19, June 16,17	3.68	October 23	3.20
	July 3	3.68		
1961	April 26-28	4.03	February 9-16	3.24
1962	March 13	3.84	September 21	3.16
1963	August 3	3.72	July 12,13	3.14
1964	December 9	3.68	August 20	2.97
1965	August 9	3.90	October 27-28	3.21
1966	December 25	4.10	May 7,10	3.56
1967	December 7,8	4.00	January 2-14,19,20	3.20
1968	June 28	4.00	August 27-31	3.50
1969	February 4	4.00	September 1,2	3.50
1970	April 3,4,20-23	3.80	August 12-22,26-31	3.50
	May 13-16,20-28	3.80	September 1-5	3.50
1971	October 16	3.80	July 4,13-19,23,24	3.40
	February 5-9	3.80	August 4-10,18-21	3.40
1972	December 30,31	3.80	November 7,8,10-13	3.50
	January 1,2	3.80	June 4-14,18-28	3.50
	March 13-17	3.80	July 11	3.50
	September 19,20	3.80	August 20-22	3.50
			September 4-11	3.50
1973*	November 13-25	3.80	October 5-22	3.60
	December 17-31	3.80	May 7,11-22	3.60
	January 1-6	3.80	June 21-23,25-30	3.60
	March 18-20,29-31	3.80		
	April 1,2,5,21,22	3.80		
	May 2,25-31,	3.80		
	June 1-10	3.80		
1974	March 10,11	3.90	July 27-30	3.40
1975	April 28	3.90	July 25-31	3.50
			August 1,2	3.50
1976	March 10-14	4.58	September 8-11	3.52
1977	March 29-31	3.76	May 27-31	3.50
	April 1,2	3.76	June 1-9,14-18,22-30	3.50
	September 20	3.76		
1978	April 1-3	4.38	September 12	3.56
1979	July 1	3.86	October 4	3.55
1980*	May 16, June 6,7	3.80	October 4	3.55
1981*	June 13-23,25,28-30	3.90	May 29	3.60
1982*	March 28,30	4.10	September 17	3.50

04099700 NORTH TWIN LAKE NEAR HOWE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1983*	May 5,7	3.84	September 2,3,9	3.56
1984*	November 29	3.84	August 28-30	3.40
	December 7	3.84		
1985	February 26	5.20	July 25	3.40

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099740 SHIPSHEWANA LAKE NEAR SHIPSHEWANA

GAGE LOCATION.--Lat 41°40'53", long 85°36'03", in SE¼NE¼NE¼ sec. 9, T. 37 N., R. 8 E. (SHIPSHEWANA, IN quadrangle). The gage is on the southern shore of the lake at the public fishing site, 1.1 mi northwest of Shipshewana, Lagrange County, Indiana.

SURFACE AREA.--202 acres.

DRAINAGE AREA.--6.74 mi².

PERIOD OF RECORD.--1951 to present.

DATUM OF GAGE.--850.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on March 8, 1956, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a sheet-piling dam with a fixed crest at three elevations.

INLET AND OUTLET.--The principal inlet enters on the southern shore from Cotton Lake, 2.0 mi upstream. Another small ditch enters on the western shore. The outlet is on the extreme eastern tip of the lake and flows to the northeast through Page ditch, which empties into Pigeon River, 6.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.33 ft, March 20, 1982; minimum stage, 1.39 ft, September 19-22, 1955.

ANNUAL EXTREME LEVELS FOR SHIPSHEWANA LAKE, 1951-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951*	July 9-12	2.25	August 4,5	1.79
1952	May 26-29	2.61	September 27-30	1.81
1953	December 2-7	2.09	September 15-18, 24, 25	1.51
1954	April 27, 28	2.68	October 21-23, 25, 26	1.47
1955	October 17	2.81	September 19-22	1.39
1956	May 19	2.95	October 2-4	1.57
1957	April 26, 27	2.56	October 12-21	1.94

04099740 SHIPSHEWANA LAKE NEAR SHIPSHEWANA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1958	March 5,6	2.63	October 14,15	1.96
1959	April 3,4	2.64	September 20	1.68
1960	June 17	2.78	October 3	1.98
1961	April 26	2.94	June 18	2.00
1962	March 15	2.75	September 30	1.59
1963	March 20	2.76	October 2	1.58
1964	April 8	2.57	September 18	1.49
1965	April 27	2.63	October 28	1.53
1966	August 23	2.80	August 10	1.60
1967	March 16,17,24,25,31	2.70	August 16-19	1.90
	April 3-5	2.70		
1968	February 2-6	2.90	October 1-15	2.20
			June 21-23	2.20
1969	January 29,30	2.90	September 23	2.00
1970*	November 4-6,19-30	2.40	August 31	2.00
	June 1-10	2.40	September 1-7,9-14	2.00
1971	December 1,2,4-6	2.60	June 18,19,22-25,	2.00
			27-30, July 1-19,	2.00
			22-25,28, August 2-9,	2.00
			19-21,23-31	2.00
			September 1-3,6,14-23	2.00
1972*	March 30, April 15	2.60	June 24,25,28	2.00
			July 4,5,14	2.00
			August 31	2.00
1973	January 2-5	2.80	September 13-30	2.10
1974	January 24-30	2.80	August 15	1.90
	March 7-11	2.80	September 6-11	1.90
1975	February 26-28	2.60	October 8-13	2.00
	March 1, April 21-30	2.60		
	May 1-3,6-9	2.60		
1976*	March 5-8	2.90	September 6-9	2.10
1977*	March 9	2.76	June 5	2.09
1978*	March 24	2.94	August 18,19,22,23	2.08
1979*	April 5	2.74	July 23,24,27-31	2.15
1980*	April 8-11	2.71	July 25,26	2.14
1981	July 28	3.07	November 12,13,20-23	2.27
1982	March 20	3.33	September 16,23	2.22
1983	May 4	2.85	September 14,15	2.07
1984	February 19	2.80	October 9-11	2.12
1985	February 26	3.27	July 7,8,24	2.20
			August 2-4,12	2.20

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099760 FISH LAKE NEAR SCOTT

GAGE LOCATION.--Lat 41°45'25", long 85°38'54", in NW¹₄NW¹₄SE¹₄ sec.7, T. 38 N., R. 8 E. (MIDDLEBURY, IN quadrangle). The gage is on the northwestern shore of the lake, on the northern side of the outlet channel, 4.8 mi northwest of Scott, Lagrange County, Indiana.

SURFACE AREA.--139 acres.

DRAINAGE AREA.--6.21 mi².

PERIOD OF RECORD.--1954-69, 1978 to present.

DATUM OF GAGE.--809.84 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1975.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on September 11, 1959, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 4.42 ft gage datum or 814.26 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed concrete sill with removable boards.

INLET AND OUTLET.--The inlet, Fetch ditch, enters on the southeastern shore. The outlet flows from the lake at the lower western shore and empties into Pigeon River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.61 ft, February 26, 1985; minimum stage, 1.54 ft, November 26, 1964.

ANNUAL EXTREME LEVELS FOR FISH LAKE, 1954-69, 1978-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 10	4.13	September 29,30	3.34
1955	October 18	4.35	September 22	2.92
1956	March 7	4.32	November 26	3.00
1957	April 30, May 1	3.91	September 30	2.83
1958	April 19,20,25	3.98	October 15	2.60
			November 9	2.60

04099760 FISH LAKE NEAR SCOTT--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1959	February 15, April 9	4.80	December 31	2.94
1960	June 17	5.00	October 22,24	3.25
1961	April 26	4.95	February 14-16	3.79
1962	March 22	4.75	September 30	3.24
1963	May 17	3.56	February 1	2.70
1964	June 23	2.91	September 26	1.95
1965	May 7-10	4.51	November 26	1.54
1966	December 25,26	4.85	September 28	3.46
1967	April 4-7,24	4.80	October 31	3.10
			November 1,5-7	3.10
1968	June 27-30, July 1	4.80	October 4-14	3.20
1969	December 29	4.90	September 22	3.80
1978*	July 2	4.53	September 30	3.54
1979*	March 9-12	4.85	November 12	3.23
1980*	April 16-18	4.93	October 15,16,19,20	3.73
1981*	June 15	5.01	November 11	4.09
1982	March 22	5.47	September 16	3.98
1983*	May 8,9	4.90	October 30	3.77
1984	May 26	4.70	September 24	3.42
1985	February 26	5.61	October 5,6	3.39

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099780 STONE LAKE NEAR SCOTT

GAGE LOCATION.--Lat 41°44'32", long 85°39'03", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18, T. 38 N., R. 8 E., Lagrange County (MIDDLEBURY, IN quadrangle). The gage is on the southeastern 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, Elkhart County, Indiana.

SURFACE AREA.--152 acres.

DRAINAGE AREA.--1.51 mi².

PERIOD OF RECORD.--1954-71, 1975-76, 1978 to present.

DATUM OF GAGE.--810.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on July 28, 1966, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete sill.

INLET AND OUTLET.--The inlet enters on the eastern end of the southern 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, April 16-30, 1969; minimum stage, 5.34 ft, November 26, 1964.

ANNUAL EXTREME LEVELS FOR STONE LAKE, 1954-71, 1975-76, 1978-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 7	8.62	September 28-30	8.01
1955	April 25, 26	9.28	October 2	8.00
1956	March 7	9.08	October 2-4	8.11
1957	April 27, 28	8.50	September 30	7.32
1958	April 7-11	7.90	October 13-15	7.14
1959	May 23-26	8.42	January 18, 19	6.86
1960	July 3, 4	9.22	October 22, 23, 24	7.38
1961	May 9-11	9.20	September 11, 23	8.36
1962	June 11, 12	8.78	September 30	7.54
1963	March 29, 30	7.76	September 30	6.72

04099780 STONE LAKE NEAR SCOTT--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1964	May 16,17	6.82	September 26	5.63
1965	May 10,11	7.08	November 26	5.34
1966	May 22,25	8.57	October 18,19	6.88
1967	May 11-21	8.70	October 24,25,28-31	7.30
			November 1-8	7.30
1968	June 25-30	8.90	October 1-15	7.50
	July 1-5,10	8.90		
1969	April 16-30	9.60	November 13,14,16	8.30
1970*	June 1-3	9.10	December 30,31	7.80
			January 1-24	7.80
1971*	April 1-19	8.90	September 16-19,22-30	7.30
1975*	June 16,18-25	9.00	February 11-28	8.20
	July 3-8	9.00	March 1-16	8.20
1976*	August 2	8.99	September 21	7.90
1978*	May 14-16,20	8.33	November 13-15,18,19, 23,24	7.39
1979*	May 13	8.30	November 11,12	7.26
1980*	June 7	8.58	October 29,30	7.46
1981	June 14,15	9.10	November 21,22,24-26	7.90
1982*	April 5,6	8.96	September 16	8.17
1983	May 7	8.90	October 30	8.03
1984	April 22,23	8.74	September 6	7.62
	May 25	8.74		
1985	April 5	8.93	October 5,6	7.62

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099800 EMMA LAKE NEAR EMMA

GAGE LOCATION.--Lat 41°36'20", long 85°32'30", in SE¹SE¹NE¹ sec. 1, T. 36 N., R. 8 E. (TOPEKA, IN quadrangle). The gage is on the eastern shore of the lake, 0.4 mi south of the town of Emma, Lagrange County, Indiana.

SURFACE AREA.--42 acres.

DRAINAGE AREA.--13.6 mi².

PERIOD OF RECORD.--1954-66.

DATUM OF GAGE.--868.99 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1975-76.

GAGE.--A staff gage in one section is driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--10.87 ft gage datum or 880.87 ft above NGVD of 1929 as decreed on July 22, 1965, 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 10.87 ft gage datum or 879.86 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--There are two unnamed inlets that flow into the lake from the south. The outlet, Emma Creek (Bontrager ditch), leaves at the extreme northern tip and empties into the Little Elkhart River ditch, 3.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.81 ft, May 13, 1956; minimum stage, 10.00 ft, October 15, 1959.

ANNUAL EXTREME LEVELS FOR EMMA LAKE, 1954-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 7	12.95	September 30	10.72
1955	October 12	13.09	August 14	10.02
1956	May 13	13.81	November 11	10.24
1957	June 29	11.45	December 6	10.01
1958	September 19	11.72	October 15	10.32
1959	April 2	12.42	January 12	10.51
1960	June 17	12.30	October 15	10.00

04099800 EMMA LAKE NEAR EMMA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961	April 23	12.54	January 28,29	10.43
			February 2-5	10.43
1962	March 12	13.23	January 2,3	10.64
1963	March 14	11.96	January 17,18	10.58
1964	June 23	11.42	October 13-18	10.58
1965	May 23	12.66	November 22-26	10.88
1966	December 26	13.30	August 9	11.12

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099810 CASS LAKE NEAR SHIPSHAWANA

GAGE LOCATION.--Lat 41°41'42", long 85°38'18", in SW¼NW¼NW¼ sec. 5, T. 37 N., R. 8 E. (MIDDLEBURY, IN quadrangle). The gage is on the northeastern shore of the lake, at the beach area in the Foxwood Hills Addition, and 3.3 mi northwest of Shipshewana, Lagrange County, Indiana.

SURFACE AREA.--89 acres.

DRAINAGE AREA.--0.68 mi².

PERIOD OF RECORD.--1971 to present.

DATUM OF GAGE.--840.95 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 southwestern shore 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, 3.81 ft, July 28, 1981; minimum stage, 1.80 ft, May 15, 1971.

ANNUAL EXTREME LEVELS FOR CASS LAKE, 1971-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1971*	February 5,6	2.15	May 15	1.80
1972*	July 20-22	2.25	October 3,7-11,13-19	1.90
1973	December 30,31	2.40	September 15-17,21-26	1.90
	January 1,4	2.40		
	March 20, May 30,31	2.40		
	June 4,5	2.40		
1974	December 27	2.25	August 31	1.85
	June 23	2.25	September 1,2,4-7	1.85
1975*	June 16-19	2.45	October 1-12, 21,22	1.90
	August 3	2.45	April 16-18	1.90
1976*	March 5	2.68	October 3-8,13-18	2.16

04099810 CASS LAKE NEAR SHIPSHEWANA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1977*	February 26	3.02	June 2-4	2.14
1978	April 6	3.04	June 15,22-25	2.38
			August 22-26	2.38
1979	August 20-30	2.99	June 19	2.50
1980	September 2	3.30	May 9,10	2.50
1981	July 28	3.81	April 8	2.74
1982	October 1	3.32	September 16	2.78
	March 31	3.32		
1983	December 5	3.27	September 15	2.73
1984	May 25,26	3.18	September 6	2.52
1985	March 4-7,12	3.18	June 14	2.11

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099820 HUNTER LAKE NEAR MIDDLEBURY

GAGE LOCATION.--Lat 41°43'16", long 85°40'10", in NE¼SE¼NW¼ sec. 25, T. 38 N., R. 7 E. (MIDDLEBURY, IN quadrangle). The gage is at the middle of the western shore, 3.7 mi northeast of Middlebury, Elkhart County, Indiana.

SURFACE AREA.--99 acres.

DRAINAGE AREA.--0.51 mi².

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--850.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--6.90 ft gage datum or 856.90 ft above NGVD of 1929 as decreed on September 25, 1950, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The lake has no surface inlets. The outlet flows from the southern tip of the lake into East Lake ditch, which joins Mather ditch, and eventually empties into Little Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.16 ft, April 25, 1950; minimum stage, 6.40 ft, October 15, 16, 1946.

ANNUAL EXTREME LEVELS FOR HUNTER LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	January 7,8	7.94	September 29,30	6.54
1947	June 2	7.86	October 15,16	6.40
1948	March 24-27	7.76	September 18,19	6.96
1949	February 15,16	7.50	October 20-30	6.90
1950	April 25	8.16	October 2	7.16
1951	January 5	7.72	September 29,30	7.20
1952	January 5	7.84	October 19-22	7.18
1953*	November 26	7.36	October 14	7.18
			November 8-17	7.18

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099840 WOLF LAKE NEAR GOSHEN

GAGE LOCATION.--Lat 41°37'31", long 85°49'36", in SE¼SW¼SW¼ sec. 27, T. 37 N., R. 6 E. (BRISTOL, IN quadrangle). The gage is on the northwestern shore of the lake at the southern side of a boat slip, and 2.7 mi north of Goshen, Elkhart County, Indiana.

SURFACE AREA.--100 acres.

DRAINAGE AREA.--1.29 mi².

PERIOD OF RECORD.--1947-56.

DATUM OF GAGE.--810.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to a post at the edge of the boat slip.

ESTABLISHED LEGAL LEVEL.--3.00 ft gage datum or 813.00 ft above NGVD of 1929 as decreed on October 7, 1954, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The lake drains the adjacent wetland. The outlet flows from the lake on the northwestern shore and into Pine Creek, 1.4 mi downstream. Pine Creek eventually empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.20 ft, October 17, 1954; minimum stage, 2.05 ft, September 22, 1955.

ANNUAL EXTREME LEVELS FOR WOLF LAKE, 1947-56

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947*	April 21	4.66	August 24	2.37
1948	March 22	4.80	September 16-20	2.30
1949	February 15	4.56	October 21-31	2.18
			November 1-3	2.18
1950	April 4	5.18	October 2	2.65
1951	February 21-23	4.64	November 7	2.40
1952	January 20	4.68	September 30	3.20
1953	March 15	4.40	September 18, 28-30	2.42
1954	April 26	4.94	October 26	2.21
			November 20, 21	2.21

04099840 WOLF LAKE NEAR GOSHEN--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1955	October 17	5.20	September 22	2.05
1956	May 12	5.10	October 4	2.11

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099860 HEATON LAKE NEAR ELKHART

GAGE LOCATION.--Lat 41°44'14", long 85°54'42", in NW¼NE¼NE¼ sec. 23, T. 38 N., R. 5 E. (ELKHART, IN quadrangle). The gage is on the eastern bank of the inlet, on the northern shore of the lake, and 4.7 mi northeast of the main Post Office in Elkhart, Elkhart County, Indiana.

SURFACE AREA.--87 acres.

DRAINAGE AREA.--9.33 mi².

PERIOD OF RECORD.--1946-53, 1970-75, 1977 to present.

DATUM OF GAGE.--760.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on September 25, 1950, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

INLET AND OUTLET.--The one inlet enters the lake at the extreme northern point of the lake. The outlet, Putterbaugh Creek, flows from the western 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, February 26, 1985; minimum stage, 4.55 ft, November 12-18, 1971.

ANNUAL EXTREME LEVELS FOR HEATON LAKE, 1946-53, 1970-75, 1977-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 9,10	7.83	September 30	5.43
1947	June 3	8.58	October 15	5.27
1948	March 22	8.40	September 28,30	6.20
	May 13	8.40		
1949	February 15	8.26	November 1,2	5.82
1950	June 4	9.01	October 2	6.01
1951	June 23	7.99	November 5	6.70
1952	May 26	8.37	October 4,5	6.72
1953*	November 29,30	6.88	November 16	6.60
1970*	April 21-24	8.08	September 30	5.92
1971	March 17,18	8.04	September 24-26,30	4.80

04099860 HEATON LAKE NEAR ELKHART--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1972	March 17	8.05	November 12-18	4.55
	April 21,22	8.05		
1973*	April 24	8.75	September 27,28	5.90
1974*	May 17-19,22-24	8.30	November 13-23	5.70
1975*	February 23-25	8.00	October 25-28	5.80
	June 16	8.00		
1977*	March 29	8.18	February 14,15	6.10
1978	April 7	8.82	September 30	6.09
1979	May 3,4	8.37	November 12	5.21
1980*	April 10-12	8.33	August 9	6.84
1981*	July 29	9.15	November 26	7.31
1982	April 3	8.61	September 16	7.25
1983	May 3	8.61	September 18	6.36
1984*	May 28	8.57	October 20,21	6.28
1985	February 26	9.73	September 30	5.75

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099880 SIMONTON LAKE NEAR ELKHART

GAGE LOCATION.--Lat 41°45'05", long 85°57'28", in NE¼NE¼NW¼ sec. 16, T. 38 N., R. 5 E. (ELKHART, IN quadrangle). The gage is on the southern shore between the two large lobes of the lake, at the public fishing site, and 4.5 mi north of the main Post Office in Elkhart, Elkhart County, Indiana.

SURFACE AREA.--303 acres.

DRAINAGE AREA.--7.44 mi².

PERIOD OF RECORD.--1946 to present.

DATUM OF GAGE.--770.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on September 25, 1950, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--Two small drainage ditches enter the lake on the eastern shore. The outlet, Osolo Township ditch, flows from the lake at the southeastern tip and into the St. Joseph River, 4.0 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.42 ft, February 24, 1985; minimum stage, 1.36 ft, September 7, 1946.

ANNUAL EXTREME LEVELS FOR SIMONTON LAKE, 1946-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 7,8	2.34	September 7	1.36
1947	June 2	2.72	October 16,17	1.44
1948	February 28	2.65	September 18,19	1.93
1949	February 15	2.56	September 4,17	1.83
1950	March 27	2.68	October 1,2	1.86
	April 4,5,25	2.68		
1951	May 18	2.58	November 6,7	2.14
1952	January 1,2,20	2.72	September 14,30	2.16
1953	March 16	2.47	September 17,18	1.72
1954	July 7,8	2.70	October 24,25	1.66
1955	October 17,18	2.88	September 22	1.96

04099880 SIMONTON LAKE NEAR ELKHART--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1956	May 12	2.77	October 4,5	2.08
1957	April 28	2.60	August 23	1.90
1958	July 4,6	2.66	October 13-15	1.82
1959	February 14-18,26-28	2.73	September 20,21	1.79
	March 1,6-8	2.73		
1960	February 11	2.80	October 3,4	2.10
1961	April 25	2.84	August 22	2.00
1962	March 22	2.80	September 30	1.93
1963	March 21	2.75	October 2	1.90
1964	April 28	2.61	September 17	1.77
1965	April 25	2.81	November 15,26,27	1.80
1966	May 12	2.87	September 24,28	2.04
1967	January 27-31	2.80	September 11-20,26	1.90
	February 1-7	2.80		
	March 21-29	2.80		
	April 2-6,17,21-30	2.80		
	May 1-8,11-15	2.80		
1968	December 24	2.90	October 1-15	2.00
	February 2,3	2.90		
	June 26	2.90		
1969	January 30	3.00	September 19-30	2.20
1970	April 20-23	2.90	October 1-6,8-10	2.20
	May 15,16	2.90		
1971	February 19-26	3.10	September 3	1.80
1972	March 13-18,20	2.80	October 17-21	1.90
	April 17-27,29,30	2.80	November 3-21,25	1.90
	May 1-3,7-21	2.80		
1973	April 22,23	3.00	September 14-29	2.00
1974	May 15-20,22-24	2.90	October 1	2.00
	June 23	2.90		
1975*	April 28	2.90	October 1-22,28-31	2.20
		2.90	November 1,2	2.20
1976*	April 25, May 7	3.00	September 23-26	2.20
1977*	March 29	2.92	August 4-6	2.07
1978*	April 9,10	2.86	September 29	2.09
1979*	March 9	2.92	October 2,4	2.08
1980	March 17,24, April 9	2.85	August 9	2.21
1981	May 29	3.23	October 13,14	2.44
1982*	April 17	3.05	September 16	2.56
1983*	May 24	2.95	September 15,17	2.21
1984	May 25	3.04	October 19,20	2.37
1985	February 24	3.42	September 29	2.11

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04099950 INDIANA LAKE NEAR BRISTOL

GAGE LOCATION.--Lat 41°45'28", long 85°50'07", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 38 N., R. 6 E. (BRISTOL, IN quadrangle). The gage is on the western side of the lake, about 0.1 mi south of the Indiana/Michigan border, and 2.7 mi northwest of Bristol, Elkhart County, Indiana.

SURFACE AREA.--122 acres.

DRAINAGE AREA.--0.62 mi².

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--750.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed, 30 ft from shore.

ESTABLISHED LEGAL LEVEL.--9.73 ft gage datum or 759.73 ft above NGVD of 1929 as decreed on September 25, 1950, by the Elkhart County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a culvert under the road at the northern edge of the lake.

INLET AND OUTLET.--There is one small inlet at the southern end of the lake. The outlet flows from the northern end into Baldwin Lake in Michigan, and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.00 ft, April 25, 1950; minimum stage, 9.18 ft, July 31, August 1-8, 18-31, September 1-14, 1946.

ANNUAL EXTREME LEVELS FOR INDIANA LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	November 9,10	9.72	July 31, August 1-8, 18-31, September 1-14	9.18 9.18
1947	May 18,19,22-25	10.12	October 1-5,13-15	9.26
1948	May 11-13	10.32	October 24-26	9.48
1949	March 30,31	10.26	October 7-9	9.62
	April 1-3	10.26		
1950	April 25	11.00	October 1,2	9.66
1951	February 18	10.28	September 22-30	9.86
1952	May 25	10.56	October 1,18-22	9.86
1953*	November 25-29	10.10	October 11-14	9.88

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100010 CREE LAKE NEAR KENDALLVILLE

GAGE LOCATION.--Lat 41°30'12", long 85°16'24", in NW¼NE¼SE¼ sec. 8, T. 35 N., R. 11 E. (WOLCOTTVILLE, IN quadrangle). The gage is on the southern shore of the lake, 4.3 mi north of Kendallville, Noble County, Indiana.

SURFACE AREA.--58 acres.

DRAINAGE AREA.--4.85 mi².

PERIOD OF RECORD.--1949-66.

DATUM OF GAGE.--940.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is mounted on a piling in the lake bed.

ESTABLISHED LEGAL LEVEL.--5.23 ft gage datum or 945.23 ft above NGVD of 1929 as decreed on August 5, 1952, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a pipe culvert with removable boards.

INLET AND OUTLET.--Little Elkhart Creek flows through the lake, entering from the southeast and leaving on the northern shore.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.25 ft, April 4, 1950; minimum stage, 4.10 ft, November 10-14, 1956.

ANNUAL EXTREME LEVELS FOR CREE LAKE, 1949-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949*	May 23,24	5.31	September 30	4.54
1950	April 4	7.25	October 2	4.52
1951	February 22	6.79	September 30	4.54
1952	May 27	6.06	September 30	4.49
1953	March 7	5.92	November 1,2	4.32
1954	July 10	6.40	November 16-21	4.30
1955	October 15	6.68	May 21-23	4.41
1956	April 29	6.90	September 29,30	4.36
1957	April 12,13	5.80	November 10-14	4.10
1958	September 18	6.76	October 13-15	4.24
1959	February 15	6.48	December 18-24	4.46
1960	June 14	6.64	March 13,14	4.58
1961	April 26	6.10	February 12-14	4.60
1962	March 12	7.02	September 29,30	4.28

04100010 CREE LAKE NEAR KENDALLVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1963	August 5,6	6.24	October 1-3	4.26
1964	May 1	5.88	August 10,17-20	4.80
1965	March 7,8	6.36	November 15,16	4.69
1966	December 27	6.26	February 7	4.92

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100020 BLACKMAN LAKE NEAR WOLCOTTVILLE

GAGE LOCATION.--Lat 41°32'56", long 85°17'04", in SW¼SE¼NW¼ sec. 29, T. 36 N., R. 11 E. (WOLCOTTVILLE, IN quadrangle). The gage is on the southeastern shore of the lake, 1.3 mi northwest of South Milford, Lagrange County, Indiana.

SURFACE AREA.--67 acres.

DRAINAGE AREA.--0.98 mi².

PERIOD OF RECORD.--1953-59.

DATUM OF GAGE.--970.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--4.20 ft gage datum or 974.20 ft above NGVD of 1929 as decreed on September 11, 1959, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

INLET AND OUTLET.--The lake drains the immediately surrounding wetlands. The outlet flows from the lake at the western end and into Adams Lake, 2.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.64 ft, February 14, 1959; minimum stage, 2.05 ft, November 20-22, 1953.

ANNUAL EXTREME LEVELS FOR BLACKMAN LAKE, 1953-59

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1953*	June 6,7	3.49	September 29,30	2.35
1954	April 26	3.81	November 20-22	2.05
1955	October 21-23	3.83	September 30	2.73
1956	April 29,30	4.51	October 5,6	2.63
1957	April 13	4.39	October 11-19	2.87
1958	September 20	4.61	October 15	3.16
1959*	February 14	4.64	June 22,23	2.50

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100030 ADAMS LAKE NEAR WOLCOTTVILLE

GAGE LOCATION.--Lat 41°33'15", long 86°19'11", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 25, T. 36 N., R. 10 E. (WOLCOTTVILLE, IN quadrangle). The gage is on the eastern side of the lake on a dredged inlet, at the public access site, and 3.1 mi northeast of Wolcottville, Lagrange County, Indiana.

SURFACE AREA.--308 acres.

DRAINAGE AREA.--5.62 mi².

PERIOD OF RECORD.--1946 to present.

DATUM OF GAGE.--949.90 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1976.

GAGE.--A digital water-stage recorder (hourly) is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the southwestern 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 NGVD of 1929 as decreed on December 17, 1949, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 3.59 ft gage datum or 953.49 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with a fixed crest "V" notch weir.

INLET AND OUTLET.--One inlet enters on the eastern 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, January 8, 1954.

ANNUAL EXTREME LEVELS FOR ADAMS LAKE, 1946-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 18,19	3.90	September 30	2.45
1947*	April 23	4.28	October 14	2.27
1948	May 16,17	4.30	September 28,29	2.67
1949	February 26	4.14	October 27,28	2.50

04100030 ADAMS LAKE NEAR WOLCOTTVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1950	April 5	4.80	October 2	2.87
1951	February 22-24	4.28	January 21	3.04
1952	April 16	4.25	October 4, 6	3.22
1953	April 28	4.42	September 30	2.57
1954	April 27	4.42	January 8	2.12
1955	October 18	4.34	September 27	3.29
1956	May 13	4.70	February 8	3.00
1957	April 24, 25	4.20	November 16	2.98
1958	September 20-26	4.00	October 14-16	2.96
1959	February 16, 17	4.54	November 12	3.46
1960	April 19, 20	4.47	September 17	3.24
1961	April 26	4.50	January 17-19	3.20
			February 6-12	3.20
1962	March 19, 20	4.42	September 30	3.04
1963	April 2, 3	4.01	February 19	2.69
1964	May 1	3.89	September 17	2.58
1965	May 7	4.62	November 4, 5	2.13
1966	December 31	4.40	September 19	3.00
	May 15-19	4.40		
1967	April 2	4.50	August 6-10, 25, 26	2.70
			September 4-9	2.70
1968	February 3	4.80	October 4-7	2.70
	June 28	4.80		
1969	January 31	4.60	September 5, 12-16	3.30
	February 1, 2, 6	4.60		
1970	April 21-26, 30	4.40	October 5	3.30
	May 1	4.40	July 14, August 28-31	3.30
			September 1-12	3.30
1971*	February 20-28	4.40	October 1-9, 20-27	3.40
1972*	April 22, May 1-3, 9,	4.30	November 27, 28, 30	2.80
	10, 11	4.30	December 1-5, 12-15,	2.80
	September 29, 30	4.30	23-26	2.80
1973	November 15-23	4.50	September 18-28, 30	3.50
	January 3-6	4.50		
	March 17-20, 26, 29	4.50		
	April 1, 23, 24	4.50		
	June 5-8	4.50		
1974	March 8-10	4.60	September 21-27	3.00
1975*	April 23-26, 28-30	4.40	October 6-8, 14, 17, 18	3.00
1976*	March 5, 6	4.80	October 7, 8, 11-17	3.45
1977	April 2	4.51	June 23	3.49
1978	March 27-29	4.83	September 28	3.15
	April 6	4.83		
1979	April 13	4.39	November 12	3.02

04100030 ADAMS LAKE NEAR WOLCOTTVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1980*	April 8	4.53	October 15-18,21, 30,31	3.16 3.16
1981*	June 15	5.32	November 22	3.60
1982*	March 20	5.14	August 30	3.63
1983*	May 3,4	4.77	September 15	3.36
1984	April 23,24	4.55	October 10,11	3.34
1985*	April 7	5.19	October 6	3.64

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100040 ATWOOD LAKE NEAR WOLCOTTVILLE

GAGE LOCATION.--Lat 41°32'12", long 85°25'11", in NW¼NW¼ sec. 31, T. 36 N., R. 10 E. (OLIVER LAKE, IN quadrangle). The gage is on the western shore of the lake, just north of the east-west lake access road, and 2.8 mi northwest of Wolcottville, Lagrange County, Indiana.

SURFACE AREA.--170 acres.

DRAINAGE AREA.--1.23 mi².

PERIOD OF RECORD.--1948-53.

DATUM OF GAGE.--890.00 ft above NGVD OF 1929.

GAGE.--A staff gage in one section is bolted to a timber piling.

ESTABLISHED LEGAL LEVEL.--9.99 ft gage datum or 899.99 ft above NGVD of 1929 as decreed on August 27, 1951, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The lake drains the immediately surrounding area. The outlet flows from the lake at the southeastern shore and into Whitmer Lake, 0.4 mi downstream. The outflow of Whitmer Lake flows through a chain of lakes and into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.68 ft, April 4, 1950; minimum stage, 9.51 ft, October 28-30, 1948.

ANNUAL EXTREME LEVELS FOR ATWOOD LAKE, 1948-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1948*	February 28	10.46	September 16-19, 28	9.68
1949	February 15	10.49	October 28-30	9.51
1950	April 4	10.68	October 1, 2	9.74
1951	February 22-24	10.60	September 30	10.02
	July 9	10.60		
1952	January 20-29	10.47	September 28-30	9.84
1953*	November 25, 26	9.88	November 18	9.64

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100050 WITMER LAKE NEAR WOLCOTTVILLE

GAGE LOCATION.--Lat 41°32'11", long 85°23'51", in SE¼NW¼ sec. 32, T. 36 N., R. 10 E. (OLIVER LAKE, IN quadrangle). The gage is at the northwestern end of the lake, in the channel between Witmer and Westler Lakes, and 1.7 mi northwest of Wolcottville, Lagrange County, Indiana.

SURFACE AREA.--204 acres.

DRAINAGE AREA.--36.1 mi².

PERIOD OF RECORD.--1945-47. After September 30, 1947, lake-level readings were made at Hackenburg Lake.

DATUM OF GAGE.--890.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to the southern end of the western bridge abutment in the channel.

ESTABLISHED LEGAL LEVEL.--7.36 ft gage datum or 897.36 ft above NGVD of 1929 as decreed on February 2, 1954, by the Lagrange County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with removable boards located at the outlet of Messick Lake.

INLET AND OUTLET.--Little Elkhart Creek enters the lake on the southeastern shore. The Atwood Lake outlet enters from the west and two small ditches enter from the south and east. The outlet is a channel at the northwestern end of the lake, connecting it with Westler Lake. This chain of lakes flows through Messick Lake and into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.63 ft, April 23-25, 1947; minimum stage, 6.57 ft, October 16, 17, 1946.

ANNUAL EXTREME LEVELS FOR WITMER LAKE, 1945-47

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	August 6,7	7.45	September 20-22	7.07
1946	October 7-9	8.71	September 26-30	6.65
1947	April 23-25	9.63	October 16,17	6.57

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100100 OLIVER LAKE NEAR VALENTINE

GAGE LOCATION.--Lat 41°34'37", long 85°24'44", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 36 N., R. 10 E. (OLIVER LAKE, IN quadrangle). The gage is at the public fishing site on the northwestern side of the lake, and 1.6 mi southwest of Valentine, Lagrange County, Indiana.

SURFACE AREA.--362 acres.

DRAINAGE AREA.--11.1 mi².

PERIOD OF RECORD.--1945 to present.

DATUM OF GAGE.--889.78 ft above NGVD OF 1929, as corrected on the basis of levels of IDNR, 1975-76.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on September 29, 1952, by the Lagrange County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 9.45 ft gage datum or 899.23 ft above NGVD of 1929. Martin and Olin Lakes near Valentine have the same established level as Oliver Lake and, hence, the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed sill and dam with movable boards.

INLET AND OUTLET.--The lake has several inlets. Dove Creek enters from the northwest, the outlet of Holsinger Hole from the north, Hart ditch from the east, and the channel between Oliver and Olin Lakes on the southeastern shore. The Oliver Lake outlet flows from the southwestern 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, January 18, 19, February 3-5, 1961.

ANNUAL EXTREME LEVELS FOR OLIVER LAKE, 1945-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 30	9.83	September 22	9.15

04100100 OLIVER LAKE NEAR VALENTINE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946	March 18-20	10.29	September 6,21,22, 27-30	8.71 8.71
1947	April 21,22	10.75	October 15-17	8.59
1948	May 13-16	10.45	September 17-19,28	8.78
1949	February 16,17	10.42	October 25-27	8.68
1950	April 5	11.49	October 3,4	8.48
1951	July 11	11.50	September 28-30	9.26
1952	January 21-23	10.42	September 29,30	8.84
1953	August 5,6	9.82	October 5-13	8.80
1954	July 10,11	10.32	January 8,9	8.76
1955	October 15	10.90	April 17,18	9.30
1956	May 13	11.00	December 27-31	9.08
1957	April 11	9.90	March 10,11	9.00
1958	September 19	10.04	February 18-21	8.95
1959	April 3,8,9	10.37	November 14	8.96
1960	April 18	10.48	October 29,30	9.06
1961	April 26	10.99	January 18,19	8.42
			February 3-5	8.42
1962	March 14,15	10.09	November 13	8.97
1963	March 19,20	10.06	February 16-19	8.61
1964	March 28	9.77	January 22,23	8.72
1965	May 7	10.35	November 3-5	8.76
1966	December 28,31	10.24	November 25	9.20
			December 5-11	9.20
1967	December 10,11	10.40	November 5-7	9.10
			January 19	9.10
1968	June 26-28	11.00	October 12,13	9.10
			November 28-30	9.10
			December 1	9.10
			January 27	9.10
1969	April 19	10.70	March 12-24	9.20
1970	May 15-17	10.10	December 28-31	9.00
			January 1-28	9.00
			February 17-28	9.00
			March 1,2	9.00
1971	February 6-8	10.00	January 22-31	8.90
			February 1-4	8.90
1972	September 14-19	10.30	November 7-30	8.80
			December 1-8	8.80
1973*	November 16	10.30	September 23-30	9.30
1974	March 8	10.50	November 20-30	9.20
			December 1-14	9.20

04100100 OLIVER LAKE NEAR VALENTINE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1975*	April 28-30, May 1	9.90	November 29-30	9.20
	June 24,25,27-30	9.90	December 1-6,8-24, 27-31	9.20
			January 1-6,8-17	9.20
			April 15-22	9.00
1976*	March 6	10.85	June 3	9.50
1977*	April 1,5,6	10.33	September 11	9.42
1978*	March 24	10.90	September 23-30	9.24
1979	March 31	10.08	October 1	9.29
1980	June 3	10.43	January 25	9.20
1981*	June 14	11.77	January 1,2	9.32
1982*	March 20	11.39	February 13-15	9.16
1983	November 2	10.27	November 14	9.23
1984	March 21	9.98	February 9	9.23
1985	February 24	11.14	May 26	9.15

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100110 HACKENBURG LAKE NEAR WOLCOTTVILLE

GAGE LOCATION.--Lat 41°33'25", long 85°26'17", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 36 N., R. 9 E. (OLIVER LAKE, IN quadrangle). The gage is on the northern shore of the outlet channel at the bridge on County Road 75 West, and 4.2 mi northwest of Wolcottville, Lagrange County, Indiana.

SURFACE AREA.--42 acres.

DRAINAGE AREA.--55.4 mi².

PERIOD OF RECORD.--1945 to present.

DATUM OF GAGE.--890.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) is installed in an 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 NGVD of 1929 as decreed on February 2, 1954, by the Lagrange County Circuit Court. Witmer, Westler, Dallas, and Messick Lakes, all near Wolcottville, have the same established level and, hence, the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with removable stop logs located at the outlet of Messick Lake.

INLET AND OUTLET.--One inlet enters on the northern shore from Oliver Lake, 1.6 mi upstream. The other inlet enters on the eastern 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 southwestern 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, April 7, 1978; minimum stage, 6.34 ft, October 10, 1953.

ANNUAL EXTREME LEVELS FOR HACKENBURG LAKE, 1945-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 30	7.54	September 22	6.54
1946	March 17-19	8.56	September 30	6.56
1947	April 23	9.60	October 16	6.48
1948	April 3	9.22	September 15-20, 25-28	6.76

04100110 HACKENBURG LAKE NEAR WOLCOTTVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949	February 19-22	9.04	October 5-7, 9-10	6.76
1950	April 6	10.75	October 2	6.90
1951	February 26	9.40	September 30	7.19
1952	January 21,22	9.16	September 30	6.82
1953	March 16	8.02	September 27-30	6.40
1954	April 29	8.84	October 10	6.34
1955	October 18	9.69	September 27	6.78
1956	May 15	9.84	October 4	6.77
1957	April 15,18-20	8.92	November 12,14	6.78
1958	September 24	8.77	October 14,15	6.90
1959	April 8	9.38	November 9-12	7.20
1960	June 20	9.29	September 3-7	7.48
1961	April 29	9.47	February 10,11	6.96
1962	March 21	9.57	August 24	7.26
1963	March 25,26	8.97	January 19,21	6.96
			February 13,14	6.96
1964	May 1,2	8.50	September 17	6.99
1965	May 8,9	9.37	October 6-10	6.98
1966	January 1	9.41	October 18,19	7.26
1967	December 10	9.90	October 30,31	7.00
			November 1-5	7.00
			September 13-20,26	7.00
1968	June 30, July 1-3	9.70	October 10-14	7.10
1969	February 1-6	9.70	October 27-31	7.10
			November 1-6	7.10
1970	April 22-27,30	9.10	August 16-23	7.20
			September 3-13	7.20
1971	February 21,26-28	9.10	August 30,31	6.70
	March 1	9.10	September 1-5,10-20	6.70
1972	April 21-25	8.90	October 1-8	6.80
	May 15,16	8.90		
1973*	November 20-23	9.30	September 28	7.20
	January 3-7	9.30		
	March 29-31, April 1	9.30		
1974*	March 8-14	9.70	July 28-31	6.90
			August 1-16,27-31	6.90
			September 1,2	6.90
1975	April 29,30	9.10	October 6-30	6.90
1976*	March 10	10.00	September 19,23-25	7.25
1977*	April 3	9.44	June 19-21	7.22
1978	April 7	11.17	September 30	7.18
1979*	March 10,11	9.48	October 19-23	7.08
1980*	April 10,11	9.53	October 28	7.41
1981	June 16	10.42	October 26	7.69
1982	March 20	10.84	September 11,12	7.19

04100110 HACKENBURG LAKE NEAR WOLCOTTVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1983	May 7-9	9.38	October 29,30	7.08
1984	March 26,27	9.09	October 11,12,20,21	7.03
1985	March 1	10.23	June 15,16	7.36

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100140 BIXLER LAKE AT KENDALLVILLE

GAGE LOCATION.--Lat 41°26'13", long 85°15'10", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 4, T. 34 N., R. 11 E. (KENDALLVILLE, IN quadrangle). The gage is on the southern bank of the outlet channel on the southwestern shore of the lake, and 0.7 mi southeast of City Hall in Kendallville, Noble County, Indiana.

SURFACE AREA.--120 acres, revised.

DRAINAGE AREA.--5.28 mi², revised.

PERIOD OF RECORD.--1946 to present.

DATUM OF GAGE.--960.10 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1974-1975.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on April 25, 1952, by the Noble County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 3.65 ft gage datum or 963.75 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed deep-notch concrete dam with two flood gates.

INLET AND OUTLET.--Riddle ditch enters the lake from the north, Sherman ditch from the east, Shaffer ditch from the southeast, and an unnamed ditch from the southwest. The outlet leaves at the southwestern corner and flows into Henderson Lake, 1.9 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.26 ft, February 24, 1985; minimum stage, 1.24 ft, January 13-15, 18, 1954.

ANNUAL EXTREME LEVELS FOR BIXLER LAKE, 1946-1985

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946	June 20	5.10	September 30	2.64
1947	April 2	4.89	October 17	2.36
1948	February 28	5.15	September 28	2.51
1949	February 15	5.23	October 30	2.09
1950	April 4	5.77	October 2	3.12

04100140 BIXLER LAKE AT KENDALLVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951	December 3,4	5.10	February 11	2.60
1952	January 20	4.75	September 30	2.34
1953	May 23	4.36	November 18	1.71
1954	June 22	5.02	January 13-15,18	1.24
1955	October 12	5.58	September 30	3.10
1956	April 30	5.88	October 4	3.03
1957	April 6	5.19	September 29,30	2.76
1958	September 17	5.66	October 15	2.53
1959	February 14	5.50	September 21	3.23
1960	January 13	5.20	September 8	3.31
	June 14	5.20		
1961	April 25	4.86	October 25,30	3.30
1962	March 12	5.22	September 30	2.88
1963	March 14	4.48	February 14-18	2.68
1964	April 29	4.65	September 30	2.57
1965	April 26	5.06	November 25,26	2.12
1966	December 26	5.68	September 30	2.75
1967	December 9,10	5.70	October 31	2.50
			November 1,2	2.50
			September 26	2.50
1968	June 26	6.10	October 3-15	2.50
1969	January 31	5.90	September 2-6,11-16	3.10
1970	March 27	4.80	October 1-10	3.20
	April 21,22	4.80		
1971	February 20	5.20	September 15-30	2.80
1972	September 15	5.30	November 25-27	2.50
1973	November 15	5.40	September 27,28	3.30
1974*	January 23	5.20	November 12-14	3.00
	March 7	5.20	September 26,27	3.00
1975*	February 23-25	5.00	October 18-31	2.80
			November 1,2	2.80
1976*	February 17	5.35	October 13-24,27-31	3.35
			November 1-6,18,19	3.35
1977*	March 4	5.25	November 21-24	3.60
1978*	March 22	5.92	September 29,30	3.13
1979*	March 4	5.26	November 13	2.84
1980*	June 2	5.37	October 30,31	2.71
1981*	April 14	5.54	December 4-6	2.14
1982	March 17	6.21	September 23-26	3.37
1983	May 2	5.42	September 30	2.20
1984*	May 26	5.04	October 25	1.90
1985	February 24	6.26	August 4	2.83

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100160 LITTLE LONG LAKE AT KENDALLVILLE

GAGE LOCATION.--Lat 41°27'49", long 85°15'27", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 35 N., R. 11 E. (KENDALLVILLE, IN quadrangle). The gage is on the southern side of the lake at the bridge over the dredged channel in Wakefield Village, 1.6 mi northeast of City Hall in Kendallville, Noble County, Indiana.

SURFACE AREA.--71 acres.

DRAINAGE AREA.--4.55 mi².

PERIOD OF RECORD.--1954 to present.

DATUM OF GAGE.--950.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage in one section is attached to the western wingwall on the southern side of the bridge.

ESTABLISHED LEGAL LEVEL.--4.50 ft gage datum or 954.50 ft above NGVD of 1929 as decreed on March 26, 1970. Round Lake at Kendallville has the same established level and, hence, the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam.

INLET AND OUTLET.--The one inlet enters on the eastern side from Round Lake. The outlet, Waterhouse ditch, flows from the lake at the southwestern end and into Henderson Lake ditch, thence into Sylvan Lake, 4.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.75 ft, January 31, 1969; minimum stage, 3.33 ft, November 17, 18, 1964.

ANNUAL EXTREME LEVELS FOR LITTLE LONG LAKE, 1954-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 9	5.58	September 27, 28	4.24
1955*	June 8	4.62	September 30	3.82
1956	April 30	6.52	October 4	3.78
1957	April 12	5.74	September 30	3.61
1958	September 18	6.48	October 15	3.49
1959	February 14	6.35	September 21	3.96

04100160 LITTLE LONG LAKE AT KENDALLVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1960	June 15	5.59	September 8	3.96
1961	April 25,26	5.61	October 25,28	4.00
1962	March 13	6.10	September 29,30	3.64
1963	March 19,20	5.11	December 4,5	3.54
1964	April 25,30	5.20	November 11,12,17	3.62
	May 1	5.20		
1965	April 27,28	6.02	November 17,18	3.33
1966	December 26	6.22	September 28-30	3.80
1967	December 10-12	6.45	September 18,19,26	3.50
1968	February 4	6.40	October 3,4,7,9,10-14	3.50
1969	January 31	6.75	September 4-6	3.90
1970*	April 21-24	5.80	September 3,10-14	3.90
1971	February 21-23	5.60	September 15-30	3.60
1972	April 17-19	5.70	October 15-21	3.50
			November 21-30	3.50
			December 1-5	3.50
1973	November 15	5.10	September 15-30	4.20
1974*	March 7-10	5.20	September 22-30	3.90
1975*	February 23-26	5.00	October 22-29	3.70
	April 3,4,19,20	5.00		
	June 1-6	5.00		
1976*	February 18	5.30	October 3-31	4.15
			November 1-7	4.15
1977*	March 5	5.22	June 3,4	4.36
1978*	March 22	5.90	September 28,29	4.04
1979	April 12	4.97	November 19	3.85
1980*	June 3	5.62	October 15,16,19	4.20
1981	February 20	5.51	August 25	4.43
1982	March 17	6.27	September 16,23	4.34
1983	May 2	5.67	September 18,30	3.82
1984	March 17	5.56	October 9-11	3.73
1985*	March 29	6.06	August 4	4.31

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100170 LATTI LAKE NEAR ROME CITY

GAGE LOCATION.--Lat 41°29'46", long 85°19'37", in NW¼NW¼NW¼ sec. 13, T. 35 N., R. 10 E. (KENDALLVILLE, IN quadrangle). The gage is on the northwestern shore of the lake, just east of County Road 500 East, and 5.0 mi northwest of City Hall, Kendallville, Noble County, Indiana.

SURFACE AREA.--42 acres.

DRAINAGE AREA.--2.52 mi².

PERIOD OF RECORD.--1954-66.

DATUM OF GAGE.--910.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed at the northwestern side of the lake.

ESTABLISHED LEGAL LEVEL.--8.71 ft gage datum or 918.71 ft above NGVD of 1929 as decreed on July 22, 1965, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake was controlled by the outlet channel during the period of record. Presently the level is controlled by a concrete sill, 200 ft downstream from the lake.

INLET AND OUTLET.--The one inlet enters the lake on the northern side from Grannis Lake, 0.8 mi upstream. The outlet flows from the lake on the southeastern side and into Sylvan Lake, 0.6 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.76 ft, April 29, 1956; minimum stage, 7.97 ft, October 15, 16, 1963.

ANNUAL EXTREME LEVELS FOR LATTI LAKE, 1954-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 8	9.54	September 26-29	8.78
1955	October 12	9.68	June 28-30	8.78
1956	April 29	9.76	May 4	8.31
1957	June 29	9.04	August 31	8.29
			September 1	8.29
1958	August 21	8.96	September 14	8.30
1959	March 31	9.54	December 7	8.44
1960	February 1	9.17	August 20,23	8.50
			September 14	8.50

04100170 LATTA LAKE NEAR ROME CITY--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961	October 7	8.89	June 24, July 11-13	8.36
	February 20	8.89		
1962	March 13	8.75	September 29,30	8.09
	July 4	8.75		
1963	March 9	9.30	July 13	7.99
1964	April 29	8.62	October 15,16	7.97
1965	April 25,26	8.86	October 7,22-28	8.06
1966	December 26	9.22	September 19	8.26

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100180 SYLVAN LAKE AT ROME CITY

GAGE LOCATION.--Lat 41°29'53", long 85°22'38", in SE¼SE¼SW¼ sec. 9, T. 35 N., R. 10 E. (ALBION, IN quadrangle). The gage is at the southern, upstream side of the bridge over the outlet, on the extreme western end of the lake, and at the northern edge of Rome City, Noble County, Indiana.

SURFACE AREA.--669 acres, revised.

DRAINAGE AREA.--33.8 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--907.00 ft above NGVD of 1929. Prior to October 1, 1978, the datum of the gage was 910.00 ft. The annual extreme levels given below are at the present datum.

GAGE.--A digital water-stage recorder (hourly) is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the northern downstream wall of the footbridge.

ESTABLISHED LEGAL LEVEL.--9.20 ft present gage datum or 916.20 ft above NGVD of 1929 as decreed on June 14, 1951, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with movable gates.

INLET AND OUTLET.--Barr Lake, 0.2 mi upstream, empties into Sylvan Lake on the southeastern shore of the northwestern 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, February 25, 1985; minimum stage, 2.72 ft, November 8, 1979.

ANNUAL EXTREME LEVELS FOR SYLVAN LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	May 18	10.44	March 16	9.20
1944	November 9	9.44	April 3-5	8.24
	March 16, 17	9.44		
1945	May 18	9.66	November 4, 5	9.00
1946	June 19	9.97	June 17	7.64
1947	April 21	9.80	October 16, 17	8.79

04100180 SYLVAN LAKE AT ROME CITY--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1948	February 21	9.86	March 8	8.90
			September 18,19	8.90
1949	February 15	9.74	March 14,15	8.88
1950	April 6	10.56	October 1,2	9.00
1951	February 23	10.14	September 23-30	9.10
1952	December 18-20	10.10	August 3-9,29,30	9.02
1953	March 8,9	9.48	September 10,11	8.80
1954	April 28	9.80	October 3,7-21	8.82
	July 9,10	9.80		
1955	October 14,15,17	10.18	May 13,14	8.96
			September 9,10,15-23	8.96
1956	May 1,2	10.30	April 26	8.80
1957	April 8,9,13	10.10	August 23	8.94
			September 7-12	8.94
1958	September 18	10.30	February 23	8.50
1959	February 15	10.30	October 26	6.61
1960	April 19,20	9.96	October 21-26	6.70
	June 17,18	9.96		
1961	April 26	10.04	November 8,9,15	6.56
1962	March 12-14	9.72	September 29,30	9.00
1963	March 15-17	9.84	July 12,13	8.94
1964	April 30	9.55	August 10	8.88
1965	April 27	10.01	October 6,7	9.06
1966	December 28	10.06	November 16	6.74
1967	December 10-12	10.10	October 6-9	9.00
			July 27, August 5-8,	9.00
			10-18,25,26,31	9.00
			September 1-20,25,26	9.00
1968	February 3,4	10.10	January 11-13	8.00
1969	January 30,31	10.20	August 28-31	9.00
	February 1,2	10.20	September 1-7	9.00
1970	April 22-25	10.00	August 9,11-20,28-31	9.00
			September 1-6,8-13	9.00
1971	February 7,21,22	9.90	August 24	8.90
1972	April 17-22	9.90	October 7,8,12,13	9.00
			August 6,17,18,21,22,	9.00
			29-31, September 1,	9.00
			4-11	9.00
1973	November 15-18	10.00	September 11-24	9.00
	January 4,5	10.00		
	March 18-22,25-27	10.00		
	April 22-25	10.00		
1974*	March 8-11	10.20	July 18	6.80
1975*	April 26-30	9.80	October 20	5.30
	May 1-4, June 3-6	9.80		

04100180 SYLVAN LAKE AT ROME CITY--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1976*	March 6	10.19	September 5,7,8	9.09
1977	July 1-3	9.60	March 27	5.17
1978*	March 25-27	10.29	January 18-24	6.33
1979*	May 5,6	9.49	February 24	2.82
1980*	June 4	10.23	November 8	2.72
1981	June 15	10.35	November 25	2.84
1982	March 21	10.57	March 10	4.94
1983	May 3	10.43	March 19	4.84
1984	May 27	10.12	September 18	3.00
1985	February 25	10.76	October 1	4.26

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100190 SACARIDER LAKE NEAR KENDALLVILLE

GAGE LOCATION.--Lat 41°26'06", long 85°19'04", in NE¼NW¼ sec. 1, T. 34 N., R. 10 E. (KENDALLVILLE, IN quadrangle). The gage is on the northeastern shore of the lake on the conservation club property, 3.0 mi west of Kendallville, Noble County, Indiana.

SURFACE AREA.--33 acres.

DRAINAGE AREA.--1.43 mi².

PERIOD OF RECORD.--1954-62.

DATUM OF GAGE.--950.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--Two small ditches enter the lake, one from the northwest and one from the north. The outlet flows from the southern shore, into Gretzinger ditch to Tamarack Lake, 7.0 mi downstream, and eventually into the North Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.04 ft, September 16, 1958; minimum stage, 5.50 ft, October 15, 1957.

ANNUAL EXTREME LEVELS FOR SACARIDER LAKE, 1954-62

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 8	7.23	September 28	6.20
1955	October 12	7.81	September 26,30	5.93
1956	April 30	7.98	October 3	5.89
1957	April 11	7.43	September 30	5.68
1958	September 16	8.04	October 15	5.50
1959	February 14	7.84	September 19,24	5.90
1960	January 12	7.52	September 15-17	6.10
1961	April 26	7.24	October 24	6.08
1962	March 13	7.86	September 29,30	6.05

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100220 WALDRON LAKE NEAR COSPERVILLE

GAGE LOCATION.--Lat 41°29'34", long 85°26'55', in SE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 35 N., R. 9 E. (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, Noble County, Indiana.

SURFACE AREA.--216 acres.

DRAINAGE AREA.--134 mi².

PERIOD OF RECORD.--1948 to present.

DATUM OF GAGE.--880.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on May 6, 1968, by the Noble County Circuit Court. Jones, Steinbarger and Tamarack Lakes, all near Cosperville, have the same established level as Waldron Lake and, hence, the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam with removable boards.

INLET AND OUTLET.--The North Branch of the Elkhart River flows through the lake, entering through Jones Lake at the northern end and leaving at the western end of Waldron Lake. Another inlet enters from the southeast from Steinbarger Lake, 0.1 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.16 ft, March 22, 1982; minimum stage, 4.44 ft, August 9-11, September 14-17, 1964.

ANNUAL EXTREME LEVELS FOR WALDRON LAKE, 1948-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1948*	March 2	7.57	September 17-19	4.78
1949	February 17	7.58	October 30	4.81
1950	April 5	9.47	October 4	4.84
1951	February 23,24	7.80	September 29,30	5.01
1952	January 21,22	7.46	September 30	4.77
1953	March 16	5.84	September 12	4.53

04100220 WALDRON LAKE NEAR COSPERVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954	April 28	7.12	October 3,23	4.50
1955	October 17	8.32	September 25	4.74
1956	May 13	8.78	September 29,30	4.58
1957	April 13	7.42	August 23	4.54
1958	September 20	7.96	June 8	4.65
1959	February 16	8.36	September 17,18,21	4.60
1960	June 20	7.98	September 8	4.64
1961	April 29	7.94	January 5-7,11	4.82
			September 10,11	4.82
1962	March 15,21	8.08	August 24	4.62
			September 30	4.62
1963	March 20,21	7.01	July 12,13	4.54
1964	April 30	6.22	August 9-11	4.44
	May 1	6.22	September 14-17	4.44
1965	April 28	7.66	October 7	4.50
1966	January 2	8.02	September 24	4.66
1967	December 13	8.07	August 18	4.56
1968	February 5	8.50	October 1,2	4.75
	June 29	8.50		
1969	February 1	8.65	September 3-5	4.75
1970	April 23	7.40	September 1-4,11,12	4.65
1971	February 20-22,26,27	7.40	August 21-24,28-31	4.60
			September 1-6,13-19	4.60
1972	April 22-24	7.20	October 1-4,7	4.65
1973*	January 4,5	7.75	September 11-27	5.65
1974*	March 10-12	8.60	October 22-26	5.60
			August 5,7-14,21,22,	5.60
			25-31, September 1-11,	5.60
			14-24	5.60
1975*	April 30	7.40	October 10-31	5.60
			November 1,2	5.60
			July 26-31	5.60
			August 1,2,10-14,	5.60
			20-31	5.60
			September 2-4,7-11	5.60
1976*	March 6	8.99	October 5	5.63
1977*	March 30, April 2	7.56	June 23,24	5.61
1978	April 8	9.26	August 18	5.32
1979*	March 9-11	7.75	June 26-28	5.31
			September 18-20	5.31
1980*	June 6-8	7.82	October 14-21,25-31	5.46
			November 1-20	5.46
1981*	June 16	9.34	November 13-15	5.00
1982*	March 22	10.16	August 1	5.39
1983	May 5,6	7.90	October 31	5.32

04100220 WALDRON LAKE NEAR COSPERVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1984	March 30	7.26	July 23	5.56
	May 29,30	7.26		
1985	February 27	9.45	July 4	5.55

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100230 LONG LAKE NEAR BURR OAK

GAGE LOCATION.--Lat 41°20'10", long 85°21'55", in NW¹/₄NW¹/₄NW¹/₄ sec. 10, T. 33 N., R. 10 E. (EGE, IN quadrangle). The gage is west of the lake on the outlet channel, 50 ft upstream of the bridge in Chain-O-Lakes State Park, and 3.6 mi northeast of Burr Oak, Noble County, Indiana.

SURFACE AREA.--40 acres.

DRAINAGE AREA.--12.0 mi².

PERIOD OF RECORD.--1954-71.

DATUM OF GAGE.--890.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the bed of the outlet channel.

ESTABLISHED LEGAL LEVEL.--5.82 ft gage datum or 895.82 ft above NGVD of 1929 as decreed on July 22, 1965, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The one inlet enters the lake at the southeastern corner. The outlet flows from the western shore, through Sand, Rivir, and Muncie Lakes, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.30 ft, February 2, 1968; minimum stage, 4.90 ft, September 16, 17, 28-30, October 1-3, 1964.

ANNUAL EXTREME LEVELS FOR LONG LAKE, 1954-71

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	August 26	8.05	September 27-29	5.31
1955	October 12	9.38	September 21-29	5.30
1956	April 29, May 12	8.08	September 29, 30	5.12
1957	April 6	8.66	October 9-29	5.08
1958	September 17	9.42	October 15	5.24
1959	February 11	9.20	August 15, 16	5.30
1960	June 13, 14	9.40	July 22-25	5.50
1961	March 13	8.13	September 10, 11	5.38
1962	March 12	10.10	September 30	5.02
1963	March 6	8.20	June 23, 24	5.00
1964	April 29	7.76	September 16, 17, 28-30	4.90

04100230 LONG LAKE NEAR BURR OAK--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1965	February 10,11	8.80	October 1-3	4.90
1966	December 26	10.15	September 29,30	5.26
1967	December 9	10.20	October 3-15,27-29	5.20
			September 14-20	5.20
1968	February 2	10.30	October 1-17	5.30
1969	January 31	9.00	May 24,25, August 18, 19-31, September 1-3	5.30
1970*	April 21	8.10	September 2-4,6-14	5.30
1971*	March 16	7.50	September 21-26,28-30	5.10

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100240 SAND LAKE NEAR BURR OAK

GAGE LOCATION.--Lat 41°19'56", long 85°22'58", in SW¼NW¼ sec. 9, T. 33 N., R. 10 E. (MERRIAM, IN quadrangle). The gage is on the southeastern shore of the lake, 2.6 mi northeast of Burr Oak, Noble County, Indiana.

SURFACE AREA.--47 acres.

DRAINAGE AREA.--14.9 mi².

PERIOD OF RECORD.--1946-51.

DATUM OF GAGE.--890.00 ft above NGVD of 1929.

GAGE.--There is a staff gage in two sections at the site. One is bolted to a piling in the lake bed, the other is attached to a tree trunk.

ESTABLISHED LEGAL LEVEL.--Not established during period of record. The present legal level is 3.56 ft gage datum or 893.56 ft above NGVD of 1929 as decreed on October 7, 1954, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--There are two inlets. One enters on the northern shore from Bowen Lake, 0.5 mi upstream. The other, Heltzel ditch, enters on the southeastern shore. The outlet flows from the northern shore, through a chain of lakes, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.10 ft, April 5, 1950; minimum stage, 2.25 ft, October 21-25, 29-31, November 1, 1948.

ANNUAL EXTREME LEVELS FOR SAND LAKE, 1946-51

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 15	5.39	September 30	2.65
1947	April 22	6.14	October 17	2.37
1948	February 29	6.08	September 27, 28	2.33
1949	February 16	6.06	October 21-25, 29-31	2.25
			November 1	2.25
1950	April 5	8.10	October 1, 2	2.85
1951*	July 10	6.64	September 7-10	3.00

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100250 RIVIR LAKE NEAR BURR OAK

GAGE LOCATION.--Lat 41°20'00", long 85°24'24", in NW¼SE¼NE¼ sec. 7, T. 33 N., R. 10 E. (MERRIAM, IN quadrangle). The gage is at the eastern end of the lake, on the northern bank of the inlet, and 1.5 mi northeast of Burr Oak, Noble County, Indiana.

SURFACE AREA.--24 acres.

DRAINAGE AREA.--18.6 mi².

PERIOD OF RECORD.--1954-65.

DATUM OF GAGE.--880.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is on the northern bank of the inlet, approximately 100 ft downstream from the county road bridge.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake was controlled by the outlet channel during the period of record. Presently the level is controlled by the dam at Miller Lake.

INLET AND OUTLET.--The inlet enters on the northeastern edge of the lake, from Mud Lake. The outlet flows to the west into Miller Lake, through a series of lakes and streams, and into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.08 ft, October 12, 1954; minimum stage, 10.10 ft, September 24-30, October 1, 2, 1962.

ANNUAL EXTREME LEVELS FOR RIVIR LAKE, 1954-65

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	August 28	13.25	September 22	11.05
1955	October 12	15.08	September 15-24	10.85
1956	April 30, May 1, 12, 13, 14	14.05 14.05	September 24	10.50
1957	April 8	14.05	August 25	10.65
1958	September 18	14.80	October 13-19	10.75
1959	April 4	13.29	August 14, 15	10.80
			September 19-22	10.80
1960	June 14	14.66	September 8, 9, 14, 15	10.86
1961	April 19	12.90	September 10, 11	10.88
1962	March 17-25	12.50	September 24-30	10.10

04100250 RIVIR LAKE NEAR BURR OAK--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1963	April 23	11.76	October 1,2	10.10
1964	May 1	12.38	September 16-18	10.58
1965*	February 13	12.89	October 7,11-31	10.68
			November 1-14	10.68

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100258 HIGH LAKE NEAR WOLFLAKE

GAGE LOCATION.--Lat 41°18'51", long 85°31'49", in SW¼NE¼SW¼ sec. 18, T. 33 N., R. 9 E. (ORMAS, IN quadrangle). The gage is on a dredged channel on the western shore of the eastern lobe, 2.1 mi southwest of Wolflake, Noble County, Indiana.

SURFACE AREA.--123 acres.

DRAINAGE AREA.--4.43 mi².

PERIOD OF RECORD.--1961-68, 1970 to present.

DATUM OF GAGE.--890.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on February 25, 1963, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete, fixed-crest dam with a rectangular notch.

INLET AND OUTLET.--The one inlet, Beal Branch, enters the lake on the southeastern shore. The outlet flows from the eastern side of the northern 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, November 15, 25-28, 1964, October 13, 26-31, November 1-3, 1966.

ANNUAL EXTREME LEVELS FOR HIGH LAKE, 1961-68, 1970-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961*	April 23	7.07	September 4,9,10,11	6.18
1962	March 13	7.46	September 29,30	5.64
1963	March 14	6.81	September 18,19	5.52
1964	April 22	6.59	January 19	5.31
	July 10,11	6.59		
1965	March 19	7.02	November 15,25-28	5.30
1966	December 26	7.20	September 30	5.44

04100258 HIGH LAKE NEAR WOLFLAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1967	December 9,10	7.50	October 13,26-31 November 1-3	5.30 5.30
1968	June 28	7.70	October 13	5.60
1970	March 27,28	6.90	August 31	6.10
	April 20-23	6.90	September 1-6,11-13	6.10
1971	February 6	7.00	August 31	6.10
			September 1,2,5,15-19, 23-25	6.10 6.10
1972	April 20-24	6.90	October 3,5-21	6.10
	September 14,15	6.90	November 7,8	6.10
1973	June 6,7	7.10	September 18-28	6.30
1974	March 7-10	7.20	September 1,2,4-11, 21-28,30	6.00 6.00
1975*	June 6	7.10	October 1-29	6.00
			November 9,30	6.00
1976*	February 17,18	7.30	September 5-8,18,19, 23-25	6.20 6.20
1977	March 29	6.98	October 4	6.24
1978	April 6	7.46	September 11	6.19
1979*	April 27,28	6.99	September 29,30	6.10
1980*	March 22	7.13	October 14	6.18
1981*	June 15	7.39	August 23-25	6.37
1982	March 18	7.66	September 5	6.32
1983	May 3	7.22	September 15	6.00
1984*	May 26,27	7.35	October 9-11	6.04
1985	February 28	7.57	August 2-4	6.23

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100260 BEAR LAKE NEAR WOLFLAKE

GAGE LOCATION.--Lat 41°19'07", long 85°30'49", in SW¼NW¼ sec. 17, T. 33 N., R. 9 E. (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, and 1.1 mi southwest of the town of Wolflake, Noble County, Indiana.

SURFACE AREA.--136 acres, revised.

DRAINAGE AREA.--6.98 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--889.90 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1974-75.

GAGE.--A digital water-stage recorder (hourly) is installed in an aluminum shelter over a 15-inch diameter stilling well on the western side of the dredged channel.

ESTABLISHED LEGAL LEVEL.--4.60 ft gage datum or 894.60 ft above NGVD of 1929 as decreed on September 23, 1959, by the Noble County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 4.60 ft gage datum or 894.50 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet-piling dam.

INLET AND OUTLET.--There are two inlets to the lake, one enters on the southwestern shore from High Lake, 0.6 mi upstream, and the other enters from the northeast. The outlet, Carrol Creek, leaves the lake on the southeastern 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, December 30, 1942 (before dredging of the outlet channel). Maximum stage, 6.61 ft, April 12, 1944 (after dredging); minimum stage, 2.90 ft, October 31, November 1-3, 7-17, 1952, October 22-24, 29-31, November 1-3, 6, 7, 1966.

ANNUAL EXTREME LEVELS FOR BEAR LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	December 30	8.25	July 3-6	4.90

04100260 BEAR LAKE NEAR WOLFLAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1944	April 12	6.61	September 26,27	4.33
1945	March 31	5.82	November 1-3	4.23
1946	January 12	5.90	September 29,30	3.90
1947	April 21	5.29	October 14-17	3.74
1948	March 6	5.50	September 28	3.93
1949	February 16	5.50	October 30	3.78
			November 2	3.78
1950	April 5	6.06	October 2	4.23
1951	February 22	5.70	September 30	4.08
1952	May 27	5.36	September 29,30	3.38
1953	March 19	5.48	October 31	2.90
			November 1-3,7-17	2.90
1954	March 27	5.72	November 22	3.56
			January 18,19	3.56
1955	October 15	6.48	September 29,30	4.19
1956	May 2	6.10	January 19	4.02
1957	April 13	5.00	September 12,19	3.19
1958	September 18	5.43	October 14,16	3.04
1959	February 14	5.39	September 21-23	3.88
1960	June 17,18	5.54	September 18	4.07
1961	April 25	5.12	October 25	4.02
1962	March 13	5.18	September 30	3.32
1963	March 20	4.93	January 27-31	3.16
1964	April 30	4.64	January 3,4	3.28
1965	April 10	5.68	November 26,27	3.19
1966	December 26,27	5.62	September 29,30	3.06
1967	December 11	5.80	October 22-24,29-31	2.90
			November 1-3,6,7	2.90
1968	February 2	6.00	October 8,11-15	3.80
1969	January 30,31	5.90	September 15	4.00
1970	April 21-24	5.40	August 31	3.90
			September 1-15	3.90
1971	February 19-21	5.20	August 29-31	3.80
			September 1-3,14-30	3.80
1972	April 17,22	5.50	November 18,23-29	3.60
1973	November 14,15	5.60	September 27,28	4.60
	June 6,7	5.60		
1974	March 10-13	5.60	September 7-11,20-22, 25-30	4.00 4.00
1975	April 24,25	5.60	October 10-14,17-30	3.80
1976	February 22	5.90	September 28-30	4.20
1977*	April 2	5.34	June 7-17,24	4.10
1978*	March 24	6.26	September 25-30	4.20
1979	April 28	4.75	September 29,30	3.77

04100260 BEAR LAKE NEAR WOLFLAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1980*	March 21	5.46	July 26	4.27
	April 4	5.46		
1981*	June 15	5.77	August 25	4.45
1982	March 17	6.08	September 5	4.34
1983	May 2	5.23	September 17,18	3.84
1984*	May 26	5.37	October 10,11	3.75
1985	February 24	5.58	August 12	3.99

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100280 MUNCIE LAKE NEAR BURR OAK

GAGE LOCATION.--Lat 41°19'37", long 85°27'28", in NE¼SW¼SW¼ sec. 11, T. 33 N., R. 9 E. (MERRIAM, IN quadrangle). The gage is on the southwestern shore of the lake, just north of the gravel road on the Addis farm, and 1.3 mi northwest of Burr Oak, Noble County, Indiana.

SURFACE AREA.--47 acres.

DRAINAGE AREA.--42.8 mi².

PERIOD OF RECORD.--1954 to present.

DATUM OF GAGE.--880.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 northwestern shore into Williams Lake, then into the South Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.47 ft, March 24, 25, 1978, February 25, 26, 1985; minimum stage, 1.97 ft, August 3, 1985.

ANNUAL EXTREME LEVELS FOR MUNCIE LAKE, 1954-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	August 28	6.16	September 27,28	2.51
1955	October 15	8.82	September 22	2.01
1956	May 1	8.45	October 3,4	2.04
1957	April 8	7.18	October 10,11	2.12
1958	September 18	7.60	October 5-7	2.13
1959	February 16	8.68	September 19-22	2.30
1960	June 15	7.83	September 17	2.37
1961	April 23	6.32	February 8	2.21
1962	March 14	7.66	September 28	2.19
1963	March 10	6.00	January 19	2.16
1964	May 1	4.69	October 3-18	2.26

04100280 MUNCIE LAKE NEAR BURR OAK--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1965	April 11	6.45	October 16-19	2.27
1966	December 29	8.00	September 16-20	2.54
1967	December 11,12	9.10	October 3-15,26-31	2.50
			November 1-7	2.50
1968	February 4	9.45	October 6-14	2.65
1969	February 1	9.05	March 18	2.20
1970	April 23,24	6.70	January 27	2.70
			July 16-20	2.70
1971	February 22	6.90	September 10-30	2.60
1972	April 21-23	6.50	August 11-14	2.30
1973*	November 16	7.40	September 26-28	2.45
1974*	March 9	8.05	August 14,15	2.25
			September 10-23	2.25
1975*	April 26-29	6.70	October 1-3	2.25
1976*	February 19	8.30	September 7,8	2.15
1977	March 6	6.81	January 8-13	2.15
			February 11-22	2.15
1978	March 24,25	9.47	September 5-7	2.30
1979	March 6	7.56	July 23	2.17
1980	March 21	6.47	October 15	2.45
1981	April 15	8.24	August 24-31	2.53
			September 1	2.53
1982*	March 15	5.92	September 13	2.14
1983	May 3	6.98	July 28	2.15
1984	May 27	6.60	September 21-24	2.33
1985	February 25,26	9.47	August 3	1.97

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100290 SILVER LAKE NEAR WOLFLAKE

GAGE LOCATION.--Lat 41°20'15", long 85°26'41", in NE¼NE¼ sec. 11, T. 33 N., R. 9 E. (MERRIAM, IN quadrangle). The gage is on the northern shore of the lake, off County Road 100 South, and 2.6 mi east of Wolflake, Noble County, Indiana.

SURFACE AREA.--34 acres.

DRAINAGE AREA.--0.28 mi².

PERIOD OF RECORD.--1953-63.

DATUM OF GAGE.--890.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--There are no surface inlets. The outlet is on the southwestern shore and flows into Petty Lake, 0.3 mi downstream, thence into Williams Lake and the South Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.00 ft, October 12, 14, 15, 1954, April 30, May 12, 1956; minimum stage, 1.52 ft, October 19-28, November 5-22, 30, December 1-26, 1953.

ANNUAL EXTREME LEVELS FOR SILVER LAKE, 1953-63

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1953*	May 22,23	3.12	September 2-10,29,30	1.72
1954	August 26	3.26	October 19-28	1.52
			November 5-22,30	1.52
			December 1-26	1.52
1955	October 12,14,15	4.00	July 3-6	2.50
1956	April 30, May 12	4.00	September 30	2.14
1957	June 15	2.98	November 15	1.84
1958	September 16	3.20	October 15	1.86
1959	February 12,13,14	3.37	September 22	2.61
1960	June 12,13	3.08	September 17,18	2.18
1961	May 9	3.05	October 26	2.12

04100290 SILVER LAKE NEAR WOLFLAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1962	March 12	3.47	September 30	1.80
1963	April 1,2	2.78	February 1	1.53

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100300 SKINNER LAKE NEAR ALBION

GAGE LOCATION.--Lat 41°24'12", long 85°22'37", in SE¼SE¼NW¼ sec. 16, T. 34 N., R. 10 E. (ALBION, IN quadrangle). The gage is on the upstream side of the bridge, over the outlet channel, on the northwestern lobe of the lake, and 2.5 mi northeast of Albion, Noble County, Indiana.

SURFACE AREA.--125 acres.

DRAINAGE AREA.--14.0 mi².

PERIOD OF RECORD.--1945-72, 1976 to present.

DATUM OF GAGE.--920.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929, as decreed on August 31, 1955, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel-sheet piling dam with a fixed crest.

INLET AND OUTLET.--Rimmell Branch enters the lake on the southern shore, a small ditch enters on the southeastern tip, and the outlet channel of Sweet Lake flows into the lake from the northeast. The outlet, Croft ditch, is on the southern shore of the northwestern lobe, and flows into the South Branch of the Elkhart River, 5.6 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.60 ft, April 5, 1950; minimum stage, 6.14 ft, October 16, 17, 1946.

ANNUAL EXTREME LEVELS FOR SKINNER LAKE, 1945-72, 1976-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 30	7.50	September 20-23	6.82
1946	June 14	10.09	September 30	6.32
1947	April 21	10.36	October 16,17	6.14
1948	February 21	10.06	September 27,28	6.50
1949	February 16	10.53	October 25,26	6.43
1950	April 5	12.60	October 2	6.79
1951	July 11	10.32	September 30	6.98
1952	January 27	11.25	October 6	6.96

04100300 SKINNER LAKE NEAR ALBION--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1953	May 23	8.87	September 30	6.75
1954	April 26	10.38	November 18-20	6.39
1955	October 15	12.02	September 25,26,30	7.32
1956	April 30	12.55	September 28-30	7.20
1957	April 6	10.50	November 14	6.98
1958	September 18	12.24	October 14,15	6.99
1959	February 14	11.77	September 20,21	7.30
1960	June 14	11.90	September 7,8	7.28
1961	April 23	9.92	September 11	7.40
1962	March 12	10.59	September 30	7.04
1963	March 6	8.90	October 1,2	7.02
1964	April 29	8.48	October 31	7.08
			November 12	7.08
1965	April 25,26	8.98	November 25,26	6.96
1966	December 26	10.42	September 30	7.18
1967	December 9	11.60	October 31	7.00
			November 1	7.00
1968	June 26	12.00	October 1-15	7.20
1969	January 31	10.80	September 4-7,14-16	7.50
1970	April 22	9.10	January 23-25	7.50
			September 12	7.50
1971	February 6	9.50	September 16-30	7.20
1972	September 15,16	10.30	October 20,21	7.10
			November 23-26	7.10
1976*	September 26-28	7.87	September 15-18	7.78
1977*	March 4	9.65	June 4	7.71
1978	March 22	11.11	September 12	7.59
1979	March 5	11.90	September 23,25-30	7.56
1980	June 2	9.64	October 5	7.63
1981	April 14	10.83	August 19,21-25	7.68
1982	March 14	11.98	May 6	7.40
1983*	May 2	10.36	September 15,18	6.49
1984	March 16	10.15	October 9-11	6.61
1985	February 24	12.52	October 5,6	6.71

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100310 PLEASANT LAKE NEAR WOLFLAKE

GAGE LOCATION.--Lat 41°20'54", long 85°28'06", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 33 N., R. 9 E. (MERRIAM, IN quadrangle). The gage is located on the eastern side of the lake, 1.6 mi northeast of the town of Wolflake, Noble County, Indiana.

SURFACE AREA.--20 acres.

DRAINAGE AREA.--0.29 mi².

PERIOD OF RECORD.--1952-1954.

DATUM OF GAGE.--910.00 ft above NGVD of 1929.

GAGE.--A staff gage is driven into the lake bed on the eastern shore.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake is a closed basin.

INLET AND OUTLET.--The lake drains the immediate lowlands and has no outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.52 ft, May 1, 2, 3, 1952; minimum stage, 0.25 ft, October 23, 24, 1953.

ANNUAL EXTREME LEVELS FOR PLEASANT LAKE, 1952-54

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952*	May 1,2,3	6.52	September 30	4.13
1953*	October 1-4	4.13	July 18	1.29
1954*	October 1,2	0.43	October 23,24	0.25

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100320 UPPER LONG LAKE NEAR WOLFLAKE

GAGE LOCATION.--Lat 41°21'33", long 85°29'09", in NE¹₄NE¹₄SE¹₄ sec. 33, T. 34 N., R. 9 E. (MERRIAM, IN quadrangle). The gage is on the northeastern shore of the lake, at the northernmost boat slip, and 1.8 mi north-northeast of the town of Wolflake, Noble County, Indiana.

SURFACE AREA.--86 acres.

DRAINAGE AREA.--2.08 mi².

PERIOD OF RECORD.--1956 to present.

DATUM OF GAGE.--880.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on February 20, 1968, by the 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 of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.40 ft, June 27, 1968; minimum stage, 9.95 ft, May 11, 1970.

ANNUAL EXTREME LEVELS FOR UPPER LONG LAKE, 1956-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1956*	April 30	12.65	September 26,30	10.54
	May 1	12.65		
1957	April 8	11.72	September 12-19, 23-25	10.32
1958	September 15-17,20	11.78	October 4	10.14
1959	February 19	12.79	September 21	10.72
1960	June 18	12.58	September 16,17	10.96
1961	April 23,25	12.04	January 23	10.60
1962	March 12,13	12.68	September 29,30	10.72
1963	March 13,14	12.24	October 1-4	10.70

04100320 UPPER LONG LAKE NEAR WOLFLAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1964	April 29,30	12.09	November 12	10.40
1965	April 10	12.83	November 24-28	10.64
1966	January 1	12.64	September 30	10.80
1967	December 10	12.95	October 13	10.70
1968	June 27	13.40	September 12	11.00
			June 22	11.00
1969	January 30	12.85	December 13	11.00
1970	November 20-23	11.70	May 11	9.95
1971	March 29-31	11.65	March 17	10.50
	April 1-6	11.65		
1972	April 18,20,21	11.80	June 12,19	10.25
1973	November 7,8,24,25	11.80	July 14	11.00
	March 20,21	11.80		
	April 16	11.80		
	June 5,7-9	11.80		
1974*	March 2-10	11.75	July 5	11.00
1975*	April 18,19	11.90	December 23	11.00
			January 21	11.00
1976*	March 18	12.12	February 6	10.49
1977*	March 13	12.20	June 7	11.29
			August 3	11.29
1978	April 6	12.25	September 10-12	11.24
1979*	April 11	11.87	July 22,23	11.21
1980	April 4	11.93	October 17,18	11.26
1981*	June 14	12.45	April 16	11.05
1982	July 3	12.24	August 29,30	11.36
1983	November 2	12.17	September 15	11.25
1984	May 26	12.24	August 31	11.28
1985	February 24	12.61	July 24,29,30	11.34
			August 3,4	11.34

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100330 LOWER LONG LAKE NEAR ALBION

GAGE LOCATION.--Lat 41°22'40", long 85°29'31", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 28, T. 34 N., R. 9 E. (ALBION, IN quadrangle). The gage is located at the northern edge of the lake, 3.7 mi southwest of the town of Albion, Noble County, Indiana.

SURFACE AREA.--66 acres.

DRAINAGE AREA.--4.35 mi².

PERIOD OF RECORD.--1946-52.

DATUM OF GAGE.--880.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is at the outlet. One is driven into the bed of the channel, 50 ft downstream of the lake. The other is attached to a piling on the bank.

ESTABLISHED LEGAL LEVEL.--9.81 ft gage datum or 889.81 ft above NGVD of 1929 as decreed on October 7, 1954, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by the remains of a rock dam, 0.3 mi downstream from the lake outlet.

INLET AND OUTLET.--There are two inlets. One enters on the western shore from Russell Lake and the other enters on the southern tip from Upper Long Lake, 0.6 mi upstream. The outlet, Kirkpatrick ditch, is on the northern tip and flows into the South Branch of the Elkhart River, 2.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.54 ft, April 5, 1950; minimum stage, 8.37 ft, October 16, 1946.

ANNUAL EXTREME LEVELS FOR LOWER LONG LAKE, 1946-52

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 17, 19	10.17	September 30	8.54
1947	April 21	10.64	October 16	8.37
1948	February 20	10.66	September 28	9.01
1949	February 16	10.67	October 30, 31	8.94
			November 3	8.94
1950	April 5	11.54	October 2	9.24

04100330 LOWER LONG LAKE NEAR ALBION--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951*	December 9	10.84	September 29	9.67
1952*	January 28	10.69	October 4,5	9.64

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100340 EAGLE LAKE NEAR KIMMELL

GAGE LOCATION.--Lat 41°25'25", long 85°32'23", in NE¹₄NE¹₄NE¹₄ sec. 12, T. 34 N., R. 8 E. (LIGONIER, IN quadrangle). The gage is located on the southern edge of the lake. The lake is 3.7 mi southeast of the town of Ligonier, Noble County, Indiana.

SURFACE AREA.--81 acres.

DRAINAGE AREA.--3.22 mi².

PERIOD OF RECORD.--1946-48.

DATUM OF GAGE.--870.00 ft above NGVD of 1929.

GAGE.--A staff gage is located on the southern edge of the lake, mounted to a board driven into the lake bed and attached to a boat pier.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The lake level is controlled by a riffle at the head of the lake outlet.

INLET AND OUTLET.--The lake has one inlet at the southern end and one at the northwestern end of the lake. Willets ditch, the outlet, flows from the lake at the northeastern side of the eastern lobe into Diamond Lake, 0.6 mi downstream. Diamond Lake discharges into the South Branch of the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 5.74 ft, April 21, 1947; minimum stage, 4.93 ft, October 14-17, 1946.

ANNUAL EXTREME LEVELS FOR EAGLE LAKE, 1946-48

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	January 9	5.69	September 6, 16-22, 30	4.99
	February 13	5.69		
1947	April 21	5.74	October 14-17	4.93
1948*	January 2	5.56	October 9-17, 24-26	5.24

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100350 DIAMOND LAKE NEAR WAWAKA

GAGE LOCATION.--Lat 41°26'15", long 85°31'05", in NE¼NW¼NW¼, sec.5, T. 34 N., R. 9 E. (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, Noble County, Indiana.

SURFACE AREA.--105 acres.

DRAINAGE AREA.--4.80 mi².

PERIOD OF RECORD.--1946 to present.

DATUM OF GAGE.--870.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 is at the southeastern edge of the lake and joins the South Branch of the Elkhart River, 0.8 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.83 ft, March 20, 1982; minimum stage, 2.29 ft, October 17, 1946.

ANNUAL EXTREME LEVELS FOR DIAMOND LAKE, 1946-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	February 19	4.68	September 30	2.45
1947	April 23	4.99	October 17	2.29
1948	May 14	5.03	September 28	3.28
1949	February 19	4.98	October 6,12-14,22-24	3.34
1950	April 7	6.32	October 1,2	3.48
1951	February 23	5.42	February 5	3.96
			September 30	3.96
1952	May 27	5.20	October 3-5	3.94
1953	May 25,26	4.62	September 8,29,30	3.80

04100350 DIAMOND LAKE NEAR WAWAKA--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954	April 28	5.12	October 17-27	3.70
1955	October 18	6.50	September 21,22,26	4.14
1956	May 3	6.12	October 3-5	4.14
			September 30	4.14
1957	April 13	5.14	September 11,12,15	3.88
1958	September 20,21	6.12	October 12-15	3.88
1959	February 19	6.74	September 21	4.00
1960	June 21	5.52	September 8	3.98
1961	April 28,29	5.42	February 10-12	3.96
1962	March 18,19	6.02	September 29,30	4.00
1963	March 16	5.60	July 12,13	3.78
1964	April 29	4.61	September 17	3.76
1965	April 13	5.22	October 25-28	3.70
1966	January 2	6.02	September 24,25,29,30	4.22
			August 9	4.22
1967	December 13-15	6.05	September 19	4.15
1968	June 30, July 1,2	6.65	October 1-14,18	4.20
			September 18	4.20
1969	February 2,3	6.35	September 1-16	4.15
			August 29-31	4.15
1970	April 23-26	5.25	October 1-13,17-19,	4.30
			28-30, January 21-26	4.30
			September 6-13	4.30
1971	March 14	5.80	September 19	4.20
1972	September 19-22	5.70	June 27,28	4.20
1973	November 18-22	5.85	September 17-30	4.25
1974	February 28	5.90	August 6,7,27,28	4.10
	March 1,2	5.90	September 7-11	4.10
1975	June 16-19	5.40	October 19,20	4.10
1976	March 5,6	5.65	October 3-8,16-18	4.20
1977	March 19	5.70	February 5,6	4.08
1978	March 25,26	6.12	September 9-11	4.16
1979	March 23,24	5.38	October 29	4.18
			September 26-30	4.18
1980	June 3,4	6.08	November 7	4.38
			July 26	4.38
1981*	June 18	6.44	October 13,14	4.38
1982	March 20	7.83	September 4,5	4.41
1983*	December 7	5.62	September 14,15	4.15
1984	December 14	5.52	September 6	4.26
1985*	February 28	7.03	August 4	4.36

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100360 SPARTA LAKE AT KIMMELL

GAGE LOCATION.--Lat 41°23'44", long 85°33'38", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 34 N., R. 8 E. (LIGONIER IN quadrangle). The gage is located on the eastern edge of the lake, 0.7 mi west of the town of Kimmell, Noble County, Indiana.

SURFACE AREA.--31 acres.

DRAINAGE AREA.--0.69 mi².

PERIOD OF RECORD.--1946-50.

DATUM OF GAGE.--880.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to a board driven into the lake bed on the eastern side of the lake.

ESTABLISHED LEGAL LEVEL.--8.50 ft gage datum or 888.50 ft above NGVD of 1929 as decreed on November 17, 1954, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by a 5-ft diameter culvert at the outlet.

INLET AND OUTLET.--One small ditch enters the lake on the southeastern tip. The outlet, Sparta Lake ditch, is at the northern end of the lake, and flows into Engle Lake, 2.7 mi downstream, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.34 ft, April 2, 1950; minimum stage, 7.54 ft, October 16, 1946.

ANNUAL EXTREME LEVELS FOR SPARTA LAKE, 1946-50

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	January 22-26	9.25	September 30	7.70
1947	May 21	9.38	October 16	7.54
1948	May 14,15	9.29	September 27,28	8.40
1949	February 15-17	9.40	October 29,30	8.33
1950	April 2	10.34	October 1	8.50

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100370 ENGLE LAKE NEAR LIGONIER

GAGE LOCATION.--Lat 41°26'08", long 85°34'30", in SE¼NW¼ sec. 2, T. 34 N., R. 8 E. (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, Noble County, Indiana.

SURFACE AREA.--48 acres.

DRAINAGE AREA.--4.19 mi².

PERIOD OF RECORD.--1956-67, 1977 to present.

DATUM OF GAGE.--870.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on October 23, 1984, by the Noble County Circuit Court.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel at low water levels and the first culvert downstream, at higher levels.

INLET AND OUTLET.--Sparta Lake ditch feeds the lake from the south. The outlet is on the northern shore and flows through Indian Lake and into the Elkhart River, 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage 10.53 ft, March 29, 1985; minimum stage, 7.48 ft, November 17, 1964.

ANNUAL EXTREME LEVELS FOR ENGLE LAKE, 1956-67, 1977-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1956*	April 29,30	9.34	September 30	8.08
1957	April 26-28	9.03	October 21	7.81
1958	September 21	9.10	October 25,26	8.00
1959	April 9	9.51	September 19	8.35
1960	April 20	9.22	September 1	8.54
1961	April 25	9.26	October 30	8.47
1962	March 15	9.72	September 24,28-30	8.16
1963	March 14	9.12	September 30	8.03
1964	April 28	8.80	October 31	7.76
1965	September 16	9.26	November 17	7.48
1966	December 22	9.54	September 30	8.23

04100370 ENGLE LAKE NEAR LIGONIER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1967*	December 10-12	9.54	October 9-14, 29-31 November 1	8.20 8.20
1977*	March 28	9.56	September 11, 12	9.03
1978*	April 6	9.55	September 11, 12	8.63
1979*	May 2, 3	9.25	September 30	8.45
1980*	June 1	10.28	October 5	8.53
1981*	June 14	10.08	October 13-16	9.03
1982*	July 10	9.68	November 17, 18	9.14
1983	May 2	10.10	September 15	9.08
1984*	February 13	10.15	September 6, 22-24	9.10
1985	March 29	10.53	September 21, 22	9.06

* Incomplete record

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100390 KNAPP LAKE NEAR WASHINGTON CENTER

GAGE LOCATION.--Lat 41°20'36", long 85°36'17", in SW¼NE¼SW¼ sec. 4, T. 33 N., R. 8 E. (ORMAS, IN quadrangle). The gage is at a public fishing site on the eastern side of the lake, and 5.8 mi west of the town of Wolflake, Noble County, Indiana.

SURFACE AREA.--88 acres.

DRAINAGE AREA.--6.02 mi².

PERIOD OF RECORD.--1946-74, 1976 to present.

DATUM OF GAGE.--870.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on October 7, 1954, by the Noble County Circuit Court. Harper Lake, Moss Lake, and Hindman Lake, all near Washington Center, have the same established level as Knapp Lake and, hence, the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The lake level is controlled by the outlet channel.

INLET AND OUTLET.--There are three inlets. The outlet of Little Knapp Lake enters at the southeastern corner, the outlet of Harper Lake enters at the southernmost tip, and Galloway ditch enters on the eastern shore. The outlet flows from the lake on the western shore, through a series of lakes, into Turkey Creek and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.10 ft, June 27, 1968; minimum stage, 6.87 ft, September 14, 15, 1983.

ANNUAL EXTREME LEVELS FOR KNAPP LAKE, 1946-74, 1976-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	June 20,21	8.87	September 30	7.19
1947*	April 21	9.67	December 5-10	7.48
1948	May 13	9.40	September 26,27	7.24
1949	February 16	9.38	October 6,7,10-16, 19-25	7.28 7.28
1950	January 26	10.18	October 1,2	7.44
	April 5	10.18		

04100390 KNAPP LAKE NEAR WASHINGTON CENTER--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951	January 4	9.48	September 30	7.56
1952	April 15	10.20	October 21,22	7.48
1953	May 24-26	8.50	September 26-30	7.12
1954	April 26	9.38	October 2,3,7-26	7.10
1955	October 17	9.88	September 26	7.11
1956	April 30, May 13	9.65	September 30	7.10
1957	April 12	9.06	October 10-17	7.02
1958	September 19	10.14	October 12-15	7.06
1959	February 14	10.12	September 22,25,26	7.14
1960	June 15,16	9.40	September 17,30	7.42
1961	April 23	9.07	January 23,24	7.16
1962	March 13	9.68	September 29,30	7.06
1963	March 10	9.02	October 2	7.05
1964	March 26	9.10	August 20	7.20
1965	May 28	9.29	October 7,8	7.19
1966	December 26	9.46	September 18	7.06
1967	December 10	10.80	October 7-9	7.00
1968	June 27	11.10	October 1-14	7.10
1969	December 30	9.10	October 3-5	7.20
			November 1-6	7.20
1970	April 22	9.40	October 1-10,28-30	7.30
			January 13-15,20-26	7.30
			September 2-7,10-12	7.30
1971	February 6	9.00	September 16,19	7.20
1972	April 21-23	9.20	October 1-3,5-8,12-20	7.20
1973	June 6,7	9.40	September 21-27	7.40
1974	January 22-24	10.00	October 16-31	7.50
			November 4-24	7.50
			September 5-10,19-30	7.50
1976	February 17	8.90	July 20	7.19
1977	March 29	8.76	March 28	7.49
1978*	October 3	8.06	June 18-20	7.01
1979	February 25	9.16	September 26,27	6.97
1980	June 8	8.53	October 30	7.01
1981	June 14	9.95	November 22,26	7.10
1982	March 14	10.16	August 29-31	7.09
1983	May 2	9.27	September 14,15	6.87
1984*	May 27	8.96	October 11	6.91
1985*	March 31	9.31	September 21,22	6.97

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100440 VILLAGE LAKE NEAR CROMWELL

GAGE LOCATION.--Lat 41°21'52", long 85°38'23", in NW¹₄NE¹₄NE¹₄ sec. 31, T. 34 N., R. 8 E. (NORTH WEBSTER, IN quadrangle). The gage is northwest of the lake, at the State Highway 5 bridge over the outlet, and 0.1 mi south of Indian Village, Noble County, Indiana.

SURFACE AREA.--12 acres.

DRAINAGE AREA.--12 mi².

PERIOD OF RECORD.--1953-66.

DATUM OF GAGE.--870.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to the north, upstream bridge piling, approximately 420 ft downstream of the lake.

ESTABLISHED LEGAL LEVEL.--6.68 ft gage datum or 876.68 ft above NGVD of 1929 as decreed on September 10, 1959, by the Noble County Circuit Court. Gordy, Rider, and Duely Lakes all near Cromwell, have the same established level as Village Lake and, hence, the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--An unnamed ditch enters from the east. The other inlet enters on the extreme southern tip from Duely Lake and a chain of lakes to the southeast. The outlet is at the northwestern tip of the lake and flows into Turkey Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.00 ft, September 17, 1958; minimum stage, 6.08 ft, September 7-12, 1957, October 29, 30, 1963.

ANNUAL EXTREME LEVELS FOR VILLAGE LAKE, 1953-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1953*	March 19	7.05	July 25	6.09
1954	April 26	7.95	October 1-4, 10-23	6.13
1955	October 12	8.69	September 20-23	6.18
1956	May 12	8.36	October 2-4	6.19
1957	April 11	7.70	September 7-12	6.08
1958	September 17	9.00	October 8-15	6.16
1959	February 14	8.70	August 28	6.34

04100440 VILLAGE LAKE NEAR CROMWELL--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1960	June 14-17	7.86	September 14	6.40
1961	April 25	7.74	October 11,12	6.46
1962	March 12	8.11	September 23-25,28-30	6.27
1963	March 10,16	7.73	February 14-17	6.17
1964	April 8	7.14	October 29,30	6.08
1965	May 27	7.90	October 4-7,11-31	6.30
			November 1-9	6.30
1966	December 26	8.40	September 19	6.20

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100446 FLATBELLY LAKE NEAR SYRACUSE

GAGE LOCATION.--lat 41°22'07", long 85°40'26", in NE¹/₄SE¹/₄SE¹/₄ sec. 26, T. 34 N., R. 7 E. (NORTH WEBSTER, IN quadrangle). The gage is on the eastern wing-wall of the dam, 8 ft upstream from the end of the walkway, on the north-western end of the lake, and 5.0 mi southeast of Syracuse, Kosciusko County, Indiana.

SURFACE AREA.--326 acres.

DRAINAGE AREA.--4.66 mi².

PERIOD OF RECORD.--1964-67. Since 1967, periodic readings of the staff gage have been taken by the Tri-County State Fish and Game Area property manager, but are not included in this report.

DATUM OF GAGE.--860.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is mounted on the eastern wingwall of the dam.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by an earthen dam with a concrete stop-log bay and a 96-inch radial arm gate.

INLET AND OUTLET.--The lake drains the adjacent wetlands. The outlet flows from the northwestern end of the lake into Papakeeche Lake.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 13.05 ft, December 10, 11, 1966; minimum stage, 9.25 ft, April 11, 1967.

ANNUAL EXTREME LEVELS FOR FLATBELLY LAKE, 1964-67

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1964*	May 18	11.66	October 9	9.99
1965	April 26,27	12.61	November 13,14,26	10.90
1966	December 26,27	12.90	September 17-19, 26,27	11.66 11.66
1967	December 10,11	13.05	April 11	9.25

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100448 PAPAKEECHIE LAKE NEAR SYRACUSE

GAGE LOCATION.--Lat 41°22'14", long 85°40'34", in SW¼NE¼SE¼ sec. 26, T. 34 N., R. 7 E. (NORTH WEBSTER, IN quadrangle). The gage is on the southwestern side of the lake, 13 ft northeast of the 54-inch culvert under Kohler Road, and 3.3 mi northeast of North Webster, Kosciusko County, Indiana.

SURFACE AREA.--300 acres.

DRAINAGE AREA.--5.52 mi².

PERIOD OF RECORD.--1964-67. Since 1967, periodic staff gage readings have been taken by the Tri-County State Fish and Game Area property manager, but are not included in this report.

DATUM OF GAGE.--860.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed and attached to a telephone pole 13 ft lakeward of the inlet culvert.

ESTABLISHED LEGAL LEVEL.--Not established.

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 flows into the lake on the southwestern side from Flatbelly Lake. The outlet flows from the northwestern shore, through the Wawasee State Fish Hatchery, and into Lake Wawasee, 0.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.01 ft, March 27, 28, 1965; minimum stage, 4.52 ft, November 26, 1964.

ANNUAL EXTREME LEVELS FOR PAPAKEECHIE LAKE, 1964-67

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1964*	May 18	5.73	September 26	4.81
1965	March 27,28	8.01	November 26	4.52
1966	December 28	7.97	September 27	6.49
1967	December 10	7.35	September 17-19	6.10

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100450 LAKE WAWASEE AT WAWASEE

GAGE LOCATION.--Lat 41°22'41", long 85°40'12", in NW¼NW¼ sec. 25, T. 34 N., R. 7 E. (LAKE WAWASEE, IN quadrangle). The gage is on the southern shore of the lake, at the Wawasee State Fish Hatchery, and 5.0 mi southeast of Syracuse, Kosciusko County, Indiana.

SURFACE AREA.--3,060 acres, revised.

DRAINAGE AREA.--36.9 mi², revised.

PERIOD OF RECORD.--1943-66.

DATUM OF GAGE.--850.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is located at the boat pier of the Wawasee State Fish Hatchery.

ESTABLISHED LEGAL LEVEL.--8.89 ft gage datum or 858.89 ft above NGVD of 1929 as decreed on September 20, 1948, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with steel gates on the outlet channel of Syracuse Lake.

INLET AND OUTLET.--Papakeechie Lake empties into the lake on the southern shore, Turkey Creek enters from the southeast, Dillon Creek enters on the eastern shore, and several wetlands and ditches drain into the lake at various points. The outlet is the channel connecting Lake Wawasee and Syracuse Lake on the northwestern side. Syracuse Lake flows into Turkey Creek and eventually the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.22 ft, January 27, 28, 1950; minimum stage, 7.00 ft, November 20-22, 1953.

ANNUAL EXTREME LEVELS FOR LAKE WAWASEE, 1943-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	May 25,26	10.00	December 26	8.36
1944	March 17-19	9.40	September 24,27-30	7.49
1945	May 18-19	9.08	November 1-6	7.27
1946	July 1	9.13	September 30	7.43
1947	April 22-24	9.43	October 17,30	7.11
1948	March 7-10	9.12	September 28,29	7.54
1949	July 10,11	9.58	October 28-31	7.14
1950	January 27,28	10.22	December 10,11	8.24

04100450 LAKE WAWASEE AT WAWASEE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951	February 24-27	9.18	September 30	8.46
1952	February 10,11	9.31	September 30	7.93
1953	May 23	8.90	November 15-18	7.28
1954	May 3-8	9.46	November 20-22	7.00
1955	October 16-18	9.82	September 22,30	7.78
1956	April 30	9.66	September 25-30	7.56
	May 1-3	9.66		
1957	June 30	9.25	November 15-19	7.18
1958	September 22	9.58	October 16	7.99
1959	February 26	9.55	September 24	7.76
1960	April 20-23	9.37	September 18	7.96
1961	April 28-30	9.50	February 1-8	7.41
1962	April 11	9.27	September 30	7.68
1963	May 18-21	9.04	October 2	7.66
1964	May 1	8.90	January 4	7.58
1965	April 28	9.40	November 26,27	7.74
1966	May 18	9.44	September 30	8.40

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100460 SYRACUSE LAKE AT SYRACUSE

GAGE LOCATION.--Lat 41°25'26", long 85°44'59", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 34 N., R. 7 E. (LAKE WAWASEE, IN quadrangle). The gage is at the southwestern end of the lake, on the southern abutment of the dam, and just west of the State Road 13 bridge in the town of Syracuse, Kosciusko County, Indiana.

SURFACE AREA.--414 acres, revised.

DRAINAGE AREA.--38.2 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--849.85 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1973-74.

GAGE.--A digital water-stage recorder (hourly) is installed in a concrete shelter over a stilling well in the southern abutment of the control structure. Two auxiliary staff gages are at the site. One is attached to the upstream side of the southern 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 NGVD of 1929 as decreed on September 20, 1948, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 8.87 ft gage datum or 858.72 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with two steel lift gates.

INLET AND OUTLET.--The one inlet is the outlet channel from Lake Wawasee on the southern shore of the lake. The outlet, Turkey Creek, flows from the lake at the southwestern end and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.15 ft, January 27, 28, 1950; minimum stage, 7.00 ft, November 19-21, 1953.

ANNUAL EXTREME LEVELS FOR SYRACUSE LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	August 16	9.05	August 24	8.72
1944	March 16-18	9.34	September 27	7.48
1945	September 30	9.03	November 2,3	7.28
1946	June 30	9.11	September 30	7.39

04100460 SYRACUSE LAKE AT SYRACUSE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947	April 21-23	9.36	October 17	7.11
1948	March 7	9.12	September 29,30	7.56
1949	July 9	9.58	October 28,29	7.14
1950	January 27,28	10.15	December 10	8.22
1951	December 10-12	9.10	September 29,30	8.46
	April 15,16	9.10		
1952	February 6-8	9.18	September 13,14,21,22	7.90
1953	May 25	8.82	September 27-30	7.38
1954	May 3-6	9.30	November 19-21	7.00
1955	October 17-19	9.76	September 26	7.76
1956	May 1	9.65	September 30	7.51
1957	July 5,6	9.18	November 24	7.08
1958	September 19	9.52	October 14,15	8.01
1959	February 17,18	9.41	September 25	7.80
1960	April 19	9.38	September 30	7.94
1961	April 29	9.48	February 1-7	7.40
1962	April 10,12,13	9.29	September 28-30	7.70
1963	May 12	9.11	October 1,2,4	7.69
1964	May 1-3,5,8,10	8.90	November 11,12,18,19, 29	7.63 7.63
1965	April 25-27	9.34	November 26	7.73
1966	May 18,19	9.40	February 7	8.27
1967	December 11-14	9.20	October 11,31	8.20
			November 1-5	8.20
			February 14,25-28	8.20
			March 1,2	8.20
1968	June 27-30, July 1	9.70	October 2-14	8.30
1969	February 1-8	8.90	February 26	8.20
	June 14, July 26	8.90		
1970	May 24-28	9.20	December 2-20	8.30
1971	March 7-10,13-22	8.90	January 29-31	8.00
			February 1-6	8.00
1972	April 21	9.20	October 1-22	8.20
			November 2-30	8.20
			December 1-3,24-27	8.20
1973*	May 30	9.00	March 3-6	8.20
1974	March 8-18	9.20	August 31	8.20
			September 1-12	8.20
1975	April 28-30	9.00	October 1,6-29	8.20
	May 3, June 14	9.00		
1976	March 5-7	9.25	January 17-19	7.90
1977	July 14,15	9.05	November 22-24	8.00
1978	April 9	9.74	March 11	7.80
1979*	March 9-13	9.01	November 6,7	8.16
1980*	April 14	9.13	July 11	8.46

04100460 SYRACUSE LAKE AT SYRACUSE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1981*	May 17	9.22	March 25	8.21
1982	March 22,23	9.44	December 20	8.21
1983	December 6	8.99	October 17	8.05
1984	January 23,24	9.25	October 4-31	7.20
			November 1,10	7.20
1985*	April 7	9.88	September 22	8.48

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100470 DEWART LAKE NEAR LEESBURG

GAGE LOCATION.--Lat 41°22'27", long 85°47'07", in NW¼SW¼NW¼ sec. 25, T. 34 N., R. 6 E. (LEESBURG, IN quadrangle). The gage is on the western 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, Kosciusko County, Indiana.

SURFACE AREA.--551 acres.

DRAINAGE AREA.--8.05 mi².

PERIOD OF RECORD.--1945 to present.

DATUM OF GAGE.--859.87 ft above NGVD OF 1929, as corrected on the basis of levels of IDNR, 1973-74.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 7.70 ft gage datum or 867.57 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet piling dam.

INLET AND OUTLET.--Cable Run enters the lake on the southeastern tip, and an unnamed ditch enters on the eastern shore. The outlet, Hammond ditch, flows from the lake on the northwestern shore and into Wabsee Lake, 2.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.57 ft, June 14, 1981; minimum stage, 3.95 ft, December 21-24, 1964.

ANNUAL EXTREME LEVELS FOR DEWART LAKE, 1945-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 30	7.66	September 22	7.42
1946	March 24-28	8.20	September 21-23, 27-30	6.72
1947*	June 14, 15	8.39	October 16, 17	6.36
1948	March 21-24	8.70	September 28	6.97
1949	February 27	8.46	November 1	6.72

04100470 DEWART LAKE NEAR LEESBURG--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1950	April 4	9.30	October 1	7.22
			December 10	7.22
1951	February 27	8.68	September 29,30	7.90
	April 11-14	8.68		
1952	February 9	8.90	October 23,24	7.80
			September 13,14	7.80
1953	March 21	8.24	September 30	6.58
1954	May 3-6	7.90	January 9-19	6.12
1955	October 15	8.90	October 1	7.39
1956	April 30	8.93	September 30	7.35
1957	April 28,29	8.17	November 19	6.93
			September 30	6.93
1958	August 19	9.10	October 14,15	6.74
1959	April 2	8.78	September 21	7.57
1960	April 17	8.84	September 16	7.82
1961	April 26,27	8.55	February 1-14	7.50
1962	March 22,23	8.90	September 30	7.04
1963	April 1-3	7.82	September 19,30	6.30
1964	October 1	6.28	September 30	4.48
1965	September 22,23	6.60	December 21-24	3.95
1966	May 17	8.71	November 25	6.31
1967	March 22-25	8.80	November 3-8	6.90
	April 2,6	8.80		
1968	June 25,26	9.20	October 7-14	7.10
1969	January 30,31	9.10	October 27-31	8.00
			November 1-16,26,27	8.00
			August 31	8.00
			September 1-6,12-16, 19-30	8.00
1970	April 21-23	9.10	October 27-31	7.90
			November 1,7-17	7.90
			September 3-7,10-12	7.90
1971	February 20-28	8.80	September 19,23-30	7.20
	March 1,6-10,14-24	8.80		
1972*	May 18,19	8.20	November 14-30	6.80
			December 1-930	6.80
			March 17,18	6.80
1973*	March 17-22,25,26	9.10	October 1-4	7.70
1974*	February 27,28	9.20	September 8-10	7.70
	March 1-13	9.20		
1975*	June 16-20	9.10	October 27,28	7.50
1976*	March 5	9.15	November 15-28	7.90
1977*	April 2-7	8.75	August 27	7.68
1978*	March 28	9.38	November 10,13-15,18	7.91
1979	April 10	9.08	September 30	7.64

04100470 DEWART LAKE NEAR LEESBURG--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1980*	April 9	9.20	November 16-20	7.53
1981*	June 14	9.57	February 17	8.26
1982*	July 3	9.21	September 5,23	7.85
1983	May 3	8.74	September 15,18	7.23
1984	May 28	8.42	February 11	7.09
1985	March 29	9.12	October 5,6	7.30

* Incomplete record.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04100480 WABEE LAKE NEAR MILFORD

GAGE LOCATION.--Lat 41°23'35", long 85°50'03", in SW¼SW¼SE¼ sec. 16, T. 34 N., R. 6 E. (MILFORD, IN quadrangle). The gage is on the northeastern shore of the lake, just west of Camp Mack Road, and 1.0 mi southeast of the Milford town line, Kosciusko County, Indiana.

SURFACE AREA.--187 acres.

DRAINAGE AREA.--14.6 mi².

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--820.00 ft above NGVD OF 1929.

GAGE.--A staff gage in one section is attached to a piling in the lake bed.

ESTABLISHED LEGAL LEVEL.--9.79 ft gage datum or 829.79 ft above the NGVD of 1929 as decreed on October 18, 1949, by the Kosciusko County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--Hammond ditch enters the lake on the southeastern shore from Dewart Lake, 2.3 mi upstream, and an unnamed ditch enters at the southern tip. The outlet flows from the lake at the northernmost point and into Turkey Creek, 1.3 mi downstream, and eventually into the Elkhart River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.61 ft, April 5, 1950; minimum stage, 9.29 ft, September 5, 6, October 2-8, 1946.

ANNUAL EXTREME LEVELS FOR WABEE LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 12,18	10.07	September 5,6	9.29
1947	April 22	10.10	October 2-8	9.29
1948	March 23,24	10.37	September 26-28	9.58
1949	February 19	10.37	October 6,7	9.60
1950	April 5	11.61	October 1,2	9.62
1951	March 1-3, April 16	10.70	September 5,6	10.07
1952*	June 15	10.63	September 29,30	10.00
1953*	December 6,10-12	10.23	October 7-13	9.94

* Incomplete record.

STREAMS TRIBUTARY TO LAKE ERIE

04177200 CLEAR LAKE AT CLEAR LAKE

GAGE LOCATION.--Lat 41°44'52", long 84°50'25", in SW¼SW¼ sec. 17, T. 38 N., R. 15 E. (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, Steuben County, Indiana.

SURFACE AREA.--800 acres, revised.

DRAINAGE AREA.--6.86 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--1030.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) is installed in a wooden shelter over a 24-inch diameter stilling well. An auxiliary staff gage is attached to the northern end of the upstream culvert.

ESTABLISHED LEGAL LEVEL.--7.38 ft gage datum or 1,037.38 ft above NGVD of 1929 as decreed on June 1, 1950, by the Steuben County Circuit Court. Round Lake at Clear Lake has the same established level and, hence, the same lake levels for the period of record.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam with an auxiliary slide gate at the outlet of Round Lake.

INLET AND OUTLET.--Two unnamed ditches enter the lake on the southern shore. The outlet is a short channel connecting Clear and Round Lakes. The outlet of Round Lake flows from the northeastern 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); minimum stage, 6.24 ft, September 30, 1962.

ANNUAL EXTREME LEVELS FOR CLEAR LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	May 20	9.24	September 22	6.85
1944	May 27	7.59	September 7-12	6.32
1945	April 4	8.31	October 3-5	6.46
1946	March 10	7.50	September 8,9	6.63
1947	April 5,6	7.94	October 13-16	6.50
1948	May 11	7.77	September 28	6.79
1949	January 20	7.65	September 30	6.57

04177200 CLEAR LAKE AT CLEAR LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1950	April 4,25,26	7.66	October 1-3,5,6	6.56
1951	July 9	8.00	December 9	6.92
1952	May 31	7.62	September 30	6.84
1953	April 17-23	7.39	September 30	6.52
1954	April 9	7.84	November 17-19	6.28
1955	January 2	7.50	October 1,2	7.02
1956	March 8	7.92	September 30	6.89
1957	March 3	7.63	November 10-14	6.72
1958	December 20	7.47	October 14,15	6.65
1959	April 8	7.58	September 19	6.46
1960	June 16	7.63	October 3	6.70
1961	April 28	7.71	October 24,25	6.90
1962	March 21-23	7.48	September 30	6.24
1963	June 9	7.74	November 5	6.27
1964	May 19	7.70	January 11,12	6.42
1965	March 7, April 12, 16,18,26	7.77 7.77	November 26	6.46
1966	December 31	7.79	October 17,18	6.79
	January 1	7.79		
1967	April 2-9	7.90	September 11-19	6.60
1968	December 22-25	8.00	October 1-14	6.80
	February 2-7	8.00		
1969	February 1	8.20	September 15,26	7.10
1970	April 3-6,14-30	7.80	October 1-31	7.20
	May 1-3	7.80	November 1-15	7.20
			August 31	7.20
			September 1-13	7.20
1971	February 22-24,26,27	7.90	September 15-30	6.70
1972	April 19-22	7.80	November 10-29	6.50
	May 1,2,7-11,14-19	7.80		
1973*	May 17	8.00	September 22-24,27	7.10
1974*	March 8-10	8.10	August 28-31	7.00
			September 1-11,21-30	7.00
1975*	February 23-28	8.00	October 7-31	6.90
	May 6-12	8.00	November 1,2	6.90
1976*	March 4-6	8.40	September 6-8,11-18, 23-25	7.05 7.05
1977*	March 30	8.00	November 19-25	6.95
1978	April 8	8.39	September 29,30	6.97
1979	March 30, April 12	7.85	November 12	6.86
1980*	June 7	7.98	October 14-18	7.10
1981	June 15	8.25	October 13-15,23	7.39
			November 23,26	7.39
1982	March 20,21	8.49	September 24,25	7.16
1983*	May 3	8.21	October 30	7.16

04177200 CLEAR LAKE AT CLEAR LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1984*	April 18	8.06	October 10	7.17
			August 29	7.17
1985	February 28	8.37	October 5,6	7.33

* Incomplete record.

STREAMS TRIBUTARY TO LAKE ERIE

04177300 LONG LAKE NEAR RAY

GAGE LOCATION.--Lat 41°44'38", long 84°48'56", in NE¼NW¼ sec. 21, T. 38 N., R. 15 E. (CLEAR LAKE, IN-OH-MI quadrangle). The gage is on the extreme southwestern tip of the lake, at the outlet, and 3.0 mi southeast of Ray, Steuben County, Indiana.

SURFACE AREA.--154 acres.

DRAINAGE AREA.--2.80 mi².

PERIOD OF RECORD.--1961-64.

DATUM OF GAGE.--1,030.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is bolted to the concrete retaining wall at the outlet of the lake.

ESTABLISHED LEGAL LEVEL.--9.70 ft gage datum or 1039.70 ft above NGVD of 1929 as decreed in June 1963, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake was controlled by the invert of a 36-inch concrete culvert during the period of record. Presently, the control structure is a concrete box with a 3-ft notch at the bridge head-wall.

INLET AND OUTLET.--There are two small inlets. One enters on the northern end of the eastern lobe, and the other from the east. The outlet leaves the lake at the southwestern tip, flows through Mirror, Handy, and Marsh Lakes, into Mill Stream drain, and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.66 ft, April 26, 1961; minimum stage, 7.74 ft, October 14, 15, 29, 1963.

ANNUAL EXTREME LEVELS FOR LONG LAKE, 1961-64

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961*	April 26	9.66	July 13	8.58
1962	March 26-31	9.61	September 30	8.04
1963	April 1	9.17	September 30	7.87
1964*	October 1	7.86	October 14, 15, 29	7.74

* Incomplete record.

STREAMS TRIBUTARY TO LAKE ERIE

04177680 BALL LAKE NEAR HAMILTON

GAGE LOCATION.--Lat 41°32'12", long 84°56'18", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 32, T. 36 N., R. 14 E. (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, Steuben County, Indiana.

SURFACE AREA.--87 acres.

DRAINAGE AREA.--11.6 mi².

PERIOD OF RECORD.--1961 to present.

DATUM OF GAGE.--889.81 ft above NGVD of 1929, as corrected on the basis of levels of IDNR in February, 1972.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on September 20, 1974, by the Steuben County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with movable boards.

INLET AND OUTLET.--Fish Creek flows through the lake, entering at the western end and leaving at the northeastern end. Fish Creek empties into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.02 ft, December 26, 1965; minimum stage, 3.96 ft, October 19-31, November 1-12, 1978.

ANNUAL EXTREME LEVELS FOR BALL LAKE, 1961-1985

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1961*	September 13	5.78	September 8-10	5.54
1962	March 13	7.30	May 24	4.72
1963	March 18	7.30	November 24	4.66
1964	March 27	5.94	October 16, 17	4.66
	April 23, 29	5.94		
1965	March 5	8.10	November 25-27	4.60
1966	December 26	10.02	October 4	4.68
1967*	November 11	6.00	July 15	4.05

04177680 BALL LAKE NEAR HAMILTON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1968	February 2	8.10	February 28,29 March 1-9,14,15 May 7,8	4.20 4.20 4.20
1969	January 30	8.10	December 12 September 24-30	4.10 4.10
1970	April 21	6.20	October 1-10,21-30 January 11-24	4.10 4.10
1971	February 20	7.10	October 4-10	4.10
1972	March 17	6.20	November 7-18	4.30
1973	July 4	7.10	September 20-29	4.35
1974	January 23	6.80	October 1,9-12,19-29	4.40
1975*	February 24	6.90	February 15-17	4.70
1976*	February 17	8.10	December 18-25,28,29 January 1-7	4.40 4.40
1977*	March 5	7.39	November 15-24	4.28
1978*	July 2	6.20	October 10-15	4.38
1979*	March 5	7.50	October 19-31 November 1-12	3.96 3.96
1980	June 2	6.36	November 19	4.14
1981	September 4	7.99	November 12	4.43
1982*	March 16	6.96	December 20	4.49
1983	May 2	7.42	October 17-19	4.39
1984*	May 26	6.99	October 21	4.18
1985*	January 1	6.69	October 31	4.34

* Incomplete record.

STREAMS TRIBUTARY TO LAKE ERIE

04177700 HAMILTON LAKE AT HAMILTON

GAGE LOCATION.--Lat 41°32'10", long 84°54'45", in SW¼SW¼NW¼ sec. 34, T. 36 N., R. 14 E. (HAMILTON, IN quadrangle). The gage is on the eastern shore of the southern lobe of the lake, at the outlet, in the town of Hamilton, Steuben County, Indiana.

SURFACE AREA.--802 acres, revised.

DRAINAGE AREA.--16.5 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--890.12 ft above NGVD of 1929 as corrected on the basis of levels of IDNR, 1978.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on July 3, 1947, by the Steuben County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 8.83 ft gage datum or 898.95 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by two dams. The northernmost dam is concrete and steel sheet piling with a fixed crest. The southern dam has a fixed concrete sill.

INLET AND OUTLET.--Black Creek enters the lake on the northeastern 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, December 30, 1965; minimum stage, 7.27 ft, January 4-9, 1953.

ANNUAL EXTREME LEVELS FOR HAMILTON LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	August 3	8.47	August 20	8.25
1944	April 12	9.35	September 22-27	7.61
1945	May 18	9.55	October 22-31	7.81
			November 1-3	7.81
1946	February 21	8.75	September 8,9,29	7.67

04177700 HAMILTON LAKE AT HAMILTON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947	April 21	9.51	October 14-16	7.55
1948	February 20	9.36	September 20	7.78
1949	February 15	9.26	October 6,15,21-30	7.88
1950	April 4	9.68	October 1,2	8.12
1951	February 22	9.32	September 29,30	8.22
1952	May 26	9.08	September 30	7.97
1953	May 26	8.62	January 4-9	7.27
1954	March 26	9.13	November 14,22	7.68
1955	October 15	9.07	September 26	8.00
1956	April 30	9.60	September 27-30	7.56
1957	April 12	9.07	November 14,15	7.43
1958	September 17,18	9.20	October 15	8.06
1959	February 15	9.34	September 20,21	8.02
1960	January 14	9.16	September 14-18	8.08
1961	April 25	9.28	October 25	8.20
			July 12,13,22	8.20
1962	March 21	9.24	December 11	7.40
1963	March 21	9.04	October 5	7.90
1964	April 27,29,30	8.70	October 30,31	7.96
	May 9	8.70		
1965	April 20	8.92	November 14,16,17,20	7.88
1966	December 30	10.14	August 19	8.24
1967	December 12,13	9.10	October 8	7.80
			September 9-20,22-28	7.80
1968	February 2	9.50	October 8	7.80
1969	January 30,31	9.20	September 13-16	8.00
	February 1	9.20		
1970	March 28	8.94	September 12	7.95
1971	February 21,22,26,27	8.90	August 27-31	7.80
			September 1-3,18,19	7.80
1972	March 17	9.00	October 1-21	8.00
	April 17-22	9.00	November 7-9	8.00
			March 15,16	8.00
			August 31	8.00
			September 1,5-8	8.00
1973	July 4	9.20	October 4,8-11	8.30
			September 19-28	8.30
1974	January 27	9.10	August 30,31	8.00
			September 1,4-10,	8.00
			20-28,30	8.00
1975*	February 24	9.10	October 19,21-31	7.90
			November 1,2	7.90
1976*	February 17	9.50	August 31	8.30
			September 1-8,13,14,	8.30
			24-26	8.30

04177700 HAMILTON LAKE AT HAMILTON--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1977*	March 5	9.24	July 30	8.20
1978*	March 23	9.48	September 11	8.28
1979	March 31	8.98	June 26	8.32
1980*	December 25	9.07	October 4	8.41
1981	June 14	9.25	October 13	8.43
			July 18	8.43
1982*	March 14	8.98	September 5,16,23	8.26
1983	May 2	9.35	September 15	8.03
1984*	May 26	9.14	October 10,11	8.03
1985	February 26	9.24	August 3,4	8.30

* Incomplete record.

STREAMS TRIBUTARY TO LAKE ERIE

04179200 INDIAN LAKE NEAR CORUNNA

GAGE LOCATION.--Lat 41°27'58", long 85°10'20", in NE¼NW¼NW¼ sec. 29, T. 35 N., R. 12 E. (CORUNNA, IN quadrangle). The gage is on the northern shore of the lake, near the boat landing, and 2.5 mi northwest of Corunna, DeKalb County, Indiana.

SURFACE AREA.--56 acres.

DRAINAGE AREA.--3.76 mi².

PERIOD OF RECORD.--1957.

DATUM OF GAGE.--970.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed near the boat landing on the northern shore.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The one inlet enters the lake from the northwest. The outlet flows from the lake on the southern shore into McCullough ditch, thence into Cedar Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.30 ft, April 6, 1957; minimum stage, 7.00 ft, September 11, 1957.

ANNUAL EXTREME LEVELS FOR INDIAN LAKE, 1957

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1957*	April 6	9.30	September 11	7.00

* Incomplete record.

STREAMS TRIBUTARY TO LAKE ERIE

04179300 CEDAR LAKE NEAR WATERLOO

GAGE LOCATION.--Lat 41°27'28", long 85°04'27", in NE¼SW¼ sec. 30, T. 35 N., R. 13 E. (WATERLOO, IN quadrangle). The gage is south of the lake, on the control dam in the outlet channel, and 3.3 mi northwest of Waterloo, DeKalb County, Indiana.

SURFACE AREA.--28 acres, revised.

DRAINAGE AREA.--23.4 mi², revised.

PERIOD OF RECORD.--1943-56.

DATUM OF GAGE.--890.00 ft above NGVD of 1929.

GAGE.--There are two staff gages at the site. One is bolted to the northern side of the western abutment of the dam. The other is attached to a 10-inch channel iron in the western abutment.

ESTABLISHED LEGAL LEVEL.--6.76 ft gage datum or 896.76 ft above NGVD of 1929 as decreed on April 8, 1953, by the DeKalb County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with a movable gate.

INLET AND OUTLET.--Leins ditch enters the lake on the western shore. An unnamed ditch enters on the northern shore and another on the southeastern shore. The outlet, Cedar Creek, flows from the lake at the southern tip and eventually into the St. Joseph River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.84 ft, April 5, 1950; minimum stage, 5.50 ft, August 24, 1950.

ANNUAL EXTREME LEVELS FOR CEDAR LAKE, 1943-56

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	September 7	6.98	September 2, 3, 29, 30	6.50
1944	April 12	10.58	August 1	6.41
1945	May 18	9.80	October 2, 21-31	6.40
			November 1-4	6.40
1946	June 13	10.03	August 2-31	6.38
			September 1-21	6.38
1947	April 21	10.78	August 25	6.40
1948	February 28	10.60	September 16-20, 25-28	6.14
1949	February 16	11.90	August 20	6.10

04179300 CEDAR LAKE NEAR WATERLOO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1950	April 5	12.84	August 24	5.50
1951	February 20	10.62	July 7	5.96
			September 18-20	5.96
1952	March 13	9.72	July 10-14	5.78
1953	March 4	8.46	October 8,9	5.62
1954	March 26	10.16	August 16,17	6.58
			September 27,28	6.58
1955	October 13	10.94	September 21,22,26	5.52
1956*	October 8	6.44	October 1-4	5.58

* Incomplete record.

ILLINOIS RIVER BASIN

05514740 SAUGANY LAKE NEAR ROLLING PRAIRIE

GAGE LOCATION.--Lat 41°43'30", long 86°35'25", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 38 N., R. 2 W. (NEW CARLISLE, IN quadrangle). The gage is on the northwestern shore of the lake, 3.8 mi northeast of Rolling Prairie, LaPorte County, Indiana.

SURFACE AREA.--74 acres.

DRAINAGE AREA.--2.34 mi².

PERIOD OF RECORD.--1946-50.

DATUM OF GAGE.--770.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is bolted to a timber piling at the northwestern corner of the lake.

ESTABLISHED LEGAL LEVEL.--11.21 ft gage datum or 781.21 ft above NGVD of 1929 as decreed on August 31, 1949, by the LaPorte County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete head-wall and a 24-inch diameter corrugated-metal culvert pipe.

INLET AND OUTLET.--A small ditch enters the lake on the northwestern shore. The outlet flows from the lake at the extreme eastern end, through a culvert and 200 ft of tile, thence through an open ditch to Hudson Lake, approximately 1.7 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 12.28 ft, April 4, 1950; minimum stage, 9.90 ft, October 27-31, November 3, 4, 7, 1946.

ANNUAL EXTREME LEVELS FOR SAUGANY LAKE, 1946-50

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	December 31	11.89	September 30	10.11
1947	June 3, 4	12.24	October 27-31	9.90
			November 3, 4, 7	9.90
1948	March 22	12.12	September 17	10.46
1949	May 23	11.68	November 1, 8-10, 12-14	10.16
1950	April 4	12.28	November 9, 10, 12	10.55

* Incomplete record.

ILLINOIS RIVER BASIN

05514741 HUDSON LAKE AT HUDSON LAKE

GAGE LOCATION.--Lat 41°42'42", long 86°32'13", in SE¼SW¼ sec. 28, T. 38 N., R. 1 W., LaPorte County (NEW CARLISLE, IN quadrangle). The gage is on the southeastern shore of the lake, and 0.7 mi west of the town line of New Carlisle, St. Joseph County, Indiana.

SURFACE AREA.--432 acres.

DRAINAGE AREA.--7.92 mi².

PERIOD OF RECORD.--1946-76, 1978 to present.

DATUM OF GAGE.--750.00 ft above NGVD of 1929. Prior to October 1, 1965, the datum of the gage was 760.00 ft above NGVD of 1929. All levels listed below are at the present datum.

GAGE.--A digital water-stage recorder (hourly) 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 present gage datum or 763.09 ft above NGVD of 1929 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 northeastern tip from Saugany Lake, approximately 1.7 mi upstream. The outlet flows from the lake on the eastern 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, November 15, 1964.

ANNUAL EXTREME LEVELS FOR HUDSON LAKE, 1946-76, 1978-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 26	13.59	September 27	11.85
1947	June 6,14	13.86	October 29	11.63
1948	May 16	14.60	October 26	13.24
1949	April 1,2,17,18	13.70	September 30	12.36
1950	June 19,24	14.74	November 1	12.24
1951	May 27-31	15.28	November 6,10,11	13.82
	June 1-5	15.28		

05514741 HUDSON LAKE AT HUDSON LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952*	June 17	16.66	October 20-22	14.90
1953	February 22,23	15.58	September 29,30	13.80
1954	April 27	14.22	November 20-22	13.39
1955	April 26	15.64	October 2	13.42
1956	May 13,14	15.90	September 30	14.51
1957	October 1	14.48	September 30	12.83
1958	March 2	14.64	September 27	11.75
1959	March 15	12.10	September 21	10.50
1960	June 16	12.96	October 3	10.72
1961	April 29	12.85	September 22	11.64
1962	March 25,26	11.98	September 30	10.26
1963	March 30, April 1,2	10.82	September 28	9.32
1964	April 29,30, May 2	9.48	September 16	7.84
1965	April 25-30	9.28	November 15	7.60
	May 1,2,5-8	9.28		
1966	May 21,22	10.68	November 24,25	8.12
1967	May 2-20	12.40	October 29-31	9.50
			November 1,2,3,8	9.50
1968	April 2	14.20	October 14	11.80
	June 25-30	14.20		
	July 1,2	14.20		
1969	April 9-21	15.20	October 28-31	13.40
	June 7-15	15.20	November 1-10	13.40
1970	May 15	15.10	September 1-5,11,12	14.00
1971*	February 19	16.40	August 17-21,29-31	12.90
			September 1,2,3	12.90
1972	May 8-11,14-21	13.40	September 6-12	12.20
1973*	June 7,8	14.90	October 7-11,15-20	12.50
1974*	April 5-19	14.50	September 4-11,22-28	13.20
1975*	March 22-24	13.90	September 14-30	12.80
	April 29,30	13.90		
	May 1-4	13.90		
1976*	March 27,30	13.40	September 24-26	12.25
	April 1	13.40		
1978*	June 7	12.83	August 26	12.36
1979*	May 14,15	13.78	December 19,22,23, 26-28	12.29 12.29
1980*	April 17-19	13.81	October 1,3	12.77
1981	June 16	14.87	November 22	13.03
1982	June 1	16.34	November 18	14.21
1983	May 3	16.90	September 16,17	15.12
1984	May 28,29	16.21	September 22	14.86
1985*	April 15	15.57	September 29	13.23

* Incomplete record.

ILLINOIS RIVER BASIN

05514750 NORTH CHAIN LAKE AT LYDICK

GAGE LOCATION.--Lat 41°41'41", long 86°22'08", in SW¹/₄SW¹/₄SW¹/₄ sec. 36, T. 38 N., R. 1 E. (SOUTH BEND WEST, IN quadrangle). The gage is on the southwestern shore of the lake, 6.0 mi northwest of City Hall in South Bend, St. Joseph County, Indiana.

SURFACE AREA.--88 acres.

DRAINAGE AREA.--3.89 mi².

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--720.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed on the southwestern shore.

ESTABLISHED LEGAL LEVEL.--1.17 ft gage datum or 721.17 ft above NGVD of 1929 as decreed on December 11, 1950, by the St. Joseph County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--The one inlet enters from the northeast. The outlet flows from the lake at the southern tip and into South Chain Lake, approximately 0.5 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 2.18 ft, March 8, 9, 1946; minimum stage, 0.01 ft, October 16, 17, 1946.

ANNUAL EXTREME LEVELS FOR NORTH CHAIN LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 8,9	2.18	September 22	0.10
1947	June 2	2.03	October 16,17	0.01
1948	May 16	1.89	September 18	0.56
1949	February 15	1.58	October 28-30	0.43
1950	April 4	2.08	November 11,12	0.62
1951	May 12	1.90	November 6	1.08
1952	January 21-23	1.96	September 30	1.06
1953*	January 25-31	1.70	November 9-16	0.89

* Incomplete record.

ILLINOIS RIVER BASIN

05514760 SOUTH CHAIN LAKE AT WESTFIELD

GAGE LOCATION.--Lat 41°41'01", long 86°22'02", in NW¼SW¼ sec. 1, T. 37 N., R. 1 E. (SOUTH BEND WEST, IN quadrangle). The gage is on the eastern side of the lake, at the pump house of the South Bend Country Club, and 0.9 mi northeast of Westfield, St. Joseph County, Indiana.

SURFACE AREA.--90 acres.

DRAINAGE AREA.--6.32 mi².

PERIOD OF RECORD.--1946-52.

DATUM OF GAGE.--710.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the bed of the pool at the pump house.

ESTABLISHED LEGAL LEVEL.--7.04 ft gage datum or 717.04 ft above NGVD of 1929 as decreed on December 11, 1950, by the St. Joseph County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill with stop logs.

INLET AND OUTLET.--The one inlet enters on the northern shore from North Chain Lake. The outlet flows from the lake on the southwestern tip, into Geyer ditch, 2.1 mi downstream, thence into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.00 ft, June 2-4, 1947; minimum stage, 6.84 ft, September 4-6, 1946.

ANNUAL EXTREME LEVELS FOR SOUTH CHAIN LAKE, 1946-52

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 22	7.47	September 4-6	6.84
1947	June 2-4	8.00	October 16	6.86
1948	March 22	7.72	August 18-20, 25	7.02
1949	June 19, 22	7.46	October 28-30	6.94
1950	April 5, 10	7.86	October 1, 2	7.12
			November 11, 12	7.12
1951	May 12	7.50	June 18	7.08
1952*	June 14	7.76	October 18, 21, 22	7.22

* Incomplete record.

ILLINOIS RIVER BASIN

05514770 WHARTON LAKE NEAR SOUTH BEND

GAGE LOCATION.--Lat 41°36'11", long 86°18'36", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 4, T. 36 N., R. 2 E. (LAKEVILLE, IN quadrangle). The gage is on the eastern 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, St. Joseph County, Indiana.

SURFACE AREA.--18 acres (measured on USGS Topographic map, scale 1:24000).

DRAINAGE AREA.--1.85 mi².

PERIOD OF RECORD.--1960-76, 1982 to present.

DATUM OF GAGE.--770.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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, 8.41 ft, February 24, 1985; minimum stage, 4.97 ft, August 31, 1962.

ANNUAL EXTREME LEVELS FOR WHARTON LAKE, 1960-76, 1982-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1960*	July 21,23	6.34	September 14	5.53
1961	April 26	7.18	August 22	5.42
1962	March 12	7.60	August 31	4.97
1963	March 13	6.93	September 10,11	5.28
1964	April 30	6.68	September 17	5.10
1965	April 25	7.04	July 30,31	5.06
			August 7	5.06
1966	December 26	7.78	September 19,24	5.66
1967	April 3,4	7.75	September 17,18	5.40
1968	June 26,27	8.15	October 7	5.55
1969	April 19	7.40	September 19-26,29,30	5.35

05514770 WHARTON LAKE NEAR SOUTH BEND--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1970	April 21	7.18	October 5	5.27
1971	February 20	7.05	August 31	5.00
1972	September 30	7.60	October 3	5.45
			July 13,14	5.45
1973	December 31	8.20	September 24,25	5.70
1974	May 17,18	7.65	September 11	5.35
1975*	April 24,28	7.05	October 25	5.40
1976*	March 5	7.75	October 12-17,22,24, 31, November 1,3	6.15 6.15
1982*	March 19	7.90	September 16	5.91
1983	May 2	7.40	September 14,15	5.45
1984	May 26	7.65	October 11	5.64
1985*	February 24	8.41	September 3,5	6.00

* Incomplete record.

ILLINOIS RIVER BASIN

05514900 SILVER LAKE NEAR ROLLING PRAIRIE

GAGE LOCATION.--Lat 41°41'34", long 86°35'49", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 37 N., R. 2 W. (NEW CARLISLE, IN quadrangle). The gage is on the western shore of the lake on the grounds of the St. Joseph Novitiate, and 1.6 mi north-east of Rolling Prairie, LaPorte County, Indiana.

SURFACE AREA.--54 acres.

DRAINAGE AREA.--1.72 mi².

PERIOD OF RECORD.--1946-66.

DATUM OF GAGE.--790.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed, 5 ft east of the boat dock, and 75 ft southeast of the lake level monument on the western side of the lake.

ESTABLISHED LEGAL LEVEL.--5.20 ft gage datum or 795.20 ft above NGVD of 1929 as decreed on August 31, 1949, by the LaPorte County Circuit Court.

LAKE-LEVEL CONTROL.--The lake is a closed basin.

INLET AND OUTLET.--The lake drains the adjacent wetlands. There is no outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.70 ft, June 17, 1952; minimum stage, 1.04 ft, November 21, 1964.

ANNUAL EXTREME LEVELS FOR SILVER LAKE, 1946-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 24-28	5.80	September 30	4.10
1947	June 18,19	5.93	October 16	3.89
1948	May 16	6.20	September 19,20	4.84
1949	April 18,19,22	5.41	September 30	4.14
1950	June 25	6.52	November 2	4.10
1951	May 28,29	6.68	November 19,20	5.44
1952	June 17	7.70	September 30	6.39
1953	May 23,25	6.40	September 30	5.08
1954	April 27	6.02	November 20	4.76
1955	April 25,26	7.10	October 1	5.30
	June 11	7.10		
1956	May 12-14	6.97	September 30	5.62

05514900 SILVER LAKE NEAR ROLLING PRAIRIE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1957	April 28,30	5.68	September 30	4.60
1958	March 4-12	5.26	September 29	4.01
1959	April 30, May 1,2	4.61	September 20,21	3.18
1960	June 17	5.47	October 1	3.32
1961	April 28,29	5.14	September 11,12	4.16
1962	April 6	4.65	September 29,30	3.08
1963	May 18	3.66	September 29,30	2.35
1964	May 1	2.52	September 17	1.16
1965	April 26,27	2.68	November 21	1.04
1966	May 18-20,24	3.64	November 25	1.83

* Incomplete record.

ILLINOIS RIVER BASIN

05515210 LOWER FISH LAKE NEAR STILLWELL

GAGE LOCATION.--Lat 41°33'59", long 86°32'55", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T. 36 N., R. 1 W. (STILLWELL, IN quadrangle). The gage is on the abutment of the bridge between Lower and Upper Fish Lakes, on State Road 4, and 2.9 mi northeast of Stillwell, LaPorte County, Indiana.

SURFACE AREA.--134 acres.

DRAINAGE AREA.--10.4 mi².

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--680.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to the bridge abutment.

ESTABLISHED LEGAL LEVEL.--8.22 ft gage datum or 688.22 ft above NGVD of 1929 as decreed on August 31, 1949, by the LaPorte County Circuit Court. Upper Fish Lake near Stillwell has the same control structure and established level, 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.--Mill Creek and Fish Creek flow into Upper Fish Lake from the north. Upper Fish Lake drains into Lower Fish Lake on the northern tip. The outlet, Mill Creek, leaves Lower Fish Lake at the extreme southern point and flows into the Little Kankakee River, 0.9 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.18 ft, June 10, 16, 1950; minimum stage, 7.64 ft, July 27-29, 1946.

ANNUAL EXTREME LEVELS FOR LOWER FISH LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	May 22	8.45	July 27-29	7.64
1947*	June 6,7	9.01	October 16	7.80
1948*	May 12,13	9.06	September 2-5	7.80
1949	February 15,16	8.60	October 1-6,10-12, 15-31, November 1	7.88
			August 27,28	7.88
1950	June 10,16	9.18	October 2	8.04
			November 2,3	8.04
			December 5,6	8.04

05515210 LOWER FISH LAKE NEAR STILLWELL--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1951	July 10	9.06	September 7-9	8.20
1952	January 20	8.96	September 16-18	8.12
1953*	November 26	8.42	October 1-14	8.16
			November 6-16	8.16

* Incomplete record.

ILLINOIS RIVER BASIN

05515220 PINE LAKE AT LAPORTE

GAGE LOCATION.--Lat 41°37'01", long 86°44'58", in NE¼SE¼NW¼ sec. 34, T. 37 N., R. 3 W. (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, LaPorte County, Indiana.

SURFACE AREA.--564 acres.

DRAINAGE AREA.--10.7 mi².

PERIOD OF RECORD.--1946-75, 1980 to present.

DATUM OF GAGE.--780.00 ft above NGVD of 1929. Prior to October 1, 1964, the datum of the gage was 790.00 ft. All levels given below are at the present datum.

GAGE.--A digital water-stage recorder (hourly) 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 present gage datum or 796.20 ft above NGVD of 1929, as decreed on August 31, 1949, by the LaPorte County Circuit Court. Stone Lake at LaPorte has the same established level and, hence, the same lake levels during the periods of record when the channel between the two lakes is open and flowing, water years 1946-63 and 1968-85.

LAKE-LEVEL CONTROL.--Pine and Stone Lakes form a closed basin; however, there is a capability of pumping water from the lakes into the Little Kankakee River during times of high water.

INLET AND OUTLET.--Kabelin Ditch enters Pine Lake from the northwest through a large drain tile. Pine Lake is connected to Stone Lake by a channel on the southern tip.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 20.81 ft, May 7, 22, 1983; minimum stage, 9.00 ft, November 14, 1964.

ANNUAL EXTREME LEVELS FOR PINE LAKE, 1946-75, 1980-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946	March 26,27	16.34	September 29,30	14.96
1947	June 8	16.60	October 15-17	14.74
1948	May 17-19	17.09	September 28-30	15.61
1949	May 3	16.04	September 30	14.64

05515220 PINE LAKE AT LAPORTE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1950*	June 17	17.02	November 12	14.48
1951*	May 28-30	18.00	November 15	16.30
1952	April 11-30	19.20	October 22	17.68
	May 1-31, June 1-30	19.20		
	July 1-11	19.20		
	May 23-26	18.32	September 30	16.70
1954	May 3	17.12	September 29	15.98
1955	April 24,25	18.05	October 2	16.02
	May 2-10	18.05		
1956	May 12-17	18.43	September 28-30	16.97
1957	October 1	16.93	September 30	15.44
1958	March 3-8	15.74	September 30	14.36
1959	April 28	14.70	September 21	13.50
1960	June 17,18	15.30	October 1-3	13.82
1961	April 28,29	14.90	September 9	13.88
1962	March 20,21	14.34	September 30	12.44
1963	October 9	12.57	September 30	11.09
	March 29-31	12.57		
1964	October 1	11.07	September 17	9.24
1965	April 25,27,28	10.58	November 14	9.00
1966	May 18	11.27	November 24-26	9.32
1967	May 2-9,11-19	13.40	October 7-13	10.70
1968	April 4-6,15-23	14.50	October 12,13	12.60
	June 26-30	14.50		
	July 1-6	14.50		
1969	May 9-15	15.50	October 23	13.80
	June 8-13		November 2-10	13.80
1970	June 2,3,16,17,26,27	15.80	October 1-9	14.60
		15.80		
1971*	March 19,28-31	15.90	August 19-31	14.70
	April 1-11	15.90	September 1-4	14.70
1972	May 10-21	15.50	November 8-21,24-30	14.50
			December 1-5	14.50
			August 8-13	14.50
			September 4-6,8-13	14.50
			January 1-3	16.00
1973*	June 28-30	17.90		
	July 1-9	17.90		
1974*	May 23-31	18.30	October 24-31	17.10
			November 11-27	17.10
1975*	June 12-23	18.20	October 16-31	17.00
			November 1,27-30	17.00
			December 1-31	17.00
			November 20	16.73
1980*	March 25,26	17.62	November 22,26	16.47
1981*	September 30	18.23	November 17,18	18.08
1982*	April 17	19.91		

05515220 PINE LAKE AT LAPORTE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1983*	May 7, 22	20.81	August 23	19.01
1984*	May 28	18.85	November 14	17.76
1985*	April 6	18.98	November 26	17.37

* Incomplete record.

ILLINOIS RIVER BASIN

05515230 STONE LAKE AT LAPORTE

GAGE LOCATION.--Lat 41°37'01", long 86°44'58", in NE¼SE¼NW¼ sec. 34, T. 37 N., R. 3 W. (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, LaPorte County, Indiana.

SURFACE AREA.--140 acres.

DRAINAGE AREA.--10.7 mi².

PERIOD OF RECORD.--1946-75, 1980 to present. Intermittent record is available from 1896-1913, and 1942-1945.

DATUM OF GAGE.--780.00 ft above NGVD of 1929. Prior to October 1, 1964, the datum of the gage was 790.00 ft. All levels given below are at the present datum.

GAGE.--A digital water-stage recorder (hourly) 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 present gage datum or 796.20 ft above NGVD of 1929, as decreed on August 31, 1949, by the LaPorte County Circuit Court. Pine 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.--Stone and Pine 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.--A channel connects Lilly Lake to Stone Lake on the east side and a channel on the west connects Stone Lake to Pine Lake. There is no outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 20.81 ft, May 7, 22, 1983; minimum stage, 9.84 ft, November 25-27, 1964.

ANNUAL EXTREME LEVELS FOR STONE LAKE, 1946-75, 1980-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946	March 26,27	16.34	September 29,30	14.96
1947	June 8	16.60	October 15-17	14.74
1948	May 17-19	17.09	September 28-30	15.61

05515230 STONE LAKE AT LAPORTE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949	May 3	16.04	September 30	14.64
1950*	June 17	17.02	November 12	14.48
1951*	May 28-30	18.00	November 15	16.30
1952	April 11-30	19.20	October 22	17.68
	May 1-31, June 1-30	19.20		
	July 1-11	19.20		
1953	May 23-26	18.32	September 30	16.70
1954	May 3	17.12	September 29	15.98
1955	April 24, 25	18.05	October 2	16.02
	May 2-10	18.05		
1956	May 12-17	18.43	September 28-30	16.97
1957	October 1	16.93	September 30	15.44
1958	March 3-8	15.74	September 30	14.36
1959	April 28	14.70	September 21	13.50
1960	June 17, 18	15.30	October 1-3	13.82
1961	April 28, 29	14.90	September 9	13.88
1962	March 20, 21	14.34	September 30	12.44
1963	October 9	12.57	September 30	11.32
	March 29-31	12.57		
1964	April 30, May 1, 2	11.50	September 17	10.08
1965	April 25	11.18	November 25-27	9.84
1966	May 18	12.03	November 20	10.18
1967	May 2-9, 11-19	13.40	October 30, 31	10.90
1968	April 4-6, 15-23	14.50	October 12, 13	12.60
	June 26-30	14.50		
	July 1-6	14.50		
1969	May 9-15, June 8-13	15.50	October 23	13.80
			November 2-10	13.80
1970	June 2, 3, 16, 17, 26, 27, July 2	15.80	October 1-9	14.60
		15.80		
1971*	March 19, 28-31	15.90	August 19-31	14.70
	April 1-11	15.90	September 1-4	14.70
1972	May 10-21	15.50	November 8-21, 24-30	14.50
			December 1-5	14.50
			August 8-13	14.50
			September 4-6, 8-13	14.50
1973*	June 28-30	17.90	January 1-3	16.00
	July 1-9	17.90		
1974*	May 23-31	18.30	October 24-31	17.10
			November 11-27	17.10
1975*	June 12-23	18.20	October 16-31	17.00
			November 1, 27-30	17.00
			December 1-31	17.00
1980*	March 25, 26	17.62	November 20	16.73
1981*	September 30	18.23	November 22, 26	16.47

05515230 STONE LAKE AT LAPORTE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1982*	April 17	19.91	November 17, 18	18.08
1983*	May 7, 22	20.81	August 23	19.01
1984*	May 28	18.85	November 14	17.76
1985*	April 6	18.98	November 26	17.37

* Incomplete record.

ILLINOIS RIVER BASIN

05515240 CLEAR LAKE AT LAPORTE

GAGE LOCATION.--Lat 41°37'25", long 86°43'11", in NE¼SE¼SE¼ sec. 26, T. 37 N., R. 3 W. (LAPORTE EAST, IN quadrangle). The gage is on the northeastern shore of the lake, 100 ft south of the entrance to Fox Memorial Park, in LaPorte, LaPorte County, Indiana.

SURFACE AREA.--106 acres.

DRAINAGE AREA.--0.65 mi².

PERIOD OF RECORD.--1942-49, 1952-75, 1979 to present.

DATUM OF GAGE.--790.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) is installed in an aluminum shelter over a 15-inch diameter stilling well. An auxiliary staff gage is attached to the northern wingwall of the inlet culvert on the western side of the lake.

ESTABLISHED LEGAL LEVEL.--8.20 ft gage datum or 798.20 ft above NGVD of 1929 as decreed on August 31, 1949, by the LaPorte County Circuit Court.

LAKE-LEVEL CONTROL.--During periods of high water, water may be released through the main sewer system of the city of LaPorte and diverted into the Kankakee River.

INLET AND OUTLET.--A small ditch enters on the western 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, 11.20 ft, April 23, 1973; minimum stage, 3.98 ft, November 27, 1964.

ANNUAL EXTREME LEVELS FOR CLEAR LAKE, 1942-49, 1952-75, 1979-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1942*	August 8	6.43	July 25	6.16
1943*	June 5,12	7.38	October 24	5.93
1944*	June 3	7.67	September 23	6.55
1945*	August 4	7.92	April 21	6.63
	September 29	7.92		
1946	March 20,21,24-29	8.69	September 30	7.11
1947	June 8	8.52	October 17	6.85
	September 22	8.52		

05515240 CLEAR LAKE AT LAPORTE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1948	May 16,17	9.06	September 28,30	7.88
1949	February 16	8.15	September 17	7.10
	March 10	8.15		
1952*	May 28, June 14,17	10.34	September 30	9.00
1953	October 1	8.98	September 30	7.72
1954	July 7	8.50	January 25	7.04
1955	August 30,31	10.12	October 1	7.92
1956	May 12	10.42	September 29	8.20
1957	April 27-30, May 1	8.40	January 8,20	7.62
1958	January 1,2	8.20	May 29-31	7.24
1959	July 30,31	7.60	December 29,30	6.68
			January 16,17	6.68
1960	June 17,18	8.48	October 4	7.18
1961	April 25,26	8.02	February 10-22	7.14
1962	October 1,2	7.58	September 30	5.94
1963	October 8,9	6.22	July 13	5.33
1964	October 1	5.30	September 17	4.16
1965	April 25-28	5.20	November 27	3.98
	May 5,7,8	5.20		
1966	August 22,23	6.58	November 24	4.84
1967	May 2-17, June 28	7.40	October 29-31	5.80
	July 10-12	7.40	November 1-8	5.80
1968	September 23-28	8.10	October 12-14	6.60
1969	July 31, August 1-5	9.50	November 4-11	7.70
1970	September 24,25	10.54	October 6	8.86
1971	March 19	10.70	August 31	9.20
			September 1-3	9.20
1972	September 29	10.40	July 8	9.20
1973	April 23	11.20	September 22-24	9.70
1974*	May 23,24	10.40	October 21-31	9.90
			November 8-27	9.90
			December 2,3	9.90
1975*	June 15-30	10.60	October 25-28	9.30
1979*	September 27	9.28	September 30	9.24
1980*	June 7	10.13	October 3	9.31
1981*	July 28	10.74	April 7	9.07
1982	April 3	10.91	November 18	9.73
1983	May 1	11.14	September 15,17	9.51
1984*	June 23	10.48	November 14	9.28
1985*	April 6	10.60	September 29	8.90

* Incomplete record.

ILLINOIS RIVER BASIN

05515600 KOONTZ LAKE AT KOONTZ LAKE

GAGE LOCATION.--Lat 41°24'42", long 86°29'18", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 34 N., R. 1 W. (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, Starke County, Indiana.

SURFACE AREA.--346 acres, revised.

DRAINAGE AREA.--6.25 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--710.12 ft above NGVD of 1929, as corrected on the basis of levels of IDNR, 1978.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on September 15, 1948, by the Starke County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 4.56 ft gage datum or 714.68 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel-sheet piling dam with a fixed crest.

INLET AND OUTLET.--Lawrence Pontius ditch and an unnamed ditch enter the lake on the southern shore of the eastern lobe. The outlet flows from the lake at the western tip and into Robbins ditch, 1,400 ft downstream. Robbins ditch empties into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.10 ft, October 11, 1954; minimum stage, 3.10 ft, October 12, 1970.

ANNUAL EXTREME LEVELS FOR KOONTZ LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	May 19	5.52	April 3	4.14
1944	March 16-18	5.07	August 29,30	3.87
			September 10	3.87
1945	June 27-30	5.00	October 1	3.93
1946	June 22-24	5.08	September 20-22,29,30	4.14
1947	May 21-23	5.16	October 16,17	4.00
1948	May 10	5.02	March 8	4.04

05515600 KOONTZ LAKE AT KOONTZ LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949	December 19	5.10	February 21	4.10
			April 13	4.10
1950	December 22	5.20	October 1,2	4.34
1951	July 10	5.20	October 4	4.14
1952	March 13, May 28	5.10	November 17	4.20
1953	May 24	5.08	September 30	4.08
1954	April 18,25	5.20	October 23	3.90
1955	October 11	6.10	September 21,22,24-26	4.02
1956	April 30	5.06	October 3,4	4.10
1957	April 26	5.12	November 4-6	4.04
1958	June 13,14	5.16	October 13-15	4.24
1959	February 13	5.60	September 19-21,23	4.22
1960	March 31	5.10	February 4	4.00
1961	April 23	5.34	April 1	4.42
1962	March 12	5.42	September 28-30	4.20
1963	March 9	5.20	October 3,4	4.16
1964	April 23,24,28,29	5.06	September 18	4.18
1965	January 24,25	5.08	November 11-15,17,18, 22-27, August 26	4.18
1966	December 26	5.46	July 10	4.46
1967	December 9,10	5.60	January 22	4.20
1968	February 2,3	5.40	October 1-14	4.40
1969	January 30,31	5.30	September 9-30	4.30
1970	April 3,4,21,22	5.10	September 21,22	3.30
1971	February 7	4.70	October 12	3.10
	April 4-10, May 6-17	4.70		
1972	April 20,21	5.20	December 20-25,28,29	3.90
			January 9	3.90
1973	January 1,2	5.30	September 11-30	4.30
1974	January 23, May 24	5.20	August 31	4.20
			September 1-11	4.20
1975*	May 2, June 17-19	5.50	October 8,10-13	4.30
1976	March 6	5.65	September 7,8	4.50
1977	September 17	5.50	August 3-7	4.25
1978*	May 14,15	4.78	September 8,12	4.16
1979	March 30	4.79	September 30	4.17
1980*	April 9, August 20	4.78	August 7,8	4.26
1981*	June 13	4.97	October 11,12	4.47
			November 12,20	4.47
1982	March 16	5.12	September 5	4.45
1983	July 2	5.00	September 14,15	4.35
1984	May 26	4.80	August 31	4.28
1985*	March 29	5.06	July 30	4.30
			August 4,12,13	4.30

* Incomplete record.

ILLINOIS RIVER BASIN

05515800 RIDDLES LAKE NEAR LAKEVILLE

GAGE LOCATION.--Lat 41°30'19", long 86°15'31", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 35 N., R. 2 E. (LAKEVILLE, IN quadrangle). The gage is on the eastern side of the lake, about 1.4 mi southeast of Lakeville, St. Joseph County, Indiana.

SURFACE AREA.--77 acres.

DRAINAGE AREA.--11.7 mi².

PERIOD OF RECORD.--1946-71, 1976 to present.

DATUM OF GAGE.--810.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on July 3, 1953, by the St. Joseph County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel and concrete dam with a fixed crest. Boards may be added to raise the water level.

INLET AND OUTLET.--Heston ditch flows through the lake, entering on the northern shore and leaving on the southern. The outflow eventually enters Yellow River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.49 ft, April 5, 1950; minimum stage, 6.40 ft, July 25-31, August 1-9, 22-31, September 1-30, 1971.

ANNUAL EXTREME LEVELS FOR RIDDLES LAKE, 1946-71, 1976-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	March 8,9	9.46	August 16	7.90
1947*	June 1,8,9	9.94	October 16	7.86
1948	March 23	10.46	September 26-30	7.64
1949	February 15-17	9.84	October 21,27	7.50
1950	April 5	11.49	October 1	8.23
1951	July 13	10.16	September 29,30	8.32
1952	November 16	10.20	May 18-20	7.12
1953	March 18	8.68	December 7-9	6.76
1954	September 29,30	9.02	November 3,4	6.88
1955	October 11	11.20	September 30	7.04

05515800 RIDDLES LAKE NEAR LAKEVILLE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1956	May 9	9.20	September 29,30	6.84
1957	April 28	8.20	November 17	6.47
1958	August 7	8.36	October 14	6.63
1959	March 28	8.66	September 24	7.10
1960*	April 6	8.40	October 1-3	7.40
1961	April 21-23	8.80	January 17-20	7.30
1962	November 24-27	8.40	September 29,30	7.00
1963	March 16	8.36	September 30	7.02
1964	July 9	8.53	September 6	6.50
1965	September 25	8.22	November 23-30	6.58
1966*	December 26	8.85	October 19	6.70
1967*	April 4,5	9.10	September 11-30	7.00
1968	February 3,4	9.70	October 1-14	7.00
1969	April 20	8.50	September 15,26-30	7.00
1970	April 3,4	8.35	October 1-9	7.03
1971*	November 20	7.40	July 25-31	6.40
	April 14-30	7.40	August 1-9,22-31	6.40
	May 1	7.40	September 1-30	6.40
1976*	May 7	7.68	September 3,4	7.19
1977*	March 29	7.94	August 1	7.02
1978	March 23	8.25	September 12	6.94
1979	March 4	8.35	September 30	6.97
1980	December 25	7.66	July 20	7.13
1981*	July 28	9.31	July 24	7.27
1982	March 13	9.31	September 4,5	7.25
1983	May 2	7.90	September 15	6.93
1984	March 16	7.72	September 6	6.97
1985*	January 1	7.98	August 12	7.08

* Incomplete record.

ILLINOIS RIVER BASIN

05516200 LAKE OF THE WOODS NEAR BREMEN

GAGE LOCATION.--Lat 41°25'04", long 86°13'44", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 34 N., R. 3 E. (BREMEN, IN quadrangle). The gage is on the southwestern shore of the lake, at the public fishing site, and 4.7 mi southwest of Bremen, Marshall County, Indiana.

SURFACE AREA.--416 acres.

DRAINAGE AREA.--9.45 mi².

PERIOD OF RECORD.--1945 to present.

DATUM OF GAGE.--800.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on August 9, 1948, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete sill equipped with a movable gate.

INLET AND OUTLET.--Three ditches, Kimble, Martin, and Seltenright, enter the lake on the northwestern shore. Scofield ditch enters at the western 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, October 12, 1954; minimum stage, 2.75 ft, November 18-20, 1953.

ANNUAL EXTREME LEVELS FOR LAKE OF THE WOODS, 1945-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 29	3.96	September 27	3.81
1946	January 10	4.52	September 22	3.23
	March 8,9	4.52		
1947	April 22	4.56	October 17	3.08
1948	March 28	4.73	September 27,28	3.26
1949	February 18	4.51	October 30	3.05
1950	April 5	5.35	October 2	3.16
1951	July 12	4.66	November 7	3.44
1952	November 16	4.64	September 30	3.22

05516200 LAKE OF THE WOODS NEAR BREMEN--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1953	March 17	4.22	November 16	2.95
1954	April 26-28	4.88	November 18-20	2.75
1955	October 12	7.68	September 26	2.94
1956	May 13	4.83	October 4	2.97
1957	April 29	4.59	November 15,19	2.92
1958	December 21	4.47	October 15	2.88
1959	February 15	4.58	September 21	3.19
1960	March 31	4.17	January 11	3.24
1961	April 26	4.22	January 17,18	3.04
1962	March 22	4.25	September 30	3.09
1963	March 11	3.99	February 15	2.98
1964	July 8	4.12	October 27,30,31	3.27
1965*	January 12	4.08	November 25-27	3.11
1966*	May 13	4.22	November 25,26	3.17
1967*	April 3	4.20	November 20	3.30
			January 10	3.30
1968*	June 26	4.20	May 8,10-13	3.20
1969	January 31	4.20	October 31	3.10
			November 2-7	3.10
1970	April 21, May 15	4.20	January 18-25	3.28
1971	June 3-10	4.00	January 29-31	2.80
			February 1-3	2.80
1972	August 14	4.50	February 11-23	3.10
1973	December 31	4.20	May 14-18	3.30
	January 1	4.20		
1974	June 15	4.30	November 9-30	3.10
			December 1-9, 16-24	3.10
1975	June 15,16	4.30	November 18-30	3.10
			December 1-26	3.10
1976	March 5	4.40	November 18,19	3.10
1977	March 29	4.15	January 26-31	3.05
			February 1-3	3.05
1978	March 23	4.58	March 6-11	3.14
1979*	March 5	4.37	February 10,11,16-20	3.05
1980	June 3	4.21	February 13,14,19,20	3.12
1981	June 14	4.25	November 13,22,23, 25,26	3.09 3.09
1982*	March 14	4.75	November 18	3.15
1983*	April 14	4.35	January 28,29	3.25
1984*	May 26	4.10	January 21-23	3.16
1985*	February 24	4.74	February 17-20	3.22

* Incomplete record.

ILLINOIS RIVER BASIN

05516600 PRETTY LAKE NEAR PLYMOUTH

GAGE LOCATION.--Lat 41°19'39", long 86°22'15", in NW¼SE¼NE¼ sec. 11, T. 33 N., R. 1 E. (PLYMOUTH, IN quadrangle). The gage is on the northeastern shore of the lake, 3.3 mi southwest of Plymouth, Marshall County, Indiana.

SURFACE AREA.--97 acres.

DRAINAGE AREA.--0.85 mi².

PERIOD OF RECORD.--1954-66.

DATUM OF GAGE.--730.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed near cottage number 34.

ESTABLISHED LEGAL LEVEL.--7.36 ft gage datum or 787.36 ft above NGVD of 1929 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, 9.04 ft, April 9, 14, 1962; minimum stage, 4.90 ft, November 26, 27, 1964.

ANNUAL EXTREME LEVELS FOR PRETTY LAKE, 1954-66

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 8-10	7.13	September 28,29	6.49
1955	March 26,27	8.78	October 1,2	6.56
1956	May 17-19,21	8.09	January 14	6.77
1957	June 29,30, July 1,4	7.23	December 8,9	6.20
1958	August 15,21	7.80	October 14,15	6.18
1959	May 1-5	8.68	February 24-26	6.84
1960	April 18-22	8.50	October 22	7.16
1961	May 9-11	8.56	January 12-26	7.07
1962	April 9,14	9.04	September 30	6.99
1963	April 2-4	7.66	September 30	6.52
1964	April 30, May 1,2	6.61	September 25,26	5.34
1965	May 5-8	6.76	November 26,27	4.90
1966	May 24,25	7.62	November 25	5.82

* Incomplete record.

ILLINOIS RIVER BASIN

05516700 MYERS LAKE NEAR TWIN LAKES

GAGE LOCATION.--Lat 41°18'08", long 86°21'28", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 24, T. 33 N., R. 1 E. (PLYMOUTH, IN quadrangle). The gage is on the western end of the lake, 270 ft north of the outlet, and 3.7 mi southwest of Plymouth, Marshall County, Indiana.

SURFACE AREA.--96 acres.

DRAINAGE AREA.--1.41 mi².

PERIOD OF RECORD.--1945-53.

DATUM OF GAGE.--760.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed, 270 ft north of the outlet.

ESTABLISHED LEGAL LEVEL.--8.69 ft gage datum or 768.69 ft above NGVD of 1929 as decreed on June 27, 1949, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete sill in the outlet channel.

INLET AND OUTLET.--The one inlet enters at the extreme eastern end of the lake from Lawrence Lake, about 150 ft upstream. The outlet flows from the western shore and into Cook Lake, 300 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.46 ft, May 21, 1951; minimum stage, 8.16 ft, September 30, October 1, 2, 1949.

ANNUAL EXTREME LEVELS FOR MYERS LAKE, 1945-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 30	8.71	September 27	8.68
1946	October 1	9.28	September 5	8.30
1947	April 21	9.08	October 17	8.23
1948	May 13	9.01	September 26-30	8.44
1949	February 15	9.10	September 30	8.16
1950	April 5	9.32	October 1,2	8.16
1951	May 21	9.46	September 28	8.54
1952	May 24	9.08	September 29,30	8.44
1953*	November 28,29	8.62	October 10-14	8.38

* Incomplete record.

ILLINOIS RIVER BASIN

05516800 MILL POND AND KREIGHBAUM LAKE NEAR TWIN LAKES

GAGE LOCATION.--Lat 41°18'02", long 86°24'06", in NW¼NW¼ sec. 22, T. 33 N., R. 1 E. (DONALDSON, IN quadrangle). The gage is on the extreme western end of Mill Pond, on the headwall of the outlet dam, and 5.6 mi southwest of Plymouth, Marshall County, Indiana.

SURFACE AREA.--168 acres.

DRAINAGE AREA.--5.34 mi².

PERIOD OF RECORD.--1945-53.

DATUM OF GAGE.--760.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to the southern abutment of the outlet dam, at the county bridge.

ESTABLISHED LEGAL LEVEL.--7.75 ft gage datum or 767.75 ft above NGVD of 1929 as decreed on August 9, 1948, by the Marshall County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a concrete dam with removable boards.

INLET AND OUTLET.--The inlet enters on the eastern shore from Cook Lake, 200 ft upstream. The outlet flows from the lake at the western end and into Lake Latonka, 200 ft downstream. The outflow eventually enters the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 8.62 ft, April 4, 5, 1950; minimum stage, 7.40 ft, September 28-30, October 1, 2, 1949.

ANNUAL EXTREME LEVELS FOR MILL POND AND KREIGHBAUM LAKE, 1945-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1945*	September 29,30	8.13	September 27	8.00
1946	October 2	8.54	September 21-24	7.67
1947	April 21,22	8.30	October 12-17	7.59
1948	March 22,23	8.28	September 28	7.52
1949	March 26,27	8.32	September 28-30	7.40
1950	April 4,5	8.62	October 1,2	7.40
1951	May 28-30	8.34	November 6,7	7.72
1952	June 18,19	8.44	September 29,30	7.66
1953*	November 25-27	7.78	November 15-17	7.58

* Incomplete record.

ILLINOIS RIVER BASIN

05516900 EAGLE LAKE NEAR OBER

GAGE LOCATION.--Lat 41°18'59", long 86°28'39", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 33 N., R. 1 W. (DONALDSON, IN quadrangle). The gage is on the northern shore of the lake, 3.9 mi northeast of Ober, Starke County, Indiana.

SURFACE AREA.--24 acres.

DRAINAGE AREA.--25.5 mi².

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--710.00 ft above NGVD of 1929.

GAGE.--Two sections of a staff gage are on the northern shore; one is driven into the lake bed and the other into the lake shore.

ESTABLISHED LEGAL LEVEL.--3.25 ft gage datum or 713.25 ft above NGVD of 1929 as decreed on September 27, 1950, by the Starke County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel.

INLET AND OUTLET.--Three unnamed ditches enter the lake from the north, northeast, and southeast. Harry Cool ditch enters from the east. The outlet, Eagle Creek, flows from the lake on the southwestern shore, into Yellow River, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 7.02 ft, June 20, 1946; minimum stage, 1.90 ft, October 4-6, 1952.

ANNUAL EXTREME LEVELS FOR EAGLE LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	June 20	7.02	July 30	3.04
1947	April 21	5.98	August 1,6	3.23
1948	May 13	6.38	August 3	3.23
1949	February 16	6.60	August 25,26	2.77
1950	April 4	5.35	September 29,30	2.30
1951	July 10	4.30	September 28	2.10
1952*	October 24	4.66	September 13,14	1.98
1953*	November 25-27	2.39	October 4-6	1.90

* Incomplete record.

ILLINOIS RIVER BASIN

05517200 BASS LAKE AT BASS LAKE

GAGE LOCATION.--Lat 41°12'28", long 86°36'07", in NW¼NW¼SW¼ sec. 24, T. 32 N., R. 2 W. (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, Starke County, Indiana.

SURFACE AREA.--1,400 acres, revised.

DRAINAGE AREA.--5.18 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--699.83 ft above NGVD of 1929, as corrected from the unadjusted elevations.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on August 10, 1948, by the Starke County Circuit Court. Minor errors were subsequently discovered in the establishment of the datum of the gage (see "Datum of Gage") and the correct elevation of the legal level should be 13.65 ft gage datum or 713.48 ft above NGVD of 1929.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a steel sheet-piling dam.

INLET AND OUTLET.--Several small unnamed ditches enter the lake at various locations. The outlet flows from the western shore, into Cedar Lake ditch, and eventually into the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 15.03 ft, June 18, 1981; minimum stage, 10.52 ft, November 12, 13, 1964.

ANNUAL EXTREME LEVELS FOR BASS LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	May 20	14.04	October 27	12.29
1944	April 13	14.15	September 27	12.51
1945	June 21,22	13.65	November 5,6	12.33
1946	March 19	14.01	September 21,22,30	12.53
1947	June 19	13.97	October 16	12.23
1948	May 15	14.44	September 30	13.05

05517200 BASS LAKE AT BASS LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949	June 16,17	14.14	October 29,30	12.81
1950	April 4	14.62	October 2	12.89
1951	May 11	14.50	November 7-15	13.30
1952	March 18	14.59	September 30	13.19
1953	June 7	13.69	September 30	12.42
1954	April 26-29	12.86	September 28	11.94
	May 3,4	12.86		
1955	April 24,25	13.58	October 1,2	12.02
1956	June 19,20	13.00	September 30	11.76
1957	July 18-21	12.68	November 14	11.32
1958	August 11,21	13.56	October 15	11.78
1959	April 29	14.28	September 19-22	12.58
1960	June 18-20	14.00	October 21,22	12.74
1961	August 23-25	14.34	October 24-26	13.30
1962	January 17,18,21-23	14.41	September 30	12.81
1963	March 31, April 1,2	13.02	September 30	12.06
1964	April 30	12.17	September 16	10.80
1965	May 8,9	12.84	November 12,13	10.52
1966	May 20,21,24,25	14.06	October 6,19,20	12.26
1967	April 17,18,21-27	14.50	November 3-8	12.60
1968	June 26	14.60	October 3-16,23,24	13.40
1969	February 1	14.40	September 11-30	13.50
	April 8-30	14.40		
	May 12-14,19	14.40		
1970	May 13,14,16-18	14.50	October 10	13.40
1971	March 15-18,20-31	14.10	September 6-12	13.10
	April 1-7	14.10		
1972	May 13-28	14.30	November 22-28	12.90
	September 17,18,	14.30		
	29,30	14.30		
1973	January 4-8	14.60	September 14-17	13.80
1974	March 5-23	14.50	September 5-10,27-30	13.10
	April 4-9	14.50		
	May 23-28	14.50		
1975*	May 28,29,31	14.30	October 9-31	13.00
	June 1-30	14.30	November 1,2	13.00
	July 1-9	14.30	December 24	13.00
1976	March 3-8,27	14.60	October 3-25	13.80
	April 15-17	14.60	November 2-6	13.80
1977*	March 5-8,14-31	14.40	July 24-27	13.90
	April 1-15	14.40	August 5-22	13.90
1978*	September 1	13.10	September 29,30	12.87
1979*	May 31	14.10	November 12	12.64
1980*	April 15	14.24	October 14,15	13.16
1981*	June 18	15.03	November 22	13.41

05517200 BASS LAKE AT BASS LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1982	March 16	14.76	September 16	13.17
1983*	May 4	14.54	October 29,30	13.05
1984	May 28	14.41	October 18,19	13.02
1985	April 6	14.54	September 29	12.91

* Incomplete record.

ILLINOIS RIVER BASIN

05517600 WAUHOB LAKE NEAR VALPARAISO

GAGE LOCATION.--Lat 41°32'02", long 87°02'42", in NW¼NW¼NW¼ sec. 31, T. 36 N., R. 5 W. (CHESTERTON, IN quadrangle). The gage is on the northwestern shore of the lake, 4.7 mi north of Valparaiso, Porter County, Indiana.

SURFACE AREA.--21 acres.

DRAINAGE AREA.--0.40 mi².

PERIOD OF RECORD.--1946 to present.

DATUM OF GAGE.--790.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed, 75 ft from the observer'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 northeastern side from Mink Lake, 0.3 mi upstream. The outlet flows from the southeastern shore, southwesterly through a swamp to Canada Lake, 0.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 11.05 ft, April 23, 1973; minimum stage, 6.58 ft, September 17, 1964.

ANNUAL EXTREME LEVELS FOR WAUHOB LAKE, 1946-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	August 17	9.10	September 30	8.50
1947	June 3,4	10.28	October 17	8.29
1948	May 17	9.60	September 28	7.62
1949	March 31	8.58	October 28-31	7.44
			November 1,2	7.44
1950	April 4,5	10.76	November 12	7.69
1951	May 13	10.03	November 14,18,19	8.08
1952	January 20,21	10.36	September 29,30	7.96
1953	March 18,19, May 22	8.52	September 30	7.22
1954	May 2	8.72	November 19	6.88
1955	March 30,31, April 1	9.72	September 26	7.80
1956	May 12,13	9.70	September 30	7.74

05517600 WAUHOB LAKE NEAR VALPARAISO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1957	June 14, August 11	8.67	November 18,19,25,26 December 2-4	7.36 7.36
1958	March 1,2	8.64	September 14	7.63
1959	May 30,31	9.28	November 13,14	7.29
1960	April 18,19,21	9.92	October 3	8.06
1961	April 29,30 May 10,11	9.30 9.30	October 25	8.01
1962	March 21	9.00	September 30	7.02
1963	May 17-21	7.81	February 1,3,4	6.76
1964	April 29,30 May 1-3,9,13	7.73 7.73	September 17	6.58
1965	April 28-30	9.19	November 18	6.94
1966	May 24	9.92	September 19,20,23,24	7.78
1967	April 30, May 1-3	10.00	October 9	7.65
1968	February 8,9	9.95	October 7,10-13	8.00
1969	May 12	9.80	September 30	7.75
1970	May 16-18	10.00	October 5,6	7.72
1971	March 21-23 April 2, June 10-12	8.80 8.80	August 23,24 September 3	8.15 8.15
1972	May 10,11,14-18	9.40	November 13-18,21-29 December 4	8.05 8.05
1973	April 23	11.05	September 22-29	8.20
1974	May 23,24	10.15	September 7-12,23-28	8.10
1975	May 1,2	10.45	October 23-28	8.05
1976	March 6-12	10.70	September 19,22-25	8.20
1977	March 5	8.76	August 1,26-28	7.82
1978	May 17	10.16	September 29,30	7.88
1979	April 2-4	9.40	September 28-30	7.26
1980	September 17-19	8.96	November 6-20	7.22
1981	June 16	10.52	November 18-22,24,25	7.94
1982	March 19-21	10.76	September 13,14	8.34
1983	May 3,4	10.66	October 28-31	8.24
1984*	March 27	10.06	October 15,16 November 9-16	8.66 8.66
1985*	April 6	9.76	July 25,30	8.02

* Incomplete record.

ILLINOIS RIVER BASIN

05517650 LONG LAKE NEAR VALPARAISO

GAGE LOCATION.--Lat 41°31'27", long 87°03'04", in NW¼SE¼SE¼ sec. 36, T. 36 N., R. 6 W. (CHESTERTON, IN quadrangle). The gage is on the western shore of the lake, 0.4 mi northwest of the outlet, and 3.9 mi north of Valparaiso, Porter County, Indiana.

SURFACE AREA.--65 acres.

DRAINAGE AREA.--1.31 mi².

PERIOD OF RECORD.--1947-52.

DATUM OF GAGE.--790.00 ft above NGVD of 1929.

GAGE.--A staff gage in two sections is located on the western shore.

ESTABLISHED LEGAL LEVEL.--7.66 ft gage datum or 797.66 ft above NGVD of 1929, as decreed on October 14, 1953, by the Porter County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a 30-inch culvert under the road, approximately 800 ft downstream of the lake. At high stages, Flint Lake acts as the control.

INLET AND OUTLET.--Two inlets enter at the northern end of the lake, one from Canada Lake and the other from Deep Lake. Another enters on the eastern shore from Finney Lake. The outlet flows from the lake at the extreme southern tip and into Flint Lake, about 850 ft downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 10.40 ft, January 20, 1952; minimum stage, 6.50 ft, October 27-31, November 1, 1948.

ANNUAL EXTREME LEVELS FOR LONG LAKE, 1947-52

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947*	June 3,4	10.28	February 24	6.88
1948	May 29,30	9.26	September 29,30	6.70
1949	May 5, June 7-10, 15,16	7.66 7.66	October 27-31 November 1	6.50 6.50
1950*	June 4	9.97	November 7-12	6.74
1951	May 13-17	10.00	November 8	7.00
1952	January 20	10.40	September 30	7.46

* Incomplete record.

ILLINOIS RIVER BASIN

05517670 LOOMIS LAKE NEAR VALPARAISO

GAGE LOCATION.--Lat 41°31'08", long 87°03'20", in NW¼NE¼ sec. 1, T. 35 N., R. 6 W. (CHESTERTON, IN quadrangle). The gage is on the eastern side of the northern lobe of the lake, 3.3 mi north of Valparaiso, Porter County, Indiana.

SURFACE AREA.--62 acres.

DRAINAGE AREA.--0.53 mi².

PERIOD OF RECORD.--1946-53.

DATUM OF GAGE.--810.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is attached to a tree stump at the site.

ESTABLISHED LEGAL LEVEL.--2.82 ft gage datum or 812.82 ft above NGVD of 1929 as decreed on October 14, 1953, by the Porter County Circuit Court. Loomis Lake has also been published as Spectacle Lake near Valparaiso.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the opening of a concrete catch-basin for the tile drain to Flint Lake. Stop logs may be added to raise the lake level.

INLET AND OUTLET.--The inlet enters the lake on the western side from Spectacle Lake, about 200 ft upstream. The outlet flows from the lake on the eastern shore, through an underground drainage tile, to Flint Lake, 0.3 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 4.96 ft, April 14-16, 1951; minimum stage, 1.00 ft, November 16, 1952.

ANNUAL EXTREME LEVELS FOR LOOMIS LAKE, 1946-53

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	August 17,18	3.16	September 30	2.76
1947	April 30, May 1,2	4.50	October 16,17	2.55
1948	March 28-30	4.42	September 28	1.75
1949	March 25	3.05	October 31	1.52
			November 1	1.52
1950	March 12	4.95	October 2	1.68
1951	April 14-16	4.96	May 8	2.20
1952	April 27	3.88	September 29,30	1.40
1953*	October 1	1.40	November 16	1.00

* Incomplete record.

ILLINOIS RIVER BASIN

05517700 FLINT LAKE NEAR VALPARAISO

GAGE LOCATION.--Lat 41°30'41", long 87°02'23", in NE¼SW¼ sec. 6, T. 35 N., R. 5 W. (CHESTERTON, IN quadrangle). The gage is on the southeastern shore of the lake, at the Valparaiso Water Works, and 3.2 mi northeast of Valparaiso, Porter County, Indiana.

SURFACE AREA.--86 acres.

DRAINAGE AREA.--3.80 mi², revised.

PERIOD OF RECORD.--1946 to present. From January 1, 1911, to August 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 NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on August 19, 1963, by the Porter County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the outlet channel and two pipe arches with 36-inch spans and 24-inch heights, approximately 600 ft downstream.

INLET AND OUTLET.--There are three inlets. One drains Long Lake to the northwest, another drains Loomis Lake to the west, and Listenberger drain enters from the south. The outlet flows from the lake at the southeastern 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, December 29, 1948.

ANNUAL EXTREME LEVELS FOR FLINT LAKE, 1946-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1946*	August 28	18.76	September 30	18.06
1947	June 3	20.27	March 22,23	15.24
1948	May 19,20	19.58	February 15	12.97
1949	May 27	17.99	December 29	12.59

05517700 FLINT LAKE NEAR VALPARAISO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1950	April 5	20.84	December 9,10	15.75
1951	May 13-15	20.03	December 1,2	16.69
1952	January 20	20.40	September 30	17.40
1953	May 26	18.32	September 30	15.23
1954	May 3	18.73	January 24,25	13.93
1955	March 26,27	19.78	September 26	17.04
1956	May 14	19.72	January 31	16.99
1957	August 11	18.73	January 20	15.63
1958	January 1	18.35	September 29,30	16.16
1959	May 31, June 1	19.27	January 17	14.30
1960	April 17,18	19.95	September 30	17.17
1961	May 9,10	19.33	December 6	14.17
1962	April 8	18.44	September 30	14.28
1963	July 23,24	16.17	February 28, March 1	13.24
1964	May 13	17.56	September 17	13.48
1965	April 27	19.21	November 25	12.87
1966	May 24	19.94	December 9	15.56
1967	April 17,18,21-24, 29,30, May 1-12	20.00 20.00	September 16-20, 23-26	17.40 17.40
1968	February 7-14	20.00	October 14	17.20
1969	May 10-16	19.80	September 30	16.40
1970	May 14-21	20.00	January 28	15.40
1971	June 8	18.90	February 3	17.50
			August 18-21,23	17.50
1972	May 15	19.60	November 16,26	17.60
			December 5,6	17.60
1973	April 22	21.10	September 14-16, 18-23	17.70 17.70
1974*	May 21-25	20.20	September 27,28	17.30
1975	April 28-30	20.50	October 26-31	17.30
	May 1-3	20.50	November 1,2	17.30
1976*	March 5-9	20.80	September 24,25	17.50
1977	March 30	19.00	February 12,21,22	16.10
1978	May 15	20.19	September 12	16.76
1979*	April 26	20.03	February 22	16.11
1980	September 17	19.72	November 14	16.00
1981	June 14	20.71	July 10	17.44
1982*	March 25	20.62	September 16	17.58
1983*	July 2	21.18	October 30,31	17.07
1984*	May 30	20.46	November 14	18.08
1985*	March 4	20.65	July 29	17.74

* Incomplete record.

ILLINOIS RIVER BASIN

05517800 LAKE ELIZA NEAR BEATRICE

GAGE LOCATION.--Lat 41°25'55", long 87°10'33", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 34 N., R. 7 W. (PALMER, IN quadrangle). The gage is on the eastern 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, Porter County, Indiana.

SURFACE AREA.--45 acres.

DRAINAGE AREA.--1.70 mi².

PERIOD OF RECORD.--1954-74, 1976 to present.

DATUM OF GAGE.--735.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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 NGVD of 1929 as decreed on February 7, 1982, by the Porter County Circuit Court.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a reinforced concrete dam with a 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 southern 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, 2.68 ft, November 28-30, 1956.

ANNUAL EXTREME LEVELS FOR LAKE ELIZA, 1954-74, 1976-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954*	July 7	4.75	September 28,29	3.83
1955	October 12	7.09	August 28,29	3.57
1956	May 13	6.19	September 14,17-22	3.46
1957	July 13	5.72	November 28-30	2.68
1958	August 15,16	5.78	October 15	3.29
1959	February 15	5.94	September 21	3.73
1960	February 11	5.69	September 14	3.60
1961	April 25	6.36	October 14,24,25	3.56
1962	March 22	5.66	September 30	2.94

05517800 LAKE ELIZA NEAR BEATRICE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1963	July 23	4.84	January 21,22	2.88
1964	April 7	5.32	September 17	2.88
1965	March 19	5.74	November 26,27	2.94
1966	December 28	6.50	September 24,30	3.14
1967	April 1,2	5.80	October 8,31	3.00
			November 1-8	3.00
1968	February 3,4	6.85	October 7,9-14	3.50
1969*	April 5,6	5.50	September 22,23, 26,27,30	3.85 3.85
1970*	May 15	6.80	October 6	3.74
1971*	March 16,19-21	5.10	August 31	4.05
			September 3	4.05
1972	May 9,10	5.70	November 22-28	3.95
1973	December 31	6.40	September 23,24,27,28	3.90
1974*	May 23	7.20	September 26-28	3.75
1976*	August 7	4.83	September 25	4.02
1977*	March 29	5.55	August 27	3.64
1978*	March 21	6.20	September 30	3.70
1979*	April 27	5.43	September 30	3.65
1980*	March 15,16,24	5.07	August 9	3.37
1981*	June 14	7.24	November 21-26	3.64
1982*	March 13	6.64	September 29,30	3.38
1983*	July 2	5.83	September 17,18	3.23
1984	May 23	4.93	October 10,11,19	3.21
1985*	February 23	6.00	July 24	2.90

* Incomplete record.

ILLINOIS RIVER BASIN

05518700 CEDAR LAKE AT CEDAR LAKE

GAGE LOCATION.--Lat 41°21'58", long 87°25'36", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 34 N., R. 9 W. (LOWELL, IN quadrangle). The gage is on the southern bank of the outlet channel, on the eastern shore of the lake, and 0.5 mi east of the town of Cedar Lake, Lake County, Indiana.

SURFACE AREA.--781 acres, revised.

DRAINAGE AREA.--8.14 mi², revised.

PERIOD OF RECORD.--1943 to present.

DATUM OF GAGE.--690.00 ft above NGVD of 1929.

GAGE.--A digital water-stage recorder (hourly) 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, 1.66 ft, December 21-23, 1964.

ANNUAL EXTREME LEVELS FOR CEDAR LAKE, 1943-85

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1943*	August 16	3.45	September 27-30	2.97
1944	March 16	4.23	September 27	2.31
1945	May 19	3.87	December 3-5	2.27
1946	January 12	3.73	September 29,30	2.35
1947	May 1	4.11	October 16,17	2.21
1948	May 11	4.02	September 28	2.07
1949	February 15,22	3.36	October 29,30	1.93
1950	December 23	3.90	August 27	2.40
1951	February 20,21	3.52	November 6	2.45
1952	June 14	4.02	September 30	2.32
1953	March 18,19	3.39	November 7-9,16,17	1.96

05518700 CEDAR LAKE AT CEDAR LAKE--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1954	March 27	3.24	November 18-21	1.82
1955	January 6	3.52	September 26	1.98
1956	May 10	3.56	October 3	2.05
1957	April 27	3.65	November 14,19,20	1.75
1958	June 13	3.54	September 14	2.37
1959	April 28,29	3.63	September 21	1.81
1960	June 14	3.70	September 14	2.34
1961	April 25	3.82	October 13,14,24-26	2.40
1962	March 24	3.66	September 30	2.07
1963	March 26	3.23	January 29-31	2.14
1964	May 9	3.15	January 1	1.93
1965	April 25	3.61	December 21-23	1.66
1966	December 25	3.81	September 19,20, 26,29,30	2.10 2.10
1967	April 3-8,18-27	3.60	November 4-7	1.90
1968	February 2	3.80	October 11-13	2.50
	August 18,19	3.80		
1969	January 30,31	3.70	September 21-30	2.70
	May 11	3.70		
1970	May 15	4.30	October 4,7,8	2.65
1971*	October 14,15	3.35	August 8-15	2.60
	March 19	3.35	September 16-24	2.60
1972	May 9	3.60	November 21-30	2.60
			December 1-5	2.60
1973*	November 14-16	3.65	September 20-24,30	2.75
	December 31	3.65		
	January 1,3	3.65		
	April 22	3.65		
1974	May 22,23	3.85	July 30,31	2.70
			August 1-9	2.70
1975*	January 11-13	3.75	October 21,28	2.60
	April 24	3.75		
1976*	March 5	3.95	September 23-25	2.50
1977*	March 29	3.30	November 12-26,30	2.40
	April 2,4,5	3.30	December 1,2,14,15	2.40
1978*	April 7	3.56	September 12	2.30
1979*	April 27-29	3.47	October 18,21,22	2.23
1980*	March 19	3.34	October 15	2.32
1981*	June 13,14	4.14	April 10	2.00
1982*	March 22	3.96	September 30	2.42
1983	December 5	3.89	October 30,31	2.33
1984	March 22	3.62	September 21,22,30	2.28
1985*	February 24	3.82	July 24	2.05

* Incomplete record.

ILLINOIS RIVER BASIN

05518800 DALECARLIA LAKE NEAR CRESTON

GAGE LOCATION.--Lat 41°19'45", long 87°24'29", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T. 33 N., R. 9 W. (LOWELL, IN quadrangle). The gage is on the eastern shore of the southwestern lobe of the lake, approximately 800 ft northwest of the outlet, and 1.3 mi southeast of Creston, Lake County, Indiana.

SURFACE AREA.--193 acres.

DRAINAGE AREA.--20.1 mi².

PERIOD OF RECORD.--1947-52.

DATUM OF GAGE.--680.00 ft above NGVD of 1929.

GAGE.--A staff gage in one section is driven into the lake bed and bolted to the steel sheet-piling seawall.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the two outlet dams. The eastern dam is made of wood and has four sections with movable gates. The western dam is a fixed-crest concrete structure.

INLET AND OUTLET.--The lake has two inlets. One enters from the northwest from Mill Lake. The other, Cedar Creek, flows through the lake and leaves through the two outlets at the southwestern end. The two outlets meet about 800 ft downstream of the lake, and eventually join the Kankakee River.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 6.45 ft, May 11, 1948; minimum stage, 3.90 ft, October 30, 1948.

ANNUAL EXTREME LEVELS FOR DALECARLIA LAKE, 1947-52

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1947*	April 30	6.05	August 20-28	4.21
1948	May 11	6.45	September 17	3.94
1949	February 15, April 1	5.40	October 30	3.90
1950	December 22	6.36	August 26, 27	4.19
1951	May 11	5.48	September 6, 7, 22, 29, 30	4.30
1952*	November 24	4.84	October 5	4.35

* Incomplete record.

ILLINOIS RIVER BASIN

05521300 RINGNECK LAKE NEAR MEDARYVILLE

GAGE LOCATION.--Lat 41°09'15", long 86°57'05", in NE¼NE¼ sec. 11, T. 31 N., R. 5 W., Jasper County (SAN PIERRE, IN quadrangle). The gage is on the northwestern shore of the lake, in the Jasper-Pulaski State Game Preserve, and 6.1 mi northwest of Medaryville, Pulaski County, Indiana.

SURFACE AREA.--1,400 acres.

DRAINAGE AREA.--1.94 mi².

PERIOD OF RECORD.--1949-50.

DATUM OF GAGE.--Gage is set to an arbitrary datum.

GAGE.--A staff gage is on the northwestern shore of the lake.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by the surrounding wetland.

INLET AND OUTLET.--The lake drains the adjacent wetlands. The lake flows through the wetland and into Ryan ditch.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 3.72 ft, June 17, 18, 1949; minimum stage, 2.36 ft, September 30, October 1-3, 1949.

ANNUAL EXTREME LEVELS FOR RINGNECK LAKE, 1949-50

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1949*	June 17,18	3.72	September 30	2.36
1950	January 24,25	3.64	October 1-3	2.36
	April 4	3.64		

* Incomplete record.

ILLINOIS RIVER BASIN

05525700 J.C. MURPHEY LAKE NEAR MOROCCO

GAGE LOCATION.--Lat 40°58'27", long 87°31'08", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T. 29 N., R. 10 W. (DONOVAN, IL-IN quadrangle). The gage is on the southwestern shore of the lake, at the outlet dam, in the Willow Slough Game Preserve, and 3.9 mi northwest of Morocco, Newton County, Indiana.

SURFACE AREA.--1,515 acres.

DRAINAGE AREA.--13.0 mi².

PERIOD OF RECORD.--1952-61 (weekly readings).

DATUM OF GAGE.--Gage set to an arbitrary datum.

GAGE.--A staff gage in one section is fastened to the downstream side of the southern abutment of the dam.

ESTABLISHED LEGAL LEVEL.--Not established.

LAKE-LEVEL CONTROL.--The level of the lake is controlled by a fixed-crest concrete dam with movable gates.

INLET AND OUTLET.--Numerous, small, unnamed ditches feed the lake. Riner Houseworth ditch enters the lake on the northern shore of the eastern lobe. The outlet, Hooper Branch, flows from the lake on the southwestern shore and into Beaver Creek, 4.1 mi downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage, 9.65 ft, April 28, 1957; minimum stage, 3.86 ft, October 25, 1951.

ANNUAL EXTREME LEVELS FOR J.C. MURPHEY LAKE, 1952-61

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1952*	August 16,20	8.10	October 25	3.86
1953	March 26, April 4	9.40	November 7,14	7.28
1954	April 25	9.32	December 4,10,13	6.98
1955	December 24,28	8.80	August 27	6.21
	January 1	8.80		
1956	May 26	9.02	October 22	6.90
1957	April 28	9.65	November 10	7.20
1958*	October 5	8.82	December 12,20,27	7.40
	July 20	8.82		
1959*	March 7	9.28	December 31	8.00
			January 8,13,23,27	8.00

05525700 J.C. MURPHEY LAKE NEAR MOROCCO--Continued

Water year	Maximum		Minimum	
	Date	Gage height (feet)	Date	Gage height (feet)
1960*	May 25	8.40	September 6	7.12
1961*	March 24, April 7	8.78	October 29	7.10
			November 1	7.10

* Incomplete record.

APPENDIX B: INDEX OF LAKE STATIONS

	Page
Adams Lake near Wolcottville.....	235
Atwood Lake near Wolcottville.....	238
Ball Lake near Hamilton.....	305
Banning Lake near North Webster.....	78
Bass Lake at Bass Lake.....	342
Bass Lake near Angola.....	188
Baughner Lake near Washington Center.....	65
Bear Lake near Wolflake.....	266
Beaver Dam Lake near Silver Lake.....	105
Big Barbee Lake near North Webster.....	78
Big Chapman Lake near Warsaw.....	84
Big Lake near Wolflake.....	50
Big Long Lake near Stroh.....	201
Big Otter Lake near Fremont.....	161
Big Turkey Lake at Stroh.....	197
Bixler Lake at Kendallville.....	246
Blackman Lake near Wolcottville.....	234
Blue Lake near Churubusco.....	35
Bower Lake near Pleasant Lake.....	185
Brookville Lake at Brookville.....	21
Bruce Lake at Lake Bruce.....	132
Cagles Mill Lake near Manhattan.....	142
Carr Lake near Claypool.....	92
Cass Lake near Shipshewana.....	222
Cecil M. Harden Lake at Ferndale.....	134
Cedar Lake at Cedar Lake.....	353
Cedar Lake at Tri-Lakes.....	39
Cedar Lake near Ontario.....	177
Cedar Lake near Waterloo.....	311
Center Lake at Warsaw.....	98
Clear Lake at Clear Lake.....	301
Clear Lake at LaPorte.....	330
Cree Lake near Kendallville.....	232
Crooked Lake at Crooked Lake.....	169
Crooked Lake near Wolflake.....	49
Crystal Lake near Atwood.....	102
Dalecarlia Lake near Creston.....	355
Dallas Lake near Wolcottville.....	243
Dewart Lake near Leesburg.....	297
Diamond Lake near Silver Lake.....	110
Diamond Lake near Wawaka.....	281
Duely Lake near Cromwell.....	288
Eagle Creek Reservoir near Indianapolis.....	140
Eagle Lake near Kimmell.....	280
Eagle Lake near Ober.....	341
Emma Lake near Emma.....	220
Engle Lake near Ligonier.....	284
Everett Lake at Levert.....	33
Fish Lake near Plato.....	208
Fish Lake near Scott.....	216

APPENDIX B: INDEX OF LAKE STATIONS--Continued

	Page
Fish Lake near Warsaw.....	88
Flatbelly Lake near Syracuse.....	290
Fletcher Lake at Fletcher Lake.....	133
Flint Lake near Valparaiso.....	349
Fox Lake near Angola.....	180
Geist Reservoir near Oaklandon.....	138
Gilbert Lake near Washington Center.....	61
Golden Lake near Pleasant Lake.....	185
Goose Lake near Lorane.....	52
Gordy Lake near Cromwell.....	288
Hackenburg Lake near Wolcottville.....	243
Hamilton Lake at Hamilton.....	307
Harper Lake near Washington Center.....	286
Heaton Lake near Elkhart.....	227
High Lake near Wolflake.....	264
Hill Lake near Silver Lake.....	108
Hindman Lake near Washington Center.....	286
Hoffman Lake at Atwood.....	103
Hogback Lake near Angola.....	191
Horseshoe Lake near Washington Center.....	63
Hovey Lake near Mount Vernon.....	25
Howard Lake near Angola.....	190
Hudson Lake at Hudson Lake.....	314
Hunter Lake near Middlebury.....	224
Huntington Lake near Huntington.....	27
Indian Lake near Corunna.....	310
Indiana Lake near Bristol.....	231
Irish Lake near North Webster.....	78
J.C. Murphey Lake near Morocco.....	357
James Lake at Oswego.....	81
Jimmerson Lake at Nevada Mills.....	164
Jones Lake near Cosperville.....	256
King Lake near Delong.....	124
Knapp Lake near Washington Center.....	286
Koontz Lake at Koontz Lake.....	332
Kuhn Lake near North Webster.....	78
Lake Eliza near Beatrice.....	351
Lake Gage at Panama.....	172
Lake George at Hobart.....	152
Lake George at Jamestown.....	157
Lake James at Lake James.....	162
Lake Manitou at Rochester.....	117
Lake Maxinkuckee at Culver.....	126
Lake Pleasant near Nevada Mills.....	155
Lake Wawasee at Wawasee.....	292
Lake of the Woods near Bremen.....	336
Lake of the Woods near Helmer.....	199
Langenbaum Lake near Monterey.....	130
Latta Lake near Rome City.....	250
Lime Lake at Panama.....	172

APPENDIX B: INDEX OF LAKE STATIONS--Continued

	Page
Little Barbee Lake near North Webster.....	78
Little Chapman Lake near Warsaw.....	84
Little Long Lake at Kendallville.....	248
Little Otter Lake near Fremont.....	161
Little Turkey Lake at Elmira.....	204
Little Wilson Lake near Larwill.....	41
Long Lake at Laketon.....	42
Long Lake at Moonlight.....	183
Long Lake near Burr Oak.....	259
Long Lake near Ray.....	304
Long Lake near Valparaiso.....	347
Loomis Lake near Valparaiso.....	348
Loon Lake at Ormas.....	54
Loon Lake near Angola.....	167
Loon Lake near Silver Lake.....	106
Lost Lake near Culver.....	128
Lower Fish Lake near Stillwell.....	322
Lower Long Lake near Albion.....	278
Lukens Lake near Disko.....	47
Marsh Lake near Fremont.....	160
Martin Lake near Valentine.....	240
McClish Lake near Helmer.....	199
McClures Lake near Silver Lake.....	107
Messick Lake near Wolcottville.....	243
Mill Pond and Kreighbaum Lake near Twin Lakes.....	340
Mississinewa Lake at Peoria.....	31
Monroe Lake near Harrodsburg.....	148
Morse Reservoir near Noblesville.....	136
Moss Lake near Washington Center.....	286
Mud Lake near Orland.....	176
Muncie Lake near Burr Oak.....	269
Muskellunge Lake near Warsaw.....	90
Myers Lake near Twin Lakes.....	339
New Lake near Etna.....	56
North Chain Lake at Lydick.....	316
North Little Lake at Silver Lake.....	44
North Twin Lake near Howe.....	211
Nyona Lake near Greenoak.....	120
Ogle Lake near Nashville.....	146
Old Lake near Etna.....	57
Olin Lake near Valentine.....	240
Oliver Lake near Valentine.....	240
Oswego Lake at Oswego.....	81
Otter Lake near Flint.....	193
Palestine Lake at Palestine.....	100
Papakeechee Lake near Syracuse.....	291
Patoka Lake near Cuzco.....	150
Pigeon Lake near Angola.....	178
Pike Lake at Warsaw.....	86
Pine Lake at LaPorte.....	324

APPENDIX B: INDEX OF LAKE STATIONS--Continued

	Page
Pleasant Lake at Pleasant Lake.....	181
Pleasant Lake near Wolflake.....	275
Pretty Lake near Plymouth.....	338
Pretty Lake near Stroh.....	203
Riddles Lake near Lakeville.....	334
Rider Lake near Cronwell.....	288
Ridinger Lake near Pierceton.....	73
Ringneck Lake near Medaryville.....	356
Rivir Lake near Burr Oak.....	262
Robinson Lake near Pierceton.....	70
Rock Lake near Akron.....	114
Round Lake at Clear Lake.....	301
Round Lake at Kendallville.....	248
Round Lake at Tri-Lakes.....	40
Royer Lake near Plato.....	206
Sacarider Lake near Kendallville.....	255
Salamonie Lake at Dora.....	29
Sand Lake near Burr Oak.....	261
Saugany Lake near Rolling Prairie.....	313
Sawmill Lake near North Webster.....	78
Sechrist Lake near North Webster.....	78
Sherburn Lake near Pierceton.....	93
Shipshewana Lake near Shipshewana.....	214
Shoe Lake near Oswego.....	76
Shriner Lake at Tri-Lakes.....	37
Silver Lake at Silver Lake.....	44
Silver Lake near Angola.....	187
Silver Lake near Rolling Prairie.....	320
Silver Lake near Wolflake.....	271
Simonton Lake near Elkhart.....	229
Skinner Lake near Albion.....	273
Smalley Lake near Washington Center.....	59
Snow Lake at Lake James.....	162
South Chain Lake at Westfield.....	317
South Mud Lake near Fulton.....	122
South Twin Lake near Howe.....	211
Sparta Lake at Kimmell.....	283
Starve Hollow Lake near Vallonia.....	144
Steinbarger Lake near Cosperville.....	256
Stone Lake at LaPorte.....	327
Stone Lake near Scott.....	218
Story Lake near Hudson.....	195
Sylvan Lake at Rome City.....	252
Syracuse Lake at Syracuse.....	294
Tamarack Lake near Cosperville.....	256
Tippecanoe Lake at Oswego.....	81
Town Lake near Akron.....	116
Troy Cedar Lake near Lorane.....	71
Upper Fish Lake near Stillwell.....	322
Upper Long Lake near Wolflake.....	276

APPENDIX B: INDEX OF LAKE STATIONS--Continued

	Page
Versailles Lake near Versailles.....	23
Village Lake near Cromwell.....	288
Wabee Lake near Milford.....	300
Waldron Lake near Cosperville.....	256
Wall Lake near Orland.....	175
Wauhob Lake near Valparaiso.....	345
Webster Lake at North Webster.....	67
Westler Lake near Wolcottville.....	243
Wharton Lake near South Bend.....	318
Wilmot Pond at Wilmot.....	66
Wilson Lake near Larwill.....	41
Winona Lake at Warsaw.....	95
Witmer Lake near Wolcottville.....	239
Wolf Lake at Hammond.....	151
Wolf Lake near Goshen.....	225
Yellow Creek Lake near Silver Lake.....	112
Zink Lake near Rochester.....	119