



Water Resources Data Wisconsin Water Year 1985



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WI-85-1
Prepared in cooperation with the State of Wisconsin
and with other agencies

CALENDAR FOR WATER YEAR 1985

1984

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

1985

J A N U A R Y							F E B R U A R Y							M A R C H						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5						1	2							1	2
6	7	8	9	10	11	12	3	4	5	6	7	8	9	3	4	5	6	7	8	9
13	14	15	16	17	18	19	10	11	12	13	14	15	16	10	11	12	13	14	15	16
20	21	22	23	24	25	26	17	18	19	20	21	22	23	17	18	19	20	21	22	23
27	28	29	30	31			24	25	26	27	28			24	25	26	27	28	29	30
														31						

A P R I L							M A Y							J U N E						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6				1	2	3	4							1
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
28	29	30					26	27	28	29	30	31		23	24	25	26	27	28	29
														30						

J U L Y							A U G U S T							S E P T E M B E R						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6				1	2	3	1	2	3	4	5	6	7	
7	8	9	10	11	12	13	4	5	6	7	8	9	10	8	9	10	11	12	13	14
14	15	16	17	18	19	20	11	12	13	14	15	16	17	15	16	17	18	19	20	21
21	22	23	24	25	26	27	18	19	20	21	22	23	24	22	23	24	25	26	27	28
28	29	30	31				25	26	27	28	29	30	31	29	30					



Water Resources Data Wisconsin Water Year 1985

by B. K. Holmstrom, P. A. Kammerer, Jr.
and R. M. Erickson



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WI-85-1
Prepared in cooperation with the State of Wisconsin
and with other agencies

**UNITED STATES DEPARTMENT OF THE INTERIOR
DONALD PAUL HODEL, *SECRETARY***

**GEOLOGICAL SURVEY
DALLAS L. PECK, *DIRECTOR***

Prepared in cooperation with

**Wisconsin Department of Natural Resources
U.S. Army Corps of Engineers
Wisconsin Department of Transportation
The University of Wisconsin-Extension, Geological and
Natural History Survey
Dane County Department of Public Works
Dane County Regional Planning Commission
Southeastern Wisconsin Regional Planning Commission
City of Middleton
City of Medford
City of Madison
Madison Metropolitan Sewerage District
Madison Water Utility
Milwaukee Metropolitan Sewerage District
National Park Service
Bureau of Indian Affairs
Menominee Indian Tribe of Wisconsin
Delavan Lake Sanitary District
Green Lake Sanitary District
Village of Slinger
Lac La Belle Management District
Okauchee Lake Management District
Mt. Morris Lake Management District
Wolf Lake Management District
Town of Norway Management District**

For additional information write to:

**District Chief, Water Resources Division
U.S. Geological Survey
6417 Normandy Lane
Madison, Wisconsin 53719**

PREFACE

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

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines. Most of the data were collected, computed and processed from area field offices. Technicians-in-charge of the field offices are:

Jack T. Freshwaters, Rice Lake, northwest
James W. George, Merrill, northeast
Josef Habale, Madison, southwest

The data were collected, computed, and processed by the following personnel:

R. H. Biller	G. W. Gill	K. J. Hedmark	T. J. Popowski
R. B. Bodoh	G. L. Goddard	K. L. Johnson	P. A. Stark
M. D. Duerk	J. J. Hanig	K. R. Koenig	T. A. Wittwer
B. R. Ellefson	H. L. Hanson	S. A. March	J. K. Zahn

This report was prepared in cooperation with the State of Wisconsin and with other agencies under the general supervision of Warren A. Gebert, Hydrologic Systems and Data Section Chief, R. D. Cotter, Hydrogeologic Studies Section Chief, and Vernon W. Norman, District Chief, Wisconsin.

REPORT DOCUMENTATION PAGE	1. REPORT NO. USGS/WRD/HD-86/249	2.	3. Recipient's Accession No.
4. Title and Subtitle Water Resources Data Wisconsin Water year 1985			5. Report Date August 1986
7. Author(s) B. K. Holmstrom, P. A. Kammerer, Jr., and R. M. Erickson			6.
9. Performing Organization Name and Address U.S. Geological Survey Water Resources Division 6417 Normandy Lane Madison, WI 53719			8. Performing Organization Rept. No. USGS-WDR-WI-85-1
12. Sponsoring Organization Name and Address U.S. Geological Survey			10. Project/Task/Work Unit No. 001, 001, 003, 004
			11. Contract(C) or Grant(G) No. (C) (G)
			13. Type of Report & Period Covered Annual - Oct. 1, 1984 to Sept. 30, 1985
15. Supplementary Notes Prepared in cooperation with the State of Wisconsin and other agencies			14.
16. Abstract (Limit 200 words) Water-resources data for the 1985 water year for Wisconsin include records of streamflow at gaging stations, partial-record stations, and miscellaneous sites; records of chemical, biological, and physical characteristics of surface and ground water. Records of chemical analysis of precipitation, surface and ground water associated with acid deposition are included. In addition water levels in observation wells are reported. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and local agencies and for other Federal agencies in Wisconsin.			
17. Document Analysis: a. Descriptors *Wisconsin, *Hydrologic data, *Surface water, *Ground water, *Water quality, *Acid deposition, Flow rate, Gaging stations, Lakes, Chemical analyses, Microbiological analyses, Sediment, Water levels b. Identifiers/Open-Ended Terms c. COSATI Field/Group			
18. Availability Statement No restriction on distribution. This report may be purchased from: National Technical Information Service, Springfield, VA 22161		19. Security Class (This Report) Unclassified	21. No. of Pages
		20. Security Class (This Page) Unclassified	22. Price

CONTENTS

	Page
Preface.....	III
List of illustrations.....	VI
List of gaging stations in downstream order, for which records are published.....	VII
Introduction.....	1
Cooperation.....	2
Summary of hydrologic conditions.....	3
Streamflow.....	3
Water quality.....	6
Ground-water levels.....	6
Special networks and programs.....	9
Explanation of the records.....	10
Station identification numbers.....	10
Downstream order and station number.....	10
Numbering system for ground-water and lake data sites.....	11
Records of stage and water discharge.....	11
Data collection and computation.....	11
Data presentation.....	12
Identifying estimated daily discharge.....	15
Accuracy of the records.....	15
Other records available.....	16
Records of surface-water quality.....	16
Classification and arrangement of records.....	16
On-site measurements and sample collection.....	16
Sediment.....	17
Laboratory measurements.....	17
Data presentation.....	18
Remark codes.....	19
Records of ground-water levels.....	19
Data collection and computation.....	20
Data presentation.....	20
Records of ground-water quality.....	21
Data collection and computation.....	21
Data presentation.....	21
Access of WATSTORE data.....	22
Definition of terms.....	23
Publications on techniques of water-resources investigations.....	29
Surface-water records.....	34
Gaging station records.....	34
Discharge at partial-record stations and miscellaneous sites.....	308
Crest-stage partial-record stations.....	308
Measurements at miscellaneous sites.....	316
Water-quality partial-record stations.....	320
Ground-water records.....	333
Ground-water levels.....	335
Quality of ground water.....	361
Acid deposition records.....	369
Discontinued gaging stations.....	407
Index.....	410

ILLUSTRATIONS

		Page
Figure	1. 1985 runoff as percent of long-term average runoff.....	4
	2. Comparison of discharge at representative gaging stations during 1985 water year with discharge for 1916-85.....	5
	3. Comparison of dissolved-solids concentrations in streams during 1985 water year with monthly means.....	7
	4. Relation of seasonal water-table levels to long-term means.....	8
	5. Major surface-water drainage basins and index of hydrologic records.....	32
	Lake Superior basin location map.....	33
	Menominee-Oconto-Peshtigo River basin location map.....	44
	Fox-Wolf River basin location map.....	59
	Lake Michigan basin location map.....	86
	St. Croix River basin location map.....	113
	Chippewa River basin location map.....	127
	Trempealeau-Black River basin location map.....	142
	Upper Wisconsin River basin location map.....	162
	Central Wisconsin River basin location map.....	172
	Lower Wisconsin River basin location map.....	181
	Pecatonica-Sugar River basin location map.....	227
	Rock-Fox River basin location map.....	233
	6. Location of observation wells and ground-water-quality sites in Wisconsin.....	334
	7. Location of acid deposition sites in Wisconsin.....	370
	8. Location of data-collection stations at acid deposition sites in Wisconsin.....	371

GAGING STATIONS IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letters after station name designate type of data
(c) chemical, (d) discharge, (g) gage height, (m) microbiological,
(r) radiochemical, (s) sediment, (t) water temperature]

	Page
ST. LAWRENCE RIVER BASIN	
STREAMS TRIBUTARY TO LAKE SUPERIOR	
Lake Superior basin location map.....	33
Nemadji River near South Superior (d,c,m,s).....	34
Amnicon Lake (head of Amnicon River) near South Range (c,g).....	37
Bois Brule River near Brule(d).....	38
Bad River near Odanah (d).....	39
White River near Ashland (d).....	40
Bad River at Odanah (c,m,s).....	41
Middle Branch Ontonagon River:	
West Branch Ontonagon River:	
Cisco Branch Ontonagon River at Cisco Lake Outlet, MI (d).....	43
STREAMS TRIBUTARY TO LAKE MICHIGAN	
Menominee-Oconto-Peshtigo River basin location map.....	44
Brule River near Florence (d).....	45
Menominee River near Florence (d).....	46
Pine River:	
Popple River near Fence (d,c,m,s).....	47
Menominee River below Pemene Creek near Pembine (d).....	50
Menominee River near McAllister (d,c,m,s).....	51
Peshtigo River:	
East Thunder Creek (head of Thunder River):	
McCaslin Lake near Lakewood (c,g).....	54
Peshtigo River at Peshtigo (d).....	55
North Branch Oconto River (head of Oconto River):	
Wheeler Lake near Lakewood (c).....	56
Oconto River near Gillett (d).....	57
Pensaukee River near Pensaukee (d).....	58
Fox-Wolf River basin location map.....	59
Fox River:	
Patrick Lake (head of Montello River) near Grand Marsh (c,g).....	60
Montello Lake at Montello (c,g).....	61
Puckaway Lake at Marquette (c,g).....	62
Mecan River:	
Chaffee River:	
Wedde Creek:	
Sharon Lake near Dakota (g).....	63
Puchyan River:	
White Creek at Forest Glen beach near Green Lake (d,c,s).....	64
Fox River at Berlin (d).....	70
Wolf River:	
Swamp Creek above Rice Lake at Mole Lake (d).....	71
Swamp Creek below Rice Lake at Mole Lake (d).....	72
Wolf River at Langlade (d).....	73
Wolf River at Keshena Falls (d).....	74
Embarrass River near Embarrass (d).....	75
Wolf River at New London (d).....	76
Little Wolf River at Royalton (d).....	77
Waupaca River near Waupaca (d).....	78
Willow Creek:	
Lake Morris near Mount Morris (c,g).....	79

**GAGING STATIONS IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED**

Lake Winnebago at Oshkosh (g).....	81
Lake Winnebago near Stockbridge (g).....	82
Fox River at Rapide Croche Dam, near Wrightstown (d).....	83
Fox River at Wrightstown (c,m,s).....	84
Lake Michigan basin location map.....	86
Kewaunee River near Kewaunee (d).....	87
East Twin River at Mishicot (d).....	89
South Branch Manitowoc River (head of Manitowoc River):	
Chilton Pond at Chilton (c,g).....	90
Manitowoc River at Manitowoc (d,c,m,s).....	91
Wolf Lake near Mt. Calvary (c,g).....	94
Sheboygan River at Sheboygan (d).....	96
Milwaukee River:	
Big Cedar Lake (head of Cedar Creek) near West Bend (c,g).....	97
Cedar Creek near Cedarburg (d).....	98
Milwaukee River near Cedarburg (d).....	99
Milwaukee River at Milwaukee (d,c,m,s).....	100
Menomonee River at Menomonee Falls (d).....	103
Underwood Creek at Wauwatosa (d).....	104
Menomonee River at Wauwatosa (d).....	105
Kinnickinnic River at South 11th Street at Milwaukee (d).....	106
Oak Creek at South Milwaukee (d).....	107
Root River near Franklin (d).....	108
Root River Canal near Franklin (d).....	109
Root River at Racine (d).....	110
Pike River near Racine (d).....	111
UPPER MISSISSIPPI RIVER BASIN	
ST. CROIX RIVER BASIN	
St. Croix River Basin location map.....	113
St. Croix River:	
Namekagon River near Hayward (c,s).....	114
Namekagon River near Trego (c,s).....	115
McKenzie Creek:	
McKenzie Lake near Spooner (c,g).....	116
St. Croix River near Danbury (d,c,s).....	117
Clam River:	
Clam Lake near Siren (c,g).....	119
Kettle River near Cloverdale, MN (c,s).....	120
Snake River near Pine City, MN (c,s).....	121
St. Croix River at St. Croix Falls (d,c,m,s).....	122
Apple River:	
Bone Lake (head of Fox Creek) near Luck (c,g).....	125
Mississippi River at Prescott (d).....	126
CHIPPEWA RIVER BASIN	
Chippewa River basin location map.....	127
Chippewa River at Bishops Bridge, near Winter (d).....	128
Chippewa River near Bruce (d).....	129
Flambeau River near Bruce (d).....	130
Jump River at Sheldon (d).....	131
Red Cedar River:	
Hay River at Wheeler (d).....	132
Red Cedar River at Menomonie (d).....	133
Chippewa River at Durand (d,c,m,s,r).....	134
Eau Galle River at Spring Valley (d,c,t).....	137
BUFFALO RIVER BASIN	
Trempealeau-Black River basin location map.....	142
Buffalo River:	
Crystal Lake at Strum (c,g).....	143

**GAGING STATIONS IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED**

Mississippi River at Winona, MN (d,c,m,t,s).....	144
TREMPEALEAU RIVER BASIN	
Trempealeau River:	
Elk Creek:	
Bugle Lake at Independence (c,g).....	149
Trempealeau River at Dodge, (d).....	150
BLACK RIVER BASIN	
Black River at Medford (d).....	151
Black River at Neillsville (d).....	153
Black River near Galesville (d,c,m,s).....	154
LA CROSSE RIVER BASIN	
La Crosse River:	
Neshonoc Lake at West Salem (c,g).....	157
Mississippi River at McGregor, IA (d,c,t,s).....	158
WISCONSIN RIVER BASIN	
Upper Wisconsin River basin location map.....	162
Wisconsin River:	
Eagle River:	
Anvil Lake (head of Blackjack Creek) near Eagle River (c,g).....	163
Little St. Germain Creek:	
Alma Lake near St. Germain (c,g).....	164
Moon Lake near St. Germain (c).....	165
Swamp Creek:	
Muskellunge Lake (head of Muskellunge Creek) near Lake Tomahawk (c,g).....	166
Wisconsin River at Rainbow Lake, near Lake Tomahawk (d).....	167
Tomahawk River:	
Bear Lake (head of Bear Creek) near Hazelhurst (c,g).....	168
Spirit River at Spirit Falls (d).....	169
Prairie River near Merrill (d).....	170
Wisconsin River at Merrill (d).....	171
Central Wisconsin River basin location map.....	172
Eau Claire River at Kelly (d).....	173
Wisconsin River at Rothschild (d).....	174
Big Eau Pleine River near Stratford (d).....	175
Little Plover River at Plover (d).....	176
Wisconsin River at Wisconsin Rapids (d).....	177
Yellow River at Babcock (d).....	178
Lemonweir River at New Lisbon (d).....	179
Wisconsin River near Wisconsin Dells (d).....	180
Lower Wisconsin River basin location map.....	181
Baraboo River:	
Redstone Lake (on Big Creek) near La Valle (c,g).....	182
Devils Lake near Baraboo (c,g).....	183
Baraboo River near Baraboo (d).....	184
Fish Lake near Sauk City (c,g).....	185
Blue Mound Creek:	
Black Earth Creek at Cross Plains (d,c,t,s).....	186
Brewery Creek at Cross Plains (d,c,t,s).....	195
Garfoot Creek near Cross Plains (d,c,t,s).....	204
Black Earth Creek at Black Earth (d,c,t,s).....	212
Wisconsin River at Muscoda (d,c,m,s).....	220
Kickapoo River at La Farge (d).....	223
Kickapoo River at Steuben (d).....	224
Reservoirs in the Wisconsin River basin.....	225
GRANT RIVER BASIN	
Pecatonica-Sugar River basin location map.....	227
Grant River at Burton (d,s).....	228

**GAGING STATIONS IN DOWNSTREAM ORDER,
FOR WHICH RECORDS ARE PUBLISHED**

PLATTE RIVER BASIN	
Platte River near Rockville (d).....	231
GALENA RIVER BASIN	
Galena River at Buncombe (d).....	232
ROCK RIVER BASIN	
Rock-Fox River basin location map.....	233
Rock River at Hustisford (d).....	234
Oconomowoc River:	
North Lake near North Lake (c,g).....	235
Okauchee Lake at Okauchee (c,g).....	236
Lac La Belle at Oconomowoc (c,g).....	237
Rock River at Watertown (d).....	241
Crawfish River at Milford (d).....	242
Rock River at Jefferson (d).....	243
Bark River near Rome (d).....	244
Rock River at Indianford (d).....	245
Yahara River:	
Pheasant Branch at Middleton (d,s,c).....	246
Spring Harbor storm sewer at Madison (d,s).....	248
Lake Mendota at Madison (g).....	250
Lake Monona at Madison (g).....	251
Yahara River near McFarland (d).....	252
Badfish Creek near Cooksville (d).....	253
Yahara River near Fulton (d).....	254
Rock River at Afton (d).....	255
Turtle Creek:	
Jackson Creek at Petrie Road near Elkhorn (d,c,s).....	256
Jackson Creek Tributary near Elkhorn (d,c,s).....	262
Jackson Creek at Mounds Rd near Elkhorn (c).....	269
Delavan Lake Inlet at US Hwy 50 at Lake Lawn (c).....	270
Bulk Precipitation Collector at D.L.S.D. near Delavan.....	272
Delavan Lake Tributary at South Shore Drive at Delavan Lake (d,c,s).....	273
Delavan Lake at sw end near Delavan Lake (c,g).....	278
Delavan Lake at center near Delavan Lake (c,g).....	281
Delavan Lake at north end near Lake Lawn (c, g).....	285
Delavan Lake Outlet at Borg Road near Delavan (d,c,s).....	288
Turtle Creek at Carvers Rock Road near Clinton (d).....	293
Pecatonica River at Darlington (d).....	294
East Branch Pecatonica River near Blanchardville (d).....	295
Pecatonica River at Martintown (d).....	296
Sugar River near Brodhead (d,c,s).....	297
Rock River at Rockton, IL (d).....	300
ILLINOIS RIVER BASIN	
Kankakee River (head of Illinois River):	
Des Plaines River at Russell, IL (d).....	301
Illinois River:	
Fox River at Waukesha (d).....	302
Mukwonago River at Mukwonago (d).....	303
Wind Lake Drainage Canal:	
Wind Lake at Wind Lake (c,g).....	304
Honey Creek:	
Pleasant Lake near La Grange (c,g).....	306
Fox River at Wilmot (d).....	307

WATER RESOURCES DATA FOR WISCONSIN, 1985

INTRODUCTION

Water-resources data for Wisconsin for the 1985 water year include records of streamflow at gaging stations, partial-record stations, and miscellaneous sites; stage and contents of lakes and reservoirs; chemical, physical, and biological characteristics of surface and ground water; and water levels in observation wells. Records from several stations in bordering states are also included. This report contains discharge records from 106 gaging stations and peak stage and discharge from 105 crest-stage stations; stage for 34 lakes and contents for 24 reservoirs; water-quality data from 34 streams, from 32 lakes, and from 74 wells; and water-level records from 63 observation wells. Various discharge, stage, precipitation, ground-water level, and water quality data are collected at four acid-deposition sites in northern Wisconsin. Additional water data were collected at various sites not involved in the systematic data-collection program, and are published in this report as miscellaneous measurements.

The Water Resources Division of the U.S. Geological Survey, in cooperation with local, State and Federal agencies, obtains a large amount of data pertaining to the water resources of Wisconsin each year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Wisconsin." This series of annual reports for Wisconsin began in the 1961 water year with streamflow data, the 1964 water year with water-quality data, and the 1971 water year with ground-water data. Beginning with the 1975 water year, streamflow, water quality, and ground water data for each State were published in present format. These annual reports are for sale, in paper copy or microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Wisconsin were published in U.S. Geological Survey Water-Supply Papers. Records of stream discharges and of water levels in lakes and reservoirs were published annually through 1960 and then for the 5-year periods 1961-65 and 1966-70 in the series "Surface-Water Supply of the United States". Chemical-quality, water-temperature, and suspended-sediment data were published annually, from 1941 to 1970, in the series "Quality of Surface Waters of the United States". Records of ground-water levels were published annually from 1935 to 1974, in the series "Ground-Water Levels in the United States". The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

Additional information, including current prices for ordering specific reports, may be obtained from the District Chief at the address given on the back of the title page, or by telephone (608)262-2488.

COOPERATION

The U.S. Geological Survey and the State of Wisconsin have worked under cooperative agreements since 1913 collecting streamflow data, since 1955 collecting water-quality data, and since 1964 collecting ground-water level data. Agencies that worked cooperatively with the Survey during this year collecting data are:

Wisconsin Department of Natural Resources, C. D. Besadny, secretary.

U.S. Army Corps of Engineers.

Wisconsin Department of Transportation, Lowell B. Jackson, secretary,
and S. W. Woods, chief bridge engineer.

The University of Wisconsin-Extension, Geological and Natural
History Survey, M. E. Ostrom, state geologist and director.

Southeastern Wisconsin Regional Planning Commission, K. W. Bauer,
executive director.

Dane County Department of Public Works, Kenneth J. Kosciak,
director.

Dane County Regional Planning Commission, Charles Montemayor,
executive director.

City of Madison, A. E. Milke, city engineer.

City of Medford, Arthur Salzwedel, mayor.

City of Middleton, Dan Ramsey, mayor.

Madison Metropolitan Sewerage District, James L. Nemke, chief
engineer and director.

Madison Water Utility, Gary Graham, manager.

Milwaukee Metropolitan Sewerage District, Harold Cahill, Jr.,
executive director.

National Park Service.

Bureau of Indian Affairs.

Village of Slinger.

Menominee Indian Tribe of Wisconsin, Lucille B. Chapman,
chairperson.

Delavan Lake Sanitary District, Kevin L. MacKinnon.

Green Lake Sanitary District, Daniel R. Simonson.

Lac La Belle Management District.

Mt. Morris Lake Management District.

Okauchee Lake Management District.

Town of Norway Management District.

Wolf Lake Management District.

The following organizations aided in collecting streamflow records:

Wisconsin Valley Improvement Co., Lake Superior District Power Co., Wisconsin-Michigan Power Co., Wisconsin Public Service Corp., Northern States Power Co., Dairyland Power Cooperative, Wisconsin Power and Light Co., Nekoosa Papers Inc., Wisconsin Electric Power Co., Wisconsin River Power Co., and Milwaukee County Park Commission.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

Runoff throughout Wisconsin was above normal during the 1985 water year. Average runoff for the year varied from approximately 96 to 187 percent of the long-term average (fig. 1). The Popple River basin in northeastern Wisconsin exhibited the lowest runoff (96 percent) compared to the long-term average runoff. The upper Rock River basin in southeastern Wisconsin shows the greatest runoff compared to the long-term average (187 percent). The comparison of the monthly and annual mean discharges for the 1985 water year to a 70-year base period at three gaging stations is shown in figure 2.

Streamflow in Wisconsin has not been normal or below normal since the drought of 1976-77 and 1985 was the eighth consecutive water year that streamflow had been above normal. High base flows occurred in most streams during the 1985 water year and low-flow discharges generally were greater than the 2-year low-flow discharge. The monthly and annual mean discharge for the 1985 water year compared to a 70-year base period at three gaging stations is shown in figure 2. Above normal precipitation in November, April, and September and snowmelt and precipitation in early spring accounted for peaks at 20 different gaging stations that had 2- to 4-year recurrence intervals.

Above normal precipitation during October, November, and mid-to-late December combined with abnormally warm early winter temperatures caused above normal runoff during that period. A 25-year peak event occurred at the Little Plover at Plover gaging station on November 1; this was the greatest peak at that station during its period of record (July 1959 to September 1985). Streamflows were two to five times greater than normal in the eastern tributaries to Lake Michigan during late fall and early winter.

Sustained high base flows during January and snowmelt and rainfall in late February and March caused above average streamflows in most areas of the State from January through March. The snowmelt and rainfall during this period caused peaks that exceeded the 4-year recurrence interval at two stations: Trempealeau River at Dodge (11-year recurrence interval) and Rock River at Watertown (7-year recurrence interval). Streamflows were slightly below normal, however, in north-central and northeastern Wisconsin.

Streamflows were generally above normal during April but relatively dry weather during May and early June caused flows to fall below normal by late June. Streamflows varied from 63 percent of normal in the upper Black River basin to 128 percent of normal in the Flambeau basin. Annual minimum seven-consecutive-day low-flow events with 2- and 3-year recurrence intervals occurred at four gaging stations in southeastern Wisconsin in mid-to-late July.

Greater precipitation in late July, August, and September caused near or above normal streamflows in most areas of the State during that period. The White River near Ashland gaging station recorded a 5-year peak event on September 3. Streamflows were near or below normal from July through September in the Pecatonica-Sugar River and Fox River (Illinois) basins in southern Wisconsin and in the Menominee River in northeastern Wisconsin.

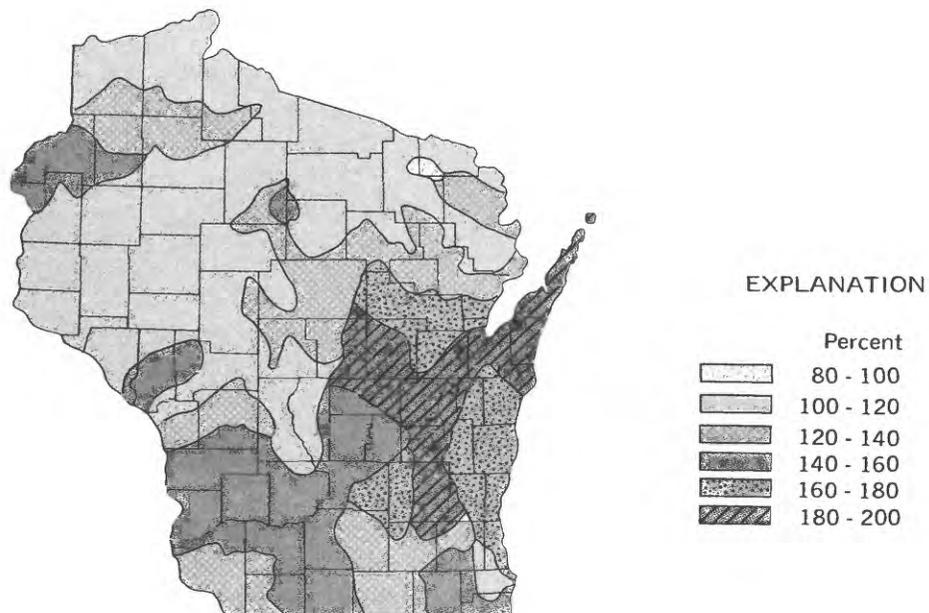


Figure 1. 1985 runoff as percent of long-term average runoff.

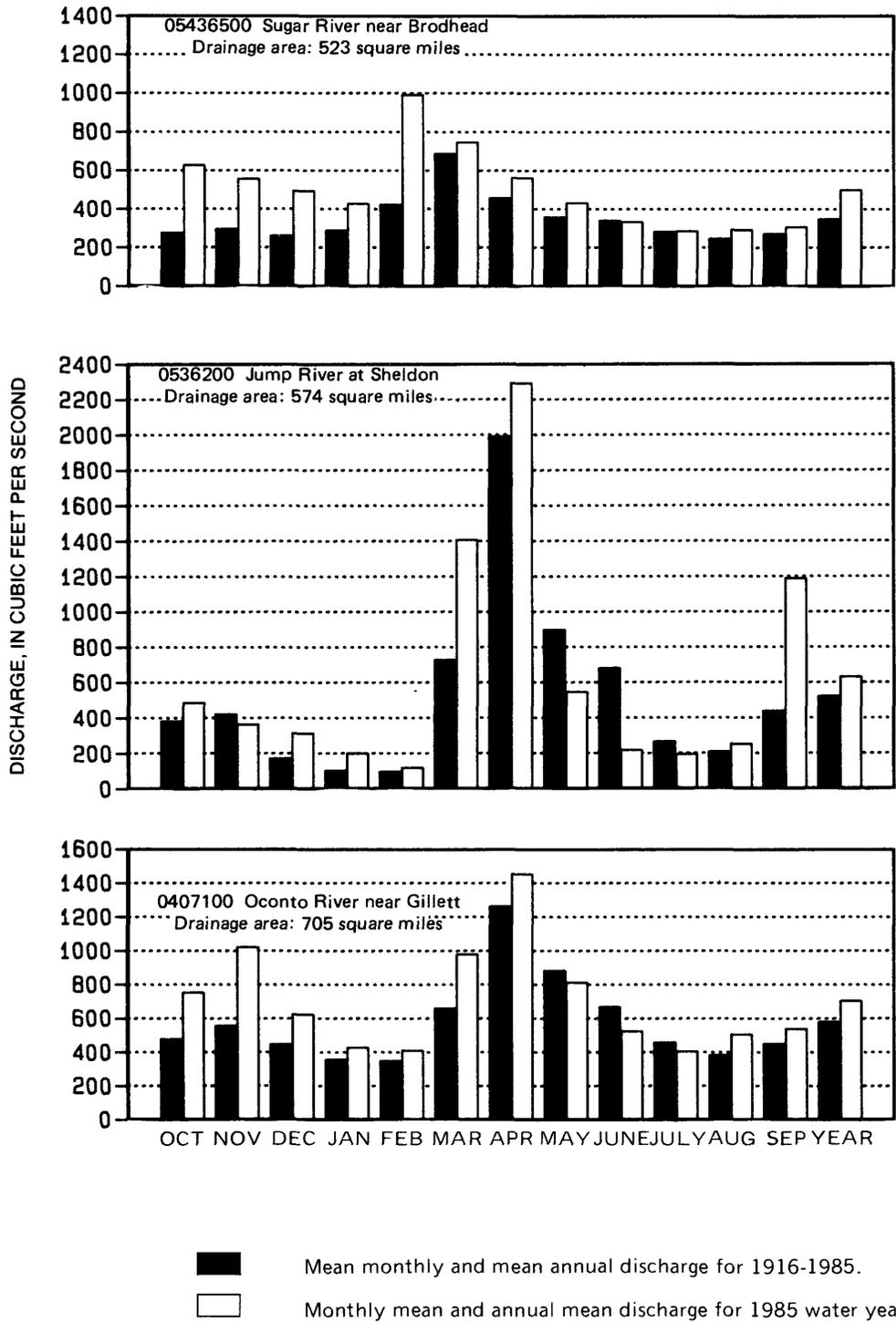


Figure 2. Comparison of discharge at representative gaging stations during 1985 water year with discharge for 1916-85.

Water Quality

Dissolved solids concentrations represent the total dissolved mineral content of water. Dissolved solids concentrations in rivers and streams change with changes in runoff. Concentrations are generally highest during base flow, when streamflow is ground-water runoff; concentrations generally decrease as base flow is diluted by runoff from snowmelt and precipitation.

Dissolved solids concentrations measured at selected National Stream-Quality Accounting Network (NASQAN) stations and a Hydrologic Benchmark Network (HBMN) station during the 1985 water year reflect runoff conditions in the State. Dissolved solids concentrations measured at these stations during the year are compared to monthly mean concentrations for the period of record in figure 3. Dissolved solids concentrations at the Popple River near Fence (HBMN station), where runoff was near normal for the year, were close to mean concentrations for the period of record. This is also true for the Black River near Galesville (NASQAN station) where runoff was only slightly higher than normal. The NASQAN stations, Manitowoc River at Manitowoc and Milwaukee River at Milwaukee, are in areas of the state where runoff was considerably above normal during the first half of the water year and near normal during the second half. This is reflected in lower than average dissolved solids concentrations during the first half of the year and near normal concentrations during the second half.

Ground-Water Levels

Ground-water levels were above normal in most of Wisconsin during 1985. Maps that show seasonal trends during the year (fig. 4) are based on water-level data for 29 shallow-aquifer wells. Each of the 29 wells has at least 15 years of record.

The months included in each season are grouped so that SPRING includes the months of March, April, and May when ground-water recharge is highest. FALL includes September through November; WINTER includes December through February; and SUMMER includes June through August. Seasonal water-level data from 1985 were compared to long-term seasonal averages. The 1985 water level was considered normal if it was within one-half the standard deviation of the long-term mean.

Following two years of above normal ground-water levels throughout most of the State, the levels during the fall and winter generally continued above normal except in eastern Wisconsin. In the spring, levels were within the normal range at several points around the State. By summer only central and northwest Wisconsin water levels were above normal, and water levels were below normal in eastern Wisconsin.

Over the past several years ground-water levels in eastern Wisconsin have commonly been normal or below normal. The cause of this is probably not climatic, but the result of municipal pumping from the deep confined aquifer in the Green Bay and the southeast Wisconsin-northeast Illinois areas. Pumping from the deep aquifer probably resulted in lowered levels in the shallow aquifer.

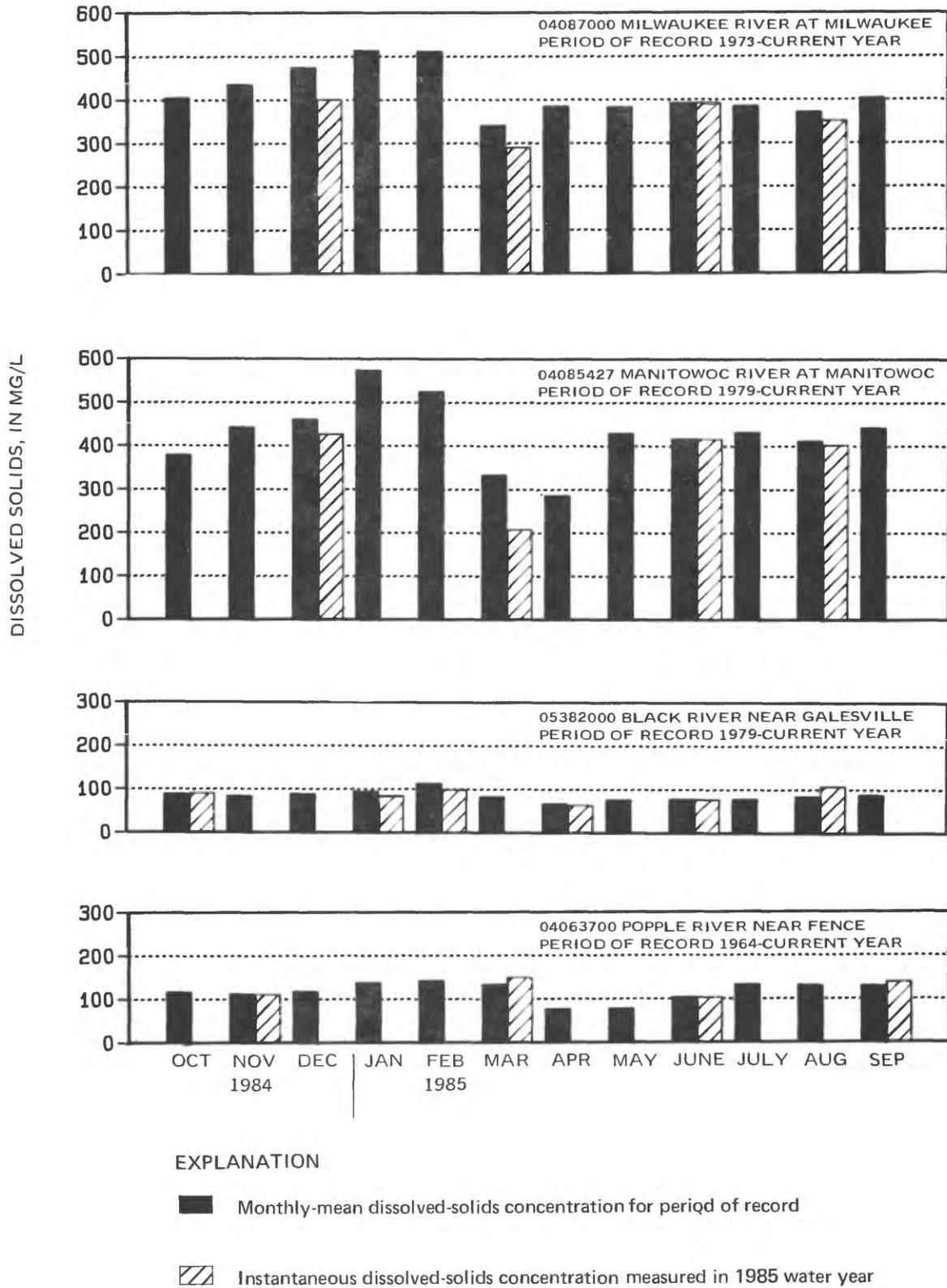


Figure 3. Comparison of dissolved-solids concentrations in streams during 1985 water year with monthly means

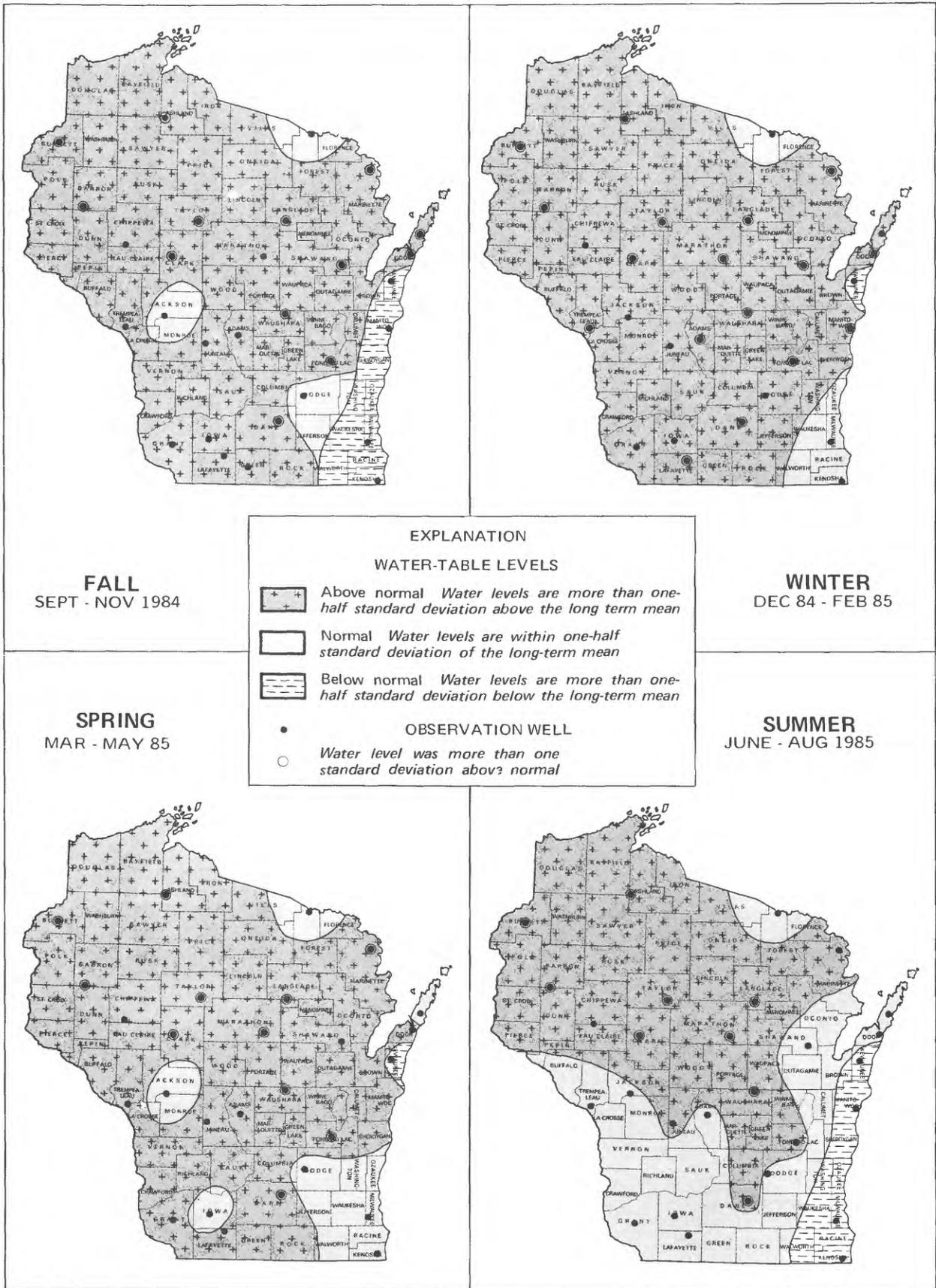


Figure 4. Relation of seasonal water-table levels to long-term means.

Ground-water levels in 13 of the 29 wells were above normal during all four seasons, and levels in eight of these wells were more than one standard deviation above the long-term mean of the entire year. Continuing significantly-high water levels in central and northwest Wisconsin reflect continuing above-normal precipitation.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Program provides data from river basins where hydrologic conditions are relatively unaffected by man's activities and are expected to remain unaffected within the foreseeable future.

National Stream-Quality Accounting Network was designed by the U.S. Geological Survey to meet information needs of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad monitoring aspects have been incorporated in the network design. The network is divided into the river-basin accounting units designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are: (1) to assess the areal variability of water-quality conditions, nationwide, on an annual basis; and (2) to assess long-term changes in stream quality.

The U.S. Geological Survey is undertaking a nation-wide review of the NASQAN program during 1986. This review is expected to result in a change in emphasis in the program and a net reduction, nationally, in the number of stations in the network. The original accounting objectives of the program will be retained only for a reduced number of stations that account for the quality of water leaving the continent or entering the Great Lakes.

Increased emphasis will be placed on trend detection and transport of dissolved and suspended materials at these remaining accounting stations and any other stations retained in the network. Other stations retained in the network will be selected on the basis of hypotheses concerning the causes of existing or potential trends that the station is intended to identify. This new emphasis will require more intensive sampling (event-related and fixed-frequency sampling) and more chemical analyses of suspended materials, thus increasing per station costs. These increased costs are to be met by the reduction in network size rather than by increased funding of the program. Some reduction in network size is anticipated for the 1987 water year; major changes in the size and emphasis of the network are expected to be implemented in the 1988 water year.

Radiochemical Surveillance Network of water-quality stations, representing major drainage basins in the conterminous United States, where samples are collected regularly for radioisotope analysis.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are from the 1985 water year that began October 1, 1984, and ended September 30, 1985. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for precipitation and surface and ground water, and ground-water-level data. Data collection as part of cooperative studies of acid deposition in Wisconsin, which includes most of the data type just mentioned, are tabulated in a separate section of the report. The explanations of various types of data given in the remainder of this section apply to these records as well. Figure 5 shows major surface-water drainage basins and an index of hydrologic records. The locations of the stations and wells where the data were collected are shown in basin location maps and figures 6, 7, and 8.

The following sections of introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for the station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order number" is used for most surface-water stations or streams and a unique 15-digit number is used for lakes and wells.

Downstream Order and Station Number

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

The station-identification number is assigned according to downstream order. No station-number distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be

established; hence, the numbers are not consecutive. The complete eight- or nine- digit number for each station, such as 04087000 or 054310157, which appears just to the left of the station name, includes the two-digit Part number "04" or "05" plus the six- or seven digit downstream-order number "087000" or "4310157". The Part number designates the major river basin; for example, records in this report are in Part 04 (St. Lawrence River basin) or Part 05 (Upper Mississippi River basin).

In some special cases, stations on streams may be identified with the numbering system used for ground-water and lake-data sites described in the following paragraph. This is generally done only for special purpose short-term stations where station density precludes convenient assignment of downstream order numbers.

Numbering System for Ground-Water and Lake Data Sites

Wells, springs, and sites on lakes where data are collected are identified by a unique 15-digit number that is a concatenation of the site's latitude, longitude, and a two-digit sequence number. The sequence number is used to distinguish between sites located at the same latitude-longitude designation. The site identification number is permanently assigned to the site; actual latitude and longitude of the site are subject to update and are stored separately. Each ground-water site is also identified by a local number based on the cadastral-survey system of the U.S. Government. The number consists of an abbreviation of the county name, the township, range and section, and a four-digit number assigned to the well.

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained from a continuous stage-recording device by which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained from a continuous stage-recording device, but need not be. Because daily mean discharges commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained by discrete measurements, without using a continuous stage-recording device. Two types of surface-water partial-record stations are operated: (1) crest-stage partial-record stations, for which maximum discharge is recorded; and (2) miscellaneous stations, for which periodic discharge measurements and/or limited water-quality analyses are made. These types of stations are each presented separately in this report.

Data Collection and Computation

The basic data collected at complete-record gaging stations include stage and discharge measurements of streams, and stage, surface area, and content

measurements of lakes and reservoirs. Factors affecting stage-discharge relationships, weather records, and other information supplement the basic data used to determine daily flow. Records of stage are obtained by reading a non-recording gage, from a continuous graph, or from a tape punched at selected intervals on a water-stage recorder. Measurements of discharge are made with a current meter by using methods described in "U.S. Geological Survey Techniques of Water Resources Investigations" listed in "Publications on techniques of water-resources investigations."

Rating tables of stream stage and corresponding discharges are prepared from stage-discharge relationship curves. Extended-rating curves, based on step-backwater techniques, velocity-area studies, logarithmic plotting, and indirect measurements of peak discharge are used to estimate discharges greater than those measured. Daily mean discharges are computed from gage heights and rating tables, and the monthly and yearly means are computed from the daily figures. If the stage-discharge relationship varies due to changes in the control, such as aquatic growth, debris, or scour and fill, daily mean discharge is computed by a shifting-control method in which correction factors, based on individual discharge measurements and notes by observers, are used when the gage heights are applied to the rating tables.

The slope method is used to compute discharge at stream-gaging stations where backwater from lakes or reservoirs, tributary streams, or other sources affect the stage-discharge relationship. The rate of change of stage is used to compute discharge at stations where the stage-discharge relationship is affected by rapid changes in stage. When ice conditions at stream-gaging stations affect the stage-discharge relationship, gage-height records, winter discharge measurements, temperature and precipitation data, and comparable records of discharge for nearby stations are used to compute discharge. At gaging stations where gage-height records are faulty or non-existent for some periods, the daily discharges are estimated based on the recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for nearby stations.

Descriptions of the stations and tabulations of data are included in this report. A table showing daily, monthly, and yearly discharges is given for each gaging station on a stream or canal. A table showing the monthly summary of stage is given for gaging stations on lakes.

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information such as station location, period of record, average discharge, historical extremes, record accuracy, and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments that follow clarify information presented under the various headings of the station description. These headings may include all or some of the following:

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages were provided by the U.S. Army Corps of Engineers or other agencies.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of map available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

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

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

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see definition of terms), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

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

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

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges. Unless otherwise qualified, the maximum discharge is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

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

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence of peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

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

Although it is rare, occasionally the records of a discontinued gaging station may need revision. Because there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations, who obtained the record from previously published data reports, may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. If the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

RATING TABLE.--Skeleton rating tables allow an approximation of daily gage heights from daily discharges. The tables also indicate the range in stage resulting from any given range in discharge.

The data presented for most gaging stations on lakes include a description of the station and a monthly summary table of stage.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary

below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. The figures shown in the yearly summary below the monthly summary are the appropriate discharges for the calendar and water years.

Data collected at crest-stage partial-record stations are given in a table of annual maximum stages and discharges that follows the information for continuous-record sites. The crest-stage partial-record stations table is followed by a list of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for special reasons are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values are identified by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

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

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

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to the nearest whole number between 10 and 1,000 ft³/s; and to 3 significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

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

Other Records Available

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

Records of Surface-Water Quality

Records of stream-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of stream-water quality nearly always requires corresponding discharge data. Water samples from lakes are collected at locations identified by latitude and longitude; the depth at which the sample was collected is given with each analysis. Records of surface-water quality in this report include a variety of types of data and measurement frequencies.

Classification and Arrangement of Records

The water-quality data collected at surface-water sites fall into two general classifications. Continuous-record stations are sites where data are collected on a regularly scheduled basis as part of a monitoring program or interpretive investigation. Water-quality records for these stations accompany stream-discharge or lake-stage records, where available, in the Surface Water Records section of this report. Water-quality partial-record stations are sites where more limited water-quality data are collected. These data include water temperature and specific conductance measurements made at gaging station visits and other reconnaissance data collected for special purposes. Water-quality data for water-quality partial-record stations appear together at the end of the Surface Water Records section.

On-site Measurements and Sample Collection

In obtaining water-quality data, care is taken to assure that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, are on site when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures are followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in "U.S. Geological Survey Techniques of Water-Resources Investigations," listed in "Publications on techniques of water-resources investigations."

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be

sampled through several vertical sections using depth-integrating samplers to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. Water quality in lakes may differ with depth and laterally at a particular depth depending on thermal stratification and other physical and biological factors.

Chemical-quality data published in this report are considered to be representative values for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis.

For chemical-quality stations equipped with recording monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon values recorded. More detailed records (hourly values) may be obtained from the U.S.G.S. Wisconsin District Office.

Sediment

Suspended-sediment concentrations are determined on samples collected with depth integrating samplers from one or more verticals in the cross section, or on a single sample taken manually or with an automatic sampler at a fixed point. For fixed-point samples, a coefficient is applied to correct for differences between fixed-point and flow-integrated samples.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently than during stable periods. The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge. Suspended-sediment discharges less than 0.005 tons/day are reported as 0.

Suspended-sediment samples collected periodically represent conditions only at the time of observations. However, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

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

Laboratory Measurements

Samples for suspended-sediment concentration and particle-size determination are analyzed by the U.S.G.S. Sediment Laboratory in Iowa City, Iowa. Chemical analyses, other than field measurements, are performed by the U.S.G.S. Central Laboratory System unless specified otherwise. Methods used in analyzing sediment samples and computing sediment records are given in "U.S. Geological Survey Techniques of Water-Resources Investigations" listed in "Publications on techniques of water-resources investigations."

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then following in sequence.

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

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

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

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

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

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

EXTREMES.--Maximum and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual

changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates or check with the District Office to determine if updates were made.

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

Remark Codes

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

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)

Records of Ground-Water Levels

Water-level data for 63 wells are given in this report. The location of these wells is shown on figure 6. These wells are part of a national network of observation wells, and the water-level data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers.

Data in this report represent natural water-table and artesian conditions in the principal aquifers of the State, except in the sandstone aquifer in southeastern Wisconsin where heavy municipal and industrial pumping is causing a continual decline in the water level. Water in this aquifer is under artesian pressure where confined by the overlying Maquoketa Shale.

Although records of water levels for 63 wells are presented in this report, water-level data are currently being collected for a total of 226 wells in Wisconsin through a cooperative program with the Wisconsin Geological and Natural History Survey (WG&NHS). Many federal, state, county and local agencies, as well as interested area residents, assist in this program by measuring and reporting water levels. All water-level data are placed in computer storage. Reports containing hydrographs, showing water-level changes in all of these wells, are periodically published by the WG&NHS.

The amplitude of water-level changes is typified by 10 well hydrographs in this report that show annual maximum and minimum water levels for the period of record.

Data Collection and Computation

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

Tables of water-level data are presented by county arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the heading. It is followed by the secondary identification number (the local number), an alphanumeric number, derived from the county, township-range location of the well, and a sequential number for the county.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the lsd above the National Geodetic Vertical Datum of 1929 and the height of the measuring point (MP) above or below the lsd is given in each well description. Water levels are normally reported to a hundredth of a foot. The absolute value of the depth to water may be in error by a few tenths of a foot, but the error in determining the net change in water level between successive measurements is normally only a hundredth or a few hundredths of a foot.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well precedes the tabular data. The comments below clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the hydrologic-unit number; and the land owner's name.

AQUIFER.--This entry designates by name the primary aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, and use.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of casing, top of breather pipe, hole in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the

land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision dependent on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year.

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

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. For wells equipped with recorders, only abbreviated tables are published; daily lows are listed for every fifth day and at the end of the month (eom). For these wells the highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for these wells, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others.

Most methods of collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed in "Publications on techniques of water-resources investigations." The values reported in this report represent water-quality conditions at the time of sampling. Care is taken to assure that the water collected represents the geologic unit supplying water to the well. This is done by pumping the well for what is believed to be a sufficient length of time to flush out water that might have been contaminated by exposure to the material that comprise the well casing or distribution system.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County. No descriptive statements are given for ground-water-quality records; however, station number, local identifying number, geologic unit, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS OF WATSTORE DATA

The National WATER Data STORAGE and RETRIEVAL System (WATSTORE) was established to process and store water data collected through the activities of the U.S. Geological Survey and to provide more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from the District Office.

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

Terms used in this report with reference to streamflow, water-quality, and other hydrologic data are defined below. For conversion of inch-pound units and International System (SI) units see the table on the inside of the back cover.

Acre-foot (acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot. It is the equivalent of 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters.

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

Bacteria are microscopic, unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, and often clumped into colonies. Some bacteria cause disease; others perform essential roles in the natural recycling of materials such as decomposing organic matter into forms available for reuse by plants.

Fecal coliform bacteria are present in the intestines of warmblooded animals and are used to determine the sanitary quality of water. They are defined as those organisms that produce blue colonies within 24 hours when incubated at $44.5^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$ on FC culture medium. Their concentrations are expressed as number of colonies per 100 ml of sample.

Fecal streptococci bacteria are also found in the intestines of warmblooded animals. Their presence in water is used to verify fecal pollution. They are characterized as gram-positive, spherical bacteria capable of growth in brain-heart infusion broth. They are defined as those organisms that produce red or pink colonies within 48 hours at $35^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$ on M-enterococcus culture medium. Their concentrations are expressed as number of colonies per 100 ml of sample.

Bed material is the unconsolidated material at the bottom of a streambed, lake, pond, reservoir, or estuary.

Biochemical oxygen demand (BOD) measures the quantity of dissolved oxygen, in milligrams per liter, used by microorganisms for the decomposition of organic matter.

Cfs-day is the volume of water produced by a flow of 1 cubic foot per second for 24 hours. It is the equivalent of 86,400 cubic feet, 1.9835 acre-feet, 646,000 gallons, or 2,447 cubic meters.

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

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

Cubic foot per second (ft³/s) represents a volume of 1 cubic foot of water passing a given point during 1 second and is the equivalent of 7.48 gallons per second, 448.8 gallons per minute, or 0.02832 cubic meters per second.

Discharge is the volume of fluid or mass of suspended sediment passing a given point in a given period of time.

Mean discharge (MEAN) is the arithmetic average of all daily mean discharges for a specific period of time.

Instantaneous discharge is the discharge at a particular time.

Dissolved is an operational definition used by Federal and State agencies collecting water data as that material in a water sample which passes through a 0.45 um membrane filter. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Drainage area of a stream at a specified location is measured in a horizontal plane and constitutes an area enclosed by a topographic divide from which surface runoff above the specified point drains by gravity into the stream. Values of the drainage areas given herein include closed basins and noncontributing areas within the basin, as noted.

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

Gaging station is a particular site on a stream or lake where systematic hydrologic data are collected.

Geologic unit is a geologic formation or group of formations; in this report, the term is used in the same sense as "aquifer" and refers to the geologic formation(s) open to the uncased or screened portion of a well.

Hardness is a physical-chemical characteristic of water that is attributable principally to the presence of calcium and magnesium and is expressed as calcium carbonate (CaCO₃). Hardness is commonly recognized by the increased quantity of soap required to produce lather.

Hydrologic unit designates part or all of a surface-drainage basin delineated by the Office of Water Data Coordination; each hydrologic unit is identified by an 8-digit number.

Lake stage is the elevation of the lake's water surface referred to some arbitrary gage datum.

Micrograms per gram (ug/g) indicates the concentration of a chemical constituent as the mass (micrograms) of that constituent per unit mass (gram) of sediment.

Micrograms per kilogram (ug/kg) indicates the concentration of a chemical constituent as mass (micrograms) of that constituent per unit mass (kilogram) of sediment.

Micrograms per liter (ug/L) indicates the concentration of a chemical constituent as the mass (micrograms) of that constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

Milligrams per liter (mg/L) indicates the concentration of a chemical constituent or suspended sediment as the mass (milligrams) per unit volume (liter) of water.

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" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent mean sea level at any particular place.

Partial-record station is a site for the systematic collection of limited streamflow or water-quality data over a period of years.

Particle size is measured as the diameter, in millimeters (mm), of suspended sediment and bed material determined by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) measure the fall diameter of particles in distilled water (chemically dispersed) or native water (surface water at the time and point of sampling).

Particle-size classification for this report is based on recommendations of the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

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

Pesticides are chemical compounds used to control undesirable plants and animals. They include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides control insects and plants respectively and are the two categories reported.

Picocurie (PCi) is one trillionth (1×10^{-12}) of a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} disintegrations per second. A picocurie yields 2.22 disintegrations per minute.

Polychlorinated biphenyls (PCB's) are industrial chemicals composed of biphenyl compounds containing various amounts of chlorine. Their chemical structure is similar to the organochlorine insecticides.

Polychlorinated naphthalenes (PCN's) are industrial chemicals composed of naphthalene compounds containing various amounts of chlorine. Their chemical structure is similar to the organochlorine insecticides.

Recoverable from bottom material is the amount of a given constituent that is in solution after a sample of bottom material has been digested by an acid or mixture of acids that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material usually is not achieved by the digestion treatment and thus the determination represents less than the total amount of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Runoff in inches (IN, in) indicates the depth of water that would cover a drainage area if all runoff for a given time period were uniformly distributed.

Secchi disk is a black and white plate, 20-25 cm in diameter, which is lowered into a lake on a calibrated line until it is no longer visible. The depth, in meters, at which the disk just disappears is reported as a measure of transparency.

Sediment originates mostly from disintegrated rocks and is transported by, suspended in, and deposited by water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. Topography, geology, soil type, land cover, land use, quantity and intensity of precipitation, and other environmental factors influence the quantity, characteristics, and cause of sediment in streams.

Suspended sediment is sediment maintained in suspension by turbulent currents or as a colloid.

Suspended-sediment discharge is the quantity of suspended sediment passing through a stream cross section in a unit of time. It is computed by multiplying water discharge times suspended-sediment concentration times 0.0027.

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

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

Sodium-adsorption ratio (SAR) expresses the relative activity of sodium ions in exchange reactions with soil.

Solute is any substance dissolved in water.

Specific conductance is a measure of the ability of water to conduct electrical current and is expressed in microsiemens per centimeter at 25°C. It is related to the number and specific types of ions in solution, and is useful for approximating the concentration of dissolved solids in the water. Commonly, the concentration of dissolved solids mg/L is about 65 percent of the specific conductance.

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

Streamflow uniquely describes discharge in the natural channel of a surface stream course as opposed to the term "discharge", which can be applied to the flow of a canal. Unlike the term "runoff", streamflow may be applied to discharge whether it is affected by diversion or regulation or not.

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

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

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

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

Tons per acre-foot indicates the dry weight of a constituent in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the measure of a substance that passes a stream section in solution or suspension during a 24-hour period. It is computed by multiplying the concentration of the substance (mg/L) by 0.0027 times the discharge of the stream (cfs).

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

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

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

WDR is the abbreviation for "Water-Data Report" used in the summary REVISIONS paragraph to indicate previously published State annual basic data report (WRD was used an abbreviation for "Water-Resources Data" in reports published prior to 1982.

WSP is the abbreviation for "Water-Supply Paper" used in references to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS 29

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

The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation.* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents,* by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations.* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations.* by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods.* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel and dispersion in streams by dye tracing,* by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
- 3-A10. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A13. *Computation of continuous records of streamflow.* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge,* by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels* by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis.* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction,* by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers* by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS ---- CONT

- 3-C1. *Fluvial sediment concepts* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples* edited by P. E. Greenson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis* by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels* by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

ST. LAWRENCE RIVER BASIN RECORDS

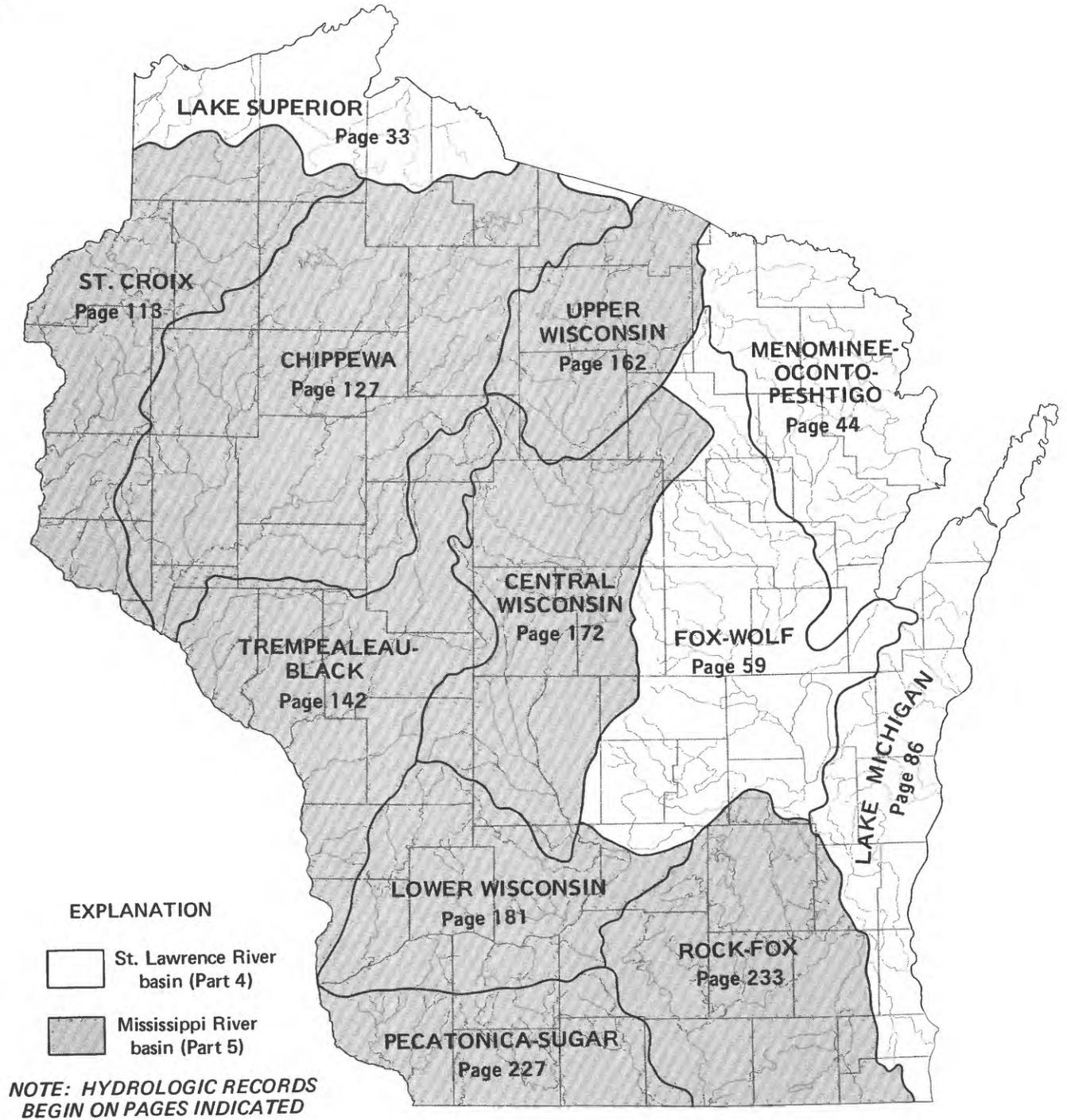


Figure 5. Major surface-water drainage basins and index of hydrologic records.

STREAMS TRIBUTARY TO LAKE SUPERIOR

04024430 NEMADJI RIVER NEAR SOUTH SUPERIOR, WI
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 46°38'00", long 92°05'38", in SW 1/4 sec.14, T.48 N., R.14 W., Douglas County, Hydrologic Unit 04010301, on right bank at downstream side of bridge on County Trunk Highway C, 2.0 mi south of South Superior and 7.8 mi downstream from Black River.

DRAINAGE AREA.--420 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1973 to current year.

REVISED RECORDS.--WDR WI-75-1: 1974(M). WDR WI-82-1: Drainage area and 1981.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 601.13 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Ice periods listed in rating tables below and July 16-17. Records good except those for estimated daily discharges and Apr. 9 to July 16, which are fair.

AVERAGE DISCHARGE.--11 years, 402 ft³/s, 13.00 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s May 10, 1979, gage height, 22.83 ft; maximum gage height, 23.82 ft, Sept. 3, 1985; minimum daily, 16 ft³/s Dec. 8, 1976.

EXTREMES OUTSIDE THE PERIOD OF RECORD.--A flood of Aug. 17, 1972, may have exceeded floods at this location since then.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 20	0500	4,490	19.04	May 31	2300	5,470	19.55
Apr. 24	1100	4,890	18.95	Sept. 3	2400	*10,400	*23.82
May 17	0600	2,340	14.18				

Minimum discharge, 42 ft³/s Feb. 4, result of freeze-up.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Apr. 9 to June 7, June 14-17, Sept. 24-30; stage-discharge relation affected by ice Nov. 1-3, Nov. 17-26, and Nov. 29 to Apr. 8.)

Oct. 1 to June 17				June 18 to Sept. 30			
3.6	41	15.0	2,400	3.8	51	15.0	2,170
4.0	77	17.0	3,200	4.5	111	17.0	2,960
5.0	190	18.0	3,730	6.0	272	19.0	4,050
7.0	473	20.0	5,350	8.0	543	21.0	5,570
11.0	1,280			11.0	1,090	23.0	8,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	339	380	200	90	47	350	580	815	4380	311	80	70
2	293	390	180	88	45	460	560	705	1940	302	74	76
3	256	400	160	84	43	280	600	626	1210	235	69	5580
4	226	422	150	82	42	150	1900	568	924	204	65	6810
5	207	463	150	84	43	140	1800	545	736	282	64	1820
6	189	399	150	84	43	140	1300	532	599	295	63	822
7	179	347	140	84	45	150	740	540	498	223	62	608
8	185	342	140	85	46	150	600	506	443	186	60	457
9	196	349	140	84	48	160	627	465	365	165	55	396
10	196	328	150	82	50	170	638	461	306	147	56	397
11	187	300	150	80	52	200	808	706	266	133	55	358
12	180	242	140	82	56	240	774	1040	239	123	63	302
13	175	272	140	82	58	280	1050	978	214	111	111	259
14	175	262	140	82	60	350	1020	798	194	103	137	229
15	172	248	130	80	62	440	931	990	179	97	112	210
16	202	225	190	78	62	500	1060	1430	162	92	98	196
17	1570	220	450	76	62	600	907	2090	151	95	86	198
18	1440	210	290	76	60	760	936	1310	137	261	79	210
19	2960	210	220	74	60	920	1120	948	133	394	72	201
20	3960	200	200	70	60	1100	1110	748	125	252	68	184
21	2020	200	180	68	62	1100	1310	637	119	178	65	173
22	1270	190	170	68	62	1000	1770	532	120	139	65	173
23	987	190	160	68	66	900	3890	481	131	115	91	198
24	790	190	150	68	72	740	4780	415	131	109	101	854
25	647	190	140	68	80	700	3400	398	116	149	114	853
26	555	220	130	66	96	800	2110	632	148	169	110	615
27	493	255	120	64	120	1000	1600	935	526	141	97	505
28	444	289	110	60	160	1100	1280	788	631	117	86	440
29	396	260	110	56	---	900	1070	614	489	102	79	398
30	372	230	100	54	---	780	923	939	383	93	76	756
31	353	---	96	50	---	680	---	3770	---	87	71	---
TOTAL	21614	8423	5076	2317	1762	17240	41194	26942	15995	5410	2484	24348
MEAN	697	281	164	74.7	62.9	556	1373	869	533	175	80.1	812
MAX	3960	463	450	90	160	1100	4780	3770	4380	394	137	6810
MIN	172	190	96	50	42	140	560	398	116	87	55	70
CFSM	1.66	.67	.39	.18	.15	1.32	3.27	2.07	1.27	.42	.19	1.93
IN.	1.91	.75	.45	.21	.16	1.53	3.65	2.39	1.42	.48	.22	2.16
CAL YR 1984	TOTAL	183365	MEAN 501	MAX 5500	MIN 56	CFSM 1.19	IN 16.24					
WTR YR 1985	TOTAL	172805	MEAN 473	MAX 6810	MIN 42	CFSM 1.13	IN 15.31					

STREAMS TRIBUTARY TO LAKE SUPERIOR

04024430 NEMADJI RIVER NEAR SOUTH SUPERIOR, WI--CONTINUED
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BAROMETRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (PERCENT SATURATION) (00301)	COLIFORM, UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, FECAL, KF AGAR (COLS./100 ML) (31673)	HARDNESS AS CAC03 (MG/L) (00900)
OCT, 1984												
02...	1330	292	130	7.8	10.0	15	10.5	746	95	110	160	61
JAN, 1985												
08...	1520	85	290	7.7	.0	15	11.6	763	79	K2	36	130
FEB												
19...	1345	61	310	7.8	.0	9.0	11.6	753	80	K3	43	140
APR												
15...	1410	918	108	7.8	3.0	3.1	13.1	747	99	K14	110	51
JUN												
25...	1245	117	212	8.1	17.5	17	9.0	753	95	43	48	110
AUG												
12...	1730	71	260	8.2	17.5	35	8.7	745	93	1200	K3500	130

DATE	HARDNESS, NONCARBONATE (MG/L CAC03) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	PERCENT SODIUM (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY FIELD (MG/L AS CAC03) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT, 1984											
02...	10	16	5.2	2.5	8	.1	.90	52	9.3	3.0	<.10
JAN, 1985											
08...	17	33	11	5.4	8	.2	1.2	111	16	4.6	.10
FEB											
19...	18	36	12	6.4	9	.2	1.2	122	16	4.9	.10
APR											
15...	10	14	4.0	1.7	6	.1	1.8	42	7.2	3.1	<.10
JUN											
25...	10	29	9.2	3.9	7	.2	.90	100	8.9	3.4	.20
AUG											
12...	13	33	11	6.0	9	.2	1.2	115	5.8	13	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT, 1984											
02...	8.9	103	78	.14	81	<.10	.030	.50	.030	<.010	<.010
JAN, 1985											
08...	15	173	150	.24	40	.23	.090	.40	.020	.010	.010
FEB											
19...	16	138	170	.19	23	.31	.030	1.1	<.010	<.010	<.010
APR											
15...	6.0	77	64	.10	191	.11	.210	2.4	.220	<.010	.010
JUN											
25...	8.0	145	120	.20	46	<.10	.020	.60	.030	.030	.010
AUG											
12...	9.6	170	150	.23	33	<.10	.030	.60	<.010	<.010	<.010

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

STREAMS TRIBUTARY TO LAKE SUPERIOR

04024430 NEMADJI RIVER NEAR SOUTH SUPERIOR, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT, 1984											
02...	1330	292	50	<1	28	<.5	<1	<1	<3	3	430
FEB, 1985											
19...	1345	61	20	<1	57	<.5	<1	<1	<3	1	310
APR											
15...	1410	918	90	<1	26	.6	<1	4	<3	1	420
AUG											
12...	1730	71	40	<1	43	.9	2	1	<3	3	100

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT, 1984										
02...	2	<4	16	<.1	<10	5	<1	40	<6	6
FEB, 1985										
19...	1	<4	35	<.1	<10	<1	<1	90	<6	15
APR										
15...	1	<4	16	.1	<10	<1	<1	29	<6	31
AUG										
12...	1	6	58	<.1	<10	3	<1	84	<6	<3

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, SUSPENDED (% FINER THAN .062 MM) (70331)
OCT, 1984						
02...	1330	294	130	10.0	52	41
12...	1220	177	195	12.0	--	--
JAN, 1985						
08...	1520	85	290	.0	12	2.8
FEB						
19...	1345	61	310	.0	7	1.2
MAR						
22...	1140	1000	100	.5	--	--
APR						
15...	1410	901	108	3.0	227	552
MAY						
30...	1450	1160	155	11.0	--	--
JUN						
25...	1245	112	212	17.5	36	11
JUL						
17...	1020	97	210	20.0	--	--
AUG						
12...	1730	71	260	17.5	122	23
SEP						
03...	1230	5420	118	14.0	--	--
04...	0615	7440	130	15.0	--	--
09...	1500	399	188	16.0	--	--

STREAMS TRIBUTARY TO LAKE SUPERIOR
04024500 AMNICON LAKE NEAR SOUTH RANGE, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 46°28'59", long 92°04'01", in SW 1/4 NW 1/4 sec.12, T.46 N., R.14 W., Douglas County, Hydrologic Unit 04010301, 9.5 mi southwest of South Range.

DRAINAGE AREA.--4.8 mi², approximately.

PERIOD OF RECORD.--August 1936 to September 1964 (fragmentary), October 1984 to September 1985.

GAGE.--Steff gage read by observer. Elevation of gage is 1195 ft, from topographic map. Prior to 1964, staff gage 0.3 mi west at different datum.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 18.21 ft, Oct. 1; minimum, 17.18 ft, Aug. 21, 22.

DAY	GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985											
	OCT	NOV	DEC	JAN	MEAN VALUES		APR	MAY	JUN	JUL	AUG	SEP
1	18.21	17.75								17.60	17.34	17.20
2	18.19	17.73								17.59	17.32	17.21
3	18.15	17.71								17.60	17.30	17.50
4	18.11	17.69								17.61	17.28	17.54
5	18.07	17.65								17.68	17.29	17.56
6	18.03	17.63								17.69	17.28	17.58
7	18.01	17.63								17.70	17.28	17.60
8	17.99	17.59								17.68	17.26	17.62
9	17.93	17.57								17.64	17.24	17.64
10	17.91	17.56								17.62	17.22	17.66
11	17.89	17.55								17.60	17.21	17.64
12	17.87	17.54								17.56	17.21	17.64
13	17.85	17.53								17.54	17.22	17.62
14	17.83	17.53								17.52	17.23	17.60
15	17.83	17.53								17.50	17.22	17.58
16	17.83	---								17.46	17.26	17.57
17	17.83	---								17.44	17.24	17.56
18	17.83	---								17.54	17.23	17.56
19	17.85	---								17.54	17.22	17.54
20	17.91	---								17.53	17.20	17.52
21	17.93	---								17.50	17.18	17.50
22	17.95	---								17.47	17.18	17.50
23	17.93	---								17.44	17.24	17.54
24	17.91	---								17.50	17.24	17.68
25	17.89	---								17.49	17.26	17.66
26	17.87	---								17.48	17.26	17.66
27	17.85	---								17.46	17.24	17.65
28	17.83	---								17.44	17.24	17.64
29	17.81	---								17.41	17.22	17.64
30	17.79	---								17.38	17.22	17.68
31	17.77	---								17.36	17.20	---
MEAN	17.92	---								17.53	17.24	17.57
MAX	18.21	---								17.70	17.34	17.68
MIN	17.77	---								17.36	17.18	17.20

STREAMS TRIBUTARY TO LAKE SUPERIOR

04025500 BOIS BRULE RIVER NEAR BRULE, WI

LOCATION.--Lat 46°32'16", long 91°35'43", in NW 1/4 SW 1/4 sec.23, T.47 N., R.10 W., Douglas County, Hydrologic Unit 04010301, on right bank, 1.4 mi southwest of Brule Post Office, 1.4 mi downstream from Nebagamon Creek, and 1.7 mi upstream from Little Bois Brule River.

DRAINAGE AREA.--120 mi².

PERIOD OF RECORD.--October 1942 to September 1981, January 1984 to current year. Prior to January 1943, monthly discharge only, published in WSP 1307.

REVISED RECORDS.--WRD WI-71-1: Drainage area. WSP 1337: 1943(M), 1944, 1945-50(M).

GAGE.--Water-stage recorder. Datum of gage is 948.49 ft above National Geodetic Vertical Datum of 1929. Prior to October 1964, nonrecording gage at same site and datum, supplemented by water-stage recorder part of 1959-62.

REMARKS.--Estimated daily discharges: None, except for ice period listed in rating table below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--40 years (water years 1943-81, 1985), 172 ft³/s, 19.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,520 ft³/s June 5, 1944, gage height, 5.2 ft, from graph based on gage readings and from rating curve extended above 750 ft³/s; minimum observed, 67 ft³/s Mar. 13, 1943.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	1500	317	2.52	May 31	1800	399	2.84
Jan. 21	1500	A	*4.30	June 26	1800	402	2.85
Mar. 27	2200	335	2.59	Sept. 3	1000	*803	4.16
Apr. 24	0900	350	2.65	Sept.24	0200	373	2.74
May 16	2100	352	2.66				

A Backwater from ice.

Minimum discharge, 124 ft³/s, Feb. 27, gage height, 1.57 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 3-9, 13, Dec. 18 to Feb. 21, and Mar. 4-7.)

1.6	129	3.0	443
2.0	200	4.0	742

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	228	225	160	150	150	141	221	242	375	247	144	153
2	215	209	157	150	150	139	206	232	344	256	142	159
3	205	201	160	150	140	136	217	225	317	235	139	677
4	197	202	160	150	140	140	237	219	293	218	137	531
5	193	199	160	150	140	140	255	213	270	216	138	389
6	189	193	150	150	140	140	263	214	245	213	138	325
7	187	188	150	150	140	140	263	210	231	202	135	289
8	194	189	150	150	140	143	248	206	220	192	132	271
9	190	187	150	150	140	140	231	201	209	183	135	251
10	188	183	151	150	140	143	234	196	199	176	141	241
11	184	179	150	150	140	143	249	200	191	170	137	231
12	185	175	149	150	140	142	261	209	186	164	160	220
13	182	172	150	150	140	142	294	220	180	160	194	209
14	180	172	145	150	140	142	292	219	174	158	175	201
15	175	174	145	160	140	141	286	261	172	155	168	194
16	180	170	199	160	140	141	291	321	169	150	157	195
17	241	164	211	160	140	143	287	331	168	152	152	209
18	239	161	210	160	140	147	286	299	168	222	145	204
19	300	165	200	160	140	157	302	268	163	212	141	202
20	297	179	190	160	140	159	298	239	159	192	138	209
21	278	177	180	160	140	157	317	220	156	181	135	193
22	263	152	170	160	141	171	316	205	155	168	150	203
23	246	152	170	160	134	208	340	197	149	157	244	243
24	231	152	160	160	134	211	345	192	146	165	229	349
25	220	154	160	160	134	221	332	195	144	179	222	315
26	214	159	160	150	135	255	313	263	291	167	207	290
27	214	169	160	150	135	313	296	245	373	159	192	267
28	223	174	160	150	136	291	280	230	337	153	177	242
29	212	170	160	150	---	240	265	223	311	147	167	230
30	211	165	160	150	---	222	251	250	278	145	160	302
31	208	---	160	150	---	224	---	360	---	145	156	---
TOTAL	6669	5311	5097	4760	3909	5372	8276	7305	6773	5639	4987	7994
MEAN	215	177	164	154	140	173	276	236	226	182	161	266
MAX	300	225	211	160	150	313	345	360	375	256	244	677
MIN	175	152	145	150	134	136	206	192	144	145	132	153
CFSM	1.79	1.48	1.37	1.28	1.17	1.44	2.30	1.97	1.88	1.52	1.34	2.22
IN.	2.07	1.65	1.58	1.48	1.21	1.67	2.57	2.26	2.10	1.75	1.55	2.48
CAL YR 1984	TOTAL	73712	MEAN	201	MAX	558	MIN	137	CFSM	1.68	IN	22.85
WTR YR 1985	TOTAL	72092	MEAN	198	MAX	677	MIN	132	CFSM	1.65	IN	22.35

STREAMS TRIBUTARY TO LAKE SUPERIOR

04027000 BAD RIVER NEAR ODANAH, WI

LOCATION.--Lat 46°29'15", long 90°41'45", in SE 1/4 sec.2, T.46 N., R.3 W., Ashland County, Hydrologic Unit 04010302, Bad River Indian Reservation, on left bank just downstream from Elm Hoist bridge, 5.0 mi downstream from Potato River, 8.5 mi south of Odanah, and 23 mi from mouth.

DRAINAGE AREA.--597 mi².

PERIOD OF RECORD.--July 1914 to December 1922 (monthly discharge only for some periods published in WSP 1307), May 1948 to current year.

REVISED RECORDS.--WSP 1337: 1922. WDR WI-82-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 668.30 ft above National Geodetic Vertical Datum of 1929. May 17, 1948, to Nov. 6, 1959, and Oct. 19, 1960, to Nov. 23, 1961, water-stage recorder. Nov. 7, 1959, to Oct. 18, 1960, and Nov. 24, 1961, to July 12, 1962, nonrecording gage. Prior to Nov. 11, 1922, water-stage recorder at site 2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--45 years (1915-22, 1949-85), 627 ft³/s, 14.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,700 ft³/s Apr. 24, 1960, gage height, 21.7 ft from flood-marks and from rating curve extended above 12,000 ft³/s and a comparison with contracted-opening measurement of peak flow 45,600 ft³/s at Odanah, drainage area 990 mi²; minimum, 34 ft³/s Nov. 8, 1976, result of freezeup.

EXTREMES OUTSIDE THE PERIOD OF RECORD.--Flood of June 24, 1946, reached a stage of at least 22.2 ft, top of downstream bridge submerged, information from Indian Service.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Mar. 28	0300	3,650	7.84	Sept. 3	1200	3,120	7.25
Apr. 13	2400	5,660	9.86	Sept. 23	1500	3,400	7.56
Apr. 20	1100	5,770	10.21	Sept. 30	1000	*6,170	*10.34
May 31	2300	3,760	7.95				

Minimum discharge, 130 ft³/s Aug. 9, gage height, 2.38 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Apr. 15-22; stage-discharge affected by ice Nov. 17-24, Nov. 30 to Mar. 26.)

2.4	135	6.0	2,100
3.0	323	10.0	5,800
4.0	780	11.0	6,960

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	480	879	360	220	180	290	1320	883	3160	846	162	373
2	414	771	340	210	170	420	1320	777	2230	688	155	326
3	369	675	320	210	170	270	1400	697	1600	552	149	2050
4	329	605	290	210	170	210	1770	637	1140	475	143	1870
5	300	574	270	210	170	190	1760	620	881	536	141	1420
6	286	521	260	210	160	180	1450	612	711	607	148	1070
7	278	476	250	210	160	180	1510	697	610	529	143	798
8	312	475	250	200	160	180	1240	650	584	430	136	628
9	364	486	260	200	150	190	1010	574	626	361	176	553
10	373	464	270	200	150	200	1080	790	526	310	787	505
11	357	433	280	200	150	220	1630	1160	422	282	1000	452
12	336	382	270	200	150	230	1910	1290	360	250	881	400
13	321	363	260	200	150	250	4710	1160	321	218	1210	351
14	308	368	250	200	150	270	5400	965	283	198	1220	316
15	296	356	240	200	150	280	4610	954	268	188	960	286
16	286	312	360	200	160	280	4380	1130	251	178	704	261
17	430	310	1000	200	160	290	3780	1410	250	230	529	247
18	720	270	840	200	160	310	3350	1170	259	327	420	239
19	678	250	560	200	160	350	4360	939	265	316	358	233
20	664	250	410	200	160	430	5590	755	254	272	315	233
21	617	240	360	200	160	500	4450	630	250	230	284	268
22	549	250	320	190	170	620	3300	535	284	202	257	373
23	497	270	290	190	200	1000	2590	463	363	189	305	2840
24	457	290	270	190	230	980	2820	401	327	194	1150	2500
25	419	320	250	190	210	960	2750	382	277	223	1460	1880
26	409	342	230	190	190	1400	2190	1110	421	230	1380	1350
27	543	367	220	190	180	3110	1670	1370	868	212	1030	992
28	1690	449	220	190	160	3350	1370	1020	1900	194	759	852
29	1220	484	220	190	---	2750	1150	761	1540	178	601	2950
30	1030	430	220	180	---	2000	996	1380	1130	169	513	5850
31	944	---	220	180	---	1790	---	2710	---	168	436	---
TOTAL	16276	12662	10160	6160	4690	23680	76866	28632	22361	9982	17912	32466
MEAN	525	422	328	199	168	764	2562	924	745	322	578	1082
MAX	1690	879	1000	220	230	3350	5590	2710	3160	846	1460	5850
MIN	278	240	220	180	150	180	996	382	250	168	136	233
CFSM	.88	.71	.55	.33	.28	1.28	4.29	1.55	1.25	.54	.97	1.81
IN.	1.01	.79	.63	.38	.29	1.48	4.79	1.78	1.39	.62	1.12	2.02
CAL YR 1984	TOTAL	285351	MEAN 780	MAX 6090	MIN 124	CFSM 1.31	IN 17.78					
WTR YR 1985	TOTAL	261847	MEAN 717	MAX 5850	MIN 136	CFSM 1.20	IN 16.32					

STREAMS TRIBUTARY TO LAKE SUPERIOR

04027500 WHITE RIVER NEAR ASHLAND, WI

LOCATION.--Lat 46°29'50", long 90°54'15", in NE 1/4 sec.6, T.46 N., R.4 W., Ashland County, Hydrologic Unit 04010302, at downstream end of powerplant of Lake Superior District Power Co., 0.3 mi downstream from bridge on State Highway 112 over dam, and 4.5 mi south of Ashland city limits.

DRAINAGE AREA.--301 mi².

PERIOD OF RECORD.--May 1948 to current year.

REVISED RECORDS.--WDR WI-82-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 660.15 ft above National Geodetic Vertical Datum of 1929 (Lake Superior District Power Co. bench mark). Prior to May 20, 1976, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1-3 and ice periods listed in rating table below. Records are good except for estimated daily discharges, which are fair. Diurnal fluctuation caused by hydroelectric plant at gage.

AVERAGE DISCHARGE.--37 years, 284 ft³/s, 12.81 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,270 ft³/s July 1, 1953, gage height, 7.90 ft from rating curve extended above 3,000 ft³/s; minimum, 3.1 ft³/s Apr. 28-30, 1949, gage height, 0.09 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,870 ft³/s Sept. 3, gage height, 5.45 ft; minimum daily, 76 ft³/s Mar. 5

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Apr. 26 to May 29, July 12-15, 22-25, July 27 to Aug. 9, Aug. 18-23, Sept. 2; stage-discharge relation affected by ice Dec. 18 to Mar. 4, and Mar. 6-18.)

0.8	70	2.5	769
1.0	113	3.0	1,120
1.5	263	4.0	2,050
2.0	485		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	290	510	230	170	160	280	316	267	646	412	193	225
2	240	409	217	190	180	370	347	243	633	349	188	226
3	270	363	204	190	190	270	368	224	599	300	185	1830
4	262	340	159	200	180	160	556	232	489	228	185	427
5	220	332	108	200	180	76	605	201	398	289	185	444
6	249	300	138	220	170	140	636	211	348	276	189	469
7	221	257	175	210	170	210	613	227	275	276	194	447
8	261	290	240	220	180	240	541	223	287	283	194	403
9	253	254	275	200	190	250	456	204	268	261	204	342
10	273	279	281	170	180	260	449	215	279	238	237	311
11	254	253	276	170	180	250	510	241	254	221	269	288
12	237	257	273	170	180	260	539	246	231	215	292	265
13	236	235	261	180	190	260	832	265	246	213	307	244
14	235	259	225	200	180	270	691	278	218	210	295	232
15	247	227	230	180	200	280	736	278	227	209	287	227
16	223	263	403	160	180	250	696	338	232	219	269	223
17	351	206	344	170	190	290	658	429	234	238	244	221
18	349	208	300	170	180	280	641	403	235	228	225	221
19	395	163	140	170	190	520	716	368	233	232	219	223
20	404	169	150	160	180	619	683	306	224	236	212	223
21	376	199	220	160	190	435	724	252	222	224	209	230
22	354	234	210	170	190	475	657	241	195	214	209	244
23	335	241	210	180	190	581	617	215	225	209	223	342
24	298	259	180	190	200	540	570	196	200	210	261	643
25	290	250	160	200	200	451	519	208	207	220	299	451
26	245	251	160	190	190	597	485	329	240	226	298	461
27	292	252	190	180	160	763	395	435	328	214	282	430
28	446	273	220	170	150	730	373	474	846	209	260	395
29	395	271	200	170	---	648	323	454	558	209	245	357
30	436	249	210	180	---	500	284	494	494	208	236	827
31	446	---	160	180	---	411	---	862	---	202	230	---
TOTAL	9383	8053	6749	5670	5100	11666	16536	9559	10071	7478	7325	11871
MEAN	303	268	218	183	182	376	551	308	336	241	236	396
MAX	446	510	403	220	200	763	832	862	846	412	307	1830
MIN	220	163	108	160	150	76	284	196	195	202	185	221
CFSM	1.01	.89	.72	.61	.61	1.25	1.83	1.02	1.12	.80	.78	1.32
IN.	1.16	1.00	.83	.70	.63	1.44	2.04	1.18	1.24	.92	.91	1.47

CAL YR 1984 TOTAL 117382 MEAN 321 MAX 1670 MIN 108 CFSM 1.07 IN 14.51
WTR YR 1985 TOTAL 109461 MEAN 300 MAX 1830 MIN 76 CFSM 1.00 IN 13.53

STREAMS TRIBUTARY TO LAKE SUPERIOR
 04027595 BAD RIVER AT ODANAH, WI
 (NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 46°36'37", long 90°41'12", in SE 1/4 SE 1/4 NW 1/4 sec.25; T.48 N., R.3 W., Ashland County, Hydrologic Unit 04010302, Bad River Indian Reservation, t bridge on U.S. Highway 2 at Odanah.

DRAINAGE AREA.--990 mi².

PERIOD OF RECORD.--February 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM HG) OF SATUR-ATION (00025)	OXYGEN, DIS-SOLVED (PER-CENT) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, PER (COLS./100 ML) (31673)	HARD-NESS (MG/L AS CAC03) (00900)	
OCT, 1984	03...	1200	650	128	7.9	11.0	6.2	9.9	751	91	100	94	63
JAN, 1985	09...	1345	420	172	7.6	.0	6.5	11.4	763	78	K18	K19	78
FEB	20...	1215	350	191	7.6	.0	4.0	11.6	750	81	K9	27	85
APR	16...	1350	5350	63	7.5	6.0	34	12.0	762	96	K8	46	27
JUN	26...	0820	480	142	7.9	19.0	3.5	8.5	751	93	37	200	70
AUG	13...	1200	1170	97	7.7	18.0	10	8.9	750	96	85	340	51

DATE	HARD-NESS, NONCAR-BONATE (MG/L AS CA) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	PERCENT SODIUM (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CAC03) (00410)	SULFATE DIS-SOLVED (MG/L AS S04) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	
OCT, 1984	03...	5	17	4.9	2.7	8	.2	.90	58	5.8	2.6	<.10
JAN, 1985	09...	5	21	6.1	3.2	8	.2	.80	73	6.3	2.4	<.10
FEB	20...	4	23	6.7	3.6	8	.2	.90	81	5.2	2.6	.10
APR	16...	7	7.5	2.0	1.3	9	.1	1.0	20	4.6	2.2	<.10
JUN	26...	4	19	5.4	3.0	8	.2	.70	66	3.9	2.5	.10
AUG	13...	9	14	3.8	2.1	8	.1	.80	42	5.7	6.0	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SI02) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+N03 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	
OCT, 1984	03...	10	88	79	.12	154	<.10	.020	.40	.020	<.010	<.010
JAN, 1985	09...	14	101	98	.14	115	.16	.040	.40	.030	.010	.010
FEB	20...	15	117	110	.16	111	.21	.040	.50	<.010	<.010	<.010
APR	16...	6.8	44	38	.06	636	.24	.240	1.2	.060	<.010	<.010
JUN	26...	8.7	106	83	.14	137	<.10	.030	.40	.020	.030	<.010
AUG	13...	9.2	90	67	.12	284	<.10	.020	.50	.030	<.010	<.010

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

STREAMS TRIBUTARY TO LAKE SUPERIOR
04027595 BAD RIVER AT ODANAH, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT, 1984											
03...	1200	650	40	<1	29	<.5	<1	<1	<3	2	350
FEB, 1985											
20...	1215	350	10	<1	34	<.5	<1	4	<3	<1	260
APR											
16...	1350	5350	80	<1	17	.6	<1	1	<3	4	190
AUG											
13...	1200	1170	50	<1	24	<.5	<1	5	<3	3	270

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT, 1984										
03...	2	<4	15	<.1	<10	2	<1	39	<6	75
FEB, 1985										
20...	<1	12	19	<.1	<10	1	<1	49	<6	24
APR										
16...	1	<4	17	<.1	<10	1	<1	17	<6	5
AUG										
13...	2	<4	9	<.1	<10	5	<1	33	<6	<3

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT, 1984							
03...	1200	650	128	11.0	11	19	73
JAN, 1985							
09...	1345	420	172	.0	7	7.9	87
FEB							
20...	1215	350	191	.0	6	5.7	100
APR							
16...	1350	5350	63	6.0	210	3030	93
JUN							
26...	0820	480	142	19.0	10	13	87
AUG							
13...	1200	1170	97	18.0	32	101	96

STREAMS TRIBUTARY TO LAKE SUPERIOR

04037500 CISCO BRANCH ONTONAGON RIVER AT CISCO LAKE OUTLET, MI

LOCATION.--Lat 46°15'12", long 89°27'05", in NE 1/4 sec.32, T.45 N., R.41 W., Gogebic County, Hydrologic Unit 04020102, on left bank 80 ft downstream from Cisco Lake Dam, 2.5 mi upstream from Langford Creek, 5.0 mi upstream from U.S. Highway 2, and 13 mi west of Watersmeet.

DRAINAGE AREA.--50.7 mi².

PERIOD OF RECORD.--October 1944 to current year.

REVISED RECORDS.--WSP 1911: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,672.69 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1968, nonrecording gage at same site and at datum 4.00 ft higher.

REMARKS.--Estimated daily discharges: Jan. 1-7. Records good except those below 1.5 ft³/s, which are poor. Flow completely regulated by Cisco Lake, usable capacity, 15,600 acre-ft. Several observations of water temperature were made during the year.

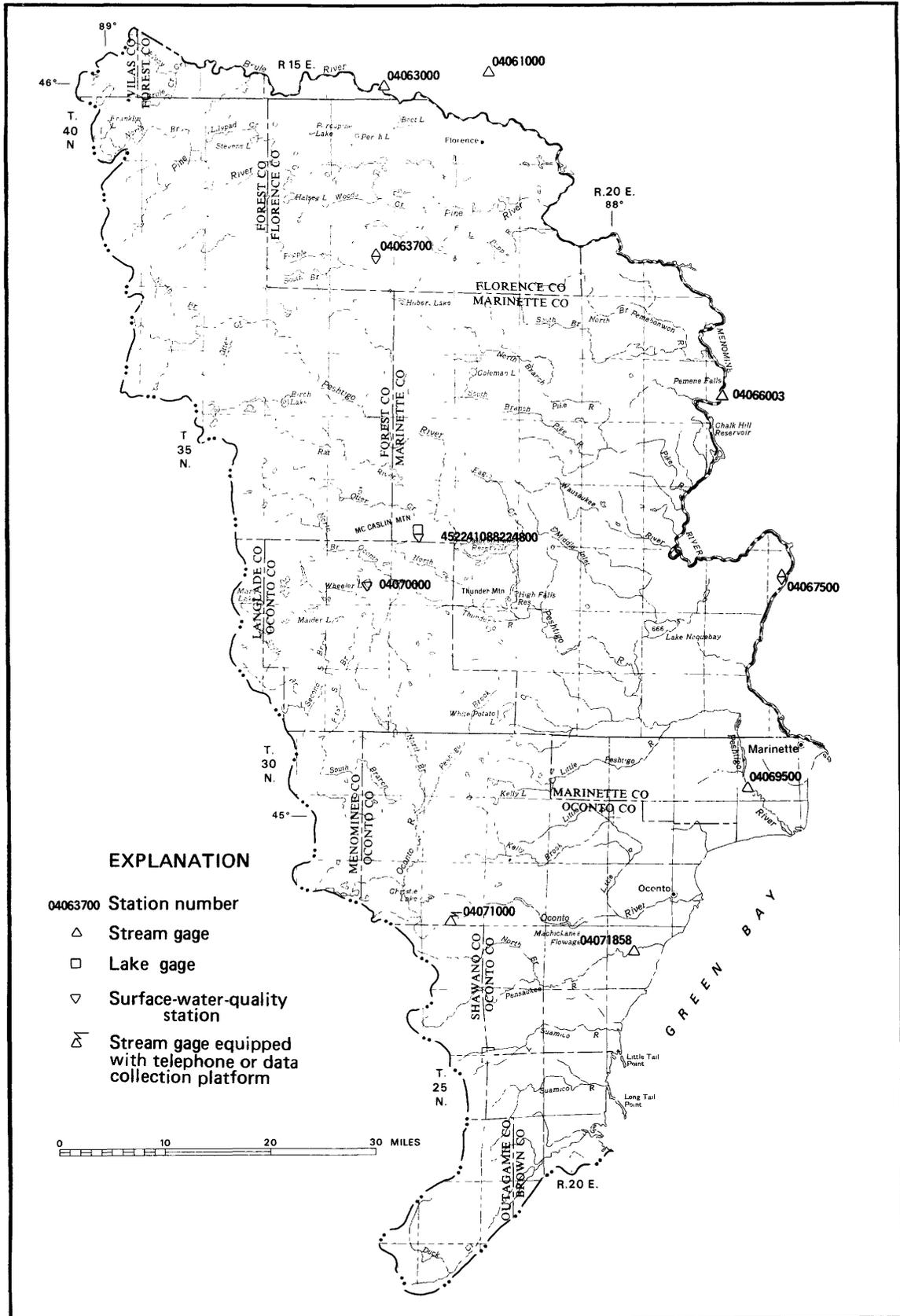
AVERAGE DISCHARGE.--41 years, 47.7 ft³/s, 12.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 288 ft³/s May 1-4, 1951, gage height, 6.10 ft, present datum; minimum daily, 0.09 ft³/s June 4-23, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 190 ft³/s Sept. 3, gage height, 5.60 ft; minimum daily, 0.37 ft³/s Aug. 3-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	.83	83	1.2	34	53	127	146	141	34	.85	29
2	.70	.59	82	1.2	34	52	126	140	134	2.0	.57	30
3	.48	.55	83	1.2	34	51	124	130	112	1.7	.37	129
4	30	.47	82	1.2	33	54	122	112	95	1.5	.37	186
5	68	.45	81	1.2	33	55	119	109	61	1.8	.37	181
6	67	.49	66	1.2	33	54	116	131	2.3	1.9	.43	176
7	65	15	36	18	33	53	114	73	1.1	2.3	.59	136
8	64	47	26	34	33	53	112	2.6	1.3	2.0	.55	73
9	64	63	5.3	35	33	52	90	1.2	2.4	2.0	.92	65
10	63	61	5.5	35	33	51	4.5	.57	49	2.1	46	50
11	83	60	6.4	35	34	51	4.3	14	130	12	94	49
12	109	59	6.3	35	34	52	3.6	29	97	76	94	21
13	104	59	6.6	35	34	52	27	26	3.6	97	91	1.9
14	104	59	7.3	35	34	51	47	31	3.4	92	46	1.1
15	102	58	8.5	35	34	41	97	68	3.3	51	.79	.73
16	99	30	10	35	34	33	135	94	3.4	1.7	.63	.66
17	102	.95	50	35	34	33	139	92	70	1.0	.53	.66
18	99	.85	92	35	34	33	139	61	125	1.2	.40	.76
19	98	.85	91	36	34	33	146	15	77	1.2	.40	1.1
20	93	.85	89	36	34	33	167	15	32	1.3	.40	.90
21	89	.85	89	36	35	33	155	15	34	1.3	.42	.82
22	87	.75	90	35	35	33	101	15	93	1.2	.43	.82
23	84	.87	88	35	35	33	102	15	125	1.4	1.0	47
24	83	.70	86	35	35	33	135	15	86	1.6	11	147
25	69	.58	85	35	35	33	150	16	53	53	17	178
26	60	21	83	35	45	32	156	19	53	97	16	171
27	61	70	81	35	54	77	154	19	54	95	16	118
28	59	88	80	35	53	126	155	64	52	92	16	70
29	60	85	79	34	---	125	137	119	51	45	17	72
30	31	84	78	34	---	124	133	135	50	.92	17	100
31	1.2	---	44	34	---	125	---	146	---	.85	27	---
TOTAL	2144.38	869.63	1799.9	864.2	1000	1714	3337.4	1868.37	1794.8	774.97	518.02	2037.45
MEAN	69.2	29.0	58.1	27.9	35.7	55.3	111	60.3	59.8	25.0	16.7	67.9
MAX	109	88	92	36	54	126	167	146	141	97	94	186
MIN	.48	.45	5.3	1.2	33	32	3.6	.57	1.1	.85	.37	.66
CAL YR 1984	TOTAL	15573.34	MEAN	42.6	MAX	135	MIN	.16				
WTR YR 1985	TOTAL	18723.12	MEAN	51.3	MAX	186	MIN	.37				



EXPLANATION

- 04063700 Station number
- △ Stream gage
- Lake gage
- ▽ Surface-water-quality station
- △ Stream gage equipped with telephone or data collection platform

0 10 20 30 MILES

Base from U.S. Geological Survey State base map, 1968

MENOMINEE-OCONTO-PESHTIGO RIVER BASIN

STREAMS TRIBUTARY TO LAKE MICHIGAN

04061000 BRULE RIVER NEAR FLORENCE, WI

LOCATION.--Lat 45°57'31", long 88°15'57", in SE 1/4 SE 1/4 sec.11, T.41 N., R.32 W., Michigan Meridian, Iron County, Hydrologic Unit 04030106, on left bank 40 ft upstream from highway bridge, 1.0 mi upstream from Paint River, 2.5 mi north of Florence, and 5.0 mi upstream from confluence with Michigamme River.

DRAINAGE AREA.--389 mi².

PERIOD OF RECORD.--January 1914 to February 1916, June 1944 to current year.

REVISED RECORDS.--WSP 1387: 1914-16. WSP 1911: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,200.55 ft above National Geodetic Vertical Datum of 1929 (levels by Owen Ayres Associates). Prior to Aug. 29, 1944, nonrecording gage at bridge 40 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 18-27, Dec. 2 to Mar. 23, Apr. 1, July 13-31, Aug. 16-22. Records excellent except for estimated daily discharges, which are fair. Discharge includes some mine pumpage prior to August 1977. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years (water years 1915, 1945-85), 364 ft³/s, 12.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,700 ft³/s July 2, 1953, gage height, 6.57 ft; maximum gage height, 8.60 ft Dec. 20, 1983, backwater from ice; minimum discharge, 118 ft³/s Dec. 2, 1963 (discharge measurement); minimum gage height, 1.79 ft July 24, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,370 ft³/s Apr. 21, 22, gage height, 3.77 ft; maximum gage height, 7.30 ft, Dec. 24, backwater from ice; minimum daily discharge, 216 ft³/s Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	318	446	314	300	240	320	420	547	636	280	226	271
2	295	455	310	300	250	330	414	510	567	277	226	246
3	282	399	300	300	260	300	421	478	491	273	223	375
4	279	401	280	290	260	290	431	473	430	276	216	308
5	267	376	270	290	270	270	420	431	396	342	226	432
6	261	353	290	310	260	280	402	468	369	363	267	366
7	262	336	310	310	250	300	397	490	360	361	259	333
8	286	338	320	300	240	310	384	446	364	335	244	520
9	296	335	320	290	230	320	361	419	514	296	233	525
10	295	338	320	290	220	320	358	468	520	277	330	438
11	292	325	320	280	250	320	433	539	410	273	392	376
12	283	311	300	280	260	320	486	534	365	268	368	327
13	281	311	300	280	270	320	655	495	347	265	326	304
14	276	313	290	280	270	310	754	446	334	260	358	283
15	280	326	300	280	260	300	935	419	307	255	304	276
16	313	343	320	280	250	290	1040	429	338	250	290	263
17	425	326	350	280	250	300	1120	468	340	250	260	254
18	502	300	400	270	250	310	1090	462	340	270	250	251
19	477	280	360	260	250	320	994	424	340	290	265	247
20	450	270	310	250	260	320	915	392	339	270	285	245
21	413	270	290	260	280	330	1110	368	329	260	260	244
22	384	270	280	280	290	330	1070	353	335	255	250	269
23	340	270	270	280	290	330	1030	335	330	260	279	343
24	320	270	270	280	300	345	1040	326	303	270	368	557
25	309	280	270	280	300	345	1080	330	290	285	358	596
26	321	320	280	280	300	355	1010	478	282	300	326	512
27	338	400	310	280	300	439	870	556	302	280	308	451
28	471	413	350	280	310	590	736	462	342	270	299	390
29	457	371	320	280	---	550	644	392	332	260	287	432
30	391	331	320	260	---	466	596	506	318	245	280	821
31	371	---	310	250	---	429	---	652	---	230	286	---
TOTAL	10535	10077	9554	8730	7420	10659	21616	14116	11270	8646	8849	11455
MEAN	340	336	308	282	265	344	721	455	376	279	285	382
MAX	502	455	400	310	310	590	1120	652	636	363	392	821
MIN	261	270	270	250	220	270	358	326	282	230	216	244
CFSM	.87	.86	.79	.73	.68	.88	1.85	1.17	.97	.72	.73	.98
IN.	1.01	.96	.91	.83	.71	1.02	2.07	1.35	1.08	.83	.85	1.10
CAL YR 1984	TOTAL	138369	MEAN 378	MAX 1150	MIN 244	CFSM .97	IN 13.23					
WTR YR 1985	TOTAL	132927	MEAN 364	MAX 1120	MIN 216	CFSM .94	IN 12.71					

STREAMS TRIBUTARY TO LAKE MICHIGAN

04063000 MENOMINEE RIVER NEAR FLORENCE, WI

LOCATION.--Lat 45°57'04", long 88°11'13", in NE 1/4 sec.16, T.41 N., R.31 W., Michigan Meridian, Iron County, Hydrologic Unit 04030108, on left bank 0.5 mi downstream from confluence of Brule and Michigamme Rivers, 3.5 mi northeast of Florence, and at mile 117.

DRAINAGE AREA.--1,780 mi².

PERIOD OF RECORD.--January 1914 to current year. Published as "at Twin Falls near Iron Mountain, MI" 1914-57. Records published for both sites July 1950 to September 1957.

REVISED RECORDS.--WSP 1707: 1953(M). WSP 1911: Drainage area of former site.

GAGE.--Water-stage recorder. Datum of gage is 1,119.23 ft above National Geodetic Vertical Datum of 1929 (levels by Owen Ayres Associates). Prior to July 1950, headwater and tailwater gages and generation data entered hourly in daily log sheets by company employees at the Twin Falls Powerplant of Wisconsin Electric Power Co., 10.4 mi downstream.

REMARKS.--No estimated daily discharges. Records excellent. Prior to July 1950, discharge determined from powerplant records computed on basis of load-discharge rating of hydroelectric units and rating for tail-water gage during periods of spill. Rating developed by Geological Survey. Flow regulated by powerplants, Michigamme Reservoir, capacity, 119,950 acre-ft, and Peavy Pond, capacity, 33,860 acre-ft, on Michigamme River, and by many smaller reservoirs upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--71 years, 1,822 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,500 ft³/s Apr. 26, 1960, gage height, 14.15 ft; minimum, 38 ft³/s Aug. 21, 1962, Sept. 26, 1975; minimum gage height, 1.18 ft Aug. 21, 1962, Nov. 4, 1965; minimum daily discharge, 57 ft³/s Sept. 26, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft³/s Apr. 23, gage height, 10.61 ft; minimum, 270 ft³/s, Oct. 3, gage height, 2.00 ft; minimum daily, 529 ft³/s Nov. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1590	1690	618	1690	1680	1430	3220	4150	3820	1430	1450	1820
2	1650	2340	842	1690	1550	1810	3050	3460	3680	1630	1470	1660
3	1590	1460	1450	1800	1800	1630	2800	3070	3360	1550	1370	1960
4	1710	1460	1580	1900	1710	1790	2640	3040	2960	1330	1330	2120
5	1520	1500	1430	1750	1360	1920	1950	2790	2790	1860	1490	2100
6	1500	1290	1360	1750	1560	2070	1990	2770	2420	1770	1520	2210
7	1550	1200	1460	1890	1570	2130	1740	2500	1820	1900	1590	2200
8	1870	1230	1350	1880	1550	2020	1660	2410	1700	1700	1440	2170
9	1700	1430	1480	1940	1550	2010	1870	2500	1870	1890	1580	2140
10	1690	529	1640	1750	1600	1880	1830	2620	2340	1700	1510	1660
11	1760	821	1540	1900	1570	1850	1980	2970	2050	1680	1730	1610
12	1670	856	1480	1930	1430	1670	2550	3430	2380	1420	1820	1710
13	1700	1450	1590	1850	1500	1790	2600	3690	1880	1280	983	1850
14	1580	1430	1610	1770	1570	1800	2420	3650	1840	1480	1210	2260
15	1540	1340	1570	1900	1650	1680	2630	3500	1390	1070	1690	1930
16	1380	1390	1680	1970	1660	1730	3650	2910	1560	1340	1660	1960
17	1510	982	1680	1980	1590	1840	4510	2770	1800	1270	1930	1810
18	1470	682	1620	1850	1670	1930	4910	2450	1720	1300	2010	1960
19	1690	843	1630	1590	1450	1830	4490	2190	1780	1350	1530	1430
20	1370	1390	1610	1820	1390	1890	4950	1990	1580	1300	1680	1970
21	1420	1490	1830	1840	1590	1820	8290	1910	1700	1420	1600	1920
22	1510	745	1700	1810	1610	1800	9920	1910	1390	1370	1630	1990
23	1420	1350	1870	1850	890	1530	11700	1740	1410	1500	1970	1950
24	1450	994	1810	1990	1210	1740	10700	1660	1620	1510	1950	2040
25	1400	1050	1740	1830	1670	1960	10200	1450	1810	1560	1680	2220
26	1330	1430	1850	1900	1440	1850	10300	1740	1720	1560	1810	2340
27	1410	1770	1850	1880	1370	1720	9340	1520	1320	1400	1870	2260
28	1770	1610	1790	1900	1540	2350	7010	2010	2000	1400	1920	1740
29	1540	1540	1690	1830	---	2930	4930	1710	1270	1480	2060	1610
30	1440	1470	1760	1670	---	2970	4430	2480	1110	1490	2210	2770
31	1620	---	1880	1840	---	2690	---	3460	---	1480	1810	---
TOTAL	48350	38762	48990	56940	42730	60060	144260	80450	60090	46420	51503	59370
MEAN	1560	1292	1580	1837	1526	1937	4809	2595	2003	1497	1661	1979
MAX	1870	2340	1880	1990	1800	2970	11700	4150	3820	1900	2210	2770
MIN	1330	529	618	1590	890	1430	1660	1450	1110	1070	983	1430
CAL YR 1984	TOTAL	658836	MEAN	1800	MAX	4250	MIN	529				
WTR YR 1985	TOTAL	737925	MEAN	2022	MAX	11700	MIN	529				

STREAMS TRIBUTARY TO LAKE MICHIGAN

04063700 POPPLE RIVER NEAR FENCE, WI
(HYDROLOGIC BENCHMARK STATION)

LOCATION.--Lat 45°45'49", long 88°27'47", in NW 1/4 sec.23, T.38 N., R.16 E., Florence County, Hydrologic Unit 04030108, on left bank 20 ft upstream from bridge on U. S. Forest Service Road 2159, 1.8 mi downstream from Mud Creek, 2.6 mi northwest of Fence, and 11.5 mi upstream from mouth.

DRAINAGE AREA.--139 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WDR WI-76-1: 1972(M). WDR WI-80-1: Drainage area. WDR WI-81-1: 1965 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,406.16 ft above National Geodetic Vertical Datum of 1929. Prior to June 18, 1964, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--22 years, 125 ft³/s, 12.21 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,640 ft³/s Apr. 25, 1979, gage height, 4.52 ft; minimum, 5.9 ft³/s Oct. 28, 1976, gage height, 0.75 ft, result of temporary storage from beaver dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Apr. 24	1600	*695	*3.22	No other peak greater than base discharge.			
Minimum discharge, 30 ft ³ /s part of each day Aug. 4, 5, gage height, 1.15 ft.							

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 17-19, Nov. 30 to Dec. 4,
Jan. 3-5, Jan. 8 to Feb. 20, Mar. 1-3, 23-25, Mar. 28 to Apr. 2, Apr. 4, 6.)

1.1	26	2.0	188
1.2	34	2.4	334
1.4	53	2.8	500
1.6	88	3.3	735

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	213	110	76	36	47	200	401	235	85	34	52
2	85	226	100	72	36	48	170	357	237	79	33	50
3	88	225	98	66	37	47	160	316	217	80	32	52
4	74	209	110	64	38	45	140	274	188	93	31	58
5	67	201	102	62	39	45	146	219	155	119	31	64
6	59	183	86	61	40	48	130	199	126	144	34	68
7	62	170	82	59	40	47	130	206	108	151	36	68
8	76	156	82	56	40	47	124	189	100	144	35	132
9	77	139	80	54	42	48	112	171	193	128	45	170
10	77	132	78	52	43	52	121	202	229	106	47	172
11	73	121	76	50	42	56	150	218	218	92	47	155
12	68	128	76	50	42	53	205	213	184	80	48	136
13	65	119	74	50	42	55	298	196	143	70	56	116
14	63	108	72	49	42	53	335	187	116	62	62	96
15	65	108	71	47	42	51	388	178	104	55	60	83
16	75	115	83	46	43	50	448	157	120	49	55	72
17	128	130	117	44	44	49	482	165	132	46	49	65
18	177	120	122	43	45	50	504	165	150	46	45	62
19	207	96	114	42	45	54	554	150	152	44	42	58
20	208	77	98	41	45	58	606	139	138	42	41	52
21	194	67	85	41	46	56	657	125	123	40	40	50
22	171	64	81	42	49	60	668	112	142	39	39	54
23	147	63	78	42	50	68	673	101	147	36	42	87
24	127	63	76	42	49	68	690	90	137	36	54	152
25	117	65	76	41	47	78	672	85	113	46	67	181
26	119	68	74	42	46	86	644	136	94	44	68	178
27	132	85	72	42	45	144	603	181	94	42	64	170
28	171	118	71	42	45	190	556	189	106	39	57	158
29	179	127	76	41	---	190	508	170	108	37	56	196
30	180	130	83	39	---	160	453	190	97	36	56	318
31	175	---	79	37	---	170	---	208	---	35	55	---
TOTAL	3601	3826	2682	1535	1200	2273	11527	5889	4406	2145	1461	3325
MEAN	116	128	86.5	49.5	42.9	73.3	384	190	147	69.2	47.1	111
MAX	208	226	122	76	50	190	690	401	237	151	68	318
MIN	59	63	71	37	36	45	112	85	94	35	31	50
CFSM	.84	.92	.62	.36	.31	.53	2.76	1.37	1.06	.50	.34	.80
IN.	.96	1.02	.72	.41	.32	.61	3.08	1.58	1.18	.57	.39	.89
CAL YR 1984	TOTAL	40259	MEAN 110	MAX 488	MIN 28	CFSM .79	IN 10.77					
WTR YR 1985	TOTAL	43870	MEAN 120	MAX 690	MIN 31	CFSM .86	IN 11.74					

STREAMS TRIBUTARY TO LAKE MICHIGAN
04063700 POPPLE RIVER NEAR FENCE, WI--CONTINUED
(HYDROLOGIC BENCH-MARK STATION)

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, SOLVED (MG/L) (00300)	BAROMETRIC PRESURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)	COLIFORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS AS CAC03 (MG/L) (00900)
NOV, 1984												
13...	1530	124	131	7.8	.5	1.0	13.4	735	96	K13	K3	66
MAR, 1985												
06...	1405	47	228	7.6	.5	1.5	10.4	740	74	24	K6	120
JUN												
26...	1510	98	122	7.8	22.0	1.0	9.6	730	115	35	--	68
SEP												
04...	1135	59	187	8.1	17.0	.80	8.7	731	94	47	40	98

DATE	HARDNESS, NONCARBONATE (MG/L AS CAC03) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	PERCENT SODIUM (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY FIELD AS CAC03 (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV, 1984											
13...	10	14	7.5	1.3	4	.0	.50	56	12	3.5	<.10
MAR, 1985											
06...	10	25	13	1.7	3	.0	1.0	106	8.5	1.5	<.10
JUN											
26...	7	15	7.4	1.3	4	.0	.20	61	<.2	1.6	<.10
SEP											
04...	9	21	11	1.6	3	.0	.70	89	5.1	1.9	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV, 1984											
13...	9.2	111	82	.15	37	.15	.160	.50	<.010	<.010	<.010
MAR, 1985											
06...	13	149	130	.20	19	.20	.100	.30	<.010	<.010	<.010
JUN											
26...	4.7	103	--	.14	27	<.10	.080	.90	.040	.010	<.010
SEP											
04...	8.8	139	100	.19	22	<.10	.050	.50	.040	.040	<.010

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

STREAMS TRIBUTRY TO LAKE MICHIGAN
04063700 POPPLE RIVER NEAR FENCE, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, DIS- INSTAN- TANEOUS (CFS) (00061)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV, 1984											
13...	1530	124	--	<1	14	<.5	1	--	<3	1	350
MAR, 1985											
06...	1405	47	10	<1	11	<.5	<1	<1	<3	<1	300
JUN											
26...	1510	98	40	1	11	.9	<1	8	<3	1	430

DATE	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV, 1984										
13...	10	6	38	<.1	<10	1	<1	17	<6	17
MAR, 1985										
06...	1	<4	58	<.1	<10	<1	<1	25	<6	13
JUN										
26...	8	<4	83	<.1	<10	4	<1	20	<6	19

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT, 1984							
10...	1130	75	170	12.5	--	--	--
NOV							
13...	1530	124	131	.5	4	1.3	97
DEC							
18...	1555	133	150	.5	--	--	--
JAN, 1985							
23...	1445	42	237	.5	--	--	--
MAR							
06...	1405	47	228	.5	4	.51	63
APR							
17...	1430	496	73	2.0	--	--	--
25...	1520	662	70	12.0	--	--	--
JUN							
26...	1510	98	122	22.0	3	.79	95
JUL							
31...	1820	35	207	23.0	--	--	--
SEP							
03...	1800	15	190	18.5	--	--	--
04...	1135	59	187	17.0	1	.16	50

STREAMS TRIBUTARY TO LAKE MICHIGAN

04066003 MEMONINEE RIVER BELOW PEMENE CREEK NEAR PEMBINE, WI

LOCATION.--Lat 45°34'46", long 87°47'13", in NE 1/4, sec.29, T. 37 N., R.28 W., Michigan Meridian, Menominee County, MI, Hydrologic Unit 04030108, on left bank 40 ft downstream from County Trunk Z bridge, 0.9 mi downstream from Pamana Creek, 3.9 mi west of Nathan, MI, 10.6 mi southeast of Pembine, and at mile 64.3.

DRAINAGE AREA.--3,140 mi².

PERIOD OF RECORD.--October 1949 to current year. Published as "near Pembine" prior to August 1982. Monthly discharges only for some periods, published in WSP 1307.

GAGE.--Water-stage recorder. Elevation of gage is 740 ft, from topographic map. October 1949 to Oct. 27, 1972, water-stage recorder at site 1.0 mi upstream at different datum, and Oct. 28, 1972, to August 1982, water-stage recorder at site 1.5 mi upstream at different datum.

REMARKS.--Estimated daily discharges: None, except those for ice period listed in rating table below. Records good except those for ice-affected period, which are fair. Flow regulated by powerplants and by Michigamme Reservoir, capacity, 119,950 acre-ft, and Peavy Pond, capacity, 33,860 acre-ft, on the Michigamme River, and by many smaller reservoirs above station.

AVERAGE DISCHARGE.--36 years, 3,019 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,900 ft³/s May 8, 1960, gage height, 13.90 ft site and datum then in use; minimum, 694 ft³/s Sept. 3, 1969, gage height, 1.66 ft site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,300 ft³/s Apr. 24, gage height, 14.08 ft; maximum gage height, 15.42 ft Jan. 4, backwater from ice; minimum daily, 1,200 ft³/s Feb. 24.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 3 to Mar. 26.)

7.4	1,600	11.0	7,740
8.0	2,370	13.0	12,900
9.0	3,840	15.0	19,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2450	3670	2620	2600	2100	2000	4750	6980	6020	2180	1930	2430
2	2500	4290	2110	2600	2000	2300	4410	6160	5900	2310	1900	2470
3	2370	3430	1800	2500	1800	2300	4310	5040	5620	2530	1860	2130
4	2390	3210	1900	2500	1800	2200	4240	4540	4720	2210	1710	2630
5	2330	3130	2000	2600	1800	2200	4030	4680	4410	2690	1770	2770
6	2270	2810	2200	2600	1800	2300	3890	4430	4050	3040	2200	2980
7	2310	2660	2200	2700	1900	2400	3740	3970	3400	3010	2290	2850
8	2050	2630	2400	2400	1900	2300	3130	4140	3270	3090	2100	3510
9	2300	2630	2500	2400	1900	2200	3270	4110	3340	2900	1860	4230
10	2440	2300	2700	2600	1900	2300	3270	4380	3720	2920	2070	3280
11	2370	2210	2700	2600	1900	2400	3530	4930	4040	2710	2150	2840
12	2380	2260	2600	2500	2000	2400	3930	5180	3860	2360	2270	2900
13	2360	2450	2500	2500	1900	2300	5400	5670	3610	2180	2930	2690
14	2260	2510	2500	2600	1700	2400	5720	5580	3340	1830	1890	2740
15	2120	2530	2500	2500	1800	2400	5690	5090	2880	1950	1950	2840
16	2140	2580	2700	2400	1900	2200	6480	5040	2880	1740	2230	2720
17	2300	2350	2900	2400	2000	2300	8330	4500	3000	1720	2230	2540
18	2610	1790	3100	2500	1900	2400	8670	4400	3110	1740	2320	2420
19	3110	1820	2900	2500	2000	2500	8520	4000	3320	1720	2380	2510
20	3060	2120	2700	2400	2100	2600	9250	3800	3110	1810	2320	2400
21	2910	2300	2700	2300	2000	2500	10900	3510	2880	1880	2220	2610
22	2940	2010	2700	2300	1900	2400	14000	3060	2990	1800	2130	2570
23	2670	1740	2600	2300	2000	2600	15300	3140	2840	1960	2030	2640
24	2550	1910	2400	2400	1200	2900	16100	2590	2850	1910	2270	3190
25	2320	1660	2300	2400	1600	3300	15100	2590	2970	2120	2380	3750
26	2420	2010	2500	2400	2000	3600	14400	2800	2760	2330	2450	4010
27	2460	2430	2800	2400	2100	3480	14200	3590	2650	2100	2390	3720
28	2960	3090	3000	2400	2100	4520	12200	3660	2380	2070	2360	3370
29	3230	2860	2800	2400	---	5430	9040	3520	2110	2060	2640	2730
30	2900	3000	2600	2400	---	5160	6550	3490	2180	2050	2710	3850
31	2760	---	2700	2200	---	5220	---	4770	---	2020	2490	---
TOTAL	78240	76390	78630	76300	53000	87510	232350	133340	104210	68940	68430	88320
MEAN	2524	2546	2536	2461	1893	2823	7745	4301	3474	2224	2207	2944
MAX	3230	4290	3100	2700	2100	5430	16100	6980	6020	3090	2930	4230
MIN	2050	1660	1800	2200	1200	2000	3130	2590	2110	1720	1710	2130
CAL YR 1984	TOTAL	1036520	MEAN	2832	MAX	7550	MIN	1340				
WTR YR 1985	TOTAL	1145660	MEAN	3139	MAX	16100	MIN	1200				

STREAMS TRIBUTARY TO LAKE MICHIGAN

04067500 MENOMINEE RIVER NEAR MC ALLISTER, WI
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 45°19'33", long 87°39'48", in SW 1/4 SE 1/4 sec.17, T.33 N., R.23 E., Marinette County, Hydrologic Unit 04030108, on right bank 85 ft downstream from bridge on County Highway JJ, 2.9 mi downstream from Grand Rapids Dam, 2.6 mi east of McAllister, 1.9 mi downstream from Little Cadar River, and at mile 22.6.

DRAINAGE AREA.--3,930 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1945 to September 1961; October 1961 to September 1979, miscellaneous measurements and peaks only; October 1979 to current year.

REVISED RECORDS.--WDR WI-80-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 622.20 ft above National Geodetic Vertical Datum of 1929 (Michigan Department of Transportation reference mark). Prior to May 15, 1945, nonrecording gage 1,400 ft downstream at same datum; May 16, 1945, to September 1961, water-stage recorder 1,000 ft downstream at same datum; October 1961 to September 1979, crest-stage gage 1,100 ft downstream at same datum.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair. Flow regulated by powerplants, by Michigamme Reservoir, capacity, 119,950 acre-ft, and Peavy Pond, capacity, 33,860 acre-ft on the Michigamme River, and by many smaller reservoirs above station.

AVERAGE DISCHARGE.--22 years (water years 1946-61, 1980-85), 3,535 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft³/s May 9, 1960, gage height, 20.0 ft, from graph based on gage readings; minimum observed, 538 ft³/s Oct. 6, 1946, gage height, 7.29 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,800 ft³/s Apr. 25, gage height, 16.62 ft; minimum daily, 1,810 ft³/s July 20.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 6-10, 13-16, Dec. 18 to Apr. 8.)

9.0	1,740	12.0	6,400
9.5	2,360	14.0	10,500
10.0	3,040	16.0	15,900
11.0	4,600	18.0	22,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2740	4350	4020	2900	2400	2400	6800	7670	6010	2300	2150	2980
2	2910	5430	3620	3000	2400	2400	5800	7840	6650	2430	2170	2780
3	2710	5600	3280	2900	2300	2900	5600	7420	6550	2450	2200	2780
4	2710	4510	2140	2600	2200	2900	5600	6200	6060	2760	1860	2540
5	2680	4200	2290	3000	2200	2700	5600	4700	5050	2860	2230	3150
6	2650	3890	2500	3400	2200	2600	5600	5420	4510	3210	2690	3200
7	2600	3720	2500	3300	2000	3000	5400	5330	4210	3610	2860	3490
8	2550	3500	2800	3200	2000	3100	5400	4870	4020	3230	2750	3680
9	2350	3330	3200	3000	2100	2700	4930	5180	4050	3430	2660	4230
10	2680	3510	3100	2900	2100	2500	4520	4950	4330	3360	2330	4960
11	2670	3060	3380	3000	2400	3100	4870	5090	4620	3120	2430	3620
12	2780	3090	3310	3300	2200	3100	5400	5980	4960	2810	2440	3180
13	2650	3010	3100	2800	2000	2900	5720	6150	4460	2730	2670	3310
14	2660	3210	3000	2900	2000	2900	7170	6520	3580	2240	3090	3200
15	2590	3190	3000	3100	2000	3000	7530	6250	3520	2140	2400	2950
16	2500	3280	3300	2700	2200	3000	7700	5760	3360	1970	2300	3100
17	2450	3270	3860	2800	2400	2600	8750	6030	3300	2070	2760	3100
18	2790	3000	3800	2800	2300	3000	10100	5170	3570	1960	3040	2990
19	3550	2070	3600	2700	1900	3100	10400	5380	3540	2000	2890	2770
20	4300	2410	3400	2500	2400	3000	10400	4680	3700	1810	2760	2650
21	4050	2600	3500	2500	2300	3100	11100	4690	3460	1910	2740	2640
22	3630	2790	3100	2600	2200	3200	12800	3810	3490	1920	2730	2880
23	3580	2460	2600	2600	2200	3100	15700	3490	3310	1830	3110	2890
24	3330	2320	2800	2600	2100	3300	16800	3770	2950	2280	3230	3510
25	3050	2290	2500	2700	2100	4100	17300	2940	3100	2170	3190	4040
26	3230	2080	2500	2700	2200	4500	17100	3740	2940	2290	3120	4730
27	3160	2520	2800	2800	2300	5000	16300	4630	2860	2430	3370	4640
28	3600	3570	3500	2800	2400	5400	15300	5180	2910	2350	3220	4620
29	3970	4170	3700	2700	---	6600	13600	4630	2420	2300	3000	3530
30	4240	3860	3300	2700	---	7000	10400	4680	2240	2240	2860	4350
31	3630	---	3000	2600	---	6800	---	4650	---	2210	2910	---
TOTAL	94990	100290	96500	88100	61500	109000	279690	162800	119730	76420	84160	102490
MEAN	3064	3343	3113	2842	2196	3516	9323	5252	3991	2465	2715	3416
MAX	4300	5600	4020	3400	2400	7000	17300	7840	6650	3610	3370	4960
MIN	2350	2070	2140	2500	1900	2400	4520	2940	2240	1810	1860	2540
CAL YR 1984 TOTAL		1291500		MEAN 3529		MAX 9510		MIN 1580				
WTR YR 1985 TOTAL		1375670		MEAN 3769		MAX 17300		MIN 1810				

STREAMS TRIBUTARY TO LAKE MICHIGAN

04067500 MEMONINEE RIVER NEAR MC ALLISTER, WI--CONTINUED
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BAROMETRIC PRESSURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)	COLIFORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV, 1984												
14...	0930	3520	--	242	8.2	2.5	1.0	13.8	750	103	24	K6
JAN, 1985												
24...	1045	--	2600	268	7.8	.0	1.0	12.4	737	88	57	K6
MAR												
07...	1340	--	3000	253	7.8	.0	1.0	13.9	748	97	43	36
APR												
18...	1000	10100	--	190	7.9	6.0	1.5	12.5	746	103	23	K7
JUN												
27...	0915	3450	--	194	8.0	21.0	1.5	9.4	753	107	21	--
SEP												
05...	0915	3400	--	212	8.0	20.0	1.1	8.3	747	93	36	35

DATE	HARDNESS (MG/L AS CAC03) (00900)	HARDNESS, NONCARBONATE (MG/L AS CAC03) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	PERCENT SODIUM (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY FIELD (MG/L AS CAC03) (00410)	SULFATE DIS-SOLVED (MG/L AS S04) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV, 1984												
14...	120	17	27	13	2.3	4	.0	.90	104	10	3.3	<.10
JAN, 1985												
24...	120	18	27	13	2.9	5	.1	1.1	103	15	3.3	.10
MAR												
07...	130	19	28	14	3.2	5	.1	1.2	109	14	4.1	<.10
APR												
18...	92	14	21	9.6	1.6	--	.0	<.10	78	9.3	3.0	<.10
JUN												
27...	100	15	23	11	2.4	5	.1	.70	88	9.9	2.7	<.10
SEP												
05...	110	20	25	11	2.7	5	.1	.90	88	11	3.1	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV, 1984											
14...	8.3	144	130	.20	1370	.13	<.010	.20	<.010	<.010	<.010
JAN, 1985											
24...	10	130	130	.18	--	.27	.030	<.10	.040	.030	<.010
MAR											
07...	11	153	140	.21	1240	.25	.060	.50	.020	.020	.020
APR											
18...	7.1	101	--	.14	2750	.15	<.010	1.5	<.010	<.010	<.010
JUN											
27...	5.3	127	110	.17	1180	<.10	.030	.80	.020	<.010	<.010
SEP											
05...	7.2	129	110	.18	1180	.13	.080	.70	.050	.050	.040

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

STREAMS TRIBUTARY TO LAKE MICHIGAN

04067500 MENOMINEE RIVER NEAR MC ALLISTER, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
NOV, 1984											
14...	0930	3520	--	--	<1	15	<.5	1	--	<3	<1
JAN, 1985											
24...	1045	--	2600	20	<1	14	<.5	<1	<1	<3	1
MAR											
07...	1340	--	3000	20	<1	15	<.5	<1	<1	<3	<1
APR											
18...	1000	10100	--	20	1	12	.6	<1	<1	<3	1

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV, 1984											
14...	140	8	8	16	<.1	<10	1	<1	38	<6	6
JAN, 1985											
24...	130	9	<4	12	.2	<10	1	<1	45	<6	<3
MAR											
07...	130	2	8	12	<.1	<10	<1	<1	46	<6	8
APR											
18...	140	6	<4	17	<.1	<10	1	<1	30	<6	<3

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT, 1984								
09...	1600	2510	--	223	13.5	--	--	--
NOV								
14...	0930	3520	--	242	2.5	6	57	65
JAN, 1985								
24...	1045	--	2600	268	.0	3	21	83
MAR								
07...	1340	--	3000	253	.0	4	32	62
APR								
18...	1000	10100	--	190	6.0	14	382	70
26...	1045	17600	--	110	12.0	--	--	--
JUN								
27...	0915	3450	--	194	21.0	12	112	94
AUG								
01...	1750	1830	--	208	23.5	--	--	--
SEP								
05...	0915	3400	--	212	20.0	4	37	93

STREAMS TRIBUTARY TO LAKE MICHIGAN
452241088224800 MC CASLIN LAKE NEAR LAKEWOOD, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 45°22'41", long 88°22'48", in SW 1/4 sec.33, T.34 N., R.17 E., Marinette County, Hydrologic Unit 04030105, 8.8 mi northeast of Lakewood.

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 1190 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.74 ft, Sept. 28; minimum, 10.77 ft, Aug. 3.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT
OCT. 7	11.49	NOV. 10	11.58	APR. 30	11.68	JULY 12	10.88	AUG. 3	10.77	AUG. 31	10.86
OCT. 20	11.73	APR. 6	11.71	MAY 4	11.58	JULY 21	10.88	AUG. 10	10.90	SEPT. 7	11.36
OCT. 22	11.69	APR. 13	11.70	JULY 2	11.10	JULY 24	10.84	AUG. 16	10.94	SEPT. 21	11.34
OCT. 27	11.59	APR. 28	11.70	JULY 6	11.18	JULY 27	10.82	AUG. 24	10.87	SEPT. 28	11.74
NOV. 3	11.60										

WATER-QUALITY RECORDS

LOCATION.--Lat 45°22'51", long 88°22'40", in SW 1/4 sec.33, T.34 N., R.17 E., Marinette County, Hydrologic Unit 04030105, near center of lake, and 9.0 mi northeast of Lakewood.

PERIOD OF RECORD.--May to September 1985.

REMARKS.--Secchi disc readings made by Norman Kratz.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 2.4 meters, May 10, 17, 31, Sept. 21, 27; minimum transparency 1.2 meters, July 6, Aug. 10, 16.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
MAY 4	2.3	MAY 31	2.4	JULY 12	1.5	JULY 27	1.5	AUG. 16	1.2	SEPT. 7	2.1
MAY 10	2.4	JULY 2	2.0	JULY 20	1.4	AUG. 3	1.4	AUG. 24	1.3	SEPT. 21	2.4
MAY 17	2.4	JULY 6	1.2	JULY 24	1.7	AUG. 10	1.2	AUG. 31	1.4	SEPT. 27	2.4

STREAMS TRIBUTARY TO LAKE MICHIGAN

04069500 PESHTIGO RIVER AT PESHTIGO, WI

LOCATION.--Lat 45°02'49", long 87°44'40", in NE 1/4 sec.30, T.30 N., R.23 E., Marinette County, Hydrologic Unit 04030105, on left bank 75 ft downstream from Chicago and Northwestern Railway bridge, 0.5 mi downstream from Wisconsin Public Service Corp. Powerplant at Peshtigo, and 11.5 mi upstream from mouth.

DRAINAGE AREA.--1,080 mi².

PERIOD OF RECORD.--June 1953 to current year.

REVISED RECORDS.--WDR WI-80-1: Drainage area. WDR WI-84-1: 1983 average discharge.

GAGE.--Water-stage recorder. Datum of gage is 584.64 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: None, except for period of ice listed in rating table below, and Mar. 5. Records good except those for ice-affected periods, which are fair. Diurnal fluctuation caused by two powerplants upstream.

AVERAGE DISCHARGE.--32 years, 943 ft³/s, 11.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,790 ft³/a May 9, 1960, gage height, 11.59 ft, from rating curve extended above 5,000 ft³/s on basis of computation of peak flow through dam gates; minimum, 17 ft³/s Nov. 29, 1966, gage height, 1.00 ft; minimum daily, 84 ft³/s Aug. 5, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,720 ft³/s Mar. 29, gage height, 7.20 ft; minimum daily, 245 ft³/s Aug. 4.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 30 to Feb. 28.)

1.4	215	6.0	2,180
2.0	450	7.0	3,580
3.0	970		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	582	2320	1500	800	580	1460	2710	1680	1280	354	358	670	
2	672	2820	1300	740	560	1660	1960	1260	1020	646	426	481	
3	566	2840	1200	980	600	1890	1860	1350	1090	684	393	498	
4	495	2630	720	960	540	2870	2310	1190	988	551	245	716	
5	458	2240	450	740	580	2630	2520	1110	878	542	250	574	
6	492	2040	640	640	600	1770	2670	1050	720	703	748	590	
7	496	1690	600	600	540	1410	2830	1220	675	966	879	693	
8	532	1650	560	700	700	1190	2610	1160	620	1070	740	570	
9	654	1610	700	660	580	1150	2350	1220	860	865	545	600	
10	648	1640	700	600	520	1260	2080	1070	1120	717	535	850	
11	689	1700	660	560	480	1250	1890	1100	1120	616	518	784	
12	581	1400	680	600	580	1580	1930	1110	1060	551	469	788	
13	584	1340	700	500	720	1720	2120	1110	966	510	608	621	
14	580	1270	660	540	700	1780	2210	1110	727	619	831	485	
15	613	1390	640	600	700	1840	2170	971	646	441	1070	549	
16	584	1350	640	580	640	1760	2370	1110	788	338	715	483	
17	697	1210	780	580	520	1830	2530	999	1020	407	697	516	
18	970	893	1100	600	540	1840	2620	1060	1040	409	763	592	
19	1390	755	920	720	660	1700	2230	948	1020	380	1330	560	
20	1810	914	560	640	520	1940	2260	1170	922	437	1020	599	
21	1880	756	700	560	480	2040	2430	1170	813	340	865	476	
22	1810	730	620	740	580	2140	2680	916	905	247	697	360	
23	1660	811	800	760	640	1910	2730	960	823	331	637	644	
24	1250	761	980	600	640	1830	2700	730	844	364	758	948	
25	1170	767	940	640	700	1620	2990	680	745	419	1200	1120	
26	1270	809	800	560	860	1740	3210	957	753	495	1370	1160	
27	1580	936	800	500	1000	2200	3140	1900	635	432	1410	1210	
28	1480	1430	800	520	1200	2890	2660	1970	449	519	1250	1170	
29	1660	1480	940	600	---	3240	2340	1920	490	402	1130	1010	
30	1620	1400	920	600	---	3220	1830	1770	369	432	1020	1270	
31	1610	---	800	640	---	3170	---	1640	---	431	879	---	
TOTAL	31083	43582	24810	20060	17960	60530	72940	37611	25386	16218	24356	21587	
MEAN	1003	1453	800	647	641	1953	2431	1213	846	523	786	720	
MAX	1880	2840	1500	980	1200	3240	3210	1970	1280	1070	1410	1270	
MIN	458	730	450	500	480	1150	1830	680	369	247	245	360	
CFSM	.93	1.35	.74	.60	.59	1.81	2.25	1.12	.78	.48	.73	.67	
IN.	1.07	1.50	.85	.69	.62	2.08	2.51	1.30	.87	.56	.84	.74	
CAL YR 1984	TOTAL	362060		MEAN	989	MAX	3060	MIN	281	CFSM	.92	IN.	12.47
WTR YR 1985	TOTAL	396123		MEAN	1085	MAX	3240	MIN	245	CFSM	1.00	IN.	13.64

STREAMS TRIBUTARY TO LAKE MICHIGAN
04070000 WHEELER LAKE NEAR LAKEWOOD, WI

WATER-QUALITY RECORDS

LOCATION.--Lat 45°19'07", long 88°28'32", in NE 1/4 sec.27, T.33 N., R.16 E., Oconto County, Hydrologic Unit 04030104, near center of lake, and 2.6 mi northeast of Lekeewood.

PERIOD OF RECORD.--July to September 1985.

REMARKS.--Secchi disc readings made by Roy A. Green.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 4.3 meters, July 3, Aug. 15; minimum transparency, 3.4 meters, Sept. 27.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
JULY 3	4.3	JULY 17	3.4	AUG. 6	4.0	AUG. 27	4.0	SEPT. 10	4.1	SEPT. 20	4.1
JULY 6	4.1	JULY 22	4.1	AUG. 10	4.0	AUG. 30	4.1	SEPT. 13	3.8	SEPT. 23	3.7
JULY 8	4.0	JULY 27	4.1	AUG. 15	4.3	SEPT. 3	4.0	SEPT. 16	3.7	SEPT. 27	3.4
JULY 11	3.8	JULY 30	4.0	AUG. 19	3.8	SEPT. 7	4.0	SEPT. 19	4.1	SEPT. 30	3.5
JULY 14	3.8	AUG. 2	4.1	AUG. 23	4.0						

STREAMS TRIBUTARY TO LAKE MICHIGAN

04071000 OCONTO RIVER NEAR GILLETT, WI

LOCATION.--Lat 44°51'53", long 88°18'00", in NW 1/4 sec.34, T.28 N., R.18 E., Oconto County, Hydrologic Unit 04030104, on left bank 300 ft upstream from County Trunk Highway BB bridge, 2.0 mi upstream from Christy Brook, 2.0 mi south of Gillett, and at mile 29.

DRAINAGE AREA.--705 mi².

PERIOD OF RECORD.--June 1906 to March 1909, October 1913 to current year. Monthly discharge only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 1207: 1922. WSP 1307: 1907-8(M), 1914-16(M), 1918-21(M), 1923-33(M), 1937-38(M), 1943(M). WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 732.87 ft above National Geodetic Vertical Datum of 1929 (levels by Wisconsin Department of Transportation). See WSP 1727 for history of changes prior to Aug. 25, 1938.

REMARKS.--Estimated daily discharges: None, except those for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair. Gage-height telemeter at station.

AVERAGE DISCHARGE.--74 years (water years 1907-08, 1914-85), 584 ft³/s, 11.25 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,400 ft³/s Apr. 10, 1922, gage height, 11.2 ft from flood-marks, caused by a failure of dam at Pulcifer 4 mi above station; minimum, 93 ft³/s Nov. 26, 1941, gage height, 0.13 ft flow retarded by anchor ice above station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Nov. 1	0500	*1,900	3.71	Mar. 31	0900	1,750	3.50
Dec. 4	1600	ice jam	*4.94	Apr. 22	0600	1,780	3.54

Minimum discharge, 294 ft³/s Aug. 5, gage height, 0.88 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 21-24, Nov. 29 to Dec. 2 and Dec. 4 to Mar. 22.)

0.8	270	3.0	1,400
1.4	481	4.0	2,100
2.0	783		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	530	1750	840	560	370	700	1560	1180	837	365	322	565
2	470	1730	820	520	370	780	1380	1070	746	358	313	500
3	447	1840	752	480	360	760	1280	995	703	354	306	470
4	432	1730	600	480	360	720	1320	919	660	352	299	454
5	418	1560	580	470	360	660	1390	844	615	394	296	445
6	407	1370	560	460	360	580	1500	823	574	565	320	436
7	427	1220	540	460	350	520	1540	830	506	674	471	432
8	489	1150	560	450	350	520	1490	835	507	711	549	498
9	568	1080	580	450	350	560	1410	829	492	641	447	567
10	621	1100	640	440	350	660	1320	828	477	549	391	569
11	626	1090	720	440	350	740	1240	782	456	477	402	547
12	607	1100	700	440	350	900	1210	769	441	444	430	504
13	570	1100	660	430	350	1000	1210	764	432	415	498	466
14	540	1050	600	430	340	1100	1230	754	417	400	557	437
15	517	980	540	430	340	1100	1250	732	417	381	595	417
16	530	914	640	420	340	1100	1290	716	484	359	595	401
17	614	870	760	420	340	1100	1360	730	604	349	503	391
18	702	819	720	420	340	1100	1470	737	643	340	471	389
19	1130	736	660	410	340	1100	1570	730	615	334	580	395
20	1120	634	600	410	340	1200	1620	717	558	322	654	398
21	1200	600	580	410	360	1100	1710	683	505	317	592	381
22	1280	640	540	400	410	1000	1760	630	542	311	487	392
23	1230	660	540	400	480	1010	1710	589	539	307	460	524
24	1100	640	520	400	580	1010	1670	567	520	306	485	684
25	952	611	500	390	700	998	1630	542	473	329	632	774
26	864	582	520	390	680	1010	1620	644	440	376	698	843
27	862	666	540	390	640	1120	1610	846	417	415	691	869
28	984	774	600	380	640	1260	1540	967	382	378	678	832
29	1000	800	680	380	---	1520	1430	1060	385	352	679	776
30	1040	840	640	380	---	1700	1290	1070	377	340	657	823
31	1080	---	600	370	---	1720	---	996	---	332	633	---
TOTAL	23357	30636	19332	13310	11500	30348	43610	25178	15764	12547	15691	16179
MEAN	753	1021	624	429	411	979	1454	812	525	405	506	539
MAX	1280	1840	840	560	700	1720	1760	1180	837	711	698	869
MIN	407	582	500	370	340	520	1210	542	377	306	296	381
CFSM	1.07	1.45	.89	.61	.58	1.39	2.06	1.15	.75	.57	.72	.77
IN.	1.23	1.62	1.02	.70	.61	1.60	2.30	1.33	.83	.66	.83	.85

CAL YR 1984	TOTAL	244978	MEAN	669	MAX	1840	MIN	309	CFSM	.95	IN	12.93
WTR YR 1985	TOTAL	257452	MEAN	705	MAX	1840	MIN	296	CFSM	1.00	IN	13.58

STREAMS TRIBUTARY TO LAKE MICHIGAN

04071858 PENSBAUKEE RIVER NEAR PENSBAUKEE, WI

LOCATION.--Lat 44°49'08", long 87°57'12", in NW 1/4 NE 1/4 sec.16, T.27 N., R.21 E., Oconto County, Hydrologic Unit 04030103, on right bank 300 ft downstream from bridge on town road, 2.8 mi downstream from Brookside Creek, 2.6 mi west of Pensaukee, 3.5 mi upstream from mouth.

DRAINAGE AREA.--134 mi².

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORD.--WDR WI-80-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 583.69 ft above National Geodetic Vertical Datum of 1929 (Wisconsin Department of Transportation bench mark).

REMARKS.--Estimated daily discharge: Oct. 7-10, Oct. 19 to Nov. 14, Jan. 30 to Mar. 27, Sept. 1-10, and the ice period listed in rating table below. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--13 years, 95.2 ft³/s, 9.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,310 ft³/s May 31, 1979, gage height, 13.58 ft; minimum daily discharge, 1.0 ft³/s Aug. 31, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Apr. 4	1400	811	6.67	Apr. 7	0600	*820	*6.70

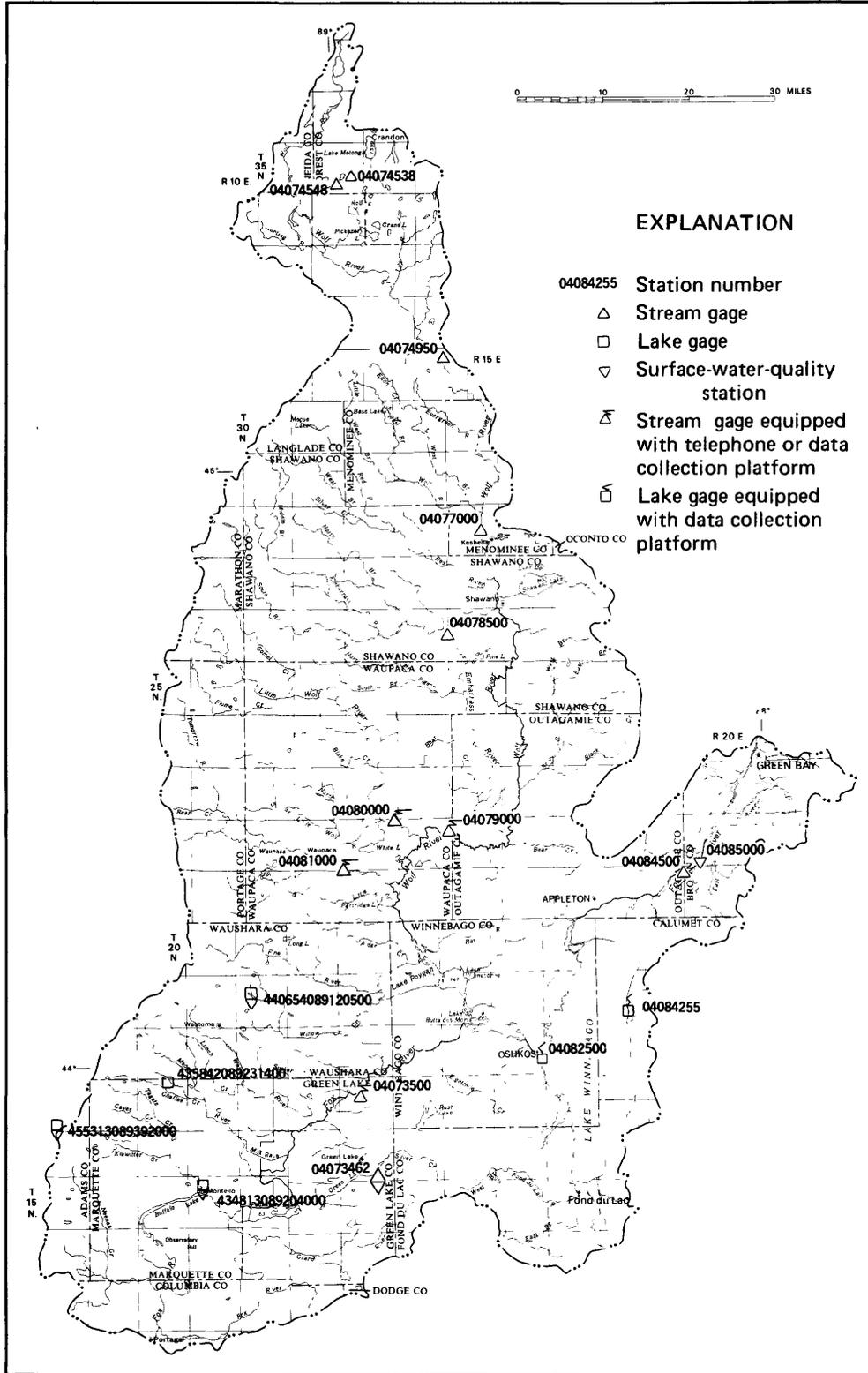
Minimum, 4.1 ft³/s Aug. 4, 5, gage height, 2.24 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 4 to Jan. 29.)

2.2	3.5	4.0	210
2.3	9.0	5.0	390
2.5	29	6.0	610
3.0	84	7.0	910

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	170	205	80	38	48	219	33	31	12	6.7	80
2	104	220	172	76	37	46	194	50	29	9.2	8.1	70
3	86	310	146	72	36	45	278	47	27	8.5	5.2	58
4	71	260	110	70	36	44	708	39	30	8.3	4.5	46
5	61	210	86	70	36	44	653	41	22	11	4.7	37
6	55	170	76	68	36	45	665	40	21	19	9.4	33
7	60	140	72	68	35	46	768	48	21	16	12	42
8	80	110	70	66	35	50	509	44	20	19	19	50
9	110	120	68	66	35	56	313	38	19	20	20	60
10	140	130	68	64	35	64	230	41	22	16	18	50
11	116	150	70	64	34	80	200	48	18	15	17	43
12	98	160	80	62	34	110	185	42	20	12	8.6	31
13	84	180	96	60	34	140	189	39	25	8.9	20	25
14	77	160	92	58	34	170	216	40	21	7.6	36	24
15	74	151	100	58	34	210	234	42	22	7.1	31	23
16	84	141	120	56	34	270	204	43	23	7.2	31	27
17	132	119	130	56	34	310	184	42	20	7.4	27	45
18	200	108	110	56	33	390	223	41	21	7.9	23	32
19	230	96	98	54	33	460	220	49	18	10	16	35
20	200	115	92	52	33	450	208	54	17	14	12	31
21	170	92	88	50	34	400	175	42	15	14	12	29
22	150	82	82	48	36	330	144	38	18	13	13	36
23	130	76	70	47	42	290	123	34	27	11	11	77
24	110	72	64	46	50	270	114	31	24	6.0	22	91
25	96	72	58	45	70	250	111	29	19	21	102	98
26	84	73	58	44	62	350	96	57	20	40	170	85
27	110	143	70	43	56	480	81	85	21	48	116	86
28	130	351	100	42	52	586	72	64	19	40	80	75
29	160	328	130	41	---	508	66	45	15	27	68	71
30	140	240	110	40	---	413	57	38	13	13	114	112
31	130	---	90	39	---	304	---	34	---	9.5	109	---
TOTAL	3599	4749	2981	1761	1098	7259	7639	1358	638	478.6	1146.2	1602
MEAN	116	158	96.2	56.8	39.2	234	255	43.8	21.3	15.4	37.0	53.4
MAX	230	351	205	80	70	586	768	85	31	48	170	112
MIN	55	72	58	39	33	44	57	29	13	6.0	4.5	23
CFSM	.87	1.18	.72	.42	.29	1.75	1.90	.33	.16	.12	.28	.40
IN.	1.00	1.32	.83	.49	.30	2.02	2.12	.38	.18	.13	.32	.44
CAL YR 1984	TOTAL	48702.0	MEAN	133	MAX	1180	MIN	13	CFSM	.99	IN	13.52
WTR YR 1985	TOTAL	34308.8	MEAN	94.0	MAX	768	MIN	4.5	CFSM	.70	IN	9.52



Base from U.S. Geological Survey
State base map, 1988

FOX-WOLF RIVER BASIN

STREAMS TRIBUTARY TO LAKE MICHIGAN
435313089392000 PATRICK LAKE NEAR GRAND MARSH, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 43°53'13", long 89°39'20", in NW 1/4 sec.10, T.16 N., R.7 E., Adams County, Hydrologic Unit 04030201, 2.5 mi east of Grand Marsh.

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 973 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 12.65 ft, Apr. 6; minimum, 11.47 ft, Oct. 4.

GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.49	11.85	11.86	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	12.34	---	---	---	---	---	---
3	---	---	---	12.04	---	---	---	---	---	12.21	12.27	---
4	11.47	11.82	11.84	---	---	---	12.56	---	12.23	---	---	---
5	---	---	---	12.05	---	---	---	12.37	---	---	---	12.33
6	---	---	---	---	---	---	12.65	---	---	12.26	---	---
7	---	---	---	---	12.13	12.34	---	---	---	---	---	---
8	11.52	---	11.85	12.05	---	---	---	---	12.22	---	---	---
9	---	11.80	---	---	---	---	12.62	---	---	12.24	---	---
10	---	---	---	---	---	12.43	---	---	---	---	12.24	12.40
11	---	---	11.85	12.05	---	---	---	---	12.18	---	---	---
12	11.56	---	---	---	---	---	---	---	---	12.19	---	---
13	---	11.84	---	---	---	---	12.59	12.33	---	---	---	---
14	---	---	---	---	---	12.51	---	---	12.15	---	---	12.31
15	---	---	11.89	---	---	---	---	---	---	12.17	12.24	---
16	---	11.82	---	---	---	---	12.54	---	---	---	---	---
17	---	---	11.92	---	---	---	---	12.41	12.25	---	---	---
18	---	---	---	---	12.19	---	---	---	---	12.12	---	12.27
19	---	---	---	---	---	12.49	---	---	---	---	12.17	---
20	11.75	11.78	---	---	---	---	---	12.38	12.22	---	---	---
21	---	---	---	12.07	---	---	12.51	---	---	---	---	---
22	---	---	11.91	---	12.26	---	---	---	---	12.07	---	---
23	11.71	---	---	---	---	12.51	---	---	---	---	---	---
24	---	11.79	11.94	---	---	---	12.51	12.33	12.22	---	12.13	---
25	---	---	---	---	12.33	---	---	---	---	12.36	---	12.35
26	---	11.79	---	---	---	---	---	---	---	---	---	---
27	11.71	---	---	---	---	---	---	---	12.20	---	---	---
28	---	---	11.97	12.11	12.33	12.51	12.46	12.29	---	12.33	12.15	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	12.43	---	12.23	---	---	12.37
31	---	---	11.99	12.11	---	12.56	---	12.28	---	12.31	12.25	---

WATER-QUALITY RECORDS

LOCATION.--Lat 43°53'09", long 89°39'33", in NE 1/4 sec.9, T.16 N., R.7 E., Adams County, Hydrologic Unit 04030201, near center of lake, and 2.3 mi east of Grand Marsh.

PERIOD OF RECORD.--July to August 1985.

REMARKS.--Secchi disc readings made by Orville Vierck.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 3.7 meters, Aug. 1; minimum transparency, 2.6 meters, July 12.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
JULY 12	2.6	JULY 19	2.7	AUG. 1	3.7	AUG. 10	3.0

STREAMS TRIBUTARY TO LAKE MICHIGAN

434813089204000 MONTELLO LAKE AT MONTELLO, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 43°48'13", long 89°20'40", in SW 1/4 sec.5, T.15 N., R.10 E., Marquette County, Hydrologic Unit 04030201, at Montello.

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 783 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.94 ft, July 26; minimum 10.24 ft, Aug. 23, 24.

DAY	GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11.50	11.46				---	---	---	11.54	11.34	---
2	11.20	11.60	11.46				---	11.38	11.14	11.54	11.39	---
3	11.14	11.90	11.44				---	---	11.24	11.44	---	---
4	11.30	11.70	11.42				---	---	---	---	---	11.24
5	11.30	11.70	---				---	11.04	11.34	---	---	11.29
6	11.20	11.70	---				---	---	11.42	---	11.34	11.34
7	11.10	11.40	---				---	---	11.34	---	11.34	---
8	11.04	11.56	---				---	---	11.36	11.52	11.44	---
9	11.26	11.50	---				11.64	---	---	11.60	---	11.64
10	11.26	---	---				---	11.20	11.34	11.24	---	11.64
11	11.26	11.46	---				---	---	11.34	---	11.04	11.74
12	11.34	11.50	---				11.52	---	11.28	11.32	---	11.74
13	11.35	11.60	---				---	---	11.36	11.34	11.54	11.38
14	11.34	11.50	---				11.24	---	11.40	---	11.54	11.36
15	11.34	11.40	---				---	11.54	---	10.94	11.54	11.14
16	11.35	11.36	---				11.54	11.64	---	---	11.49	---
17	11.52	11.40	---				---	11.65	---	11.29	---	---
18	11.65	11.40	---				---	---	---	11.29	11.44	---
19	11.90	11.36	---				11.64	---	11.46	11.29	11.44	---
20	11.90	11.34	---				---	11.34	11.32	---	11.44	11.34
21	11.70	---	---				---	11.26	---	---	11.34	---
22	11.68	---	---				---	11.26	---	10.89	11.39	---
23	11.64	---	---				---	11.34	---	10.94	10.24	11.54
24	11.58	---	---				---	11.39	11.38	10.94	10.24	---
25	11.50	11.26	---				---	11.34	11.39	---	---	---
26	11.50	11.30	---				11.65	---	11.30	11.94	11.14	---
27	11.52	11.38	---				---	11.04	11.34	---	11.54	---
28	---	11.40	---				---	11.14	---	11.64	11.54	---
29	11.70	11.46	---				---	11.42	---	11.38	---	---
30	11.56	11.46	---				---	---	---	11.39	---	---
31	11.52	---	---				---	---	---	---	---	---

WATER-QUALITY RECORDS

LOCATION.--Lat 43°48'01", long 89°20'29", in NW 1/4 sec.8, T.15 N., R.10 E., Marquette County, Hydrologic Unit 04030201, near center of lake, at Montello.

PERIOD OF RECORD.--May to September 1985.

REMARKS.--Secchi disc readings made by Harry Clark.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 3.4 meters, July 18, Aug. 16, Sept. 4, 6; minimum transparency, 1.2 meters, July 26, Aug. 1.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985											
DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
MAY 22	2.1	JUNE 27	2.3	JULY 19	3.4	AUG. 7	2.7	AUG. 21	2.4	SEPT. 6	3.4
MAY 23	2.1	JULY 3	2.1	JULY 22	1.7	AUG. 8	1.5	AUG. 22	2.4	SEPT. 9	2.1
MAY 24	2.2	JULY 8	1.5	JULY 23	1.8	AUG. 11	3.0	AUG. 23	2.4	SEPT. 10	2.3
MAY 25	2.3	JULY 9	2.1	JULY 26	1.2	AUG. 13	2.4	AUG. 24	2.6	SEPT. 11	2.6
JUNE 2	2.6	JULY 10	2.1	JULY 27	1.4	AUG. 14	2.6	AUG. 26	2.6	SEPT. 12	2.6
JUNE 6	2.1	JULY 12	2.1	JULY 29	1.4	AUG. 15	2.7	AUG. 27	2.6	SEPT. 13	2.7
JUNE 7	2.7	JULY 13	2.1	JULY 31	1.3	AUG. 16	3.4	AUG. 28	2.6	SEPT. 14	2.7
JUNE 13	2.6	JULY 15	1.5	AUG. 1	1.2	AUG. 18	2.7	AUG. 29	2.6	SEPT. 15	2.6
JUNE 14	2.3	JULY 17	3.0	AUG. 2	1.8	AUG. 19	2.4	SEPT. 4	3.4	SEPT. 20	2.7
JUNE 20	2.7	JULY 18	3.4	AUG. 6	2.7	AUG. 20	2.7	SEPT. 5	2.7		

STREAMS TRIBUTARY TO LAKE MICHIGAN
434500089082200 LAKE PUCKAWAY AT MARQUETTE, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 43°45'00", long 89°08'22", in NE 1/4 SW 1/4, sec.25, T.15 N., R.11 E., Green Lake County, Hydrologic Unit 04030201, at Marquette, WI.

DRAINAGE AREA.--787 mi².

PERIOD OF RECORD.--May to September 1985.

GAGE.--Staff gage read by Rudy Winther. Datum of gage is 751.08 ft.

REMARKS.--Altitude of staff gage conveyed in a telephone conversation by a DNR personnel.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.70 ft, Sept. 30; minimum, 10.58 ft, July 23.

GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									11.16	10.90	11.66	---
2									11.18	10.90	11.64	11.28
3									11.16	10.90	11.58	11.24
4									11.14	10.90	11.54	11.24
5									11.10	10.94	11.52	11.26
6									11.08	10.98	11.50	11.30
7									11.06	10.98	11.52	11.30
8									---	10.98	11.48	11.38
9									---	---	11.42	11.50
10									10.96	10.97	---	11.56
11									10.92	10.92	---	11.68
12									---	10.90	11.24	11.68
13									---	10.94	---	11.70
14								11.22	10.92	10.86	11.46	11.70
15								11.40	---	10.80	11.48	11.68
16								11.44	11.02	10.76	11.50	11.66
17								11.50	11.08	10.71	11.50	11.60
18								---	11.08	10.70	---	11.60
19								11.64	11.00	10.68	11.48	11.38
20								11.64	11.00	---	11.44	11.52
21								11.56	10.98	---	11.40	11.46
22								11.50	---	10.60	11.38	11.42
23								11.48	---	10.58	11.34	11.46
24								11.44	11.00	---	11.32	11.50
25								11.40	11.00	11.00	11.38	11.48
26								11.30	10.96	11.10	11.40	11.50
27								11.26	10.90	11.30	11.38	11.60
28								11.20	10.94	11.48	11.36	---
29								11.18	---	11.60	11.36	11.62
30								11.18	---	11.62	11.36	11.70
31								11.16	---	11.64	11.32	---

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April to July 1985.

REMARKS.--Secchi disc readings made by Rudy Winther. Secchi depth limited by lake bottom depth.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 1.2 meters, May 23; minimum transparency, 0.7 meter, July 14.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
Apr. 23	0.8	June 16	0.9
Apr. 28	0.8	June 29	0.9
May 18	1.1	July 13	0.9
May 23	1.2	July 14	0.7

STREAMS TRIBUTARY TO LAKE MICHIGAN
435842089231400 SHARON LAKE NEAR DAKOTA, WI

LAKE-STAGE RECORD

LOCATION.--Lat 43°58'42", long 89°23'14", in NE 1/4 sec.2, T.17 N., R.9 E., Marquette County, Hydrologic Unit 04030201, 1.7 mi southwest of Dakota.

PERIOD OF RECORD.--November 1984 to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 845 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.96 ft, Apr. 5-10; minimum, 7.84 ft, Sept. 3, 4.

DAY	GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		8.36					8.82	8.82	---	8.26	8.12	7.88
2		8.36					8.82	8.80	---	8.24	8.10	7.86
3		8.36					8.82	8.80	8.56	8.22	8.08	7.84
4		8.36					8.92	8.78	8.56	8.36	8.06	7.84
5		8.36					8.96	8.78	8.54	8.34	8.04	7.90
6		8.36					8.96	8.78	8.52	8.32	8.02	7.92
7		8.36					8.96	8.76	8.52	8.30	8.00	7.90
8		8.36					8.96	8.74	8.50	8.28	8.00	7.94
9		8.38					8.96	8.72	8.48	8.26	7.98	8.00
10		8.40					8.96	8.72	8.46	8.24	7.98	7.98
11		8.42					8.95	---	8.44	8.22	7.96	7.96
12		8.42					8.95	---	8.42	8.20	7.94	7.94
13		8.40					8.94	8.76	8.40	---	8.08	7.92
14		8.40					8.94	8.76	8.40	---	8.06	7.92
15		8.40					8.94	8.84	8.38	8.14	8.04	7.90
16		8.40					8.93	8.82	8.38	8.12	8.02	7.90
17		8.39					8.93	8.82	8.38	8.12	8.00	7.88
18		---					8.92	8.80	8.36	8.10	7.98	7.88
19		---					8.92	8.80	8.36	8.08	7.96	7.88
20		---					8.90	8.78	8.36	8.04	7.94	7.88
21		---					8.90	8.76	8.36	8.02	7.92	7.90
22		---					8.90	8.76	8.38	8.00	7.90	7.90
23		---					8.90	8.74	8.36	7.98	7.88	7.90
24		---					8.90	8.74	8.34	7.96	7.88	7.90
25		---					8.90	8.72	8.32	8.20	7.94	7.90
26		---					8.88	8.70	8.30	8.20	7.92	7.90
27		---					8.86	8.68	8.28	8.18	7.90	---
28		---					8.86	8.66	8.30	8.16	7.90	---
29		---					8.84	8.64	8.30	8.14	7.90	7.90
30		---					8.84	8.62	---	8.12	7.90	7.90
31		---					---	---	---	8.14	7.88	---
MEAN		---					8.91	---	---	---	7.98	---
MAX		---					8.96	---	---	---	8.12	---
MIN		---					8.82	---	---	---	7.88	---

STREAMS TRIBUTARY TO LAKE MICHIGAN

04073462 WHITE CREEK AT FOREST GLEN BEACH NEAR GREEN LAKE, WI

LOCATION.--Lat 43°48'58", long 88°55'42" in SE 1/4 SE 1/4 NW 1/4 sec.34, T.16 N., R.13 E., Green Lake County, Hydrologic Unit 04030201, at culvert on Spring Grove Road at Forest Glen Beach, 2.6 mi southeast of Green Lake.

DRAINAGE AREA.--3.05 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1981 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 800 ft, from topographic map.

REMARKS.--Estimated daily discharge: Oct. 2-15 and ice periods listed in rating table below. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 222 ft³/s Aug. 17, 1983, gage height, 6.36 ft; minimum daily, 0.52 ft³/s Oct. 4, 30, 31, 1983.EXTREMES FOR CURRENT YEAR.--Maximum discharge, 109 ft³/s July 25, gage height, 5.71 ft; minimum daily, 0.86 ft³/s July 22-23.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Jan. 17-22 and Feb. 1-3.)

4.0	0.42	4.5	8.3
4.1	1.0	4.6	12
4.2	2.0	4.8	21
4.3	3.5	5.1	40
4.4	5.6		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	14	5.6	5.8	2.5	12	5.3	6.5	3.0	1.4	1.2	1.3
2	1.6	9.8	5.6	5.4	2.4	9.6	5.5	6.1	2.9	1.4	1.2	1.1
3	1.6	10	5.3	5.2	2.3	8.7	5.8	6.0	2.8	1.3	1.1	1.2
4	1.6	10	5.0	5.2	2.3	7.7	6.9	5.9	2.7	2.7	1.1	1.2
5	1.6	9.9	4.9	5.2	2.3	6.9	7.9	5.9	2.7	1.9	1.1	1.9
6	1.6	9.7	4.9	5.1	2.3	6.1	9.0	5.6	2.5	1.4	1.1	2.0
7	1.9	9.9	4.8	4.9	2.1	6.5	9.3	5.4	2.6	1.3	1.5	1.9
8	1.8	9.6	4.7	4.7	2.1	15	9.3	5.3	2.7	1.2	1.1	2.0
9	1.7	10	4.7	4.5	2.0	16	9.6	4.9	2.6	1.2	1.1	9.0
10	1.6	9.7	4.6	4.4	1.9	12	11	4.8	2.5	1.2	1.1	3.9
11	1.6	9.3	4.5	4.2	1.9	14	12	4.7	2.5	1.1	1.1	3.6
12	1.6	8.9	4.5	3.9	1.9	12	13	4.9	2.4	1.2	3.4	3.4
13	1.6	8.6	4.2	3.9	1.9	11	13	4.5	2.4	1.1	8.8	3.2
14	1.6	8.4	4.1	3.9	1.9	9.6	13	4.5	2.4	1.1	3.7	3.1
15	1.7	8.3	4.0	3.5	1.9	8.6	12	4.9	2.5	1.1	2.9	3.1
16	2.3	8.3	8.7	3.5	1.9	7.7	12	4.6	2.4	.99	2.5	3.0
17	2.5	8.3	5.6	3.4	1.8	7.1	11	4.2	2.2	.97	2.1	3.0
18	6.6	8.2	4.9	3.3	1.7	6.5	11	4.0	2.1	1.0	1.9	3.0
19	13	7.8	4.9	3.2	1.6	6.4	11	3.9	2.1	1.0	1.7	3.0
20	7.3	7.7	4.8	3.2	1.6	5.9	9.9	3.8	2.0	.97	1.6	2.7
21	7.1	7.7	5.9	3.1	5.9	5.6	9.8	3.7	2.0	.90	1.5	2.8
22	6.8	7.5	4.7	3.0	30	6.1	9.2	3.6	2.0	.86	1.4	3.1
23	6.2	7.2	4.6	3.0	37	6.4	9.3	3.4	1.8	.86	1.4	3.6
24	6.1	7.2	4.3	3.0	30	6.2	8.8	3.4	1.8	1.6	1.3	3.0
25	6.2	7.0	4.3	3.0	17	5.7	8.2	3.3	1.7	11	1.6	3.1
26	6.1	6.9	4.3	2.8	13	5.9	7.9	3.2	1.7	2.4	1.2	3.4
27	6.4	7.0	4.1	2.8	7.8	5.9	7.7	3.2	1.6	1.9	1.2	3.2
28	6.4	6.6	17	2.7	11	5.5	7.5	3.2	1.6	1.5	1.1	3.2
29	6.1	6.3	7.7	2.7	---	5.5	7.4	3.0	1.5	1.4	1.1	3.2
30	6.3	6.1	6.7	2.7	---	5.4	7.1	3.0	1.4	1.3	2.4	3.7
31	6.6	---	6.2	2.6	---	5.4	---	3.0	---	1.3	1.5	---
TOTAL	126.7	255.9	170.1	117.8	192.0	252.9	280.4	136.4	67.1	50.55	57.0	88.9
MEAN	4.09	8.53	5.49	3.80	6.86	8.16	9.35	4.40	2.24	1.63	1.84	2.96
MAX	13	14	17	5.8	37	16	13	6.5	3.0	11	8.8	9.0
MIN	1.6	6.1	4.0	2.6	1.6	5.4	5.3	3.0	1.4	.86	1.1	1.1
CFSM	1.34	2.80	1.80	1.25	2.25	2.68	3.07	1.44	.73	.53	.60	.97
IN.	1.54	3.12	2.07	1.44	2.34	3.08	3.42	1.66	.82	.62	.69	1.08
CAL YR 1984	TOTAL	1890.80	MEAN	5.17	MAX	29	MIN	1.5	CFSM	1.70	IN	23.05
WTR YR 1985	TOTAL	1795.75	MEAN	4.92	MAX	37	MIN	1.86	CFSM	1.61	IN	21.90

STREAMS TRIBUTARY TO LAKE MICHIGAN

04073462 WHITE CREEK AT FOREST GLEN BEACH NEAR GREEN LAKE, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1981 to current year.
 TOTAL AMMONIA-NITROGEN DISCHARGE: October 1981 to current year.
 TOTAL-PHOSPHORUS DISCHARGE: October 1981 to current year.

INSTRUMENTATION.--Automatic pumping sampler since December 1981.

REMARKS.--Records good.

COOPERATION.--Observer furnished by the Green Lake Sanitary District.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 2,420 tons Apr. 3, 1982; minimum daily, 0 ton Sept. 11-18, 24-30, 1982.
 TOTAL AMMONIA-NITROGEN DISCHARGE.--Maximum daily, 490 lb Apr. 3, 1982; minimum daily, 0.05 lb July 22-23, 1985.
 TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 976 lb Apr. 3, 1982; minimum daily, 0.06 lb July 23, 1985.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 114 tons July 25; minimum daily, 0.01 ton Dec. 3-5, July 22-23, Sept. 4.
 TOTAL AMMONIA-NITROGEN DISCHARGE: Maximum daily, 232 lb Feb. 23; minimum daily, 0.05 lb July 22-23.
 TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 188 lb Feb. 23; minimum daily, 0.06 lb July 23.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT, 1984				
01...	1255	1.7	630	11.0
NOV				
06...	1300	9.7	790	8.5
DEC				
11...	1235	4.6	635	7.0
JAN, 1985				
22...	1155	3.0	650	4.5
29...	1315	2.7	610	3.5
FEB				
20...	1300	1.7	790	7.0
APR				
10...	1030	10	690	8.5
MAY				
29...	1015	2.9	740	9.5
JUL				
05...	1200	1.7	640	14.0
AUG				
13...	1428	5.5	600	15.5
SEP				
26...	1325	3.1	760	10.5

STREAMS TRIBUTARY TO LAKE MICHIGAN

04073462 WHITE CREEK AT FOREST GLEN BEACH NEAR GREEN LAKE, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	SEDI- MENT, SUS- PENDE (MG/L) (80154)						
OCT, 1984																	
01...	1300	1.6	.030	.030	15	FEB, 1985											
25...	1435	6.1	<.010	.040	--	22...	1225	28	1.20	.780	--						
NOV																	
01...	0425	73	.350	.350	--	22...	1325	43	--	--	886						
01...	0525	36	.320	.640	--	22...	1525	43	--	--	921						
01...	0610	23	--	--	3180	22...	1625	49	1.50	.970	--						
01...	0710	18	--	--	11600	22...	1725	48	--	--	853						
01...	0825	14	.090	.390	--	22...	2125	30	--	--	635						
01...	0910	13	--	--	556	23...	0125	22	--	--	427						
01...	1630	9.6	.110	.090	89	23...	0225	23	1.20	.900	--						
06...	1203	9.6	--	--	25	23...	0525	33	--	--	503						
06...	1205	9.9	.130	<.010	--	23...	0625	31	1.20	.880	--						
09...	1415	14	--	--	464	23...	0925	29	--	--	367						
09...	1440	15	--	--	749	23...	1035	29	1.10	.810	--						
09...	1500	15	.190	.410	--	23...	1325	34	--	--	577						
09...	1515	15	--	--	480	23...	1425	36	1.10	.890	--						
10...	0830	9.6	.140	.040	72	23...	1430	36	1.20	1.00	824						
15...	1450	8.3	--	--	28	23...	1835	52	1.10	1.10	954						
20...	1450	7.7	--	--	6	23...	1920	64	1.20	.960	1230						
28...	1415	6.6	--	--	1	23...	2045	57	--	--	2800						
DEC																	
11...	1240	4.5	.040	<.010	2	23...	2205	53	1.10	.910	--						
16...	0210	14	--	--	766	23...	2325	50	--	--	576						
16...	0225	14	.170	.320	--	24...	0205	33	--	--	454						
16...	0240	15	--	--	658	24...	0845	20	.650	.620	--						
16...	0255	15	.100	.340	--	24...	1005	20	--	--	390						
16...	0310	15	--	--	582	24...	1525	39	--	--	1200						
16...	0425	13	.130	.290	--	24...	1645	44	.940	.790	--						
16...	0440	12	--	--	276	24...	2325	25	--	--	319						
21...	1325	7.5	--	--	346	25...	0725	14	--	--	135						
21...	1335	9.3	--	--	532	25...	0845	14	.390	.520	--						
21...	1400	9.3	--	--	852	25...	1220	12	--	--	123						
28...	0045	13	--	--	1250	25...	1520	20	--	--	355						
28...	0100	19	.210	.320	--	25...	1650	22	.510	.540	--						
28...	0115	22	--	--	1180	25...	1820	21	--	--	245						
28...	0130	23	.170	.440	--	26...	2250	14	.470	.490	--						
28...	0145	25	--	--	874	26...	0020	13	--	--	114						
28...	0215	28	--	--	918	26...	0450	12	--	--	97						
28...	0230	29	.340	.470	--	26...	0920	12	--	--	75						
28...	0315	29	--	--	873	26...	1050	12	.210	.330	--						
28...	0330	33	.360	.480	--	26...	1520	17	--	--	194						
28...	0345	31	--	--	898	26...	1650	16	.320	.450	--						
28...	0415	30	--	--	886	26...	1820	14	--	--	153						
28...	0430	29	.360	.560	--	27...	0320	8.0	--	--	95						
28...	0445	30	--	--	896	27...	0450	7.7	.160	.300	--						
28...	0515	27	--	--	896	MAR											
28...	0530	31	.340	.470	--	01...	1225	13	.110	.250	162						
28...	0545	29	--	--	838	01...	1450	16	--	--	194						
28...	0715	23	--	--	617	01...	1850	14	--	--	298						
28...	0730	22	.410	.500	--	01...	2250	11	--	--	220						
28...	1020	13	.400	.570	--	02...	2250	9.3	--	--	79						
28...	1135	12	--	--	327	03...	1850	8.6	--	--	63						
28...	1935	15	--	--	1060	04...	0900	7.7	--	--	39						
28...	2005	26	--	--	13800	04...	0945	7.7	--	--	64						
28...	2035	21	--	--	10900	04...	1045	7.5	<.010	.140	--						
28...	2135	14	--	--	2970	04...	1945	7.5	--	--	50						
JAN, 1985																	
02...	1500	5.4	--	--	43	05...	0645	7.2	<.010	.140	--						
08...	1535	4.7	--	--	13	05...	0745	6.9	--	--	43						
14...	1155	3.9	--	--	22	05...	0830	6.9	--	--	27						
22...	1200	3.0	--	--	15	05...	1235	6.4	--	--	35						
29...	1315	2.7	.050	<.010	27	06...	0035	6.1	--	--	36						
FEB																	
07...	1045	2.1	--	--	10	07...	0435	5.9	.030	.070	--						
20...	1400	1.6	<.010	<.010	7	07...	0635	5.9	--	--	33						
21...	1610	5.4	--	--	326	07...	0830	5.6	--	--	20						
21...	1625	6.1	.300	.430	--	07...	1020	5.6	--	--	31						
21...	1640	6.6	--	--	345	07...	1820	8.3	--	--	122						
21...	1725	8.6	--	--	597	07...	2020	8.0	.650	1.00	--						
21...	1810	11	--	--	592	08...	1020	6.4	--	--	37						
21...	1825	11	.520	.550	--	08...	1220	7.2	.180	.150	--						
21...	1940	12	--	--	491	08...	1420	18	--	--	929						
21...	2055	15	.920	.680	--	08...	1620	37	.520	1.30	--						
21...	2110	15	--	--	582	08...	1820	34	--	--	3300						
21...	2240	17	--	--	567	08...	2020	23	.080	.230	--						
21...	2255	17	.710	.610	--	08...	2220	16	--	--	846						
22...	0930	21	1.00	.820	418	09...	0820	9.0	.150	.280	--						
22...	1125	22	--	--	2240	09...	1020	9.9	--	--	151						
						09...	1043	9.9	--	--	129						
						09...	1250	15	--	--	531						
						09...	1450	29	.480	.560	--						
						09...	1650	30	--	--	2930						
						09...	1850	22	.590	.890	--						

STREAMS TRIBUTARY TO LAKE MICHIGAN

04073462 WHITE CREEK AT FOREST GLEN BEACH NEAR GREEN LAKE, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	SEDIMENT, SUSPENDED (MG/L) (80154)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	SEDIMENT, SUSPENDED (MG/L) (80154)
MAR, 1985						JUL, 1985					
09...	2050	17	--	--	643	25...	0105	39	.460	1.30	--
10...	0430	11	--	--	208	25...	0115	33	--	--	3900
10...	0650	9.3	.090	.220	--	25...	0145	24	.360	1.10	--
10...	1250	13	--	--	240	25...	0155	22	--	--	2330
10...	1450	16	.190	.450	--	25...	0225	18	--	--	1700
10...	1650	14	--	--	289	25...	0315	20	--	--	896
11...	0050	12	--	--	165	25...	0325	15	.050	.570	--
11...	0650	11	.070	.180	--	25...	0835	4.7	.140	.510	543
11...	0850	10	--	--	89	25...	1210	4.3	--	--	660
11...	1240	15	--	--	704	25...	1220	15	.160	.610	--
11...	1300	22	.180	.970	--	25...	1230	21	--	--	4580
11...	1320	21	--	--	8790	25...	1240	29	.200	.630	--
11...	1440	19	--	--	1900	25...	1250	29	--	--	4650
11...	1620	17	.260	.930	--	25...	1310	19	--	--	3680
11...	1640	17	--	--	2080	25...	1320	15	.400	1.20	--
11...	1800	19	--	--	2620	25...	1410	9.9	--	--	1720
11...	1820	19	.430	.900	--	25...	1420	9.6	.210	.710	--
11...	1920	19	--	--	2320	25...	1510	8.6	--	--	855
11...	2120	17	--	--	1680	25...	1630	5.9	--	--	646
11...	2140	17	.370	.770	--	25...	1640	5.6	.140	.510	--
12...	1115	11	.040	.240	172	26...	2020	2.1	.190	.520	511
12...	1300	15	.100	.550	--	31...	1525	1.3	--	--	17
12...	1320	15	--	--	1200	AUG					
12...	1500	14	.110	.280	--	06...	1430	1.0	--	--	17
12...	1520	14	--	--	467	07...	0105	5.2	--	--	358
13...	1345	12	.070	.290	464	07...	0115	5.6	.140	.230	--
15...	1455	8.0	--	--	52	12...	2155	2.4	--	--	656
23...	1355	6.9	--	--	18	12...	2205	15	.360	.270	--
26...	1005	5.9	--	--	16	12...	2215	36	--	--	10500
APR						12...	2225	43	.390	.730	--
08...	1350	9.3	--	--	36	12...	2235	43	--	--	6180
10...	1045	9.9	.030	.050	53	12...	2335	18	--	--	4770
17...	1435	11	--	--	55	12...	2345	18	.260	.790	--
24...	1520	8.6	--	--	17	13...	0035	43	--	--	6310
MAY						13...	0045	43	.210	.580	--
01...	1400	6.4	--	--	47	13...	0155	18	--	--	2270
14...	1240	4.5	--	--	12	13...	0225	15	.080	.430	--
29...	1030	3.0	.040	<.010	38	13...	1115	5.9	--	--	304
JUN						13...	1445	5.4	.030	.160	--
04...	1550	2.7	--	--	7	13...	1450	5.4	.060	.210	196
11...	1345	2.5	--	--	18	21...	1440	1.5	--	--	12
20...	1140	2.0	--	--	19	28...	1450	1.1	--	--	13
26...	1400	1.8	--	--	40	30...	0055	4.7	--	--	412
JUL						30...	0100	11	.270	.300	3940
02...	1330	1.4	--	--	9	30...	0110	18	--	--	4660
02...	1336	1.4	.030	.040	--	30...	0120	17	.130	.550	--
04...	1915	2.5	--	--	433	30...	0130	14	--	--	2400
04...	1925	9.3	.110	.390	--	30...	0210	6.9	--	--	1520
04...	1935	15	--	--	11400	30...	0220	5.4	.100	.460	--
04...	1945	23	.430	.320	--	30...	0955	1.8	.020	.120	31
04...	1955	23	--	--	10800	SEP					
04...	2005	19	.640	.550	--	04...	1355	2.5	--	--	3
04...	2015	16	--	--	9490	09...	0055	3.2	--	--	394
04...	2035	10	--	--	8900	09...	0145	67	.220	.660	3780
04...	2045	8.6	.180	.500	--	09...	0155	48	--	--	2920
04...	2055	7.5	--	--	6740	09...	0205	38	.390	.690	--
04...	2145	6.1	.070	.300	--	09...	0215	33	--	--	2200
04...	2155	6.1	--	--	2300	09...	0235	28	--	--	1890
04...	2335	4.3	--	--	615	09...	0345	16	.200	.670	--
04...	2345	4.1	.050	.520	--	09...	0355	15	--	--	512
05...	1225	1.6	.130	.180	351	09...	0555	9.9	--	--	197
05...	1226	1.6	.120	.490	354	09...	0605	9.3	.120	.340	--
24...	2010	4.7	--	--	442	09...	1040	7.5	.070	.220	53
24...	2030	6.1	--	--	1140	16...	1425	3.0	--	--	4
24...	2040	5.4	.140	.540	--	23...	0915	3.0	--	--	14
24...	2335	2.5	--	--	523	23...	1520	5.6	--	--	142
24...	2345	21	.750	1.20	--	23...	1530	7.5	--	--	201
24...	2355	28	--	--	10800	23...	1540	7.7	--	--	245
25...	0005	66	.830	2.10	--	23...	1600	7.5	--	--	359
25...	0015	80	--	--	11600	23...	1640	6.1	--	--	235
25...	0025	85	1.40	.260	--	26...	1325	3.2	.030	.070	18
25...	0035	71	--	--	8740	30...	2400	3.7	--	--	--
25...	0055	53	--	--	6490						

STREAMS TRIBUTARY TO LAKE MICHIGAN

04073462 WHITE CREEK AT FOREST GLEN BEACH NEAR GREEN LAKE, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	74	.02	.77	.12	11	.34	.79	.13	.04	.06	.04
2	.06	1.0	.02	.64	.11	3.4	.37	.71	.10	.03	.06	.02
3	.06	.92	.01	.51	.10	1.6	.42	.62	.07	.02	.05	.02
4	.06	.83	.01	.42	.09	.81	.52	.35	.05	29	.05	.01
5	.06	.74	.01	.34	.08	.50	.63	.30	.06	1.9	.05	1.0
6	.06	.66	.02	.28	.07	.37	.77	.43	.06	.68	.06	2.0
7	.07	.62	.03	.22	.06	.74	.84	.37	.07	.23	.24	.50
8	.06	.56	.03	.17	.06	71	.92	.35	.09	.10	.04	.10
9	.06	4.0	.03	.17	.05	49	1.1	.27	.09	.07	.04	22
10	.05	2.0	.02	.18	.05	9.5	1.5	.24	.11	.07	.03	.19
11	.05	1.5	.02	.19	.05	56	1.8	.21	.12	.06	.03	.13
12	.05	1.2	.02	.20	.05	15	1.9	.20	.12	.05	38	.10
13	.05	.95	.02	.21	.04	8.4	1.9	.16	.12	.05	44	.08
14	.03	.78	.02	.23	.04	2.9	1.8	.15	.12	.04	1.1	.06
15	.06	.64	.03	.20	.04	1.4	1.8	.17	.12	.04	.44	.04
16	.11	.48	5.1	.19	.04	.96	1.7	.17	.12	.03	.19	.03
17	.13	.35	.27	.17	.04	.78	1.6	.17	.11	.03	.11	.03
18	3.3	.26	.21	.16	.03	.62	1.4	.18	.11	.03	.08	.03
19	44	.18	.18	.15	.03	.53	1.2	.19	.11	.02	.07	.02
20	7.0	.13	.15	.14	.03	.43	.91	.20	.10	.02	.06	.02
21	1.3	.10	5.4	.13	6.7	.36	.76	.21	.11	.02	.05	.03
22	1.0	.08	.45	.12	63	.34	.61	.22	.13	.01	.04	.15
23	.75	.06	.35	.13	89	.32	.52	.22	.13	.01	.04	.61
24	.61	.05	.26	.14	50	.29	.42	.24	.15	7.7	.04	.08
25	.51	.04	.20	.16	9.3	.26	.43	.25	.16	114	.16	.07
26	.42	.03	.16	.16	4.2	.26	.48	.26	.17	3.6	.06	.20
27	.60	.02	.15	.17	1.8	.27	.54	.28	.14	1.7	.05	.16
28	.46	.02	65	.18	1.7	.27	.61	.30	.11	.68	.04	.14
29	.34	.02	2.2	.19	---	.29	.69	.29	.08	.30	.04	.11
30	.31	.02	1.1	.18	---	.30	.76	.23	.06	.14	6.2	.40
31	.37	---	.91	.15	---	.32	---	.18	---	.07	.08	---
TOTAL	62.07	92.24	82.40	7.25	226.88	238.22	29.24	9.29	3.22	160.74	91.56	28.37
MEAN	2.0	3.1	2.7	.23	8.1	7.7	.97	.30	.11	5.2	3.0	.95
WTR YR 1985 TOTAL		1031.48		MEAN	2.8							

STREAMS TRIBUTARY TO LAKE MICHIGAN
04073500 FOX RIVER AT BERLIN, WI

LOCATION.--Lat 43°57'14", long 88°57'08", in NE 1/4 sec.16, T.17 N., R.13 E., Green Lake County, Hydrologic Unit 04030201, on left bank, 0.4 mi downstream from government dam, 1.0 mi south of Huron Street bridge in Berlin, 2.5 mi upstream from Barnes Creek, and at mile 89.0.

DRAINAGE AREA.--1,340 mi².

PERIOD OF RECORD.--January 1898 to current year.

REVISED RECORDS.--WSP 1337: 1910. WDR WI-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 744.52 ft above mean tide at New York City (by U.S. Army Corps of Engineers). Prior to Oct. 27, 1954, nonrecording gage at site 0.3 mi upstream at same datum.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except those for periods of ice effect, which are fair. Usually less than about 20 ft³/s was diverted into the basin from the Wisconsin River at Portage Canal throughout the year. Data-collection platform and gage-height telemeter at station.

AVERAGE DISCHARGE.--87 years, 1,115 ft³/s, 11.30 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,900 ft³/s Mar. 17, 18, 1946, gage height, 15.5 ft; minimum observed, 248 ft³/s Sept. 16, 1948, gage height, 6.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,810 ft³/s Mar. 5, gage height, 13.66 ft; minimum daily discharge, 519 ft³/s July 23.

RATING TABLE (gage height, in feet, and discharge in cubic feet per second).
(Shifting-control method used July 25 to Aug. 22; stage-discharge relation affected by ice Dec. 4-11 and Dec. 22 to Mar. 2.)

8.0	500	11.0	1,950
9.0	910	12.0	2,560
10.0	1,370	13.0	3,280
		14.0	4,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	1100	2390	2020	1700	900	3100	2700	2080	944	673	1220	1090	
2	1090	2440	2000	1600	900	3200	2640	2010	902	680	1220	1050	
3	1080	2500	1970	1600	900	3400	2640	1950	844	680	1190	1030	
4	1040	2570	1900	1500	880	3720	2670	1890	816	734	1160	1040	
5	1020	2600	1800	1500	880	3780	2780	1840	823	781	1120	1040	
6	1010	2610	1800	1400	880	3650	2910	1790	822	804	1090	1070	
7	1020	2620	1800	1400	880	3580	3030	1720	826	814	1080	1090	
8	1040	2630	1800	1300	860	3640	3120	1660	806	819	1080	1110	
9	1040	2640	1900	1300	860	3660	3160	1590	784	802	1060	1190	
10	1020	2670	1900	1200	860	3650	3180	1530	735	758	1040	1240	
11	1020	2670	2000	1200	860	3680	3180	1470	718	719	980	1270	
12	1030	2640	2010	1200	860	3700	3140	1440	701	716	956	1330	
13	1040	2610	2040	1200	840	3680	3130	1410	683	707	1060	1380	
14	1050	2600	1910	1200	840	3650	3100	1360	682	676	1140	1410	
15	1060	2590	1810	1100	840	3600	3070	1360	699	636	1140	1420	
16	1080	2550	1790	1100	840	3570	3020	1390	746	597	1130	1420	
17	1160	2510	1810	1100	820	3510	2960	1410	793	618	1120	1410	
18	1220	2480	1780	1100	820	3470	2920	1400	799	612	1110	1400	
19	1480	2430	1680	1000	820	3410	2870	1410	769	608	1070	1380	
20	1640	2370	1630	1000	820	3340	2800	1430	757	592	1040	1350	
21	1800	2310	1630	1000	820	3270	2730	1420	759	569	1030	1310	
22	1930	2270	1600	980	860	3180	2650	1390	855	532	1010	1310	
23	2020	2230	1500	980	900	3080	2570	1360	882	519	992	1350	
24	2090	2190	1500	960	1300	3050	2510	1310	797	559	977	1370	
25	2140	2150	1400	960	1700	3000	2440	1250	659	900	1080	1380	
26	2180	2110	1400	960	2100	2940	2390	1180	590	1060	1140	1410	
27	2200	2110	1400	940	2600	2890	2310	1120	589	1090	1160	1410	
28	2260	2080	1500	940	2900	2820	2260	1070	708	1130	1160	1420	
29	2260	2050	1700	940	---	2780	2190	987	684	1180	1140	1430	
30	2260	2050	1800	920	---	2720	2140	961	680	1210	1140	1440	
31	2240	---	1800	920	---	2710	---	951	---	1220	1120	---	
TOTAL	45620	72670	54580	36200	30340	103430	83210	45139	22852	23995	33955	38550	
MEAN	1472	2422	1761	1168	1084	3336	2774	1456	762	774	1095	1285	
MAX	2260	2670	2040	1700	2900	3780	3180	2080	944	1220	1220	1440	
MIN	1010	2050	1400	920	820	2710	2140	951	589	519	956	1030	
CFSM	1.10	1.81	1.31	.87	.81	2.49	2.07	1.09	.57	.58	.82	.96	
IN.	1.27	2.02	1.52	1.00	.84	2.87	2.31	1.25	.63	.67	.94	1.07	
CAL YR 1984	TOTAL	584671		MEAN	1597	MAX	3530	MIN	563	CFSM	1.19	IN.	16.23
WTR YR 1985	TOTAL	590541		MEAN	1618	MAX	3780	MIN	519	CFSM	1.21	IN.	16.39

STREAMS TRIBUTARY TO LAKE MICHIGAN

04074538 SWAMP CREEK ABOVE RICE LAKE AT MOLE LAKE, WI

LOCATION.--Lat 45°29'18", long 88°57'49", in SW 1/4 NW 1/4 sec.26, T.35 N., R.12 E., Forest County, Hydrologic Unit 04030202, on right bank, approximately 200 ft upstream from bridge on State Highway 55, on Mole Lake Indian Reservation.

DRAINAGE AREA.--46.3 mi².

PERIOD OF RECORD.--August 1977 to September 1983, October 1984 to September 1985.

REVISED RECORD.--WDR WI-82-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,532.28 ft above National Geodetic Vertical Datum of 1929 (levels by Wisconsin Department of Transportation).

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except those for ice-affected period, which are fair.

AVERAGE DISCHARGE.--7 years (water years 1978-83, 1985), 32.2 ft³/s, 9.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 228 ft³/s June 15, 1981, gage height, 3.82 ft; minimum, 6.8 ft³/s Aug. 25, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 106 ft³/s May 26, gage height, 3.09 ft; minimum, 13 ft³/s Oct. 3.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Jan. 27 to Mar. 2.)

2.0	12	2.5	36
2.1	16	2.8	68
2.3	22	3.2	122

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	50	29	32	20	25	54	55	56	55	19	19
2	14	50	23	31	19	27	50	54	49	40	17	20
3	13	38	32	28	19	24	48	48	44	32	16	21
4	15	37	30	29	18	24	51	45	40	56	15	39
5	15	36	28	28	17	27	49	47	36	90	15	35
6	15	29	28	27	16	29	47	48	34	92	16	27
7	16	26	27	27	17	28	47	52	34	77	17	26
8	33	27	26	27	17	27	43	51	45	57	16	31
9	36	28	26	25	18	27	39	43	47	47	15	39
10	25	35	26	25	19	27	40	52	50	56	26	33
11	22	37	25	25	19	28	50	54	50	54	27	27
12	20	32	26	24	21	31	56	53	44	44	24	23
13	20	28	25	24	22	32	62	51	37	39	48	17
14	20	30	24	24	21	31	68	44	33	36	43	15
15	21	37	26	23	20	30	74	51	37	34	29	16
16	30	34	33	24	20	29	81	58	57	35	24	15
17	49	31	48	25	20	28	72	66	53	29	26	15
18	48	27	37	25	19	28	69	56	59	28	24	15
19	45	23	31	24	19	30	85	50	53	26	22	16
20	41	20	27	23	20	31	92	60	43	26	20	15
21	35	21	26	23	21	29	95	50	39	23	19	17
22	28	25	28	22	22	30	94	43	50	23	18	19
23	24	25	29	22	22	34	87	39	50	23	22	33
24	23	25	28	23	23	32	97	36	41	20	33	57
25	22	25	26	22	23	32	97	39	35	27	34	49
26	25	26	27	21	22	34	83	84	34	24	28	38
27	28	34	28	21	22	60	72	100	60	24	32	32
28	63	49	32	21	23	73	66	76	61	24	23	26
29	61	41	45	20	---	66	61	59	47	22	20	32
30	43	33	37	20	---	56	57	52	45	21	21	74
31	35	---	33	20	---	37	---	51	---	20	20	---
TOTAL	900	959	916	755	559	1046	1986	1667	1363	1204	729	841
MEAN	29.0	32.0	29.5	24.4	20.0	33.7	66.2	53.8	45.4	38.8	23.5	28.0
MAX	63	50	48	32	23	73	97	100	61	92	48	74
MIN	13	20	23	20	16	24	39	36	33	20	15	15
CFSM	.63	.69	.64	.53	.43	.73	1.43	1.16	.98	.84	.51	.61
IN.	.72	.77	.74	.61	.45	.84	1.60	1.34	1.10	.97	.59	.68
WTR YR 1985	TOTAL	12925	MEAN	35.4	MAX	100	MIN	13	CFSM	.77	IN	10.38

STREAMS TRIBUTARY TO LAKE MICHIGAN

04074548 SWAMP CREEK BELOW RICE LAKE AT MOLE LAKE, WI

LOCATION.--Lat 45°28'46", long 88°59'52", in NE 1/4 NW 1/4 sec.33, T.35 N., R.12 E., Forest County, Hydrologic Unit 04030202, on left bank, approximately 100 ft downstream from bridge on County Trunk Highway M, 0.9 mi west of Mole Lake.

DRAINAGE AREA.--56.8 mi².

PERIOD OF RECORD.--August 1977 to September 1979, April 1982 to June 1985 (discontinued).

REVISED RECORD: WDR WI-83-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,540 ft, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Gage in backwater for most of record period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 210 ft³/s Apr. 21, 1979, gage height, 3.20 ft; minimum discharge, 15 ft³/s Oct. 27, 1978, Aug. 18-23, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 130 ft³/s Apr. 25, gage height, 2.01 ft; minimum daily discharge, 26 ft³/s Oct. 4-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	56	47	47	28	36	90	67	67			
2	28	61	48	44	28	36	79	63	64			
3	27	58	49	41	27	35	68	61	59			
4	26	54	52	40	27	37	66	56	53			
5	26	51	50	40	27	39	63	57	49			
6	26	47	49	40	27	40	61	59	44			
7	27	42	46	40	27	41	60	61	42			
8	37	39	46	38	28	43	58	60	44			
9	46	40	44	36	28	42	55	55	47			
10	47	46	43	36	28	42	53	60	49			
11	42	47	41	35	30	43	57	64	49			
12	37	46	40	34	31	45	65	63	50			
13	35	43	39	34	31	46	72	66	46			
14	34	41	39	34	32	45	82	62	43			
15	32	43	39	34	32	44	91	60	43			
16	36	47	42	33	32	43	102	66	51			
17	51	46	54	33	32	42	107	71	58			
18	61	44	58	33	32	40	105	71	64			
19	64	41	54	34	32	41	113	64	65			
20	62	39	49	32	33	44	119	67	60			
21	58	37	46	32	34	44	124	65	52			
22	50	37	47	32	34	45	125	57	48			
23	43	39	43	32	35	47	125	52	55			
24	37	39	43	32	37	49	126	48	55			
25	35	39	40	31	35	50	128	48	52			
26	34	39	36	30	35	51	119	78	47			
27	35	43	37	30	35	61	99	104	61			
28	52	53	42	30	35	79	88	99	71			
29	63	56	50	30	---	83	79	83	66			
30	62	53	50	29	---	77	74	73	57			
31	54	---	49	29	---	83	---	67	---			
TOTAL	1298	1366	1412	1075	872	1493	2653	2027	1611			
MEAN	41.9	45.5	45.5	34.7	31.1	48.2	88.4	65.4	53.7			
MAX	64	61	58	47	37	83	128	104	71			
MIN	26	37	36	29	27	35	53	48	42			
CFSM	.74	.80	.80	.61	.55	.85	1.56	1.15	.95			
IN.	.85	.89	.92	.70	.57	.98	1.74	1.33	1.06			
CAL YR 1984	TOTAL	15402	MEAN 42.1	MAX 126	MIN 17	CFSM .74	IN 10.09					

STREAMS TRIBUTARY TO LAKE MICHIGAN

04074950 WOLF RIVER AT LANGLADE, WI

LOCATION.--Lat 45°11'24", long 88°44'00", between secs. 3 and 10, T.31 N., R.14 E., Langlade County, Hydrologic Unit 04030202, on left bank, upstream of bridge on State Highway 64 at Langlade, 1.5 mi east of White Lake, 3.0 mi upstream from White Lake Creek, and at about mile 170 above mouth.

DRAINAGE AREA.--463 mi².

PERIOD OF RECORD.--March 1966 to September 1979, October 1980 to current year.

REVISED RECORDS.--WDR WI-81-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,240 ft. from topographic map. Prior to Oct. 1, 1976, nonrecording gage 50 ft downstream at same elevation.

REMARKS.--Estimated daily discharges: None, except for ice period listed in rating table below. Records good except for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--18 years (water years 1967-79, 1981-85), 459 ft³/s, 13.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,200 ft³/s Mar. 15, 1973, gage height, 9.48 ft; maximum gage height, 10.06 ft Dec. 20, 21, 24, 1984, backwater from ice; minimum discharge, 119 ft³/s Nov. 8, 1976, gage height, 7.24 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft³/s Apr. 24, gage height, 9.50 ft; minimum discharge, 255 ft³/s, part of each day Aug. 4, 5, gage height, 7.64 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1 to Mar. 23.)

7.6	241	9.0	1,000
8.0	390	9.5	1,460
8.5	640		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	293	680	440	410	280	370	689	969	618	405	273	339
2	289	661	430	390	270	410	739	907	610	400	266	327
3	285	608	390	370	280	390	692	848	587	386	260	320
4	281	580	350	380	280	370	709	783	558	451	257	317
5	282	563	360	390	280	350	700	680	531	490	301	309
6	288	538	380	380	280	330	672	609	542	508	305	312
7	300	514	410	370	280	340	662	601	434	495	294	312
8	392	513	430	360	270	350	634	567	407	475	287	392
9	431	503	480	360	270	360	602	537	397	457	279	443
10	412	523	450	360	280	370	585	549	379	443	356	430
11	406	510	420	350	280	380	615	575	370	437	371	411
12	396	515	410	350	280	400	637	571	368	416	374	388
13	395	487	400	340	280	420	664	565	364	401	584	369
14	438	486	400	350	280	400	718	529	358	385	536	354
15	455	493	410	340	270	380	780	566	373	346	461	341
16	495	494	440	340	280	370	849	574	427	317	411	326
17	585	496	500	330	280	370	867	583	424	301	392	328
18	618	504	490	340	280	360	900	564	434	298	387	348
19	675	448	460	320	290	360	1060	540	428	308	364	330
20	669	396	440	310	290	370	1130	523	411	300	344	326
21	602	402	430	320	300	380	1210	501	396	287	332	318
22	558	437	420	320	310	390	1270	484	413	280	320	355
23	527	424	410	310	330	410	1300	473	416	275	354	445
24	491	439	400	310	350	413	1430	458	393	281	434	581
25	473	399	380	300	370	403	1440	441	377	353	465	582
26	490	392	390	300	360	419	1350	701	368	331	424	557
27	482	425	400	310	350	574	1250	821	466	300	398	558
28	558	509	410	300	360	799	1180	685	454	290	381	564
29	569	485	440	300	---	808	1100	628	429	294	404	622
30	540	464	440	300	---	773	1030	612	415	287	414	921
31	539	---	420	290	---	746	---	602	---	279	361	---
TOTAL	14214	14888	13030	10500	8310	13565	27464	19046	13147	11276	11389	12525
MEAN	459	496	420	339	297	438	915	614	438	364	367	418
MAX	675	680	500	410	370	808	1440	969	618	508	584	921
MIN	281	392	350	290	270	330	585	441	358	275	257	309
CFSM	.99	1.07	.91	.73	.64	.95	1.98	1.33	.95	.79	.79	.90
IN.	1.14	1.20	1.05	.84	.67	1.09	2.21	1.53	1.06	.91	.92	1.01

CAL YR 1984 TOTAL 157140 MEAN 429 MAX 1050 MIN 218 CFSM .93 IN 12.63
WTR YR 1985 TOTAL 169354 MEAN 464 MAX 1440 MIN 257 CFSM 1.00 IN 13.61

STREAMS TRIBUTARY TO LAKE MICHIGAN

04077000 WOLF RIVER AT KESHENA FALLS NEAR KESHENA, WI

LOCATION.--Lat 44°53'28", long 88°39'18", in E 1/2 sec.22, T.28 N., R.15 E., Menominee County, Hydrologic Unit 04030202, on right bank 500 ft downstream from Keshena Falls, 1.7 mi upstream from Keshena, 3.1 mi downstream from West Branch Wolf River, and at mile 136.4.

DRAINAGE AREA.--788 mi².

PERIOD OF RECORD.--May 1907 to March 1909, October 1910 to current year. Monthly discharge only for some periods, published in WSP 1307. Published as "at Keshena" prior to April 1928. Published as "at Keshena Falls" April 1928 to September 1981.

REVISED RECORDS.--WSP 664: Drainage area (site at Keshena). WSP 1337: 1914-15(M), 1918-19(M), 1921, 1923(M), 1926(M), 1928(M), 1933. WDR WI-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 820.0 ft above National Geodetic Vertical Datum of 1929 (levels by Wisconsin Power and Light Co.). Prior to Mar. 23, 1928, nonrecording gage at bridge in Keshena 1.7 mi downstream at datum 4.03 ft lower.

REMARKS.--Estimated daily discharges: Nov. 20 to Apr. 16 and Aug. 26-28. Records good except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--76 years (1907-8, 1910-85), 762 ft³/s, 13.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge 5,200 ft³/s Mar. 15, 1973; maximum gage height, 15.59 ft Dec. 2, 1983, from high-water mark in well (backwater from ice); minimum discharge, 91 ft³/s Dec. 22, 1939, gage height, 4.67 ft, result of ice storage.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	1700	1,710	6.97	Mar. 29	----	A 1,500	Unknown
Nov. 1	1600	1,870	7.13	Apr. 24	2100	*2,570	7.79
Dec. 29	----	ice jam	*11.22	May 27	1600	1,560	6.80

A Estimated, daily mean

Minimum daily discharge, 440 ft³/s Feb. 9, 10.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 20 to Mar. 22.)

5.0	229	6.5	1,290
5.5	488	7.0	1,740
6.0	842	8.0	2,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	591	1720	840	580	450	820	1200	1560	1060	697	499	756
2	535	1750	780	560	450	880	1300	1520	1050	664	486	670
3	518	1520	740	540	450	860	1200	1390	1030	655	476	627
4	518	1350	700	540	450	820	1300	1320	964	691	466	563
5	519	1250	680	560	450	800	1300	1250	925	880	485	545
6	517	1160	660	560	450	760	1200	1170	856	1060	713	549
7	566	1090	640	560	450	800	1200	1170	913	1240	666	583
8	858	1090	680	540	450	840	1100	1080	771	1070	591	630
9	963	1090	720	520	440	860	1000	1020	729	784	554	793
10	919	1210	780	520	440	920	1000	1110	688	722	642	828
11	848	1230	840	520	460	1000	1100	1060	659	688	990	757
12	791	1120	800	520	480	1100	1200	1100	633	676	1160	689
13	750	1040	740	520	460	1200	1300	1070	630	655	969	633
14	740	1020	680	520	450	1100	1400	1050	647	644	801	607
15	796	1030	640	520	450	1000	1400	1070	686	615	771	599
16	948	994	740	520	450	960	1500	1180	809	567	827	581
17	1170	873	900	520	460	1000	1590	1160	824	540	737	577
18	1240	850	840	520	470	980	1620	1130	819	526	668	614
19	1600	795	780	500	460	940	1860	1070	830	521	625	636
20	1600	760	720	480	470	900	2030	1060	787	526	564	594
21	1430	720	680	480	480	900	2020	995	738	510	589	573
22	1220	840	660	500	500	940	2050	944	797	487	712	659
23	1100	800	640	500	520	940	2020	910	795	482	874	884
24	1010	760	620	500	540	900	2430	886	753	488	841	1260
25	948	740	580	500	530	900	2410	819	697	615	757	1260
26	1020	720	620	500	640	1000	2230	1070	642	656	720	1140
27	1040	800	620	500	680	1200	2050	1480	681	595	720	1030
28	1310	920	660	490	760	1400	1900	1420	822	549	700	917
29	1350	960	640	480	---	1500	1790	1180	771	531	728	953
30	1230	900	620	470	---	1400	1660	1120	727	526	902	1610
31	1140	---	600	460	---	1300	---	1080	---	518	894	---
TOTAL	29785	31102	21840	16000	13790	30920	47360	35414	23733	20378	22127	23117
MEAN	961	1037	705	516	493	997	1579	1142	791	657	714	771
MAX	1600	1750	900	580	760	1500	2430	1560	1060	1240	1160	1610
MIN	517	720	580	460	440	760	1000	819	630	482	466	545
CFSM	1.22	1.32	.90	.66	.63	1.27	2.00	1.45	1.00	.83	.91	.98
IN.	1.41	1.47	1.03	.76	.65	1.46	2.24	1.67	1.12	.96	1.04	1.09

CAL YR 1984 TOTAL 296771 MEAN 811 MAX 2130 MIN 439 CFSM 1.03 IN 14.01
WTR YR 1985 TOTAL 315566 MEAN 865 MAX 2430 MIN 440 CFSM 1.10 IN 14.90

STREAMS TRIBUTARY TO LAKE MICHIGAN

04078500 EMBARRASS RIVER NEAR EMBARRASS, WI

LOCATION.--Lat 44°43'29", long 88°44'10", in SW 1/4 sec.18, T.26 N., R.15 E., Shawano County, Hydrologic Unit 04030202, on right bank 40 ft downstream from bridge on county road, 1.3 mi downstream from Mill Creek, and 4.0 mi northwest of Embarrass.

DRAINAGE AREA.--384 mi².

PERIOD OF RECORD.--June 1919 to current year.

REVISED RECORDS.--WSP 1337: 1920-26(M), 1928, 1929-30(M), 1933-34, 1936-37, 1938(M), 1940. WDR WI-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 803.95 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 23, 1938, nonrecording gage at same site and datum. Aug. 23, 1938 to May 8, 1984, at site 40 ft upstream at same datum.

REMARKS.--Estimated daily discharges: None, except ice period listed in rating table below. Records good except those for ice-affected periods and Aug. 15 to Sept. 24, which are fair. Slight diurnal fluctuation caused by powerplants above station.

AVERAGE DISCHARGE.--66 years, 299 ft³/s, 10.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,080 ft³/s Apr. 12, 1965, gage height, 12.13 ft, effected by failure of dam near Pella, 9.2 mi above station; minimum observed, 23 ft³/s Aug. 3, 6, 7, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 9	1200	1,790	6.05	Nov. 2	0500	*2,900	*7.79
Oct. 20	1500	1,920	6.26	Mar. 30	1000	1,950	6.23

Minimum discharge, 135 ft³/s July 23-24, gage height, 2.80 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 9 to Apr. 12; stage-discharge relation affected by ice Dec. 4 to Mar. 8.)

2.8	125	5.0	1,130
3.0	180	6.0	1,730
3.5	365	7.0	2,330
4.0	590	8.0	3,020

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	416	1820	598	320	200	460	970	502	263	181	156	1110
2	303	2720	467	270	200	430	794	469	269	180	151	865
3	322	2020	366	230	200	400	729	440	262	180	145	624
4	300	1510	300	230	200	360	986	395	250	181	140	425
5	281	1100	290	230	200	330	1130	387	235	231	139	347
6	270	849	300	230	200	360	1150	381	210	498	144	356
7	272	720	320	230	200	400	1090	396	208	596	161	361
8	728	692	350	230	200	450	998	412	208	447	190	378
9	1580	729	410	220	200	477	885	402	210	312	191	514
10	1320	823	460	220	200	569	781	374	165	259	190	635
11	935	982	500	220	200	767	737	376	174	228	215	605
12	695	977	440	220	200	910	878	394	174	204	303	486
13	555	830	420	220	200	1000	1070	394	174	191	539	365
14	418	703	380	220	200	985	1170	372	174	177	735	317
15	419	622	350	220	200	875	1160	377	180	173	760	282
16	500	600	390	220	200	851	1110	450	213	164	711	260
17	679	546	430	220	200	847	1080	543	245	157	523	246
18	949	507	480	220	190	822	1080	548	232	151	331	260
19	1450	449	450	210	190	835	1060	500	218	140	307	264
20	1770	345	420	210	190	937	1020	469	205	143	279	257
21	1530	338	390	210	190	992	1010	445	197	145	239	243
22	1200	355	350	210	220	946	989	390	226	139	216	257
23	876	366	300	210	340	933	970	348	249	135	202	446
24	694	357	270	210	480	945	1190	319	277	138	224	785
25	556	360	250	210	700	836	1270	301	278	168	442	886
26	495	372	260	210	640	773	1080	297	236	245	739	845
27	622	431	300	210	560	922	898	306	212	237	805	806
28	781	618	350	210	500	1350	759	313	206	203	734	711
29	1040	727	450	210	---	1630	635	300	207	179	663	614
30	1040	707	410	210	---	1690	586	277	193	161	1090	866
31	835	---	380	210	---	1380	---	270	---	154	1270	---
TOTAL	23831	24175	11831	6900	7600	25462	29265	12147	6550	6697	12934	15416
MEAN	769	806	382	223	271	821	976	392	218	216	417	514
MAX	1770	2720	598	320	700	1690	1270	548	278	596	1270	1110
MIN	270	338	250	210	190	330	586	270	165	135	139	243
CFSM	2.00	2.10	1.00	.58	.71	2.14	2.54	1.02	.57	.56	1.09	1.34
IN.	2.31	2.34	1.15	.67	.74	2.47	2.84	1.18	.63	.65	1.25	1.49

CAL YR 1984 TOTAL 176089 MEAN 481 MAX 2720 MIN 162 CFSM 1.25 IN 17.06
WTR YR 1985 TOTAL 182808 MEAN 501 MAX 2720 MIN 135 CFSM 1.31 IN 17.71

STREAMS TRIBUTARY TO LAKE MICHIGAN
04079000 WOLF RIVER AT NEW LONDON, WI

LOCATION.--Lat 44°23'32", long 88°44'25", in NE 1/4 SE 1/4 sec.12, T.22 N., R.14 E., Waupaca County, Hydrologic Unit 04030202, on right bank 100 ft downstream from Pearl Street bridge in New London, 0.2 mi downstream from Embarrass River, and at mile 56.3.

DRAINAGE AREA.--2,260 mi².

PERIOD OF RECORD.--March 1896 to current year. Prior to October 1913 monthly discharges only, published in WSP 1307.

REVISED RECORDS.--WSP 1114: 1943(M). WSP 1337: 1931. WDR WI-80-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 747.94 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 4, 1951, nonrecording gage.

REMARKS.--Estimated daily discharges: None, except for ice period listed in table below. Records good except those for ice-affected period, which are fair. Gage-height telemeter and data-collection platform at station.

AVERAGE DISCHARGE.--89 years, 1,759 ft³/s, 10.57 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 15,500 ft³/s Apr. 13, 1922, gage height, 11.4 ft; maximum gage height, 11.83 ft Apr. 3, 1979, backwater from ice; minimum daily, 150 ft³/s Mar. 1, 1900.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Apr. 16, 1888, reached a stage of 11.6 ft, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,500 ft³/s Nov. 6, gage height, 9.12 ft; minimum discharge, 874 ft³/s Aug. 5, gage height, 1.48 ft.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used June 19 to July 6; stage-discharge relation affected by ice Nov. 30 to Mar. 19.)

Oct. 1 to Mar. 19				Mar. 20 to Sept. 30			
1.7	880	6.0	2,800	1.5	880	6.0	3,050
2.0	980	7.0	3,440	2.0	1,060	7.0	3,750
3.0	1,380	8.0	4,900	3.0	1,460	8.0	5,000
4.0	1,780	9.0	7,200	4.0	1,890	9.0	7,200
5.0	2,780	10.0	9,800	5.0	2,440	10.0	9,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	2630	4590	2500	1600	1000	3000	4640	4430	2070	1240	1050	2450	
2	2700	5100	2400	1500	980	3600	4850	4300	2110	1220	1000	2450	
3	2730	5720	2300	1400	960	3900	5070	4120	2110	1200	964	2510	
4	2650	6520	2200	1500	940	4200	5260	3930	2080	1210	907	2500	
5	2470	7160	2100	1500	940	3900	5540	3730	2050	1240	889	2490	
6	2220	7480	2000	1500	920	3700	5700	3570	1980	1360	898	2410	
7	2020	7390	2000	1400	920	3500	5730	3440	1900	1590	913	2180	
8	1960	7130	2000	1400	900	3400	5740	3300	1800	1810	1030	1950	
9	2040	6690	2000	1400	900	3300	5690	3180	1730	1950	1120	1810	
10	2240	6300	2000	1300	900	3200	5620	3060	1640	1970	1170	1860	
11	2440	5880	2000	1300	940	3600	5390	2950	1530	1890	1140	2000	
12	2550	5490	1900	1300	940	4000	5260	2880	1390	1770	1130	2050	
13	2600	5160	1800	1300	920	4600	5150	2800	1320	1610	1280	2090	
14	2640	4870	1900	1200	920	5000	5040	2730	1300	1490	1460	2070	
15	2710	4640	2000	1200	900	5600	4890	2660	1280	1390	1620	1940	
16	2800	4400	2000	1200	920	6200	4700	2610	1280	1290	1750	1750	
17	2870	4200	1900	1200	960	6200	4620	2650	1300	1200	1840	1590	
18	2930	4000	1800	1200	1000	6400	4560	2660	1340	1140	1890	1450	
19	3220	3770	1700	1100	1000	6400	4500	2650	1390	1080	1860	1380	
20	3540	3550	1700	1100	1100	6350	4470	2640	1410	994	1700	1400	
21	3910	3330	1700	1100	1100	6110	4430	2630	1410	941	1580	1430	
22	4340	3180	1600	1200	1200	5850	4370	2610	1510	916	1490	1420	
23	4830	3050	1600	1200	1300	5560	4340	2570	1540	907	1400	1500	
24	5270	2960	1600	1200	1500	5350	4330	2490	1570	907	1350	1680	
25	5440	2820	1500	1200	1700	5050	4350	2390	1560	958	1400	1910	
26	5440	2720	1500	1100	2000	4840	4370	2300	1530	1030	1670	2120	
27	5270	2690	1600	1100	2300	4670	4410	2210	1490	1090	1990	2250	
28	5080	2700	1600	1100	2600	4560	4460	2090	1420	1190	2130	2360	
29	4810	2740	1700	1100	---	4520	4510	2030	1340	1190	2250	2460	
30	4530	2600	1600	1100	---	4490	4510	2010	1280	1160	2280	2570	
31	4300	---	1600	1000	---	4560	---	2040	---	1120	2380	---	
TOTAL	105180	138830	57800	39000	32660	145610	146500	89660	47660	40053	45531	60030	
MEAN	3393	4628	1865	1258	1166	4697	4883	2892	1589	1292	1469	2001	
MAX	5440	7480	2500	1600	2600	6400	5740	4430	2110	1970	2380	2570	
MIN	1960	2600	1500	1000	900	3000	4330	2010	1280	907	889	1380	
CFSM	1.50	2.05	.83	.56	.52	2.08	2.16	1.28	.70	.57	.65	.89	
IN.	1.73	2.29	.95	.64	.54	2.40	2.41	1.48	.78	.66	.75	.99	
CAL YR 1984	TOTAL	884330		MEAN	2416	MAX	7480	MIN	1010	CFSM	1.07	IN.	14.56
WTR YR 1985	TOTAL	948514		MEAN	2599	MAX	7480	MIN	889	CFSM	1.15	IN.	15.61

STREAMS TRIBUTARY TO LAKE MICHIGAN

04080000 LITTLE WOLF RIVER AT ROYALTON, WI

LOCATION.--Lat 44°24'47", long 88°51'55", in SE 1/4 NE 1/4 sec.1, T.22 N., R.13 E., Waupaca County, Hydrologic Unit 04030202, on right bank 50 ft upstream from highway bridge in Royalton and 6.0 mi upstream from mouth.

DRAINAGE AREA.--507 mi².

PERIOD OF RECORD.--January 1914 to September 1970, October 1982 to September 1985 (discontinued).

REVISED RECORD.--WSP 1337: 1914-16 (M), 1918-19 (M), 1921-25 (M), 1927 (M), 1928-37, 1939 (M), 1940, 1945-46 (M), 1948 (M), 1950 (M). WSP 1507: 1943. WDR WI-83-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 774.00 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 20, 1915, non-recording gage at highway bridge at datum 0.75 ft lower. Aug. 20, 1915, to Apr. 23, 1934, non-recording gage at present site and datum.

REMARKS.--Estimated daily discharge: Mar. 5-14 and ice periods listed in rating table below. Records good except for estimated daily discharges, which are fair. Occasional fluctuation caused by recreational dam 6 mi upstream. Data-collection platform at station.

AVERAGE DISCHARGE.--59 years (water years 1915-70, 1983-85), 405 ft³/s, 10.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,950 ft³/s Mar. 30, 1943, gage height, 8.00 ft, from rating curve extended above 3,500 ft³/s; maximum gage height, 11.95 ft Mar. 28, 1950 (backwater from ice); minimum, 52 ft³/s Nov. 26, 1958, gage height, 0.75 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	2315	1,800	3.52	Feb. 25	----	A 1,700	B
Nov. 3	1830	*2,990	*4.65	Mar. 13	----	A 2,500	B
				Apr. 7	0030	1,640	3.36

A Estimated, daily mean
B Backwater from ice

Minimum, 180 ft³/s July 17, gage height, 1.10 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 2, 3, and Dec. 5 to Mar. 4.)

1.1	180	3.0	1,310
1.5	330	4.0	2,280
2.0	580	5.0	3,390

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	425	1960	703	580	340	1300	1190	602	438	260	209	409
2	404	2410	580	580	340	1100	948	531	445	266	208	397
3	388	2890	560	560	340	1000	994	466	424	267	207	384
4	369	2560	470	560	340	960	1140	573	391	277	205	321
5	352	1880	440	540	340	940	1350	481	363	324	218	334
6	319	1320	430	520	340	900	1510	452	343	453	232	341
7	356	1110	440	500	340	920	1570	472	312	564	236	340
8	455	1040	480	500	340	960	1310	480	318	522	229	334
9	840	884	460	490	340	1000	1150	476	310	435	219	384
10	1040	1120	450	480	340	1200	1050	470	301	333	221	512
11	1150	1050	440	460	340	1500	843	469	292	298	229	465
12	911	1100	430	450	340	2200	941	498	286	289	238	340
13	658	1060	420	430	340	2500	1140	568	283	273	348	387
14	569	927	450	410	340	2000	1260	555	280	264	424	304
15	552	783	460	410	340	1620	1250	467	290	255	405	280
16	636	712	500	390	340	1460	1200	621	323	238	349	286
17	723	679	600	380	340	1330	1120	821	336	191	284	288
18	925	600	560	380	340	1270	995	671	328	208	248	279
19	1650	583	540	370	340	1080	931	594	312	218	251	256
20	1760	565	520	370	350	1020	906	532	304	219	254	286
21	1730	458	500	370	380	1060	857	530	304	215	253	290
22	1530	445	480	360	500	1080	777	511	358	212	247	263
23	1200	601	470	360	700	1040	814	478	398	209	246	388
24	974	488	460	360	1100	1020	840	402	394	214	254	601
25	737	482	450	360	1700	993	879	399	370	251	370	681
26	692	530	440	350	1600	882	927	395	340	327	555	610
27	649	578	450	350	1500	947	996	397	313	311	655	510
28	821	660	540	350	1400	1110	825	392	295	223	489	512
29	836	770	600	350	---	1360	648	367	280	209	411	501
30	878	924	620	350	---	1370	636	356	268	231	356	521
31	997	---	600	340	---	1390	---	367	---	278	520	---
TOTAL	25526	31169	15543	13260	15690	38512	30997	15393	9999	8834	9570	11804
MEAN	823	1039	501	428	560	1242	1033	497	333	285	309	393
MAX	1760	2890	703	580	1700	2500	1570	821	445	564	655	681
MIN	319	445	420	340	340	882	636	356	268	191	205	256
CFSM	1.62	2.05	.99	.84	1.11	2.45	2.04	.98	.66	.56	.61	.78
IN.	1.87	2.29	1.14	.97	1.15	2.83	2.27	1.13	.73	.65	.70	.87

CAL YR 1984 TOTAL 216056 MEAN 590 MAX 2890 MIN 276 CFSM 1.16 IN 15.85
WTR YR 1985 TOTAL 226297 MEAN 620 MAX 2890 MIN 191 CFSM 1.22 IN 16.60

STREAMS TRIBUTARY TO LAKE MICHIGAN

04081000 WAUPACA RIVER NEAR WAUPACA, WI

LOCATION.--Lat 44°19'50", long 88°59'45", in NW 1/4 NW 1/4 sec.1, T.21 N., R.12 E., Waupaca County, Hydrologic Unit 04030202, on right bank 10 ft downstream from Harrington Road bridge, 4 mi upstream from Weyauwega Lake Dam, 4.5 mi southeast of Waupaca, and about 5 mi downstream from Crystal River.

DRAINAGE AREA.--265 mi².

PERIOD OF RECORD.--June 1916 to September 1966 (no winter records for 1964 and 1965 water years). Operated as crest-stage gage from October 1966 to September 1970 and low-flow partial-record station from October 1966 to September 1977. October 1982 to September 1985 (discontinued). Published as "near Weyauwega" June 1916 to October 1917.

REVISED RECORDS.--WDR WI-83-1: Drainage area.

GAGE.--Water-stage recorder. Elevation is 780 ft (from survey level line along railroad). Prior to Oct. 19, 1917, chain gage at site 1 mi downstream at different datum. Oct. 19, 1917, to Nov. 23, 1938, chain gage on bridge at present site and datum.

REMARKS.--Estimated daily discharges: Feb. 27 to Mar. 7 and ice periods listed in rating table below. Records fair.

AVERAGE DISCHARGE.--51 years (1916-63, 1966, 1983-85), 239 ft³/s, 12.25 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,520 ft³/s Mar. 20, 1948, gage height, 6.90 ft; maximum gage height, 8.06 ft Mar. 28, 1950 (backwater from ice); minimum discharge, 38 ft³/s June 7, 1947; minimum daily, 50 ft³/s Jan. 22, 28, 1926.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 670 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	0600	679	3.03	Feb. 25	----	A 700	B *6.63
Nov. 1	1745	747	3.19	Mar. 12	2245	*849	3.42

A Estimated, daily mean discharge

B Ice jam, gage-height may have been higher as float was restricted by sub-floor

Minimum discharge, 177 ft³/s, July 23-24.

RATING TABLE (gage-height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 1-17, 23-31, Nov. 7 to Dec. 2, Mar. 8-10, 17-26, and Aug. 5 to Sept. 22; stage-discharge relation affected by ice Dec. 3 to Feb. 26.)

1.5	180	3.0	683
2.0	325	4.0	1,120

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	635	285	260	220	460	380	271	299	215	198	235
2	232	719	279	250	210	420	369	269	282	210	194	222
3	227	707	250	240	210	380	394	265	269	212	187	214
4	225	549	230	240	210	350	461	263	261	219	185	215
5	224	484	220	240	210	320	502	259	259	276	191	233
6	217	426	240	260	210	300	546	265	254	302	195	241
7	230	385	250	250	210	300	512	263	250	268	199	235
8	284	394	260	240	210	305	451	263	249	247	192	226
9	351	397	270	240	210	319	409	257	248	236	186	249
10	378	443	290	240	210	391	380	253	240	229	190	271
11	304	439	300	240	210	594	365	253	234	218	191	257
12	283	400	310	240	210	772	376	273	231	210	200	239
13	277	352	270	240	210	817	398	264	233	208	255	229
14	273	332	260	240	200	676	389	263	232	208	275	220
15	266	324	250	240	200	536	379	310	240	208	230	210
16	298	313	260	230	200	484	370	358	271	200	206	208
17	386	289	280	230	200	456	353	355	270	191	198	200
18	417	279	280	230	200	415	353	308	257	192	197	206
19	639	274	260	220	200	392	345	284	246	195	193	211
20	612	277	250	220	200	367	337	271	247	192	188	201
21	510	280	250	220	210	368	336	266	236	186	187	197
22	415	257	250	220	230	363	332	252	294	185	185	213
23	374	245	240	220	350	365	329	248	285	181	186	270
24	342	245	230	220	500	379	346	248	264	190	192	307
25	327	247	230	220	700	371	374	248	246	222	254	291
26	320	251	230	220	640	365	349	252	232	230	302	279
27	307	288	250	220	560	395	315	258	226	220	268	277
28	350	328	320	220	500	427	304	258	221	208	229	267
29	348	314	330	220	---	425	291	257	219	201	234	263
30	327	297	260	220	---	401	280	254	214	196	242	303
31	313	---	260	220	---	386	---	281	---	198	247	---
TOTAL	10299	11170	8144	7210	7830	13299	11325	8389	7509	6653	6576	7189
MEAN	332	372	263	233	280	429	378	271	250	215	212	240
MAX	639	719	330	260	700	817	546	358	299	302	302	307
MIN	217	245	220	220	200	300	280	248	214	181	185	197
CFSM	1.25	1.40	.99	.88	1.06	1.62	1.43	1.02	.94	.81	.80	.91
IN.	1.45	1.57	1.14	1.01	1.10	1.87	1.59	1.18	1.05	.93	.92	1.01

CAL YR 1984 TOTAL 105043 MEAN 287 MAX 838 MIN 190 CFSM 1.08 IN 14.75
WTR YR 1985 TOTAL 105593 MEAN 289 MAX 817 MIN 181 CFSM 1.09 IN 14.82

STREAMS TRIBUTARY TO LAKE MICHIGAN

440654089120500 LAKE MORRIS AT MOUNT MORRIS, WI

LOCATION.--Lat 44°06'54", long 89°12'05", in SE 1/4 SE 1/4 Sec.16, T.19 N., R.11 E., Waushara County, Hydrologic Unit 04030202, at Mount Morris.

DRAINAGE AREA.--8.94 mi².

LAKE-STAGE RECORDS

PERIOD OF RECORD.--June 1983 to current year.

REMARKS.--Lake stages read at dam outlet by Henry Pagenkopf.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage observed, 5.82 ft May 1, 1984; minimum observed, 4.95 ft May 10, 11, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum stage observed during year, 5.57 ft Oct. 19, 20; minimum observed, 4.95 ft May 10, 11.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.06	5.52	5.12		---		5.30	5.02	5.27	5.20	5.26	---
2	5.03	5.52	---		---		5.28	5.00	5.26	5.18	5.25	---
3	5.06	5.51	5.10		---		5.29	5.00	5.25	5.13	5.24	5.12
4	5.09	5.49	5.10		---		5.34	5.00	5.24	5.15	5.20	5.16
5	5.13	5.43	---		---		5.41	5.00	5.23	5.29	5.21	5.22
6	5.19	5.32	5.04		---		5.52	5.00	5.22	5.28	5.24	5.25
7	5.26	5.27	5.02		---		5.56	4.98	5.21	5.25	5.21	---
8	5.30	5.26	5.00		---		5.54	4.97	5.20	5.21	5.16	---
9	---	5.26	5.00		---		5.46	4.96	5.21	5.18	5.15	5.38
10	---	5.27	5.00		---		5.38	4.95	5.20	5.20	5.20	5.37
11	---	5.26	5.02		---		5.34	4.95	5.19	5.20	5.20	---
12	5.22	5.28	5.03		---		5.30	5.06	5.19	5.19	5.20	5.30
13	5.20	5.27	5.06		---		5.28	5.10	5.18	5.20	---	---
14	5.18	5.25	5.08		---		5.25	5.16	5.17	5.24	5.23	5.20
15	5.15	5.22	5.08		---		5.22	5.26	5.20	5.28	5.25	5.20
16	5.20	---	5.10		---		5.20	5.20	5.22	5.30	5.25	5.16
17	5.34	5.14	5.11		---		5.16	5.18	5.22	---	5.26	---
18	5.34	5.12	5.15		---		5.17	5.14	5.21	---	5.28	5.15
19	5.57	5.11	5.16		---		5.14	5.10	5.20	5.32	5.24	5.14
20	5.57	5.10	---		---		5.10	5.06	5.19	5.36	---	---
21	5.51	---	5.10		---		5.11	5.02	5.18	5.22	5.22	---
22	5.46	---	5.10		---		5.10	5.00	5.18	5.22	5.23	---
23	5.36	---	---		---		5.08	5.00	5.16	5.20	5.23	4.98
24	5.31	5.04	---		---		5.10	5.06	5.18	5.19	5.28	5.10
25	5.26	5.04	---		---		5.10	5.10	5.24	5.36	5.31	---
26	5.24	5.03	---		5.54		5.10	5.12	5.30	5.30	5.24	---
27	5.24	5.10	---		---		5.08	5.18	5.31	5.20	---	---
28	5.28	5.12	5.14		---		5.08	5.20	5.35	5.20	---	---
29	5.26	5.11	---		---		5.07	5.20	5.30	5.15	5.18	---
30	5.26	5.13	5.22		---		5.04	5.20	5.25	5.18	5.20	---
31	5.21	---	---		---		---	5.28	---	5.24	5.21	---
MEAN	---	---	---		---		5.24	5.08	5.22	---	---	---
MAX	---	---	---		---		5.56	5.28	5.35	---	---	---
MIN	---	---	---		---		5.04	4.95	5.16	---	---	---

STREAMS TRIBUTARY TO LAKE MICHIGAN
440654089120500 LAKE MORRIS AT MOUNT MORRIS, WI--CONTINUED

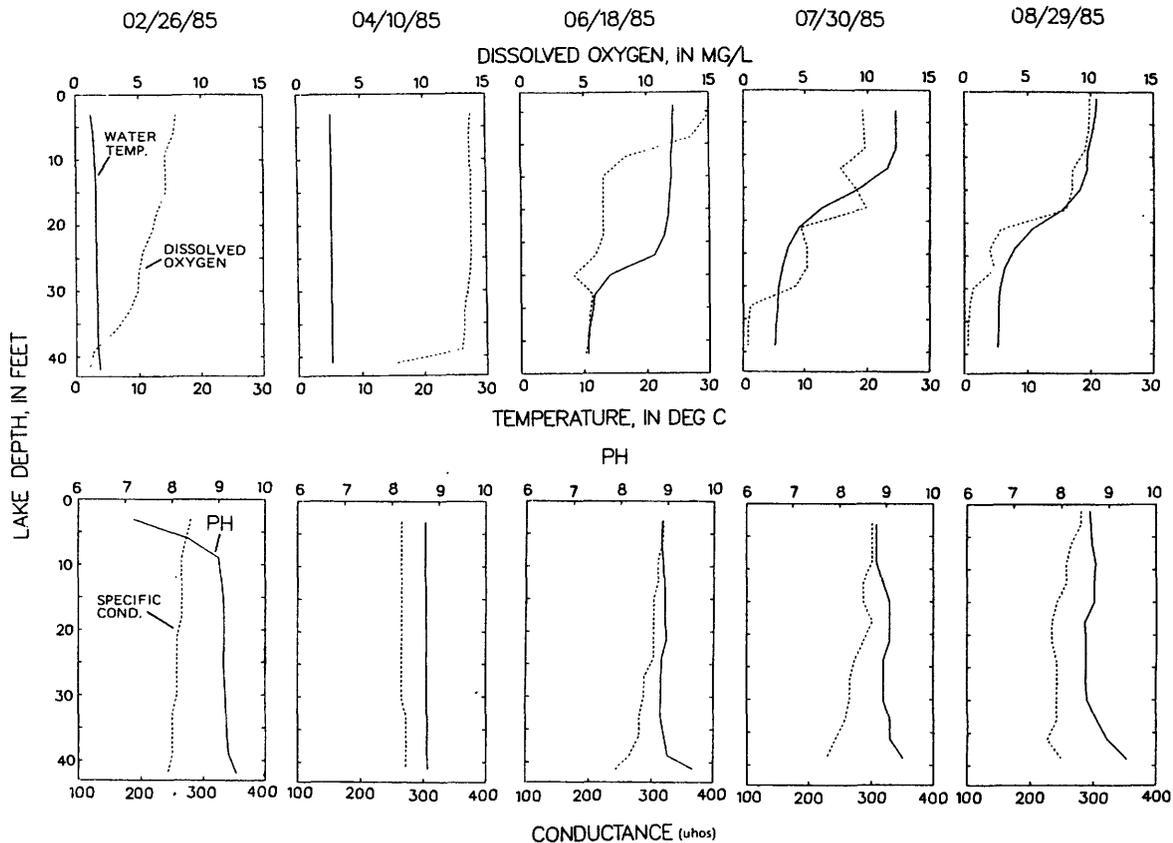
WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1983 to current year.

REMARKS.--Lake sampled near center at a depth of 43 feet.

WATER QUALITY DATA, FEBRUARY 26 TO AUGUST 29, 1985
(Milligrams per liter unless otherwise indicated)

	Feb. 26		Apr. 10		June 18		July 30		Aug. 29	
Depth of sample (ft)	3	42	3	40	3	40	3	40	3	39.5
Specific conductance (umhos)	186	353	303	307	316	346	310	350	296	353
pH	8.4	7.9	8.2	8.3	8.9	8.1	8.7	7.7	8.4	8.0
Water temperature (°C)	2.5	4.0	5.5	5.5	19.5	6.0	24.5	5.0	21.0	5.5
Color (Pt-Co. scale)	--	--	30	30	--	--	--	--	--	--
Turbidity (NTU)	--	--	1.7	1.0	--	--	--	--	--	--
Secchi-disc (meters)	--	--	--	2.2	--	2.7	--	3.0	--	4.6
Dissolved oxygen	8.0	1.0	13.8	7.8	9.9	0.1	9.6	0.4	9.9	0.3
Hardness, as CaCO ₃	--	--	170	170	--	--	--	--	--	--
Calcium, dissolved (Ca)	--	--	36	37	--	--	--	--	--	--
Magnesium, dissolved (Mg)	--	--	19	20	--	--	--	--	--	--
Dissolved sodium (Na)	--	--	1.7	1.7	--	--	--	--	--	--
Potassium, dissolved (K)	--	--	0.8	0.8	--	--	--	--	--	--
Alkalinity as CaCO ₃	--	--	159	161	--	--	--	--	--	--
Sulfate, dissolved (SO ₄)	--	--	11	11	--	--	--	--	--	--
Chloride, dissolved (Cl)	--	--	2.8	2.9	--	--	--	--	--	--
Silica, dissolved (SiO ₂)	--	--	8.0	8.5	--	--	--	--	--	--
Solids, dissolved, at 180°C	--	--	178	178	--	--	--	--	--	--
Nitrogen, nitrate, total (as N)	--	--	.69	.69	--	--	--	--	--	--
Nitrogen, nitrite, total (as N)	--	--	<.010	<.010	--	--	--	--	--	--
Nitrogen, ammonia, total (as N)	--	--	.010	<.010	--	--	--	--	--	--
Nitrogen, organic, total (as N)	--	--	.39	--	--	--	--	--	--	--
Total phosphorus (as P)	--	--	.016	.013	.029	.091	.028	.383	.016	.270
Phosphorus, ortho, diss (as P)	--	--	<.001	<.001	--	--	--	--	--	--
Iron, dissolved (Fe) ug/L	--	--	38	31	--	--	--	--	--	--
Manganese, dissolved (Mn) ug/L	--	--	5	4	--	--	--	--	--	--
Chlorophyll a, phyto. (ug/L)	--	--	1.10	--	2.70	--	2.40	--	3.70	--
Chlorophyll b, phyto. (ug/L)	--	--	<.10	--	<.10	--	<.10	--	<.10	--



DISSOLVED OXYGEN, WATER TEMPERATURE, pH AND SPECIFIC CONDUCTANCE DEPTH PROFILES FOR LAKE MORRIS.

STREAMS TRIBUTARY TO LAKE MICHIGAN

04082500 LAKE WINNEBAGO AT OSHKOSH, WI

LOCATION.--Lat 44°00'35", long 88°31'38", in NE 1/4 NE 1/4 sec.25, T.18 N., R.16 E., Winnebago County, Hydrologic Unit 04030203, at 905 Bay Shore Drive, 800 ft east of mouth of the upper Fox River.

DRAINAGE AREA.--5,880 mi², at lake outlet at Menasha Dam. Area of Lake Winnebago, 215 mi².

PERIOD OF RECORD.--October 1938 to current year in reports of Geological Survey. Records from 1882 to 1938 in files of Geological Survey and U.S. Army Corps of Engineers. A report on Fox River by U.S. Army Corps of Engineers, published as House Document No. 146, 67th Congress, 2nd session, contains semi-monthly records of inflow of Lake Winnebago for the period 1896-1917.

REVISED RECORD.--WDR WI-83-1: Drainage area.

GAGE.--Water-stage recorder. Nonrecording gage read once daily October 1938 to October 1978. Datum of gage is 745.05 ft above mean tide at New York City (levels by U.S. Army Corps of Engineers). Datum of Deuchman gage is 745.00 ft above mean tide at New York City.

REMARKS.--Leke elevations controlled by dams at Menasha and Neenah, which are operated in the interest of navigation. Crests of both dams are at elevation 746.73 ft. Present limits of regulation are from 21 1/4 in. above the crest of Menasha dam to crest during navigation season, plus additional 18 in. below crest during winter. Oshkosh staff gage gives true level of lake, while Deuchman gage readings are affected by loss of head in the channel between lake and dam. Date-collection platform at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 5.33 ft (Deuchman gage) Nov. 8, 1881; minimum observed, -2.00 ft (Deuchman gage) Nov. 28, 1891.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 3.46 ft Nov. 10, local condition due to seiche; minimum, 0.80 ft Feb. 20, 21.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.71	2.96	2.58	2.39	1.47	1.18	2.27	2.53	2.68	2.77	2.86	2.85
2	2.65	3.13	2.58	2.39	1.43	1.22	2.35	2.49	2.70	2.79	2.85	2.88
3	2.66	3.14	2.45	2.37	1.39	1.27	2.32	2.50	2.70	2.79	2.82	2.80
4	2.68	3.07	2.56	2.35	1.35	1.37	2.42	2.48	2.67	2.78	2.80	2.87
5	2.68	3.10	2.53	2.34	1.32	1.38	2.45	2.53	2.67	2.83	2.78	2.92
6	2.64	3.15	2.48	2.32	1.28	1.39	2.43	2.54	2.68	2.88	2.79	2.94
7	2.67	3.18	2.46	2.30	1.24	1.41	2.48	2.58	2.66	2.85	2.81	2.95
8	2.71	3.15	2.43	2.28	1.21	1.44	2.48	2.61	2.70	2.86	2.80	2.96
9	2.71	3.23	2.40	2.25	1.16	1.49	2.60	2.56	2.64	2.88	2.77	3.00
10	2.70	3.31	2.37	2.23	1.13	1.53	2.62	2.62	2.71	2.86	2.72	2.97
11	2.69	3.29	2.37	2.21	1.12	1.59	2.67	2.63	2.70	2.87	2.77	2.91
12	2.69	3.31	2.36	2.18	1.09	1.72	2.65	2.57	2.65	2.85	2.72	2.90
13	2.68	3.32	2.37	2.14	1.05	1.80	2.63	2.66	2.65	2.84	2.78	2.83
14	2.69	3.30	2.37	2.10	1.02	1.87	2.64	2.67	2.65	2.86	2.83	2.79
15	2.70	3.12	2.38	2.07	.99	1.92	2.63	2.67	2.65	2.83	2.82	2.76
16	2.74	3.15	2.34	2.03	.95	1.96	2.64	2.72	2.66	2.83	2.81	2.71
17	2.64	3.18	2.39	2.00	.92	2.01	2.61	2.75	2.62	2.78	2.79	2.70
18	2.82	3.15	2.41	1.97	.89	2.05	2.52	2.76	2.66	2.73	2.77	2.72
19	2.79	3.04	2.41	1.94	.86	2.08	2.56	2.68	2.65	2.74	2.78	2.69
20	2.93	2.98	2.41	1.92	.83	2.12	2.55	2.74	2.66	2.74	2.78	2.63
21	2.98	2.92	2.39	1.87	.84	2.14	2.53	2.73	2.63	2.70	2.78	2.68
22	2.98	2.83	2.38	1.84	.85	2.16	2.52	2.70	2.64	2.71	2.74	2.62
23	2.98	2.80	2.41	1.80	.89	2.19	2.49	2.71	2.76	2.64	2.73	2.55
24	2.97	2.73	2.40	1.77	.98	2.24	2.45	2.72	2.79	2.58	2.75	2.55
25	3.00	2.68	2.38	1.73	1.04	2.26	2.46	2.73	2.77	2.92	2.93	2.60
26	2.98	2.62	2.36	1.69	1.08	2.29	2.55	2.74	2.77	2.95	2.90	2.59
27	2.97	2.58	2.35	1.63	1.11	2.27	2.50	2.77	2.77	2.95	2.88	2.61
28	2.98	2.55	2.35	1.59	1.14	2.31	2.48	2.73	2.76	2.92	2.90	2.61
29	3.03	2.60	2.36	1.56	---	2.32	2.48	2.70	2.78	2.93	2.89	2.64
30	2.98	2.59	2.36	1.53	---	2.37	2.49	2.65	2.79	2.90	2.94	2.60
31	3.05	---	2.36	1.51	---	2.32	---	2.52	---	2.90	2.91	---
MEAN	2.81	3.01	2.41	2.01	1.09	1.86	2.52	2.64	2.69	2.82	2.81	2.76
MAX	3.05	3.32	2.58	2.39	1.47	2.37	2.67	2.77	2.79	2.95	2.94	3.00
MIN	2.64	2.55	2.34	1.51	.83	1.18	2.27	2.48	2.62	2.58	2.72	2.55
CAL YR 1984	MEAN	2.43	MAX	3.32	MIN	.80						
WTR YR 1985	MEAN	2.46	MAX	3.32	MIN	.83						

STREAMS TRIBUTARY TO LAKE MICHIGAN

04084255 LAKE WINNEBAGO NEAR STOCKBRIDGE, WI

LOCATION.--Lat 44°04'17", long 88°19'52", Stockbridge Indian Reservation, Calumet County, Hydrologic Unit 04030203, on east shore of Lake Winnebago, 300 ft south of County Highway E and 1.6 mi west of Stockbridge.

DRAINAGE AREA.--5,880 mi², at lake outlet at Menasha Dam. Area of Lake Winnebago, 215 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 745.05 ft above mean tide of New York City (levels by U. S. Army Corps of Engineers).

REMARKS.--Records good. Lake elevations controlled by dams at Menasha and Neensh, which are operated in the interest of navigation. Crests of both dams are at elevation 746.73 ft. Present limits of regulation are from 21 1/4 in. above the crest of Menasha dam to crest during navigation season, plus additional 18 in. below crest during winter. Data-collection platform at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 3.61 ft Aug. 29, 1984, local condition due to seiche. Minimum observed, 0.74 ft Feb. 11, 12, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 3.56 ft Nov. 15, local condition due to seiche; minimum, 0.77 ft Feb. 21.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.70	3.16	2.64	2.39	1.46	1.15	2.37	2.40	2.72	2.77	2.83	2.86
2	2.75	3.24	2.60	2.38	1.42	1.20	2.37	2.46	2.67	2.79	2.84	2.83
3	2.71	3.15	2.76	2.36	1.37	1.25	2.40	2.50	2.66	2.81	2.82	2.87
4	2.67	3.13	2.61	2.34	1.33	1.33	2.38	2.59	2.63	2.83	2.80	2.86
5	2.62	3.17	2.53	2.32	1.30	1.34	2.45	2.55	2.67	2.86	2.80	2.91
6	2.59	3.17	2.49	2.30	1.27	1.36	2.66	2.54	2.67	2.87	2.83	2.94
7	2.64	3.17	2.45	2.30	1.23	1.39	2.66	2.59	2.68	2.84	2.85	2.93
8	2.68	3.18	2.41	2.27	1.19	1.44	2.66	2.58	2.71	2.88	2.81	2.90
9	2.68	3.16	2.39	2.23	1.15	1.49	2.69	2.63	2.80	2.88	2.78	2.90
10	2.68	3.12	2.36	2.22	1.12	1.54	2.70	2.64	2.70	2.89	2.78	2.89
11	2.66	3.25	2.35	2.19	1.11	1.61	2.63	2.65	2.62	2.85	2.70	2.88
12	2.66	3.31	2.33	2.16	1.08	1.73	2.63	2.72	2.63	2.85	2.65	2.82
13	2.66	3.32	2.34	2.12	1.04	1.80	2.63	2.68	2.67	2.85	2.84	2.80
14	2.66	3.30	2.35	2.10	1.01	1.87	2.64	2.61	2.64	2.86	2.84	2.79
15	2.65	3.37	2.37	2.06	.97	1.92	2.63	2.69	2.63	2.87	2.82	2.78
16	2.69	3.38	2.44	2.02	.93	1.98	2.59	2.68	2.66	2.81	2.81	2.75
17	2.74	3.24	2.42	1.99	.90	2.01	2.54	2.69	2.74	2.78	2.80	2.76
18	2.68	3.07	2.43	1.96	.87	2.04	2.54	2.75	2.73	2.78	2.87	2.72
19	3.06	3.01	2.42	1.94	.84	2.08	2.57	2.81	2.70	2.77	2.85	2.72
20	3.01	2.97	2.41	1.90	.80	2.12	2.56	2.73	2.65	2.73	2.77	2.71
21	3.00	2.93	2.41	1.86	.81	2.14	2.54	2.71	2.67	2.73	2.75	2.60
22	3.04	2.91	2.44	1.82	.82	2.16	2.51	2.70	2.94	2.67	2.74	2.63
23	3.03	2.80	2.40	1.78	.87	2.19	2.48	2.71	2.83	2.63	2.73	2.74
24	3.03	2.74	2.39	1.74	.96	2.24	2.51	2.72	2.78	2.64	2.75	2.76
25	2.98	2.67	2.36	1.71	1.01	2.26	2.55	2.72	2.75	2.91	2.81	2.60
26	3.00	2.60	2.35	1.66	1.06	2.26	2.50	2.69	2.76	2.95	2.88	2.59
27	3.03	2.60	2.34	1.63	1.08	2.28	2.45	2.66	2.75	2.94	2.91	2.63
28	3.07	2.67	2.33	1.59	1.10	2.27	2.47	2.66	2.74	2.96	2.90	2.63
29	3.04	2.60	2.36	1.55	---	2.27	2.48	2.67	2.75	2.91	2.90	2.61
30	3.03	2.61	2.35	1.53	---	2.20	2.46	2.66	2.75	2.85	2.89	2.72
31	2.97	---	2.35	1.51	---	2.23	---	2.88	---	2.81	2.88	---
MEAN	2.82	3.03	2.43	2.00	1.08	1.84	2.54	2.65	2.71	2.82	2.81	2.77
MAX	3.07	3.38	2.76	2.39	1.46	2.28	2.70	2.88	2.94	2.96	2.91	2.94
MIN	2.59	2.60	2.33	1.51	.80	1.15	2.37	2.40	2.62	2.63	2.65	2.59
CAL YR 1984	MEAN 2.43	MAX 3.38	MIN .78									
WTR YR 1985	MEAN 2.47	MAX 3.38	MIN .80									

STREAMS TRIBUTARY TO LAKE MICHIGAN

04084500 FOX RIVER AT RAPIDE CROCHE DAM, NEAR WRIGHTSTOWN, WI

LOCATION.--Lat 44°19'03", long 88°11'50", in SE 1/4 sec.4, T.21 N., R.19 E., Outagamie County, Hydrologic Unit 04030204, at Rapide Croche Dam, 2.0 mi upstream from Wrightstown, and 18 mi upstream from mouth.

DRAINAGE AREA.--6,010 mi².

PERIOD OF RECORD.--March 1896 to September 1917 (monthly discharge only), October 1917 to current year.

REVISED RECORD.--WDR WI-80-1: Drainage area. WDR WI-81-1: 1980.

GAGE.--Recording headwater and tailwater gagea and electric generation are read three times a day and used to compute the discharge records.

REMARKS.--Flow regulated by storage in Lake Winnebago (see ata. 04082500 and 04084255). Daily discharge determined from records of flow through turbines, head, gate openings, and lockages through navigation canal. Usually less than about 20 ft³/s is diverted into basin from Wisconsin River at Portage Canal throughout the year.

COOPERATION.--Figures of daily discharge furnished by U.S. Army Corps of Engineers. Records reviewed by Geological Survey.

AVERAGE DISCHARGE.--89 years, 4,238 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 24,000 ft³/s Apr. 18, 1952; minimum daily, 138 ft³/s Aug. 2, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge during year, 15,700 ft³/s Nov. 15; minimum daily, 1,440 ft³/s June 24 and July 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5720	12900	9020	7460	6460	6170	12600	7550	2260	1550	2590	5220
2	4910	11200	8560	7210	7050	6800	14500	7790	2250	1620	3410	4990
3	4950	12500	6750	7530	6150	5920	14400	8010	1860	1440	2770	5010
4	5180	11400	7640	7680	6800	6320	14600	7040	2250	1740	2790	4240
5	5060	11500	8150	7590	6010	6760	14400	6800	1950	1760	2470	6100
6	4910	13000	7620	7580	6680	8580	14600	4940	1720	1640	2850	5490
7	4550	12400	7270	7700	6150	8120	14800	3410	1700	1710	2760	4160
8	4940	13400	7730	7910	6030	7400	14300	4540	2140	1810	2930	5420
9	5640	12900	7640	7840	5940	8730	14600	4230	2110	2490	2770	5530
10	5330	12600	7120	7840	5830	9130	14800	3990	2030	2550	2800	5730
11	4950	12400	7190	7810	5180	9080	15400	4100	1860	2440	2700	6100
12	4910	12500	6430	7800	5330	10100	14800	4070	1890	2500	3110	5180
13	4810	13500	7140	7760	5240	10000	15300	3970	1790	2480	3370	6250
14	4390	13600	6220	7490	5370	11800	14500	3920	1740	2470	2950	5980
15	4410	15700	5790	7540	5290	12600	15100	4070	1890	2330	2890	5900
16	4940	15000	6690	7590	5290	12600	14300	4290	1850	2400	2960	5640
17	5620	15300	6990	7440	5190	12600	14000	4020	1860	2460	2890	6060
18	5610	14700	6360	7160	5080	12700	15300	4200	1630	2380	2970	5920
19	11600	13000	5990	6660	4930	13200	14500	4550	1700	2450	2820	5110
20	8780	13900	6450	7340	4610	13200	14500	4530	1680	2280	2820	5550
21	8230	13300	6220	7000	5040	13500	14400	4270	2260	2380	2930	5360
22	8940	14300	4920	6970	5480	12500	13700	4210	2310	2240	3170	5480
23	10100	12800	7780	6950	5360	12400	13800	3090	1750	2280	3070	5520
24	10900	13400	5130	6970	5970	13100	13300	3490	1440	2460	2840	5650
25	11000	12600	5530	6940	5310	12600	11600	3810	1740	2590	3260	4620
26	11700	13600	7250	6820	5880	13800	11200	3660	1540	2370	3420	4100
27	11900	12100	5720	6620	6210	14200	10400	3180	1510	2820	3380	4040
28	11600	9280	7690	6600	6970	13100	10900	2690	1540	2950	4150	4350
29	10600	8500	8160	6600	---	13800	10200	3700	1500	2930	5540	4120
30	11400	9000	7460	5470	---	13400	10400	4240	1450	2870	6420	4610
31	11700	---	6220	5960	---	13400	---	2880	---	2740	5260	---
TOTAL	229280	382280	214830	223830	160830	337610	411200	139240	55200	71130	101060	157430
MEAN	7396	12740	6930	7220	5744	10890	13710	4492	1840	2295	3260	5248
MAX	11900	15700	9020	7910	7050	14200	15400	8010	2310	2950	6420	6250
MIN	4390	8500	4920	5470	4610	5920	10200	2690	1440	1440	2470	4040
CAL YR 1984	TOTAL	2191750	MEAN	5988	MAX	15700	MIN	1700				
WTR YR 1985	TOTAL	2483920	MEAN	6805	MAX	15700	MIN	1440				

STREAMS TRIBUTARY TO LAKE MICHIGAN
 04085000 FOX RIVER AT WRIGHTSTOWN, WI
 (NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 44°19'36", long 88°09'54", in NE 1/4 NW 1/4 sec.2, T.21 N., R.19 E., Brown County, Hydrologic Unit 04030204, at bridge on State Highway 96 at Wrightstown.

DRAINAGE AREA.--6,050 mi², approximately.

PERIOD OF RECORD.--Water years 1970, 1974 to current.

REMARKS.--Records of discharge used are for 04084500 Fox River at Rapdie Croche Dam near Wrightstown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)
DEC, 1984												
06...	0830	7620	375	8.0	.0	10	16.1	754	111	340	K65	170
MAR, 1985												
13...	0800	10000	400	8.2	2.0	15	13.0	--	--	1000	580	180
JUN												
19...	0800	1700	395	8.9	18.0	4.5	9.4	748	101	42	84	160
AUG												
28...	0740	4150	490	8.6	21.0	10	7.9	755	90	K520	74	160

DATE	HARD-NESS (MG/L AS CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	PERCENT SODIUM (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD AS CACO3 (00410)	SULFATE DIS-SOLVED (MG/L AS S04) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
DEC, 1984											
06...	17	35	21	8.4	9	.3	2.4	157	20	15	.20
MAR, 1985											
13...	9	39	21	9.0	9	.3	3.0	175	24	17	.10
JUN											
19...	16	36	18	11	12	.4	3.3	148	25	18	.20
AUG											
28...	18	31	19	11	13	.4	2.5	138	18	15	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
DEC, 1984											
06...	.2	223	200	.30	4590	.59	.150	1.6	.120	<.010	<.010
MAR, 1985											
13...	4.0	222	220	.30	5990	.74	.110	1.8	.090	.030	.040
JUN											
19...	.0	225	200	.31	1030	.12	.060	1.3	.100	.020	<.010
AUG											
28...	.2	203	180	.28	2270	.15	.020	2.0	.110	.040	.020

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

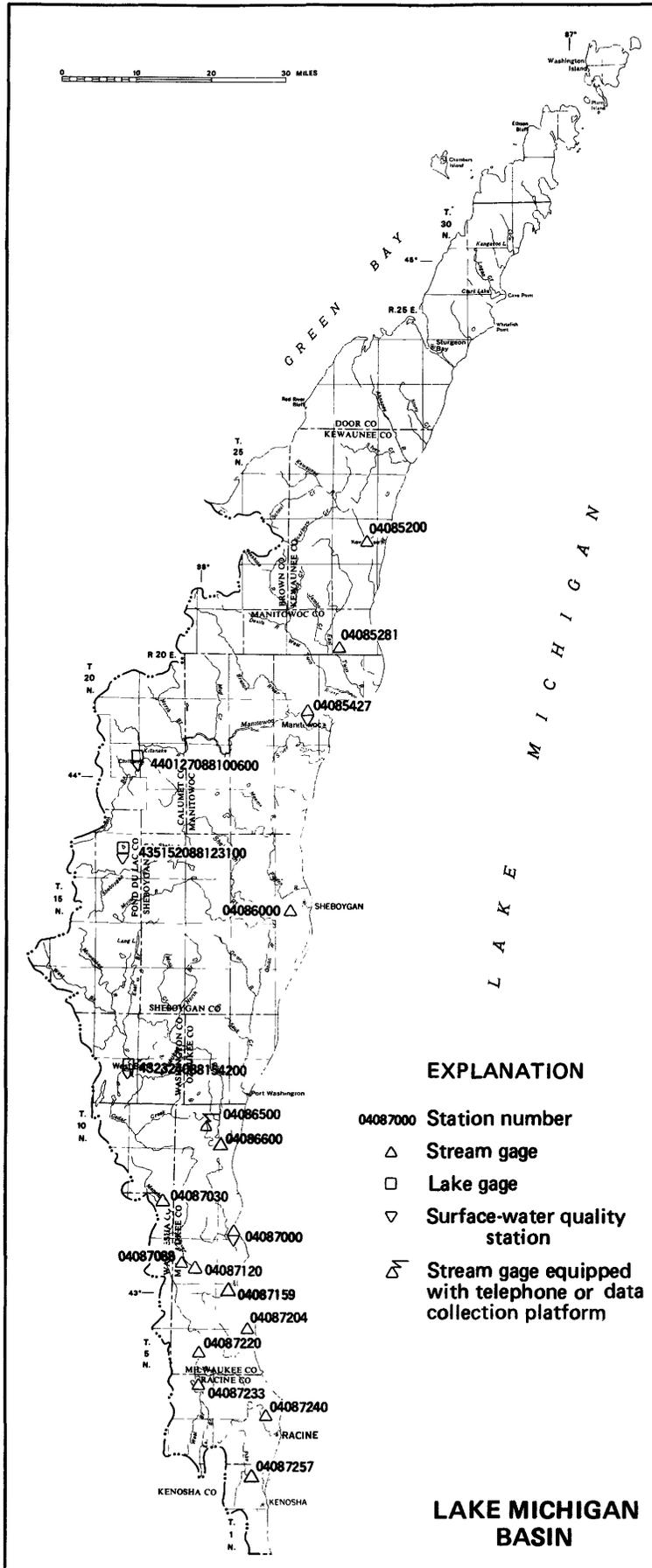
STREAMS TRIBUTARY TO LAKE MICHIGAN
04085000 FOX RIVER AT WRIGHTSTOWN, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
DEC, 1984											
06...	0830	7620	10	<1	23	<.5	2	1	<3	4	18
MAR, 1985											
13...	0800	10000	20	<1	23	.7	2	<1	<3	3	54
JUN											
19...	0800	1700	40	<1	26	<.5	<1	<1	<3	1	39
AUG											
28...	0740	4150	30	1	24	<.5	1	1	<3	2	11

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC, 1984										
06...	1	<4	4	.1	<10	2	<1	110	<6	20
MAR, 1985										
13...	2	7	30	.1	<10	1	<1	110	<6	22
JUN										
19...	3	5	5	.3	<10	1	<1	210	<6	12
AUG										
28...	3	<4	1	<.1	<10	2	<1	180	<6	5

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC, 1984						
06...	0830	7620	375	.0	24	494
MAR, 1985						
13...	0800	10000	400	2.0	70	1890
JUN						
19...	0800	1700	395	18.0	24	110
AUG						
28...	0740	4150	490	21.0	34	381



Base from U.S. Geological Survey
State base map, 1969

STREAMS TRIBUTARY TO LAKE MICHIGAN

04085200 KEWAUNEE RIVER NEAR KEWAUNEE, WI

LOCATION.--Lat 44°27'30", long 87°33'23", in SW 1/4 sec.14, T.23 N., R.24 E., Kewaunee County, Hydrologic Unit 04030102, on left bank just downstream from bridge on County Trunk Highway F, 2.3 mi west of Kewaunee, and about 7.0 mi upstream from mouth.

DRAINAGE AREA.--127 mi².

PERIOD OF RECORD.--Annual maximum, water years 1958-65, and occasional low-flow measurements, water years 1963-64. September 1964 to current year. No winter records for years 1965 and 1966.

REVISED RECORDS.--WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 579.64 ft above National Geodetic Vertical Datum of 1929 (Wisconsin State Highway Commission benchmark). Apr. 3, 1957, to Sept. 2, 1964, crest-stage gage only at same site and datum.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--19 years, 84.0 ft³/s, 8.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft³/s Mar. 30, 1960, gage height, 16.03 ft (backwater from ice); minimum recorded, 4.0 ft³/s Nov. 22, 1977, gage height, 8.06 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	2030	*3,470	13.33	Feb. 25	----	A 1,110	ice jam
Nov. 2	0330	1,020	11.46	Mar. 1	1345	ice jam	B *14.14
Dec. 29	0615	980	11.40	Mar. 12	0915	1,880	12.43

A Estimated, daily mean discharge
B Ice jam

Minimum discharge, 19 ft³/s July 22-24, Aug. 3, 4, 11, 12, gage height, 8.36 ft.

REVISIONS.--The peak discharges for a number of water years have been revised, as shown in the following table. They supercede figures published in WSP reports 1911, 2111, and Water Resources Data reports 1965, 1967-69, 1971, 1973-74, 1976, 1978, 1980-82.

Water Year	Date	Discharge (ft ³ /s)	Gage Height (ft)	Water Year	Date	Discharge (ft ³ /s)	Gage Height (ft)
1962	Mar. 29	3,400	13.59	1974	Mar. 4	5,800	14.13
1965	Apr. 12	4,920	13.84	1976	Mar. 21	4,680	13.76
1967	Mar. 27	3,200	13.20		Mar. 25	2,520	12.86
1968	June 28	1,850	12.40	1978	May 14	2,460	12.83
1969	Mar. 24	1,990	12.53	1980	Apr. 9	2,440	12.82
1971	Apr. 1	1,900	12.45	1981	Apr. 4	2,760	12.98
1973	May 28	5,700	14.10	1982	Mar. 25	2,350	12.77

STREAMS TRIBUTARY TO LAKE MICHIGAN
04085200 KEWAUNEE RIVER NEAR KEWAUNEE, WI--CONTINUED

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 1-5, Dec. 7-15, and Dec. 19
to Mar. 9.)

8.3	15	10.0	307
8.5	28	11.0	722
8.7	47	12.0	1,460
9.0	85	13.0	2,800
9.5	175		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	511	150	88	43	800	193	74	36	28	21	139
2	48	812	140	66	42	580	209	70	34	27	21	94
3	43	345	120	50	42	440	398	68	33	27	20	65
4	39	220	100	52	41	540	342	67	32	28	20	53
5	36	163	92	56	40	400	412	65	31	46	21	96
6	35	130	84	54	40	300	601	65	30	59	47	157
7	41	111	78	54	40	170	655	67	30	43	35	122
8	65	131	72	54	39	140	668	64	32	35	27	86
9	68	199	68	54	39	200	351	60	31	34	23	75
10	63	513	62	54	39	686	255	77	28	35	21	69
11	59	463	64	52	39	1420	273	77	27	31	20	58
12	51	257	76	52	38	1620	248	68	27	27	20	48
13	48	173	74	52	38	1220	260	62	28	26	33	41
14	45	137	72	52	38	741	349	57	28	25	33	36
15	44	124	70	50	37	629	366	59	31	24	26	34
16	46	110	200	50	37	522	242	59	37	22	22	32
17	50	95	510	50	37	437	196	56	35	22	21	38
18	76	90	221	49	36	319	213	54	33	21	25	73
19	1720	82	150	49	36	315	196	49	31	21	24	83
20	1770	75	110	48	36	342	221	51	29	21	23	73
21	524	70	100	47	66	260	164	48	31	21	21	53
22	318	66	90	47	120	215	134	43	142	20	21	55
23	219	66	86	47	280	215	117	40	122	20	21	85
24	156	69	82	46	560	263	114	37	74	20	22	137
25	126	70	78	46	1100	270	110	36	52	48	70	163
26	152	73	74	45	1000	270	99	47	40	52	90	140
27	167	157	72	45	840	311	89	59	35	35	65	104
28	262	335	200	45	700	335	85	50	32	28	47	81
29	238	246	700	44	---	292	81	43	29	25	151	67
30	161	181	210	44	---	237	77	38	29	22	190	65
31	123	---	130	43	---	186	---	39	---	22	189	---
TOTAL	6848	6074	4335	1585	5443	14675	7718	1749	1209	915	1390	2422
MEAN	221	202	140	51.1	194	473	257	56.4	40.3	29.5	44.8	80.7
MAX	1770	812	700	88	1100	1620	668	77	142	59	190	163
MIN	35	66	62	43	36	140	77	36	27	20	20	32
CFSM	1.74	1.59	1.10	.40	1.53	3.72	2.02	.44	.32	.23	.35	.64
IN.	2.01	1.78	1.27	.46	1.59	4.30	2.26	.51	.35	.27	.41	.71
CAL YR 1984	TOTAL	46129	MEAN 126	MAX 1770	MIN 13	CFSM .99	IN 13.51					
WTR YR 1985	TOTAL	54363	MEAN 149	MAX 1770	MIN 20	CFSM 1.17	IN 15.92					

STREAMS TRIBUTARY TO LAKE MICHIGAN

04085281 EAST TWIN RIVER AT MISHICOT, WI

LOCATION.--Lat 44°14'16", long 87°38'11", in NW 1/4 NW 1/4 sec.4, T.20 N., R.24 E., Manitowoc County, Hydrologic Unit 04030101, on right bank 500 ft downstream from bridge on State Highway 147, at Mishicot, 0.8 mi upstream from Johnson Creek, and 9.8 mi upstream from mouth.

DRAINAGE AREA.--110 mi².

PERIOD OF RECORD.--July 1972 to current year.

REVISED RECORDS.--WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 584.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 29-30 and ice periods listed in rating table below. Records good except those for estimated daily discharges, which are fair. Occasional regulation caused by recreation dam 0.3 mi upstream.

AVERAGE DISCHARGE.--13 years, 79.2 ft³/s, 9.78 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,210 ft³/s Mar. 31, 1979, gage height, 13.75 ft; minimum, 1.7 ft³/s July 20, 1979, gage height, 3.69 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	2145	*1,330	*10.64	Mar. 12	2300	982	9.49
Nov. 2	0245	751	8.61	Apr. 7	0800	751	8.61
Feb. 26	----	A 700	ice affected	Sept. 6	0815	914	9.23

A Estimated, daily mean discharge

Minimum discharge, 11.0 ft³/s July 24, gage height, 4.16 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 2-15, Dec. 19-27, and Jan. 2 to Mar. 10.)

4.1	8.0	6.0	220
4.3	19	7.0	394
4.5	34	8.0	606
5.0	85	9.0	850

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	462	222	127	50	580	261	75	39	20	19	70
2	61	672	170	80	50	620	257	69	33	20	18	52
3	55	555	150	60	50	350	290	64	29	19	17	43
4	50	369	110	64	50	370	288	61	27	20	16	64
5	45	233	96	66	49	290	462	59	26	28	15	303
6	43	180	80	64	49	240	633	57	25	35	21	859
7	45	151	72	64	48	220	714	57	25	40	35	561
8	149	144	68	62	48	210	620	56	25	30	30	286
9	140	157	66	62	48	270	459	52	25	25	22	171
10	120	325	68	60	47	400	324	50	23	24	18	129
11	97	330	70	60	47	695	260	51	22	21	18	97
12	82	294	80	60	46	881	300	57	20	20	18	77
13	73	210	80	60	46	950	326	53	20	18	39	63
14	69	163	80	58	45	770	329	53	20	18	38	54
15	66	143	80	58	45	600	367	47	22	17	30	48
16	68	127	150	58	45	525	317	49	26	16	23	43
17	76	112	258	58	44	455	244	53	30	15	20	40
18	95	104	205	56	45	373	212	52	27	14	46	50
19	922	96	140	56	44	327	191	47	25	14	51	51
20	1190	88	90	56	43	333	175	43	24	14	31	44
21	961	77	80	56	50	306	158	39	21	13	26	39
22	584	76	74	56	110	256	122	36	37	12	23	40
23	350	75	70	54	190	234	122	34	59	12	22	212
24	235	76	66	54	250	299	120	32	62	12	22	196
25	183	78	64	54	400	326	119	30	40	71	56	141
26	181	83	62	54	700	288	113	31	30	83	96	115
27	179	155	62	52	600	278	104	34	25	55	80	97
28	260	271	120	52	540	308	97	34	22	33	55	83
29	237	258	410	52	---	321	90	31	20	25	46	72
30	209	261	380	52	---	285	84	30	20	21	81	75
31	168	---	247	52	---	240	---	40	---	20	92	---
TOTAL	7063	6325	3970	1877	3779	12600	8158	1476	849	785	1124	4175
MEAN	228	211	128	60.5	135	406	272	47.6	28.3	25.3	36.3	139
MAX	1190	672	410	127	700	950	714	75	62	83	96	859
MIN	43	75	62	52	43	210	84	30	20	12	15	39
CFSM	2.07	1.92	1.16	.55	1.23	3.69	2.47	.43	.26	.23	.33	1.26
IN.	2.39	2.14	1.34	.63	1.28	4.26	2.76	.50	.29	.27	.38	1.41

CAL YR 1984	TOTAL	45718	MEAN 125	MAX 1190	MIN 13	CFSM 1.14	IN 15.46
WTR YR 1985	TOTAL	52181	MEAN 143	MAX 1190	MIN 12	CFSM 1.30	IN 17.65

STREAMS TRIBUTARY TO LAKE MICHIGAN
440127088100600 CHILTON POND AT CHILTON, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 44°01'27", long 88°10'06", in SE 1/4 sec.13, T.18 N., R.19 E., Calumet County, Hydrologic Unit 04030101, in city park at boat landing, at Chilton.

PERIOD OF RECORD.--October 1984 to June 1985.

GAGE.--Staff gage read by Al Larson. Elevation of gage is 881 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.57 ft, Mar. 13; minimum, 7.11 ft, Oct. 15.

GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.70	8.20	7.52			---	7.79	7.41	7.59			
2	7.69	8.02	7.50			---	7.77	7.39	7.59			
3	7.68	7.94	7.52			---	7.75	7.37	7.57			
4	7.68	7.92	7.54			---	7.97	7.35	7.57			
5	7.68	7.89	---			---	7.99	7.33	7.57			
6	7.68	7.88	---			---	8.01	7.31	7.57			
7	7.76	7.86	---			---	8.03	7.30	7.57			
8	7.82	7.84	---			---	8.03	7.29	7.57			
9	7.20	7.86	---			---	8.03	7.27	7.57			
10	7.18	7.94	---			8.45	8.25	7.75	7.57			
11	7.15	7.86	---			8.45	8.23	7.75	7.57			
12	7.14	7.80	---			8.51	8.23	7.75	7.57			
13	7.13	7.72	---			8.57	8.27	7.73	7.57			
14	7.12	7.68	---			8.55	8.25	7.73	7.57			
15	7.11	7.65	---			8.51	8.23	7.77	7.58			
16	7.20	7.60	---			8.49	8.05	7.79	7.59			
17	7.26	7.58	---			8.45	8.03	7.84	7.58			
18	7.27	7.56	---			8.29	8.01	7.84	7.57			
19	8.07	7.55	---			8.23	7.91	7.85	7.57			
20	7.88	7.50	---			8.17	7.85	7.83	7.57			
21	7.78	7.48	---			8.07	7.81	7.81	7.57			
22	7.80	7.46	---			8.01	7.77	7.79	7.61			
23	7.82	7.42	---			7.93	7.71	7.77	7.59			
24	7.86	7.40	---			7.91	7.65	7.75	7.58			
25	7.87	7.36	---			7.89	7.61	7.73	7.57			
26	7.91	7.34	---			7.87	7.57	7.71	7.55			
27	7.93	7.48	---			7.85	7.53	7.69	7.54			
28	8.00	7.55	---			7.87	7.49	7.67	7.53			
29	7.90	7.50	---			7.85	7.47	7.65	7.52			
30	7.82	7.55	---			7.83	7.45	7.63	7.51			
31	7.94	---	---			7.79	---	7.61	---			
MEAN	7.61	7.68	---			---	7.89	7.63	7.57			
MAX	8.07	8.20	---			---	8.27	7.85	7.61			
MIN	7.11	7.34	---			---	7.45	7.27	7.51			

WATER-QUALITY RECORDS

LOCATION.--Lat 44°01'33", long 88°10'00", in SE 1/4 sec.13, T.18 N., R.19 E., Calumet County, Hydrologic Unit 04030101, near center of pond, at Chilton.

PERIOD OF RECORD.--March to June 1985.

REMARKS.--Secchi disc readings made by Al Larson.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 0.7 meter, Mar. 30 and many days in April; minimum transparency, 0.2 ft, many days in March.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
MAR. 11	0.2	MAR. 30	0.7	APR. 23	0.6	MAY 14	0.6	JUNE 5	0.5	JUNE 26	0.4
MAR. 19	0.2	APR. 9	0.7	APR. 30	0.6	MAY 21	0.5	JUNE 12	0.5	JUNE 30	0.4
MAR. 26	0.2	APR. 16	0.7	MAY 7	0.6	MAY 28	0.5	JUNE 19	0.4		

STREAMS TRIBUTARY TO LAKE MICHIGAN

04085427 MANITOWOC RIVER AT MANITOWOC, WI
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 44°06'26", long 87°42'55", in NE 1/4 NW 1/4 sec.23, T.19 N., R.23 E., Manitowoc County, Hydrologic Unit 04030101, on right bank 300 ft upstream from bridge on County Trunk Highway JJ, just west of the Manitowoc city limits and 6.6 mi upstream from mouth.

DRAINAGE AREA.--526 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1972 to current year.

REVISED RECORDS.--WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 610.12 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-17, Nov. 30 to Dec. 3, May 13-17, July 17 to Aug. 14, and ice period listed in rating table below. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--13 years, 337 ft³/s, 8.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,280 ft³/s Mar. 31, 1979, gage height, 13.24 ft from floodmarks; minimum discharge, 10 ft³/s Nov. 7, 1976, gage height, 3.69 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 20	2200	1,550	7.93	Mar. 10	1445	ice jam	*11.17
Nov. 1	1315	1,900	8.40	Mar. 13	0115	*3,020	9.45
Dec. 30	----	A 1,400	ice jam	Apr. 7	2230	1,980	8.35
Feb. 25	----	A 2,100	ice jam				

A Estimated, daily mean discharge

Minimum recorded discharge, 35 ft³/s July 16, gage height, 3.99 ft, but was probably less July 24.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5 to Mar. 10.)

3.9	28	6.0	540
4.1	51	7.0	980
4.5	114	8.0	1,600
5.0	224	9.0	2,410
		10.0	3,460

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	1500	540	800	150	1800	1310	500	97	41	90	125
2	180	1420	500	500	150	1900	1290	442	91	41	80	107
3	170	1440	450	320	140	1800	1300	400	72	40	74	105
4	170	1250	370	280	140	1700	1300	357	63	41	66	118
5	160	1150	390	270	140	1500	1590	316	59	53	62	266
6	150	1090	400	270	130	1600	1710	264	58	56	60	230
7	140	1040	400	280	130	1700	1870	229	61	52	78	221
8	210	985	400	290	130	1900	1860	208	65	53	82	217
9	200	994	390	290	120	2200	1760	187	61	49	68	242
10	190	1150	360	280	120	2400	1670	183	63	47	52	252
11	170	1080	350	270	120	2610	1600	165	62	51	45	253
12	170	1070	350	260	110	2650	1640	148	49	49	42	239
13	160	996	350	260	110	2870	1610	130	44	44	48	206
14	160	928	350	250	110	2660	1640	120	45	39	55	185
15	160	880	350	240	100	2570	1590	110	49	38	78	165
16	170	865	580	240	100	2540	1480	120	48	37	79	149
17	180	820	620	230	98	2360	1350	140	51	35	78	132
18	235	756	600	220	96	2190	1290	156	53	34	71	124
19	1270	712	540	220	94	2090	1240	160	58	33	71	116
20	1280	687	480	210	90	2000	1190	164	51	32	74	101
21	1390	671	450	210	100	1880	1110	149	44	33	70	93
22	1120	614	440	200	280	1760	1040	132	56	32	57	91
23	999	539	390	190	740	1690	955	123	61	31	51	103
24	955	501	340	190	1800	1710	903	113	71	30	53	131
25	926	467	320	180	2100	1650	860	107	60	160	85	149
26	928	436	360	180	2000	1580	801	102	55	200	81	150
27	919	511	500	170	1900	1550	713	95	53	170	92	160
28	1010	567	900	170	1800	1510	667	90	47	150	105	167
29	955	596	1300	170	---	1470	616	89	43	130	116	165
30	930	580	1400	160	---	1360	559	89	42	100	137	168
31	909	---	1200	160	---	1270	---	87	---	96	145	---
TOTAL	16756	26295	16370	7960	13098	60470	38514	5675	1732	1997	2345	4930
MEAN	541	877	528	257	468	1951	1284	183	57.7	64.4	75.6	164
MAX	1390	1500	1400	800	2100	2870	1870	500	97	200	145	266
MIN	140	436	320	160	90	1270	559	87	42	30	42	91
CFSM	1.03	1.67	1.00	.49	.89	3.71	2.44	.35	.11	.12	.14	.31
IN.	1.19	1.86	1.16	.56	.93	4.28	2.72	.40	.12	.14	.17	.35
CAL YR 1984	TOTAL	166072	MEAN	454	MAX	2800	MIN	32	CFSM	.86	IN	11.74
WTR YR 1985	TOTAL	196142	MEAN	537	MAX	2870	MIN	30	CFSM	1.02	IN	13.87

STREAMS TRIBUTARY TO LAKE MICHIGAN

04085427 MANITOWOC RIVER AT MANITOWOC, WI--CONTINUED
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BAROMETRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)	COLIFORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, KF AGAR (COLS. PER 100 ML) (31673)
DEC, 1984												
05...	1400	--	390	660	8.2	.0	3.0	15.6	751	109	31	82
MAR, 1985												
12...	1400	2350	--	340	7.8	1.0	15	12.2	--	--	160	920
JUN												
18...	1400	54	--	660	8.8	19.0	2.5	12.4	744	137	K77	43
AUG												
27...	1350	91	--	670	8.7	21.5	10	11.0	753	126	520	77

DATE	HARDNESS (MG/L AS CaCO3) (00900)	HARDNESS, NONCARBONATE (MG/L AS CaCO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	PERCENT SODIUM (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY FIELD AS (MG/L AS CaCO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)
DEC, 1984												
05...	350	66	75	39	12	7	.3	5.4	282	48	30	.10
MAR, 1985												
12...	150	5	34	17	5.4	7	.2	4.5	150	19	13	<.10
JUN												
18...	330	38	59	44	15	9	.4	2.5	291	36	35	.10
AUG												
27...	320	53	65	39	18	11	.4	4.6	271	49	34	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
DEC, 1984											
05...	9.6	427	390	.58	450	2.1	.250	.80	.130	.100	.110
MAR, 1985											
12...	5.6	207	190	.28	1310	1.2	.280	2.3	.180	.100	.100
JUN											
18...	1.9	416	370	.57	61	.57	.040	1.0	.070	.050	.030
AUG											
27...	8.4	403	380	.55	99	.89	.070	2.6	.130	.090	.040

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

STREAMS TRIBUTARY TO LAKE MICHIGAN

04085427 MANITOWOC RIVER AT MANITOWOC, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
DEC, 1984											
05...	1400	--	390	<10	<1	29	<.5	<1	1	<3	2
MAR, 1985											
12...	1400	2350	--	20	<1	18	.7	1	<1	<3	2
JUN											
18...	1400	54	--	10	<1	32	.7	<1	5	<3	2
AUG											
27...	1350	91	--	10	1	43	.6	1	1	<3	1

DATE	TIME	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC, 1984												
05...	100	2	5	14	<.1	<10	5	<1	140	<6	18	
MAR, 1985												
12...	120	2	4	13	.1	<10	1	<1	58	<6	14	
JUN												
18...	14	<1	<4	7	<.1	<10	2	<1	420	<6	10	
AUG												
27...	17	4	<4	9	.1	<10	3	<1	300	<6	4	

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC, 1984								
05...	1400	--	390	660	.0	17	18	61
MAR, 1985								
12...	1400	2350	--	340	1.0	64	406	91
JUN								
18...	1400	54	--	660	19.0	31	4.5	93
AUG								
27...	1350	91	--	670	21.5	40	9.8	90

STREAMS TRIBUTARY TO LAKE MICHIGAN

435152088123100 WOLF LAKE NEAR MT. CALVARY, WI

LOCATION.--Lat 43°51'52", long 88°12'31", in SW 1/4 SE 1/4 Sec.10, T.16 N., R.19 E., Fond du Lac County, Hydrologic Unit 04030101, 3.2 miles northesst of Mt. Calvary.

DRAINAGE AREA.--3.43 mi².

LAKE-STAGE RECORDS

PERIOD OF RECORD.--November 17, 1983 to current year.

REMARKS.--Lake stages read on west side of lake by William Krupp.

EXTREMES FOR PERIOD OF RECORD.--Maximum stage observed, 6.54 ft Feb. 26, 1985; minimum observed, 4.42 ft July 24, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum stage observed during year, 6.54 ft Feb. 26; minimum observed, 4.42 ft July 24.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.03	5.74			---	---	5.08	4.91	4.63	4.56	---	---
2	5.01	5.69			---	---	5.06	4.89	4.62	---	4.57	---
3	5.06	5.65			---	---	5.10	4.87	4.61	---	---	4.66
4	5.08	5.61			---	---	5.08	4.85	4.60	---	---	---
5	5.15	5.65			---	---	5.14	4.83	4.60	4.62	---	4.66
6	5.14	5.56			---	---	5.60	4.82	4.60	---	4.53	---
7	5.13	5.54			---	---	5.58	4.81	4.59	---	4.55	---
8	5.17	5.51			---	---	5.55	4.79	4.59	4.59	---	4.72
9	5.15	5.49			---	---	5.48	4.78	4.58	---	---	4.76
10	5.15	5.72			---	---	5.42	4.77	4.57	---	---	---
11	5.10	5.56			---	---	5.38	4.76	4.57	---	---	---
12	5.06	5.47			---	---	5.36	4.76	4.57	---	---	4.72
13	5.03	5.44			---	---	5.33	4.75	4.56	4.54	4.62	---
14	5.02	5.40			---	---	5.45	4.74	4.56	---	---	---
15	5.09	5.36			---	---	5.38	4.79	4.57	---	4.60	4.68
16	5.15	5.29			---	---	5.36	4.78	---	---	---	4.69
17	5.23	5.19			---	5.56	5.32	4.81	---	---	---	4.73
18	5.21	5.23			---	5.48	5.28	4.81	4.55	---	---	---
19	5.73	5.21			---	5.43	5.23	4.81	---	4.51	---	4.73
20	5.80	5.19			---	5.36	5.20	4.80	---	---	4.56	---
21	5.87	5.17			---	5.31	5.17	4.78	4.56	4.49	---	4.75
22	5.89	---			---	5.26	5.15	4.76	4.64	---	---	---
23	5.85	---			---	5.22	5.14	4.75	---	---	---	4.80
24	5.82	---			---	5.22	5.11	4.73	---	4.42	4.52	---
25	5.75	---			---	5.22	5.06	4.72	---	4.58	4.52	4.80
26	5.77	---			6.54	5.20	5.03	4.72	---	---	---	---
27	5.78	---			---	5.18	5.00	4.70	---	---	4.58	---
28	5.72	---			---	5.16	4.97	4.68	---	4.60	---	4.79
29	5.69	---			---	5.13	4.95	4.66	---	---	4.56	---
30	5.68	---			---	5.10	4.93	4.65	4.48	---	---	---
31	5.65	---			---	5.10	---	4.64	---	---	4.66	---
MEAN	5.39	---			---	---	5.23	4.77	---	---	---	---
MAX	5.89	---			---	---	5.60	4.91	---	---	---	---
MIN	5.01	---			---	---	4.93	4.64	---	---	---	---

STREAMS TRIBUTARY TO LAKE MICHIGAN

435152088123100 WOLF LAKE NEAR MT. CALVARY, WI--CONTINUED

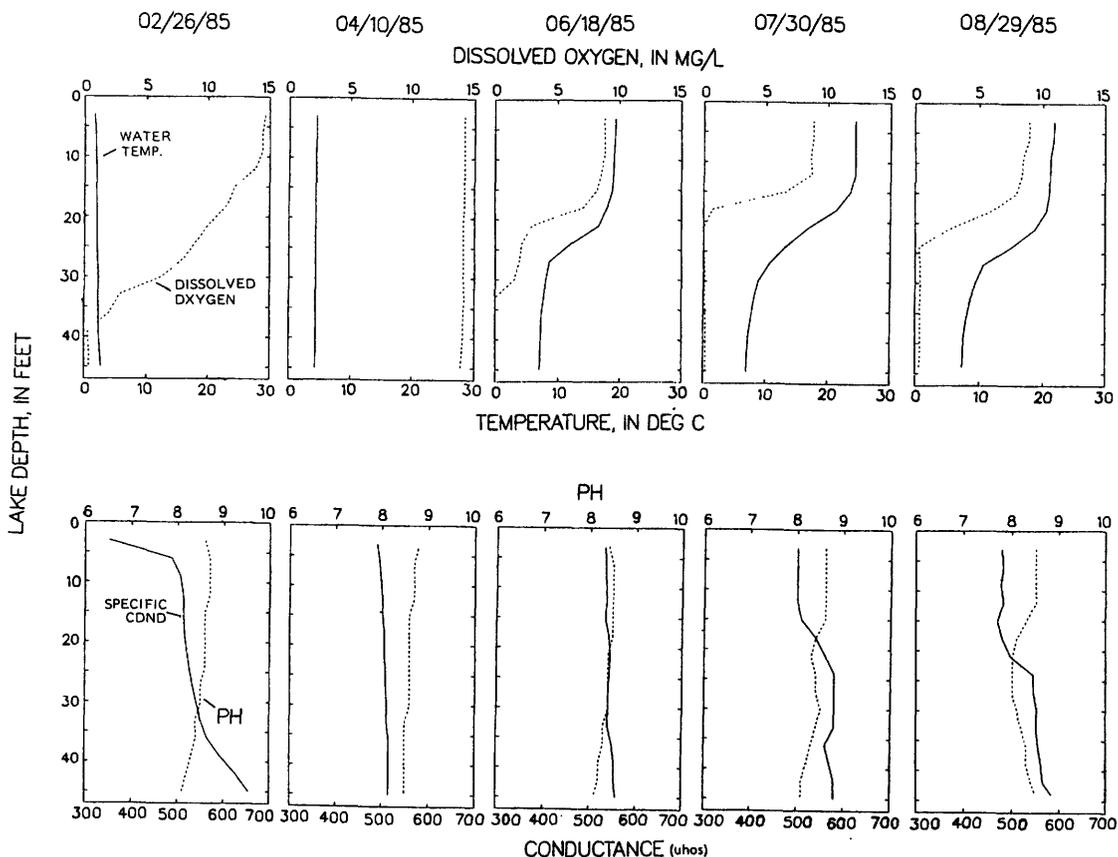
WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 20, 1984 to current year.

REMARKS.--Lake sampled near center at a depth of 47 feet.

WATER QUALITY DATA, FEBRUARY 26 TO AUGUST 29, 1985
(Milligrams per liter unless otherwise indicated)

	Feb. 26		Apr. 10		June 18		July 30		Aug. 29	
Depth of sample (ft)	3	45	3	43	3	45	3	44.5	3	43.5
Specific conductance (umhos)	350	655	490	515	532	558	500	580	479	583
pH	8.6	8.1	8.8	8.5	8.4	8.1	8.6	8.1	8.5	8.5
Water temperature (°C)	1.5	2.5	4.5	4.5	19.5	7.0	24.5	7.0	22.0	7.5
Color (Pt-Co. scale)	--	--	10	5	--	--	--	--	--	--
Turbidity (NTU)	--	--	--	.6	.9	--	--	--	--	--
Secchi-disc (meters)	--	--	--	2.8	--	3.2	--	1.6	--	2.8
Dissolved oxygen	14.6	0.4	14.2	14.0	8.8	0.0	8.8	0.2	8.9	0.3
Hardness, as CaCO ₃	--	--	290	290	--	--	--	--	--	--
Calcium, dissolved (Ca)	--	--	55	55	--	--	--	--	--	--
Magnesium, dissolved (Mg)	--	--	36	36	--	--	--	--	--	--
Dissolved sodium (Na)	--	--	5.4	5.3	--	--	--	--	--	--
Potassium, dissolved (K)	--	--	2.5	2.5	--	--	--	--	--	--
Alkalinity as CaCO ₃	--	--	236	236	--	--	--	--	--	--
Sulfate, dissolved (SO ₄)	--	--	36	37	--	--	--	--	--	--
Chloride, dissolved (Cl)	--	--	18	18	--	--	--	--	--	--
Silica, dissolved (SiO ₂)	--	--	4.3	4.3	--	--	--	--	--	--
Solids, dissolved, at 180°C	--	--	320	314	--	--	--	--	--	--
Nitrogen, nitrate, total (as N)	--	--	.29	.29	--	--	--	--	--	--
Nitrogen, nitrite, total (as N)	--	--	.010	.010	--	--	--	--	--	--
Nitrogen, ammonia, total (as N)	--	--	.15	.12	--	--	--	--	--	--
Nitrogen, organic, total (as N)	--	--	.75	.78	--	--	--	--	--	--
Total phosphorus (as P)	--	--	.013	.016	.023	.162	.023	.184	.013	.170
Phosphorus, ortho, diss (as P)	--	--	<.001	<.001	--	--	--	--	--	--
Iron, dissolved (Fe) ug/L	--	--	16	13	--	--	--	--	--	--
Manganese, dissolved (Mn) ug/L	--	--	24	24	--	--	--	--	--	--
Chlorophyll a, phyto. (ug/L)	--	--	1.30	--	1.20	--	39.0	--	5.00	--
Chlorophyll b, phyto. (ug/L)	--	--	<.10	--	<.10	--	<.10	--	<.10	--



DISSOLVED OXYGEN WATER TEMPERATURE pH AND SPECIFIC CONDUCTANCE DEPTH PROFILES FOR WOLF LAKE

STREAMS TRIBUTARY TO LAKE MICHIGAN

04086000 SHEBOYGAN RIVER AT SHEBOYGAN, WI

LOCATION.--Lat 43°44'25", long 87°45'35", in SE 1/4 NE 1/4 sec.29, T.15 N., R.23 E., Sheboygan County, Hydrologic Unit 04030101, on left bank 400 ft upstream from bridge on State Highway 141, near west city limits of Sheboygan, and 4.2 mi upstream from mouth.

DRAINAGE AREA.--418 mi².

PERIOD OF RECORD.--June 1916 to September 1924 (published as "near Sheboygan"), October 1950 to current year. Monthly discharge only for some periods, published in WSP 1307, 1727.

REVISED RECORDS.--WSP 1307: 1917(M), 1919(M), 1921(M), 1923(M). WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 584.00 ft above National Geodetic Vertical Datum of 1929. June 1916 to June 1924, nonrecording gage at site 0.7 mi downstream at different datum. November 1950 to June 1951, nonrecording gage at site 0.3 mi downstream at datum 3.15 ft lower.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair. Diurnal fluctuation caused by numerous powerplants above station.

AVERAGE DISCHARGE.--43 years (water years 1917-24, 1951-85), 253 ft³/s, 8.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,680 ft³/s Mar. 22, 1975, gage height, 11.64 ft; minimum observed, about 1 ft³/s Aug. 27, 1922, gage height, 1.48 ft datum then in use, caused by shutdown of powerplants.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	1245	2,070	6.61	Mar. 11	0300	2,160	6.74
Nov. 1	1730	2,170	6.75	Mar. 29	0115	1,520	5.76
Feb. 26	----	11,800	ice jam	Apr. 7	0015	*2,260	6.87
Mar. 1	0715		ice jam				

A Estimated, daily mean discharge.

Minimum discharge, 39 ft³/s July 24, gage height, 1.72 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 19-23, Dec. 3-9, and Dec. 19 to Mar. 10.)

1.6	28	3.0	280
1.8	48	4.0	620
2.0	74	5.0	1,080
2.5	163	7.0	2,360

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	1460	375	680	190	1600	1310	243	115	55	96	218
2	138	1460	365	520	190	1700	1020	224	99	63	87	172
3	131	1190	300	390	190	1600	913	201	105	59	77	149
4	131	900	220	350	190	1300	1010	178	103	94	72	140
5	130	706	250	300	180	1100	1770	175	96	111	75	149
6	120	624	260	310	180	1000	1880	181	91	97	73	200
7	115	575	270	310	180	1100	1910	177	87	88	97	196
8	190	539	270	310	180	1200	1640	166	84	77	106	175
9	197	586	260	310	170	1500	1340	160	78	70	90	386
10	155	1010	254	300	170	1800	1150	153	72	65	75	492
11	131	818	239	290	170	1910	1080	146	72	58	65	345
12	121	674	260	280	170	1780	1000	131	69	54	61	257
13	132	576	271	280	160	1710	931	125	72	54	109	203
14	124	528	258	270	160	1580	888	128	71	53	164	176
15	133	505	270	260	160	1420	851	130	69	56	139	163
16	161	479	425	260	160	1340	690	144	74	53	104	152
17	209	429	644	250	160	1250	628	152	81	50	86	147
18	255	336	476	240	150	1090	619	157	76	47	82	148
19	1610	270	380	240	150	1010	591	151	71	47	83	150
20	1280	250	330	230	150	919	501	146	66	47	78	138
21	1080	240	350	230	180	824	448	140	64	49	73	133
22	906	220	320	220	340	630	412	128	76	43	71	137
23	780	190	290	220	700	538	295	122	94	42	71	152
24	725	180	260	210	1300	827	301	115	93	40	78	165
25	732	176	240	210	1500	1010	332	108	78	338	282	167
26	758	194	330	210	1800	870	319	134	68	514	292	166
27	721	337	500	210	1600	799	293	196	63	333	211	174
28	768	591	800	200	1400	1190	274	199	59	199	156	165
29	691	487	1400	200	---	1400	264	170	55	122	155	155
30	558	427	1300	200	---	1090	254	149	53	92	334	157
31	493	---	900	200	---	1020	---	137	---	98	307	---
TOTAL	13819	16957	13067	8690	12230	38107	24914	4866	2354	3168	3849	5727
MEAN	446	565	422	280	437	1229	830	157	78.5	102	124	191
MAX	1610	1460	1400	680	1800	1910	1910	243	115	514	334	492
MIN	115	176	220	200	150	538	254	108	53	40	61	133
CFSM	1.07	1.35	1.01	.67	1.05	2.94	1.99	.38	.19	.24	.30	.46
IN.	1.23	1.51	1.16	.77	1.09	3.39	2.22	.43	.21	.28	.34	.51
CAL YR 1984	TOTAL	152697	MEAN 417	MAX 2210	MIN 57	CFSM 1.00	IN 13.59					
WTR YR 1985	TOTAL	147748	MEAN 405	MAX 1910	MIN 40	CFSM .97	IN 13.15					

STREAMS TRIBUTARY TO LAKE MICHIGAN
432324088154200 BIG CEDAR LAKE NEAR WEST BEND, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 43°23'24", long 88°15'42", in SE 1/4 sec. 30, T.11 N., R.19 E., Washington County, Hydrologic Unit 04040003, 4.6 mi southwest of West Bend.

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 1031 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.20 ft, Nov. 1; minimum, 7.72 ft, July 23, 31.

GAGE HEIGHT (FEET ABOVE ATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.82	8.20						---	---	---	---	---
2	7.80	8.16						---	---	---	---	---
3	7.80	8.14						---	7.87	---	---	---
4	7.80	8.10						---	---	---	---	---
5	7.80	8.08						---	---	7.82	---	---
6	7.81	8.07						---	---	---	---	7.92
7	7.82	8.07						---	---	---	---	---
8	7.83	8.05						---	---	---	7.77	---
9	7.86	---						---	---	7.80	---	---
10	---	---						---	---	---	---	---
11	7.86	---						---	---	---	---	---
12	7.88	---						---	---	---	---	---
13	7.88	---						---	7.82	---	---	7.94
14	7.88	---						---	---	---	---	---
15	7.90	---						---	---	---	---	7.94
16	7.80	---						---	---	---	7.82	---
17	7.85	---						7.92	---	---	---	---
18	7.90	---						---	---	7.78	7.84	---
19	---	---						---	---	---	---	---
20	7.90	---						7.91	7.87	---	---	---
21	8.05	---						---	---	---	---	---
22	8.08	---						---	---	---	7.86	---
23	8.06	---						---	---	7.72	---	---
24	8.06	---						---	---	---	---	---
25	8.04	---						---	7.84	---	---	---
26	8.05	---						---	---	7.92	---	---
27	8.05	---						---	---	---	---	---
28	---	---						7.90	---	---	7.90	---
29	8.05	---						---	---	---	---	---
30	8.03	---						---	---	---	---	---
31	8.00	---						---	---	7.72	---	---

WATER-QUALITY RECORDS

LOCATION.--Lat 43°24'01", long 88°15'22", in SW 1/4 sec. 20, T.11 N., R.19 E., Washington County, Hydrologic Unit 04040003, at north end of lake, and 4.1 mi southwest of West Bend.

PERIOD OF RECORD.--June to September 1985.

REMARKS.--Secchi disc readings made by Louis Ottmer, Jr.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 1.8 meters, many days in July, August, September; minimum transparency, 1.5 meters, June 27, July 3, 6, 9, 13, Aug. 18.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
JUNE 25	1.8	JULY 3	1.5	JULY 13	1.5	AUG. 2	1.8	AUG. 18	1.5	SEPT. 9	1.8
JUNE 27	1.5	JULY 6	1.5	JULY 18	1.8	AUG. 7	1.8	AUG. 24	1.8	SEPT. 14	1.8
JUNE 28	1.8	JULY 9	1.5	JULY 23	1.8	AUG. 11	1.8	AUG. 27	1.8	SEPT. 15	1.8
JUNE 29	1.8	JULY 12	1.8	JULY 29	1.8	AUG. 16	1.8				

LOCATION.--Lat 43°22'30", long 88°15'56", in SE 1/4 sec. 31, T.11 N., R.19 E., Washington County, Hydrologic Unit 04040003, at south end of lake, and 5.4 mi southwest of West Bend.

PERIOD OF RECORD.--June to September 1985.

REMARKS.--Secchi disc readings made by Louis Ottmer, Jr.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 3.0 meters, June 25, 27, 28, 29, July 12; minimum transparency, 2.3 meters, Aug. 18.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
JUNE 25	3.0	JULY 3	2.7	JULY 13	2.4	AUG. 2	2.7	AUG. 18	2.3	SEPT. 9	2.7
JUNE 27	3.0	JULY 6	2.7	JULY 18	2.7	AUG. 7	2.7	AUG. 24	2.7	SEPT. 14	2.7
JUNE 28	3.0	JULY 9	2.7	JULY 23	2.7	AUG. 11	2.7	AUG. 27	2.7	SEPT. 15	2.7
JUNE 29	3.0	JULY 12	3.0	JULY 29	2.7	AUG. 16	2.7				

STREAMS TRIBUTARY TO LAKE MICHIGAN
04086500 CEDAR CREEK NEAR CEDARBURG, WI

LOCATION.--Lat 43°19'23", long 87°58'43" in SE 1/4 SW 1/4 sec.14, T.10 N., R.21 E., Ozaukee County, Hydrologic Unit 04040003, on left bank 40 ft upstream from bridge on State Highway 60, 1.9 mi north of Cedarburg and 6.6 mi upstream from mouth.

DRAINAGE AREA.--120 mi².

PERIOD OF RECORD.--August 1930 to September 1970, July 1973 to September 1981, August 1983 to current year.

REVISED RECORDS.--WSP 1307: 1932-34(M), 1937(M), 1939(M), 1945(M), 1948-49(M). WDR WI-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 795.33 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Nonrecording gage and crest-stage gage August 1930 to September 1970 at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 23-28 and ice periods listed in rating table below. Records good except for periods of estimated daily record, which are fair.

AVERAGE DISCHARGE.--50 years, 69.6 ft³/s, 7.88 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, about 3,600 ft³/s Mar. 30, 1960, gage height, 12.25 ft, from graph based on gage readings, backwater from ice; minimum observed, 0.20 ft³/s Aug. 9-12, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 20	1015	402	7.02	Mar. 2	----	A *780	ice jam
Nov. 2	2345	744	7.92	Mar. 11	2245	660	7.72
Dec. 30	1430	A580	ice affected	Mar. 29	1800	488	7.27
Feb. 26	1630	ice jam	*9.48	Apr. 7	1930	514	7.34

A Estimated, daily mean discharge (ice affected)

Minimum daily discharge, 13 ft³/s July 17.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 21, 22, Dec. 3-10, 20-31, and Jan. 1 to Mar. 9.)

5.1	10	6.5	246
5.2	15	7.0	395
5.4	34	8.0	778
5.7	74	9.0	1,270
6.0	128		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	482	135	270	88	700	376	76	33	15	35	22
2	30	655	134	200	88	780	341	73	31	15	30	20
3	29	717	120	150	86	640	284	70	29	17	26	18
4	28	586	100	130	86	540	253	68	28	16	23	16
5	27	448	74	120	86	400	352	64	28	17	23	17
6	26	335	94	120	84	360	434	61	27	23	23	28
7	27	246	100	120	84	420	493	62	25	21	24	24
8	42	182	110	120	84	450	483	61	22	18	21	23
9	52	177	110	120	82	500	389	58	20	17	18	80
10	42	291	110	110	82	545	304	54	20	18	17	84
11	39	301	102	110	80	631	230	53	20	17	16	55
12	39	249	121	110	78	628	188	50	23	15	15	42
13	39	177	130	110	78	556	169	49	22	15	23	36
14	38	151	112	110	76	475	160	47	20	15	32	32
15	41	144	111	100	76	412	159	59	22	15	28	30
16	94	131	168	100	76	357	145	70	30	14	24	29
17	114	118	263	100	76	302	127	80	31	13	21	34
18	104	116	221	98	76	243	121	77	26	14	20	36
19	326	111	161	98	76	216	117	68	22	15	25	32
20	397	104	140	96	76	205	107	53	22	15	19	28
21	384	100	130	96	80	183	100	51	21	15	18	25
22	329	94	120	94	230	175	93	50	22	15	19	27
23	259	86	110	94	430	176	92	46	22	14	19	29
24	187	82	84	94	600	266	100	43	20	14	22	31
25	143	80	72	94	680	318	104	43	20	32	20	28
26	138	78	100	92	720	295	95	36	22	65	19	29
27	144	100	140	92	640	246	87	40	21	46	18	32
28	207	200	210	92	580	357	83	42	18	36	17	31
29	217	197	400	92	---	472	82	44	17	31	17	28
30	165	157	580	90	---	451	78	41	15	28	18	27
31	134	---	400	90	---	394	---	39	---	31	25	---
TOTAL	3872	6895	4962	3512	5578	12693	6146	1728	699	652	675	973
MEAN	125	230	160	113	199	409	205	55.7	23.3	21.0	21.8	32.4
MAX	397	717	580	270	720	780	493	80	33	65	35	84
MIN	26	78	72	90	76	175	78	36	15	13	15	16
CFSM	1.04	1.92	1.33	.94	1.66	3.41	1.71	.46	.19	.18	.18	.27
IN.	1.20	2.14	1.54	1.09	1.73	3.93	1.91	.54	.22	.20	.21	.30

CAL YR 1984 TOTAL 50994 MEAN 139 MAX 900 MIN 17 CFSM 1.16 IN 15.81
WTR YR 1985 TOTAL 48385 MEAN 133 MAX 780 MIN 13 CFSM 1.11 IN 15.00

STREAMS TRIBUTARY TO LAKE MICHIGAN

04086600 MILWAUKEE RIVER NEAR CEDARBURG, WI

LOCATION.--Lat 43°16'49", long 87°56'30", in NW 1/4 NW 1/4 sec.6, T.9 N., R.22 E., Ozaukee County, Hydrologic Unit 04040003, on right bank 60 ft downstream from Pioneer Road bridge, 2.6 mi southeast of Cedarburg, 1.0 mi west of I-43, and 26.25 mi upstream from mouth.

DRAINAGE AREA.--607 mi².

PERIOD OF RECORD.--November 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 653.558 ft above National Geodetic Vertical Datum of 1929 (South-eastern Wisconsin Regional Planning Commission bench mark).

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating tables below. Records good except those for ice-affected periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,140 ft³/s Apr. 3, 1982, gage height, 11.18 ft; maximum gage height, 12.85 ft Mar. 1, 1985 (backwater from ice); minimum daily, 72 ft³/s July 24, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,700 ft³/s Mar. 2, estimated daily mean discharge (ice affected); maximum recorded open-water discharge, 2,170 ft³/s Apr. 7, gage height, 9.03 ft; maximum gage height, 12.85 ft, Mar. 1 (backwater from ice); minimum daily, 72 ft³/s July 24.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 3-10, Dec. 18 to Mar. 7.)

Oct. 1 to Mar. 22				Mar. 23 to Sept. 30			
5.4	96	7.0	928	5.3	54	7.0	866
5.7	212	8.0	1,596	5.4	80	8.0	1,480
6.0	356	10.0	3,120	5.7	200	10.0	2,870
				6.0	336		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	1970	737	1000	310	2500	1700	381	255	116	338	220
2	230	2320	714	620	300	2700	1560	364	235	120	265	203
3	213	2050	700	460	300	2500	1430	353	222	130	239	187
4	194	1730	360	430	300	2000	1350	341	209	145	218	169
5	194	1430	300	440	300	1600	1690	327	205	147	200	189
6	193	1220	400	460	300	1300	1900	319	203	244	188	221
7	202	1040	440	460	290	1500	2120	296	193	133	195	217
8	242	828	440	450	290	1640	1990	283	187	123	190	272
9	295	815	440	440	290	1920	1820	297	175	138	177	371
10	283	1040	430	430	280	2100	1620	285	166	125	170	450
11	267	1080	404	420	280	2240	1440	273	163	113	170	409
12	254	998	469	410	280	2200	1230	265	162	105	153	368
13	243	839	544	390	280	2120	1110	252	170	100	183	334
14	248	788	519	380	280	2030	996	245	163	105	308	292
15	259	739	534	380	270	1860	964	299	171	100	146	263
16	363	679	622	370	270	1700	904	322	195	95	120	240
17	425	621	839	360	270	1500	799	342	223	88	139	228
18	477	576	800	360	280	1330	757	368	210	86	151	218
19	1220	500	660	350	290	1190	696	334	187	85	146	211
20	1660	468	580	350	310	1050	676	314	180	86	171	205
21	1660	439	600	350	390	974	629	292	136	82	214	208
22	1560	430	560	340	900	866	537	271	142	76	110	226
23	1430	429	400	340	1400	850	539	264	212	73	81	230
24	1280	404	280	340	2100	1110	557	242	139	72	140	259
25	1120	401	200	330	2400	1190	554	218	111	207	139	246
26	1040	387	300	330	2500	1090	521	210	144	682	213	243
27	859	450	450	330	2400	1060	467	260	142	765	225	265
28	959	800	900	320	2200	1420	451	314	136	604	218	264
29	929	805	2100	320	---	1690	427	318	128	538	209	244
30	776	764	1900	320	---	1690	401	303	119	468	211	241
31	696	---	1400	310	---	1670	---	284	---	383	226	---
TOTAL	20002	27040	20022	12590	20060	50590	31835	9236	5283	6334	5853	7693
MEAN	645	*901	646	406	716	1632	1061	298	176	204	189	256
MAX	1660	2320	2100	1000	2500	2700	2120	381	255	765	338	450
MIN	193	387	200	310	270	850	401	210	111	72	81	169
CFSM	1.06	1.48	1.06	.67	1.18	2.69	1.75	.49	.29	.34	.31	.42
IN.	1.23	1.66	1.23	.77	1.23	3.10	1.95	.57	.32	.39	.36	.47
CAL YR 1984	TOTAL	228734	MEAN 625	MAX 2860	MIN 120	CFSM 1.03	IN 14.02					
WTR YR 1985	TOTAL	216538	MEAN 593	MAX 2700	MIN 72	CFSM .98	IN 13.27					

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087000 MILWAUKEE RIVER AT MILWAUKEE, WI
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 43°06'00", long 87°54'32", in NE 1/4 sec.5, T.7 N., R.22 E., Milwaukee County, Hydrologic Unit 04040003, on left bank near northeast limits of Milwaukee in Estabrook Park, 2,000 ft downstream from Port Washington Road bridge and 6.6 mi upstream from mouth.

DRAINAGE AREA.--696 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1914 to current year. Published as "near Milwaukee" prior to 1936.

REVISED RECORDS.--WSP 564: 1918(M). WSP 924: 1940. WSP 1207: 1936(M). WSP 1337: 1915-17(M), 1918, 1919-21(M), 1922, 1923(M), 1924, 1925-33(M). WDR WI-79-1: Drainage area.

GAGE.--Datum of gage is 607.23 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Army Corps of Engineers). Prior to Apr. 6, 1929, nonrecording gage near present site at different datum. Apr. 6, 1929, to Jan. 8, 1934, nonrecording gage at bridge 0.5 mi upsteam at different datum.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair. Occasional regulation caused by recreation dam approximately 1,200 ft upsteam.

AVERAGE DISCHARGE.--71 years, 418 ft³/s, 8.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s Mar. 20, 1918, Aug. 6, 1924, gage height, 9.00 ft datum then in use, from floodmark for 1918, from graph based on gage reading for 1924, no flow Sept. 8, 1943.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Nov. 1	0745	3,200	5.05	Sept. 8	1415	*3,310	5.12
Mar. 2	1400	A	A *5.40				

A Backwater from ice

Minimum discharge, 14 ft³/s Sept. 10, gage height, 1.54 ft, result of regulation.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 4-9, 18-26, Jan. 2 to Mar. 6.)

1.8	81	3.0	756
2.0	156	4.0	1,770
2.5	412	5.0	3,120

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	212	2220	797	1160	330	2800	1920	489	296	121	392	248
2	246	2610	806	740	330	3000	1750	466	259	140	344	229
3	235	2220	770	520	320	2600	1600	450	241	129	261	213
4	216	1870	560	450	320	2200	1520	434	229	152	264	205
5	211	1590	310	470	320	1600	1760	426	223	221	243	205
6	207	1330	400	480	320	1400	2130	410	213	236	216	223
7	277	1160	450	480	310	1570	2320	390	205	195	220	255
8	259	983	460	470	310	1750	2190	344	199	137	205	809
9	279	1010	450	460	310	2050	2000	345	182	145	202	729
10	316	1140	442	450	300	2250	1810	341	173	143	193	457
11	299	1210	436	440	300	2380	1620	320	198	134	178	474
12	285	1130	602	430	300	2360	1420	373	170	124	178	430
13	265	1190	594	420	300	2200	1260	296	172	119	281	386
14	269	869	630	410	290	2110	1160	281	173	118	291	354
15	399	831	660	400	290	1960	1080	477	248	114	248	300
16	418	763	748	390	290	1790	1030	385	202	111	153	283
17	512	697	939	390	290	1620	941	421	214	107	140	280
18	675	653	900	380	300	1440	853	419	223	102	209	257
19	1340	583	700	380	310	1310	815	375	203	133	163	245
20	1610	514	600	370	350	1200	762	382	188	103	166	232
21	1750	464	640	370	600	1080	723	329	283	96	223	270
22	1590	430	600	360	1100	999	653	309	153	92	189	259
23	1460	474	450	360	1500	973	621	291	175	88	118	270
24	1320	451	320	360	2200	1260	692	226	193	84	197	274
25	1200	443	220	350	2500	1420	640	99	132	229	210	286
26	1100	441	350	350	2700	1280	617	244	130	440	185	283
27	1070	608	557	350	2500	1210	574	304	147	766	241	279
28	1080	729	1060	340	2300	1640	523	302	141	688	241	298
29	1040	898	2300	340	---	1810	525	340	135	587	269	281
30	903	841	2250	340	---	1850	509	332	126	543	289	287
31	758	---	1710	330	---	1890	---	310	---	555	229	---
TOTAL	21801	30352	22711	13540	21590	55002	36018	10910	5826	6952	6938	9601
MEAN	703	1012	733	437	771	1774	1201	352	194	224	224	320
MAX	1750	2610	2300	1160	2700	3000	2320	489	296	766	392	809
MIN	207	430	220	330	290	973	509	99	126	84	118	205
CFSM	1.01	1.45	1.05	.63	1.11	2.55	1.73	.51	.28	.32	.32	.46
IN.	1.17	1.62	1.21	.72	1.15	2.94	1.93	.58	.31	.37	.37	.51
CAL YR 1984	TOTAL	258685	MEAN 707	MAX 2730	MIN 150	CFSM 1.02	IN 13.83					
WTR YR 1985	TOTAL	241241	MEAN 661	MAX 3000	MIN 84	CFSM .95	IN 12.89					

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087000 MILWAUKEE RIVER AT MILWAUKEE, WI--CONTINUED
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1967-69, 1971, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEC C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
DEC, 1984												
05...	0930	--	310	710	--	.0	.50	14.4	755	100	270	65
MAR, 1985												
12...	0900	2390	--	510	8.0	3.0	8.5	12.6	--	--	290	210
JUN												
18...	0945	228	--	650	8.7	19.0	7.5	10.2	744	113	180	64
AUG												
27...	0900	243	--	600	8.5	20.5	6.5	7.8	738	90	830	120

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	PERCENT SODIUM (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD AS CACO3 (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
DEC, 1984												
05...	340	58	74	37	20	11	.5	3.3	--	40	40	.10
MAR, 1985												
12...	230	26	52	25	16	13	.5	2.6	207	25	29	<.10
JUN												
18...	280	37	51	36	29	18	.8	2.3	239	33	55	.10
AUG												
27...	240	31	42	33	35	24	1	2.6	210	31	57	.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
DEC, 1984											
05...	9.2	401	390	.55	336	1.8	.190	.70	.130	.060	.080
MAR, 1985											
12...	7.2	290	280	.39	1870	1.4	.050	.90	.070	.030	.060
JUN											
18...	6.1	392	360	.53	241	<.10	<.010	1.4	.150	.020	<.010
AUG											
27...	3.9	351	330	.48	230	<.10	<.010	2.8	.100	.040	.010

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087000 MILWAUKEE RIVER AT MILWAUKEE, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
DEC, 1984											
05...	0930	--	310	20	1	35	<.5	<1	1	<3	4
MAR, 1985											
12...	0900	2390	--	<10	<1	27	<.5	2	<1	<3	3
JUN											
18...	0945	228	--	60	2	34	<.5	<1	<1	<3	3
AUG											
27...	0900	243	--	10	2	36	.5	2	1	<3	2

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC, 1984											
05...	46	3	7	22	<.1	<10	3	<1	240	<6	25
MAR, 1985											
12...	41	1	<4	10	<.1	<10	3	<1	120	<6	20
JUN											
18...	13	3	7	5	<.1	<10	1	<1	260	<6	44
AUG											
27...	25	4	<4	2	.1	<10	2	<1	280	<6	13

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC, 1984								
05...	0930	--	310	710	.0	--	--	--
MAR, 1985								
12...	0900	2390	--	510	3.0	28	181	91
JUN								
18...	0945	228	--	650	19.0	38	23	96
AUG								
27...	0900	243	--	600	20.5	--	--	--

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087030 MEMONONEE RIVER AT MEMONONEE FALLS, WI

LOCATION.--Lat 43°10'22", long 88°06'14", in SE 1/4 NE 1/4 sec.10, T.8 N., R.20 E., Weukasha County, Hydrologic Unit 04040003, on right bank, 150 ft upstream from Pilgrim Road (County Trunk Highway YY) bridge in Menomonee Falls, at mile 21.1.

DRAINAGE AREA.--34.7 mi².

PERIOD OF RECORD.--November 1974 to September 1977, July 1979 to current year.

REVISED RECORDS.--WDR WI-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 753.50 ft above National Geodetic Vertical Datum of 1929 (University of Wisconsin bench mark).

REMARKS.--Estimated discharges: None, except for ice periods listed in rating table below. Records good except those for ice periods, which are fair. Occasional regulation caused by dam in Menomonee Falls, about 1.0 mi upstream.

AVERAGE DISCHARGE.--8 years (1976-77, 1980-85) 29.6 ft³/s, 11.58 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,010 ft³/s July 13, 1981, gage height, 6.57 ft; minimum discharge, 0.85 ft³/s July 29, 30, end Aug. 13, 1982, gage height, 2.55 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 380 ft³/s end maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Nov. 1	0535	*450	5.27	Feb. 24	1750	ice jam	*6.82

Minimum, 1.9 ft³/s July 24, gage height, 2.63 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 4-9, 21-26, and Jan. 2 to Feb. 25.)

2.6	1.2	3.4	38
2.7	2.4	3.7	69
2.8	4.2	4.0	112
2.9	7.0	4.5	213
3.0	11	5.0	355
3.2	22		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	296	42	83	15	190	92	19	6.5	3.3	5.1	4.4
2	7.9	326	43	50	15	190	70	19	6.3	3.5	4.8	3.9
3	7.8	293	46	45	15	159	55	17	6.1	3.7	4.0	3.6
4	7.7	194	41	42	15	98	55	17	6.1	5.0	4.2	4.3
5	7.7	98	36	45	15	91	75	16	6.0	6.3	4.2	5.9
6	7.8	59	31	50	15	92	96	17	5.6	4.7	3.9	4.8
7	15	48	30	42	15	73	120	16	5.3	4.3	4.5	4.3
8	14	45	29	37	15	98	90	16	5.0	4.0	3.7	4.4
9	12	64	27	33	15	150	79	16	4.6	4.0	3.6	6.2
10	10	119	28	30	14	178	62	15	4.8	3.4	4.2	4.1
11	9.9	111	31	28	14	192	56	13	5.6	3.3	3.2	2.2
12	9.7	78	54	26	14	185	48	13	5.2	3.2	3.0	1.3
13	9.7	57	57	25	14	158	51	12	4.9	3.1	10	9.9
14	9.4	50	47	24	14	131	48	11	4.7	3.6	4.9	7.4
15	31	47	46	23	14	102	47	20	7.3	2.9	4.5	7.0
16	47	41	85	22	14	83	42	18	6.9	2.5	4.4	6.4
17	54	37	106	21	14	70	41	19	6.1	2.7	11	7.8
18	59	36	75	20	15	58	40	16	6.1	2.7	8.8	7.8
19	157	33	52	19	17	57	35	14	5.7	2.7	6.2	7.0
20	162	30	44	18	38	53	34	13	5.3	2.6	4.8	6.7
21	123	26	37	18	100	46	30	11	5.1	2.6	4.3	8.2
22	93	25	33	17	230	43	28	10	7.2	2.4	4.1	7.4
23	64	25	31	17	190	52	25	9.7	6.0	2.3	4.0	8.2
24	49	27	28	17	350	89	30	9.1	4.9	2.3	12	7.8
25	43	29	26	17	320	87	28	8.3	5.0	16	4.9	7.8
26	45	30	70	16	275	68	25	9.4	4.4	8.4	4.3	8.2
27	52	69	148	16	227	56	23	10	4.6	5.2	4.2	7.8
28	81	82	203	16	186	158	21	9.0	4.3	4.4	4.1	7.0
29	67	60	259	16	---	144	21	7.9	3.8	4.3	5.5	6.4
30	52	49	225	16	---	89	21	7.6	3.4	4.2	6.7	7.0
31	44	---	172	16	---	73	---	7.1	---	6.3	4.9	---
TOTAL	1359.5	2484	2182	865	2195	3313	1488	416.1	162.8	129.9	162.0	349.0
MEAN	43.9	82.8	70.4	27.9	78.4	107	49.6	13.4	5.43	4.19	5.23	11.6
MAX	162	326	259	83	350	192	120	20	7.3	16	12	6.2
MIN	7.7	25	26	16	14	43	21	7.1	3.4	2.3	3.0	3.6
CFSM	1.27	2.39	2.03	.80	2.26	3.08	1.43	.39	.16	.12	.15	.33
IN.	1.46	2.66	2.34	.93	2.35	3.55	1.60	.45	.17	.14	.17	.37
GAL YR 1984	TOTAL	17030.6	MEAN	46.5	MAX	400	MIN	5.2	CFSM	1.34	IN	18.26
WTR YR 1985	TOTAL	15106.3	MEAN	41.4	MAX	350	MIN	2.3	CFSM	1.19	IN	16.19

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087088 UNDERWOOD CREEK AT WAUWATOSA, WI

LOCATION.--Lat 43°03'17", long 88°02'46", in SW 1/4 NW 1/4 sec.20, T.7 N., R.21 E., Milwaukee County, Hydrologic Unit 04040003, at U.S. Highway 45, on right bank, just downstream of the Chicago, Milwaukee, St. Paul and Pacific Railroad bridge, on Milwaukee County Park Commission property, at Wauwatosa, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--18.2 mi².

PERIOD OF RECORD.--December 1974 to November 1979, July 1980 to current year.

REVISED RECORDS.--WDR WI-77-1: Drainage area.

GAGE.--Water-stage recorder and steel plate weir. Elevation of gage is 690 ft, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 18, 19, 26, 28, 29, Nov. 1 and ice periods listed in rating table below. Records are good, except those for discharges less than 6 ft³/s and greater than 600 ft³/s which are fair to poor, and the periods of ice effect, which are poor.

AVERAGE DISCHARGE.--9 years (1976-79, 1981-85), 12.5 ft³/s, 9.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s July 13, 1981, gage height, 5.55 ft; no flow on all or part of many days during 1977 winter period.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,160 ft³/s Sept. 9, gage height, 5.77 ft; minimum, 2.3 ft³/s July 16, gage height, 2.02 ft.

REVISIONS.--The minimum daily discharge for water year 1984 occurred only on Oct. 1, 17. Revised daily discharges, in cubic feet per second, for Aug. 8 to Sept. 30, 1984, are given below. These figures supersede those published in the report for 1984.

Aug. 8	89	Aug. 19	7.2	Aug. 30	27	Sept. 10	9.0	Sept. 21	4.5
9	11	20	7.3	31	7.5	11	7.2	22	4.4
10	7.8	21	8.6	Sept. 1	22	12	6.2	23	4.4
11	7.3	22	17	2	8.6	13	6.1	24	4.8
12	6.9	23	7.4	3	7.5	14	8.1	25	5.4
13	6.9	24	6.9	4	7.4	15	6.2	26	6.8
14	7.1	25	6.8	5	7.0	16	5.3	27	4.8
15	7.6	26	6.9	6	7.0	17	4.8	28	4.4
16	7.9	27	17	7	12	18	4.8	29	4.3
17	7.9	28	7.7	8	9.1	19	4.8	30	4.2
18	7.7	29	7.3	9	7.8	20	4.7		
MONTH	TOTAL	MEAN	MAX	MIN	CFSM	IN			
AUG. 1984	362.4	11.7	89	3.2	.64	.74			
SEPT. 1984	252.2	8.41	54	4.2	.46	.52			
WTR YR 1984	5206.4	14.2	157	2.2	.78	10.64			

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used June 24 to July 3 and July 6-13; stage-discharge relation affected by ice Dec. 4-9, 23-27, and Dec. 30 to Feb. 21.)

1.9	2.0	2.4	24
2.0	3.7	2.7	57
2.1	6.5	3.0	105
2.2	10	3.5	211

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	129	8.1	15	6.6	72	30	8.0	4.0	3.2	3.9	3.6
2	4.3	39	16	13	6.6	51	22	7.6	4.1	3.5	3.6	3.3
3	4.2	19	8.4	11	6.6	31	19	6.9	3.9	3.3	3.6	3.6
4	4.1	14	8.0	9.6	6.6	46	32	7.3	4.0	8.9	4.6	3.6
5	4.1	11	7.8	8.6	6.6	44	32	8.3	3.9	20	4.2	3.5
6	4.2	9.3	7.2	8.2	6.4	28	74	7.2	4.4	4.1	4.2	3.5
7	16	8.4	6.8	7.8	6.4	25	39	7.3	4.5	3.1	5.0	3.4
8	6.6	8.4	6.4	7.6	6.4	65	25	6.9	4.0	3.1	4.8	103
9	5.1	4.8	6.2	7.6	6.4	70	19	7.0	3.9	3.1	4.8	100
10	4.8	29	5.6	7.6	6.4	70	18	6.7	4.0	3.1	7.0	9.6
11	4.7	14	18	7.6	6.4	69	15	6.1	11	3.4	4.5	5.1
12	4.5	11	30	7.4	6.2	47	15	13	4.0	3.7	4.7	4.0
13	4.7	9.5	14	7.4	6.2	38	15	5.9	3.6	4.1	21	3.6
14	4.7	8.6	21	7.4	6.2	28	16	6.2	3.7	4.6	4.9	3.5
15	21	8.4	20	7.4	6.2	21	14	29	4.2	5.1	4.7	3.6
16	30	7.3	38	7.4	6.2	19	13	20	9.9	5.1	4.8	3.7
17	15	7.1	22	7.4	6.0	16	12	9.3	4.2	5.4	4.8	11
18	45	7.2	15	7.4	6.0	13	12	5.1	3.6	5.9	8.6	4.5
19	76	7.4	11	7.2	6.0	13	12	4.6	3.5	20	4.6	5.1
20	11	8.1	13	7.0	6.4	12	9.8	5.0	3.6	3.8	4.3	5.0
21	31	7.6	23	7.0	4.0	10	9.4	4.7	9.7	3.3	4.4	14
22	10	6.0	12	7.0	5.7	10	9.9	5.1	8.0	3.7	4.2	5.5
23	7.7	5.9	11	7.0	11.5	21	17	4.9	3.9	3.7	4.2	6.1
24	6.9	5.8	10	7.0	140	33	18	5.0	3.4	3.9	32	3.5
25	8.0	5.9	9.4	6.8	91	18	10	4.9	3.2	23	5.3	3.4
26	7.5	6.0	13	6.8	66	16	9.2	26	3.2	3.5	4.5	3.7
27	28	39	25	6.8	49	15	8.2	13	3.3	3.0	4.3	3.5
28	21	14	144	6.8	52	66	7.9	5.0	3.5	3.1	4.0	3.3
29	8.9	9.2	171	6.8	---	26	8.9	4.6	3.3	3.3	20	3.3
30	7.9	8.7	35	6.8	---	18	8.0	4.4	3.2	3.1	17	6.0
31	9.2	---	20	6.8	---	48	---	4.4	---	8.5	4.3	---
TOTAL	420.2	511.8	755.9	245.2	736.8	1059	550.3	259.4	174.5	178.6	216.8	338.5
MEAN	13.6	17.1	24.4	7.91	26.3	34.2	18.3	8.37	5.82	5.76	6.99	11.3
MAX	76	129	171	15	140	72	74	29	42	23	32	103
MIN	4.1	5.8	5.6	6.8	6.0	10	7.9	4.4	3.2	3.0	3.6	3.3
CFSM	.75	.94	1.34	.44	1.45	1.88	1.01	.46	.32	.32	.38	.62
IN.	.86	1.05	1.54	.50	1.51	2.16	1.12	.53	.36	.37	.44	.69

CAL YR 1984	TOTAL	5821.9	MEAN 15.9	MAX 171	MIN 1.6	CFSM .87	IN 11.90
WTR YR 1985	TOTAL	5447.0	MEAN 14.9	MAX 171	MIN 3.0	CFSM .82	IN 11.13

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087120 MEMONONEE RIVER AT WAUWATOSA, WI

LOCATION.--Lat 43°02'44", long 87°59'59", in NE 1/4 NW 1/4 sec.27, T.7 N., R.21 E., Milwaukee County, Hydrologic Unit 04040003, on left bank near upstream side of 70th Street bridge in Wauwatosa, 800 ft downstream from Honey Creek, and at mile 6.2.

DRAINAGE AREA.--123 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 630.86 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 1, 1974, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 23 to Dec. 4, Mar. 5, 6, Apr. 13-15, May 4-23, and ice periods listed in rating tables below. Records good except for October and November, which are fair, and December to May, which are poor. Low flow affected by three sewage treatment plants upstream.

AVERAGE DISCHARGE.--24 years, 94.1 ft³/s, 10.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft³/s Apr. 21, 1973, gage height, 13.92 ft from rating curve extended above 6,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 2.8 ft³/s Jan. 18, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Nov. 1	0635	3,100	6.88	Sept. 8	1420	*3,610	*7.35
Dec. 29	0340	2,140	5.68	Sept. 9	0345	3,150	6.87

Minimum daily discharge, 13 ft³/s July 16, 17, 23, 24.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 5-8, 24-26, Jan. 3 to Feb. 23.)

Oct. 1 to Dec. 29 (0255)

Dec. 29 (0300) to Sept. 30

0.7	10	2.0	185	0.5	12	1.5	109
0.9	17	2.5	340	0.7	17	2.0	225
1.1	29	3.0	545	0.9	28	3.0	566
1.3	48	4.0	1,060	1.1	46	4.0	1,040
1.5	83	5.0	1,660	1.3	74	5.0	1,650

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	1220	50	242	48	550	297	54	19	14	21	17
2	17	766	100	183	48	489	218	48	18	15	16	15
3	16	527	54	140	47	380	180	45	18	14	15	15
4	15	383	48	120	47	352	227	50	18	27	18	15
5	15	238	44	110	47	340	270	54	18	117	21	17
6	14	135	42	100	47	250	482	49	18	34	16	17
7	101	99	41	94	47	225	395	48	17	17	24	15
8	47	85	38	90	47	402	292	47	17	16	17	344
9	24	353	35	82	47	518	214	46	16	16	15	625
10	21	296	35	76	47	532	165	45	15	15	23	142
11	19	219	89	72	47	546	142	44	45	14	16	79
12	18	160	241	68	46	448	128	70	22	14	14	44
13	17	116	165	66	46	378	120	42	18	14	97	31
14	17	95	183	64	46	315	120	45	18	14	22	25
15	133	85	179	60	46	249	110	130	143	14	17	21
16	186	71	334	58	46	203	107	94	41	13	16	20
17	152	57	297	56	46	170	94	66	23	13	16	47
18	259	53	209	56	46	143	87	50	19	14	50	25
19	640	50	148	54	50	133	82	40	18	74	20	23
20	310	43	108	54	62	129	73	31	17	16	19	20
21	355	38	165	52	400	127	69	30	84	14	16	58
22	195	34	130	52	600	127	65	29	42	14	16	37
23	137	33	91	52	500	175	95	27	20	13	16	35
24	101	32	40	52	934	304	127	25	17	13	133	25
25	87	32	35	52	865	230	74	24	16	99	44	21
26	90	35	90	50	740	174	64	109	16	28	22	29
27	196	300	123	50	587	151	55	96	15	17	18	21
28	253	150	760	49	485	476	51	28	15	15	16	18
29	147	90	1140	49	---	324	52	24	14	14	62	17
30	106	60	607	49	---	237	52	23	14	14	83	31
31	83	---	422	48	---	335	---	22	---	63	22	---
TOTAL	3787	5855	6043	2400	6064	9412	4507	1535	791	789	921	2049
MEAN	122	195	195	77.4	217	304	150	49.5	26.4	25.5	29.7	68.3
MAX	640	1220	1140	242	934	550	482	130	143	117	133	625
MIN	14	32	35	48	46	127	51	22	14	13	14	15
CFSM	.99	1.59	1.59	.63	1.76	2.47	1.22	.40	.22	.21	.24	.56
IN.	1.15	1.77	1.83	.73	1.83	2.85	1.36	.46	.24	.24	.28	.62
CAL YR 1984	TOTAL	50427	MEAN 138	MAX 1220	MIN 14	CFSM 1.12	IN 15.25					
WTR YR 1985	TOTAL	44153	MEAN 121	MAX 1220	MIN 13	CFSM .98	IN 13.35					

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087159 KINNICKINNIC RIVER AT SOUTH 11TH STREET AT MILWAUKEE, WI

LOCATION.--Lat 42°59'51", long 87°55'35", in SW 1/4 NW 1/4 sec.8, T.6 N., R.22 E., Milwaukee County, Hydrologic Unit 04040003, on left bank 150 ft upstream from footbridge on South 11th Street, 3.2 mi upstream from mouth, at Milwaukee.

DRAINAGE AREA.--20.2 mi².

PERIOD OF RECORD.--October 1982 to current year. Low-flow records equivalent to records for Kinnickinnic River at Milwaukee, WI (04087160) September 1976 to January 1983 (discontinued). Discontinued gage was located 0.3 mi downstream from present gage.

GAGE.--Water-stage recorder and steel plate weir. Elevation of gage is 590 ft from river-profile map.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records are good except for the ice-affected periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,760 ft³/s Nov. 1, 1984, gage height, 11.53 ft; minimum discharge, 5.0 ft³/s Jan. 15, 1983, gage height, 6.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,760 ft³/s Nov. 1, gage height, 11.53 ft; minimum daily discharge, 5.5 ft³/s June 30.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 4-10, 24-26, and Jan. 1 to Feb. 21.)

6.0	4.2	6.9	64
6.2	9.4	7.3	127
6.4	19	7.9	270
6.6	33	8.6	520

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	488	7.4	15	6.4	66	22	8.9	7.3	7.0	7.5	7.3
2	6.0	25	27	14	6.2	36	19	8.5	6.6	18	6.8	7.1
3	6.3	15	9.8	13	6.2	22	22	8.0	6.8	7.2	6.4	9.6
4	6.5	12	7.2	12	6.2	112	39	8.0	7.3	8.5	13	11
5	6.6	11	6.8	11	6.4	50	35	11	7.8	76	11	10
6	5.9	9.5	6.4	9.4	6.4	27	85	9.8	7.6	10	9.0	10
7	41	9.2	6.2	8.6	6.6	36	24	8.1	7.6	6.3	12	8.3
8	31	12	6.2	8.2	6.6	92	18	7.5	7.4	8.8	7.8	213
9	6.7	289	6.2	7.8	6.8	61	14	7.8	7.3	8.1	7.8	237
10	6.5	51	6.6	7.8	6.8	55	13	8.0	7.4	7.3	12	14
11	6.3	18	33	8.0	7.0	52	13	7.6	29	6.9	6.5	9.3
12	7.0	15	57	8.0	7.0	32	11	35	8.6	7.1	7.1	8.0
13	6.2	12	18	8.0	7.0	30	30	7.9	8.1	7.1	41	8.3
14	6.5	11	49	8.4	7.2	21	15	7.8	7.6	7.7	9.5	7.9
15	74	11	41	8.6	7.2	17	12	102	78	7.6	8.2	6.9
16	62	9.4	42	8.4	7.2	15	11	30	19	7.4	8.1	7.9
17	27	9.3	17	8.0	7.2	13	10	24	8.8	8.2	7.4	16
18	168	9.0	13	7.6	7.2	12	11	8.1	8.0	8.2	37	9.7
19	250	9.9	12	6.8	7.6	13	10	7.1	7.7	25	6.9	11
20	15	8.0	9.9	6.2	9.0	12	9.1	13	7.9	7.8	7.7	12
21	60	7.2	44	6.2	60	11	9.8	8.0	18	6.3	8.1	30
22	14	6.4	13	6.4	108	10	9.2	7.8	11	7.1	8.0	13
23	11	6.8	9.5	6.6	167	36	40	7.6	6.7	7.0	8.2	15
24	10	6.2	9.0	6.6	165	49	44	8.0	7.1	7.7	60	8.6
25	17	8.9	7.4	6.6	66	16	11	7.3	7.5	62	8.1	8.5
26	13	9.9	15	6.8	51	13	9.9	59	8.3	8.9	8.2	9.1
27	85	88	74	6.8	35	17	7.8	51	8.0	6.5	7.6	7.2
28	46	15	245	6.8	51	149	8.0	9.8	6.7	6.1	8.0	6.8
29	14	9.4	279	6.6	---	22	8.6	8.5	6.0	7.8	48	5.8
30	12	8.5	27	6.6	---	15	8.9	9.5	5.5	6.9	51	12
31	13	---	17	6.6	---	63	---	9.4	---	33	7.8	---
TOTAL	1039.7	1200.6	1121.6	257.4	841.2	1175	580.3	514.0	340.6	409.5	455.7	740.3
MEAN	33.5	40.0	36.2	8.30	30.0	37.9	19.3	16.6	11.4	13.2	14.7	24.7
MAX	250	488	279	15	167	149	85	102	78	76	60	237
MIN	5.9	6.2	6.2	6.2	6.2	10	7.8	7.1	5.5	6.1	6.4	5.8
CFSM	1.66	1.98	1.79	.41	1.49	1.88	.96	.82	.56	.65	.73	1.22
IN.	1.91	2.21	2.07	.47	1.55	2.16	1.07	.95	.63	.75	.84	1.36

CAL YR 1984	TOTAL	10271.7	MEAN	28.1	MAX	483	MIN	5.9	CFSM	1.39	IN	18.92
WTR YR 1985	TOTAL	8675.9	MEAN	23.8	MAX	488	MIN	5.5	CFSM	1.18	IN	15.98

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087204 OAK CREEK AT SOUTH MILWAUKEE, WI

LOCATION: 2.8 mi upstream from mouth. Hydrologic Unit 04040002, on the right bank of the creek about 2.8 mi upstream from mouth.

DRAINAGE AREA.--25.0 mi².

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORDS.--WDR WI-80-1: 1979 (average discharge).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 891.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Feb. 4-22 and ice periods listed in rating table below. Records good except for estimated daily discharges, which are fair. Low flows may occasionally be affected by construction and activity at gravel pit upstream.

AVERAGE DISCHARGE.--22 years, 21.9 ft³/s; 11.90 in³/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft³/s Sept. 13, 1978, gage height, 8.19 ft; maximum gage height, 8.19 ft, Sept. 13, 15-18, 27-31, Feb. 6-8, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Nov. 20	2330	390	6.70	Dec. 29	0600	*403	*6.72

Minimum daily, 1.1 ft³/s Oct. 2, 3, 5, 6, and Sept. 7

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 25-27, Jan. 1-15, Jan. 17 to Feb. 3 and Feb. 23.)

Oct. 1 to Dec. 29 (0545)				Dec. 29 (0600) to Sept. 30			
2.25	1.0	3.0	37	2.25	1.0	3.0	37
2.3	1.6	4.0	101	2.3	1.6	4.0	110
2.35	2.7	5.0	181	2.35	2.4	5.0	194
2.4	4.6	6.0	290	2.4	3.8	6.0	303
2.5	8.7	7.0	450	2.5	8.3	7.0	450
2.6	14			2.6	13		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	214	14	25	4.9	172	63	9.9	3.8	1.4	4.1	2.4
2	1.1	109	18	22	4.8	137	32	9.7	3.3	6.2	2.2	1.8
3	1.1	34	22	19	4.7	80	27	9.5	3.2	9.0	1.6	2.0
4	1.2	23	13	17	4.6	100	28	9.5	3.1	3.7	2.0	1.7
5	1.1	17	9.4	16	4.5	175	37	9.3	3.0	9.2	3.2	1.5
6	1.1	15	8.5	16	4.5	101	119	10	2.9	13	7.5	1.4
7	13	12	7.3	15	4.5	85	79	9.6	2.8	5.4	4.9	1.1
8	12	12	6.9	14	4.4	158	47	8.7	2.6	2.5	3.1	7.0
9	6.4	133	6.5	13	4.4	163	29	8.2	2.3	1.9	1.8	1.5
10	2.5	219	6.7	12	4.4	126	24	7.6	2.0	1.6	1.8	4.5
11	1.8	57	9.8	12	4.3	121	21	6.9	5.5	1.7	1.5	8.0
12	1.6	29	4.8	11	4.3	82	19	13	6.0	1.6	1.4	3.1
13	1.4	21	5.1	10	4.2	53	20	8.8	3.8	1.5	11	5.3
14	1.6	18	3.6	10	4.2	46	22	5.5	2.6	1.4	5.3	2.8
15	1.2	16	3.2	9.6	4.1	33	20	30	13	1.8	2.3	2.5
16	25	14	8.8	9.1	4.1	28	17	19	15	1.6	1.7	2.1
17	31	12	5.3	8.8	4.0	24	16	21	6.4	1.4	1.4	4.0
18	31	11	2.8	8.6	4.0	22	16	12	3.2	1.3	1.6	4.3
19	18.2	9.6	2.1	8.2	4.2	22	14	7.8	2.7	1.9	1.2	3.1
20	4.3	8.7	1.6	7.8	5.0	20	14	6.5	2.3	1.7	1.5	2.5
21	38	7.7	2.5	7.6	10	18	15	5.6	2.3	1.6	1.4	4.0
22	25	7.3	2.9	7.2	2.5	17	13	5.0	2.4	1.4	1.4	3.8
23	15	7.0	1.7	6.8	190	21	18	4.6	2.3	1.3	1.2	5.5
24	11	6.9	1.2	6.6	295	55	41	4.1	2.2	1.2	2.7	3.4
25	9.5	6.6	1.0	6.4	265	33	22	3.9	2.0	1.6	2.3	2.9
26	9.9	6.8	8.0	6.2	177	24	16	15	1.8	14	2.5	3.0
27	1.6	4.8	9.0	5.8	133	23	15	4.6	1.7	3.3	1.3	2.2
28	6.4	40	15.9	5.6	132	203	12	14	1.7	1.9	1.2	1.9
29	2.1	2.1	337	5.4	---	81	11	7.7	1.5	1.6	4.2	1.8
30	1.4	1.7	131	5.2	---	39	11	6.2	1.4	1.4	2.2	2.6
31	1.1	---	5.6	5.0	---	79	---	4.9	---	3.6	9.3	---
TOTAL	605.6	1152.6	1318.1	331.9	1315.1	2341	838	339.5	108.8	117.1	110.6	350.6
MEAN	19.5	38.4	42.5	10.7	47.0	75.5	27.9	11.0	3.63	3.78	3.57	11.7
MAX	18.2	21.9	33.7	2.5	2.95	203	119	4.6	1.5	1.6	2.2	1.53
MIN	1.1	6.6	6.5	5.0	4.0	17	11	3.9	1.4	1.2	1.2	1.1
CFSM	.78	1.54	1.70	.43	1.88	3.02	1.12	.44	.15	.15	.14	.47
IN.	.90	1.72	1.96	.49	1.96	3.48	1.25	.51	.16	.17	.16	.52
CAL YR 1984	TOTAL	9493.7	MEAN	25.9	MAX	351	MIN	1.1	CFSM	1.04	IN	14.13
WTR YR 1985	TOTAL	8928.9	MEAN	24.5	MAX	337	MIN	1.1	CFSM	.98	IN	13.29

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087220, ROOT RIVER NEAR FRANKLIN, WI

LOCATION.--Lat 42°52'25", long 87°59'45", in SE 1/4, sec. 22, T. 5 N., R. 21 E., Milwaukee County, Hydrologic Unit 04040002, on Right Bank 200 ft upstream from State Highway 100, 2.1 mi upstream from Root River Camp, 2.4 mi southeast of Franklin, 5.3 mi southeast of Billed Cedars, and about 24 mi upstream from mouth of Root River.

DRAINAGE AREA.--49.2 mi².

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORD.--WDR WI-81-1: Drainage area, WDR WI-83-1: 1981.

GAGE.--Water-stage recorder. Datum of gage is 67.5 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except for ice-affected periods, which are fair. Flow affected by urbanization in the drainage basin.

AVERAGE DISCHARGE.--22 years, 44.4 ft³/s, 12.26 in³/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft³/s Apr. 21, 1973, gage height, 9.31 ft; minimum, 0.38 ft³/s Aug. 10, 1971, gage height, 1.45 ft.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Mar. 30, 1960, reached a stage of 9.77 ft, discharge, 1,130 ft³/s, from rating curve extended above 2,000 ft³/s on basis of contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (7).

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	1715	372	6.64	Dec. 29	1345	625	7.67
Nov. 1	2215	582	7.54	Feb. 24	1115	688	7.88
Nov. 10	0900	440	6.98				

Minimum daily discharge, 2.6 ft³/s July 24.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Mar. 6-7, 13-15, 24, 29, 31, Apr. 1, 5-8; stage-discharge relation affected by ice Dec. 4-7, 24-26, and Jan. 1 to Feb. 22.)

1.6	2.5	3.0	69
1.7	3.5	4.0	112
1.8	5.5	5.0	169
1.9	8.5	6.0	270
2.0	12	7.0	444
2.5	47	8.0	740

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	346	27	76	12	267	105	19	7.9	3.1	7.5	4.9
2	4.8	417	27	54	12	235	65	16	7.4	3.3	5.0	3.5
3	5.0	102	42	45	11	136	58	16	6.3	5.4	3.4	4.0
4	5.0	62	35	41	11	166	50	16	5.4	3.5	3.0	3.8
5	5.0	45	25	37	11	256	74	17	5.3	4.4	4.1	3.5
6	6.5	35	20	35	11	153	153	16	5.2	19	3.7	4.6
7	9.2	30	17	33	11	108	156	14	5.1	5.4	4.2	3.2
8	26	27	14	31	11	190	82	13	5.7	4.0	4.1	1.8
9	12	145	14	29	11	317	60	11	6.1	3.8	3.1	163
10	7.9	379	14	27	11	255	48	9.9	4.7	3.1	3.2	58
11	7.5	112	14	25	10	252	43	10	4.7	2.8	3.3	14
12	6.6	63	65	24	10	180	38	16	9.9	2.7	3.5	7.5
13	7.2	45	67	23	10	120	37	13	6.3	2.8	8.1	5.1
14	7.5	38	48	23	9.8	106	49	9.0	4.6	2.8	8.0	4.4
15	14	34	73	22	9.8	79	38	29	6.6	3.4	4.2	4.3
16	40	28	126	21	9.6	66	33	19	28	3.8	3.3	4.5
17	56	24	106	20	9.4	57	29	29	10	2.9	3.1	5.0
18	33	22	59	20	9.4	47	29	17	6.2	2.8	6.5	6.4
19	320	20	42	19	9.8	45	27	12	4.9	3.2	7.1	4.7
20	121	18	37	18	16	42	25	11	4.2	5.4	3.8	4.3
21	66	19	35	17	34	36	24	9.2	3.8	3.5	3.2	3.8
22	62	16	54	17	140	33	22	7.7	5.8	3.3	3.2	11
23	33	16	38	16	424	32	20	6.9	4.7	3.6	3.3	7.4
24	23	15	35	16	663	84	52	6.6	3.5	2.6	3.8	5.9
25	19	15	33	15	597	66	31	6.3	3.4	5.7	23	4.7
26	21	15	30	15	472	48	25	8.0	3.1	14	9.3	4.0
27	25	56	35	15	361	46	20	56	3.2	5.1	4.9	4.5
28	115	66	197	15	249	177	20	19	3.0	3.1	4.0	3.7
29	54	40	572	14	---	118	18	10	2.8	2.8	4.0	3.2
30	33	32	362	14	---	65	18	8.5	2.9	2.7	20	3.6
31	25	---	105	13	---	83	---	8.5	---	4.0	14	---
TOTAL	1175.3	2282	2368	790	3155.8	3865	1449	459.6	180.7	138.0	184.9	378.5
MEAN	37.9	76.1	76.4	25.5	113	125	48.3	14.8	6.02	4.45	5.96	12.6
MAX	320	417	572	76	663	317	156	56	28	19	23	163
MIN	4.8	15	14	13	9.4	32	18	6.3	2.8	2.6	3.0	3.2
CFSM	.77	1.55	1.55	.52	2.30	2.54	.98	.30	.12	.09	.12	.26
IN.	.89	1.73	1.79	.60	2.39	2.92	1.10	.35	.14	.10	.14	.29
CAL YR 1984	TOTAL	18307.8	MEAN	50.0	MAX	572	MIN	4.2	CFSM	1.02	IN	13.84
WTR YR 1985	TOTAL	16426.8	MEAN	45.0	MAX	663	MIN	2.6	CFSM	.92	IN	12.42

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087233 ROOT RIVER CANAL NEAR FRANKLIN, WI

LOCATION.--Lat 42°48'55", long 87°59'40", in SE 1/4 sec.10, T.4 N., R.21 E., Racine County, Hydrologic Unit 04040002, on right bank 10 ft downstream from highway bridge 3.5 mi upstream from mouth, 5.5 mi southeast of intersection U.S. 45 and State Highway 100 in Franklin, and 8.7 mi southeast of Hales Corners.

DRAINAGE AREA.--57.0 mi².

PERIOD OF RECORD.--October 1963 to current year.

REVISED RECORD.--WDR WI-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 670 ft, from topographic map.

REMARKS.--Estimated daily discharge: Dec. 3-8, 25-26, Jan. 2 to Feb. 22, and Mar. 5 to Apr. 18. Records fair.

AVERAGE DISCHARGE.--22 years, 46.6 ft³/s, 11.10 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft³/s Mar. 4, 1974, gage height, 9.88 ft; minimum daily, 0.40 ft³/s Dec. 19, 1963, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Dec. 29	1500	653	8.73	Mar. 5	0530	620	8/60
Feb. 25	0730	*942	*9.58				

Minimum discharge, 1.0 ft³/s Aug. 21, gage height, 1.85 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 3-8, 25-26, and Jan. 2 to Feb. 22.)

1.9	1.3	5.0	180
2.0	2.6	6.0	250
2.1	4.9	7.0	337
2.4	18	8.0	485
3.0	50	9.0	730
4.0	114	10.0	1,140

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	310	34	112	14	430	90	22	8.8	2.9	2.2	2.4
2	9.7	287	36	100	14	379	64	20	7.4	3.5	1.6	2.3
3	12	146	45	80	13	249	54	19	6.3	3.2	1.5	2.2
4	13	95	33	60	13	289	46	19	5.9	2.9	1.5	2.6
5	15	65	27	48	13	500	54	18	6.1	3.0	2.2	3.3
6	18	49	23	42	13	200	130	19	5.5	3.8	2.1	3.4
7	21	41	21	35	12	100	130	17	4.9	2.9	1.9	2.6
8	23	37	20	30	12	150	90	15	4.9	2.5	1.9	3.2
9	21	100	19	27	12	270	54	14	4.6	2.5	1.5	12
10	21	288	18	25	12	240	45	13	4.0	2.3	1.6	5.6
11	23	156	18	24	12	240	40	12	4.9	2.3	1.9	2.6
12	33	93	53	23	12	150	36	14	6.6	2.4	1.4	2.3
13	31	65	133	23	11	110	35	11	5.1	2.6	5.2	2.0
14	32	53	96	22	11	96	44	11	4.4	4.7	3.0	1.8
15	37	45	148	22	11	74	39	18	6.0	3.8	1.9	1.6
16	24	36	214	22	10	60	38	14	9.1	2.5	1.6	1.6
17	30	30	157	22	10	52	33	19	5.8	2.2	1.6	2.1
18	22	28	96	21	10	45	32	14	4.7	2.1	1.6	2.4
19	217	25	67	21	11	43	31	12	3.9	2.7	1.6	2.6
20	121	22	49	20	18	40	30	10	3.5	2.5	2.0	2.0
21	93	19	50	19	22	35	34	8.5	3.4	2.0	1.3	2.3
22	75	19	59	19	60	32	29	7.6	3.8	1.4	3.0	2.6
23	47	19	43	18	348	30	28	7.4	3.5	1.5	1.8	2.4
24	34	18	38	18	739	70	58	6.9	2.9	1.5	2.1	2.6
25	27	17	35	18	899	60	41	6.3	3.0	2.3	2.1	2.7
26	25	17	34	17	798	48	34	6.5	3.1	5.9	2.4	2.6
27	24	56	34	17	603	45	30	23	3.5	2.0	3.5	2.4
28	129	81	201	17	395	150	27	19	3.2	1.5	2.6	2.3
29	81	53	578	16	---	120	25	13	3.1	1.4	2.4	2.2
30	50	42	405	16	---	60	23	12	3.1	1.7	4.0	2.3
31	36	---	180	15	---	70	---	11	---	2.1	3.1	---
TOTAL	1353.2	2312	2964	969	4108	4437	1444	432.2	145.0	80.6	68.1	85.0
MEAN	43.7	77.1	95.6	31.3	147	143	48.1	13.9	4.83	2.60	2.20	2.83
MAX	217	310	578	112	899	500	130	23	9.1	5.9	5.2	12
MIN	8.5	17	18	15	10	30	23	6.3	2.9	1.4	1.3	1.6
CFSM	.77	1.35	1.68	.55	2.58	2.51	.84	.24	.09	.05	.04	.05
IN.	.88	1.51	1.93	.63	2.68	2.90	.94	.28	.09	.05	.04	.06
CAL YR 1984	TOTAL	21727.1	MEAN 59.4	MAX 578	MIN 1.5	CFSM 1.04	IN 14.18					
WTR YR 1985	TOTAL	18398.1	MEAN 50.4	MAX 899	MIN 1.3	CFSM .88	IN 12.01					

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087240 ROOT RIVER AT RACINE, WI

LOCATION.--Lat 42°45'05", long 87°49'25", in NE 1/4 sec.6, T.3 N., R.23 E., Racine County, Hydrologic Unit 04040002, on left bank 30 ft downstream from State Highway 38 bridge in Racine, 350 ft downstream from Horlick Dam, and 5.2 mi upstream from mouth.

DRAINAGE AREA.--190 mi², of which 1.24 mi² is probably noncontributing.

PERIOD OF RECORD.--August 1963 to current year.

REVISED RECORD.--WDR WI-80-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 610 ft, from topographic map. Prior to Feb. 5, 1964, nonrecording gage on bridge 30 ft upstream.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--22 years, 153 ft³/s, 10.99 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s Mar. 5, 1974, gage height, 8.54 ft; minimum, 0.90 ft³/s Jan. 17, 1977; minimum daily, 1.0 ft³/s July 17, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s, revised, and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Nov. 3	1315	941	4.53	Mar. 6	2400	1,320	5.01
Dec. 30	1715	1,390	5.10	Mar. 10	0945	1,230	4.90
Feb. 26	1830	*1,810	*5.63				

Minimum daily, 3.1 ft³/s Aug. 12.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 6, 8, 24-26, and Jan. 2 to Feb. 22.)

2.2	3.0	3.0	124
2.3	7.0	3.5	305
2.4	16	4.0	575
2.7	62	6.0	2,130

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	292	132	675	44	1350	442	89	27	4.9	5.0	25
2	13	592	115	350	42	1280	378	79	24	5.3	5.0	22
3	11	897	132	300	40	1190	287	75	22	5.2	6.5	15
4	7.3	680	127	250	39	895	245	75	19	5.2	6.6	9.1
5	6.6	319	92	210	38	909	237	73	16	6.8	6.8	5.9
6	6.4	203	82	170	38	1090	382	70	16	7.7	6.0	4.5
7	6.4	157	74	140	37	1090	539	67	16	13	5.6	3.6
8	6.8	136	72	120	37	890	517	61	13	22	5.7	5.6
9	18	167	70	100	36	1050	344	56	16	16	4.9	13
10	29	519	67	100	36	1210	254	51	13	11	4.9	149
11	25	763	67	98	35	1120	211	44	14	7.8	4.1	95
12	19	635	97	94	33	977	180	44	15	6.2	3.1	43
13	14	315	287	90	32	804	163	44	16	5.0	7.1	29
14	13	212	316	88	32	629	168	44	20	5.2	6.0	20
15	16	175	322	82	31	517	173	41	24	4.6	12	14
16	19	148	453	76	31	413	152	61	24	4.0	12	10
17	61	124	507	74	31	343	133	65	46	3.7	8.1	7.1
18	109	110	445	72	31	290	123	66	44	4.2	6.4	6.1
19	251	101	268	70	31	253	114	55	31	4.2	5.0	5.9
20	443	91	189	64	33	229	106	42	24	4.1	3.8	6.5
21	480	79	161	60	35	200	108	35	18	3.8	4.8	6.0
22	313	76	184	58	60	178	109	30	15	4.4	4.4	5.6
23	213	74	173	56	292	167	101	23	13	4.2	4.0	5.6
24	136	71	100	54	652	213	132	20	12	3.3	4.3	8.1
25	107	69	70	52	1110	291	188	19	11	6.4	4.6	8.8
26	91	67	80	50	1600	230	135	18	9.7	6.0	8.4	8.4
27	90	98	107	49	1570	206	110	25	7.5	11	17	6.8
28	181	235	233	48	1420	390	99	82	6.3	16	15	6.3
29	336	227	863	47	---	619	95	58	5.6	12	13	5.3
30	215	161	1240	45	---	539	95	39	5.2	7.0	12	5.0
31	141	---	1220	45	---	383	---	32	---	5.8	12	---
TOTAL	3392.5	7793	8345	3787	7446	19945	6321	1583	543.3	226.0	224.1	555.2
MEAN	109	260	269	122	266	643	211	51.1	18.1	7.29	7.23	18.5
MAX	480	897	1240	675	1600	1350	539	89	46	22	17	149
MIN	6.4	67	67	45	31	167	95	18	5.2	3.3	3.1	3.6
CFSM	.57	1.37	1.42	.64	1.40	3.38	1.11	.27	.10	.04	.04	.10
IN.	.66	1.53	1.63	.74	1.46	3.90	1.24	.31	.11	.04	.04	.11
CAL YR 1984	TOTAL	69716.3	MEAN 190	MAX 1460	MIN 5.0	CFSM 1.00	IN 13.65					
WTR YR 1985	TOTAL	60161.1	MEAN 165	MAX 1600	MIN 3.1	CFSM .87	IN 11.78					

STREAMS TRIBUTARY TO LAKE MICHIGAN

04087257 PIKE RIVER NEAR RACINE, WI

LOCATION.--Lat 42°38'49", long 87°51'38", in SE 1/4 NE 1/4 sec.11, T.22 N., R.22 E., Kenosha County, Hydrologic Unit 04040002, on right bank just downstream from unnamed tributary, 1.7 mi downstream from Pike Creek, 6.8 mi southwest of Racine Post Office and 9.0 mi upstream from mouth.

DRAINAGE AREA.--38.5 mi².

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

REVISED RECORDS.--WDR WI-76-1: 1975. WDR WI-80-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 620.09 ft above mean sea level (Southeastern Wisconsin Regional Planning Commission).

REMARKS.--Estimated daily discharge: Dec. 6, 7, Dec. 11 to Feb. 28, Apr. 21 to May 21, and June 23 to July 10. Records good except for estimated daily discharges, which are fair. Low flows considerably affected by effluent discharge in upper portion of basin, and by occasional regulation of small recreation dam 1.1 mi upstream.

AVERAGE DISCHARGE.--14 years, 36.0 ft³/s, 12.70 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,480 ft³/s Mar. 4, 1976, gage height, 8.15 ft; minimum daily, 0.35 ft³/s Sept. 28, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 600 ft³/s end maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Mar. 4	2000	*588	*5.97				
Minimum daily, 1.2 ft ³ /s July 24.							

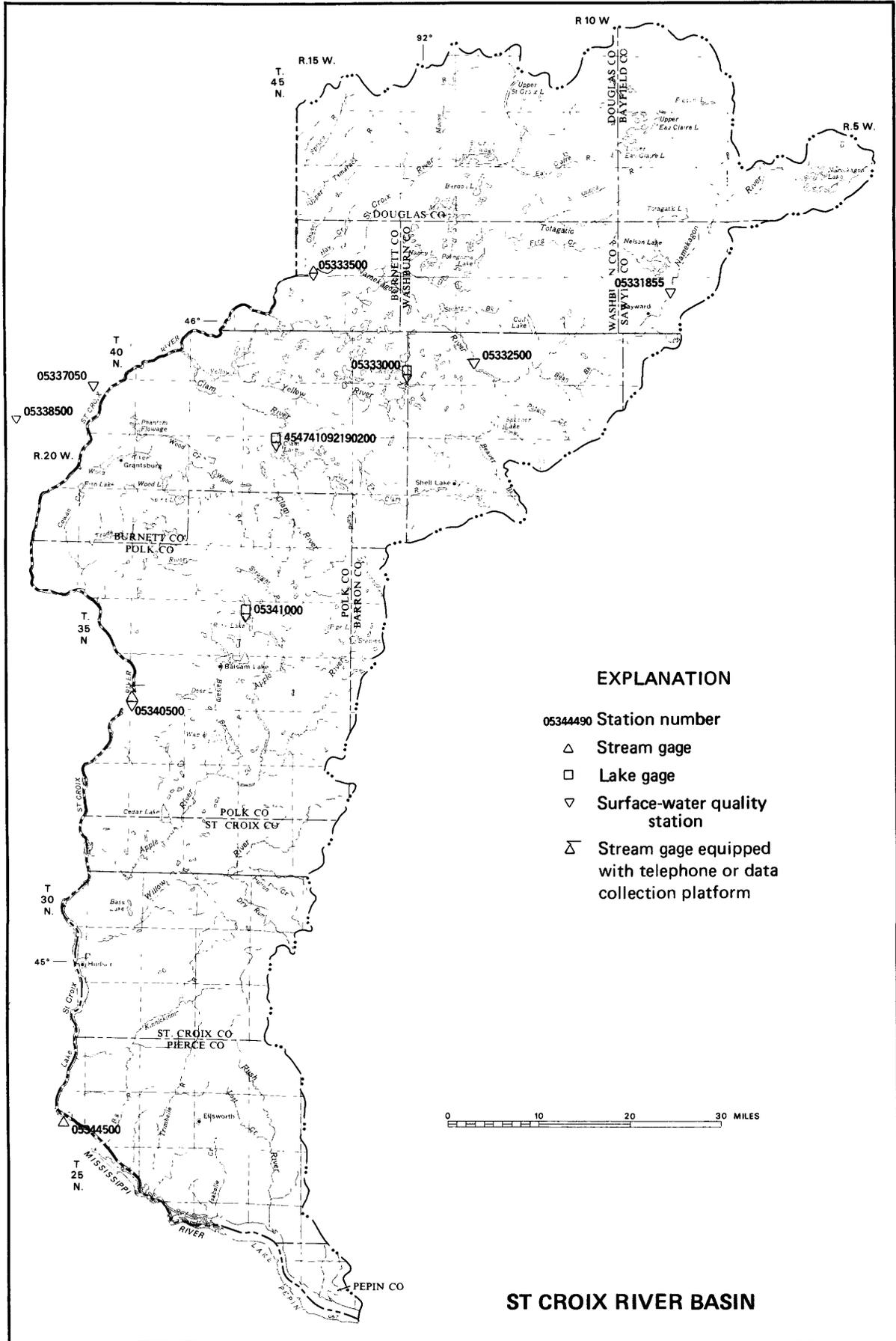
RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).

1.6	1.2	2.6	49
1.7	2.0	3.0	86
1.8	3.5	3.5	145
1.9	7.0	4.0	213
2.0	11	5.0	379
2.3	28	6.0	595

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	200	28	50	11	274	60	19	14	4.8	7.5	7.0
2	3.6	120	30	40	10	222	47	20	13	7.0	5.0	6.6
3	4.3	65	33	35	10	153	42	20	12	15	3.3	5.4
4	4.6	45	25	32	10	301	40	21	12	9.0	3.0	5.3
5	4.7	35	22	30	10	353	43	20	8.9	12	3.7	5.3
6	4.9	29	20	28	10	206	88	14	6.6	22	6.7	5.3
7	6.6	26	18	26	10	176	68	19	11	11	8.9	5.3
8	6.7	24	15	24	9.8	255	52	20	11	6.8	8.8	15
9	6.6	84	14	23	9.8	224	43	18	9.4	6.2	7.7	46
10	6.4	174	14	21	9.6	192	39	13	5.2	5.8	7.8	16
11	6.7	80	17	20	9.4	179	35	14	6.2	5.6	6.4	9.4
12	6.7	52	60	18	9.2	130	33	14	13	5.6	6.0	7.5
13	6.4	41	80	17	9.2	100	31	13	10	5.5	59	3.5
14	10	36	70	16	9.0	89	32	13	9.4	7.6	11	1.9
15	27	32	80	15	9.0	72	32	22	20	8.8	9.1	1.9
16	16	27	120	15	9.0	60	29	18	19	6.7	9.3	2.4
17	13	22	90	14	9.0	50	26	19	15	6.1	8.0	5.0
18	13	20	60	14	9.0	43	26	17	14	6.0	7.0	9.1
19	130	19	44	13	9.0	42	25	15	12	6.0	6.1	9.1
20	38	17	33	13	10	38	24	12	9.9	6.0	6.1	7.8
21	36	16	40	12	18	35	21	10	10	5.1	6.3	5.3
22	29	14	54	12	40	33	19	9.6	7.5	2.7	6.3	4.2
23	20	14	35	12	200	33	15	10	3.3	3.5	6.7	4.7
24	16	14	24	12	400	43	43	10	6.0	7.4	6.5	5.5
25	14	13	21	12	350	34	37	9.4	6.0	23	5.5	5.6
26	13	14	19	12	250	33	27	8.1	5.6	10	4.3	5.6
27	14	55	19	12	200	33	22	51	5.2	3.9	4.9	5.6
28	85	64	100	11	200	80	15	21	4.9	2.4	5.5	5.2
29	40	41	350	11	---	53	16	18	4.8	3.9	6.3	3.2
30	29	34	230	11	---	39	18	18	4.7	5.0	8.7	3.3
31	23	---	130	11	---	69	---	17	---	9.2	7.8	---
TOTAL	637.0	1427	1895	592	1850.0	3644	1048	523.1	289.6	239.6	259.2	223.0
MEAN	20.5	47.6	61.1	19.1	66.1	118	34.9	16.9	9.65	7.73	8.36	7.43
MAX	130	200	350	50	400	353	88	51	20	23	59	46
MIN	2.8	13	14	11	9.0	33	15	8.1	3.3	2.4	3.0	1.9
CFSM	.53	1.24	1.59	.50	1.72	3.07	.91	.44	.25	.20	.22	.19
IN.	.62	1.38	1.83	.57	1.79	3.52	1.01	.51	.28	.23	.25	.22
CAL YR 1984	TOTAL	13430.1	MEAN	36.7	MAX	495	MIN	2.8	CFSM	.95	IN	12.98
WTR YR 1985	TOTAL	12627.5	MEAN	34.6	MAX	400	MIN	1.9	CFSM	.90	IN	12.20

UPPER MISSISSIPPI RIVER BASIN



Base from U.S. Geological Survey
State base map, 1966

ST. CROIX RIVER BASIN

05331855 NAMEKAGON RIVER NEAR HAYWARD, WI

LOCATION.--Lat 46°03'06", long 91°25'53", in NE 1/4 NE 1/4 sec.12, T.41 N., R.9 W., Sawyer County, Hydrologic Unit 07030002, St. Croix National Scenic Riverway, at bridge on town road 3.7 mi northeast of Hayward.

DRAINAGE AREA.--169 mi², approximately.

PERIOD OF RECORD.--April 1975 to September 1983, October 1984 to September 1985

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BAROMETRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)	COLIFORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, FECAL, KF AGAR (COLS./100 ML) (31673)	HARDNESS, (MG/L AS CaCO3) (00900)	HARDNESS, NONCARBONATE (MG/L CaCO3) (00902)
AUG, 1985												
26...	1320	375	108	7.9	16.5	9.3	743	98	15	180	51	2

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	PERCENT SODIUM RATIO (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY LAB AS CaCO3 (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. (DIS-SOLVED AS SOLVEI) (MG/L) (70300)
AUG, 1985												
26...	14	4.0	1.9	7	.1	.50	50	4.0	2.0	<.10	12	85

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDIMENT, SUSPENDED (MG/L) (80154)
AUG, 1985												
26...	69	.12	<.010	<.10	<.010	.50	.060	.030	240	12	7.0	4

ST. CROIX RIVER BASIN

05332500 NAMEKAGON RIVER NEAR TREGO, WI

LOCATION.--Lat 45°56'53", long 91°53'17", in NW 1/4 SW 1/4 sec.17, T.40 N., R.12 W., Washburn County, Hydrologic Unit 07030002, St. Croix National Scenic Riverway, at Northern States Power Company powerplant 4.4 mi northwest of Trego.

DRAINAGE AREA.--488 mi², approximately.

PERIOD OF RECORD.--October 1974 to September 1983, October 1984 to September 1985.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI KF AGAR PER 100 ML) (31673)	
AUG, 1985	26...	1200	612	132	7.9	17.5	8.6	749	91	41	68
DATE		HARD- NESS (MG/L AS CAC03) (00900)	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	PERCENT SODIUM (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CAC03) (90410)	
AUG, 1985	26...	63	2	17	5.0	2.3	7	.1	.60	61	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	
AUG, 1985	26...	4.1	2.8	.10	13	99	82	.13	<.010	.10	
DATE		NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDE D (MG/L) (80154)	
AUG, 1985	26...	.010	.39	.40	.060	.040	310	23	5.8	3	

ST. CROIX RIVER BASIN
05333000 MCKENZIE LAKE NEAR SPOONER, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 45°55'58", long 92°02'17", in SE 1/4 sec.24, T.40 N., R.14 W., Burnett County, Hydrologic Unit 07030002, at outlet of McKenzie Lake, 10.2 mi northwest of Spooner.

DRAINAGE AREA.--32.3 mi².

PERIOD OF RECORD.--August 1936 to September 1976, April to September 1985. Data 1936 to 1976 unpublished in district files.

GAGE.--Staff gage read by observer. Elevation of gage is 990 ft, from topographic map. Prior to 1976, gage at different datum.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.54 ft, Apr. 28; minimum, 11.00 ft, Aug. 5.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT
APR. 8	11.36	MAY 13	11.40	JUNE 13	11.15	JULY 8	11.28	AUG. 5	11.00	SEPT. 2	11.20
APR. 19	11.42	MAY 18	11.42	JUNE 22	11.06	JULY 16	11.10	AUG. 13	11.24	SEPT. 3	11.34
APR. 24	11.49	MAY 25	11.30	JUNE 26	11.36	JULY 22	11.08	AUG. 22	11.20	SEPT. 14	11.30
APR. 28	11.54	MAY 27	11.28	JUNE 30	11.34	JULY 28	11.08	AUG. 28	11.20	SEPT. 22	11.34
MAY 10	11.42	JUNE 3	11.26	JULY 6	11.30						

WATER-QUALITY RECORDS

LOCATION.--Lat 45°55'06", long 92°01'54", in SW 1/4 sec.30, T.40 N., R.13 W., Burnett County, Hydrologic Unit 07030002, near center of lake, and 9.8 mi northwest of Spooner.

PERIOD OF RECORD.--April to September 1985.

REMARKS.--Secchi disc readings made by Fred Kruger.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 4.6 meters, Apr. 24, May 27; minimum transparency, 2.1 meters, Sept. 7.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
APR. 24	4.6	MAY 18	3.4	JUNE 6	4.0	JULY 8	4.0	JULY 27	2.7	AUG. 28	2.7
APR. 28	4.1	MAY 27	4.6	JUNE 13	3.0	JULY 20	3.0	AUG. 10	2.4	SEPT. 7	2.1
MAY 10	3.7	JUNE 3	3.4	JUNE 30	4.3						

ST. CROIX RIVER BASIN

117

05333500 ST. CROIX RIVER NEAR DANBURY, WI

LOCATION.--Lat 46°04'28", long 92°14'50", in SW 1/4 sec.33, T.42 N., R.15 W., Burnett County, Hydrologic Unit 07030001, St. Croix National Scenic Waterway, on left bank at downstream side of bridge on State Highway 35, 3.5 mi downstream from Namekagon River, 10 mi northeast of Danbury, and at mile 129.2.

DRAINAGE AREA.--1,580 mi², revised.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1914 to September 1981, October 1984 to September 1985. Prior to October 1933, published as "at Swiss".

REVISED RECORDS.--WSP 1208: Drainage area. WSP 1438: 1915(M), 1919-20, 1923-24(M), 1927(M), 1931(M), 1934, 1935-37(M). WSP 1628: 1918.

GAGE.--Water-stage recorder. Datum of gage is 882.21 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 23, 1937, nonrecording gage 40 ft downstream at same datum. Apr. 23, 1937, to Jan. 5, 1939, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: None, except for ice period listed in rating table below. Records good except those for ice-affected period, which is fair.

AVERAGE DISCHARGE.--68 years (water years 1915-81, 1985), 1,306 ft³/s, 11.17 in/yr.

EXTREMES FOR PERIODS OF RECORD.--Maximum discharge, 10,200 ft³/s May 6, 1950, gage height, 8.22 ft; minimum observed, 393 ft³/s Aug. 6, 13, 1934, gage height, -0.20 ft, site then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Dec. 8	1800	ice jam	*4.52	June 27	1800	4,330	4.22
Mar. 29	1300	3,160	3.24	Sept. 5	0200	3,070	3.17
Apr. 24	2200	*4,480	4.34	Sept. 9	1400	3,030	3.13
June 1	2200	3,160	3.24	Sept. 25	1300	3,010	3.11

Minimum discharge, 867 ft³/s, Aug. 3, 4, gage height, 0.78 ft

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 30 to Mar. 18.)

0.8	880	3.0	2,880
1.0	1,020	4.0	4,050
2.0	1,900	5.0	5,330

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1750	2580	1400	1300	1100	1100	2560	2540	2970	2650	1110	1530
2	1690	2380	1300	1300	1100	1100	2620	2360	3040	2300	1080	1500
3	1720	2230	1200	1300	1100	1100	2440	2140	2850	2020	951	2450
4	1650	2070	1200	1300	1100	1000	2340	2050	2660	2110	922	2940
5	1450	1980	1200	1300	1100	1000	2590	1930	2570	2060	987	2940
6	1430	1940	1200	1300	1100	1100	2750	1950	2270	2080	1030	2690
7	1440	1920	1200	1300	1100	1100	2570	1960	1970	2070	939	2290
8	1510	1910	1200	1300	1100	1200	2350	1810	1860	1910	963	2510
9	1490	1740	1300	1300	1100	1500	2290	1620	1830	1730	1000	2980
10	1460	1680	1400	1300	1100	1600	2270	1720	1730	1640	1440	2740
11	1460	1750	1500	1200	1000	1600	2090	1840	1590	1600	1610	2300
12	1420	1660	1500	1200	1000	1500	2130	1940	1400	1530	2090	2090
13	1370	1520	1400	1200	1000	1400	2290	1850	1360	1460	2670	1990
14	1370	1490	1400	1200	1000	1400	2770	1960	1310	1340	2680	1910
15	1400	1530	1300	1200	1000	1400	2970	2100	1400	1250	2430	1670
16	1560	1560	1600	1200	1000	1400	2930	2330	1390	1140	2130	1570
17	1850	1620	1800	1200	1000	1400	2850	2290	1390	1220	2240	1620
18	1940	1530	1500	1200	1000	1500	2980	2380	1370	1430	2070	1660
19	2370	1520	1400	1200	1000	1490	2910	2420	1470	1480	1800	1640
20	2630	1390	1400	1200	1000	1530	2970	2310	1380	1480	1580	1690
21	2600	1400	1400	1200	1000	1600	2810	1980	1290	1350	1560	1610
22	2360	1360	1500	1200	1100	1690	3040	1880	1220	1300	1460	1650
23	2270	1420	1500	1200	1100	1910	3780	1690	1170	1290	1660	1870
24	2120	1400	1400	1200	1100	2130	4370	1570	1210	1280	1930	2690
25	2050	1410	1300	1100	1100	2100	4350	1660	1130	1420	2010	2980
26	2010	1460	1400	1100	1100	2290	3920	1860	2200	1420	1970	2860
27	1860	1430	1400	1100	1000	2640	3770	1870	4070	1390	1920	2770
28	2040	1410	1500	1100	1000	2870	3500	1770	4100	1260	1890	2680
29	2120	1440	1500	1100	---	3130	2960	1690	3800	1210	1770	2560
30	2180	1400	1400	1100	---	2750	2710	1970	3220	1090	1690	2510
31	2270	---	1400	1100	---	2810	---	2520	---	1150	1570	---
TOTAL	56840	50130	43100	37500	29500	52340	86880	61960	61220	48660	51152	66890
MEAN	1834	1671	1390	1210	1054	1688	2896	1999	2041	1570	1650	2230
MAX	2630	2580	1800	1300	1100	3130	4370	2540	4300	2650	2680	2980
MIN	1370	1360	1200	1100	1000	1000	2090	1570	1130	1090	922	1500
CFSM	1.16	1.06	.88	.77	.67	1.07	1.83	1.27	1.29	.99	1.04	1.41
IN.	1.34	1.18	1.01	.88	.69	1.23	2.05	1.46	1.44	1.15	1.20	1.57

WTR YR 1985 TOTAL 646172 MEAN 1770 MAX 4370 MIN 922 CFSM 1.12 IN 15.21

ST. CROIX RIVER BASIN
05333500 ST. CROIX RIVER NEAR DANBURY, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1953 to September 1983, October 1984 to September 1985.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT OF SATUR-ATION) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS./100 ML) (31673)	HARD-NESS (MG/L AS CAC03) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CAC03) (00902)	
AUG, 1985													
27...	1100	1920	109	7.9	18.0	9.2	751	99	19	440	51	2	
DATE	TIME	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	PERCENT SODIUM (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)
AUG, 1985													
27...	14	4.0	2.0	8	.1	.40	50	3.5	1.6	<.10	11	80	
DATE	TIME	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS, DIS-SOLVED TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI-MENT, SUS-PENDED (MG/L) (80134)
AUG, 1985													
27...	67	.11	<.010	<.10	<.010	.40	.070	.060	280	8	6.0	94	

ST. CROIX RIVER BASIN
454741092190200 CLAM LAKE NEAR SIREN, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 45°47'41", long 92°19'02", in NW 1/4 sec.11, T.38 N., R.16 W., Burnett County, Hydrologic Unit 07030001, 3.1 mi east of Siren.

PERIOD OF RECORD.--April to September, 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 950 ft. from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 9.96 ft., June 29; minimum, 8.34 ft., Apr. 12.

GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	9.62	---	9.51	9.05	---
2							---	---	9.32	9.38	---	9.23
3							---	9.63	9.39	9.24	9.01	9.34
4							---	---	---	9.24	8.99	9.31
5							---	9.61	9.41	---	---	9.35
6							---	9.39	---	9.21	8.93	9.33
7							---	---	---	9.18	---	---
8							---	8.79	9.39	---	8.89	9.47
9							---	8.81	---	---	9.14	9.55
10							---	---	9.38	9.15	9.18	9.59
11							---	8.97	---	9.15	9.25	9.77
12							8.34	9.01	9.39	9.13	9.35	---
13							---	---	---	---	9.43	9.77
14							---	---	9.27	9.09	9.45	9.67
15							---	9.44	---	---	9.43	9.57
16							---	9.66	9.16	9.03	9.37	9.31
17							---	9.86	9.15	9.05	9.31	9.19
18							---	10.04	9.19	9.08	9.23	9.17
19							---	10.08	---	---	9.15	---
20							---	---	9.19	---	---	9.21
21							---	9.84	---	9.08	9.17	---
22							---	---	---	9.06	9.19	9.29
23							---	9.72	9.15	9.06	9.27	---
24							---	9.30	---	---	---	9.39
25							---	---	9.14	9.10	9.27	9.37
26							---	9.06	9.68	---	9.29	9.39
27							---	8.98	9.84	9.10	---	9.45
28							---	8.84	9.95	9.09	9.27	9.45
29							---	8.81	9.96	---	---	9.45
30							---	---	9.74	9.07	9.27	---
31							---	9.09	---	---	9.25	---

WATER-QUALITY RECORDS

LOCATION.--Lat 45°47'28", long 92°19'23", in SW 1/4 sec.11, T.38 N., R.16 W., Burnett County, Hydrologic Unit 07030001, near center of lake, and 2.8 mi east of Siren.

PERIOD OF RECORD.--June to July 1985.

REMARKS.--Secchi disc readings made by Mike Henrickson.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 1.9 meters, June 5; minimum transparency, 0.8 meter, July 23.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
JUNE 5	1.9	JUNE 22	1.4	JULY 10	1.1	JULY 23	0.8

ST. CROIX RIVER BASIN

05337050 KETTLE RIVER NEAR CLOVERDALE, MN

LOCATION.--Lat 45°54'13", long 92°43'47". in SW 1/4 SW 1/4 sec.33, T.40 N., R.19 W., Pine County, Hydrologic Unit 07030003, St. Croix National Scenic Riverway, 200 ft west of town road, 8.0 mi south of Cloverdale, MN, and 9.0 mi northwest of Grantsburg, WI.

DRAINAGE AREA.--1,050 mi², approximately.

PERIOD OF RECORD.--May 1975 to September 1983, October 1984 to September 1985.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEC C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BAROMETRIC PRESURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (PERCENT SATURATION) (00301)	COLIFORMS, FECA, UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, KF AGAR (COLS./100 ML) (31673)	
AUG, 1985	27...	1340	383	155	8.3	19.5	9.6	754	106	36	450

DATE	HARDNESS (MG/L AS CaCO3) (00900)	HARDNESS, NONCARBONATE (MG/L AS CaCO3) (00902)	CALCIUM, DIS-SOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	PERCENT SODIUM (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY, LAB (MG/L AS CaCO3) (90410)	SULFATE, DIS-SOLVED (MG/L AS SO4) (00945)	
AUG, 1985	27...	75	4	19	6.8	3.8	10	.2	1.9	72	2.7

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRATE TOTAL (MG/L AS N) (00620)	NITROGEN, NITRITE TOTAL (MG/L AS N) (00615)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	
AUG, 1985	27...	4.7	<.10	10	124	93	.17	.38	.020	.40

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDIMENT, SUSPENDED (MG/L) (80154)	
AUG, 1985	27...	.090	.61	.70	.070	.040	740	17	7.8	89

ST. CROIX RIVER BASIN

05338500 SNAKE RIVER NEAR PINE CITY, MN

LOCATION.--Lat 45°50'30", long 92°56'00", in SE 1/4 NW 1/4 sec.26, T.39 N., R.21 W., Pine County, Hydrologic Unit 07030004, on left bank, at site of former powerplant and dam, 0.5 mi downstream from Cross Lake, end 1.5 mi northeast of Pine City.

DRAINAGE AREA.--958 mi².

PERIOD OF RECORD.--Water years 1963, 1965, 1967-68, 1975 to 1983, October 1984 to September 1985.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	BARO- METRIC PRES- SURE OF (MM HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI KF AGAR PER (COLS. 100 ML) (31673)	
AUG, 1985	27...	1715	484	190	8.5	19.0	9.5	750	104	900	89
DATE		HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	PERCENT SODIUM (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	
AUG, 1985	27...	96	4	24	8.7	3.5	7	.2	1.1	92	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	
AUG, 1985	27...	2.9	3.8	<.10	6.1	127	110	.17	<.010	<.10	
DATE		NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SEDI- MENT, SUS- PENDEd (MG/L) (80154)	
AUG, 1985	27...	.070	.83	.90	.100	.040	370	10	12	10	

ST. CROIX RIVER BASIN

05340500 ST. CROIX RIVER AT ST. CROIX FALLS, WI
(NATIONAL STREAM QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 45°24'25", long 92°38'49", in SW 1/4 NW 1/4 sec.30, T.34 N., R.18 W., Polk County, Hydrologic Unit 07030005, St. Croix National Scenic Riverway, on left bank, 1,500 ft downstream from powerplant of Northern States Power Co., in St. Croix Falls, and at mile 52.2.

DRAINAGE AREA.--6,240 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1902 to current year. Prior to January 1910, monthly discharge only, published in WSP 1308. Prior to October 1939, published as "near St. Croix Falls."

REVISED RECORDS.--WSP 1115: 1929. WDR WI-82-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 689.94 ft above National Geodetic Vertical Datum of 1929. Prior to July 1905, gage heights and discharge measurements were used by Loweth and Wolff, consulting engineers of St. Paul, Minn., to determine the flow. July 1905 to February 1940, records were computed from power generation at the St. Croix Falls Powerplant. February 1940 to Sept. 30, 1979, water-stage recorder at site 300 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records are good. Diurnal fluctuation caused by St. Croix Falls Powerplant 1,500 ft upstream. Data-collection platform at station.

AVERAGE DISCHARGE.--83 years, 4,295 ft³/s, 9.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,900 ft³/s May 8, 1950, gage height, 25.19 ft; minimum daily, 75 ft³/s July 17, 1910.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,600 ft³/s Apr. 26, gage height, 12.96 ft; minimum daily, 957 ft³/s Dec. 4.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).

2.1	838	6.0	10,700
2.5	1,400	9.0	18,200
3.0	2,350	12.0	25,400
4.0	4,950	13.0	27,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6300	9070	4270	3300	2730	3540	11600	17700	8330	13200	2900	2780
2	5570	8930	3580	3190	2600	3490	10400	15100	10900	11400	2930	3110
3	5290	8160	2430	3220	2610	3450	10500	13000	12000	9830	2830	4940
4	4740	8000	957	2400	2500	3090	11300	11300	11200	8550	2570	6420
5	4490	7690	2680	3190	2730	3190	11500	10100	9690	7810	2520	10700
6	4320	7100	2700	3200	2410	3280	12000	10600	8600	7520	2590	11000
7	4040	6850	1540	3570	2600	3080	11700	8320	7790	7220	2570	9890
8	4220	6650	2620	3050	1960	3500	11000	7000	7170	6840	2240	9000
9	4110	6750	3050	3070	2360	3230	10400	6590	6250	6050	3280	10200
10	4400	6660	3750	3220	2530	3480	9340	6690	5080	5450	2880	10300
11	4340	6340	3840	2970	2490	3770	8670	6580	4920	4020	2600	9810
12	4150	5930	4120	2930	2370	3900	8370	6790	4760	3560	3940	9070
13	3880	5630	4050	3100	2710	4300	8350	6670	4230	4180	5100	7860
14	3990	5630	3550	3080	2570	4730	8840	7150	3280	3430	5380	7690
15	4050	5450	3480	2830	1960	5180	8990	7450	4020	3730	6670	7150
16	4770	5140	3940	3050	2380	6160	9590	9770	3690	3480	5640	6630
17	6350	4900	5460	2100	2230	7140	9590	10900	3980	3160	5400	6490
18	8070	4490	6310	2670	2390	7360	9550	11200	4360	3310	4810	6300
19	12700	3560	6280	2950	2560	8980	9480	10600	4100	3890	4810	6360
20	16400	3180	5670	3040	2510	9660	10100	9820	3780	3940	4600	6500
21	20800	3880	5570	2180	2640	10400	10800	8900	4280	3930	3660	5830
22	22000	3950	5600	2650	2770	11200	11600	7710	3290	3580	3540	5670
23	20700	3930	5060	2760	2770	11300	14600	7230	3490	3480	3920	5920
24	19200	4560	4530	2730	3170	11000	18400	6890	3360	3770	3750	8170
25	17600	4450	3430	2250	3080	10900	24000	5710	3130	3480	4590	10100
26	15800	5550	4260	2830	3060	10900	27200	5570	5240	3970	3910	11500
27	14600	4620	3530	2590	3290	12500	27000	5400	12000	3800	4640	11400
28	12800	4410	4050	2730	3130	13500	25000	5510	13700	3410	4680	10500
29	11100	4370	3940	2510	---	13700	22200	5400	15100	3410	4420	9590
30	9960	4230	2780	2660	---	13300	19500	5460	14900	3100	4310	9080
31	8770	---	3610	2740	---	12600	---	5740	---	3330	2920	---
TOTAL	289510	170060	120637	88760	73110	225810	401570	262850	206620	159830	120600	239960
MEAN	9339	5669	3892	2863	2611	7284	13390	8479	6887	5156	3890	7999
MAX	22000	9070	6310	3570	3290	13700	27200	17700	15100	13200	6670	11500
MIN	3880	3180	957	2100	1960	3080	8350	5400	3130	3100	2240	2780
CFSM	1.50	.91	.62	.46	.42	1.17	2.15	1.36	1.10	.83	.62	1.28
IN.	1.73	1.01	.72	.53	.44	1.35	2.39	1.57	1.23	.95	.72	1.43
CAL YR 1984	TOTAL	2555037	MEAN	6981	MAX	34200	MIN	957	CFSM	1.12	IN	15.23
WTR YR 1985	TOTAL	2359317	MEAN	6464	MAX	27200	MIN	957	CFSM	1.04	IN	14.07

ST. CROIX RIVER BASIN

05340500 ST. CROIX RIVER AT ST. CROIX FALLS, WI--CONTINUED
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-68, 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	BAROMETRIC PRESURE (MM HG) (00025)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS AS CaCO3 (MG/L) (00900)
OCT, 1984												
01...	1255	6290	142	8.0	12.0	1.2	10.2	752	96	33	45	69
JAN, 1985												
07...	1330	3630	209	7.6	.0	2.5	11.0	745	77	K12	K7	95
APR												
01...	1240	11900	123	7.7	1.5	3.0	13.1	749	95	260	K29	50
AUG												
12...	1210	5680	165	8.2	20.5	3.0	8.8	745	100	280	1700	81

DATE	HARDNESS, NONCARBONATE (MG/L CaCO3) (00902)	CALCIUM, DISSOLVED (MG/L AS Ca) (00915)	MAGNESIUM, DISSOLVED (MG/L AS Mg) (00925)	SODIUM, DISSOLVED (MG/L AS Na) (00930)	PERCENT SODIUM (00932)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY, FIELD AS CaCO3 (00410)	SULFATE, DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS Cl) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
OCT, 1984											
01...	4	18	5.9	2.7	8	.1	.90	65	5.5	3.5	<.10
JAN, 1985											
07...	8	25	7.9	3.8	8	.2	1.3	87	6.2	4.1	<.10
APR											
01...	5	13	4.2	3.0	11	.2	1.9	45	4.6	4.7	<.10
AUG											
12...	4	21	6.9	2.9	7	.1	.90	77	5.3	1.8	.10

DATE	SILICA, DISSOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)
OCT, 1984											
01...	9.3	99	85	.13	1680	<.10	.050	.60	.030	.010	<.010
JAN, 1985											
07...	16	122	120	.17	1200	.32	.070	.40	.030	.020	.020
APR											
01...	7.7	82	67	.11	2630	<.10	<.010	.60	.050	.070	<.010
AUG											
12...	11	110	96	.15	1690	.14	.020	.60	.010	<.010	<.010

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

ST. CROIX RIVER BASIN

05340500 ST. CROIX RIVER AT ST. CROIX FALLS, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT, 1984											
01...	1255	6290	<10	<1	19	<.5	<1	<1	<3	2	260
JAN, 1985											
07...	1330	3630	20	<1	27	<.5	<1	3	<3	2	340
APR											
01...	1240	11900	20	1	20	<.5	1	1	<3	2	470
AUG											
12...	1210	5680	30	<1	21	<.5	<1	1	<3	2	62

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT, 1984										
01...	3	<4	13	<.1	<10	4	<1	37	<6	67
JAN, 1985										
07...	1	<4	18	.2	<10	<1	<1	46	<6	3
APR										
01...	<1	16	15	<.1	<10	1	<1	26	<6	11
AUG										
12...	<1	<4	3	<.1	<10	3	<1	45	<6	<3

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT, 1984						
01...	1255	6320	142	6.0	8	137
NOV						
07...	1305	6860	145	3.5	--	--
DEC						
26...	1125	5780	142	1.0	--	--
JAN, 1985						
07...	1330	3660	209	.0	4	40
FEB						
27...	1035	5750	225	1.0	--	--
APR						
01...	1240	11900	123	1.5	15	482
MAY						
28...	1110	6630	140	18.0	--	--
JUL						
22...	1205	5010	150	24.0	--	--
AUG						
12...	1210	5690	165	20.5	16	246
SEP						
13...	1300	7280	138	16.0	--	--

ST. CROIX RIVER BASIN
05341000 BONE LAKE NEAR LUCK, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 45°33'21", long 92°23'16", in SE 1/4 sec.31, T.36 N., R.16 W., Polk County, Hydrologic Unit 07030005, at residence of A. D. Brosneen, 4.9 mi southeast of Luck.

PERIOD OF RECORD.--September 1936 to September 1940 (fragmentary). October 1940 to September 1964 (fragmentary), in files of district office. October 1984 to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 1152 ft, from topographic map. Prior to 1964, staff gage 0.2 mi south at different datum.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 6.50 ft, Sept. 30; minimum, 6.00 ft, Oct. 4.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT
OCT. 4	6.00	NOV. 9	6.10	JUNE 25	6.14	JULY 17	6.05	AUG. 13	6.07	SEPT. 10	6.32
OCT. 11	6.04	NOV. 15	6.08	JUNE 30	6.10	JULY 24	6.10	AUG. 19	6.20	SEPT. 16	6.35
OCT. 18	6.18	NOV. 23	6.06	JULY 6	6.06	JULY 30	6.09	AUG. 27	6.24	SEPT. 24	6.38
OCT. 26	6.24	NOV. 29	6.06	JULY 12	6.00	AUG. 5	6.08	SEPT. 3	6.26	SEPT. 30	6.50
NOV. 2	6.20	JUNE 20	6.16								

WATER-QUALITY RECORDS

LOCATION.--Lat 45°32'00", long 92°23'31", in NE 1/4 sec.7, T.35 N., R.16 W., Polk County, Hydrologic Unit 07030005, near center of lake, and 5.3 mi southeast of Luck.

PERIOD OF RECORD.--May 1 to September 24, 1985.

REMARKS.--Secchi disc readings made by A. D. Brosneen.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 2.4 meters, May 1, 9, 16, 23, 20; minimum transparency, 1.5 meters, Aug. 20, 27, Sept. 3, 10, 17.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
MAY 1	2.4	MAY 30	2.4	JUNE 27	2.1	JULY 23	2.1	AUG. 20	1.5	SEPT. 10	1.5
MAY 9	2.4	JUNE 6	2.3	JULY 3	2.1	JULY 30	2.1	AUG. 27	1.5	SEPT. 17	1.5
MAY 16	2.4	JUNE 12	2.3	JULY 10	2.1	AUG. 5	2.1	SEPT. 3	1.5	SEPT. 24	1.7
May 23	2.4	JUNE 19	2.3	JULY 17	2.1	AUG. 13	2.0				

MISSISSIPPI RIVER MAIN STEM

05344500 MISSISSIPPI RIVER AT PRESCOTT, WI

LOCATION.--Lat 44°44'45", long 92°48'00", in sec.9, T.26 N., R.20 W., Pierce County, Hydrologic Unit 07010206, on left bank at Prescott, 200 ft downstream from St. Croix River, 300 ft south of Chicago, Burlington & Quincy Railroad bridge, 800 ft south of bridge on U.S. Highway 10, and at mile 811.4 upstream from Ohio River.

DRAINAGE AREA.--44,800 mi², approximately.

PERIOD OF RECORD.--June 1928 to current year.

REVISED RECORDS.--WSP 1508: 1941. WDR MN-74: 1973.

GAGE.--Water-stage recorder. Datum of gage is 649.50 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 2, 1932, nonrecording gage at railroad bridge 300 ft upstream at following datums: June 3, 1928, to Sept. 30, 1929, 19.27 ft higher; Oct. 1, 1929, to Sept. 30, 1930, 17.68 ft higher; Oct. 1, 1930, to Aug. 1, 1932, 19.28 ft higher. Aug. 2, 1932, to Oct. 30, 1938, water-stage recorder at present site at datum 19.28 ft higher; Nov. 1, 1938, to Sept. 7, 1971, water-stage recorder at present site at datum 50.00 ft lower. Auxiliary water-stage recorder 10.7 mi downstream from base gage.

REMARKS.--No estimated daily discharges. Records good. Some regulation by reservoirs, navigation dam, and powerplants at low and medium stages. Flood flow not materially affected by artificial storage.

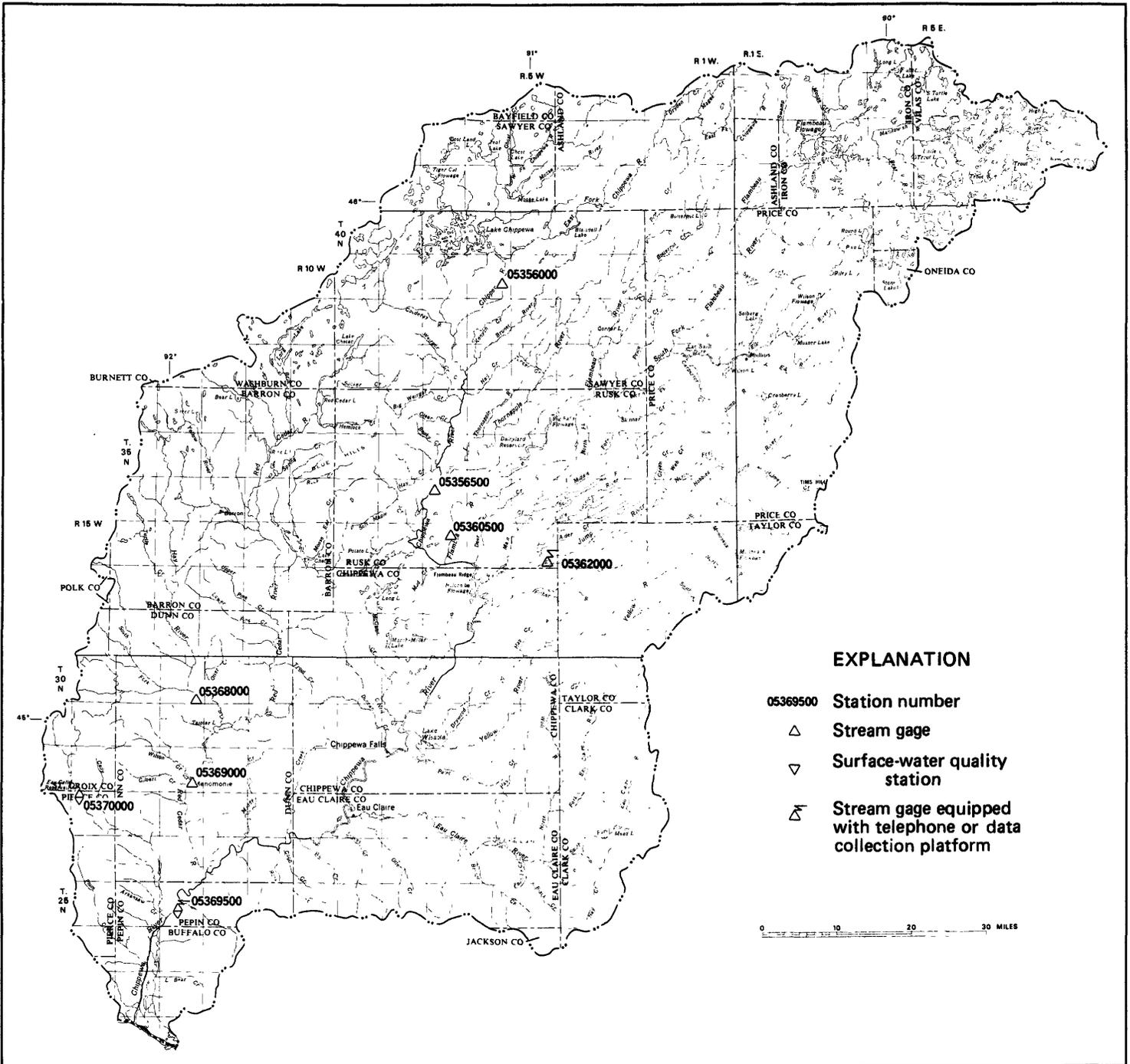
AVERAGE DISCHARGE.--57 years, 17,000 ft³/s, 5.15 in/yr; median of yearly mean discharges, 15,960 ft³/s, 4.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 228,000 ft³/s Apr. 18, 1965, gage height, 43.11 ft; minimum daily, 1,380 ft³/s July 13, 1940; minimum gage height, 15.08 ft Aug. 29, 1934, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 73,400 ft³/s Apr. 30, gage height, 33.54 ft; minimum daily, 8,390 ft³/s Feb. 10; minimum gage height, 24.78 ft Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15000	40800	19900	15100	9900	12200	57300	72500	30500	39200	21000	17500
2	14100	37900	19200	15100	10100	12200	55100	71400	32500	40500	20600	17300
3	14400	35600	18400	15000	9790	13000	52500	69300	33600	39600	20000	17300
4	11000	34300	17000	14800	9540	12800	51000	66600	34800	39000	18600	19600
5	10700	32700	12200	14900	10300	12500	50500	64000	36700	37800	18100	22800
6	10700	30700	11800	14700	9130	11600	49800	60400	36400	36200	17500	24100
7	10300	29800	11600	13900	9410	12600	49600	57900	35700	34800	17200	25600
8	9770	29600	10600	14300	9240	12800	48300	54500	34400	33600	17400	27800
9	10500	29400	12100	13500	8860	13300	46800	49700	33100	31500	15400	29400
10	11100	28900	14200	13400	8390	12400	44900	46600	31500	29200	16100	31600
11	10900	27600	16400	12300	9240	12600	43100	43100	30400	27000	16100	34100
12	11400	26900	17900	13000	9310	12800	41800	40700	29700	26200	14400	34400
13	11300	26300	17500	12200	8620	13100	40500	38000	28800	24600	17200	34000
14	10600	26000	16500	12100	9070	14800	38800	36100	28000	23900	22000	33700
15	11300	25900	15900	12500	9160	20900	36600	35900	28500	22000	20500	33000
16	11100	25200	16000	12400	9290	25100	35200	36600	28400	22100	21200	32200
17	11500	24800	18700	12300	8420	29800	34100	38300	28400	21000	20300	32100
18	16600	23700	20100	12200	8900	35200	33200	40800	28800	19500	20800	32100
19	21000	22700	20700	12300	9370	41800	32200	43000	28600	19300	21300	31000
20	30300	20800	19700	11700	9430	48000	30900	43700	28000	18900	20200	31100
21	36400	18800	19600	10500	8860	55100	30700	43300	27100	19000	19700	30600
22	43700	17600	18900	11000	10100	61000	31600	42200	26900	20000	18600	30000
23	48500	18400	20400	10900	10200	65000	33100	40600	26200	20100	17900	30200
24	50900	19800	18600	11100	9940	66600	37500	39200	24900	20500	17400	30500
25	52400	20300	17400	10900	10400	66400	45500	37500	23500	20900	17100	31000
26	52800	19800	16600	10900	11500	65900	55000	35500	22400	21700	17300	31500
27	52600	20600	17500	10300	11700	64900	64400	33400	24400	22700	17600	32400
28	52000	20900	17200	10200	12200	63900	69500	32100	28900	21800	17100	32500
29	48900	20900	17100	10300	---	62600	71800	30100	32900	21400	17100	31600
30	46500	20500	16900	10100	---	60800	73000	29200	36300	22800	17500	31200
31	43200	---	15100	10400	---	59700	---	29600	---	22100	17100	---
TOTAL	791470	777200	521700	384300	270370	1071400	1384300	1401800	900300	818900	570300	872200
MEAN	25530	25910	16830	12400	9656	34560	46140	45220	30010	26420	18400	29070
MAX	52800	40800	20700	15100	12200	66600	73000	72500	36700	40500	22000	34400
MIN	9770	17600	10600	10100	8390	11600	30700	29200	22400	18900	14400	17300
CFSM	.57	.58	.38	.28	.22	.77	1.03	1.01	.67	.59	.41	.65
IN.	.66	.65	.43	.32	.22	.89	1.15	1.16	.75	.68	.47	.72
CAL YR 1984 TOTAL	11154380	MEAN	30480	MAX	90700	MIN	7940	CFSM	.68	IN	9.26	
WTR YR 1985 TOTAL	9764240	MEAN	26750	MAX	73000	MIN	8390	CFSM	.60	IN	8.11	



EXPLANATION

- 05369500 Station number
- △ Stream gage
- ▽ Surface-water quality station
- △ with telephone symbol Stream gage equipped with telephone or data collection platform

0 10 20 30 MILES

Base from U.S. Geological Survey
State base map, 1958

CHIPPEWA RIVER BASIN

CHIPPEWA RIVER BASIN

05356000 CHIPPEWA RIVER AT BISHOPS BRIDGE, NEAR WINTER, WI

LOCATION.--Lat 45°50'57", long 91°04'44". in SW 1/4 NE 1/4 sec.23, T.39 N., R.6 W., Sawyer County, Hydrologic Unit 07050001, on right bank 15 ft upstream from highway bridge on County Trunk Highway G, 3.2 mi downstream from Lake Chippewa Dam, and 3.7 mi northwest of Winter.

DRAINAGE AREA.--790 mi².

PERIOD OF RECORD.--February 1912 to current year. December to April 1913, monthly discharge only, published in WSP 1308.

REVISED RECORDS.--WSP 1438: 1913(M), 1915-18(M), 1919, 1920-23(M), 1924, 1925(M), 1927(M), 1928, 1929-30(M), 1939(M). WDR WI-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,256.78 ft above National Geodetic Vertical Datum of 1929 (levels by Wilhelm Engineering Co.). See WSP 1708 or 1728 for history of changes prior to July 23, 1930.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Moose Lake and Lake Chippewa.

AVERAGE DISCHARGE.--73 years, 724 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,520 ft³/s Sept. 4, 5, 1941, gage height, 11.05 ft; minimum, 14 ft³/s Apr. 17-20, 1925, gage height, 3.25 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,520 ft³/s Apr. 25, May 17, gage height, 7.11 ft; minimum discharge, 32 ft³/s May 31, gage height 3.49 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).

3.8	86	5.0	660
4.0	134	6.0	1,430
4.3	248	7.0	2,400
4.6	399	8.0	3,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1370	1470	1080	1020	928	137	167	2090	1590	1470	647	1820
2	1360	1620	1080	1020	910	137	167	2100	1590	1630	542	1840
3	1360	1620	1080	1020	883	144	176	1980	1580	1560	469	2140
4	1360	1610	1080	1020	920	265	191	1700	1460	1850	470	1650
5	1010	1600	1070	1020	917	159	188	1330	1500	1960	400	1670
6	578	1600	1070	1010	913	155	188	1220	1470	2060	296	1590
7	581	1600	1070	1010	906	139	187	901	1440	2060	364	2050
8	643	1600	1060	1010	906	138	179	799	1580	2010	345	2080
9	724	1590	1060	1010	906	140	174	800	1570	1950	370	2070
10	664	1590	1060	1010	903	140	177	803	1370	1900	367	1960
11	685	1590	1060	1000	896	141	183	808	1030	1980	528	2180
12	693	1590	1060	1000	894	140	195	811	838	1920	593	2270
13	694	1580	1060	999	890	142	302	782	648	1890	1220	2260
14	693	1580	1060	993	887	140	235	1070	631	1460	1430	2250
15	695	1050	1060	996	885	143	211	1710	633	991	1440	2240
16	699	1130	1070	997	882	143	200	2110	632	925	1850	1670
17	723	1130	1060	993	877	143	210	2370	633	777	1860	588
18	703	1130	1060	990	874	145	203	2280	555	741	1860	86
19	756	1130	1060	992	872	146	200	2280	491	975	1850	351
20	877	1010	1050	989	867	147	196	1940	337	972	1850	240
21	874	1110	1050	981	865	151	205	1460	345	968	1780	237
22	872	1110	1050	977	582	153	201	1020	343	837	1610	243
23	868	1100	1040	964	135	159	885	894	340	644	1630	685
24	870	1100	1040	952	135	159	1940	877	464	686	1630	1300
25	833	1100	1040	946	137	167	2370	888	667	728	1620	1440
26	857	1100	1040	945	136	185	2480	888	954	674	1620	1430
27	866	1100	1030	940	137	228	2400	885	1140	724	1610	1660
28	865	1040	1030	937	137	209	1980	816	1270	724	1350	1830
29	862	1090	1030	931	---	184	2010	605	1270	724	957	1850
30	1130	1080	1030	929	---	178	2090	741	1270	724	1730	1910
31	1380	---	1020	932	---	185	---	630	---	681	1830	---
TOTAL	27145	39750	32710	30533	20180	4942	20490	39588	29641	39195	36118	45590
MEAN	876	1325	1055	985	721	159	683	1277	988	1264	1165	1520
MAX	1380	1620	1080	1020	928	265	2480	2370	1590	2060	1860	2270
MIN	578	1010	1020	929	135	137	167	605	337	644	296	86
CAL YR 1984	TOTAL	316672		MEAN	865	MAX	3160	MIN	186			
WTR YR 1985	TOTAL	365882		MEAN	1002	MAX	2480	MIN	86			

CHIPPEWA RIVER BASIN

129

05356500 CHIPPEWA RIVER NEAR BRUCE, WI

LOCATION.--Lat 45°27'08", long 91°15'39", in SE 1/4 sec.5, T.34 N., R.7 W., Rusk County, Hydrologic Unit 07050001, on right bank 1.0 mi east of Bruce and 1.0 mi downstream from Thornapple River.

DRAINAGE AREA.--1,650 mi².

PERIOD OF RECORD.--December 1913 to current year.

REVISED RECORDS.--WSP 875: 1936-38, WSP 1308: 1922, 1937(M). WSP 1508: 1914-26(M), 1927, 1928-31(M), 1932, 1933(M), 1934-36, 1938. WDR WI-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,059.62 ft above National Geodetic Vertical Datum of 1929. Prior to May 28, 1935, nonrecording gage at railroad bridge 0.8 mi upstream at datum 2.30 ft higher.

REMARKS.--Estimated daily discharges: Ice periods listed in rating table below and Mar. 26-28. Records good except for estimated daily discharges, which are fair. Flow from 48 percent of the drainage area regulated by Moose Lake and Lake Chippewa.

AVERAGE DISCHARGE.--71 years, 1,479 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,800 ft³/s Sept. 1, 1941, gage height, 20.46 ft, from floodmarks, from rating curve extended above 20,000 ft³/s; minimum, 155 ft³/s June 10, 1932, gage height, 0.9 ft, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,910 ft³/s Sept. 10, gage height, 8.22 ft; minimum, 460 ft³/s Aug. 8, gage height, 1.60 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 17-20, Dec. 3 to Mar. 24.)

1.6	460	6.0	4,300
2.0	740	8.0	6,620
4.0	2,320		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1760	2410	1390	1500	1400	560	2410	3110	1480	1630	994	2240
2	1510	2640	1400	1500	1400	580	2280	3010	2270	1940	888	2220
3	1740	2470	1400	1400	1400	600	2320	2940	2200	1930	864	2840
4	1610	2410	1400	1500	1300	560	3280	2690	2160	2140	711	4260
5	1620	2340	1400	1600	1300	520	3370	2180	1920	2480	767	3320
6	1250	2240	1400	1600	1300	560	2930	1980	1930	2690	750	3050
7	950	2200	1400	1500	1300	620	2720	1810	1950	2780	576	2480
8	1050	2190	1400	1500	1300	660	2450	1420	1740	2550	571	3480
9	1080	2140	1400	1400	1300	700	2130	1400	1840	2490	667	6160
10	1140	2100	1300	1400	1300	740	1850	1840	1820	2430	1350	6460
11	1070	2070	1300	1300	1300	780	1900	2860	1640	2340	1420	5110
12	1080	2020	1300	1300	1300	820	2130	2890	1180	2350	1320	4040
13	1090	2000	1300	1300	1300	840	3690	2880	1100	2290	2180	3450
14	1080	1980	1300	1300	1300	860	5720	2680	911	2050	2750	3180
15	1070	1970	1500	1300	1200	900	5050	3160	953	1690	2370	3010
16	1190	1360	1700	1300	1200	940	3850	4200	939	1210	2300	2870
17	1860	1500	1900	1300	1200	1000	3190	4140	893	1240	2450	1960
18	2280	1400	1500	1400	1200	1100	2820	3750	975	1170	2370	989
19	2050	1500	1400	1300	1200	1200	2440	3500	877	1070	2300	714
20	2420	1500	1400	1200	1200	1300	2420	3260	872	1300	2220	904
21	2240	1470	1400	1300	1200	1600	2560	2560	660	1270	2240	836
22	1790	1800	1400	1400	1200	2100	2570	1970	686	1250	2070	871
23	1640	1850	1400	1400	1100	3100	2320	1560	660	1120	2120	1160
24	1540	1640	1400	1400	600	3500	3370	1440	627	961	2520	3960
25	1380	1410	1400	1400	560	3950	4720	1380	803	1040	2590	5270
26	1400	1390	1500	1400	580	4900	4700	1400	933	1060	2330	4370
27	1480	1430	1500	1400	520	5200	4410	1510	1310	1020	2190	3600
28	2070	1490	1500	1400	540	5400	3860	1440	1450	1020	2110	3340
29	2120	1420	1500	1400	---	5640	3310	1330	1560	1030	1730	3230
30	1890	1440	1500	1400	---	4820	3160	1070	1630	1020	1720	4350
31	2110	---	1500	1400	---	3670	---	1330	---	1030	2190	---
TOTAL	48560	55780	44490	43200	32000	59720	93930	72690	39969	51591	53628	93724
MEAN	1566	1859	1435	1394	1143	1926	3131	2345	1332	1664	1730	3124
MAX	2420	2640	1900	1600	1400	5640	5720	4200	2270	2780	2750	6460
MIN	950	1360	1300	1200	520	520	1850	1070	627	961	571	714
CAL YR 1984	TOTAL	603744	MEAN	1650	MAX	6400	MIN	580				
WTR YR 1985	TOTAL	689282	MEAN	1888	MAX	6460	MIN	520				

CHIPPEWA RIVER BASIN

05360500 FLAMBEAU RIVER NEAR BRUCE, WI

LOCATION.--Lat 45°22'21", long 91°12'34", in Lot 7 of NW 1/4 sec.2, T.33 N., R.7 W., Rusk County, Hydrologic Unit 07050002, on right bank 2.5 mi downstream from Thornapple Powerplant, 6.0 mi upstream from mouth, and 7.0 mi southeast of Bruce.

DRAINAGE AREA.--1,860 mi².

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

REVISED RECORDS.--WDR WI-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,056.34 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: None, except for ice period listed in rating table below. Records good except those for ice-affected period, which are fair. Flow regulated by several powerplants above station and by Rest Lake and Flambeau Flowage Reservoirs.

AVERAGE DISCHARGE.--34 years, 1,857 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,400 ft³/s May 1, 1954, gage height, 10.90 ft; minimum, about 100 ft³/s Aug. 7, 9, 1957, gage height, 2.06 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,000 ft³/s Apr. 15, gage height, 8.00 ft; minimum, 290 ft³/s Nov. 23, 24, gage height, 2.18 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 2 to Mar. 24.)

2.1	250	5.0	3,480
2.5	471	7.0	7,610
3.0	840	8.0	10,000
4.0	1,940		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1440	1460	1180	1100	740	1200	4210	4230	2770	3100	1200	1220
2	1390	3210	980	1100	680	1300	4220	4420	3010	2570	1080	1300
3	1360	3040	860	1000	700	1400	4080	3830	3050	2140	1190	1830
4	1000	1920	780	780	660	1300	3700	3870	2940	2190	1030	2610
5	1060	1730	740	860	640	1300	3540	3890	2570	1970	1030	2510
6	1200	1480	720	900	680	1300	3550	3760	2230	2220	1010	2910
7	1150	1130	860	920	720	1300	2790	3390	2330	2480	1230	2570
8	1140	735	920	880	700	1400	2840	3720	2450	2510	1140	4070
9	1020	624	1100	780	700	1500	2900	3200	2360	2160	1150	9080
10	1060	688	1200	780	720	1500	2430	4430	2470	2020	1660	8780
11	1200	623	1300	800	720	1500	1600	6030	2420	2020	1920	7560
12	1170	682	1200	840	700	1500	2290	5980	2180	1960	2250	6280
13	1080	668	1100	880	640	1600	4900	4850	2200	1560	2110	3650
14	1040	431	1000	860	660	1500	9030	4790	2100	1650	2640	3520
15	1220	500	1100	800	680	1500	9430	4440	1700	1650	2390	3230
16	1350	614	1100	760	700	1600	7770	4300	1720	1510	1930	3010
17	1240	556	1300	740	840	1600	6560	4320	1630	1370	1750	2640
18	1320	527	1800	700	800	1700	6950	3500	1590	1490	1660	2460
19	2110	435	1500	720	760	1700	6270	3330	1790	1450	1400	2190
20	2180	357	1300	740	860	1800	6460	2970	1660	1550	1120	2300
21	2040	354	1400	720	960	1800	6530	2650	1550	1390	1250	2130
22	1880	351	1100	680	1200	1800	6200	2060	1800	1540	1350	2110
23	1680	322	1000	660	1300	1900	6640	2410	1770	1160	1420	2300
24	1230	321	1100	640	1200	1900	7200	2160	1870	1300	1700	4830
25	1150	345	900	720	1200	1930	6800	1880	1900	1510	1910	5690
26	1310	345	820	760	1300	1970	6690	2000	1970	1450	1880	5970
27	1080	345	900	760	1200	3330	6280	2620	1930	1280	1810	5190
28	1520	345	1000	760	1100	4830	5160	2840	1930	1360	1540	3910
29	2110	604	920	740	---	4860	5240	2360	2950	1030	1360	3690
30	1600	1200	1000	740	---	4550	4870	2420	3170	1050	1720	5000
31	873	---	1100	740	---	4460	---	2580	---	1290	1360	---
TOTAL	42203	25942	33280	24860	23760	62830	157130	109230	66010	53930	48190	114540
MEAN	1361	865	1074	802	849	2027	5238	3524	2200	1740	1555	3818
MAX	2180	3210	1800	1100	1300	4860	9430	6030	3170	3100	2640	9080
MIN	873	321	720	640	640	1200	1600	1880	1550	1030	1010	1220
CAL YR 1984	TOTAL	564084	MEAN	1541	MAX	4380	MIN	321				
WTR YR 1985	TOTAL	761905	MEAN	2087	MAX	9430	MIN	321				

CHIPPEWA RIVER BASIN

05362000 JUMP RIVER AT SHELDON, WI

LOCATION.--Lat 45°18'29", long 90°57'23", in sec.26, T.33 N., R.5 W., Rusk County, Hydrologic Unit 07050004, on right bank just downstream from highway bridge in Sheldon, 1,500 ft upstream from Shoulder Creek and 11 mi upstream from mouth.

DRAINAGE AREA.--576 mi².

PERIOD OF RECORD.--July 1915 to current year.

REVISED RECORDS.--WSP 975: 1938. WSP 1175: Drainage area. WSP 1438: 1916-17(M), 1919(M), 1920, 1921(M), 1922, 1923-26(M), 1927, 1928-31(M), 1932, 1933-37(M), 1945-46(M), 1948-50(M).

GAGE.--Water-stage recorder. Datum of gage is 1,092.75 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1939, and Sept. 1, 1941, to Apr. 1, 1953, Feb. 18, 1954, to Sept. 27, 1964, nonrecording gage at same site and datum. Apr. 2, 1953, to Feb. 18, 1954, nonrecording gage in creamery wellhouse 400 ft upstream at same datum. Feb. 9, 1939, to Aug. 31, 1941, and from Sept. 27, 1964, water-stage recorder at present site and datum.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair. Data-collection platform at station.

AVERAGE DISCHARGE.--70 years, 520 ft³/s, 12.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 46,000 ft³/s Aug. 31, 1941, gage height, 18.8 ft from floodmark, from rating curve extended above 13,000 ft³/s on basis of contracted-opening measurement of peak flow; minimum observed, 11 ft³/s Dec. 18, 1943, gage height, 3.99 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Mar. 29	1000	*7,100	*10.14	Sept. 10	1100	4,250	8.62
Apr. 13	2300	5,890	9.56	Sept. 25	0400	3,620	8.20

Minimum discharge, 49 ft³/s Aug. 8-9, gage height 3.12 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 12-28, Dec. 2 to Mar. 29.)

3.0	38	5.0	685
3.1	52	6.0	1,300
3.5	126	7.0	2,180
4.0	252	9.0	4,850
4.5	443	11.0	9,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	718	250	410	110	290	2640	645	219	873	73	156
2	243	802	190	370	100	340	2340	583	264	526	65	136
3	227	680	170	340	90	390	2220	502	242	339	64	131
4	205	557	160	320	86	400	2610	449	209	263	61	202
5	192	522	150	300	80	370	2670	396	185	250	56	294
6	182	476	140	280	78	350	2480	365	175	386	52	262
7	180	413	140	270	76	350	2300	445	161	462	51	220
8	278	418	140	250	78	350	2040	460	156	378	50	452
9	487	445	150	240	80	370	1630	389	153	282	63	2790
10	439	449	160	230	84	400	1390	455	141	219	122	4130
11	368	443	160	220	86	420	1540	1590	126	186	439	3320
12	324	390	160	200	88	460	1950	1540	110	158	456	2010
13	294	320	170	190	90	500	4700	1090	99	138	512	1170
14	279	330	190	180	92	560	5540	815	94	121	651	758
15	274	330	230	170	94	620	4630	791	99	108	548	550
16	311	340	320	170	96	680	3490	967	100	98	379	412
17	752	280	620	160	98	720	2740	837	98	89	272	336
18	1190	290	700	160	100	800	2270	692	111	91	215	286
19	1040	190	680	150	100	860	2010	576	114	84	188	253
20	896	190	560	150	110	940	2050	472	112	82	169	245
21	747	200	470	150	120	1000	1950	391	111	76	152	247
22	619	210	410	140	130	1100	1690	331	122	71	135	251
23	522	210	370	140	150	1300	1650	290	161	66	139	328
24	458	200	340	130	170	1500	2270	254	153	70	412	2510
25	420	190	310	130	200	1700	2210	230	133	91	694	3540
26	423	180	300	130	220	2000	1770	220	121	99	555	2990
27	439	190	300	130	250	3000	1280	241	116	104	403	2130
28	631	230	350	130	270	5000	1040	274	198	98	290	1450
29	871	360	430	130	---	6960	875	235	1200	90	221	1210
30	771	350	520	120	---	5670	747	210	1250	81	191	2840
31	692	---	450	120	---	4180	---	204	---	76	168	---
TOTAL	15018	10903	9690	6210	3326	43580	68722	16939	6533	6055	7846	35609
MEAN	484	363	313	200	119	1406	2291	546	218	195	253	1187
MAX	1190	802	700	410	270	6960	5540	1590	1250	873	694	4130
MIN	180	180	140	120	76	290	747	204	94	66	50	131
CFSM	.84	.63	.54	.35	.21	2.44	3.98	.95	.38	.34	.44	2.06
IN.	.97	.70	.63	.40	.21	2.81	4.44	1.09	.42	.39	.51	2.30
CAL YR 1984	TOTAL	158318	MEAN 433	MAX 3470	MIN 57	CFSM .75	IN 10.22					
WTR YR 1985	TOTAL	230431	MEAN 631	MAX 6960	MIN 50	CFSM 1.10	IN 14.88					

CHIPPEWA RIVER BASIN

05368000 HAY RIVER AT WHEELER, WI

LOCATION.--Lat 45°02'52", long 91°54'39", in SW 1/4 sec.25, T.30 N., R.13 W., Dunn County, Hydrologic Unit 07050007, on right bank 25 ft downstream from highway bridge in Wheeler, 1.8 mi upstream from Otter Creek, and 2.4 mi downstream from South Fork Hay River.

DRAINAGE AREA.--418 mi².

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WDR WI-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 889.30 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 25, 1951, nonrecording gage.

REMARKS.--Estimated daily discharges: None, except ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--35 years, 308 ft³/s, 10.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s Mar. 31, 1967, gage height, 15.04 ft, from rating curve extended above 9,000 ft³/s; minimum, 55 ft³/s Mar. 13, 1954, gage height, 2.32 ft, result of freezeup.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Maximum stage since 1915, 16.6 ft April 1934, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Mar. 17	1800	*2,030	*8.19	No other peak greater than base discharge.			
Minimum discharge, 193 ft ³ /s, Aug. 5, 9, gage height, 3.21 ft.							

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Aug. 5 to Sept. 12; stage-discharge relation affected by ice Nov. 21, 22, 30, Dec. 1 to Feb. 21, and Mar. 5-8.)

3.1	191	5.0	630
3.5	263	6.0	970
4.0	369	7.0	1,380
		8.0	1,920

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	256	387	260	250	200	763	595	414	510	243	208	218	
2	252	365	250	250	200	829	571	431	405	242	203	212	
3	249	338	240	250	200	576	614	421	355	240	199	233	
4	247	338	240	250	200	272	842	398	332	237	195	285	
5	247	332	230	240	200	290	836	382	314	236	195	265	
6	254	325	230	240	200	320	662	384	297	234	196	249	
7	268	319	220	240	200	350	568	378	290	231	198	237	
8	345	320	230	230	210	370	512	361	288	227	197	244	
9	326	318	230	230	210	378	481	350	281	224	194	360	
10	302	316	230	230	210	401	469	343	269	220	220	520	
11	288	310	230	230	210	536	459	356	268	219	234	438	
12	284	305	230	230	210	677	487	372	270	218	242	369	
13	283	298	240	230	210	753	612	377	266	217	382	316	
14	281	298	240	230	210	788	689	367	261	215	323	287	
15	296	303	250	230	210	838	601	604	280	213	255	270	
16	364	294	280	230	210	1150	536	741	318	208	233	262	
17	468	288	390	230	220	1860	482	552	296	209	222	259	
18	448	284	360	230	240	1760	459	472	289	223	214	259	
19	411	278	310	230	250	1600	453	418	285	244	206	259	
20	417	278	270	230	300	1620	447	380	273	228	205	278	
21	358	280	270	230	400	1270	442	356	270	214	205	293	
22	350	280	260	220	659	1000	433	344	293	206	204	305	
23	334	280	260	220	893	916	441	336	282	202	220	355	
24	325	282	260	220	938	805	937	331	267	208	227	558	
25	319	283	250	220	744	733	936	322	261	256	217	586	
26	323	283	250	220	531	742	630	328	257	237	210	472	
27	339	292	260	220	432	891	525	320	255	219	208	413	
28	444	295	260	220	417	926	473	310	250	216	209	373	
29	416	287	260	210	---	931	442	309	247	214	239	377	
30	379	270	250	210	---	817	420	312	245	210	243	503	
31	352	---	250	210	---	667	---	391	---	208	226	---	
TOTAL	10225	9126	7990	7110	9314	25829	17054	12160	8774	6918	6929	10055	
MEAN	330	304	258	229	333	833	568	392	292	223	224	335	
MAX	468	387	390	250	938	1860	937	741	510	256	382	586	
MIN	247	270	220	210	200	272	420	309	245	202	194	212	
CFSM	.79	.73	.62	.55	.80	1.99	1.36	.94	.70	.53	.54	.80	
IN.	.91	.81	.71	.63	.83	2.30	1.52	1.08	.78	.62	.62	.89	
CAL YR 1984	TOTAL	133826		MEAN	366	MAX	1370	MIN	220	CFSM	.88	IN.	11.91
WTR YR 1985	TOTAL	131484		MEAN	360	MAX	1860	MIN	194	CFSM	.86	IN.	11.70

CHIPPEWA RIVER BASIN

05369000 RED CEDAR RIVER AT MENOMONIE, WI

LOCATION.--Lat 44°53'02", long 91°55'57", in NW 1/4 sec.26, T.28 N., R.13 W., Dunn County, Hydrologic Unit 07050007, on right bank at Menomonie, 900 ft downstream from powerplant of Northern States Power Co., and 1,000 ft downstream from Wilson Creek.

DRAINAGE AREA.--1,770 mi².

PERIOD OF RECORD.--June 1907 to September 1908, May 1913 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WDR WI-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 780 ft above National Geodetic Vertical Datum of 1929 (Northern States Power Co. bench mark). Prior to Sept. 3, 1908, nonrecording gage at site 1 mi downstream at different datum. May 9, 1913, to Sept. 30, 1923, water-stage recorder at same site at datum 0.42 ft lower than present datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by powerplants at Menomonie and Cedar Falls.

AVERAGE DISCHARGE.--73 years, 1,273 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft³/s Apr. 4, 1934, gage height, 16.0 ft, from floodmarks, from rating curve extended above 27,000 ft³/s on basis of computed flow over Cedar Falls Dam 6 mi upstream; minimum, less than 10 ft³/s July 3, 1985, gage height, 0.46 ft, result of temporary powerplant shutdown at request of Dunn County Sheriff's Department.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,600 ft³/s Sept. 10, gage height, 4.62 ft; minimum, less than 10 ft³/s July 3, gage height, 0.46 ft, result of temporary powerplant shutdown at request of Dunn County Sheriff's Department; minimum daily, 559 ft³/s Dec. 5.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).

1.6	489	3.0	2,340
2.0	865	4.0	4,190
2.5	1,540	5.0	6,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	1600	1290	1370	976	2020	3580	1800	1520	854	697	988
2	1100	1960	1300	1240	1010	2460	3020	1720	1750	817	776	866
3	1270	1510	1090	1050	913	2430	2770	1760	1400	735	765	1080
4	1520	1550	926	1240	951	1450	2730	1480	1100	985	624	1210
5	1150	1590	559	1260	928	841	2740	1650	1290	849	703	1370
6	1080	1580	862	1220	950	1250	2860	1350	1140	892	709	1340
7	1240	1530	901	1340	939	1620	2280	1540	1090	822	765	1170
8	1480	1510	1080	1300	1000	1890	2280	1460	1050	783	863	1390
9	1360	1710	1280	1170	935	1920	2290	1480	1110	794	947	1740
10	1390	1650	1350	1250	960	2020	1950	1270	948	714	1030	3110
11	1220	1360	1580	1260	1040	2150	1950	1090	917	802	981	2970
12	1370	1700	1530	973	952	2450	1960	1370	951	729	1710	2560
13	1160	1770	1400	1070	998	2560	1960	1530	958	751	1620	2530
14	1340	1560	1370	1250	1090	2570	2760	1730	911	802	1640	2080
15	1500	1470	1280	963	866	2500	2950	1530	1050	793	1470	1840
16	1760	1540	1860	1110	1080	2730	2640	2110	983	842	1230	1690
17	1980	1250	2080	1180	957	3900	2580	1980	1110	763	1160	1660
18	2270	1550	1910	1290	1010	4240	2400	1910	1140	798	959	1580
19	2140	1390	1520	710	996	4550	2210	1470	1030	895	987	1270
20	2360	914	1540	975	1020	4730	2050	1400	1100	760	997	1510
21	2370	1310	1360	1010	1110	4520	1960	1270	1060	723	1040	1330
22	1910	1420	1330	1070	1300	3600	2080	1290	867	750	929	1380
23	1550	1460	1200	994	1590	3240	2600	1280	1100	698	1110	1730
24	1530	1480	1220	1230	1820	3090	2960	1200	959	881	910	2350
25	1610	1490	1070	962	2000	2660	3100	1250	874	812	965	2370
26	1630	1380	1090	1060	1920	2690	2640	1300	881	981	961	2180
27	1790	1450	1400	1050	1810	2850	2290	1070	879	865	853	2050
28	1950	1540	1490	1100	1670	3190	2150	1170	872	822	987	2040
29	2310	1500	1660	1080	---	3510	2160	1340	922	620	948	2000
30	1880	1330	1580	996	---	3850	1960	1220	873	728	1050	2170
31	1970	---	1470	1020	---	3660	---	1180	---	777	983	---
TOTAL	50330	45054	41578	34793	32791	87141	73860	45200	31835	24837	31369	53554
MEAN	1624	1502	1341	1122	1171	2811	2462	1458	1061	801	1012	1785
MAX	2370	1960	2080	1370	2000	4730	3580	2110	1750	985	1710	3110
MIN	1080	914	559	710	866	841	1950	1070	867	620	624	866
CAL YR 1984	TOTAL	598211	MEAN	1634	MAX	4460	MIN	559				
WTR YR 1985	TOTAL	552342	MEAN	1513	MAX	4730	MIN	559				

CHIPPEWA RIVER BASIN

05369500 CHIPPEWA RIVER AT DURAND, WI
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 44°37'40", long 91°58'10", in SW 1/4 sec.21, T.25 N., R.13 W., Pepin County, Hydrologic Unit 07050005, on left bank in Durand, 75 ft downstream from bridge on U.S. Highway 10, and 9.5 mi downstream from Red Cedar River.

DRAINAGE AREA.--9,010 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1928 to current year.

REVISED RECORDS.--WSP 785: 1930, 1934(M). WSP 875: 1930 (monthly and yearly runoff). WSP 925: 1938. WSP 1508: 1929(M), 1932. WDR WI-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 694.59 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 9, 1930, nonrecording gage at bridge 400 ft downstream at same datum.

REMARKS.--Estimated daily discharges: None, except for ice period listed in rating table below. Records good except for ice-affected period, which are fair. Flow regulated by powerplants, Moose Lake, Lake Chippewa, Rest Lake, Flambeau Flowage, and Lake Wisconsin on Chippewa and Flambeau Rivers. Gage-height telemeter at station.

AVERAGE DISCHARGE.--57 years, 7,673 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 123,000 ft³/s Apr. 2, 1967, gage height, 16.93 ft; minimum observed, 1,020 ft³/s Nov. 24, 1950, gage height, 0.12 ft.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--A stage of 18.4 ft, from flood marks (levels by U.S. Army Corps of Engineers) occurred Sept. 12, 1884, and has not been exceeded since.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33,100 ft³/s Mar. 30, gage height, 10.24 ft; minimum discharge, 2,790 ft³/s July 21, Aug. 9, gage height, 1.09 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 4 to Mar. 12.)

1.4	3,280	6.0	15,100
2.0	4,360	8.0	22,400
4.0	9,150	11.0	37,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6490	8100	6070	6800	4900	7800	27100	12600	6280	7640	4000	5620
2	7150	9830	6130	7200	3800	8000	19400	12300	7500	8470	3500	5660
3	6370	11200	6340	6200	3900	8600	19600	12000	7370	8400	3980	6040
4	6100	11800	5400	5800	4600	9200	16800	11900	8470	6380	3930	9190
5	5820	9360	4700	5800	5000	9400	22300	9990	7710	5180	3490	9070
6	5010	9260	4800	6400	5200	9000	22100	10100	8040	7980	3920	9120
7	5530	8910	5200	6600	5400	9400	20500	9990	7160	6920	3680	7760
8	6030	7880	5800	5800	4900	9800	19200	9300	6890	7380	3510	8040
9	6480	7620	7400	5200	4600	10000	14600	9390	6300	7860	3350	10600
10	5490	7760	8200	5000	4500	10000	13100	8690	6110	7010	4620	16300
11	5700	8000	7800	4700	4400	11000	12500	9230	6940	6680	4710	21800
12	5910	8720	6600	4800	4900	13000	12200	11300	6820	6210	5230	20800
13	6190	9840	6000	4900	5600	14500	13400	13600	6110	6300	9790	18700
14	5690	7120	6200	5200	5600	14100	20700	12500	5190	5490	10100	12400
15	4980	6810	6800	6000	5400	13600	30000	12400	6090	5470	9290	10800
16	6580	6790	6200	5600	4500	14600	30600	12300	4770	6030	7890	10300
17	8500	7130	5800	5200	4100	14000	26200	12500	5450	5020	7220	9870
18	12200	6740	7800	4500	3700	15900	20000	13800	5490	4920	6660	9600
19	12500	5790	9800	4000	4800	16000	17400	12000	6080	5110	6190	8100
20	10900	5830	10000	4200	5400	16000	17400	9760	4870	4960	6640	6320
21	10300	5700	8400	5000	5600	17000	17000	10100	4730	3290	5970	6170
22	10600	4780	7000	5800	6000	16600	16600	9600	5630	4170	5830	6350
23	9890	4960	6000	6400	6200	15700	17100	8590	4770	4270	6020	5620
24	8000	5210	5800	6200	6800	15600	17800	6990	4220	4190	5960	9310
25	7530	5880	6000	4700	7400	15100	19900	6750	5610	5190	6170	14200
26	7520	5170	6600	4300	8200	15000	21200	6650	5150	4900	7100	18100
27	7200	6330	7200	4200	8000	16900	19000	6010	6670	5080	7500	19300
28	7520	6000	7800	4300	7600	19000	18100	6280	5610	4320	7050	16600
29	8240	6700	8200	4500	---	28800	16100	8030	4880	3880	6460	14700
30	10600	5950	7800	5200	---	32500	13100	7630	5850	4330	6440	15100
31	10600	---	6600	5600	---	31400	---	7040	---	3530	6050	---
TOTAL	237620	221170	210440	166100	151000	457500	571000	309320	182760	176560	182250	341540
MEAN	7665	7372	6788	5358	5393	14760	19030	9978	6092	5695	5879	11380
MAX	12500	11800	10000	7200	8200	32500	30600	13800	8470	8470	10100	21800
MIN	4980	4780	4700	4000	3700	7800	12200	6010	4220	3290	3350	5620
CAL YR 1984	TOTAL	3008600	MEAN	8220	MAX	27800	MIN	2980				
WTR YR 1985	TOTAL	3207260	MEAN	8787	MAX	32500	MIN	3290				

CHIPPEWA RIVER BASIN

05369500 CHIPPEWA RIVER AT DURAND, WI--CONTINUED
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)
(NATIONAL RADIOCHEMICAL SURVEILLANCE STATION)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1967, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT, 1984												
09...	1445	3940	--	140	8.1	15.5	1.7	10.0	755	101	570	1200
JAN, 1985												
15...	1600	6010	--	172	7.2	.0	1.0	11.8	754	82	K7	K16
FEB												
26...	1230	8030	--	174	7.5	.0	3.0	11.1	752	77	K910	K1500
APR												
02...	1030	19000	--	106	7.5	2.5	3.5	12.6	742	95	K2300	--
JUN												
18...	1200	--	5490	130	7.9	18.5	1.0	9.1	746	99	110	1800
AUG												
06...	1155	4560	--	129	8.3	24.0	2.3	9.3	748	113	480	K2800

DATE	HARD-NESS (MG/L AS CaCO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L AS CaCO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	PERCENT SODIUM (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CaCO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT, 1984												
09...	62	8	16	5.3	3.6	11	.2	1.2	54	7.5	5.6	<.10
JAN, 1985												
15...	65	14	16	6.2	3.5	10	.2	1.7	52	9.2	5.9	<.10
FEB												
26...	63	10	16	5.6	4.6	13	.3	3.9	53	8.9	7.9	<.10
APR												
02...	40	8	10	3.7	2.4	11	.2	2.0	32	5.9	4.4	<.10
JUN												
18...	56	9	14	5.0	3.1	11	.2	1.1	47	6.7	4.8	<.10
AUG												
06...	59	11	15	5.3	3.4	11	.2	1.0	48	6.6	6.1	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT, 1984											
09...	6.5	95	78	.13	1010	.34	.020	.40	.080	.030	.020
JAN, 1985											
15...	13	109	87	.15	1770	1.0	.140	.70	.110	.060	.070
FEB											
26...	13	109	92	.15	2360	--	--	1.5	.270	.160	--
APR											
02...	8.4	75	56	.10	3850	.37	<.010	.80	.120	.060	<.010
JUN											
18...	6.0	82	69	.11	1220	<.10	.050	.50	.060	.010	<.010
AUG											
06...	8.5	94	75	.13	1160	.30	.010	.80	.050	.020	.030

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

CHIPPEWA RIVER BASIN
05369500 CHIPPEWA RIVER AT DURAND, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT, 1984											
09...	1445	3940	20	<1	18	<.5	<1	<1	<3	2	86
FEB, 1985											
26...	1230	8030	60	<1	21	<.5	<1	2	<3	2	340
APR											
02...	1030	19000	40	1	17	<.5	<1	<1	<3	2	300
AUG											
06...	1155	4560	30	<1	16	1.6	<1	1	<3	3	61

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT, 1984										
09...	<1	<4	4	<.1	<10	1	<1	35	<6	<3
FEB, 1985										
26...	3	7	46	<.1	<10	2	<1	35	<6	8
APR										
02...	<1	<4	20	<.1	<10	<1	<1	24	<6	6
AUG										
06...	<1	5	3	.1	<10	4	<1	33	<6	26

DATE	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DISCHARGE, IN CUBIC FEET PER SECOND (00060)	GROSS ALPHA, DIS-SOLVED (UG/L AS) (80030)	GROSS ALPHA, TOTAL (UG/L AS) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS) (03515)	GROSS BETA, SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, TOTAL (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM, DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
JAN, 1985									
15...	1600	6010	--	<1.8	<.4	2.0	1.7	.4	.04
JUN									
18...	1200	--	5490	<1.9	<.6	2.2	1.9	<.8	.04

DATE	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DISCHARGE, IN CUBIC FEET PER SECOND (00060)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SEDIMENT, SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT, 1984							
09...	1445	6060	--	140	15.5	18	295
NOV							
28...	1230	5940	--	152	1.5	--	--
JAN, 1985							
15...	1600	6010	--	172	.0	19	308
FEB							
26...	1230	8030	--	174	.0	21	455
MAR							
13...	1625	14800	--	165	2.0	--	--
APR							
02...	1030	19300	--	106	2.5	72	3750
JUN							
05...	1240	7550	--	165	17.0	--	--
18...	1200	6110	5490	130	18.5	21	346
JUL							
18...	0830	5210	--	120	23.0	--	--
AUG							
06...	1155	4560	--	129	24.0	102	1260

CHIPPEWA RIVER BASIN

05370000 EAU GALLE RIVER AT SPRING VALLEY, WI

LOCATION.--Lat 44°51'10", long 92°14'17", in SE 1/4 NE 1/4 sec.6, T.27 N., R.15 W., Pierce County, Hydrologic Unit 07050005, on right bank 770 ft downstream from flood control dam, 1,500 ft upstream from Mines Creek, at Spring Valley.

DRAINAGE AREA.--64.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1944 to current year.

REVISED RECORDS.--WDR WI-67-1: 1966. WDR WI-81-1: Drainage area.

GAGE.--Water-stage recorder and v-notch sharp-crested weir. Datum of gage is 900.00 ft above National Geodetic Vertical Datum of 1929 (Levels by U.S. Army Corps of Engineers). Prior to July 31, 1957, nonrecording gage at site 850 ft downstream at datum of 912.45 ft above National Geodetic Vertical Datum of 1929. Aug. 1, 1957, to June 6, 1966, nonrecording gage at downstream site at datum of 910.45 ft above National Geodetic Vertical Datum of 1929. June 7, 1966, to Oct. 31, 1968, nonrecording gage at downstream site at datum of 909.45 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Low flow slightly regulated and high flow completely regulated by flood-control dam 770 ft upstream.

AVERAGE DISCHARGE.--17 years (1969-85), 33.6 ft³/s, since operation of flood-control reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,000 ft³/s Apr. 15, 1954, gage height, 12.50 ft, datum then in use; no flow Aug. 11-15, 1971, flow shut off at flood-control dam upstream due to request by Wisconsin Department of Natural Resources for eradication of rough fish to improve sport fishing; minimum observed prior to dam construction period, 5.8 ft³/s Sept. 25, 27, 28, 30, 1949.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Maximum stage since at least 1894, that of Sept. 18, 1942, 19.98 ft, with datum at 909.45 ft above National Geodetic Vertical Datum of 1929, from floodmarks, discharge, 33,000 ft³/s estimated by U.S. Army Corps of Engineers on basis of slope-area measurement by Geological Survey of peak discharge of 39,000 ft³/s at Elmwood, drainage area, 91.9 mi².

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 504 ft³/s Mar. 16, gage height, 15.62 ft; minimum discharge, 0.68 ft³/s Jan. 20, gage height, 12.09 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).

13.0	6.9	14.4	90
13.2	9.4	14.8	183
13.5	14	15.3	373
13.8	23	16.0	660
14.1	44		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	40	10	23	15	148	37	23	49	17	14	16
2	16	40	11	23	13	119	33	22	37	17	14	15
3	17	40	11	23	16	68	55	22	29	17	14	16
4	17	40	11	23	16	33	161	22	25	17	14	17
5	17	39	11	23	16	26	74	21	22	17	15	16
6	18	46	11	23	16	23	46	23	20	18	15	15
7	21	51	16	23	16	22	36	21	20	18	15	15
8	21	36	25	24	16	21	31	21	20	18	14	20
9	20	22	25	19	16	21	29	21	21	18	16	21
10	32	22	19	14	16	28	27	21	19	18	18	18
11	48	22	16	13	16	161	27	21	19	18	16	16
12	29	22	16	13	16	204	27	22	19	14	21	15
13	13	22	16	13	16	221	35	21	18	12	25	15
14	13	16	16	11	16	209	41	22	18	11	19	14
15	12	11	16	9.7	16	216	36	24	18	11	16	14
16	13	16	22	10	16	413	31	27	18	11	15	14
17	13	24	28	14	16	293	28	25	20	11	16	14
18	13	24	26	18	16	158	27	23	20	11	16	26
19	19	24	25	14	16	163	26	21	19	13	15	48
20	24	24	32	9.3	16	127	25	21	18	14	15	23
21	24	24	45	18	17	79	25	19	18	14	14	7.0
22	22	24	50	18	18	64	25	19	20	14	14	7.6
23	27	24	50	18	32	61	57	19	19	14	19	9.0
24	40	24	49	18	49	51	173	19	18	17	19	20
25	20	24	48	17	52	43	81	19	18	20	17	34
26	11	24	28	17	49	42	44	19	18	17	15	27
27	13	24	13	17	42	93	33	20	18	15	15	32
28	23	24	19	17	45	85	29	19	18	15	15	49
29	28	14	23	16	---	95	26	18	18	15	18	48
30	32	10	23	16	---	64	24	18	17	15	18	38
31	41	---	23	15	---	45	---	29	---	15	17	---
TOTAL	673	797	734	530.0	620	3396	1349	662	631	472	504	639.6
MEAN	21.7	26.6	23.7	17.1	22.1	110	45.0	21.4	21.0	15.2	16.3	21.3
MAX	48	51	50	24	52	413	173	29	49	20	25	49
MIN	11	10	10	9.3	13	21	24	18	17	11	14	7.0
CAL YR 1984	TOTAL	12357.0	MEAN	33.8	MAX	402	MIN	10				
WTR YR 1985	TOTAL	11007.6	MEAN	30.2	MAX	413	MIN	7.0				

CHIPPEWA RIVER BASIN

05370000 EAU GALLE RIVER AT SPRING VALLEY, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1978 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1978 to current year.
 WATER TEMPERATURES: June 1978 to current year.

INSTRUMENTATION.--Water-quality monitor since June 20, 1978.

REMARKS.--Unpublished records of hourly specific conductance and water temperatures are available in files of District Office. Records are poor, especially during summer months. Poor water circulation due to aquatic macrophytes and ground-water seepage from the streambed cause local water temperature and specific conductance differences.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 662 microsiemens Jan. 19, 1985; minimum, 160 microsiemens Apr. 23, 1985.
 WATER TEMPERATURES: Maximum, 27.5°C Aug. 11, 1982; minimum, 0.0°C Mar. 30, 31, 1982, and many days during February and March 1984.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 662 microsiemens Jan. 19; minimum, 160 microsiemens Apr. 23.
 WATER TEMPERATURES: Maximum, 27.0°C July 25; minimum, 0.5°C Jan. 8, 20, 24, and Mar. 11.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.0	10.0	11.5	9.0	6.5	8.0	9.5	8.0	8.5	3.5	1.5	2.5
2	14.5	10.0	11.0	7.0	6.5	6.5	8.0	6.5	7.5	3.5	1.5	2.5
3	15.0	10.0	11.5	7.0	6.5	6.5	8.5	6.0	7.5	3.5	1.5	2.5
4	14.0	10.0	11.0	7.0	6.0	6.5	8.0	7.5	7.5	4.0	1.5	2.5
5	11.5	10.0	11.0	7.0	5.5	6.0	7.5	5.0	6.5	2.5	1.5	2.0
6	11.5	10.5	11.0	7.0	5.5	6.0	8.0	5.0	6.5	2.5	1.0	1.5
7	12.0	11.0	11.5	6.5	6.0	6.0	8.0	7.0	7.0	3.0	1.0	2.0
8	13.5	11.5	12.0	8.0	6.5	7.0	7.5	7.0	7.0	3.5	.5	2.0
9	13.0	11.5	12.0	7.5	6.5	7.0	7.0	6.5	7.0	4.5	1.0	2.5
10	15.5	10.5	12.0	6.5	6.0	6.5	7.0	6.5	6.5	3.5	2.0	3.0
11	12.0	11.0	11.5	8.0	6.0	6.5	7.5	6.5	7.0	3.5	1.0	2.0
12	13.5	11.0	12.0	8.0	6.0	6.5	6.5	5.5	6.0	1.5	1.0	1.5
13	15.0	11.0	12.5	8.0	6.5	7.0	7.0	6.0	6.5	2.0	1.0	1.5
14	13.5	11.0	12.0	8.5	7.0	7.5	7.0	5.5	6.5	3.5	1.0	2.5
15	14.5	11.0	12.5	8.0	5.0	6.5	6.5	5.5	6.0	6.0	3.5	4.5
16	13.5	11.5	12.5	6.5	4.5	5.5	6.5	4.5	6.0	5.0	3.0	4.0
17	15.5	11.0	12.0	7.0	5.5	6.0	5.5	4.0	5.0	3.5	1.5	2.5
18	11.5	11.0	11.0	7.0	5.5	6.0	5.5	4.0	5.0	3.5	1.5	2.5
19	11.0	9.5	10.5	7.5	6.0	6.5	5.5	5.0	5.0	5.0	1.0	3.0
20	10.5	9.5	10.0	8.0	6.5	7.0	5.5	5.0	5.0	1.5	.5	1.0
21	10.0	9.0	9.5	8.0	7.0	7.5	5.0	3.5	4.5	1.0	1.0	1.0
22	10.0	9.0	9.5	8.0	7.5	7.5	4.5	3.5	4.0	1.5	1.0	1.5
23	10.5	8.5	9.0	9.0	7.5	8.0	4.0	3.0	3.5	3.5	1.5	2.5
24	10.5	8.5	9.0	9.5	8.0	8.5	3.5	3.0	3.0	3.5	.5	2.0
25	10.0	9.0	9.0	9.5	8.5	8.5	4.0	3.0	3.5	2.5	1.5	2.0
26	11.5	9.0	10.0	9.5	9.0	9.0	4.0	2.5	3.0	4.0	1.5	2.5
27	11.5	9.5	11.0	9.0	8.5	8.5	4.5	3.5	4.0	3.0	1.5	2.0
28	10.5	9.0	9.5	8.5	8.0	8.5	4.0	2.5	3.5	3.0	1.5	2.5
29	10.5	9.0	9.5	11.0	8.0	9.0	3.0	2.0	2.0	4.0	2.5	3.0
30	10.0	8.5	9.0	8.5	8.0	8.0	4.0	2.0	3.0	4.0	2.5	3.0
31	9.0	8.5	8.5	---	---	---	4.0	2.0	3.5	4.0	2.5	3.5
MONTH	15.5	8.5	11.0	11.0	4.5	7.0	9.5	2.0	5.5	6.0	.5	2.5

CHIPPEWA RIVER BASIN

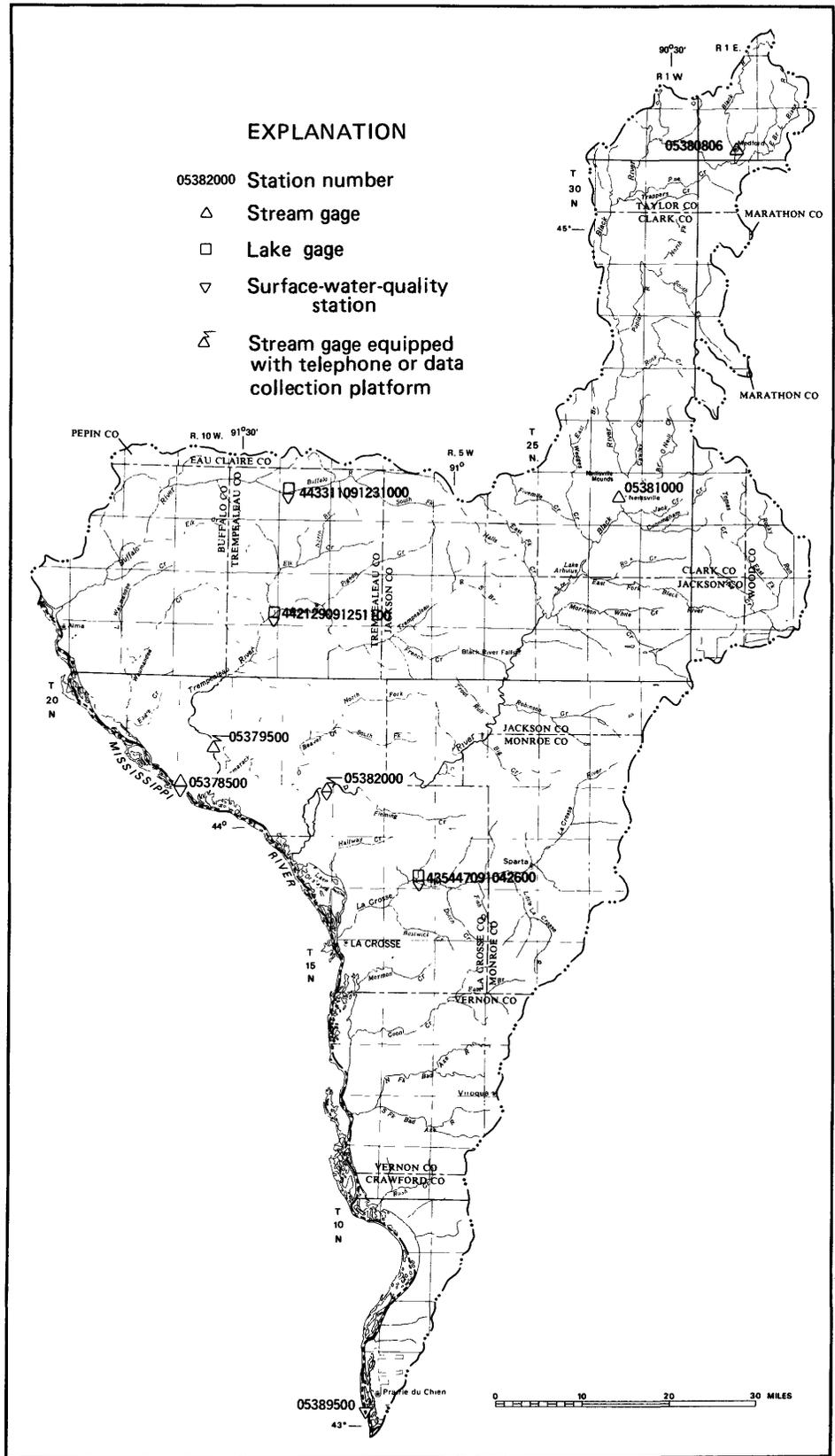
05370000 EAU GALLE RIVER AT SPRING VALLEY, WI--CONTINUED

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	371	326	351	443	429	435	567	549	556	536	474	504
2	381	345	360	444	424	435	580	534	551	604	497	554
3	386	324	352	449	435	444	647	525	561	623	466	552
4	386	360	372	451	449	450	543	527	536	534	445	505
5	385	353	372	456	440	453	541	509	530	516	441	498
6	382	356	369	459	443	455	565	515	534	525	471	510
7	367	338	357	463	460	462	521	504	515	518	403	464
8	370	353	362	474	465	467	510	498	505	532	413	498
9	375	353	367	484	472	478	508	499	505	565	481	529
10	375	328	345	489	475	481	518	497	506	548	499	527
11	357	332	341	493	478	489	512	499	505	554	482	527
12	386	355	370	494	484	491	513	486	497	570	513	543
13	395	386	390	500	488	496	554	494	507	552	476	523
14	401	390	398	515	497	503	560	486	507	583	405	473
15	410	390	400	516	500	507	498	489	493	656	584	614
16	405	369	388	512	495	505	492	453	473	588	578	585
17	400	381	393	511	506	509	497	473	480	598	566	584
18	411	401	404	515	509	513	480	469	475	570	532	555
19	409	395	402	521	510	517	474	466	471	662	544	588
20	405	395	402	526	521	523	469	457	464	633	556	589
21	412	408	409	532	522	527	460	441	447	565	550	557
22	415	404	413	538	528	533	442	432	435	563	548	556
23	418	409	414	544	534	540	429	419	424	557	548	553
24	417	404	413	551	536	544	433	415	419	573	527	557
25	479	418	439	555	540	548	461	408	433	611	576	599
26	470	431	448	553	545	549	447	405	419	586	518	553
27	453	373	430	547	544	546	477	429	446	537	513	524
28	432	430	431	548	539	544	556	424	505	521	503	513
29	435	433	434	574	540	552	557	471	500	522	506	514
30	438	428	435	560	550	554	577	514	548	588	522	557
31	441	434	438	---	---	---	573	540	557	580	544	563
MONTH	479	324	394	574	424	502	647	405	494	662	403	541

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	593	523	567	450	444	447	368	331	349	379	332	356
2	546	516	529	445	443	444	373	332	355	368	333	352
3	560	514	537	484	443	454	366	305	345	377	346	356
4	530	515	523	491	455	471	353	290	335	369	254	327
5	523	495	515	494	454	476	361	348	357	370	342	360
6	516	493	502	477	452	467	358	335	350	360	308	332
7	545	501	522	488	463	471	351	317	337	354	322	338
8	514	485	496	493	480	486	332	312	324	359	336	350
9	512	488	500	481	422	441	342	302	323	358	294	339
10	515	480	496	449	331	408	348	304	326	368	331	351
11	511	487	494	342	276	295	343	315	330	359	330	348
12	524	492	508	431	273	346	356	315	334	365	266	331
13	506	490	499	391	247	294	320	306	315	356	331	343
14	536	509	527	385	236	284	320	307	312	360	341	348
15	531	491	513	374	218	305	353	300	316	381	347	362
16	516	490	504	269	210	236	366	320	339	361	267	326
17	529	485	507	384	228	331	369	323	343	360	317	342
18	532	491	512	410	374	400	399	331	356	399	362	378
19	525	463	496	407	388	395	390	322	358	406	365	396
20	533	461	503	398	387	393	398	204	322	386	365	376
21	526	490	505	405	386	398	382	231	320	402	385	393
22	495	473	487	408	392	398	385	324	357	401	379	391
23	473	449	462	413	388	404	381	160	283	375	332	351
24	461	447	450	396	381	386	348	168	282	365	355	360
25	468	450	455	391	378	382	335	194	306	376	364	370
26	479	450	460	395	375	390	353	333	351	389	372	378
27	453	447	450	394	339	365	370	289	334	394	375	387
28	449	445	447	395	383	388	370	316	336	386	371	387
29	---	---	---	382	378	380	393	313	347	387	370	377
30	---	---	---	381	369	374	382	353	364	377	369	372
31	---	---	---	385	347	369	---	---	---	396	372	382
MONTH	593	445	499	494	210	390	399	160	334	406	254	360



TREMPEALEAU-BLACK RIVER BASIN

BUFFALO RIVER BASIN

443311091231000 CRYSTAL LAKE AT STRUM, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 44°33'11", long 91°23'10", in SW 1/4 sec.17, T.24 N., R.8 W., Trempealeau County, Hydrologic Unit 07040003, at Strum.

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 870.90 ft, National Geodetic Vertical Datum of 1929.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 15.14 ft, Sept. 30; minimum, 14.16 ft, Oct. 3, Dec. 27.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT
OCT. 3	14.16	NOV. 22	14.22	APR. 16	14.26	JUNE 1	14.22	JULY 12	14.30	AUG. 24	14.34
OCT. 10	14.18	NOV. 27	14.30	APR. 20	14.22	JUNE 8	14.24	JULY 20	14.28	AUG. 31	14.30
OCT. 17	14.52	DEC. 6	14.24	APR. 27	14.20	JUNE 15	14.22	JULY 27	14.24	SEPT. 7	14.28
OCT. 26	14.30	DEC. 12	14.18	MAY 4	14.20	JUNE 22	14.22	AUG. 6	14.22	SEPT. 14	14.28
NOV. 1	14.28	DEC. 20	14.18	MAY 11	14.20	JUNE 28	14.46	AUG. 10	14.74	SEPT. 21	14.74
NOV. 8	14.28	DEC. 27	14.16	MAY 18	14.22	JULY 6	14.34	AUG. 17	14.74	SEPT. 30	15.14
NOV. 15	14.26	DEC. 31	14.20	MAY 25	14.22						

WATER-QUALITY RECORDS

LOCATION.--Lat 44°33'16", long 91°23'09", in SW 1/4 sec.17, T.24 N., R.8 W., Trempealeau County, Hydrologic Unit 07040003, near center of lake, at Strum.

PERIOD OF RECORD.--April to September 1985.

REMARKS.--Secchi disc readings made by LaVern Anderson.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 1.3 meters, Apr. 6, 27, May 4, 11; minimum transparency, 0.7 meter, June 28.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
APR. 6	1.3	MAY 11	1.3	JUNE 8	1.0	JULY 6	1.0	AUG. 3	1.2	AUG. 31	1.0
APR. 13	0.8	MAY 18	1.2	JUNE 15	1.0	JULY 12	1.2	AUG. 10	0.8	SEPT. 7	1.0
APR. 27	1.3	MAY 24	1.2	JUNE 22	0.8	JULY 20	1.0	AUG. 17	0.8	SEPT. 14	1.0
May 4	1.3	JUNE 1	1.2	JUNE 28	0.7	JULY 27	1.2	AUG. 24	1.0	SEPT. 21	0.8

MISSISSIPPI RIVER MAIN STEM

05378500 MISSISSIPPI RIVER AT WINONA, MN

LOCATION.--Lat 44°03'21", long 91°38'16", in sec.23, T.107 N., R.7 W., Winona County, Hydrologic Unit 07040003, on right bank at Winona pumping station in Winona, 9.5 mi upstream from Trempealeau River, and at mile 725.7 upstream from the Ohio River.

DRAINAGE AREA.--59,200 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1928 to current year. Gage-height records collected in this vicinity since 1878 are contained in reports of Mississippi River Commission.

GAGE.--Water-stage recorder. Datum of gage is 639.64 ft above National Geodetic Vertical Datum of 1929. June 10, 1928, to Apr. 15, 1931, nonrecording gage at site 800 ft upstream. Prior to Oct. 1, 1929, at datum 0.20 ft higher and Oct. 1, 1929, to Apr. 15, 1931, at datum 0.12 ft lower. Apr. 16, 1931, to Nov. 12, 1934, nonrecording gage at present site and datum. Since Mar. 31, 1937, auxiliary water-stage recorder 2.7 mi upstream at tailwater of navigation dam 5A.

REMARKS.--Estimated daily discharges: Dec. 3 to Mar. 9. Records good. Some regulation by reservoirs, navigation dams, and powerplants at low and medium stages. Flood flow not materially affected by artificial storage.

AVERAGE DISCHARGE.--57 years, 27,470 ft³/s, 6.30 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 268,000 ft³/s Apr. 19, 1965, gage height, 20.77 ft from floodmark; minimum, 1,940 ft³/s Dec. 12, 1980, gage height, 3.96 ft, result of ice jam; minimum gage height, -3.38 ft Aug. 31, 1934 (prior to dam construction in 1936); minimum gage height since 1938, after completion of dam, 1.95 ft Jan. 27, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 18, 1880, reached an elevation of 657.14 ft, discharge, 172,000 ft³/s, from information by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 101,000 ft³/s Apr. 2, gage height, 11.70 ft; minimum daily discharge, 12,000 ft³/s Dec. 6; minimum gage height, 5.04 ft Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25500	65100	32300	26900	18300	30000	100000	90900	48200	40400	27300	24700
2	25400	64400	31700	24800	18300	33500	101000	92500	46000	44900	26400	26400
3	24300	59000	27900	25000	18400	30000	97700	92800	44800	49700	25700	28000
4	23700	56500	23000	25000	18400	26700	91400	92200	45200	51100	24800	29000
5	22300	58100	13000	25400	18300	28500	85600	91600	47400	52100	23900	29900
6	19300	57900	12000	26000	17000	29400	82500	89700	50600	51600	23200	31700
7	18200	54500	15000	26800	17200	30000	82800	85300	50600	50700	23200	35400
8	20400	50000	18500	26800	17300	30300	82900	81900	50900	50200	22900	38800
9	20300	48100	22100	26800	17300	31000	80900	77900	50100	49300	19900	39400
10	20800	48600	23800	25700	17300	33500	77600	74700	48700	47700	18200	41800
11	21500	49000	24000	25500	17400	39400	74800	71300	46100	46300	18700	45300
12	21400	48100	27500	24300	17300	49300	71700	67200	45000	44700	21300	50100
13	20000	46000	28700	23200	17300	52600	68100	65300	45300	41200	26600	54400
14	20100	43400	29100	22000	17400	52400	67400	65800	45200	37800	31900	56900
15	20500	42400	29100	18800	16800	54000	67100	64100	44400	36500	31000	56300
16	21400	43100	31400	18700	17000	54700	68900	62600	42000	33900	29900	53700
17	24300	42400	30200	19700	17000	53600	71700	60100	40000	27700	29300	50000
18	27800	40200	25300	20800	17000	54500	73700	59300	38900	26100	28600	50200
19	30300	36700	29000	20300	17000	58700	73900	59500	39400	30100	28600	50500
20	39400	35000	33500	18100	17000	62900	68100	60600	39700	29500	28300	50600
21	46200	33400	33500	17800	19100	65200	63000	61400	39300	26600	28300	49200
22	49000	32200	33300	18300	22000	68100	62900	61300	38600	25100	28200	46000
23	50500	31700	33100	18700	25000	73400	61800	61000	38300	24200	29200	44900
24	53500	30600	31700	18800	28000	77600	61900	60700	37700	24200	29300	44700
25	56900	29300	28500	19100	29100	81800	63200	59700	35600	27600	26100	45200
26	60600	27200	26800	19200	29700	84500	65400	57600	34100	29000	23100	47800
27	62100	28500	27000	19300	29700	87600	68600	54600	34100	28400	23000	51000
28	63300	31500	28000	20500	29000	89100	73500	51000	35300	28200	25200	53200
29	64600	31600	31800	20100	---	91100	80100	49100	36700	28900	28500	57300
30	64400	32100	29600	19900	---	93300	86900	50000	38100	28400	29000	58400
31	65400	---	28500	19700	---	97400	---	49600	---	27600	23400	---
TOTAL	1103400	1296600	838900	682000	560600	1744100	2275100	2121300	1276300	1139700	805000	1340800
MEAN	35590	43220	27060	22000	20020	56260	75840	68430	42540	36760	25970	44690
MAX	65400	65100	33500	26900	29700	97400	101000	92800	50900	52100	31900	58400
MIN	18200	27200	12000	17800	16800	26700	61800	49100	34100	24200	18200	24700
CFSM	.60	.73	.46	.37	.34	.95	1.28	1.16	.72	.62	.44	.76
IN.	.69	.81	.53	.43	.35	1.10	1.43	1.33	.80	.72	.51	.84
CAL YR 1984	TOTAL	16462700	MEAN	44980	MAX	106000	MIN	11100	CFSM	.76	IN	10.34
WTR YR 1985	TOTAL	15183800	MEAN	41600	MAX	101000	MIN	12000	CFSM	.70	IN	9.54

05378500 MISSISSIPPI RIVER AT WINONA, MN--CONTINUED
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1980 to current year.
WATER TEMPERATURES: October 1975 to current year.
SUSPENDED-SEDIMENT DISCHARGE: September 1975 to current year.

REMARKS.--For the winter period, daily sediment loads were estimated on the basis of water records and weekly sediment samples. Water temperature and specific conductance were obtained once daily during most of the open water period and weekly during the winter period.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 550 microsiemens, July 17, 1984; minimum daily, 180 microsiemens Sept. 24, 1980, May 9, 1981.
WATER TEMPERATURES: Maximum daily, 29.0°C July 10, 1976, Aug. 7, 1984; minimum daily, 0.0°C many days each year.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 393 mg/L July 2, 1978; minimum daily mean, 1 mg/L many days during several years.
SEDIMENT LOADS: Maximum daily 65,300 tons (59,200 tonnes) July 2, 1978; minimum daily, 17 tons (15 tonnes) Feb. 1, 2, 1984.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 460 microsiemens on several days; minimum daily, 280 microsiemens Apr. 1, 2.
WATER TEMPERATURES: Maximum daily, 25.0°C July 9; minimum daily, 0.0°C on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 122 mg/L Mar. 16; minimum daily mean, 1 mg/L Dec. 11.
SEDIMENT LOADS: Maximum daily, 18,000 tons (16,300 tonnes) Mar. 16; minimum daily, 65 tons (59 tonnes) Dec. 11.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	STREAM-FLOW, INSTANTANEOUS (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	BARO-METRIC PRES-SURE (MM OF HG) (00025)
OCT, 1984											
24...	15:55	--	54200	362	373	8.1	7.9	15.0	10.0	4.6	748
JAN, 1985											
14...	14:30	22000	--	425	440	8.1	7.8	-9.0	0.5	2.0	744
APR											
22...	14:15	--	63000	340	335	8.4	7.9	19.5	15.5	5.0	760
JUL											
15...	14:30	--	36400	370	363	8.0	7.9	26.0	26.5	4.7	770

DATE	OXYGEN, DIS-SOLVED (MG/L) 100 ML (00300)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOGOCOCI, FECAL, KF AGAR PER 100 ML (31673)	CALCIUM DIS-SOLVED (MG/L) AS CA (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) AS MG (00925)	SODIUM, DIS-SOLVED (MG/L) AS NA (00930)	POTAS-SIUM, DIS-SOLVED (MG/L) AS K (00935)	ALKA-LINITY FIELD (MG/L) AS CAC03 (00410)	ALKA-LINITY LAB (MG/L) AS CAC03 (90410)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	CHLO-RIDE, DIS-SOLVED (MG/L) AS CL (00940)
OCT, 1984											
24...	10.3	63	50	40	16	11	2.2	136	137	29	16
JAN, 1985											
14...	13.2	K12	K12	51	20	12	2.6	166	162	38	16
APR											
22...	11.2	K11	K16	39	14	6.5	2.9	112	115	34	11
JUL											
15...	7.9	21	<100	42	17	7.4	2.6	138	138	36	9.6

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

MISSISSIPPI RIVER BASIN STEM

05378500 MISSISSIPPI RIVER AT WINONA, MN--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
OCT, 1984 24...	0.2	10	219	0.82	0.23	--	0.17	0.10	0.09	--	--
JAN, 1985 14...	0.2	14	285	1.90	0.33	0.9	0.11	0.10	0.10	--	--
APR 22...	<0.1	7.6	202	1.40	<0.01	0.7	0.13	0.04	0.04	--	--
JUL 15...	0.2	9.2	232	1.20	0.07	1.3	0.09	0.04	0.04	33	3240

DATE	TIME	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
OCT, 1984 24...	15:55	<10	1	41	<0.5	<1	<1	<3	1	24	<1
JAN, 1985 14...	14:30	10	1	45	<0.5	<1	1	<3	1	83	2
APR 22...	14:15	10	1	38	<0.5	<1	<1	<3	<1	60	1
JUL 15...	14:30	<10	2	52	<0.5	<1	<1	<3	4	11	2

DATE	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT, 1984 24...	5	6	<0.1	<10	2	<1	<1	96	<6	<3
JAN, 1985 14...	14	56	0.1	<10	1	<1	<1	120	<6	13
APR 22...	9	5	<0.1	<10	1	<1	<1	98	<6	<3
JUL 15...	16	2	4.6	<10	6	<1	<1	110	<6	7

DATE	TIME	NUMBER OF SAMPLING POINTS (00063)	BED MAT. SIEVE DIAM. .125 MM (% FINER THAN) (80165)	BED MAT. SIEVE DIAM. .250 MM (% FINER THAN) (80166)	BED MAT. SIEVE DIAM. .500 MM (% FINER THAN) (80167)	BED MAT. SIEVE DIAM. 1.00 MM (% FINER THAN) (80168)	BED MAT. SIEVE DIAM. 2.00 MM (% FINER THAN) (80169)	BED MAT. SIEVE DIAM. 4.00 MM (% FINER THAN) (80170)	BED MAT. SIEVE DIAM. 8.00 MM (% FINER THAN) (80171)	BED MAT. SIEVE DIAM. 16.0 MM (% FINER THAN) (80172)
APR, 1985 22...	14:15	4	<1	2	34	86	96	98	99	100
JUL 15...	15:05	4	<1	3	36	76	88	93	95	100

MISSISSIPPI RIVER BASIN STEM

05378500 MISSISSIPPI RIVER AT WINONA, MN--CONTINUED

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	7.0	2.5	---	.0	2.0	4.5	15.0	19.0	23.0	22.0	20.0
2	13.0	5.5	2.0	---	---	---	5.0	14.5	20.0	24.0	22.5	21.0
3	13.0	5.0	1.0	---	---	---	5.0	15.0	19.0	24.0	23.0	21.0
4	13.0	5.0	1.0	.5	---	---	6.0	16.0	18.0	24.0	23.5	21.5
5	14.5	5.0	1.0	---	---	---	5.0	17.0	18.0	22.0	23.5	21.5
6	14.5	5.0	.5	---	---	---	5.0	17.0	19.0	22.0	24.0	23.0
7	15.0	6.0	.0	---	---	---	5.5	17.0	20.0	23.0	24.0	24.0
8	15.0	6.5	1.0	---	.0	3.0	4.5	17.0	21.0	24.0	24.0	24.5
9	15.5	6.0	2.0	---	---	---	4.0	18.0	22.0	25.0	24.0	23.0
10	16.0	5.0	2.0	---	---	---	6.0	19.0	21.0	24.0	23.0	20.0
11	16.0	---	3.0	.0	.0	---	8.0	19.0	19.0	24.0	22.0	20.0
12	16.0	4.0	2.0	---	---	---	9.0	18.0	18.0	24.0	22.0	19.0
13	16.0	4.0	.5	---	---	---	10.0	18.0	18.0	24.0	23.0	18.0
14	16.0	5.0	.5	.5	---	---	9.0	17.0	19.0	24.0	23.0	18.0
15	15.5	5.0	1.0	---	.0	3.0	9.0	17.0	19.5	24.0	22.0	18.0
16	14.5	4.0	---	---	---	3.0	9.5	16.5	19.5	24.0	22.0	18.0
17	13.0	3.0	---	---	---	3.0	10.0	15.5	19.0	24.0	22.0	19.0
18	13.0	3.0	---	.0	---	3.5	12.5	17.0	18.5	24.0	22.0	20.0
19	12.0	3.0	---	---	---	4.0	15.0	18.0	18.5	24.5	20.0	21.0
20	11.0	3.0	---	---	---	4.5	15.0	18.0	19.0	24.5	19.0	20.0
21	10.0	3.5	---	---	---	4.0	15.0	18.0	20.0	24.5	19.0	18.0
22	10.0	3.0	1.0	---	---	4.5	15.0	18.0	20.0	24.0	19.0	16.0
23	10.0	2.5	---	---	1.0	4.5	15.0	18.5	20.5	23.5	19.0	16.0
24	10.0	2.5	---	.0	---	4.0	13.0	18.5	21.0	23.5	19.0	14.0
25	10.5	2.5	---	---	---	4.0	13.0	19.0	22.0	23.0	20.0	13.0
26	10.0	3.0	---	---	---	4.0	13.0	20.0	23.0	23.5	20.0	12.5
27	13.0	4.0	---	---	---	5.0	12.0	20.0	23.0	23.5	21.0	12.0
28	---	3.0	---	---	---	5.0	12.0	19.5	21.5	24.0	21.0	---
29	11.0	3.0	---	---	---	5.5	13.0	19.0	21.0	24.0	21.0	---
30	9.5	2.5	---	---	---	5.0	15.0	19.5	22.0	23.0	20.0	---
31	8.0	---	---	---	---	4.5	---	19.0	---	21.5	20.0	---
MEAN	13.0	4.0	1.5	.0	.0	4.0	10.0	17.5	20.0	23.5	21.5	19.0
WTR YR 1985	MEAN	14.0	MAX	25.0	MIN	.0						

SPECIFIC CONDUCTANCE, MICRO SIEMENS PER CENTIMETER AT 25 DEG. C, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	340	430	---	460	380	280	390	380	460	400	350
2	380	340	430	---	---	---	280	380	390	460	400	370
3	380	340	440	---	---	---	290	370	400	460	400	370
4	380	340	440	420	---	---	290	360	400	460	400	370
5	380	330	450	---	---	---	300	360	400	460	400	370
6	380	330	460	---	---	---	300	360	400	460	390	360
7	380	330	460	---	---	---	300	360	400	460	390	340
8	360	330	460	---	460	390	300	360	410	420	400	340
9	370	340	460	---	---	---	310	380	410	410	380	330
10	360	350	460	---	---	---	320	400	400	400	370	360
11	360	350	460	430	---	---	320	400	400	400	360	360
12	350	380	410	---	---	---	330	400	400	400	350	340
13	350	380	400	---	---	---	340	400	380	400	350	340
14	350	380	400	425	---	---	340	400	380	400	350	340
15	340	370	400	---	440	320	300	390	380	400	340	340
16	340	385	---	---	---	310	300	400	380	400	320	400
17	340	400	---	---	---	340	300	410	380	410	320	410
18	340	390	---	460	---	360	300	400	380	400	340	420
19	340	400	---	---	---	.60	310	410	390	410	350	420
20	320	400	---	---	---	360	320	390	400	410	350	400
21	310	400	---	---	---	350	330	390	400	410	350	410
22	340	400	430	---	---	360	340	400	400	400	360	430
23	350	410	---	---	400	360	340	400	400	400	360	430
24	360	415	---	450	---	360	350	400	410	410	360	420
25	370	420	---	---	---	310	350	380	400	410	360	430
26	390	420	---	---	---	310	360	380	410	400	360	430
27	400	420	---	---	---	290	340	380	425	400	370	430
28	400	430	450	---	---	300	350	380	440	400	360	---
29	360	430	---	---	---	300	380	380	440	400	350	---
30	350	430	---	---	---	300	390	380	440	400	340	---
31	350	---	---	---	---	290	---	380	---	400	340	---
MEAN	360	379	438	437	440	334	322	386	401	416	364	382
WTR YR 1985	MEAN	379	MAX	460	MIN	280						

MISSISSIPPI RIVER BASIN STEM

05378500 MISSISSIPPI RIVER AT WINONA, MN--CONTINUED

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)										
1	13	895	46	8090	6	523	4	291	3	148	29	2350
2	12	823	34	5910	5	428	4	268	3	148	32	2890
3	12	787	25	3980	4	301	4	270	3	149	35	2840
4	12	768	26	3970	4	248	4	270	3	149	29	2090
5	13	783	16	2510	4	140	4	274	4	198	17	1310
6	12	625	14	2190	4	130	4	281	4	184	11	873
7	13	639	15	2210	3	121	4	289	4	186	8	648
8	14	771	17	2300	2	100	3	217	4	187	7	573
9	13	713	20	2600	2	119	3	217	4	187	7	586
10	14	786	14	1840	2	129	3	208	4	187	7	633
11	12	697	13	1720	1	65	3	207	4	188	9	957
12	12	693	11	1430	3	223	3	197	3	140	33	4390
13	11	594	10	1240	3	232	3	188	3	140	72	10200
14	11	597	13	1520	4	314	3	178	3	141	100	14100
15	13	720	24	2750	3	236	3	152	3	136	115	16800
16	14	809	31	3610	3	254	3	151	3	138	122	18000
17	16	1050	17	1950	3	245	3	160	3	138	115	16600
18	16	1200	12	1300	3	205	3	168	3	138	52	7650
19	23	1880	6	595	3	235	3	164	4	184	54	8560
20	22	2340	10	945	3	271	3	147	4	184	49	8320
21	25	3120	6	541	3	271	3	144	5	258	42	7390
22	28	3700	7	609	3	270	4	198	9	535	40	7350
23	27	3680	8	685	3	268	4	202	15	1010	41	8130
24	27	3900	6	496	3	257	4	203	21	1590	46	9640
25	25	3840	8	633	3	231	4	206	26	2040	71	15700
26	27	4420	6	441	3	217	4	207	28	2250	71	16200
27	33	5530	8	616	3	219	4	208	29	2330	56	13200
28	37	6320	9	765	3	227	4	221	28	2190	41	9860
29	26	4530	6	512	3	258	3	163	---	---	41	10100
30	36	6260	6	520	3	240	3	161	---	---	39	9820
31	29	5120	---	---	3	231	3	160	---	---	38	9990
TOTAL	---	68590	---	58478	---	7208	---	6370	---	15453	---	237750

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)										
1	34	9180	22	5400	38	4950	47	5130	14	1030	11	734
2	33	9000	26	6490	42	5220	57	6910	16	1140	11	784
3	37	9760	23	5760	33	3990	42	5640	16	1110	11	832
4	26	6420	24	5970	27	3300	45	6210	12	804	12	940
5	22	5080	25	6180	25	3200	52	7310	10	645	14	1130
6	28	6240	23	5570	18	2460	48	6690	11	689	13	1110
7	29	6480	34	7830	30	4100	43	5890	12	752	12	1150
8	26	5820	30	6630	61	8380	40	5420	12	742	13	1360
9	20	4370	24	5050	52	7030	37	4930	12	645	16	1700
10	19	3980	27	5450	29	3810	35	4510	12	590	17	1920
11	19	3840	26	5010	40	4980	21	2630	11	555	16	1960
12	20	3870	24	4350	43	5220	19	2290	13	748	20	2710
13	19	3490	23	4060	39	4770	17	1890	15	1080	23	3380
14	19	3460	24	4260	37	4520	19	1940	20	1720	23	3530
15	29	5250	24	4150	37	4440	23	2270	18	1510	25	3800
16	20	3720	25	4230	39	4420	16	1460	14	1130	19	2750
17	23	4450	25	4060	39	4210	15	1120	15	1190	20	2700
18	23	4580	25	4000	29	3050	14	987	19	1470	21	2850
19	28	5590	28	4500	43	4570	15	1220	16	1240	21	2860
20	23	4230	35	5730	36	3860	15	1190	13	993	22	3010
21	23	3910	29	4810	41	4350	17	1220	14	1070	22	2920
22	23	3910	42	6950	45	4690	12	813	14	1070	16	1990
23	20	3340	42	6920	43	4450	13	849	15	1180	15	1820
24	24	4010	36	5900	26	2650	14	915	15	1190	14	1690
25	24	4100	37	5960	24	2310	14	1040	13	916	16	1950
26	23	4060	38	5910	21	1930	15	1170	13	811	16	2060
27	22	4070	28	4130	21	1930	13	997	13	807	18	2480
28	21	4170	27	3720	32	3050	14	1070	12	816	20	2870
29	20	4330	41	5440	43	4260	12	936	12	923	22	3400
30	23	5400	34	4590	45	4630	13	997	14	1100	25	3940
31	---	---	36	4820	---	---	14	1040	12	823	---	---
TOTAL	---	150110	---	163830	---	124730	---	86684	---	30489	---	66330
TOTAL LOAD FOR YEAR:			1016022		TONS.							

TREMPEALEAU RIVER BASIN

442129091251100 BUGLE LAKE AT INDEPENDENCE, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 44°21'29", long 91°25'11", in NW 1/4 sec.25, T.22 N., R.9 W., Trempealeau County, Hydrologic Unit 07040005, at dam at Independence.

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Staff gage read by Ralph Wiersgolla. Elevation of gage is 779 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 1.90 ft, Sept. 9, 30; minimum, 1.60 ft, many days in July and August.

GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---							1.60	1.60	---
2	---	---	---							1.70	1.60	1.70
3	---	---	---							1.70	1.60	1.70
4	1.69	---	1.67							1.70	---	1.70
5	---	---	---							1.80	1.60	1.70
6	---	1.78	---							1.70	1.60	1.70
7	---	---	---							1.70	1.60	1.70
8	1.87	---	---							1.70	1.60	1.70
9	---	---	---							1.70	1.60	1.90
10	---	---	---							1.70	1.70	1.70
11	---	---	---							1.70	---	1.70
12	---	---	---							1.60	1.70	1.70
13	---	---	---							1.70	1.80	1.70
14	---	1.71	---							---	1.70	1.70
15	---	---	---							1.70	1.70	---
16	1.80	---	---							1.70	1.70	1.70
17	---	---	---							1.70	1.70	1.70
18	---	---	---							1.60	---	1.70
19	---	---	---							1.60	1.70	1.70
20	---	---	---							1.60	1.70	1.70
21	---	---	---							---	1.70	1.70
22	---	---	---							1.60	1.70	---
23	---	1.82	---							1.60	1.70	1.70
24	1.76	---	---							1.60	1.70	1.80
25	---	---	---							1.60	---	1.70
26	---	---	---							1.70	1.80	1.70
27	---	---	---							1.70	1.80	1.70
28	---	---	---							---	1.70	1.70
29	---	---	---							1.60	1.70	---
30	---	---	---							1.60	1.70	1.90
31	1.84	---	---							1.60	1.70	---

WATER-QUALITY RECORDS

LOCATION.--Lat 44°21'37", long 91°25'20", in NW 1/4 sec.25, T.22 N., R.9 W., Trempealeau County, Hydrologic Unit 07040005, near cantar of lake, at Independence.

PERIOD OF RECORD.--July to September 1985.

REMARKS.--Secchi disc readings made by Ralph Wiersgolla.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 1.8 meters, many days in July, August, and September; minimum transparency, 0.3 meter, Sept. 30.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
JULY 1	0.9	JULY 22	1.8	AUG. 12	1.2	AUG. 27	1.2	SEPT. 9	0.6	SEPT. 23	1.5
JULY 8	1.2	JULY 29	1.8	AUG. 13	0.6	SEPT. 2	1.5	SEPT. 16	1.8	SEPT. 30	0.3
JULY 15	1.5	AUG. 5	1.5	AUG. 20	1.8						

TREMPEALEAU RIVER BASIN

05379500 TREMPEALEAU RIVER AT DODGE, WI

LOCATION.--Lat 44°07'55", long 91°33'14", in SE 1/4 sec.10, T.19 N., R.10 W., Trempealeau County, Hydrologic Unit 07040005, near left bank on downstream side of highway bridge in Dodge, 9.0 mi upstream from mouth.

DRAINAGE AREA.--643 mi².

PERIOD OF RECORD.--December 1913 to September 1919, April 1934 to current year.

REVISED RECORDS.--WSP 1238: Drainage area. WSP 1388: 1919(M). WSP 1438: 1914, 1915-18(M), 1934-44(M), 1946-49(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 661.42 ft above National Geodetic Vertical Datum of 1929. Prior to July 14, 1977, nonrecording gage at same site and datum. Prior to Oct. 1, 1966, datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 4 and ice period listed in rating table below. Records are good except those for estimated daily discharges, which are fair. Gage-height telemeter at station.

AVERAGE DISCHARGE.--56 years (1915-19, 1935-85), 427 ft³/s, 9.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,400 ft³/s Apr. 4, 1956, gage height, 10.35 ft; minimum daily, 98 ft³/s Jan. 10, 1938.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	0200	1,310	6.53	Feb. 25	----	2,500	ice jam
Dec. 31	----	1,500	ice jam	Mar. 12	1400	*9,310	*11.18

Minimum discharge, 293 ft³/s Aug. 9, gage height, 2.99 ft.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Apr. 22-30; stage-discharge relation affected by ice Dec. 3 to Mar. 7.)

Oct. 1 to Apr. 30				May 1 to Sept. 30	
3.4	310	8.0	2,040	3.0	294
3.6	355	9.0	2,750	3.6	383
4.0	452	10.0	4,200	4.0	483
5.0	735	10.5	5,600	5.0	777
6.0	1,090	11.0	8,200	6.0	1,120

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	386	732	497	1300	310	1200	780	531	378	383	314	428
2	386	835	492	820	310	980	755	525	377	362	308	384
3	383	739	480	580	310	820	824	502	371	346	304	368
4	382	664	470	480	310	680	965	486	363	338	300	358
5	382	583	460	440	310	580	1070	473	360	351	299	381
6	382	549	460	410	310	620	1030	484	351	437	300	416
7	412	529	470	390	300	780	934	496	349	425	308	410
8	503	519	480	370	300	1040	824	482	349	382	299	391
9	507	529	490	360	300	1190	734	456	340	356	295	723
10	494	728	480	360	300	1610	669	444	334	337	335	746
11	477	861	470	360	300	2610	649	441	334	329	399	570
12	448	735	480	360	300	5920	651	446	335	323	402	446
13	443	630	480	350	290	6070	647	446	333	319	685	398
14	473	575	500	350	290	4120	675	440	333	318	606	388
15	568	564	560	350	290	3230	660	456	363	315	468	368
16	773	548	780	350	290	2360	619	497	393	311	390	355
17	985	526	980	350	290	1920	609	491	397	308	350	348
18	1200	513	1100	340	300	1720	586	455	387	310	337	345
19	1230	499	580	340	380	1380	580	431	368	317	328	339
20	994	502	520	330	520	1150	571	436	351	312	323	341
21	729	518	490	330	680	1030	569	418	340	307	322	343
22	602	496	420	320	940	920	572	408	338	301	321	344
23	554	468	390	320	1300	866	703	397	338	298	324	383
24	526	474	360	320	1800	896	891	392	332	305	351	589
25	517	472	360	320	2500	890	877	385	326	343	389	704
26	558	480	350	320	2200	835	786	381	331	362	343	613
27	594	507	370	320	1800	870	660	412	556	338	330	529
28	667	546	500	320	1500	999	598	402	795	320	321	466
29	667	545	920	320	---	1010	564	379	543	310	373	476
30	592	516	1300	310	---	950	540	407	425	305	535	774
31	554	---	1500	310	---	847	---	385	---	317	499	---
TOTAL	18368	17382	18189	12500	19030	50093	21592	13784	11490	10385	11458	13724
MEAN	593	579	587	403	680	1616	720	445	383	335	370	457
MAX	1230	861	1500	1300	2500	6070	1070	531	795	437	685	774
MIN	382	468	350	310	290	580	540	379	326	298	295	339
CFSM	.92	.90	.91	.63	1.06	2.51	1.12	.69	.60	.52	.58	.71
IN.	1.06	1.01	1.05	.72	1.10	2.90	1.25	.80	.66	.60	.66	.79

CAL YR 1984 TOTAL 218321 MEAN 597 MAX 1500 MIN 350 CFSM .93 IN 12.63
WTR YR 1985 TOTAL 217995 MEAN 597 MAX 6070 MIN 290 CFSM .93 IN 12.61

BLACK RIVER BASIN

05380806 BLACK RIVER AT MEDFORD, WI--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	110	28	53	12	53	198	58	20	98	2.6	17
2	27	126	19	42	12	63	156	51	17	47	2.1	15
3	22	103	18	39	12	55	182	42	16	31	2.0	15
4	20	70	17	37	12	31	224	37	15	24	1.6	17
5	18	61	16	35	12	36	228	35	13	38	1.6	19
6	16	51	16	33	12	42	198	47	11	37	6.1	17
7	21	45	18	30	13	36	173	63	9.6	33	3.8	16
8	42	51	23	27	13	33	142	50	8.9	28	1.9	66
9	57	61	33	24	13	34	111	42	8.1	21	18	168
10	50	95	30	22	13	42	111	40	6.8	18	52	182
11	41	91	28	21	13	49	145	41	5.7	16	37	161
12	35	64	28	20	14	48	187	41	5.0	15	54	85
13	31	53	26	21	14	48	250	37	3.7	13	125	51
14	29	56	27	21	14	48	304	33	3.4	13	95	38
15	30	87	27	20	15	45	311	48	8.4	11	56	30
16	48	68	76	19	15	47	267	63	9.4	9.6	35	27
17	130	55	126	18	16	52	229	61	9.0	8.9	25	27
18	140	39	112	16	17	63	181	52	8.4	11	21	29
19	117	31	72	16	18	92	157	41	9.6	13	18	27
20	93	26	52	15	19	114	145	33	8.2	13	16	23
21	71	21	39	15	20	125	131	28	11	12	15	22
22	54	19	34	14	22	199	120	24	13	10	13	22
23	45	18	32	14	25	351	188	21	15	9.5	15	76
24	39	19	31	14	27	279	247	19	11	10	43	187
25	35	19	29	13	30	194	251	17	7.9	7.8	84	194
26	37	21	30	13	39	203	189	16	29	8.1	64	185
27	45	37	33	13	34	330	115	17	63	6.8	40	134
28	85	57	58	13	32	394	92	16	120	4.8	30	87
29	97	48	99	13	---	468	78	14	169	4.4	28	114
30	77	39	88	13	---	383	66	13	176	2.9	25	268
31	70	---	69	12	---	280	---	16	---	2.8	21	---
TOTAL	1654	1641	1334	676	508	4237	5376	1116	811.1	577.6	951.7	2319
MEAN	53.4	54.7	43.0	21.8	18.1	137	179	36.0	27.0	18.6	30.7	77.3
MAX	140	126	126	53	39	468	311	63	176	98	125	268
MIN	16	18	16	12	12	31	66	13	3.4	2.8	1.6	15
CFSM	1.12	1.14	.90	.46	.38	2.86	3.74	.75	.56	.39	.64	1.61
IN.	1.28	1.27	1.04	.52	.39	3.29	4.18	.87	.63	.45	.74	1.80
WTR YR 1985	TOTAL	21201.4	MEAN	58.1	MAX	468	MIN	1.6	CFSM	1.21	IN	16.47

05381000 BLACK RIVER AT NEILLSVILLE, WI

LOCATION.--Lat 44°33'34", long 90°36'52", in sec.15, T.24 N., R.2 W., Clark County, Hydrologic Unit 07040007, on right bank at downstream side of bridge on U.S. Highway 10 in Neillsville, 1.0 mi downstream from O'Neill Creek, and 2.6 mi upstream from Cunningham Creek.

DRAINAGE AREA.--749 mi².

PERIOD OF RECORD.--April 1905 to March 1909, October 1913 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1308: 1914. WSP 1438: 1905, 1906-8(M), 1914-17(M), 1918-19, 1920-25(M), 1926-27, 1928-29(M), 1930, 1931(M), 1932, 1933(M), 1934, 1935(M), 1936. WSP 1508: 1950. WDR WI-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 962.34 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 24, 1934, nonrecording gage; Oct. 24, 1934, to June 16, 1977, water-stage recorder; June 17, 1977, to Nov. 19, 1977, nonrecording gage at site 150 ft downstream at datum 1.58 ft lower.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--75 years (1906-8, 1914-85), 597 ft³/s, 10.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,800 ft³/s Sept. 10, 1938, gage height, 23.8 ft; minimum, 0.6 ft³/s Aug. 15, 1936, gage height, 1.84 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Dec. 16	2330	*5,820	9.74	Mar. 27	2300	5,580	9.58
Mar. 11	1700	ice jam	*9.81	Apr. 4	0200	5,250	9.36

Minimum, 52 ft³/s Aug. 7.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 16 to Dec. 16 and Dec. 20 to Mar. 24.)

2.7	55	6.0	1,500
3.0	104	7.0	2,370
3.5	224	9.0	4,740
4.0	392	11.0	7,940
5.0	850		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	263	1680	310	900	68	1300	2100	508	113	873	71	261
2	225	1810	220	680	66	2000	1660	430	114	717	66	214
3	197	1410	150	560	64	1700	2420	383	117	479	59	193
4	173	1020	150	450	60	1400	4450	344	130	322	56	169
5	154	774	140	300	58	1100	3930	306	130	258	56	223
6	141	629	130	230	60	900	3300	278	118	237	64	241
7	141	533	140	200	62	740	2440	257	107	227	61	215
8	153	513	150	180	62	600	1840	247	99	212	57	214
9	178	566	160	170	62	600	1420	259	90	187	56	535
10	272	2010	190	150	64	1200	1120	259	82	165	80	1130
11	302	2140	250	140	68	3100	989	241	76	153	264	1070
12	294	1640	250	140	70	2800	1320	217	73	132	603	913
13	269	1090	260	130	70	2100	1870	204	69	116	2440	692
14	254	813	270	130	72	1800	2210	231	67	107	1960	480
15	300	804	260	130	76	1800	2140	467	101	99	1360	341
16	596	820	1200	130	82	1900	1860	385	128	89	797	269
17	1400	700	3410	120	88	2200	1580	379	98	83	500	227
18	1450	470	2230	120	94	2100	1340	364	102	81	376	205
19	1370	310	1550	110	110	2200	1160	323	106	83	294	184
20	1120	230	1100	110	120	2500	1010	279	98	85	244	178
21	865	220	740	100	150	2900	985	234	93	82	211	171
22	678	220	540	98	290	2800	1010	201	98	78	182	168
23	532	210	390	94	580	2900	2450	176	119	75	165	287
24	433	200	400	90	1100	2600	3320	160	132	78	164	1080
25	387	200	430	88	1300	2420	2870	144	131	124	161	1890
26	436	220	410	86	1400	2610	2250	136	117	129	172	1960
27	509	240	540	82	1200	4600	1560	129	206	95	209	1680
28	1090	260	740	78	1100	5380	1080	118	1420	81	253	1230
29	1190	340	2100	76	---	4960	769	108	1340	80	300	1050
30	1010	450	1600	74	---	4570	603	105	1010	85	355	3900
31	794	---	1200	72	---	3350	---	108	---	76	328	---
TOTAL	17176	22522	21610	6018	8596	73130	57056	7980	6684	5688	11964	21370
MEAN	554	751	697	194	307	2359	1902	257	223	183	386	712
MAX	1450	2140	3410	900	1400	5380	4450	508	1420	873	2440	3900
MIN	141	200	130	72	58	600	603	105	67	75	56	168
CFSM	.74	1.00	.93	.26	.41	3.15	2.54	.34	.30	.24	.52	.95
IN.	.85	1.12	1.07	.30	.43	3.63	2.83	.40	.33	.28	.59	1.06

CAL YR 1984	TOTAL	246966	MEAN 675	MAX 7670	MIN 85	CFSM .90	IN 12.27
WTR YR 1985	TOTAL	259794	MEAN 712	MAX 5380	MIN 56	CFSM .95	IN 12.90

BLACK RIVER BASIN

05382000 BLACK RIVER NEAR GALESVILLE, WI
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 44°04'22", long 91°17'41", in SW 1/4 sec.1, T.18 N., R.8 W., LaCrosse County, Hydrologic Unit 07040007, on left bank 1,000 ft upstream from bridge on U.S. Highway 53, 4.5 mi southeast of Galesville, and 4.8 mi downstream from Fleming Creek.

DRAINAGE AREA.--2,080 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1931 to current year.

REVISED RECORDS.--WSP 1438: 1932-34, 1935-36(M). WDR WI-81-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 658.43 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 2, 1941, nonrecording gage on bridge 1,000 ft downstream at same datum. Apr. 3, 1941, to Oct. 1, 1971, water-stage recorder at site 1,100 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Mar. 10-13, Aug. 7-13, and Sept. 26-30, and ice periods listed in rating tables below. Records good except for estimated daily discharges, which are fair. Flow partly regulated by Hatfield Dam Powerplant where drainage area is 1,290 mi² and storage capacity is 272,000,000 ft³. Water diverted periodically from basin into Lemonweir River basin for cranberry culture. Gage-height telemeter at station.

AVERAGE DISCHARGE.--53 years, 1,746 ft³/s, 11.40 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,500 ft³/s Apr. 1, 1967, gage height, 14.63 ft; maximum gage height, 15.46 ft Sept. 23, 1980; minimum observed, 180 ft³/s Dec. 20, 1931

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Mar. 14	2400	*11,300	*10.68				

Minimum discharge, 427 ft³/s, July 23, gage height, 2.17 ft.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 17-24, Dec. 1-17, and Dec. 22 to Mar. 9.)

Oct. 1 to Mar. 4				Mar. 5 to Sept. 30			
2.4	680	6.0	3,900	2.2	438	8.0	6,260
3.0	1,040	8.0	6,500	3.0	840	10.0	9,700
4.0	1,840			4.0	1,540	11.0	12,100
				6.0	3,550		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	970	2690	1600	4300	720	3900	8120	2360	748	1620	573	858
2	881	3200	1600	3600	700	3600	6210	2090	779	1430	527	864
3	900	4510	1500	3000	700	3200	4700	1930	688	1210	471	832
4	845	4740	1400	2500	720	3000	4440	1790	691	1210	473	799
5	781	4090	1300	2200	720	2700	5570	1340	756	1060	467	791
6	762	3220	1300	1900	720	2500	8230	1300	736	1050	472	810
7	793	2260	1300	1700	720	2500	8980	1400	727	1010	520	785
8	818	2100	1400	1600	740	3200	7710	1400	724	958	600	785
9	799	2060	1500	1400	740	3700	6190	1290	699	906	700	945
10	958	2130	1500	1300	760	4400	4530	1240	663	802	580	938
11	957	3100	1500	1200	760	5200	3490	1220	600	706	700	1040
12	937	4430	1600	1100	760	6200	2830	1190	653	669	840	1450
13	957	4640	1800	1100	780	8000	2720	1180	586	629	1000	1470
14	925	3970	2100	1000	780	10900	3410	1160	651	622	1690	1360
15	864	2800	2500	960	800	10800	3810	1040	694	603	2770	1220
16	1100	2260	3000	900	820	8720	3970	1040	769	507	2220	1070
17	1880	2200	3500	880	820	7570	3770	1520	724	569	1740	951
18	2240	2000	4380	860	840	7410	3230	1730	621	584	1300	852
19	3280	1700	5320	820	840	7100	2780	1770	671	512	1150	811
20	2930	1500	5030	800	860	6200	2460	1560	668	502	915	767
21	2930	1500	4380	780	1000	6360	2240	1400	678	500	866	718
22	2570	1400	3400	780	1300	6440	2500	1230	720	468	833	704
23	2200	1400	2700	780	1700	6370	2920	1180	675	440	782	788
24	2000	1400	2300	780	2200	6280	4130	1140	646	471	783	934
25	1760	1370	1900	760	3200	6080	6170	1110	577	604	789	1230
26	1570	1340	1700	760	3400	5730	7930	1030	669	615	753	2500
27	1790	1410	1700	760	3700	5100	7180	1060	739	554	720	1900
28	1890	1490	1800	760	4300	5330	5610	874	720	536	698	1400
29	2100	1540	2100	760	---	7130	3920	677	769	477	739	1300
30	2570	1700	2500	740	---	8960	2720	1100	1660	470	852	1900
31	2660	---	3400	720	---	8840	---	901	---	578	863	---
TOTAL	48617	74150	73010	41500	36100	183420	142470	41252	21701	22872	28386	32772
MEAN	1568	2472	2355	1339	1289	5917	4749	1331	723	738	916	1092
MAX	3280	4740	5320	4300	4300	10900	8980	2360	1660	1620	2770	2500
MIN	762	1340	1300	720	700	2500	2240	677	577	440	467	704
CFSM	.75	1.19	1.13	.64	.62	2.85	2.28	.64	.35	.36	.44	.53
IN.	.87	1.33	1.31	.74	.65	3.28	2.55	.74	.39	.41	.51	.59

CAL YR 1984 TOTAL 793902 MEAN 2169 MAX 13000 MIN 652 CFSM 1.04 IN 14.20
WTR YR 1985 TOTAL 746250 MEAN 2045 MAX 10900 MIN 440 CFSM .98 IN 13.35

05382000 BLACK RIVER NEAR GALESVILLE, WI--CONTINUED
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCTANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOC CI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT, 1984												
10...	1630	944	--	138	7.9	15.5	2.4	9.7	758	98	K2700	1700
JAN, 1985												
16...	1540	893	--	145	7.2	.0	1.0	10.5	749	73	K20	K12
FEB												
27...	1140	--	3700	152	7.1	.0	9.5	12.6	762	86	400	K4400
APR												
03...	0820	4760	--	88	7.4	4.0	5.5	11.9	741	93	1100	920
JUN												
19...	1215	666	--	135	8.8	18.5	3.0	12.6	752	136	600	360
AUG												
07...	1030	524	--	152	8.0	21.5	5.5	8.5	753	98	>1200	K5100

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L AS CA) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	PERCENT SODIUM (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT, 1984												
10...	58	9	14	5.7	3.7	12	.2	2.5	50	8.9	6.4	<.10
JAN, 1985												
16...	56	14	13	5.7	3.0	10	.2	2.5	42	8.7	6.1	<.10
FEB												
27...	47	7	11	4.7	4.2	15	.3	4.4	40	8.6	7.3	<.10
APR												
03...	32	10	7.4	3.2	2.1	12	.2	2.6	22	6.9	4.9	<.10
JUN												
19...	58	10	14	5.7	3.0	10	.2	1.6	49	8.7	4.9	<.10
AUG												
07...	68	12	16	6.8	3.0	8	.2	2.5	56	9.4	5.2	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT, 1984											
10...	7.2	90	79	.12	229	.44	<.010	.40	.170	.070	.060
JAN, 1985											
16...	12	85	77	.12	205	.96	.210	.40	.130	.080	.100
FEB											
27...	12	99	77	.13	989	--	--	2.8	.350	.200	--
APR											
03...	6.0	64	47	.09	823	.31	<.010	1.0	.120	.040	<.010
JUN											
19...	6.8	78	74	.11	140	<.10	.060	.70	.120	.070	.040
AUG											
07...	6.8	108	84	.15	153	.32	<.010	.70	.080	.050	.070

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

BLACK RIVER BASIN

05382000 BLACK RIVER NEAR GALESVILLE, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
OCT, 1984											
10...	1630	944	--	30	<1	23	<.5	<1	<1	<3	3
FEB, 1985											
27...	1140	--	3700	70	<1	27	<.5	<1	2	<3	2
APR											
03...	0820	4760	--	60	1	22	.6	<1	1	3	3
AUG											
07...	1030	524	--	20	<1	21	.7	<1	<1	<3	2

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT, 1984											
10...	360	<1	<4	18	<.1	<10	3	<1	36	<6	11
FEB, 1985											
27...	560	4	<4	54	.3	<10	2	<1	33	<6	8
APR											
03...	300	<1	<4	13	<.1	<10	1	<1	24	<6	6
AUG											
07...	50	<1	5	17	.3	<10	3	<1	39	<6	4

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DIS-CHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT, 1984								
10...	1630	934	--	138	15.5	33	83	90
NOV								
29...	1230	1500	--	126	1.5	--	--	--
JAN, 1985								
16...	1540	893	--	145	.0	6	14	80
FEB								
27...	1140	3700	3700	152	.0	73	729	98
MAR								
12...	1850	6110	--	100	1.0	--	--	--
13...	1140	8000	--	92	.5	--	--	--
APR								
03...	0820	4860	--	88	4.0	90	1180	34
JUN								
05...	0830	775	--	130	15.0	--	--	--
19...	1215	669	--	135	18.5	43	78	93
AUG								
07...	1030	536	--	152	21.5	49	71	97
SEP								
04...	1110	806	--	138	21.5	--	--	--

LA CROSSE RIVER BASIN

435447091042600 NESHONOC LAKE AT WEST SALEM, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 43°54'47", long 91°04'26", in NE 1/4 sec.34, T.17 N., R.6 W., LaCrosse County, Hydrologic Unit 07040006, at U.S. Highway 16 over Neshonoc Lake, at West Salem.

PERIOD OF RECORD.--October 1984 to July 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 699 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.12 ft, Nov. 3; minimum, 7.74 ft, Nov. 8.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT
OCT. 3	7.97	OCT. 31	8.05	APR. 9	7.88	MAY 3	7.93	JUNE 4	7.83	JULY 8	7.78
OCT. 8	7.98	NOV. 3	8.12	APR. 17	7.90	MAY 7	7.98	JUNE 12	7.78	JULY 15	7.78
OCT. 10	7.94	NOV. 8	7.74	APR. 21	7.90	MAY 15	7.93	JUNE 20	7.78	JULY 22	7.78
OCT. 15	8.02	NOV. 16	7.97	APR. 28	7.90	MAY 26	7.88	JUNE 26	7.78	JULY 31	7.83
OCT. 23	7.82										

WATER-QUALITY RECORDS

LOCATION.--Lat 43°54'47", long 91°04'26", in NE 1/4 sec.34, T.17 N., R.6 W., LaCrosse County, Hydrologic Unit 07040006, at U.S. Highway 16 over Neshonoc Lake, at West Salem.

PERIOD OF RECORD.--April to July 1985.

REMARKS.--Secchi disc readings made by Gary Willinger.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 0.4 meter, on every day; minimum transparency, 0.4 meter, on every day.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
APR. 9	0.4	APR. 28	0.4	MAY 15	0.4	JUNE 12	0.4	JULY 8	0.4	JULY 22	0.4
APR. 17	0.4	MAY 3	0.4	MAY 26	0.4	JUNE 20	0.4	JULY 15	0.4	JULY 31	0.4
APR. 21	0.4	MAY 7	0.4	JUNE 4	0.4	JUNE 26	0.4				

MISSISSIPPI RIVER MAIN STEM

05389500 MISSISSIPPI RIVER AT MCGREGOR, IA

LOCATION.--Lat 43°01'29", long 91°10'21", in SE 1/4 SE 1/4 sec.22, T.95 N., R.3 W., Clayton County, Hydrologic Unit 07060001, on right bank in city park at east end of Main Street in McGregor, 2.6 mi upstream from Wisconsin River, 4.3 mi downstream from Yellow River, and at mile 633.4 upstream from Ohio River.

DRAINAGE AREA.--67,500 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1936 to current year.

REVISED RECORDS.--WDR IA-75-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 604.84 ft above National Geodetic Vertical Datum. Prior to June 1, 1937, and since June 2, 1939, auxiliary water-stage recorder; June 1, 1937 to June 1, 1939, auxiliary nontesting gage 14.1 mi upstream in tailwater of dam 9, at datum 5.30 ft lower.

REMARKS.--Estimated daily discharge: Dec. 6 to Feb. 25, Mar. 3-10. Records good except those for periods of estimated daily discharge, which are fair. Stage-discharge relation affected by backwater from Wisconsin River and Lock and Dam No. 10. Minor flow regulation caused by navigation dams.

COOPERATION.--Auxiliary gage-height and discharge data at Lock and Dam No. 9 furnished by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--49 years, 35,110 ft³/s, 7.06 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 276,000 ft³/s Apr. 24, 1965; maximum gage height, 25.38 ft Apr. 24, 1965; minimum daily discharge, 6,200 ft³/s Dec. 9, 1936; minimum gage height, -0.86 ft Aug. 18, 1936.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1828, that of Apr. 24, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 110,000 ft³/s Apr. 4-5; maximum gage height, 15.71 ft Apr. 5; minimum daily discharge, 17,300 ft³/s Dec. 8; minimum gage height, 6.76 ft Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32100	75300	38900	40500	22600	63400	105000	90400	49600	39000	32800	36100
2	31700	76300	40100	40000	22600	57800	108000	94500	51300	40000	31000	33700
3	31200	76800	39900	37500	22500	54000	109000	97400	51500	42600	30300	28800
4	30700	77900	33500	35000	22500	49000	110000	98500	49800	46200	29800	29700
5	29800	78000	28100	33500	22500	45000	110000	99800	46300	49600	28300	34400
6	28500	75700	22500	33500	21300	40000	109000	100000	45300	51700	26700	38100
7	27200	72500	16000	32500	21300	38000	106000	98900	45300	52800	26300	39700
8	28800	71000	17300	32500	21000	38500	104000	97000	46700	53200	26700	41000
9	23500	68700	18000	32500	20200	40000	102000	94000	50000	52100	26400	42300
10	23300	65800	19500	32300	19400	45000	101000	92400	51900	51300	25600	43600
11	23800	59300	25000	31000	19400	54000	99700	89600	53400	50100	25600	45000
12	25000	54200	31000	31000	19700	61000	97400	87700	51800	48700	25300	46600
13	27700	52200	33500	30000	19900	70700	94100	83900	47200	46900	26400	48400
14	27800	52100	35000	29000	20000	76300	90500	80200	43900	44700	29900	52000
15	27900	55500	34300	27000	19500	81500	87200	77400	43400	42300	34200	56800
16	29100	57500	35000	24000	19600	81100	84200	75300	43500	38700	36100	60200
17	32100	57000	36200	24000	19700	80700	81600	73300	44000	35100	36700	60100
18	33800	55800	37000	23000	19700	79000	82200	70200	43900	31800	36800	58800
19	36600	51200	35000	22800	19600	76700	83400	67200	42400	31400	36500	56500
20	38700	46000	36000	22500	19500	75000	84700	65400	41100	31800	35500	54000
21	43000	41600	35000	22800	19700	75000	85200	64400	40600	32100	33400	51500
22	48900	37400	34500	22800	22000	77000	84900	64600	40600	31600	32500	50600
23	54500	36600	35000	22700	31000	80300	83300	65500	40500	30000	32000	51300
24	58400	37100	36500	22700	43000	83700	81400	66300	40400	27500	32500	51400
25	60200	38000	36800	22700	58000	87000	79300	66100	40500	27700	33100	50200
26	62600	37800	37800	22800	72500	90600	77800	65900	40300	30400	32900	50200
27	64200	36200	38300	22500	71300	94800	77900	65000	39600	32200	28500	50800
28	67000	34500	39800	22700	68600	97700	79800	62100	38500	33700	27200	51700
29	69100	34100	41000	22500	---	99900	82500	57900	38500	34800	28800	54900
30	71000	36400	41000	22500	---	99900	86400	53900	38700	34800	31300	61600
31	71700	---	41000	22500	---	102000	---	51200	---	33800	34700	---
TOTAL	1256900	1648500	1030500	863300	798600	2194600	2767500	2416000	1340500	1228600	953800	1430000
MEAN	40550	54950	33240	27850	28520	70790	92250	77940	44680	39630	30770	47670
MAX	71700	78000	41000	40500	72500	102000	110000	100000	53400	53200	36800	61600
MIN	23300	34100	17300	22500	19400	38000	77800	51200	38500	27500	25300	28800
CFSM	.60	.81	.49	.41	.42	1.05	1.37	1.15	.66	.59	.46	.71
IN.	.69	.91	.57	.48	.44	1.21	1.53	1.33	.74	.68	.53	.79
CAL YR 1984	TOTAL	19817200	MEAN	54150	MAX	117000	MIN	15100	CFSM	.80	IN.	10.92
WTR YR 1985	TOTAL	17928800	MEAN	49120	MAX	110000	MIN	17300	CFSM	.73	IN.	9.88

MISSISSIPPI RIVER MAIN STEM

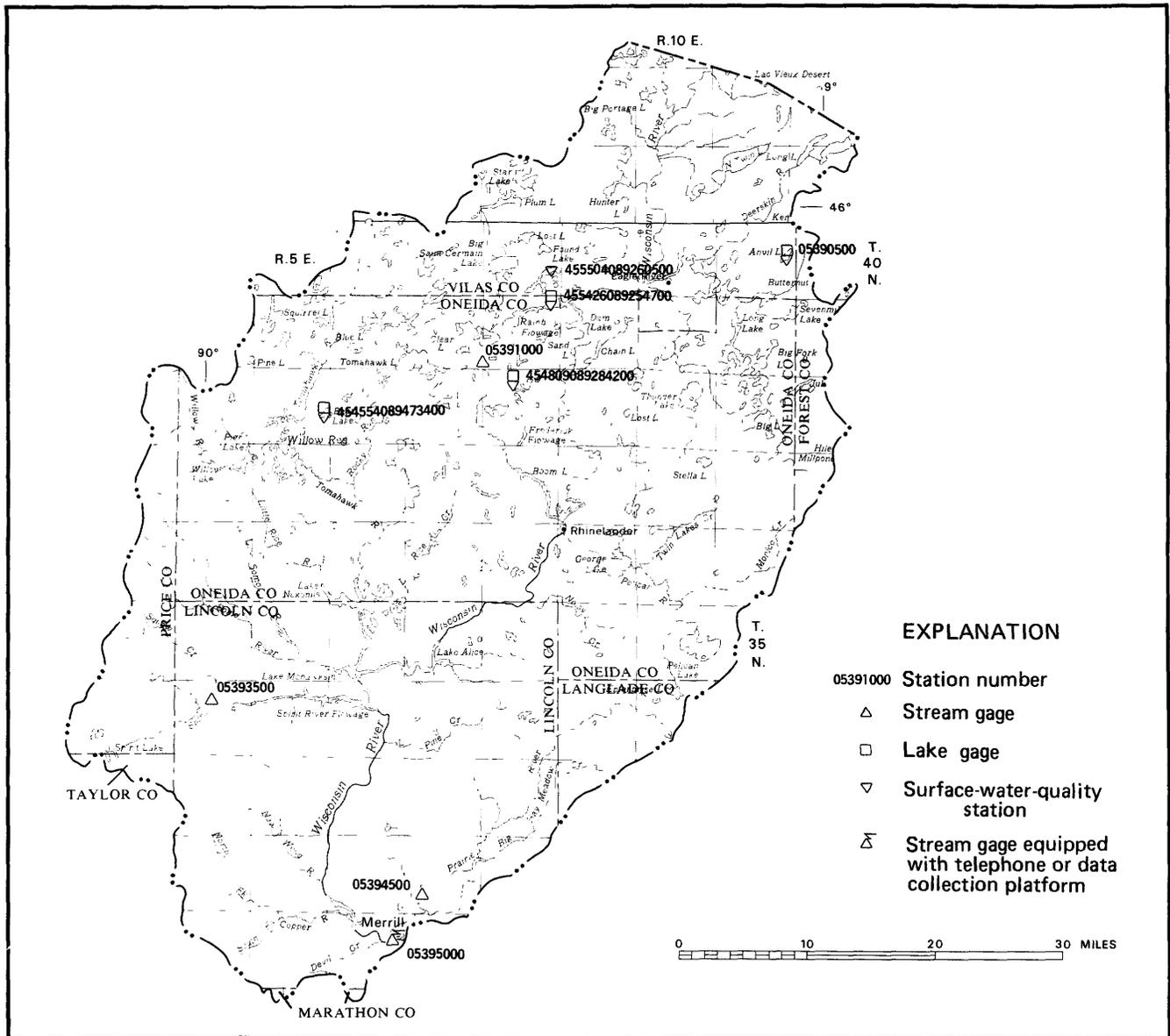
05389500 MISSISSIPPI RIVER AT MCGREGOR, IA--Continued

SPECIFIC CONDUCTANCE (MICROSEIMENS/CM AT 25 DEG. C.), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
RANDOM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	390	---	---	---	---	---	---	---
2	---	---	---	495	---	350	305	340	---	---	380	---
3	---	375	450	---	---	---	---	---	390	---	---	---
4	---	---	---	---	---	---	---	---	---	410	---	---
5	---	---	---	380	410	---	290	---	---	---	---	---
6	370	355	---	---	---	345	---	360	---	405	380	---
7	---	---	455	---	---	---	---	---	410	---	---	330
8	---	---	---	---	460	---	---	380	---	---	---	---
9	---	---	---	380	---	375	---	---	---	420	380	---
10	415	350	450	---	---	---	315	340	---	---	---	---
11	---	---	---	---	---	---	---	---	395	---	---	340
12	---	---	---	405	460	---	305	---	---	395	---	---
13	---	370	430	---	---	370	---	---	420	---	---	340
14	---	---	---	---	---	---	---	335	---	---	360	---
15	---	---	---	470	---	---	340	---	---	---	---	---
16	---	380	---	---	375	300	---	385	---	---	---	---
17	---	---	430	---	---	---	---	---	425	360	360	---
18	---	---	---	390	---	---	360	---	---	---	---	350
19	---	---	---	---	---	300	---	---	410	380	---	---
20	---	380	---	---	375	---	---	385	---	---	---	---
21	---	---	480	---	---	---	---	---	---	380	320	---
22	---	400	---	385	---	340	310	---	---	---	---	---
23	---	---	---	---	245	---	---	---	---	---	---	---
24	---	405	---	---	---	---	---	385	---	---	320	---
25	---	---	---	---	240	350	---	---	---	---	---	---
26	---	---	425	400	---	---	325	---	---	340	---	---
27	---	---	---	---	---	---	---	---	375	---	---	---
28	---	400	420	---	240	325	---	400	---	---	340	---
29	---	---	---	400	---	---	340	---	---	380	---	---
30	380	420	480	---	---	---	---	---	430	---	---	---
31	---	---	---	---	---	---	---	400	---	---	370	---

TEMPERATURE, WATER (DEG. C.) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
RANDOM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	15.0	---	---	---	---	---	7.0	12.0	---	---	26.0	---
3	---	6.0	---	---	---	---	---	---	20.5	---	---	---
4	---	---	---	---	---	---	---	21.0	---	26.0	---	24.0
5	---	---	---	---	---	---	10.0	---	---	---	---	---
6	20.0	5.0	---	---	---	---	---	14.0	---	27.0	26.0	---
7	---	---	---	---	---	---	---	14.0	21.0	---	---	21.0
8	---	---	---	---	---	---	---	19.0	---	---	---	---
9	---	---	---	---	---	---	---	16.0	---	26.5	26.0	---
10	17.0	4.0	---	---	---	---	8.0	---	---	---	---	---
11	14.0	---	---	---	---	---	---	---	20.5	---	---	22.0
12	---	---	---	---	---	---	10.0	---	---	28.0	---	---
13	14.0	4.0	---	---	---	---	---	20.0	20.0	---	---	21.0
14	---	---	---	---	---	---	---	---	---	---	24.0	---
15	---	---	---	---	---	---	14.0	---	---	---	---	---
16	10.0	3.0	---	---	---	---	---	18.0	---	---	---	---
17	---	---	---	---	---	---	---	---	21.0	27.0	26.0	---
18	---	---	---	---	---	---	14.0	---	---	---	---	21.0
19	10.0	---	---	---	---	---	---	---	21.0	27.0	---	---
20	---	1.0	---	---	---	8.5	---	18.0	---	---	---	---
21	---	---	---	---	---	---	---	---	---	27.0	25.0	21.0
22	10.0	.0	---	---	6.0	18.0	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	1.0	---	---	---	---	---	19.0	---	---	24.0	---
25	---	---	---	---	---	6.0	---	---	---	---	---	---
26	10.0	---	---	---	---	---	12.0	---	---	27.0	---	---
27	---	---	---	---	---	---	---	---	21.0	---	---	---
28	---	.0	---	---	8.0	---	---	23.0	---	---	26.0	16.0
29	---	---	---	---	---	---	16.5	---	---	26.0	---	---
30	9.0	.0	---	---	---	---	---	---	26.0	---	---	---
31	---	---	---	---	---	---	---	24.0	---	---	22.0	---



Base from U.S. Geological Survey
State base map, 1968

UPPER WISCONSIN RIVER BASIN

05390500 ANVIL LAKE NEAR EAGLE RIVER, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 45°57'07", long 89°03'26", in NW 1/4 NE 1/4 sec.13, T.40 N., R.11 E., Vilas County, Hydrologic Unit 07070001, 9.6 mi east of Eagle River.

DRAINAGE AREA.--4.11 mi², revised. Area of Anvil Lake, 380 acres.

PERIOD OF RECORD.--August 1936 to September 1981 (fragmentary), June to September 1985.

REVISED RECORD.--WDR WI-80-1: Drainage area.

GAGE.--Nonrecording gage. Datum of gage is 90.00 ft above datum assumed by Wisconsin Department of Natural Resources: gage readings have been reduced to elevations above this datum. Prior to Aug. 13, 1950, staff gage 0.3 mi southeast at same datum; Aug. 14 to Sept. 30, 1981, staff gage 0.2 mi east at same datum.

REMARKS.--Add 90 ft to obtain elevation above datum assumed for this lake by Wisconsin Department of Natural Resources. Lake has no surface outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation observed, 7.20 ft, May 3, 7, 17, 21, 24, 28, June 20, 24, 1943; minimum observed, 2.10 ft July 31, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 5.56 ft, July 6; minimum 5.02 ft, Sept. 18.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	GAGE HEIGHT	DATE	GAGE HEIGHT								
JUNE 8	5.51	JUNE 30	5.50	JULY 19	5.38	AUG. 10	5.22	AUG. 25	5.09	SEPT. 12	5.09
JUNE 15	5.50	JULY 6	5.56	JULY 20	5.37	AUG. 17	5.09	AUG. 30	5.06	SEPT. 18	5.02
JUNE 20	5.49	JULY 12	5.48	JULY 25	5.32	AUG. 20	5.07	SEPT. 5	5.09	SEPT. 26	5.11
JUNE 23	5.47	JULY 14	5.46	AUG. 1	5.22						

WATER-QUALITY RECORDS

LOCATION.--Lat 45°56'39", long 89°03'44", in NE 1/4 SW 1/4 sec.13, T.40 N., R.11 E., Vilas County, Hydrologic Unit 07070001, near center of lake, and 9.2 mi east of Eagle River.

PERIOD OF RECORD.--June to August 1985.

REMARKS.--Secchi disc readings made by James Sachse.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 6.7 meters, June 8; minimum transparency, 2.4 meters, Aug. 20, 25.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH										
JUNE 8	6.7	JUNE 30	5.0	JULY 14	5.0	JULY 25	4.3	AUG. 10	3.0	AUG. 25	2.4
JUNE 16	4.6	JULY 6	4.6	JULY 19	4.1	AUG. 1	4.6	AUG. 20	2.4	AUG. 30	3.2
JUNE 23	4.0	JULY 8	5.8	JULY 20	5.2						

WISCONSIN RIVER BASIN

455426089254700 ALMA LAKE NEAR ST. GERMAIN, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 45°54'26", long 89°25'47", in NE 1/4 sec.36, T.40 N., R.8 E., Vilas County, Hydrologic Unit 07070001, 3 mi east of St. Germain.

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 1,617 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.97 ft, May 30; minimum, 11.45 ft, Sept. 2.

GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.66	11.69					---	11.83	11.95	11.75	11.55	11.47
2	11.64	11.68					---	11.83	11.95	11.79	11.55	11.45
3	11.64	11.67					---	11.82	11.93	11.77	11.53	11.57
4	11.62	11.66					---	11.81	11.92	11.85	11.51	11.58
5	11.62	11.66					---	11.79	11.91	11.85	11.50	11.58
6	11.62	11.64					---	11.81	11.89	11.83	11.49	11.57
7	11.61	11.63					---	11.81	11.89	11.83	11.48	11.55
8	11.62	11.63					---	11.79	11.87	11.83	11.47	11.57
9	11.62	11.62					---	11.77	11.85	11.83	11.48	11.56
10	11.61	11.61					---	11.85	11.84	11.83	11.59	11.55
11	11.61	11.60					---	11.86	11.83	11.81	11.58	11.55
12	11.62	11.60					---	11.87	11.81	11.79	11.57	11.53
13	11.62	11.60					---	11.87	11.79	11.79	11.58	11.51
14	11.60	11.60					---	11.85	11.78	11.79	11.57	11.49
15	11.60	11.59					---	11.89	11.79	11.74	11.57	11.49
16	11.59	11.59					---	11.89	11.79	11.71	11.55	11.48
17	11.67	11.59					---	11.88	11.81	11.69	11.57	11.47
18	11.66	11.59					---	11.87	11.81	11.71	11.56	11.46
19	11.68	---					---	11.87	11.81	11.72	11.55	11.46
20	11.63	---					---	11.85	11.79	11.71	11.53	11.47
21	11.63	---					11.79	11.83	11.79	11.69	11.51	11.47
22	11.63	---					11.81	11.81	11.85	11.67	11.49	11.48
23	11.62	---					11.85	11.80	11.85	11.67	11.53	11.59
24	11.60	---					11.87	11.79	11.83	11.67	11.57	11.61
25	11.62	---					11.87	11.81	11.81	11.65	11.55	11.61
26	11.62	---					11.87	11.87	11.79	11.63	11.53	11.61
27	11.64	---					11.85	11.87	11.79	11.62	11.51	11.59
28	11.68	---					11.85	11.86	11.79	11.61	11.49	11.58
29	11.68	---					11.84	11.85	11.77	11.59	11.49	11.63
30	11.69	---					11.83	11.97	---	11.57	11.48	11.67
31	11.69	---					---	11.95	---	11.56	11.47	---
MEAN	11.63	---					---	11.85	---	11.73	11.53	11.54
MAX	11.69	---					---	11.97	---	11.85	11.59	11.67
MIN	11.59	---					---	11.77	---	11.56	11.47	11.45

WATER-QUALITY RECORDS

LOCATION.--Lat 45°54'36", long 89°25'43", in NE 1/4 sec.36, T.40 N., R.8 E., Vilas County, Hydrologic Unit 07070001, near center of lake and 3 mi east of St. Germain.

PERIOD OF RECORD.--May to September 1985.

REMARKS.--Secchi disc readings made by John P. Seibel.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 4.0 meters, May 2, 20, 27, June 3; minimum transparency, 2.4 meters, June 26, Aug. 27, Sept. 6, 13, 20.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
MAY 2	4.0	MAY 27	4.0	JUNE 26	2.4	JULY 18	2.7	AUG. 14	2.7	SEPT. 13	2.4
MAY 13	3.0	JUNE 3	4.0	JULY 1	2.7	JULY 31	2.7	AUG. 27	2.4	SEPT. 20	2.4
MAY 20	4.0	JUNE 12	3.0	JULY 8	2.7	AUG. 5	3.4	SEPT. 6	2.4	SEPT. 27	2.7

455504089260500 MOON LAKE NEAR ST. GERMAIN, WI

WATER-QUALITY RECORDS

LOCATION.--Lat 45°55'04", long 89°26'05", in SE 1/4 SE 1/4 sec.25, T.40 N., R.8 E., Vilas County, Hydrologic Unit 07070001, near center of lake, and 3 mi east of St. Germain.

PERIOD OF RECORD.--May to September 1985.

REMARKS.--Secchi disc readings made by John Seibel.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 5.8 meters, May 13, 20, 27; minimum transparency, 2.7 meters, Aug. 27, Sept. 6, 13, 20.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
MAY 2	5.2	MAY 27	5.8	JUNE 26	3.4	JULY 18	3.4	AUG. 13	3.4	SEPT. 13	2.7
MAY 13	5.8	JUNE 3	4.9	JULY 1	3.4	JULY 31	3.4	AUG. 27	2.7	SEPT. 20	2.7
MAY 20	5.8	JUNE 12	4.0	JULY 8	3.4	AUG. 5	4.3	SEPT. 6	2.7	SEPT. 27	3.0

WISCONSIN RIVER BASIN
454809089284200 MUSKELLUNGE LAKE NEAR LAKE TOMAHAWK, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 45°48'09", long 89°28'42", in NE 1/4 sec.10, T.38 N., R.8 E., Oneida County, Hydrologic Unit 07070001, 5.7 mi east of Lake Tomahawk.

PERIOD OF RECORD.-- October 1984 to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 1622 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 9.68 ft, Sept. 27; minimum, 8.38 ft, Aug. 6.

GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---						---	8.68	---	---	---
2	---	---						8.63	---	---	---	9.03
3	8.57	8.61						---	8.58	---	---	---
4	---	8.61						---	---	---	---	---
5	8.56	---						8.98	---	8.51	---	---
6	8.56	---						---	8.44	---	8.38	---
7	---	8.61						---	---	---	---	9.08
8	8.64	---						8.98	---	---	---	---
9	---	---						---	---	---	---	---
10	---	8.66						---	8.50	8.42	---	---
11	8.62	---						8.48	---	---	---	---
12	---	---						8.92	---	---	8.39	---
13	8.61	---						---	8.46	8.41	---	---
14	8.61	---						---	8.46	---	---	9.08
15	---	---						---	---	---	8.51	---
16	---	---						---	8.46	---	---	---
17	8.62	---						---	---	8.40	---	---
18	---	---						---	8.52	---	---	---
19	---	---						---	8.52	8.41	---	---
20	8.62	---						---	---	---	8.48	---
21	8.62	---						9.03	---	---	---	9.38
22	---	---						---	---	8.39	---	---
23	---	---						---	8.48	---	---	---
24	---	---						9.22	---	---	8.48	---
25	---	---						---	8.48	---	---	---
26	---	---						9.13	---	8.39	---	---
27	---	---						---	---	---	---	9.68
28	8.70	---						8.93	8.48	---	---	---
29	8.69	---						8.83	---	---	---	---
30	---	---						---	8.46	---	9.01	---
31	---	---						8.73	---	---	8.98	---

WATER-QUALITY RECORDS

LOCATION.--Lat 45°47'55", long 89°28'48", in NW 1/4 sec.10, T.38 N., R.8 E., Oneida County, Hydrologic Unit 07070001, near center of lake, and 5.7 mi east of Lake Tomahawk.

PERIOD OF RECORD.--May to September 1985.

REMARKS.--Secchi disc readings made by Kenard Kenworthy.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 4.1 meters, May 2, 8, 14; minimum transparency, 1.5 meters, Aug. 15, 21, 28, Sept. 3, 9, 15, 21.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
MAY 2	4.1	JUNE 4	2.9	JUNE 16	2.7	JULY 5	2.7	AUG. 3	2.0	SEPT. 3	1.5
MAY 8	4.1	JUNE 10	2.6	JUNE 18	2.4	JULY 10	3.0	AUG. 7	2.0	SEPT. 9	1.5
MAY 14	4.1	JUNE 12	2.4	JUNE 19	2.4	JULY 16	3.0	AUG. 15	1.5	SEPT. 15	1.5
MAY 21	2.3	JUNE 13	2.3	JUNE 28	3.0	JULY 22	2.6	AUG. 21	1.5	SEPT. 21	1.5
MAY 29	2.1	JUNE 14	2.4	JUNE 30	3.0	JULY 28	2.6	AUG. 28	1.5	SEPT. 27	1.7

WISCONSIN RIVER BASIN

05391000 WISCONSIN RIVER AT RAINBOW LAKE, NEAR LAKE TOMAHAWK, WI

LOCATION.--Lat 45°49'50", long 89°33'08", in NE 1/4 NE 1/4 sec.36, T.39 N., R.7 E., Oneida County, Hydrologic Unit 07070001, on right bank 500 ft downstream from Gilmore Creek, 0.4 mi downstream from Rainbow Lake, and 2.3 mi northeast of Lake Tomahawk.

DRAINAGE AREA.--757 mi².

PERIOD OF RECORD.--July 1936 to current year. Prior to October 1955, published as "at Rainbow Reservoir, near Lake Tomahawk."

REVISED RECORDS.--WSP 895: 1937(M). WSP 1508: 1944. WDR WI-83-1: Drainage area. WDR WI-80-1: Datum.

GAGE.--Water-stage recorder. Datum of gage is 1,569.05 ft above National Geodetic Vertical Datum of 1929 (levels by Wisconsin Valley Improvement Co.).

REMARKS.--No estimated daily discharges. Record good. Flow regulated by Rainbow Lake and 12 smaller reservoirs upstream from station.

AVERAGE DISCHARGE.--49 years, 704 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,570 ft³/s Sept. 5, 1941, gage height, 7.59 ft; minimum, 17 ft³/s Oct. 10-12, 1940; minimum daily, 35 ft³/s Apr. 6, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,450 ft³/s May 31, gage height, 4.09; minimum daily, 255 ft³/s Apr. 16.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).

0.8	242	3.0	923
1.3	340	4.0	1,400
2.0	545	5.0	1,960

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	520	888	799	836	837	842	353	1070	1430	680	665	686
2	500	896	798	837	835	831	356	1050	1320	720	667	681
3	560	906	799	837	832	827	354	1020	1190	700	670	550
4	501	901	797	832	828	824	320	875	1130	720	669	447
5	473	892	797	832	825	818	298	751	1010	560	667	557
6	471	892	794	832	820	814	299	741	814	350	670	652
7	472	885	830	830	826	808	301	766	728	450	667	690
8	436	883	857	828	850	797	338	755	733	560	637	459
9	520	882	857	826	844	786	367	709	737	660	623	312
10	625	815	855	826	841	776	404	706	735	700	557	292
11	640	773	859	822	836	761	428	731	723	780	497	371
12	637	773	853	821	832	753	396	765	724	820	557	524
13	638	773	852	825	831	751	383	842	728	800	546	616
14	633	775	852	818	827	746	344	877	715	780	555	632
15	630	773	853	820	826	810	282	954	723	780	613	632
16	632	768	859	849	822	851	255	990	726	760	636	630
17	531	766	851	873	817	846	290	882	677	760	644	635
18	447	759	849	868	816	841	305	815	715	760	629	658
19	441	774	854	864	816	834	302	830	656	763	627	676
20	498	792	852	864	812	825	318	832	695	758	633	671
21	564	795	855	860	808	822	313	789	708	760	657	680
22	586	800	853	855	805	818	302	734	670	756	674	690
23	542	803	852	851	813	808	306	713	638	702	660	588
24	508	805	850	847	806	793	325	700	684	665	593	479
25	564	806	850	843	798	665	442	703	712	602	543	440
26	644	808	848	844	786	583	680	776	711	602	602	407
27	683	809	848	842	822	468	913	769	718	631	661	402
28	815	809	849	839	852	324	1060	733	720	653	678	406
29	804	805	848	837	---	283	1040	730	715	672	676	397
30	848	804	844	835	---	292	1010	1020	664	671	674	474
31	865	---	840	837	---	329	---	1420	---	671	683	---
TOTAL	18228	24610	26054	26030	23063	22326	13084	26048	23849	21246	19530	16334
MEAN	588	820	840	840	824	720	436	840	795	685	630	544
MAX	865	906	859	873	852	851	1060	1420	1430	820	683	690
MIN	436	759	794	818	786	283	255	700	638	350	497	292
CAL YR 1984	TOTAL	247940	MEAN 677	MAX 1140	MIN 241							
WTR YR 1985	TOTAL	260402	MEAN 713	MAX 1430	MIN 255							

WISCONSIN RIVER BASIN
454554089473400 BEAR LAKE NEAR HAZELHURST, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 45°45'54", long 89°47'34", in SW 1/4 sec. 19, T.38 N., R.6 E., Oneida County, Hydrologic Unit 07070001, 4.5 mi southwest of Hazelhurst.

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 1562 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.53 ft, Sept. 30; minimum, 7.98 ft, Aug. 7. 9.

GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	8.29	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	8.17	---	8.23
4	8.11	---	---	---	---	---	---	---	---	8.19	---	---
5	---	---	---	8.44	---	---	8.40	---	8.25	---	---	---
6	---	8.28	---	---	---	---	---	8.26	---	---	7.99	---
7	---	---	---	---	---	---	---	---	---	---	7.98	---
8	---	8.29	8.39	---	---	---	---	---	---	8.25	---	8.48
9	---	---	---	---	---	---	---	---	---	---	7.98	---
10	---	8.29	---	8.42	---	---	---	---	---	---	8.13	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	8.13	8.28	---	---	---	---	---	---	8.13	8.18	---	---
13	8.13	---	---	---	---	---	---	8.26	---	---	8.14	---
14	8.13	8.27	---	---	---	---	---	---	---	---	---	---
15	8.13	---	8.38	---	---	---	---	8.27	---	---	8.15	8.37
16	8.15	8.27	---	---	---	---	---	---	---	---	---	---
17	8.16	8.27	---	---	---	---	8.43	---	---	8.15	---	---
18	8.17	---	8.43	---	---	---	---	---	8.15	---	---	---
19	8.19	8.28	---	---	---	---	---	---	---	---	8.13	---
20	---	---	---	---	---	---	---	---	---	8.11	---	8.35
21	---	8.28	---	---	---	---	---	---	---	---	---	---
22	8.18	---	---	---	---	---	---	---	---	---	---	---
23	---	---	8.49	---	8.37	---	---	8.15	---	---	---	8.41
24	8.18	---	---	8.38	---	---	---	---	---	8.09	8.17	---
25	---	---	---	---	---	---	---	---	8.15	---	---	---
26	8.19	---	8.45	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	8.25	8.16	8.05	8.15	---
29	8.26	---	---	---	---	8.41	---	---	---	---	---	---
30	---	---	---	---	---	---	8.35	8.29	8.13	8.03	---	8.53
31	8.26	---	---	---	---	---	---	8.32	---	---	8.11	---

WATER-QUALITY RECORDS

LOCATION.--Lat 45°45'56", long 89°48'04", in SE 1/4 sec. 24, T.38 N., R.5 E., Oneida County, Hydrologic Unit 07070001, near center of lake, and 4.8 mi southwest of Hazelhurst.

PERIOD OF RECORD.--April to September 1985

REMARKS.--Secchi disc readings made by Dale Jalinski.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 3.7 meters, May 22, 26, 27; minimum transparency, 2.3 meters, July 27.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
APR. 28	2.7	MAY 22	3.7	JUNE 10	2.9	JULY 6	2.7	AUG. 10	2.6	AUG. 30	2.7
MAY 5	2.7	MAY 23	3.4	JUNE 11	2.4	JULY 14	2.7	AUG. 11	2.4	SEPT. 1	2.7
MAY 11	2.9	MAY 26	3.7	JUNE 16	2.7	JULY 21	2.6	AUG. 18	2.4	SEPT. 20	3.0
MAY 12	2.7	MAY 27	3.7	JUNE 23	2.7	JULY 27	2.3	AUG. 25	2.6	SEPT. 30	3.2
MAY 18	3.0	JUNE 2	3.4	JUNE 29	2.4	AUG. 4	2.6				

WISCONSIN RIVER BASIN

05393500 SPIRIT RIVER AT SPIRIT FALLS, WI

LOCATION.--Lat 45°26'58", long 89°58'47", in NW 1/4 sec.10, T.34 N., R.4 E., Lincoln County, Hydrologic Unit 07070001, on right bank 40 ft downstream of bridge 0.2 mi south of Spirit Falls, 0.6 mi upstream from Squaw Creek, and 2.0 mi downstream from Richie Creek.

DRAINAGE AREA.--81.6 mi².

PERIOD OF RECORD.--April 1942 to current year.

REVISED RECORDS.--WSP 1308: 1943(M), 1948-50(M). WDR WI-77-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,461.63 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 4, 1982, nonrecording gage 40 ft upstream at same datum.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in table below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--43 years, 86.6 ft³/s, 14.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,180 ft³/s Sept. 18, 1942, gage height, 10.00 ft, from rating curve extended above 2,500 ft³/s; minimum observed, 1.0 ft³/s Aug. 11, 1964, gage height, 0.85 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Mar. 29	----	A 1,000	B *6.78	Sept. 9	0300	*1,860	6.63
Apr. 14	0500	860	4.98	Sept. 30	2400	1,170	5.60
Apr. 24	1700	935	5.13				

A Estimated, daily mean discharge
B Ice Jam

Minimum discharge, 6.7 ft³/s Aug. 4, gage height, 1.19 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Nov. 15 to Apr. 2.)

1.2	6.9	2.5	112
1.3	9.7	3.0	200
1.5	18	4.0	470
1.8	36	5.0	870
2.1	64	6.0	1,400
		7.0	2,160

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	165	60	74	12	40	340	126	41	56	8.8	30
2	40	151	54	64	12	54	350	106	40	64	8.3	24
3	49	119	52	56	12	64	310	91	35	44	8.0	28
4	35	106	50	52	11	48	306	80	29	49	7.2	42
5	28	96	49	52	11	43	305	71	26	88	7.2	35
6	24	82	48	48	11	40	258	85	23	113	7.6	33
7	27	75	48	43	11	44	249	109	20	93	7.6	29
8	74	89	48	40	11	48	210	91	19	66	7.8	981
9	75	91	50	36	11	52	171	75	17	49	17	1580
10	65	94	52	32	10	58	181	314	14	41	164	806
11	52	89	52	28	10	64	302	426	14	32	144	397
12	45	79	54	25	10	70	445	271	13	26	93	229
13	41	81	52	23	10	76	673	178	12	23	205	149
14	39	69	52	23	10	72	830	130	11	21	145	119
15	37	100	52	21	10	66	727	176	13	18	85	91
16	52	98	100	20	11	64	702	201	15	16	58	73
17	124	86	200	20	11	60	590	175	14	15	42	66
18	145	70	210	20	12	60	538	135	18	16	43	59
19	134	58	150	19	12	68	520	105	18	16	38	51
20	126	47	110	18	13	78	515	87	15	14	33	46
21	98	40	82	17	15	84	448	73	14	13	28	46
22	81	38	72	16	17	92	360	61	32	11	25	45
23	69	36	64	16	24	120	397	52	33	10	56	98
24	60	35	60	15	34	130	838	45	25	10	116	491
25	56	35	58	15	41	120	720	40	20	13	95	544
26	61	38	56	14	37	140	450	52	17	11	68	345
27	75	50	54	14	34	200	310	59	37	9.6	50	233
28	226	90	64	13	32	500	237	50	222	9.6	41	172
29	185	78	90	13	---	1000	186	40	161	11	37	213
30	136	64	100	13	---	660	147	36	86	9.8	39	827
31	116	---	86	12	---	400	---	36	---	9.4	37	---
TOTAL	2419	2349	2329	872	455	4615	12615	3576	1054	977.4	1721.5	7882
MEAN	78.0	78.3	75.1	28.1	16.3	149	421	115	35.1	31.5	55.5	263
MAX	226	165	210	74	41	1000	838	426	222	113	205	1580
MIN	24	35	48	12	10	40	147	36	11	9.4	7.2	24
CFSM	.96	.96	.92	.34	.20	1.83	5.16	1.41	.43	.39	.68	3.22
IN.	1.10	1.07	1.06	.40	.21	2.10	5.75	1.63	.48	.45	.78	3.59
CAL YR 1984	TOTAL	27088.6	MEAN	74.0	MAX	712	MIN	8.1	CFSM	.91	IN	12.35
WTR YR 1985	TOTAL	40864.9	MEAN	112	MAX	1580	MIN	7.2	CFSM	1.37	IN	18.63

WISCONSIN RIVER BASIN

05394500 PRAIRIE RIVER NEAR MERRILL, WI

LOCATION.--Lat 45°14'09", long 89°38'59", on line between secs.20 and 29, T.32 N., R.7 E., Lincoln County, Hydrologic Unit 07070002, on left bank 40 ft upstream from bridge on County Trunk Highway C, 1.5 mi upstream from Meadow Creek, 4.5 mi northeast of Merrill, and 8.0 mi upstream from mouth.

DRAINAGE AREA.--184 mi².

PERIOD OF RECORD.--January 1914 to September 1931, August 1939 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1308: 1915-17(M), 1919-21(M), 1923-31(M), 1942-43(M), 1945(M), 1948-50(M). WDR WI-77-1: Drainage area. WDR WI-79-1: 1972.

GAGE.--Water-stage recorder. Datum of gage is 1,297.22 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 9, 1968, nonrecording gage 40 ft downstream at same datum.

REMARKS.--Estimated daily discharges: none, except for ice periods listed in table below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--63 years (1914-31, 1939-85), 180 ft³/s, 13.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,800 ft³/s Aug. 31, 1941, gage height, 9.45 ft, from flood marks, based on rating curve extended above 2,200 ft³/s; minimum observed, 34 ft³/s Oct. 26, 1947, gage height, 1.39 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 710 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Mar. 28	2200	*900	4.66	Sept. 9	2200	826	4.49
Apr. 24	1500	830	4.50	Sept. 30	2400	R 925	*4.71

R Stage rising, peak occurred Oct. 1, 1985.

Minimum daily, 77 ft³/s July 23 to Aug. 3.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 1 to Mar. 8.)

2.0	75	4.0	630
2.1	90	5.0	1,070
2.4	141		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	347	160	150	88	110	347	257	216	89	84	119
2	99	395	130	130	88	130	373	220	202	110	79	114
3	89	345	110	120	90	120	348	198	180	98	77	104
4	85	278	100	120	96	120	388	189	161	112	78	107
5	83	246	90	130	94	110	421	180	145	115	78	105
6	87	215	94	130	96	110	375	203	133	115	79	114
7	97	192	100	120	98	110	370	227	125	106	93	115
8	151	188	110	110	94	120	331	201	123	98	88	468
9	148	192	130	110	94	127	266	190	118	92	91	788
10	118	273	140	110	96	136	272	221	110	89	214	737
11	126	259	160	110	98	150	324	258	105	85	217	507
12	124	204	150	100	96	145	403	251	104	84	210	337
13	139	188	140	110	94	151	488	230	106	84	432	239
14	154	197	140	110	96	139	554	208	110	84	370	190
15	147	210	140	96	94	136	564	306	117	86	274	161
16	152	201	160	100	94	140	574	350	114	87	195	145
17	228	204	230	100	94	134	602	342	114	81	149	144
18	287	184	210	96	96	136	616	318	132	84	132	137
19	336	179	180	90	96	159	653	279	128	86	122	129
20	343	142	150	86	96	196	739	234	118	83	112	121
21	300	131	140	90	98	214	752	200	109	80	105	114
22	246	134	130	92	100	225	739	174	141	78	100	135
23	208	141	120	94	110	270	690	156	143	77	135	285
24	189	134	120	98	120	239	805	140	127	85	221	577
25	160	137	110	100	100	229	748	136	110	100	239	586
26	158	142	110	96	130	290	607	212	103	94	213	541
27	186	169	120	100	100	632	486	359	107	90	196	460
28	359	233	130	98	100	844	391	336	109	87	150	362
29	376	223	190	98	---	852	334	263	99	89	139	373
30	320	191	180	98	---	690	287	216	93	85	133	793
31	265	---	160	94	---	508	---	203	---	87	128	---
TOTAL	5873	6274	4334	3286	2746	7672	14847	7257	3802	2820	4933	9107
MEAN	189	209	140	106	98.1	247	495	234	127	91.0	159	304
MAX	376	395	230	150	130	852	805	359	216	115	432	793
MIN	83	131	90	86	88	110	266	136	93	77	77	104
CFSM	1.03	1.14	.76	.58	.53	1.34	2.69	1.27	.69	.50	.86	1.65
IN.	1.19	1.27	.88	.66	.56	1.55	3.00	1.47	.77	.57	1.00	1.84
CAL YR 1984	TOTAL	62347	MEAN 170	MAX 1010	MIN 81	CFSM .92	IN 12.60					
WTR YR 1985	TOTAL	72951	MEAN 200	MAX 852	MIN 77	CFSM 1.09	IN 14.75					

WISCONSIN RIVER BASIN

171

05395000 WISCONSIN RIVER AT MERRILL, WI

LOCATION.--Lat 45°10'41", long 89°40'52", on line between secs.12 and 13, T.31 N., R.6 E., Lincoln County, Hydrologic Unit 07070002, on left bank 300 ft downstream from U.S. Highway 51 bridge at east end of Merrill, and 0.5 mi downstream from Prairie River.

DRAINAGE AREA.--2,760 mi².

PERIOD OF RECORD.--November 1902 to current year.

REVISED RECORDS.--WSP 1308: 1904-7, 1909-11, 1913. WSP 1508: 1908, 1915-16(M), 1917, 1920-21(M), 1925(M), 1930, 1935-36. WDR WI-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,228.85 ft above National Geodetic Vertical Datum of 1929. Prior to June 18, 1903, nonrecording gage at different datum. June 18, 1903, to Sept. 10, 1914, nonrecording gage at present datum.

REMARKS.--Estimated daily discharges: Oct. 1-3, 5, 8, 11, 12, Dec. 5-8, 12, 13, 16-20, Dec. 22 to Jan. 1, Jan. 3 to Mar. 7. Records good. Flow regulated by 20 reservoirs and 9 powerplants upstream from station. Gage-height telemeter at station.

AVERAGE DISCHARGE.--82 years, 2,684 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,400 ft³/s Aug. 31, 1941, gage height, 18.26 ft from rating curve extended above 20,000 ft³/s; minimum, about 90 ft³/s Sept. 26, 1908, gage height, 2.45 ft.

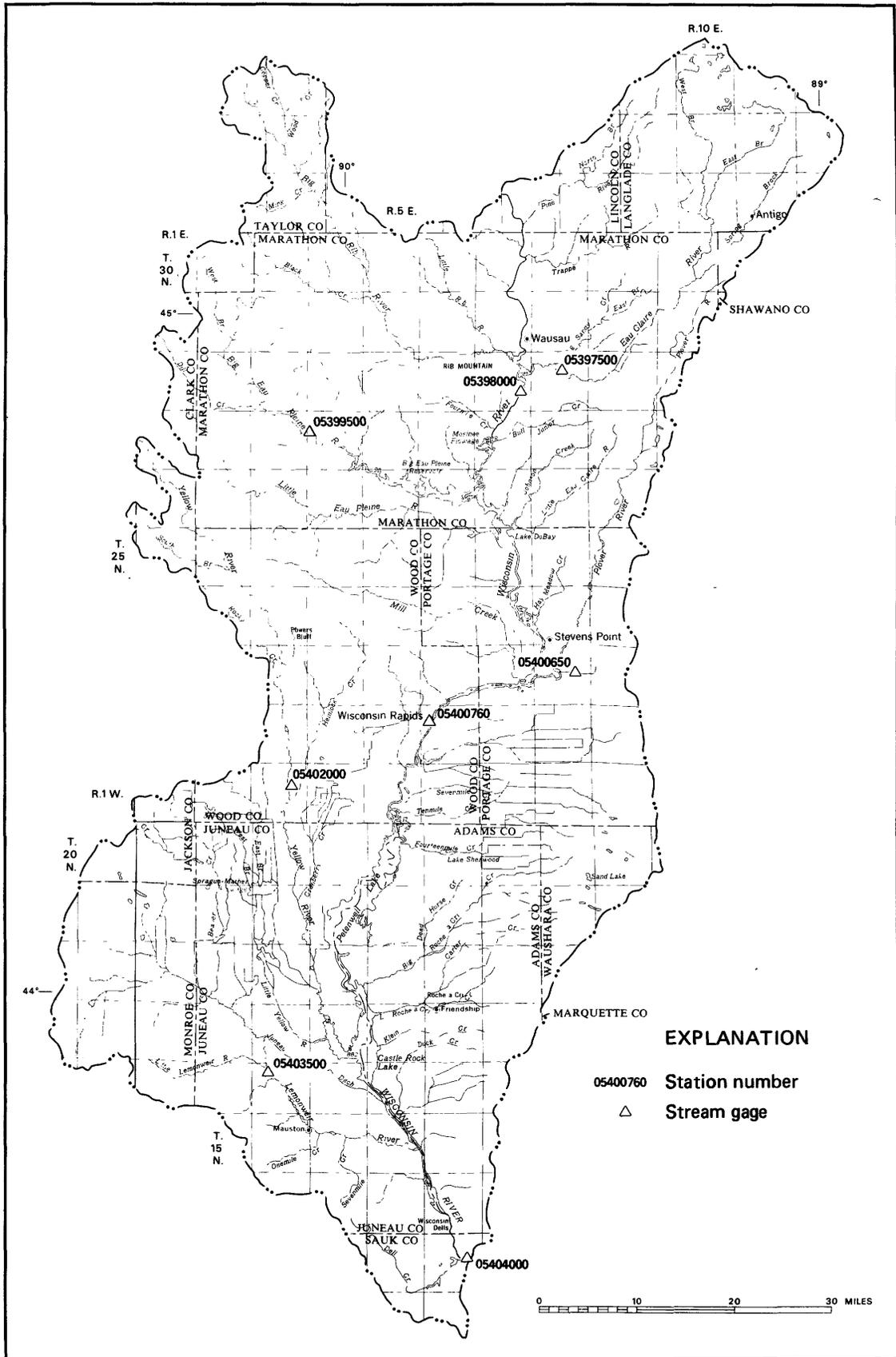
EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,000 ft³/s Sept. 9, gage height, 10.38 ft; minimum daily, 1,430 ft³/s Aug. 3.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5-8, 16-20, Dec. 22 to Jan. 1, and Jan. 3 to Mar. 7.)

4.3	1,340	8.0	7,640
5.0	2,120	10.0	12,900
6.0	3,640		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2100	3730	2350	3500	2300	2600	4620	3970	3610	1920	1640	1760
2	2300	3530	2270	2940	2100	2700	3330	3620	3780	2090	1710	1900
3	2500	3500	2360	2600	2000	2700	3760	3130	4020	1880	1430	1970
4	2280	3000	2180	2700	2100	2300	4500	3280	3360	2050	1920	2160
5	2100	2590	2300	2400	2200	2400	4550	2590	3030	2570	1740	1880
6	2150	2630	2500	2500	2100	2300	4080	2620	2980	3260	1760	1800
7	1850	2320	2700	2600	2100	2100	3690	2800	2210	2580	1710	2000
8	2400	2600	2600	2700	2200	2180	3440	2280	2140	1770	1720	6550
9	2290	2630	2520	2600	2200	2440	3230	2440	2310	1860	1860	11900
10	2130	3260	2840	2500	2200	2710	2720	2930	1850	2150	3560	9960
11	2000	2620	2610	2500	2300	2900	3140	4800	2330	2210	2990	6100
12	1800	2370	2600	2600	2500	2620	4370	3230	1980	2100	2550	3410
13	1670	2130	2200	2400	2400	2620	4980	3060	2020	1780	3980	2450
14	1600	2280	2630	2500	2300	2510	5990	3030	1840	2010	3580	2810
15	1830	2850	2260	2600	2300	2490	6560	3800	2240	2060	2910	2530
16	1860	2470	2400	2500	2000	2510	5450	4300	1960	1990	2020	2230
17	2720	2500	3200	2500	2000	2610	5730	4000	2080	1830	1870	2420
18	2550	2180	3300	2400	2100	2330	6000	4120	2440	1890	1870	2330
19	2720	2140	3200	2100	2100	2330	5460	3400	2030	1990	1750	2340
20	2210	2200	3200	2100	2300	3080	5880	2850	1750	1890	1920	2290
21	2010	2270	2670	2400	2400	3010	5990	2880	2050	1960	1850	2290
22	2330	2400	2900	2400	2400	2760	5820	2490	2410	1820	2000	2220
23	1900	2180	2700	2200	2500	3200	6730	2470	1930	1960	2020	3220
24	2090	1950	2500	2400	2500	3260	8150	2170	1780	2150	2570	6680
25	1860	2250	2400	2400	2600	2900	8660	2230	1840	2170	2150	6660
26	2050	2230	2500	2700	2700	3170	6750	2540	2100	1770	1670	6360
27	2770	2560	2700	2800	2200	5150	5580	3440	2140	1860	2020	5000
28	3670	2880	2800	2600	2400	6770	4480	3530	2400	1630	2240	4560
29	3540	2510	2900	2300	---	8960	4850	3140	2440	1970	2070	4710
30	3220	2400	3000	2000	---	8410	4200	3100	1910	1630	2200	9630
31	2870	---	3200	2200	---	6170	---	3440	---	1610	1900	---
TOTAL	71370	77160	82490	77640	63500	104190	152690	97680	70960	62410	67180	122120
MEAN	2302	2572	2661	2505	2268	3361	5090	3151	2365	2013	2167	4071
MAX	3670	3730	3300	3500	2700	8960	8660	4800	4020	3260	3980	11900
MIN	1600	1950	2180	2000	2000	2100	2720	2170	1750	1610	1430	1760
CAL YR 1984	TOTAL	909820	MEAN	2486	MAX	10200	MIN	1240				
WTR YR 1985	TOTAL	1049390	MEAN	2875	MAX	11900	MIN	1430				



Base from U.S. Geological Survey State base map, 1968

CENTRAL WISCONSIN RIVER BASIN

WISCONSIN RIVER BASIN

173

05397500 EAU CLAIRE RIVER AT KELLY, WI

LOCATION.--Lat 44°55'06", long 89°33'00", on line between secs.9 and 10, T.28 N., R.8 E., Marathon County, Hydrologic Unit 07070002, on right bank 50 ft downstream from County Highway SS bridge, 0.7 mi northeast of Kelly, 1.3 mi upstream from Big Sandy Creek, 4.5 mi upstream from mouth, and 5.0 mi southeast of Wausau.

DRAINAGE AREA.--375 mi².

PERIOD OF RECORD.--January 1914 to November 1926, August 1939 to current year.

REVISED RECORDS.--WSP 1508: 1915, 1916-17(M), 1919-26(M), 1940(M), 1945(M), 1950(M). WDR WI-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,177.88 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 17, 1953, nonrecording gage at same site at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: None, except for ice period listed in table below. Records good except those for ice-affected period, which are fair.

AVERAGE DISCHARGE.--58 years, 252 ft³/s, 9.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,300 ft³/s Aug. 21, 1926, gage height, 8.4 ft from graph based on gage readings, from rating curve extended above 6,000 ft³/s; maximum gage height, 9.45 ft Mar. 24, 1979, ice jam; minimum observed, 8.0 ft³/s July 17, 1944, gage height, 0.17 ft, probably result of temporary regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Dec. 29	1600	ice jam	*5.22	Sept. 30	1800	1,800	4.67
Mar. 29	1300	*1,860	4.76				

Minimum daily discharge, 78 ft³/s Aug. 4, but may have been less during period of ice effect.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 19 to Mar. 22.)

0.9	74	2.0	405
1.1	100	3.0	900
1.5	207	5.0	2,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	1140	240	260	94	250	596	357	225	94	84	277
2	127	918	230	240	86	340	558	315	238	95	83	219
3	121	699	220	230	84	320	565	283	216	96	81	191
4	127	556	220	230	82	300	722	263	191	101	78	180
5	113	451	210	230	80	280	816	244	176	128	86	169
6	104	386	210	220	80	260	852	245	159	137	88	157
7	118	333	220	220	80	270	833	284	146	130	93	140
8	293	341	250	210	82	310	722	276	136	119	90	143
9	298	337	270	200	80	360	567	247	124	107	88	373
10	231	459	260	190	80	440	504	230	110	101	179	523
11	191	429	250	180	80	500	566	241	104	106	209	481
12	304	357	260	180	80	600	732	246	102	107	172	332
13	417	299	280	180	82	520	824	228	98	102	913	245
14	295	304	290	170	84	360	851	229	97	97	639	200
15	255	379	280	170	82	290	844	294	101	91	438	177
16	421	372	310	160	88	260	825	391	115	87	271	158
17	864	312	370	150	92	270	786	468	124	86	189	146
18	728	290	430	150	100	300	843	482	124	86	176	146
19	1080	270	410	140	96	330	872	432	131	86	173	183
20	831	250	340	130	110	400	918	344	124	85	149	169
21	626	220	310	130	120	500	959	270	114	83	130	148
22	479	200	290	130	140	620	934	221	138	81	119	170
23	372	180	280	130	170	774	995	195	137	79	123	365
24	311	170	260	130	210	754	1110	178	130	84	153	691
25	299	190	250	120	250	669	1180	164	118	101	498	721
26	460	220	260	120	240	670	1080	170	109	108	640	859
27	435	250	270	120	220	1090	784	271	110	99	522	751
28	577	310	300	110	210	1640	593	330	111	89	370	575
29	591	310	340	110	---	1800	480	266	107	88	401	509
30	607	270	310	110	---	1450	409	226	100	86	557	1500
31	487	---	280	100	---	975	---	216	---	87	368	---
TOTAL	12298	11202	8700	5150	3282	17902	23320	8606	4015	3026	8160	10898
MEAN	397	373	281	166	117	577	777	278	134	97.6	263	363
MAX	1080	1140	430	260	250	1800	1180	482	238	137	913	1500
MIN	104	170	210	100	80	250	409	164	97	79	78	140
CFSM	1.06	1.00	.75	.44	.31	1.54	2.07	.74	.36	.26	.70	.97
IN.	1.22	1.11	.86	.51	.33	1.78	2.31	.85	.40	.30	.81	1.08
CAL YR 1984	TOTAL	102306	MEAN 280	MAX 2200	MIN 76	CFSM .75	IN 10.15					
WTR YR 1985	TOTAL	116559	MEAN 319	MAX 1800	MIN 78	CFSM .85	IN 11.56					

WISCONSIN RIVER BASIN

05398000 WISCONSIN RIVER AT ROTHSCHILD, WI

LOCATION.--Lat 44°53'09", long 89°38'05", in sec.26, T.28 N., R.7 E., Marathon County, Hydrologic Unit 07070002, on left bank at Rothschild, 0.5 mi downstream from Rothschild Dam, 1.7 mi north of bridge on U.S. Highway 51, 2.0 mi downstream from Eau Claire River, and 5.0 mi upstream from Black Creek.

DRAINAGE AREA.--4,020 mi².

PERIOD OF RECORD.--October 1944 to current year.

REVISED RECORDS.--WDR WI-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,125.86 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1975, at datum 10.00 ft higher. Auxiliary water-stage recorder in Mosinee Pond 8 mi downstream. Prior to July 23, 1964, nonrecording auxiliary gage at same site and datum, read hourly.

REMARKS.--Estimated daily discharges: None, except for ice-affected periods, Dec. 6-9, 13, 14, 22, and Dec. 25 to Mar. 19. Records good. Flow regulated by 20 reservoirs and 12 powerplants upstream from station.

AVERAGE DISCHARGE.--41 years, 3,542 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,200 ft³/s Apr. 12, 1965, Mar. 31, 1967, gage height, 18.46 ft, datum then in use; minimum daily, 670 ft³/s Dec. 9, 1976.

EXTREMES OUTSIDE THE PERIOD OF RECORD.--Flood of Sept. 1, 1941, reached stage of 22.3 ft, datum then in use, from tailwater data at Rothschild dam, discharge, 75,000 ft³/s from rating curve extended above 45,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,700 ft³/s Sept. 30, gage height, 21.70 ft; minimum daily, 1,510 ft³/s Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2040	8280	3660	5600	2400	3400	7740	5630	4100	2840	1810	2740
2	2150	8920	3040	4400	2400	4600	6820	5330	5040	2870	1820	2450
3	2260	6880	2800	3400	2200	4300	6720	4640	4880	3000	1510	2440
4	2330	6010	2810	2800	2100	3800	9800	4440	4410	2670	1630	2820
5	1950	4890	2440	2500	2300	3300	9720	4350	3830	3370	2290	2900
6	2090	4580	2700	2700	2100	2900	8320	3980	3690	4590	2050	2280
7	2290	4290	2900	3000	2000	2700	7940	3970	3200	3860	2030	2460
8	3940	4120	3200	3000	2000	2600	6980	3590	2540	3100	1900	4810
9	3810	4610	3400	2900	2100	2500	6100	3520	3060	2410	1820	12700
10	3240	6190	3450	2800	2200	2900	5640	3790	2320	2370	3880	14600
11	2900	5960	3650	3000	2300	4500	6420	5540	2880	2410	4630	9200
12	2880	4480	3420	2900	2400	4400	7450	4670	2670	2570	3330	5920
13	3740	4020	3100	2800	2400	4200	9240	4350	2500	2400	8280	3460
14	2800	3630	3200	2800	2500	4000	10200	4160	2500	2120	7290	3650
15	2820	5300	3170	2700	2400	3700	11500	5820	2670	2390	5070	3640
16	3540	4960	3920	2600	2300	3600	9130	6470	2800	2420	3280	3090
17	6200	4140	8210	2600	2100	3800	9030	6200	2880	2130	2820	3010
18	6650	3620	7100	2600	2000	4000	9490	5970	3240	1690	2640	2850
19	7710	3260	5620	2500	2100	4600	9060	5500	3310	2590	2400	3020
20	7130	3040	5140	2400	2200	6930	9110	4110	2490	2070	2470	3130
21	4870	2970	4030	2400	2400	6960	9700	3880	2680	2130	2360	2690
22	4470	3220	3800	2500	2600	6640	9830	3580	3230	2160	2380	3110
23	3820	3150	3900	2400	2900	7440	9430	3400	3270	2080	2610	4490
24	3430	2900	3670	2800	3300	7090	14000	3070	2330	2360	2980	11500
25	3260	3020	3500	2500	3700	6290	14700	2900	2360	2590	3510	11600
26	4250	3120	3200	2500	3700	6900	11700	2850	2790	2320	3450	10200
27	4650	3760	3200	2700	3400	10600	8880	4030	3140	2260	2830	9320
28	8640	5180	3900	2600	2800	16800	7210	4630	3520	1910	3510	7320
29	7470	4430	6400	2300	---	17400	7080	4410	3740	1910	3230	6760
30	6460	3790	6000	2100	---	15400	6690	3880	3650	2130	3940	15800
31	5310	---	5000	2000	---	11500	---	4360	---	1750	3450	---
TOTAL	129100	136720	123530	86800	69300	189750	265630	137020	95720	77470	97200	173960
MEAN	4165	4557	3985	2800	2475	6121	8854	4420	3191	2499	3135	5799
MAX	8640	8920	8210	5600	3700	17400	14700	6470	5040	4590	8280	15800
MIN	1950	2900	2440	2000	2000	2500	5640	2850	2320	1690	1510	2280
CAL YR 1984	TOTAL	1365850	MEAN	3732	MAX	22500	MIN	1310				
WTR YR 1985	TOTAL	1582200	MEAN	4335	MAX	17400	MIN	1510				

WISCONSIN RIVER BASIN

05399500 BIG EAU PLEINE RIVER NEAR STRATFORD, WI

LOCATION.--Lat 44°49'19", long 90°04'46", on line between sec.13, T.27 N., R.3 E., and sec.18, T.27 N., R.4 E., Marathon County, Hydrologic Unit 07070002, on left bank 15 ft upstream from bridge on State Highway 97, 1.0 mi north of Stratford, and 1.4 mi downstream from small tributary.

DRAINAGE AREA.--224 mi².

PERIOD OF RECORD.--July 1914 to December 1925, April 1937 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1308: 1917, 1920-22, 1926, 1946, 1948, 1950. WSP 1508: 1915-25(M), 1937, 1946(M), 1948(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,154.24 ft above National Geodetic Vertical Datum of 1929. July 24, 1914, to Dec. 31, 1925, nonrecording gage at site 0.5 mi upstream at different datum. Apr. 30, 1937, to Sept. 15, 1938, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Ice-affected period listed in rating table below and Apr. 10, 11. Records good except those for ice-affected period, which are fair.

AVERAGE DISCHARGE.--59 years (1914-25, 1937-85), 176 ft³/s, 10.67 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,000 ft³/s Sept. 9, 1938, gage height, 24.5 ft, from floodmarks, based on rating curve extended above 24,000 ft³/s; no flow Aug. 17, 1947, Jan. 22 to Feb. 5, 1961.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of June 5, 1914, reached a stage of 20.7 ft, from floodmarks; discharge, 40,000 ft³/s, former site and datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Apr. 2	2215	3,120	10.31	Sept. 30	0600	*4,780	*12.11
Aug. 13	0200	2,970	9.54				

Minimum discharge, 3.5 ft³/s, July 24.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Rate of change in stage used as factor Oct. 18, 20, 27, 28, 29, Nov. 2, 9, 11, Apr. 2, 23, 25, Aug. 12, 14, and Sept. 8, 10, 23, 25, 27, 29; shifting-control method used July 1 to Aug. 11 and Aug. 17-23; stage-discharge relation affected by ice Nov. 27 to Mar. 30.)

2.4	3.8	5.0	383
2.5	7.7	6.0	670
2.7	18	8.0	1,540
3.0	41	10.0	2,840
3.5	93	12.0	4,630
4.0	165		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	1320	82	78	21	100	214	79	13	136	7.0	59
2	20	565	74	68	21	120	1110	67	14	82	5.7	41
3	19	317	68	60	20	140	1680	57	14	55	4.5	32
4	17	203	62	56	20	120	1130	50	12	39	4.0	149
5	16	148	54	50	20	110	768	43	11	30	4.6	107
6	16	112	49	47	19	98	541	42	9.5	26	20	54
7	25	94	45	43	19	86	356	42	9.1	22	13	55
8	84	128	44	40	19	80	230	38	10	19	7.1	369
9	51	212	47	37	19	90	186	52	9.5	16	11	926
10	42	1680	50	35	19	100	220	67	7.1	14	19	400
11	40	708	46	33	19	200	236	44	6.5	12	55	201
12	42	387	42	30	19	220	591	29	5.7	11	122	129
13	39	235	45	29	19	190	732	23	4.9	9.4	2010	84
14	33	204	52	28	19	170	610	27	4.4	8.4	816	62
15	50	407	60	27	19	160	448	129	9.3	7.3	327	48
16	128	260	180	26	19	250	331	96	10	6.1	158	40
17	757	169	400	25	19	330	260	69	8.6	5.4	92	34
18	407	124	290	24	21	480	225	52	9.0	6.0	74	30
19	731	96	200	24	23	660	204	40	8.3	6.4	98	28
20	399	84	140	24	25	940	202	32	7.7	5.8	71	26
21	232	53	110	24	35	780	434	26	7.6	5.2	52	25
22	139	43	98	24	46	620	358	21	8.3	4.4	43	38
23	97	39	84	25	62	490	824	18	9.4	3.9	45	1130
24	76	37	76	25	84	420	1650	16	8.6	5.6	40	1690
25	84	36	72	24	110	600	757	15	9.5	12	54	824
26	145	40	70	24	98	1500	383	14	7.4	15	47	962
27	648	100	80	23	88	1000	216	13	11	22	35	468
28	1310	240	110	22	78	680	149	11	188	17	61	278
29	520	140	190	22	---	440	114	10	302	14	185	672
30	295	94	130	22	---	300	92	9.6	229	10	154	3890
31	212	---	90	21	---	242	---	11	---	8.7	97	---
TOTAL	6697	8275	3140	1040	1000	11716	15251	1242.6	964.4	634.6	4731.9	12851
MEAN	216	276	101	33.5	35.7	378	508	40.1	32.1	20.5	153	428
MAX	1310	1680	400	78	110	1500	1680	129	302	136	2010	3890
MIN	16	36	42	21	19	80	92	9.6	4.4	3.9	4.0	25
CFSM	.96	1.23	.45	.15	.16	1.69	2.27	.18	.14	.09	.68	1.91
IN.	1.11	1.37	.52	.17	.17	1.95	2.53	.21	.16	.11	.79	2.13
CAL YR 1984 TOTAL	72352.7					3660	MIN 5.9	CFSM .88	IN 12.02			
WTR YR 1985 TOTAL	67543.5					3890	MIN 3.9	CFSM .83	IN 11.22			

WISCONSIN RIVER BASIN

05400650 LITTLE PLOVER RIVER AT PLOVER, WI

LOCATION.--Lat 44°28'26", long 89°31'44", in SW 1/4 sec.14, T.23 N., R.8 E., Portage County, Hydrologic Unit 07070003, on right bank at bridge on town road, 1.0 mi northeast of Plover and 1.2 mi upstream from mouth.

DRAINAGE AREA.--19.0 mi², of which 7.33 mi² probably is noncontributing.

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

REVISED RECORDS.--WDR WI-76-1: Drainage area.

GAGE.--Water-stage recorder and parshall flume. Datum of gage is 1,068.34 ft above National Geodetic Vertical Datum of 1929. Prior to May 1960, nonrecording gage at same site and datum 0.88 ft lower.

REMARKS.--Estimated daily discharges: Jan. 20-23, Feb. 21-26, and ice periods listed in rating table below. Records good.

AVERAGE DISCHARGE.--26 years, 10.5 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 105 ft³/s Nov. 1, 1984, gage height, 3.19 ft; minimum, 1.4 ft³/s Nov. 16, 1974, gage height, 0.28 ft, result of temporary dam at flume entrance.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 22 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 8	0415	63	2.63	Mar. 11	0100	44	2.32
Nov. 1	1100	*105	*3.19	Mar. 12	2315	53	2.47

NOTE.--Eleven additional peaks ranging from 23 to 36 ft³/s were not listed.

Minimum, 7.5 ft³/s Aug. 9, gage height, 0.80 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Jan. 1, 18, 27, and 29.)

0.8	7.3	2.5	54
1.0	10	3.0	90
1.5	20	3.2	106
2.0	32		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	76	19	17	14	20	21	17	15	11	8.6	10
2	13	57	19	17	13	19	21	16	15	11	8.4	9.9
3	13	42	18	15	13	17	25	17	15	11	8.3	9.9
4	12	25	18	15	13	15	27	17	15	13	8.2	9.9
5	12	24	18	15	13	17	26	17	15	13	8.4	10
6	12	22	18	15	12	14	27	17	14	12	8.3	10
7	18	22	18	16	12	15	24	17	14	12	8.3	11
8	46	23	18	16	12	15	21	16	14	12	7.8	9.6
9	22	23	18	16	12	18	21	16	14	11	7.7	11
10	19	26	18	16	12	23	21	16	14	11	8.3	10
11	18	23	18	15	12	36	21	16	14	11	7.8	9.9
12	18	21	19	15	12	33	23	16	13	10	10	9.6
13	18	21	19	16	11	35	22	16	13	10	12	9.4
14	18	21	18	16	11	23	22	16	13	10	10	9.4
15	18	21	18	15	11	22	21	23	14	10	9.7	9.3
16	22	20	24	15	11	22	20	19	14	9.9	9.4	9.1
17	27	20	25	15	11	21	20	18	14	9.8	9.4	9.3
18	22	19	20	15	11	20	20	17	13	9.8	9.3	9.3
19	31	19	19	15	11	21	20	17	13	9.7	9.6	9.1
20	23	18	18	15	11	21	19	17	12	9.4	9.6	9.0
21	20	18	19	15	14	20	19	16	13	9.4	8.5	9.0
22	19	18	18	15	19	21	18	16	14	9.0	8.5	11
23	18	19	18	15	25	21	19	16	13	8.7	8.7	13
24	18	19	17	15	23	21	20	16	12	9.9	9.2	13
25	18	19	17	15	21	21	19	16	12	11	12	11
26	18	19	17	14	19	22	18	17	11	9.8	10	13
27	19	21	17	14	17	26	17	16	11	9.6	9.9	12
28	24	21	23	14	17	25	17	16	12	9.4	9.7	11
29	20	19	26	14	---	23	17	15	11	9.1	10	13
30	19	19	18	14	---	21	17	15	12	8.8	12	20
31	19	---	17	14	---	22	---	16	---	8.9	11	---
TOTAL	607	735	587	469	393	670	623	516	399	320.2	288.6	320.7
MEAN	19.6	24.5	18.9	15.1	14.0	21.6	20.8	16.6	13.3	10.3	9.31	10.7
MAX	46	76	26	17	25	36	27	23	15	13	12	20
MIN	12	18	17	14	11	14	17	15	11	8.7	7.7	9.0
CAL YR 1984	TOTAL	5355.7	MEAN	14.6	MAX	76	MIN	7.4				
WTR YR 1985	TOTAL	5928.5	MEAN	16.2	MAX	76	MIN	7.7				

WISCONSIN RIVER BASIN

05400760 WISCONSIN RIVER AT WISCONSIN RAPIDS, WI

LOCATION.--Lat 44°23'41", long 89°49'31", in SW 1/4 sec.8, T.22 N., R.6 E., Wood County, Hydrologic Unit 07070003, at Consolidated Water Power Company, 0.2 mi upstream from U.S. Highway 13 bridge in Wisconsin Rapids.

DRAINAGE AREA.--5,420 mi².

PERIOD OF RECORD.--May 1914 to March 1950 (published as "near Nekoosa"), October 1957 to current year.

REVISED RECORDS.--WSP 1308: 1915(M).

GAGE.--Water-stggs recorders on headwater and tailwater. Elevation of powerplant pond is 1,010 ft and datum of powerplant gages is 0.00 ft above National Geodetic Vertical Datum of 1929 (levels by Wisconsin Valley Improvement Co.). May 1914 to March 1950, at site 9.6 mi downstream at different datum. March 1950 to Sept. 30, 1981, at Centralia Powerplant at Nekoosa Papers, Inc., 2.6 mi downstream. March 1950 to Dec. 31, 1973, datum was 887.83 ft above National Geodetic Vertical Datum. Jan. 1, 1974, changed to present datum.

REMARKS.--No estimated daily discharges. Records good for discharges greater than 2,500 ft³/s, and fair to poor for discharges less than 2,500 ft³/s. Discharge computed from powerplant records on basis of load-discharge rating of hydroelectric units as developed by manufacturer and tainter-gate ratings based on theoretical formulas. Flow regulated by 20 reservoirs and many powerplants upstream from station. Water diverted periodically from pond of Wisconsin Rapids powerplant into Cranberry Creek, a tributary of Yellow River, for cranberry culture. These diversions, in cubic feet per second, for water year October 1984 to September 1985, were as follows:

Day	Discharge (ft ³ /s)										
Oct. 5	30	July 18	100	July 31	50	Aug. 13	50	Aug. 26	50	Sept. 8	50
6	50	19	100	Aug. 1	49	14	50	27	50	9	50
7	50	20	65	2	50	15	50	28	50	10	11
8	50	21	50	3	50	16	50	29	50	20	35
9	21	22	50	4	50	17	50	30	50	21	50
July 10	35	23	50	5	50	18	50	31	50	22	50
11	50	24	50	6	50	19	50	Sept. 1	49	23	50
12	50	25	50	7	50	20	50	2	50	24	50
13	50	26	50	8	50	21	50	3	50	25	50
14	50	27	50	9	50	22	50	4	50	26	50
15	89	28	50	10	50	23	50	5	50	27	50
16	100	29	50	11	50	24	50	6	50	28	9
17	100	30	50	12	50	25	50	7	50		

COOPERATION.--Figures of daily discharges were provided by Consolidated Water Power Company and Wisconsin River Improvement Company. Records were reviewed by the Geological Survey.

AVERAGE DISCHARGE.--63 years (1914-50, 1957-85), 4,993 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,400 ft³/s Sept. 12, 1938, gage height, 19.10 ft, from rating curve extended above 58,000 ft³/s; minimum, 26 ft³/s Sept. 7, 1942; minimum daily, 165 ft³/s Aug. 12, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,100 ft³/s Mar. 29; minimum daily, 1,930 ft³/s Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2880	15500	4970	7430	3520	5840	13200	6710	4270	3310	2860	3270
2	2780	15400	4100	5720	3450	5830	9630	5810	4640	3000	2410	3130
3	2840	12600	3980	5390	3400	5740	9420	5350	4830	2890	2290	3250
4	2770	10400	3960	5030	3430	4930	14400	5020	4460	2800	2020	3350
5	2560	6850	3710	4480	3280	4600	16200	5080	4110	3560	1980	3940
6	2470	6270	3170	3760	3570	4720	15500	4870	4120	3910	1940	3490
7	2690	5640	3200	3660	3760	4720	13900	4490	3890	3470	1960	3200
8	5210	5280	3240	3850	3610	4620	11300	3980	3370	3270	1940	3440
9	5490	6580	3210	3950	3470	4410	8850	3870	2970	3130	1930	13500
10	5020	11200	3930	3940	3210	4440	6440	4430	3350	2750	3360	15700
11	4420	13100	3950	3950	3160	6950	5700	4560	3260	2530	3900	11100
12	4400	8680	4390	3590	3270	7470	9120	4880	3160	2600	4950	7300
13	4880	5950	4500	3430	3360	9150	12400	5300	3310	2520	9740	4320
14	4990	5180	4520	3590	3540	9250	14500	5430	3170	2800	10300	3710
15	5070	6270	4400	3630	3520	8490	15400	7780	3280	2690	6520	3860
16	4630	6740	5680	3460	3520	8460	13000	8950	3250	3030	4270	4110
17	8530	5490	11800	3400	3510	8350	13000	8090	3010	2980	3070	4040
18	10500	5220	12300	3600	3560	7950	13300	7650	3070	2900	2870	4110
19	11900	4530	9600	3600	3580	8110	12800	6280	3130	2520	2990	4050
20	12100	3960	6940	3590	3560	12000	12000	5420	3110	2580	3040	3890
21	9790	3680	5970	3430	3500	13300	11900	4350	2870	2690	2810	3460
22	7070	3080	5080	3370	3560	12200	12000	4150	3310	2680	2850	3080
23	5490	3240	4440	3390	4020	12300	12600	4060	3260	2190	2870	4970
24	4650	3570	4140	3190	4030	12100	18200	3870	3000	2350	2860	11800
25	4340	3570	3830	3100	5060	10700	18500	3080	2860	3190	4100	13000
26	4900	4050	3610	3170	6320	9810	16200	2970	2980	2670	3890	12900
27	7140	5060	3980	3160	6120	14400	13500	3060	2960	2520	3780	12200
28	10800	7760	5550	3320	5870	21600	10300	5180	3690	2440	3880	10800
29	9520	6590	9740	3420	---	25000	8740	5240	3500	2480	3720	8490
30	9360	6070	11400	3490	---	22700	8080	4570	3610	2560	4360	17000
31	9040	---	9080	3500	---	20200	---	4070	---	2760	4080	---
TOTAL	188230	207510	172370	119590	107760	310340	370080	158550	103800	87770	113540	204460
MEAN	6072	6917	5560	3858	3849	10010	12340	5115	3460	2831	3663	6815
MAX	12100	15500	12300	7430	6320	25000	18500	8950	4830	3910	10300	17000
MIN	2470	3080	3170	3100	3160	4410	5700	2970	2860	2190	1930	3080
CAL YR 1984	TOTAL	1991870	MEAN	5442	MAX	36300	MIN	2320				
WTR YR 1985	TOTAL	2144000	MEAN	5874	MAX	25000	MIN	1930				

WISCONSIN RIVER BASIN

05402000 YELLOW RIVER AT BABCOCK, WI

LOCATION.--Lat 44°18'05", long 90°07'15", in NW 1/4 sec.14, T.21 N., R.3 E., Wood County, Hydrologic Unit 07070003, on right bank at downstream side of bridge on State Highway 80 at Babcock, 1.9 mi upstream from Hemlock Creek.

DRAINAGE AREA.--215 mi².

PERIOD OF RECORD.--March 1944 to current year.

REVISED RECORDS.--WSP 1308: 1944(M), 1946-47(M), 1949(M). WDR WI-77-1: Drainage area. WDR WI-82-1: 1981 (P).

GAGE.--Water-stage recorder. Datum of gage is 954.75 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 28, 1948, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 4 to Mar. 21. Records fair. There is a large recreation dam about 5.0 mi upatream.

AVERAGE DISCHARGE.--41 years, 158 ft³/s, 9.98 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s Apr. 2, 1952, gage height, 17.38 ft; minimum observed, 0.94 ft³/s Aug. 11, 1985, gage height, 1.84 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Nov. 2	0015	*2,360	10.69	Mar. 13	----	A 2,100	ice jam
Dec. 17	----	A 1,700	ice jam	Mar. 28	1515	1,420	8.80
Dec. 31	----	A 1,200	ice jam	Apr. 4	1845	2,300	10.22
Mar. 12	1845	ice jam	B *11.82	Apr. 24	2030	1,940	9.72

A Estimated, daily mean discharge
B Backwater from ice

Minimum daily discharge, 1.6 ft³/s Aug. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	882	162	1000	30	400	494	143	28	35	5.2	58
2	13	1870	125	400	30	280	358	115	27	43	4.0	52
3	14	1120	106	200	29	220	361	100	25	39	2.4	36
4	16	806	90	110	29	180	1250	89	22	35	1.9	30
5	15	474	72	88	29	160	1600	78	20	37	2.1	28
6	17	280	60	76	28	150	1340	73	17	32	1.9	25
7	23	197	52	68	28	140	939	69	15	26	1.9	25
8	37	162	48	62	28	130	710	66	14	21	1.9	32
9	65	170	46	58	27	120	477	62	13	18	1.9	34
10	68	340	44	54	27	160	257	56	12	16	3.6	33
11	53	1040	42	52	27	540	262	52	11	13	1.6	45
12	48	1020	41	49	26	2000	246	51	12	11	3.9	44
13	48	701	40	47	26	2100	326	51	15	9.5	27	37
14	47	394	41	45	26	1800	505	53	12	8.8	466	31
15	51	257	44	44	26	1400	520	223	13	8.2	153	26
16	80	200	100	42	26	1100	421	517	13	8.3	133	22
17	222	154	1700	40	25	1000	327	472	13	7.0	88	132
18	420	123	1600	39	25	960	271	343	14	6.7	59	458
19	593	101	1100	38	25	940	238	106	15	5.3	42	423
20	835	77	700	37	25	900	213	107	14	4.3	33	460
21	639	64	500	36	26	860	194	190	12	3.8	26	389
22	396	56	350	36	29	745	286	113	13	3.2	23	263
23	203	48	250	35	40	670	492	76	20	3.3	20	393
24	132	43	180	35	150	636	1140	60	24	3.6	19	1020
25	100	41	140	34	500	578	1360	50	20	5.9	22	802
26	95	40	120	33	700	550	991	42	17	5.2	21	721
27	128	52	100	33	800	872	490	39	16	4.4	17	800
28	224	160	110	32	600	1390	335	35	21	3.6	16	500
29	472	285	300	32	---	1260	235	31	31	3.7	17	700
30	430	221	1100	31	---	855	176	30	35	3.1	23	1100
31	338	---	1200	31	---	694	---	28	---	3.1	34	---
TOTAL	5835	11378	10563	2917	3387	23790	16814	3520	534	427.0	1271.3	8719
MEAN	188	379	341	94.1	121	767	560	114	17.8	13.8	41.0	291
MAX	835	1870	1700	1000	800	2100	1600	517	35	43	466	1100
MIN	13	40	40	31	25	120	176	28	11	3.1	1.6	22
CFSM	.87	1.76	1.59	.44	.56	3.57	2.60	.53	.08	.06	.19	1.35
IN.	1.01	1.97	1.83	.50	.59	4.12	2.91.	.61	.09	.07	.22	1.51
CAL YR 1984	TOTAL	93635.0	MEAN	256	MAX	3990	MIN	9.0	CFSM	1.19	IN.	16.20
WTR YR 1985	TOTAL	89155.3	MEAN	244	MAX	2100	MIN	1.6	CFSM	1.13	IN.	15.43

WISCONSIN RIVER BASIN

05403500 LEMONWEIR RIVER AT NEW LISBON, WI.

LOCATION.--Lat 43°52'47", long 90°09'40", in SE 1/4 sec.8 T.16 N., R.3 E., Juneau County, Hydrologic Unit 07070003, on right bank 5 ft downstream of bridge on State Highway 80 in New Lisbon, 200 ft downstream from recreation dam and 1.2 mi upstream from Webster Creek.

DRAINAGE AREA.--507 mi².

PERIOD OF RECORD.--March 1944 to current year.

REVISED RECORDS.--WSP 1308: 1944(M), 1949-50(M). WDR WI-78-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 867.05 ft above National Geodetic Vertical Datum of 1929. Prior to May 5, 1948, nonrecording gage at site 100 ft downstream at same datum, and May 5, 1948 to Aug. 21, 1984, nonrecording gage near center of span on downstream side of bridge at same datum.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair. Occasional regulation by dam 200 ft upstream. Water diverted periodically into the basin from the Yellow and Black River basins for cranberry culture.

AVERAGE DISCHARGE.--41 years, 377 ft³/s, 10.10 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,880 ft³/s May 8, 1960, gage height, 12.94 ft from graph based on gage readings; minimum observed, 29 ft³/s June 9, 1976, gage height, 0.47 ft during period of dam repair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,260 ft³/s Mar. 14, gage height, 9.61 ft; minimum daily, 98 ft³/s July 23, 24.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 1 to Nov. 3 and July 18 to Sept. 30; stage-discharge relation affected by ice Dec. 3-8, 24-28, and Jan. 1 to Mar. 1.)

Oct. 1 to Nov. 5 (0400)				Nov. 5 (0500) to Sept. 30			
2.0	137	6.0	728	1.2	94	6.0	695
3.0	232	7.0	1,030	2.0	151	7.0	950
4.0	362	8.0	1,420	3.0	241	8.0	1,310
5.0	526	9.0	1,870	4.0	353	9.0	1,870
				5.0	505	10.0	2,530

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	212	996	518	860	240	1300	895	660	291	283	130	131
2	208	1280	498	760	240	1260	858	590	311	243	131	127
3	211	1490	400	600	240	1150	935	519	294	201	124	122
4	212	1708	370	500	240	1040	1090	465	274	183	117	121
5	207	1790	350	450	240	935	1360	419	250	175	113	141
6	197	1630	330	450	240	842	1650	371	222	168	115	172
7	230	1400	350	440	240	789	1720	331	207	164	132	176
8	337	1250	370	420	240	763	1580	307	197	160	133	172
9	452	1090	375	380	240	781	1400	284	183	152	127	246
10	420	1060	382	360	240	884	1220	259	171	145	130	282
11	364	1070	393	350	240	1180	1050	237	164	139	128	293
12	367	1090	426	350	240	1550	948	231	160	132	126	269
13	432	1120	478	320	240	1990	857	227	156	126	162	233
14	464	1110	487	320	240	2230	766	229	152	123	180	196
15	482	1050	479	310	230	2170	690	302	160	121	167	174
16	602	948	585	300	230	1980	626	419	162	116	142	161
17	708	875	801	280	230	1750	567	508	161	113	128	155
18	742	828	833	280	230	1610	522	552	157	110	119	147
19	993	750	753	280	230	1450	469	535	153	109	112	140
20	1170	663	815	270	230	1310	421	468	150	109	107	135
21	1240	577	811	260	270	1210	395	413	148	104	103	128
22	1210	489	763	260	350	1110	403	381	153	100	101	138
23	1100	434	619	260	540	1040	441	345	153	98	101	202
24	947	450	560	260	780	1010	512	301	159	98	103	286
25	839	449	500	260	1100	1010	560	267	154	122	114	367
26	767	438	410	260	1400	1000	675	256	145	159	117	396
27	721	455	450	260	1600	978	815	242	145	175	116	407
28	715	478	540	260	1400	979	851	227	178	161	113	409
29	729	497	854	260	---	1000	799	212	243	141	113	419
30	723	525	976	260	---	983	723	219	286	127	120	549
31	711	---	964	250	---	958	---	254	---	127	127	---
TOTAL	18712	28002	17440	11130	12180	38242	25798	11030	5739	4484	3851	6894
MEAN	604	933	563	359	435	1234	860	356	191	145	124	230
MAX	1240	1790	976	860	1600	2230	1720	660	311	283	180	549
MIN	197	438	330	250	230	763	395	212	145	98	101	121
CFSM	1.19	1.84	1.11	.71	.86	2.43	1.70	.70	.38	.29	.24	.45
IN.	1.37	2.05	1.28	.82	.89	2.81	1.89	.81	.42	.33	.28	.51
CAL YR 1984	TOTAL	180865	MEAN	494	MAX	1990	MIN	116	CFSM	.97	IN.	13.27
WTR YR 1985	TOTAL	183502	MEAN	503	MAX	2230	MIN	98	CFSM	.99	IN.	13.46

WISCONSIN RIVER BASIN

05404000 WISCONSIN RIVER NEAR WISCONSIN DELLS, WI

LOCATION.--Lat 43°36'22", long 89°45'25", in NW 1/4 sec.14, T.13 N., R.6 E., Sauk County, Hydrologic Unit 07070003, on right bank 0.5 mi downstream from Dell Creek and 1.8 mi southeast of Wisconsin Dells.

DRAINAGE AREA.--8,090 mi².

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WSP 1728: 1936(M). WSP 1914: 1951, 1953-55. WDR WI-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 801.48 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1963, water-stage recorder at same site at datum 5.00 ft higher.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good, except those for ice-affected periods which are fair. Flow regulated by 24 reservoirs above station. In 1938, when the maximum of record occurred, there were 22 reservoirs above station, the two large reservoirs, Petenwell and Castle Rock, were not in existence. Diurnal fluctuation is caused by powerplant of Wisconsin Power and Light Co. at Wisconsin Dells.

AVERAGE DISCHARGE.--51 years, 6,852 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,200 ft³/s Sept. 14, 1938, gage height, 23.83 ft, present datum; minimum daily, 1,060 ft³/s Aug. 19, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29,600 ft³/s Apr. 1, gage height, 12.99 ft; minimum daily, 3,030 ft³/s Aug. 11.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 3-8 and Dec. 23 to Mar. 9.)

4.0	2,960	9.0	15,100
5.0	4,920	11.0	21,800
7.0	9,530	13.0	29,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4310	15000	10100	10000	5800	6000	28800	11000	5570	5500	4040	5040
2	4160	22400	9440	8200	5400	6000	20500	10200	5740	4610	3800	4190
3	4120	20200	6600	7800	5800	6400	15100	9580	6010	4470	3630	4270
4	4110	17400	6800	7000	5600	6400	14300	8810	6060	4400	3500	4470
5	4100	17200	6800	6800	5000	6400	16100	8400	6260	4130	3530	4840
6	4160	13400	6200	6800	5200	6400	18800	9200	5430	4830	3290	4890
7	3830	11000	5800	6800	5200	6400	19700	7250	5580	4560	3580	5390
8	4660	11000	6400	6800	5200	7200	18700	8020	4890	4240	3740	5160
9	6600	11000	6880	6800	5000	8600	17300	5760	4780	4210	3450	6350
10	6850	12500	6660	7000	5000	9480	14600	6400	4530	4160	3370	12900
11	7640	19500	6590	6800	5000	9870	13000	5930	4170	3820	3030	16100
12	7550	15800	6540	5600	5000	10600	11300	5950	3930	3540	3380	14600
13	7280	11900	6810	6400	5000	11000	10600	7130	4130	3850	5700	8850
14	6910	11100	6600	6400	5000	11100	12300	6610	3970	3980	10400	5430
15	6520	10700	6910	5000	5000	11000	12800	6870	4070	3340	11400	4700
16	7030	10500	7110	6400	5000	11100	12700	8060	5400	3550	8330	4440
17	8040	10600	7620	6200	5000	11300	13800	8280	5080	3820	4680	4290
18	12600	9020	11700	6400	5000	15000	15600	8320	4890	3660	3990	4530
19	14500	8610	14000	5200	5000	14200	16300	8210	4340	3480	3520	4530
20	15500	7110	12700	5400	5000	14300	16300	9060	4350	3460	3580	4460
21	16100	6740	11300	6400	5000	13400	15300	7830	4440	3590	3680	4450
22	16200	6490	10000	6600	5000	12300	14900	8260	4200	3330	3680	4320
23	13000	6120	8000	6800	5000	13400	14900	8400	4050	3170	3870	4380
24	9430	6570	6800	6800	5000	13900	15300	8020	4220	3180	3710	7580
25	8150	6170	6600	6200	5200	13900	20300	6430	4180	5030	3740	12300
26	8780	6150	6600	5800	5400	14200	19600	5890	4310	5340	5440	13600
27	8820	6640	6800	6200	5800	14700	18000	5520	4110	4530	5080	15100
28	10200	8250	7000	5800	6000	17500	17800	5450	4660	3880	4560	13700
29	12700	9240	7400	5800	---	24400	16000	5770	5270	3780	4650	12700
30	13300	9540	8600	5800	---	28100	12900	5640	5630	3710	4830	11100
31	13100	---	10000	4900	---	28900	---	5710	---	3750	5990	---
TOTAL	270250	337850	247360	200900	145600	383450	483600	231960	144250	124900	143170	228660
MEAN	8718	11260	7979	6481	5200	12370	16120	7483	4808	4029	4618	7622
MAX	16200	22400	14000	10000	6000	28900	28800	11000	6260	5500	11400	16100
MIN	3830	6120	5800	4900	5000	6000	10600	5450	3930	3170	3030	4190
CAL YR 1984	TOTAL	2880320	MEAN	7870	MAX	36800	MIN	3230				
WTR YR 1985	TOTAL	2941950	MEAN	8060	MAX	28900	MIN	3030				

WISCONSIN RIVER BASIN

182

433606090060000 REDSTONE LAKE NEAR LA VALLE, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 43°36'06", long 90°06'00", in SE 1/4 sec.14, T.13 N., R.3 E., Sauk County, Hydrologic Unit 07070004, 1.8 mi northeast of LaValle.

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 916 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.49 ft, Sept. 7; minimum, 7.11 ft, July 20-24.

GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.24	8.12	7.40				---	7.33	7.23	7.33	7.39	7.23
2	7.24	8.02	7.40				---	7.31	7.23	7.31	7.33	7.23
3	7.23	7.90	7.40				---	7.31	7.23	7.27	7.31	7.23
4	7.22	7.74	---				---	7.31	7.21	7.23	7.27	7.35
5	7.22	7.70	---				---	7.31	7.21	7.23	7.27	7.53
6	7.30	7.60	---				---	7.29	7.21	7.23	7.27	7.51
7	7.46	7.58	---				---	7.25	7.21	7.21	7.33	8.49
8	7.42	7.56	---				---	7.25	7.21	7.21	7.27	8.31
9	7.38	7.56	---				---	7.25	7.19	7.19	7.27	8.31
10	7.36	7.58	---				---	7.25	7.19	7.19	7.27	8.09
11	7.36	7.54	---				---	7.25	7.19	7.19	7.25	7.91
12	7.32	7.50	---				---	7.37	7.19	7.19	7.23	7.91
13	7.32	7.46	---				7.63	7.35	7.17	7.17	7.43	---
14	7.30	7.42	---				7.59	7.35	7.17	7.17	7.41	7.51
15	7.42	7.40	---				7.53	7.43	7.17	7.17	7.39	7.43
16	7.42	7.38	---				7.53	7.41	7.17	7.15	7.33	7.41
17	7.58	7.32	---				7.53	7.39	7.17	7.15	7.27	7.41
18	7.58	7.32	---				7.51	7.35	7.17	7.15	7.25	7.35
19	7.66	7.30	---				7.45	7.33	7.17	7.13	7.23	7.33
20	7.68	7.30	---				7.45	7.31	7.17	7.11	7.23	7.33
21	7.60	7.28	---				7.43	7.27	7.19	7.11	7.23	7.31
22	7.54	7.28	---				7.43	7.25	7.19	7.11	7.21	7.39
23	7.46	7.28	---				7.41	7.25	7.19	7.11	7.21	7.41
24	7.42	7.28	---				7.41	7.25	7.17	7.11	7.21	7.43
25	7.46	7.28	---				7.41	7.25	7.17	7.91	7.31	7.45
26	7.44	7.28	---				7.37	7.25	7.17	7.95	7.29	7.53
27	7.46	7.42	---				7.37	7.25	7.23	7.73	7.27	7.51
28	7.52	7.42	---				7.35	7.25	7.41	7.53	7.27	7.51
29	7.50	7.40	---				7.35	7.25	7.41	7.43	7.25	7.53
30	7.46	---	---				7.35	7.25	7.33	7.41	7.25	7.69
31	7.42	---	---				---	---	---	---	7.25	---
MEAN	7.42	---	---				---	---	7.21	---	7.28	---
MAX	7.68	---	---				---	---	7.41	---	7.43	---
MIN	7.22	---	---				---	---	7.17	---	7.21	---

WATER-QUALITY RECORDS

LOCATION.--Lat 43°36'27", long 90°05'25", in NE 1/4 sec.14, T.13 N., R.3 E., Sauk County, Hydrologic Unit 07070004, near center of lake, and 2.3 mi northeast of LaValle.

PERIOD OF RECORD.--April to July 1985.

REMARKS.--Secchi disc readings made by Tom Meronek.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 1.8 meters, May 24, 30; minimum transparency, 0.8 meter, July 24, 30.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
APR. 15	1.1	MAY 12	1.2	MAY 30	1.8	JUNE 18	1.2	JULY 6	1.1	JULY 24	0.8
APR. 27	1.2	MAY 18	1.4	JUNE 6	1.4	JUNE 24	1.1	JULY 12	1.1	JULY 30	0.8
MAY 6	1.2	MAY 24	1.8	JUNE 12	1.1	JUNE 30	1.1	JULY 18	1.1		

WISCONSIN RIVER BASIN

183

05404500 DEVILS LAKE NEAR BARABOO, WI

LAKE-STAGE RECORDS

LOCATION.--43°25'18", long 89°43'38", in NW 1/4 NE 1/4 sec.24, T.11 N., R.6 E., Sauk County, Hydrologic Unit 07070004, in Devils Lake State Park, 3.5 mi south of Baraboo.

DRAINAGE AREA.--4.79 mi². Area of Devils Lake, 361 acres.

PERIOD OF RECORD.--June 1922 to August 1930, June to August 1932, June 1934 to September 1981 (fragmentary). October 1981 to September 1984, data unpublished in district files. October 1984 to September 1985.

REVISED RECORDS.--WDR WI-78-1: Drainage area.

GAGE.--Nonrecording gage. Elevation of lake from reference mark read about twice a week except in winter. Datum of gage is 955.00 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Lake has no surface outlet. Lake was ice covered Dec. 23 to Mar. 29.

COOPERATION.--Gage readings furnished by employee of Devils Lake State Park.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 12.40 ft, May 31, June 1, 1973; minimum observed, 1.49 ft Feb. 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 9.89 ft, Apr. 24; minimum observed, 7.51 ft, Oct. 4.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT
OCT. 4	7.51	NOV. 12	7.95	MAR. 29	9.11	APR. 30	9.79	JUNE 28	8.90	AUG. 7	8.43
OCT. 10	7.54	NOV. 19	7.88	APR. 3	9.23	MAY 10	9.54	JULY 1	8.86	AUG. 14	8.53
OCT. 17	7.57	NOV. 29	7.86	APR. 8	9.71	MAY 16	9.61	JULY 8	8.69	AUG. 20	8.37
OCT. 23	7.71	DEC. 3	7.85	APR. 9	9.69	MAY 20	9.55	JULY 15	8.56	AUG. 26	8.30
NOV. 2	7.94	DEC. 10	7.82	APR. 16	9.86	JUNE 14	8.91	JULY 22	8.35	SEPT. 4	8.19
NOV. 9	7.94	DEC. 17	7.92	APR. 24	9.89	JUNE 21	8.86	JULY 29	8.62	SEPT. 19	8.54
										SEPT. 26	8.69

WATER-QUALITY RECORDS

LOCATION.--43°25'00", long 89°44'00", in NW 1/4 sec.24, T.11 N., R.6 E., Sauk County, Hydrologic Unit 07070004, near center of lake, and 3.6 mi south of Baraboo.

PERIOD OF RECORD.--July 1982 to current year; July 1982 to September 1984 data at Devils Lake State Park office files.

REMARKS.--Secchi disc readings made by an employee of Devils Lake State Park.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 11.0 meters, Mar. 11; minimum transparency, 2.1 meters, Oct. 10.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH								
OCT. 10	2.1	FEB. 13	9.8	MAY 6	9.0	JUNE 24	5.6	AUG. 5	7.5	SEPT. 10	3.7
OCT. 24	2.9	MAR. 11	11.0	MAY 20	8.4	JULY 9	11.3	AUG. 19	5.2	SEPT. 26	4.1
NOV. 14	4.4	APR. 3	4.0	JUNE 10	7.6	JULY 22	7.0	AUG. 28	3.8		

WISCONSIN RIVER BASIN

05405000 BARABOO RIVER NEAR BARABOO, WI

LOCATION.--Lat 43°28'51", long 89°38'09", in NW 1/4 sec.35, T.12 N., R.7 E., Sauk County, Hydrologic Unit 07070004, on left bank 50 ft downstream from highway bridge, 0.3 mi downstream from Rowley Creek and 5.3 mi east of Baraboo.

DRAINAGE AREA.--609 mi².

PERIOD OF RECORD.--December 1913 to March 1922. September 1942 to current year.

REVISED RECORDS.--WSP 455: 1915. WSP 505: 1917(M). WSP 1438: 1914-15(M), 1916-17, 1918-20(M), 1944(M), 1949(M). WSP 1914: 1948, 1950, 1956. WDR WI-75-1: 1968. WDR WI-77-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 788.21 ft above National Geodetic Vertical Datum of 1929. Dec. 18, 1913, to Mar. 31, 1922, nonrecording gage at bridge 2.3 mi upstream at datum 7.6 ft higher. Sept. 24, 1942, to June 10, 1963, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--50 (water years 1915-21, 1943-85), 378 ft³/s, 8.43 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 7,900 ft³/s Mar. 26, 1917, gage height, 17.5 ft, estimated, site and datum then in use, from rating curve extended above 6,000 ft³/s; minimum observed, 9.0 ft³/s Feb. 17, 1944, gage height, 5.08 ft; minimum daily, 26 ft³/s Oct. 6, 1950.

EXTREMES OUTSIDE THE PERIOD OF RECORD.--Flood of Aug. 6, 1935, reached a stage of 15.8 ft from floodmarks, site and datum in use in 1922, discharge, 5,100 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,090 ft³/s Feb. 27, gage height, 17.62 ft; minimum, 183 ft³/s July 24, gage height, 6.77 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 9-11 and Oct. 16 to Nov. 1; stage-discharge relation affected by ice Dec. 4-8, 23-27, and Jan. 1 to Feb. 25.)

6.8	190	13.0	1,650
7.0	235	15.0	2,230
9.0	697	18.0	3,230
11.0	1,170		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	293	1230	529	860	290	2290	701	375	285	468	305	278
2	287	1790	493	760	290	1710	716	363	342	374	321	272
3	276	1720	454	700	290	1290	920	350	322	296	321	269
4	269	1570	310	640	290	1070	1100	340	285	267	320	262
5	266	1570	310	580	290	847	1400	328	271	262	269	364
6	266	1500	340	540	290	637	1700	319	261	249	232	488
7	295	1240	390	490	290	616	1800	318	261	248	270	659
8	320	871	370	460	280	626	1740	317	261	249	266	934
9	463	668	350	430	280	814	1580	312	256	240	267	1410
10	557	784	345	400	280	1130	1400	304	248	237	283	1600
11	544	867	355	370	280	1370	1240	302	247	232	270	1750
12	455	788	381	350	280	1460	993	369	247	229	303	1710
13	374	722	411	340	280	1460	817	375	249	228	783	1420
14	352	631	436	330	280	1480	723	398	251	239	972	950
15	444	547	465	320	280	1500	662	476	265	249	695	543
16	587	499	569	320	280	1460	610	481	265	259	498	403
17	776	478	743	320	280	1280	562	562	267	237	368	365
18	978	454	767	320	280	1010	528	640	276	223	298	348
19	1320	423	754	310	280	825	491	567	276	216	270	335
20	1370	398	588	300	280	720	464	413	262	212	259	325
21	1230	375	576	300	320	657	450	348	258	213	254	317
22	1090	351	467	300	800	625	431	324	307	210	245	331
23	991	342	360	300	1400	601	435	310	274	211	247	453
24	852	356	350	300	1900	618	477	304	277	200	253	635
25	608	366	370	300	2400	646	529	301	274	1130	275	753
26	490	374	450	300	2760	676	556	287	253	1190	289	854
27	492	426	540	300	3040	686	512	294	249	1070	314	904
28	645	514	699	300	2820	752	452	305	342	834	310	797
29	733	576	1000	300	---	816	416	290	387	499	288	633
30	697	569	996	300	---	777	394	283	474	336	277	628
31	651	---	898	290	---	745	---	277	---	308	279	---
TOTAL	18971	22999	16066	12430	21110	31194	24799	11232	8492	11415	10601	20990
MEAN	612	767	518	401	754	1006	827	362	283	368	342	700
MAX	1370	1790	1000	860	3040	2290	1800	640	474	1190	972	1750
MIN	266	342	310	290	280	601	394	277	247	200	232	262
CFSM	1.00	1.26	.85	.66	1.24	1.65	1.36	.59	.46	.60	.56	1.15
IN.	1.16	1.40	.98	.76	1.29	1.91	1.51	.69	.52	.70	.65	1.28
CAL YR 1984	TOTAL	195134	MEAN	533	MAX	2170	MIN	216	CFSM	.88	IN.	11.92
WTR YR 1985	TOTAL	210299	MEAN	576	MAX	3040	MIN	200	CFSM	.95	IN.	12.85

WISCONSIN RIVER BASIN

05406050 FISH LAKE NEAR SAUK CITY, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 43°17'02", long 89°39'15", in NE 1/4 SW 1/4 sec.3, T.9 N., R.7 E., Dane County, Hydrologic Unit 07070005, on south side of lake near Ganser's Tavern and Dance Hall, 0.4 mi southwest of Crystal Lake, and 3.1 mi east of Sauk City.

DRAINAGE AREA.--8.97 mi², includes 7.11 mi² without surface drainage. Area of Fish Lake, 252 acres.

PERIOD OF RECORD.--November 1966 to September 1981 (fragmentary). April to September 1985.

REVISED RECORDS.--WDR WI 77-1: Drainage area.

GAGE.--Nonrecording gage in leke bed. Datum of gage is 848.07 ft above National Geodetic Vertical Datum of 1919.

REMARKS.--Lake has no surface outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 8.98 ft, Apr. 12, 1985; minimum observed, 3.02 ft, Aug. 29, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 8.98 ft, Apr. 12; minimum observed, 8.54 ft, July 15, 18.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT
APR. 12	8.98	MAY 21	8.76	JUNE 14	8.66	JULY 12	8.60	AUG. 5	8.64	SEPT. 4	8.58
APR. 28	8.72	JUNE 1	8.76	JUNE 18	8.70	JULY 15	8.54	AUG. 8	8.60	SEPT. 9	8.90
MAY 4	8.74	JUNE 5	8.76	JUNE 20	8.70	JULY 18	8.54	AUG. 15	8.72	SEPT. 16	8.80
MAY 7	8.76	JUNE 7	8.76	JUNE 30	8.70	JULY 25	8.78	AUG. 21	8.60	SEPT. 19	8.78
MAY 16	8.76	JUNE 10	8.76	JULY 8	8.60	JULY 30	8.74	AUG. 28	8.64	SEPT. 26	8.86
MAY 19	8.76										

WATER-QUALITY RECORDS

LOCATION.--Lat 43°17'14", long 89°39'08", in NW 1/4 sec.3, T.9 N., R.7 E., Dane County, Hydrologic Unit 07070005, near center of lake, and 3.6 mi east of Sauk City.

PERIOD OF RECORD.--May to September 1985.

REMARKS.--Secchi disc readings made by Marie Ganser.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 3.5 meters, May 12; minimum transparency, 1.5 meters, June 3, 26, July 8, Aug. 21, 28, Sept. 15.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
MAY 4	1.7	MAY 21	2.0	JUNE 15	2.1	JULY 9	2.1	AUG. 6	1.8	SEPT. 4	2.1
MAY 8	2.3	MAY 22	2.6	JUNE 26	1.5	JULY 25	2.4	AUG. 7	1.8	SEPT. 15	1.5
MAY 10	3.2	JUNE 3	1.5	JUNE 29	1.8	JULY 28	1.8	AUG. 21	1.5	SEPT. 24	1.8
May 12	3.5	JUNE 14	1.8	JULY 8	1.5	AUG. 5	2.4	AUG. 28	1.5		

WISCONSIN RIVER BASIN

05406460 BLACK EARTH CREEK AT CROSS PLAINS, WI

LOCATION.--Lat 43°06'38", long 89°38'44", in NW 1/4 SE 1/4 sec.3, T.7 N., R.7 E., Dane County, Hydrologic Unit 07070005, on left bank at bridge at County Trunk KP at Cross Plains.

DRAINAGE AREA.--14.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Water-stage recorder. Elevation of gage is 880 ft. from topographic map.

REMARKS.--Estimated daily discharges: Nov. 20-26, Jan. 6-18 and 22-25. Records good.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 122 ft³/s July 25, gage height, 12.80 ft; minimum 8.9 ft³/s Dec. 6, gage height, 9.27 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Feb. 20 to Mar. 16, May 25 to Aug. 21, and Sept. 17-30.)

9.2	7.6	10.3	80.8
9.5	17.7	10.5	107
9.7	28.1	10.7	138
9.9	41.8	10.9	175
10.1	59.2		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	21	11	16	11	23	21	17	20	21	15	12
2	11	15	11	15	11	22	21	18	20	19	14	12
3	11	13	11	14	11	21	20	19	19	18	14	12
4	11	13	11	14	11	21	21	19	19	18	13	13
5	11	15	11	14	11	20	21	19	19	17	12	19
6	11	16	9.9	14	11	20	22	18	19	17	11	16
7	12	16	9.2	14	11	20	20	15	19	17	11	14
8	12	15	9.6	14	10	22	19	15	20	16	11	13
9	11	16	9.7	14	10	24	20	17	17	13	10	35
10	11	16	12	14	10	25	20	19	16	12	9.7	20
11	12	14	13	13	11	26	20	20	16	14	9.6	16
12	13	12	13	13	11	25	20	19	19	16	12	13
13	13	11	12	13	10	23	20	19	20	16	16	11
14	13	14	12	13	11	22	20	20	19	12	14	11
15	14	16	12	13	11	22	20	21	20	11	10	11
16	15	16	15	13	12	20	19	20	19	11	11	14
17	17	13	14	13	13	17	20	20	20	11	12	15
18	23	13	14	12	13	18	20	19	19	13	11	14
19	46	13	13	10	14	19	20	19	19	14	11	13
20	22	13	13	9.9	14	19	18	19	17	11	11	13
21	19	13	13	10	29	19	20	19	16	9.5	11	13
22	16	13	13	11	45	19	20	18	17	9.3	11	14
23	14	13	13	11	51	18	19	19	16	9.2	12	15
24	13	12	13	11	46	18	19	19	18	12	12	16
25	13	12	12	11	25	18	18	19	20	79	15	14
26	13	12	12	10	21	19	18	16	20	34	13	14
27	14	12	13	11	20	19	18	18	21	23	11	15
28	19	12	34	11	21	20	18	20	22	20	11	14
29	15	11	25	11	---	20	18	19	22	18	12	14
30	14	11	20	11	---	19	16	16	22	17	12	15
31	14	---	17	11	---	19	---	19	---	16	12	---
TOTAL	464	412	421.4	384.9	485	637	586	574	570	544.0	370.3	441
MEAN	15.0	13.7	13.6	12.4	17.3	20.5	19.5	18.5	19.0	17.5	11.9	14.7
MAX	46	21	34	16	51	26	22	21	22	79	16	35
MIN	11	11	9.2	9.9	10	17	16	15	16	9.2	9.6	11
CFSM	1.03	.94	.93	.85	1.19	1.40	1.34	1.27	1.30	1.20	.82	1.01
IN.	1.18	1.05	1.07	.98	1.24	1.62	1.49	1.46	1.45	1.39	.94	1.12

WTR YR 1985 TOTAL 5889.6 MEAN 16.1 MAX 79 MIN 9.2 CFSM 1.10 IN 15.01

WISCONSIN RIVER BASIN

05406460 BLACK EARTH CREEK AT CROSS PLAINS, WI--CONTINUED

PHOSPHORUS, TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.00	62.00	6.60	16.00	5.20	25.00	5.00	2.70	4.30	8.90	5.70	2.80
2	4.20	21.00	6.80	15.00	5.50	22.00	5.10	3.10	4.30	8.10	5.40	2.70
3	4.40	10.00	6.90	14.00	5.80	19.00	4.80	3.50	4.10	8.10	5.10	2.70
4	4.60	9.30	6.50	13.00	6.00	17.00	5.10	3.70	4.20	8.40	4.90	2.80
5	4.80	10.00	6.50	13.00	6.20	15.00	5.30	4.00	4.20	8.80	4.60	28.00
6	5.10	12.00	5.80	12.00	6.50	13.00	5.50	4.10	4.10	9.20	4.20	12.00
7	5.70	11.00	5.40	12.00	6.60	12.00	5.20	3.70	4.40	9.60	4.10	7.30
8	6.10	10.00	5.50	12.00	6.30	12.00	5.00	3.80	4.60	10.00	4.00	7.00
9	6.00	11.00	5.60	11.00	6.60	12.00	5.20	4.50	4.20	8.80	3.70	108
10	6.10	11.00	6.80	11.00	6.80	12.00	5.30	5.20	4.00	8.40	3.50	21.00
11	6.70	9.60	7.60	10.00	7.60	11.00	5.30	5.30	4.20	11.00	3.40	15.00
12	7.70	8.10	7.40	9.80	7.90	9.70	5.00	5.00	5.10	13.00	7.50	11.00
13	8.20	7.40	7.00	9.30	8.00	8.30	4.70	4.90	5.70	13.00	23.00	9.20
14	8.70	15.00	6.90	9.00	8.70	7.20	4.40	6.20	5.70	11.00	11.00	8.20
15	9.60	18.00	6.60	8.50	9.10	6.30	4.10	11.00	6.10	11.00	3.70	7.60
16	11.00	18.00	8.00	8.40	9.90	5.30	3.60	8.30	6.20	12.00	3.60	8.60
17	13.00	8.90	7.70	8.20	11.00	4.20	3.60	7.60	6.50	12.00	3.70	9.00
18	30.00	8.50	7.80	7.50	12.00	4.00	3.40	6.70	6.60	14.00	3.50	7.60
19	117	8.40	7.10	6.20	14.00	4.00	3.20	6.00	6.90	14.00	3.50	6.60
20	34.00	8.40	6.70	5.70	14.00	4.00	2.70	5.40	6.40	8.80	3.50	6.10
21	23.00	8.40	6.90	5.60	133	4.00	2.80	4.90	7.30	6.50	3.50	5.60
22	18.00	8.40	6.80	5.90	250	4.00	2.60	4.30	7.40	5.40	3.50	5.60
23	16.00	8.40	6.70	5.70	230	3.90	2.60	4.00	6.40	4.50	3.60	10.00
24	14.00	7.80	6.60	5.60	197	4.00	2.20	4.10	7.10	6.30	5.60	12.00
25	13.00	7.80	6.20	5.20	43.00	4.00	2.00	4.10	7.60	377	13.00	4.30
26	12.00	7.80	6.20	4.80	30.00	4.20	2.10	3.60	7.40	60.00	7.50	4.10
27	14.00	7.60	6.50	5.00	26.00	4.30	2.20	3.90	7.50	18.00	3.10	4.20
28	24.00	7.60	145	4.90	25.00	4.70	2.40	4.30	8.80	12.00	3.00	3.60
29	16.00	7.00	45.00	4.70	---	4.60	2.50	4.10	9.40	9.40	3.20	3.20
30	14.00	7.00	27.00	4.90	---	4.50	2.40	3.40	10.00	7.70	3.10	3.30
31	10.00	---	19.00	5.10	---	4.60	---	4.00	---	6.20	2.90	---
TOTAL	470.90	355.40	417.10	269.00	1097.70	269.80	115.10	149.40	180.70	721.10	163.60	339.10
WTR YR 1985 TOTAL	4548.90											

NITROGEN, TOTAL, LOAD POUNDS PER DAY, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	429	131	325	175	373	306	229	288	285	194	163
2	149	220	135	309	178	358	303	241	284	263	183	163
3	149	159	137	287	178	336	285	257	273	250	177	162
4	149	154	131	284	178	330	297	257	273	249	171	171
5	149	173	131	282	178	319	303	257	272	248	163	272
6	149	195	118	279	178	309	309	249	267	246	151	215
7	159	189	109	277	176	316	288	208	271	245	151	180
8	162	178	113	274	162	342	270	203	274	241	150	167
9	153	188	115	264	162	371	281	225	240	203	138	601
10	149	192	142	269	162	395	281	266	222	184	134	292
11	156	167	159	252	174	404	282	278	222	221	133	229
12	171	142	155	251	173	386	281	270	258	253	182	187
13	176	131	147	243	169	361	280	271	275	250	258	164
14	176	170	147	241	177	342	279	286	265	199	224	158
15	187	210	143	232	178	331	278	305	271	183	165	157
16	260	210	208	237	187	305	258	293	265	186	176	192
17	303	160	183	235	208	259	277	294	266	188	180	217
18	484	154	183	220	211	271	276	287	256	215	163	197
19	1170	152	156	185	227	291	275	282	257	237	160	183
20	370	154	149	175	231	286	250	283	232	169	157	183
21	300	154	153	175	801	285	273	281	223	144	155	182
22	248	154	152	188	1620	279	269	272	213	136	154	195
23	215	154	151	188	1420	270	265	281	196	130	165	212
24	194	143	149	186	1100	273	259	283	215	170	167	228
25	188	143	142	179	421	265	243	284	229	1340	203	196
26	182	143	143	169	348	281	243	244	222	443	178	191
27	205	145	150	180	321	280	243	265	249	289	155	212
28	323	147	858	180	338	300	243	294	309	249	154	194
29	227	135	496	176	---	293	243	278	308	227	170	191
30	174	131	404	178	---	278	219	230	320	218	171	209
31	170	---	359	178	---	282	---	269	---	203	164	---
TOTAL	7396	5176	6049	7098	10031	9771	8159	8222	7715	8064	5246	6263
WTR YR 1985 TOTAL	89190											

WISCONSIN RIVER BASIN

05406460 BLACK EARTH CREEK AT CROSS PLAINS, WI--CONTINUED

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1										---	---	---
2										---	---	---
3										5.0	2.5	3.5
4										5.5	2.5	4.0
5										6.0	4.5	5.0
6										6.5	4.5	5.0
7										5.5	5.0	5.0
8										6.0	3.5	4.5
9										5.5	3.5	4.0
10										6.0	4.0	4.5
11										5.5	3.0	4.5
12										5.0	3.0	3.5
13										5.5	3.5	4.0
14										5.0	3.0	4.0
15										5.0	2.5	3.5
16										5.0	4.0	4.0
17										6.0	3.5	4.5
18										5.5	4.0	4.5
19										---	---	---
20										---	---	---
21										6.0	3.0	4.5
22										6.5	4.5	5.0
23										6.5	5.0	5.5
24										6.5	5.0	6.0
25										5.5	3.0	4.0
26										6.0	4.0	5.0
27										7.0	4.5	5.5
28										7.0	4.0	5.0
29										6.5	4.5	5.5
30										7.5	4.5	6.0
31										6.0	3.5	4.5
MONTH										7.5	2.5	4.5

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.0	3.5	4.5	---	---	---	9.5	5.0	7.0	15.0	10.5	12.5
2	7.0	4.0	5.0	---	---	---	10.0	5.5	7.5	15.5	9.0	12.0
3	7.5	4.5	5.5	---	---	---	12.0	7.0	9.0	---	---	---
4	7.5	4.5	5.5	---	---	---	8.5	6.5	7.0	---	---	---
5	8.0	5.5	6.5	---	---	---	---	---	---	---	---	---
6	8.0	4.5	6.0	7.5	4.5	5.5	---	---	---	---	---	---
7	8.0	4.5	5.5	7.5	5.5	6.5	---	---	---	---	---	---
8	8.0	4.5	5.5	9.0	5.5	6.5	---	---	---	15.5	10.0	12.5
9	7.0	5.5	6.0	8.5	5.0	6.5	---	---	---	16.0	11.5	13.5
10	8.0	6.0	7.0	9.0	4.5	6.5	---	---	---	18.0	12.5	14.5
11	7.5	5.5	6.5	7.0	5.5	6.5	---	---	---	15.5	13.5	14.5
12	7.5	4.5	5.5	9.0	4.5	6.5	---	---	---	15.0	12.5	14.0
13	8.5	4.5	6.0	7.0	6.0	6.5	13.5	10.5	12.0	16.0	11.0	13.5
14	7.0	4.5	5.5	9.5	5.5	7.0	14.0	10.0	11.5	18.5	12.0	14.5
15	8.5	5.0	6.0	10.0	5.0	7.5	15.5	9.5	12.0	14.5	12.5	13.5
16	7.5	6.0	6.5	9.5	6.5	7.5	14.5	9.5	11.5	14.5	12.0	13.0
17	9.0	6.0	7.0	9.5	6.0	7.5	15.0	9.0	12.0	17.0	11.5	13.5
18	9.5	5.5	7.0	10.5	6.5	8.0	17.0	11.0	13.5	17.0	12.0	14.0
19	9.0	6.0	7.0	11.5	7.0	8.5	17.5	12.5	14.5	18.0	12.0	14.5
20	10.0	6.5	8.0	11.0	6.5	8.5	---	---	---	17.5	12.5	14.5
21	7.5	2.5	5.0	11.0	6.5	8.5	16.5	13.0	14.5	17.0	11.5	14.0
22	3.0	2.5	2.5	11.5	6.5	8.5	16.5	12.5	14.5	17.0	11.5	14.0
23	3.5	2.5	3.0	8.5	7.0	8.0	17.0	12.5	14.0	18.0	11.5	14.5
24	4.5	2.0	3.5	7.5	7.0	7.5	13.5	11.0	12.5	18.5	13.0	15.0
25	6.5	4.0	5.0	11.5	7.0	8.5	14.0	10.0	11.5	---	---	---
26	7.0	5.0	6.0	12.5	7.0	9.5	15.0	10.5	12.5	---	---	---
27	8.5	4.5	6.0	13.0	9.5	10.5	12.0	10.0	11.0	16.0	12.5	14.0
28	8.5	5.5	6.5	10.0	8.5	9.0	15.5	9.5	12.5	18.0	12.5	14.5
29	---	---	---	11.5	8.0	9.0	16.0	9.5	12.5	17.5	12.5	14.5
30	---	---	---	8.0	7.0	7.5	15.5	10.0	12.5	15.5	12.5	13.5
31	---	---	---	7.0	5.5	6.0	---	---	---	16.5	12.0	14.0
MONTH	10.0	2.0	5.5	13.0	4.5	7.5	17.5	5.0	11.5	18.5	9.0	14.0

WISCONSIN RIVER BASIN
05406460 BLACK EARTH CREEK AT CROSS PLAINS, WI---CONTINUED

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.0	14.5	16.5	19.5	15.0	17.0	18.0	13.0	15.0	14.5	12.0	13.0
2	17.0	13.5	15.0	19.5	15.0	17.0	18.0	13.0	15.5	14.5	11.5	13.0
3	18.0	12.0	14.5	19.0	14.0	16.5	18.0	13.5	15.5	16.5	12.5	14.5
4	15.0	12.5	13.5	19.0	15.0	17.0	15.5	13.5	14.5	14.5	13.0	14.0
5	18.0	12.5	14.5	16.0	13.0	14.0	18.0	14.5	16.0	16.5	14.0	15.5
6	17.5	12.0	14.5	14.0	12.5	13.0	18.5	14.0	16.0	---	---	---
7	18.5	12.0	15.0	14.0	12.5	13.0	18.0	14.0	16.0	19.0	14.5	16.5
8	20.0	13.5	16.5	18.5	12.5	15.0	17.5	13.0	15.0	15.5	14.5	15.0
9	17.5	12.5	15.5	17.5	13.0	15.0	19.0	12.0	15.0	---	---	---
10	15.0	11.5	13.0	17.0	12.5	14.5	17.0	12.0	14.5	---	---	---
11	14.0	11.5	12.5	19.5	12.5	15.5	16.0	11.5	13.5	---	---	---
12	15.5	10.5	12.5	---	---	---	---	---	---	---	---	---
13	16.5	12.0	14.0	18.5	15.0	17.0	---	---	---	---	---	---
14	17.0	12.5	14.5	18.0	14.0	16.0	---	---	---	---	---	---
15	16.0	13.5	14.5	17.0	13.0	15.0	---	---	---	---	---	---
16	16.5	13.0	14.5	16.5	11.5	14.0	---	---	---	---	---	---
17	18.5	13.5	15.5	17.0	12.0	14.0	---	---	---	---	---	---
18	16.0	12.5	14.0	19.0	12.0	15.5	---	---	---	---	---	---
19	16.5	12.0	14.0	18.5	16.0	17.0	---	---	---	---	---	---
20	17.5	11.5	14.0	17.5	13.0	15.0	---	---	---	---	---	---
21	17.0	12.5	14.5	17.5	12.5	14.5	16.5	12.5	14.5	---	---	---
22	17.5	13.0	15.0	16.5	11.5	14.0	15.5	13.0	14.0	---	---	---
23	18.5	12.5	15.0	16.5	11.5	14.0	15.5	13.0	14.0	---	---	---
24	19.0	12.0	15.5	19.5	12.0	15.5	14.5	13.0	14.0	---	---	---
25	20.0	14.0	16.5	23.0	18.5	21.0	17.0	13.5	14.5	11.5	10.0	11.0
26	20.5	15.0	17.5	21.5	18.5	20.0	16.0	14.0	15.0	11.5	10.5	11.0
27	20.5	16.0	17.5	20.5	17.5	18.5	17.0	13.0	14.5	13.5	9.5	11.5
28	16.5	14.5	15.5	20.5	17.0	18.5	14.5	12.5	13.5	14.0	10.5	12.0
29	19.5	14.0	16.0	20.5	15.0	18.0	13.5	12.5	13.0	13.0	11.5	12.0
30	19.0	15.0	17.0	17.5	15.5	16.5	13.5	12.0	13.0	12.0	10.5	11.5
31	---	---	---	15.5	14.0	15.0	15.5	11.0	13.0	---	---	---
MONTH	20.5	10.5	15.0	23.0	11.5	16.0	19.0	11.0	14.5	19.0	9.5	13.0
YEAR	23.0	2.0	11.0									

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1							---	---	---	13.0	7.0	9.5
2							---	---	---	12.0	7.5	9.5
3							---	---	---	---	---	---
4							---	---	---	---	---	---
5							---	---	---	---	---	---
6							---	---	---	---	---	---
7							---	---	---	12.0	---	---
8							---	---	---	13.5	8.0	10.0
9							---	---	---	13.0	8.0	10.0
10							---	---	---	12.5	7.5	9.5
11							---	---	---	11.5	7.5	9.0
12							13.5	7.5	10.0	11.0	7.5	9.2
13							12.5	7.5	9.5	12.5	8.0	9.8
14							13.0	8.0	9.5	12.0	8.0	9.5
15							13.0	7.5	9.5	10.5	7.5	9.0
16							12.5	7.5	9.5	12.0	8.5	9.5
17							13.0	7.5	9.5	13.0	9.0	10.5
18							12.5	7.5	9.5	12.5	8.5	10.0
19							13.0	7.5	10.0	12.5	8.5	10.0
20							---	---	---	12.5	8.0	10.0
21							12.5	7.0	9.5	12.5	8.5	10.0
22							12.0	7.0	9.0	12.5	8.0	10.0
23							12.0	7.0	8.5	12.0	7.5	9.5
24							11.5	7.0	9.0	12.0	7.5	9.0
25							12.0	7.5	9.0	---	7.5	---
26							12.5	7.5	9.5	---	---	---
27							12.0	7.5	9.0	11.5	7.5	9.0
28							13.0	7.5	9.5	12.0	7.5	9.5
29							13.0	7.0	9.5	12.0	7.5	9.5
30							12.0	7.0	9.0	11.0	7.0	9.0
31							---	---	---	11.0	7.0	9.0
MONTH							13.5	7.0	9.4	13.5	7.0	9.6

WISCONSIN RIVER BASIN

05406460 BLACK EARTH CREEK AT CROSS PLAINS, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L) (00625)	NITRO- GEN, TOTAL (MG/L) (00600)	PHOS- PHORUS, TOTAL (MG/L) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L) (00666)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L) (00671)
OCT, 1984												
16...	1645	16	2.4	--	--	--	--	1.6	4.0	.410	--	--
17...	0815	17	2.4	--	--	--	--	.90	3.3	.140	--	--
18...	2320	63	<.10	--	<.010	--	--	<.10	--	<.010	--	--
19...	0800	50	1.5	--	.090	--	1.5	1.6	3.1	.430	--	--
19...	1055	37	1.8	--	.140	--	1.3	1.4	3.2	.370	--	--
19...	1610	30	1.3	--	.110	--	1.7	1.8	3.1	.480	--	--
20...	0925	22	2.1	--	.100	--	.90	1.0	3.1	.270	--	--
NOV												
01...	0730	24	1.9	--	.470	--	2.1	2.6	4.5	.930	--	--
01...	1400	24	2.0	--	.100	--	1.0	1.1	3.1	.500	.270	--
02...	0825	15	2.1	--	.120	--	.58	.70	2.8	.280	--	--
DEC												
28...	1035	50	1.3	--	.290	--	2.8	3.1	4.4	.890	--	--
28...	1235	42	1.4	--	.380	--	2.7	3.1	4.5	.920	--	--
28...	1305	43	1.3	--	.380	--	2.5	2.9	4.2	.850	--	--
28...	1306	43	1.4	--	.430	--	2.1	2.5	3.9	.790	--	--
28...	1523	33	1.6	--	.360	--	2.0	2.4	4.0	.600	--	--
28...	1723	29	1.9	--	.240	--	1.5	1.7	3.6	.490	--	--
28...	2023	26	2.0	--	.260	--	1.4	1.7	3.7	.400	--	--
29...	1323	24	2.3	--	.210	--	.99	1.2	3.5	.360	--	--
31...	0915	17	3.1	--	.160	--	.64	.80	3.9	.210	--	--
JAN, 1985												
29...	1130	11	--	2.4	--	.040	--	.60	--	.080	--	.030
FEB												
21...	1430	17	--	1.6	--	1.20	--	4.8	--	.670	--	--
21...	2231	54	--	1.3	--	1.10	--	4.3	--	.910	--	--
22...	0231	45	--	1.3	--	.960	--	3.8	--	.810	--	--
22...	1042	36	--	1.4	--	1.20	--	3.6	--	.720	--	.440
22...	1231	37	--	1.3	--	1.40	--	4.6	--	.830	--	--
22...	1816	55	--	1.2	--	1.50	--	10	--	1.92	--	--
23...	0001	49	--	1.2	--	1.20	--	4.0	--	.810	--	--
23...	0800	40	--	1.3	--	1.00	--	3.4	--	.720	--	--
23...	1800	63	--	1.2	--	1.20	--	4.2	--	.940	--	--
23...	2200	74	--	1.2	--	1.20	--	4.1	--	1.00	--	--
24...	0800	74	--	1.4	--	.650	--	2.7	--	.680	--	--
24...	1009	39	--	1.2	--	1.10	--	4.2	--	1.00	--	--
24...	2000	39	--	1.5	--	.490	--	2.1	--	.560	--	--
25...	0800	26	--	1.8	--	.250	--	1.2	--	.310	--	--
MAR												
19...	0755	19	--	2.4	--	<.100	--	.40	--	.040	--	.015
APR												
11...	0945	20	--	2.4	--	<.020	--	.40	--	.050	--	.014
25...	0910	18	--	2.3	--	<.020	--	.20	--	.020	--	.013
MAY												
09...	1125	15	--	2.1	--	.020	--	.40	--	.050	--	.018
14...	2230	22	--	2.0	--	.060	--	.70	--	.120	--	--
15...	0015	24	--	2.0	--	.060	--	.70	--	.140	--	--
15...	0919	21	--	2.1	--	.050	--	.60	--	.090	--	--
23...	1020	19	--	2.4	--	.020	--	.40	--	.040	--	.021
JUN												
06...	1200	19	--	2.3	--	<.020	--	.30	--	.040	--	.019
20...	1320	18	--	2.3	--	<.020	--	<.20	--	.070	--	.019
21...	2015	20	--	1.7	--	.040	--	.80	--	.160	--	--
22...	0001	19	--	1.6	--	.030	--	.70	--	.100	--	--
22...	0845	17	--	1.9	--	<.020	--	.40	--	.080	--	--
27...	1546	24	--	1.9	--	.030	--	.40	--	.070	--	--
28...	0346	22	--	2.9	--	.040	--	.40	--	.060	--	--
28...	1008	23	--	2.0	--	.040	--	.40	--	.080	--	--
29...	1745	21	--	1.9	--	<.020	--	.60	--	.080	--	--
30...	0300	23	--	2.1	--	<.020	--	.50	--	.090	--	--
JUL												
02...	0851	19	--	2.0	--	<.020	--	.50	--	.080	--	--
18...	1000	11	--	2.0	--	<.020	--	1.2	--	.220	--	.020
24...	2100	16	--	2.1	--	.040	--	.70	--	.120	--	--
24...	2200	22	--	1.9	--	.030	--	.80	--	.130	--	--
25...	0015	18	--	1.6	--	<.020	--	.80	--	.160	--	--
25...	0115	34	--	1.2	--	.040	--	1.6	--	.340	--	--
25...	0345	59	--	.67	--	.070	--	2.3	--	.840	--	--
25...	0846	82	--	.73	--	--	--	4.5	--	1.71	--	--
25...	0902	83	--	.72	--	.020	--	2.6	--	1.18	--	--
25...	0916	86	--	.73	--	.100	--	2.8	--	1.27	--	.380
25...	1000	91	--	.76	--	--	--	2.5	--	1.24	--	--
25...	1140	116	--	.72	--	--	--	2.0	--	1.03	--	--
25...	1200	122	--	.67	--	.020	--	2.0	--	.980	--	--
25...	1220	121	--	.69	--	--	--	2.1	--	1.01	--	.350
25...	1400	107	--	.80	--	--	--	1.7	--	.840	--	--
25...	1830	88	--	.67	--	.020	--	1.7	--	.710	--	--
26...	0430	39	--	1.1	--	.040	--	1.4	--	.420	--	--
AUG												
13...	1030	17	--	1.6	--	.050	--	1.4	--	.360	--	--
13...	2216	15	--	2.1	--	.040	--	1.0	--	.220	--	--
21...	1005	11	--	2.2	--	<.020	--	.40	--	.060	--	.030
SEP												
04...	1030	12	--	2.3	--	.020	--	.20	--	.040	--	.015
05...	0800	19	--	2.0	--	.070	--	1.0	--	.260	--	.095
05...	1015	20	--	1.6	--	.070	--	.90	--	.340	--	.120
06...	1000	3.0	--	1.9	--	.030	--	.60	--	.110	--	--
09...	0100	43	--	1.7	--	.040	--	1.8	--	.440	--	--
09...	0925	47	--	.92	--	.040	--	2.6	--	1.02	--	--
09...	1630	25	--	1.6	--	.080	--	1.2	--	.280	--	--
10...	0930	20	--	1.8	--	.080	--	.90	--	.200	--	--

WISCONSIN RIVER BASIN

05406460 BLACK EARTH CREEK AT CROSS PLAINS, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)
OCT, 1984				APR, 1985			
16...	1615	16	64	18...	1643	20	13
17...	0815	17	43	25...	0910	18	24
18...	2320	63	377	26...	1502	18	22
19...	0610	62	265	MAY			
19...	0800	50	208	03...	0743	19	33
19...	1055	37	116	09...	1125	15	94
20...	0930	22	149	10...	1600	19	14
NOV				14...	2230	22	100
01...	0740	24	286	15...	0015	24	85
01...	1100	25	197	15...	0919	21	76
01...	1400	24	185	18...	1735	19	25
02...	0825	15	58	23...	1020	19	27
27...	1040	12	52	JUN			
30...	1150	11	173	06...	1200	19	28
DEC				06...	1729	19	65
05...	1000	11	24	13...	0842	20	43
12...	1515	13	40	20...	1320	18	10
19...	1555	13	40	21...	2015	20	100
27...	1642	13	30	22...	0001	19	34
28...	1035	50	355	22...	0845	17	17
28...	1235	42	367	23...	1303	16	36
28...	1305	43	363	27...	0727	20	29
28...	1306	43	310	28...	0346	22	18
28...	1523	33	266	28...	1008	23	37
28...	1723	29	239	JUL			
28...	2023	26	186	02...	0851	19	45
29...	1323	24	97	05...	0608	17	44
31...	0915	17	46	12...	1735	16	64
JAN, 1985				16...	1740	11	45
02...	1630	15	47	18...	1000	11	186
10...	0750	13	47	24...	1715	13	79
18...	0756	13	71	24...	1945	17	113
24...	0952	11	113	24...	2215	23	81
29...	1130	11	86	25...	0045	18	63
30...	1645	11	135	25...	0130	42	92
FEB				25...	0131	42	91
07...	1640	11	165	25...	0745	78	404
13...	1300	11	295	25...	0845	82	425
15...	1632	11	51	25...	0846	82	481
21...	1745	29	366	25...	0847	82	691
22...	0031	49	363	25...	1000	91	438
22...	0431	14	249	25...	1001	91	451
22...	1042	36	161	25...	1140	116	357
22...	1043	36	159	25...	1220	121	286
22...	1140	37	148	25...	1359	107	281
22...	1601	50	236	25...	1400	107	265
22...	2001	55	245	25...	2100	71	215
23...	0201	48	206	26...	0031	47	195
23...	0600	44	172	26...	1030	34	116
23...	1200	39	143	AUG			
23...	2000	68	279	02...	1640	14	54
24...	0001	75	299	10...	1720	9.7	39
24...	0600	54	236	12...	2216	23	121
24...	1200	39	152	13...	1030	17	190
25...	0001	31	115	17...	1631	12	36
25...	0800	26	71	21...	1005	11	67
MAR				23...	0657	12	37
01...	0750	22	71	28...	0751	11	43
02...	1645	22	21	SEP			
08...	0722	20	33	04...	1500	13	65
15...	1626	21	17	05...	0800	19	94
19...	0755	19	21	05...	1015	20	164
26...	1300	19	36	06...	1000	16	65
28...	1736	20	68	09...	0100	43	289
APR				09...	0925	47	498
05...	1805	21	31	09...	1630	25	107
10...	1638	21	23	10...	0930	20	78
11...	0945	20	15	12...	1610	12	31
				19...	1645	13	40

WISCONSIN RIVER BASIN

05406470 BREWERY CREEK AT CROSS PLAINS, WI

LOCATION.--Lat 43°38'40", long 89°38'44", in SW 1/4 SW 1/4 sec.35, T.8 N., R.7 E., Dane County, Hydrologic Unit 07070005, on left bank at culvert on Brewery Road, 0.75 mi upstream from Black Earth Creek.

DRAINAGE AREA.--10.5 mi², of which 2.80 mi² is non-contributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Water-stage recorder. Elevation of gage is 900 ft, from topographic map.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except for estimated daily discharges, which are fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 231 ft³/s July 25, gage height, 13.51 ft; minimum discharge, 0.79 ft³/s May 23, 24.

RATING TABLE (gage height in feet, and discharge, in cubic feet per second).
(Shifting-control method used May 14 to July 23; stage-discharge relation affected by ice Nov. 18-26, Dec. 1-15, and Dec. 18 to Mar. 8.)

8.3	0.7	9.4	11
8.4	1.1	10.0	25
8.5	1.6	10.5	40
8.6	2.0	11.0	60
8.8	2.3	12.0	113
9.0	5.3	13.0	186

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	5.7	1.7	1.4	1.1	2.7	2.9	1.4	1.2	1.9	1.9	2.0
2	1.3	2.5	1.6	1.3	1.1	2.0	2.6	1.4	1.1	1.7	1.7	2.0
3	1.3	2.2	1.5	1.4	1.2	1.5	2.4	1.4	1.1	1.7	1.6	2.0
4	1.3	2.2	1.5	1.5	1.2	2.9	4.0	1.4	1.2	1.6	1.6	2.0
5	1.3	2.1	1.4	1.5	1.3	2.4	3.5	1.4	1.2	1.5	1.6	6.8
6	1.3	2.0	1.3	1.5	1.3	2.0	3.9	1.3	1.2	1.6	1.6	3.0
7	1.6	2.0	1.2	1.4	1.3	1.9	2.7	1.3	1.3	1.5	1.6	2.4
8	1.3	2.1	1.3	1.4	1.3	3.8	2.4	1.3	1.3	1.5	1.5	2.5
9	1.2	2.9	1.4	1.4	1.3	8.0	2.2	1.2	1.4	1.5	1.4	15
10	1.3	3.6	1.4	1.4	1.4	4.6	2.1	1.2	1.4	1.5	1.6	3.7
11	1.5	2.5	1.4	1.4	1.4	3.8	2.1	1.3	1.5	1.4	1.6	2.8
12	1.8	2.3	1.4	1.4	1.4	3.0	2.0	1.3	1.5	1.4	1.8	2.4
13	1.7	2.2	1.4	1.5	1.4	2.8	2.0	1.1	1.6	1.4	3.1	2.3
14	1.7	2.1	1.8	1.6	1.4	2.5	2.0	1.4	1.6	1.5	1.8	2.2
15	1.9	2.1	1.5	1.5	1.4	2.3	1.9	1.7	1.8	1.5	1.8	2.1
16	2.3	2.1	3.2	1.4	1.4	2.3	1.9	1.3	1.8	1.4	1.7	2.1
17	3.3	2.0	2.3	1.4	1.5	2.2	1.9	1.2	1.8	1.4	1.7	2.2
18	3.8	1.8	1.8	1.4	1.5	2.1	1.8	1.1	1.7	1.4	1.7	2.2
19	16	1.6	1.5	1.3	1.5	2.1	1.8	1.0	1.8	1.4	1.6	2.0
20	2.7	1.5	1.4	1.2	1.5	2.1	1.8	1.0	1.8	1.4	1.6	2.0
21	2.1	1.4	1.6	1.3	24	2.0	1.7	.96	1.9	1.3	1.6	2.0
22	2.0	1.5	1.5	1.3	36	2.0	1.7	.91	2.7	1.3	1.7	2.3
23	1.8	1.6	1.4	1.3	30	2.0	1.9	.90	1.9	1.2	1.7	3.1
24	1.8	1.7	1.3	1.3	23	2.1	1.9	.88	1.8	2.1	1.8	2.6
25	1.7	1.8	1.5	1.3	4.8	2.2	1.7	.89	1.7	142	3.9	2.3
26	1.9	1.9	2.6	1.3	2.8	2.1	1.7	1.0	1.7	21	4.0	2.7
27	2.3	2.3	3.0	1.3	2.3	2.1	1.6	1.5	1.7	4.4	2.2	2.4
28	4.7	2.0	17	1.3	2.1	2.7	1.5	1.1	2.5	2.4	2.0	2.2
29	2.2	1.8	3.3	1.3	---	2.2	1.5	1.0	2.3	2.0	2.1	2.3
30	1.9	1.8	2.1	1.3	---	2.1	1.5	1.1	2.8	1.8	2.3	2.8
31	1.8	---	1.5	1.2	---	2.6	---	1.2	---	2.0	2.1	---
TOTAL	74.1	65.3	68.8	42.5	151.9	81.1	64.6	37.14	50.3	211.7	59.9	88.4
MEAN	2.39	2.18	2.22	1.37	5.43	2.62	2.15	1.20	1.68	6.83	1.93	2.95
MAX	16	5.7	17	1.6	36	8.0	4.0	1.7	2.8	142	4.0	15
MIN	1.2	1.4	1.2	1.2	1.1	1.5	1.5	.88	1.1	1.2	1.4	2.0

WTR YR 1985 TOTAL 995.74 MEAN 2.73 MAX 142 MIN .88

WISCONSIN RIVER BASIN

05406470 BREWERY CREEK AT CROSS PLAINS, WI--CONTINUED

PHOSPHORUS, TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	62.00	.64	.68	.48	7.90	5.00	.79	.77	1.44	4.65	2.40
2	.53	4.67	.60	.63	.48	4.60	3.60	.75	.76	1.40	4.11	2.26
3	.52	1.00	.57	.68	.52	2.80	1.15	.74	.77	1.46	3.81	2.13
4	.52	.82	.57	.73	.52	4.40	14.00	.73	.83	1.53	3.75	2.12
5	.51	.77	.53	.73	.56	2.80	9.00	.72	.89	1.54	3.68	35.00
6	.50	.73	.49	.73	.56	1.90	13.00	.68	.93	1.72	3.62	4.52
7	.60	.74	.45	.60	.56	1.50	4.00	.65	.97	1.80	3.47	3.21
8	.51	.77	.49	.60	.56	17.00	1.08	.63	1.03	1.86	3.28	3.34
9	.46	3.70	.53	.60	.56	85.00	.98	.62	1.09	1.96	3.04	139
10	.49	9.00	.53	.60	.60	27.00	.94	.76	1.10	2.11	3.11	7.20
11	.55	2.00	.53	.60	.60	11.00	.90	1.12	1.18	2.23	3.25	4.00
12	.68	.85	.53	.60	.60	6.30	.89	1.59	1.23	2.35	4.29	3.23
13	.66	.81	.53	.65	.60	4.85	.90	1.79	1.31	2.61	13.00	3.03
14	.69	.78	1.00	.69	.60	3.58	.93	3.07	1.34	2.98	4.08	2.86
15	.76	.78	.57	.65	.60	2.84	.92	4.66	1.45	3.08	3.66	2.72
16	4.47	.78	3.80	.60	.68	2.37	.92	3.02	1.50	3.14	3.48	2.65
17	28.00	.75	1.80	.60	.73	1.91	.94	2.22	1.53	3.31	3.50	2.76
18	51.00	.68	.78	.60	.73	1.54	.94	1.68	1.48	3.56	3.44	2.71
19	145	.60	.65	.56	.92	1.32	.93	1.29	1.51	3.51	3.37	2.44
20	4.55	.57	.60	.52	.84	1.28	.95	1.04	1.97	3.53	3.44	2.39
21	2.89	.53	.69	.56	300	1.21	.93	.78	9.13	3.37	3.37	2.40
22	2.37	.57	.65	.56	468	1.18	.95	.59	11.00	3.18	3.38	2.70
23	1.94	.60	.60	.56	354	1.18	1.06	.50	2.28	3.01	3.21	7.10
24	1.68	.70	.56	.56	192	1.23	1.08	.49	11.00	3.20	3.20	5.20
25	1.42	.68	.65	.56	29.00	1.22	1.03	.51	1.67	1830	11.00	2.57
26	1.37	.72	1.11	.56	16.00	1.17	.99	.59	1.50	116	11.00	5.60
27	2.80	.88	3.20	.56	26.00	1.17	.93	1.10	1.99	13.00	3.43	2.57
28	18.00	.79	166	.56	7.70	4.00	.87	.66	5.68	6.24	2.95	2.37
29	2.50	.72	6.50	.56	---	1.15	.84	.63	4.83	5.12	2.93	2.39
30	.85	.70	2.00	.56	---	1.08	.83	.69	6.29	4.60	3.06	6.00
31	.82	---	.81	.52	---	3.60	---	.81	---	5.09	2.65	---
TOTAL	278.18	99.69	198.96	18.77	1405.00	210.08	71.48	35.90	69.89	2047.73	132.21	268.87
WTR YR 1985 TOTAL	4836.76											

NITROGEN, TOTAL, LOAD POUNDS PER DAY, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	208	33.0	29.0	19.0	66.0	63.0	18.0	13.0	30.0	29.0	24.0
2	20.0	60.0	31.0	27.0	19.0	46.0	45.0	17.0	12.0	27.0	25.0	23.0
3	20.0	52.0	29.0	29.0	21.0	33.0	41.0	17.0	12.0	26.0	24.0	23.0
4	21.0	51.0	28.0	30.0	21.0	63.0	104	17.0	12.0	26.0	23.0	24.0
5	21.0	48.0	26.0	30.0	23.0	47.0	84.0	16.0	13.0	24.0	23.0	132
6	21.0	45.0	25.0	30.0	22.0	39.0	100.0	15.0	13.0	25.0	23.0	40.0
7	25.0	46.0	23.0	28.0	22.0	36.0	56.0	15.0	13.0	25.0	22.0	29.0
8	22.0	47.0	24.0	28.0	22.0	96.0	41.0	14.0	14.0	24.0	21.0	28.0
9	20.0	79.0	26.0	27.0	22.0	306	38.0	14.0	14.0	24.0	19.0	403
10	21.0	108	26.0	27.0	23.0	130	37.0	15.0	14.0	24.0	22.0	57.0
11	24.0	55.0	26.0	27.0	23.0	96.0	36.0	19.0	14.0	23.0	21.0	37.0
12	30.0	50.0	26.0	27.0	23.0	71.0	34.0	23.0	15.0	23.0	32.0	28.0
13	28.0	47.0	25.0	28.0	23.0	62.0	33.0	22.0	15.0	24.0	62.0	26.0
14	29.0	45.0	32.0	30.0	23.0	52.0	33.0	32.0	15.0	26.0	25.0	25.0
15	31.0	45.0	27.0	28.0	23.0	47.0	31.0	44.0	16.0	25.0	23.0	24.0
16	48.0	44.0	72.0	26.0	23.0	45.0	30.0	31.0	17.0	24.0	22.0	24.0
17	73.0	42.0	47.0	26.0	25.0	41.0	29.0	25.0	17.0	23.0	23.0	25.0
18	114	38.0	31.0	26.0	25.0	37.0	28.0	21.0	16.0	24.0	22.0	25.0
19	643	34.0	26.0	24.0	32.0	36.0	27.0	18.0	16.0	23.0	22.0	23.0
20	77.0	31.0	24.0	22.0	25.0	36.0	26.0	17.0	16.0	23.0	22.0	22.0
21	57.0	29.0	28.0	24.0	1830	35.0	25.0	14.0	20.0	22.0	22.0	23.0
22	50.0	31.0	26.0	23.0	2180	34.0	24.0	12.0	87.0	21.0	23.0	26.0
23	44.0	33.0	23.0	23.0	1570	35.0	26.0	11.0	18.0	20.0	23.0	42.0
24	41.0	35.0	22.0	23.0	944	37.0	26.0	10.0	16.0	42.0	23.0	29.0
25	38.0	36.0	25.0	23.0	146	37.0	23.0	10.0	15.0	4550	59.0	25.0
26	39.0	38.0	44.0	23.0	78.0	36.0	23.0	12.0	15.0	362	61.0	35.0
27	46.0	46.0	69.0	22.0	61.0	37.0	21.0	22.0	14.0	72.0	28.0	26.0
28	126	40.0	666	22.0	53.0	56.0	20.0	12.0	50.0	38.0	25.0	24.0
29	44.0	36.0	82.0	22.0	---	37.0	19.0	11.0	51.0	31.0	26.0	25.0
30	33.0	35.0	48.0	22.0	---	36.0	19.0	12.0	66.0	28.0	28.0	36.0
31	30.0	---	32.0	21.0	---	53.0	---	14.0	---	31.0	25.0	---
TOTAL	1856.0	1534.0	1672.0	797.0	7321.0	1818.0	1142.0	550.0	639.0	5710.0	848.0	1333.0
WTR YR 1985 TOTAL	25220.0											

WISCONSIN RIVER BASIN

05406470 BREWERY CREEK AT CROSS PLAINS, WI--CONTINUED

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	3.0	.0	2.0	.0	.0	.0
2				---	---	---	3.5	1.0	2.0	.0	.0	.0
3				---	---	---	.5	.0	.0	.0	.0	.0
4				---	---	---	.0	.0	.0	.0	.0	.0
5				---	---	---	.0	.0	.0	.0	.0	.0
6				---	---	---	.0	.0	.0	.0	.0	.0
7				---	---	---	.0	.0	.0	2.0	.0	.5
8				---	---	---	.0	.0	.0	1.5	.0	1.0
9				---	---	---	.0	.0	.0	.0	.0	.0
10				---	---	---	2.5	.0	1.0	1.5	.0	.5
11				---	---	---	3.5	.0	2.5	1.5	.0	.5
12				---	---	---	4.5	3.0	3.5	.0	.0	.0
13				---	---	---	3.0	.0	2.0	.0	.0	.0
14				---	---	---	2.0	.0	.5	.0	.0	.0
15				---	---	---	4.0	2.0	3.0	.0	.0	.0
16				---	---	---	6.0	3.0	5.0	.0	.0	.0
17				---	---	---	3.5	.5	2.5	.0	.0	.0
18				---	---	---	.0	.0	.0	.0	.0	.0
19				---	---	---	1.5	.0	.5	.0	.0	.0
20				---	---	---	.0	.0	.0	.0	.0	.0
21				---	---	---	2.0	.0	.5	.0	.0	.0
22				---	---	---	1.5	.0	.0	.0	.0	.0
23				---	---	---	.0	.0	.0	.0	.0	.0
24				---	---	---	.0	.0	.0	.0	.0	.0
25				---	---	---	.0	.0	.0	.0	.0	.0
26				---	---	---	.0	.0	.0	.0	.0	.0
27				---	---	---	.0	.0	.0	.0	.0	.0
28				---	---	---	7.0	.0	2.0	.0	.0	.0
29				5.0	4.0	4.5	7.0	.0	3.5	.0	.0	.0
30				5.0	2.5	4.0	.0	.0	.0	.5	.0	.0
31				---	---	---	.0	.0	.0	.5	.0	.0
MONTH				5.0	2.5	4.5	7.0	.0	1.0	2.0	.0	.0

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	.0	.0	.0	9.0	1.0	4.0	11.0	2.0	7.0	20.5	10.5	15.0
2	.0	.0	.0	7.5	.0	3.5	16.0	4.0	9.5	21.5	7.0	13.5
3	.0	.0	.0	2.0	.0	.5	7.0	3.5	5.0	17.5	8.5	12.5
4	.0	.0	.0	1.5	.0	.0	5.5	4.0	4.5	22.0	11.0	15.5
5	.0	.0	.0	5.5	.5	3.0	10.0	2.0	3.5	17.5	12.5	15.0
6	.0	.0	.0	8.0	1.5	4.0	11.0	4.0	6.5	23.5	12.0	16.5
7	.0	.0	.0	9.0	.0	2.5	12.0	3.5	7.0	22.0	9.5	15.0
8	.0	.0	.0	8.5	.5	2.5	10.0	2.0	5.5	24.5	9.0	16.5
9	.5	.0	.0	9.0	4.5	6.0	14.0	1.0	6.5	24.5	12.5	17.5
10	1.5	.0	.5	10.5	1.0	4.0	16.5	2.5	9.0	25.5	12.5	18.5
11	1.5	.0	.5	10.0	2.5	5.0	17.0	5.5	10.5	20.0	15.0	17.0
12	.0	.0	.0	11.0	.5	5.5	20.5	7.5	13.0	18.0	14.0	16.0
13	.0	.0	.0	12.0	2.0	6.0	16.5	9.5	13.0	21.0	9.5	15.0
14	.0	.0	.0	9.0	1.5	4.5	17.5	9.0	12.0	25.5	12.0	17.5
15	.0	.0	.0	11.5	2.0	7.0	21.5	6.5	13.0	17.5	13.0	15.0
16	.0	.0	.0	14.5	2.5	7.0	19.0	6.5	11.5	17.0	12.0	14.0
17	2.5	.0	1.0	13.0	1.0	6.0	21.0	6.0	12.5	23.0	10.5	16.0
18	2.5	.5	1.0	13.0	1.5	8.0	25.5	11.5	17.5	23.5	12.0	17.0
19	2.0	.0	.5	13.5	5.0	7.0	26.0	14.0	18.5	24.5	11.5	17.5
20	4.0	.0	1.5	5.5	2.5	3.0	26.5	12.5	18.5	24.0	14.0	18.0
21	.5	.0	.0	7.5	2.0	3.5	23.5	13.5	18.0	22.5	11.0	16.5
22	.0	.0	.0	13.5	3.0	7.5	22.5	13.0	17.5	23.0	10.5	16.5
23	.0	.0	.0	15.5	4.5	11.0	23.0	14.0	17.0	24.5	12.0	18.0
24	2.0	.0	.5	9.0	8.5	9.0	16.0	10.0	13.5	25.0	15.0	19.5
25	4.0	.5	1.5	16.5	9.0	13.0	16.5	8.5	12.0	25.0	14.0	19.5
26	4.0	.5	2.0	9.5	6.5	8.0	21.0	9.5	14.5	26.0	17.0	20.5
27	6.5	.0	2.0	12.5	5.0	8.0	13.0	8.5	11.0	19.5	15.0	16.5
28	8.0	.0	3.5	10.5	3.0	5.0	23.0	7.5	14.0	22.0	12.0	16.5
29	---	---	---	5.5	2.0	3.0	24.0	7.5	15.0	21.0	12.5	17.0
30	---	---	---	4.0	1.0	2.5	23.0	9.5	15.5	20.5	16.5	18.0
31	---	---	---	11.5	2.0	6.0	---	---	---	20.0	15.5	17.5
MONTH	8.0	.0	.5	16.5	.0	5.5	26.5	1.0	11.5	26.0	7.0	16.5

WISCONSIN RIVER BASIN

05406470 BREWERY CREEK AT CROSS PLAINS, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT, 1984												
16...	1600	2.3	2.0	--	--	--	--	2.3	4.3	.580	--	--
17...	0740	3.3	2.2	--	--	--	--	1.8	4.0	.500	--	--
18...	2340	16	1.3	--	2.90	--	--	--	--	4.10	--	--
19...	0640	21	1.8	--	.330	--	3.6	3.9	5.7	.960	--	--
19...	0825	15	2.0	--	.250	--	3.5	3.7	5.7	.850	--	--
19...	1100	9.9	2.4	--	.260	--	2.7	3.0	5.4	.990	--	--
20...	1030	2.6	3.4	--	.190	--	1.7	1.9	5.3	.290	--	--
NOV												
01...	0725	6.1	1.6	--	2.80	--	11	14	16	4.20	--	--
01...	1350	8.2	1.9	--	.500	--	2.4	2.9	4.8	1.10	.570	--
02...	0810	2.6	3.2	--	.320	--	.78	1.1	4.3	.380	--	--
DEC												
28...	0430	21	1.2	--	2.20	--	5.8	8.0	9.2	1.60	--	--
28...	0530	40	1.1	--	1.40	--	3.6	5.0	6.1	1.30	--	--
28...	0630	46	.90	--	1.60	--	5.4	7.0	7.9	1.70	--	--
28...	0830	39	.90	--	1.60	--	3.7	5.3	6.2	1.80	--	--
28...	1030	27	1.1	--	1.70	--	5.8	7.5	8.6	2.80	--	--
28...	1149	27	1.3	--	1.70	--	3.7	5.4	6.7	2.00	--	--
28...	1150	27	1.4	--	1.70	--	4.8	6.5	7.9	2.60	--	--
28...	1345	21	1.6	--	1.30	--	6.2	7.5	9.1	3.00	--	--
31...	1230	1.8	3.2	--	.200	--	.60	.80	4.0	.090	--	--
JAN, 1985												
29...	1155	1.7	--	2.7	--	.180	--	.50	--	.080	--	.033
FEB												
21...	1200	21	--	1.7	--	2.40	--	6.8	--	1.18	--	--
21...	1730	40	--	.30	--	5.80	--	16	--	2.40	--	--
21...	2030	67	--	.40	--	7.40	--	18	--	3.10	--	--
21...	2230	73	--	.50	--	6.40	--	16	--	3.00	--	--
22...	0030	62	--	.60	--	5.20	--	13	--	2.60	--	--
22...	0530	46	--	.80	--	4.30	--	11	--	2.40	--	--
22...	1140	33	--	1.2	--	4.20	--	9.8	--	2.30	--	1.59
22...	1645	39	--	.80	--	4.00	--	10	--	2.50	--	--
23...	2245	44	--	1.3	--	3.20	--	8.8	--	2.50	--	--
24...	0145	43	--	1.4	--	2.80	--	7.6	--	1.05	--	--
24...	0745	23	--	1.6	--	2.30	--	5.8	--	1.62	--	--
24...	1645	27	--	1.6	--	2.20	--	6.4	--	1.86	--	--
25...	0930	4.3	--	2.3	--	1.20	--	3.3	--	.880	--	--
MAR												
09	1715	23	--	1.6	--	1.20	--	9.0	--	3.30	--	--
09...	1915	23	--	1.7	--	1.30	--	7.0	--	2.50	--	--
11...	0923	3.5	--	3.1	--	.400	--	1.6	--	.480	--	--
19...	1020	2.2	--	2.7	--	.200	--	.60	--	.120	--	.038
APR												
11...	0915	2.1	--	2.7	--	.100	--	.50	--	.080	--	.034
25...	0950	1.7	--	2.0	--	<.020	--	.50	--	.110	--	.039
MAY												
09...	1340	1.2	--	1.5	--	<.020	--	.50	--	.090	--	.035
15...	1045	3.5	--	2.5	--	.730	--	2.6	--	.580	--	--
23...	0950	.91	--	1.7	--	.040	--	.50	--	.100	--	.053
JUN												
06...	1125	1.2	--	1.5	--	.030	--	.40	--	.140	--	.090
20...	1230	1.7	--	1.2	--	.020	--	.40	--	.160	--	.083
22...	0515	3.6	--	1.7	--	2.20	--	9.0	--	2.60	--	--
22...	0715	3.8	--	1.6	--	.560	--	2.6	--	1.84	--	--
28...	0941	2.8	--	1.1	--	1.50	--	5.1	--	.970	--	--
28...	1830	3.3	--	1.5	--	.640	--	3.0	--	.740	--	--
28...	2030	3.4	--	2.8	--	.640	--	2.2	--	.560	--	--
30...	0300	3.3	--	2.2	--	2.00	--	5.8	--	2.10	--	--
30...	0500	3.9	--	3.0	--	.240	--	1.1	--	.430	--	--
30...	0800	3.5	--	4.2	--	.200	--	1.2	--	.350	--	--
JUL												
18...	1120	1.3	--	1.2	--	.030	--	2.0	--	.480	--	.117
25...	0100	17	--	1.1	--	.240	--	2.8	--	1.34	--	--
25...	0300	117	--	.80	--	.700	--	15	--	6.60	--	--
25...	0500	150	--	1.4	--	.360	--	7.4	--	3.40	--	--
25...	0815	167	--	1.2	--	.250	--	5.4	--	2.60	--	--
25...	0816	146	--	1.3	--	.370	--	5.8	--	2.60	--	.510
25...	1000	178	--	1.2	--	.180	--	5.4	--	2.60	--	--
25...	1200	229	--	1.1	--	.340	--	7.2	--	3.30	--	--
25...	1250	217	--	1.1	--	.170	--	3.8	--	1.92	--	.550
25...	1400	211	--	.98	--	.150	--	4.3	--	2.10	--	--
25...	1512	200	--	.76	--	.100	--	3.1	--	1.72	--	--
25...	1900	145	--	.70	--	.050	--	3.2	--	1.65	--	--
25...	2300	68	--	.81	--	.040	--	2.7	--	1.38	--	--
26...	1000	22	--	1.3	--	.060	--	1.9	--	.980	--	--
AUG												
13...	0430	4.0	--	1.8	--	.590	--	2.7	--	1.07	--	--
13...	0730	5.4	--	1.3	--	.170	--	2.5	--	1.09	--	--
13...	1015	4.0	--	1.5	--	.330	--	2.5	--	.800	--	--
21...	0940	1.6	--	1.9	--	.060	--	.60	--	.390	--	.131

WISCONSIN RIVER BASIN
05406470 BREWERY CREEK AT CROSS PLAINS, WI--CONTINUED
WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)
SEP, 1985												
04...	0930	2.0	--	1.6	--	.100	--	.50	--	.190	--	.142
05...	0015	3.9	--	2.6	--	2.00	--	5.0	--	1.56	--	--
05...	0215	3.6	--	1.9	--	2.10	--	8.0	--	2.80	--	--
05...	0715	12	--	1.5	--	.490	--	2.7	--	1.15	--	--
05...	0830	13	--	1.2	--	.220	--	1.8	--	.820	--	.420
05...	0915	13	--	1.2	--	.170	--	1.8	--	.860	--	--
05...	1615	6.3	--	1.3	--	.290	--	1.6	--	.810	--	--
06...	0115	3.7	--	1.6	--	.210	--	1.0	--	.370	--	--
06...	0915	3.1	--	1.8	--	.210	--	.80	--	.260	--	--
09...	0130	14	--	1.6	--	2.70	--	23	--	9.00	--	--
09...	0330	7.9	--	1.6	--	.270	--	2.3	--	.950	--	--
09...	0530	45	--	1.0	--	.330	--	6.3	--	2.50	--	--
09...	1115	17	--	1.2	--	.240	--	1.2	--	1.23	--	--
09...	1715	7.7	--	1.6	--	.200	--	1.4	--	.690	--	--
10...	0215	4.4	--	2.0	--	.240	--	1.1	--	.420	--	--

WISCONSIN RIVER BASIN

05406470 BREWERY CREEK AT CROSS PLAINS, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SEDIMENT, SUSPENDED (MG/L) (80154)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SEDIMENT, SUSPENDED (MG/L) (80154)
OCT, 1984				MAY, 1985			
16...	1600	2.3	114	09...	1340	1.2	47
17...	0740	3.3	53	10...	1629	1.2	16
18...	2340	16	984	15...	1045	3.5	78
19...	0640	21	558	18...	1717	1.1	84
19...	0825	15	448	23...	0950	.91	84
19...	1100	9.9	349	24...	1826	.83	257
20...	1030	2.6	147	31...	1730	1.2	225
NOV				JUN			
01...	0725	6.1	585	06...	1125	1.2	56
01...	1115	10	647	06...	1719	1.2	169
01...	1350	8.2	468	13...	0833	1.6	83
02...	0810	2.6	169	20...	1230	1.7	68
21...	1400	1.7	69	23...	1254	1.9	61
DEC				27...	0717	1.6	62
05...	1100	2.1	65	28...	0941	2.8	85
12...	1500	1.6	93	JUL			
19...	1510	1.8	69	05...	0601	1.6	350
28...	0430	21	201	12...	1729	1.4	210
28...	0530	40	315	16...	1725	1.4	267
28...	0630	46	387	18...	1120	1.3	76
28...	0830	39	484	24...	1655	1.3	128
28...	1030	27	498	24...	2200	11	1070
28...	1149	27	578	25...	0200	64	3110
28...	1150	27	647	25...	0400	147	2450
28...	1345	21	938	25...	0600	149	2640
28...	1620	13	622	25...	0800	144	1800
31...	1230	1.8	39	25...	0815	167	1590
JAN, 1985				25...	1100	193	1290
02...	1610	3.0	41	25...	1255	213	919
10...	0735	1.7	121	JUL			
18...	0744	2.1	42	25...	1300	211	1090
29...	1155	1.7	56	25...	1511	202	692
FEB				25...	1515	200	783
13...	1445	1.6	43	25...	1800	161	780
21...	1230	24	548	25...	2100	114	563
21...	1630	34	177	26...	0100	44	356
21...	1930	61	118	26...	0946	23	205
21...	2130	70	382	AUG			
21...	2330	67	244	02...	1726	1.7	68
22...	0230	54	165	10...	1753	1.7	45
22...	0730	40	115	13...	0530	5.3	187
22...	1125	33	371	13...	0830	4.8	274
22...	1130	33	277	13...	1015	4.0	152
22...	1140	33	292	17...	1625	1.7	48
22...	1945	41	386	21...	0940	1.6	131
22...	2245	36	324	23...	0649	1.7	37
23...	0745	29	352	25...	1515	9.8	3960
23...	1645	35	786	25...	1800	3.9	146
23...	2245	44	713	25...	2000	4.7	193
24...	0445	34	410	25...	2300	9.1	273
24...	1345	30	292	26...	0200	7.3	175
24...	1945	24	342	26...	0600	4.7	97
25...	0930	4.3	109	26...	0900	3.7	62
MAR				28...	0740	2.0	41
01...	0740	2.8	109	SEP			
08...	0714	2.2	145	04...	1454	2.0	33
09...	1815	25	1650	05...	0015	3.9	742
09...	2015	18	1090	05...	0115	6.2	297
11...	0923	3.5	154	05...	0215	3.6	145
15...	1615	2.3	116	05...	0815	13	197
19...	1020	2.2	81	05...	0830	13	219
22...	1635	2.0	88	05...	0915	13	100
27...	1030	2.2	111	05...	1015	12	177
APR				05...	1515	7.0	125
05...	1755	3.2	127	05...	2115	4.3	38
10...	1628	2.2	39	06...	0015	3.9	32
11...	0915	2.1	110	09...	0230	6.3	908
18...	1633	1.8	84	09...	0430	38	1080
25...	0950	1.7	90	09...	0630	39	783
26...	1452	1.7	42	09...	1315	13	203
28...	1726	1.5	98	09...	1915	6.5	89
MAY				10...	1026	3.7	66
03...	0733	1.4	49	12...	1556	2.4	64
				19...	1637	2.0	24

WISCONSIN RIVER BASIN

05406491 GARFOOT CREEK NEAR CROSS PLAINS, WI

LOCATION.--Lat 44°51'16", long 89°40'43" in NW 1/4 SW 1/4 sec.4, T.7 N., R.7 E., Dana County, Hydrologic Unit 0707005, on left bank at bridge on Garfoot Road, 0.5 mi upstream from Black Earth Creek.

DRAINAGE AREA.--5.39 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Water-stage recorder. Elevation of gage is 860 ft. from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-11, Aug. 13-15, end ice period listed in rating table below. Records good except for estimated daily discharges, which are fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 128 ft³/s July 25, gage height, 5.84 ft; minimum discharge, 2.9 ft³/s July 5-8, gage height, 3.22 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used July 5-18, Aug. 25, and Sept. 5, 9, 10, 23, 30; stage-discharge relation affected by ice Jan. 18 to Feb. 14.)

3.1	2.7	3.6	10
3.2	3.7	4.0	20
3.3	5.0	4.5	36
3.4	6.4	5.0	62
3.5	8.1	5.5	98

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	15	4.2	4.4	3.5	6.3	6.6	5.2	4.5	3.2	4.5	4.6
2	4.2	5.7	4.3	4.2	3.5	5.6	5.8	4.9	4.3	3.1	4.4	4.6
3	4.2	5.3	4.1	4.2	3.5	5.2	5.6	4.6	4.3	3.1	4.3	4.3
4	4.2	5.2	3.8	4.0	3.5	5.4	7.6	4.7	4.3	3.1	4.3	4.3
5	4.2	5.0	3.7	4.2	3.6	5.0	7.0	4.8	4.3	2.9	4.3	8.5
6	4.2	4.8	3.8	4.2	3.6	4.8	8.1	4.9	4.3	2.9	4.3	5.2
7	4.7	4.7	3.8	4.2	3.6	5.0	6.3	4.7	4.2	2.9	4.6	4.8
8	4.3	4.9	3.8	4.2	3.6	6.0	5.8	4.9	4.3	2.9	4.4	4.9
9	4.2	6.2	3.9	4.0	3.7	9.3	5.6	4.9	4.2	3.3	4.3	26
10	4.2	5.8	3.9	4.1	3.7	7.3	5.7	4.9	3.9	3.8	4.5	6.5
11	4.4	5.1	3.9	4.1	3.8	7.1	5.6	4.9	3.9	3.8	4.4	5.2
12	5.1	4.9	4.1	4.1	3.8	6.4	5.4	5.0	3.9	3.9	4.3	4.9
13	4.6	4.7	4.2	4.1	3.9	6.1	5.4	4.7	3.9	3.9	4.6	4.6
14	5.0	4.7	4.3	4.1	4.0	5.8	5.4	5.1	3.9	3.9	4.5	4.6
15	5.4	4.7	4.2	4.1	4.1	5.5	5.4	5.4	4.0	3.8	4.4	4.6
16	6.1	4.6	7.8	4.1	4.1	5.5	5.3	5.0	3.9	3.7	4.4	4.6
17	6.7	5.5	5.2	4.1	4.1	5.1	5.1	4.9	3.9	3.7	4.5	4.6
18	11	4.6	4.5	3.8	4.1	5.1	5.1	4.8	3.8	3.9	4.5	4.6
19	28	4.3	4.6	3.7	4.1	5.3	5.1	4.6	3.8	4.1	4.4	4.6
20	5.8	4.2	4.4	3.7	4.2	5.3	5.1	4.5	3.7	4.2	4.4	4.4
21	5.6	4.2	5.0	3.6	13	5.3	5.1	4.4	3.8	4.4	4.4	4.4
22	5.3	4.1	4.5	3.6	18	5.3	5.1	4.3	4.4	4.7	4.4	4.9
23	5.0	4.1	4.4	3.6	22	5.3	5.2	4.3	3.8	4.9	4.4	6.5
24	4.9	3.9	4.2	3.6	20	5.5	5.2	4.3	3.9	5.4	4.5	5.2
25	4.9	3.9	4.1	3.6	7.6	5.6	5.1	4.3	3.6	81	5.5	4.9
26	5.1	3.9	4.2	3.5	6.4	5.3	5.1	4.4	3.5	10	5.2	5.4
27	7.0	5.0	4.3	3.5	5.5	5.3	5.1	4.6	3.8	6.0	4.6	5.0
28	8.3	4.3	23	3.5	5.8	6.2	5.1	4.4	4.2	5.3	4.6	4.8
29	5.4	4.1	8.5	3.5	---	5.4	5.1	4.3	3.8	5.0	4.9	4.9
30	5.2	4.2	4.8	3.5	---	5.2	5.1	4.5	3.5	4.5	5.1	5.6
31	5.0	---	4.4	3.5	---	5.9	---	4.7	---	4.6	5.1	---
TOTAL	186.5	151.6	157.9	120.6	174.3	177.4	168.2	145.9	119.6	205.9	141.0	172.0
MEAN	6.02	5.05	5.09	3.89	6.23	5.72	5.61	4.71	3.99	6.64	4.55	5.73
MAX	28	15	23	4.4	22	9.3	8.1	5.4	4.5	81	5.5	26
MIN	4.2	3.9	3.7	3.5	3.5	4.8	5.1	4.3	3.5	2.9	4.3	4.3

WTR YR 1985 TOTAL 1920.9 MEAN 5.26 -MAX 81 MIN 2.9

WISCONSIN RIVER BASIN

05406491 GARFOOT CREEK AT CROSS PLAINS, WI--CONTINUED

PHOSPHORUS, TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.76	106	1.51	1.27	1.13	5.30	5.70	2.19	2.90	2.03	2.50	3.71
2	1.81	5.99	1.53	1.23	1.13	2.51	4.00	2.14	2.79	2.01	2.83	3.86
3	1.81	2.70	1.45	1.21	1.13	2.30	2.10	2.12	2.79	1.95	3.21	3.80
4	1.81	2.40	1.34	1.18	1.32	2.34	8.50	2.25	2.81	1.86	3.71	3.99
5	1.81	2.26	1.32	1.21	1.36	2.17	6.90	2.40	2.75	1.74	4.29	43.00
6	2.04	2.14	1.33	1.21	1.36	2.06	10.00	2.54	2.74	1.69	4.96	7.25
7	2.04	2.12	1.31	1.24	1.36	2.10	5.20	2.64	2.66	1.65	6.17	17.00
8	2.04	2.17	1.31	1.25	1.36	4.60	2.19	2.79	2.60	1.61	6.72	23.00
9	2.04	5.70	1.32	1.20	1.40	16.00	2.13	2.89	2.44	1.75	7.64	107
10	2.04	2.58	1.31	1.23	1.40	8.20	2.15	2.91	2.23	2.01	9.31	18.00
11	2.38	2.22	1.31	1.24	1.44	7.50	2.10	2.92	2.18	1.96	10.00	9.31
12	2.69	2.10	1.39	1.24	1.44	5.60	2.02	3.01	2.10	1.94	12.00	5.69
13	2.48	2.01	1.37	1.25	1.68	2.46	1.99	2.86	2.04	1.91	14.00	4.20
14	2.77	1.98	1.39	1.25	1.73	2.30	1.99	5.20	1.98	1.84	11.00	4.01
15	3.07	1.96	1.35	1.20	1.74	2.18	1.95	5.60	2.00	1.76	8.65	3.86
16	11.00	1.91	8.10	1.20	1.76	2.12	1.89	5.20	1.89	1.68	6.66	3.72
17	24.00	3.50	2.70	1.21	1.79	1.97	1.80	3.08	1.84	1.67	5.35	3.60
18	54.00	1.90	1.44	1.23	1.82	1.96	1.78	2.95	1.76	1.72	4.30	3.44
19	176	1.78	1.42	1.20	1.85	2.00	1.76	2.91	1.67	1.81	3.30	3.28
20	5.97	1.74	1.35	1.20	1.90	2.00	1.74	2.89	1.61	1.90	2.60	3.03
21	4.67	1.74	2.40	1.17	104	2.00	1.72	2.80	1.71	2.00	2.19	2.91
22	4.22	1.73	1.38	1.17	134	2.00	1.70	2.77	4.00	2.12	2.25	3.15
23	3.88	1.71	1.32	1.17	145	2.01	1.73	2.79	1.83	2.25	2.36	11.00
24	3.67	1.70	1.27	1.17	113	2.10	1.70	2.79	1.89	2.23	2.53	6.70
25	3.55	1.68	1.21	1.17	15.00	2.10	1.67	2.74	1.83	747	7.60	2.82
26	3.57	1.48	1.23	1.13	3.59	1.98	1.75	2.83	1.84	47.00	6.70	2.97
27	8.97	2.60	1.38	1.13	2.54	2.02	1.81	3.01	2.06	23.00	2.98	2.64
28	14.00	1.59	141	1.13	4.20	4.60	1.89	2.86	3.60	16.00	3.10	2.45
29	4.70	1.55	14.00	1.13	---	2.06	1.98	2.79	2.22	10.00	3.43	2.39
30	3.18	1.54	1.79	1.13	---	1.96	2.12	2.94	2.15	5.86	6.50	2.62
31	2.97	---	1.31	1.13	---	4.20	---	3.04	---	3.08	6.50	---
TOTAL	360.94	172.48	203.84	37.08	551.43	104.70	85.96	92.85	68.91	897.03	175.34	314.40
WTR YR 1985 TOTAL	3064.96											

NITROGEN, TOTAL, LOAD POUNDS PER DAY, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.0	408	75.0	78.0	49.0	102	131	74.0	64.0	47.0	64.0	87.0
2	59.0	121	76.0	74.0	49.0	91.0	85.0	70.0	60.0	45.0	62.0	80.0
3	59.0	111	72.0	72.0	49.0	84.0	81.0	66.0	59.0	44.0	61.0	70.0
4	59.0	109	67.0	70.0	49.0	86.0	168	68.0	59.0	43.0	61.0	67.0
5	59.0	103	66.0	71.0	51.0	80.0	145	70.0	58.0	41.0	61.0	207
6	59.0	98.0	67.0	71.0	51.0	77.0	188	72.0	57.0	40.0	61.0	82.0
7	66.0	97.0	66.0	71.0	51.0	79.0	120	71.0	58.0	40.0	65.0	71.0
8	60.0	100.0	67.0	70.0	51.0	111	82.0	73.0	58.0	39.0	61.0	72.0
9	59.0	134	67.0	66.0	52.0	240	80.0	75.0	57.0	44.0	60.0	741
10	59.0	123	67.0	67.0	52.0	156	80.0	80.0	53.0	50.0	63.0	131
11	62.0	103	67.0	67.0	53.0	149	78.0	87.0	53.0	50.0	61.0	81.0
12	71.0	98.0	70.0	66.0	53.0	123	76.0	94.0	53.0	50.0	60.0	72.0
13	64.0	94.0	71.0	66.0	55.0	97.0	75.0	96.0	53.0	50.0	64.0	68.0
14	70.0	93.0	72.0	65.0	56.0	91.0	76.0	112	54.0	50.0	61.0	67.0
15	75.0	92.0	70.0	64.0	57.0	87.0	75.0	126	55.0	48.0	62.0	66.0
16	120	90.0	187	64.0	57.0	85.0	73.0	111	54.0	46.0	60.0	66.0
17	181	115	104	63.0	57.0	80.0	70.0	104	54.0	46.0	61.0	66.0
18	305	89.0	74.0	57.0	57.0	80.0	70.0	95.0	54.0	47.0	62.0	65.0
19	1160	83.0	75.0	56.0	57.0	83.0	70.0	86.0	53.0	52.0	60.0	64.0
20	176	80.0	71.0	56.0	58.0	82.0	70.0	81.0	52.0	57.0	59.0	62.0
21	157	80.0	98.0	54.0	605	82.0	70.0	74.0	68.0	62.0	60.0	61.0
22	139	78.0	73.0	52.0	881	81.0	69.0	68.0	139	68.0	62.0	68.0
23	125	76.0	70.0	52.0	930	81.0	71.0	65.0	57.0	75.0	65.0	113
24	116	73.0	67.0	52.0	778	84.0	70.0	64.0	57.0	94.0	70.0	82.0
25	109	72.0	64.0	52.0	199	84.0	69.0	64.0	52.0	2980	89.0	68.0
26	108	72.0	66.0	49.0	141	79.0	69.0	64.0	51.0	210	82.0	74.0
27	154	101	69.0	49.0	93.0	80.0	70.0	68.0	74.0	90.0	81.0	67.0
28	201	78.0	757	49.0	94.0	118	71.0	64.0	135	78.0	84.0	65.0
29	102	75.0	301	49.0	---	81.0	71.0	62.0	88.0	72.0	92.0	65.0
30	96.0	76.0	120	49.0	---	77.0	72.0	65.0	74.0	65.0	102	74.0
31	82.0	---	82.0	49.0	---	107	---	66.0	---	66.0	103	---
TOTAL	4272.0	3122.0	3318.0	1890.0	4785.0	3017.0	2595.0	2435.0	1913.0	4789.0	2119.0	3022.0
WTR YR 1985 TOTAL	37277.0											

WISCONSIN RIVER BASIN

05406491 GARFOOT CREEK AT CROSS PLAINS, WI--CONTINUED

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1				---	---	---	6.5	5.5	6.0	4.5	.5	2.0
2				---	---	---	6.5	5.0	6.0	3.5	.5	1.5
3				---	---	---	5.0	2.5	4.0	4.0	.0	1.5
4				---	---	---	5.0	2.5	3.5	5.0	1.0	3.0
5				---	---	---	5.5	2.5	4.0	6.5	4.0	5.0
6				---	---	---	3.5	1.0	2.5	6.0	3.5	5.0
7				---	---	---	5.5	2.0	4.0	5.5	4.5	5.0
8				---	---	---	7.5	4.5	5.5	5.5	1.5	4.0
9				---	---	---	7.5	5.0	6.0	5.5	1.5	3.5
10				---	---	---	7.5	5.0	6.0	5.5	3.0	4.0
11				---	---	---	7.0	5.0	6.0	5.0	1.5	3.5
12				---	---	---	7.0	6.0	6.5	4.5	1.0	2.5
13				---	---	---	6.0	4.0	5.5	5.0	2.0	3.5
14				---	---	---	6.0	2.0	5.0	5.0	1.5	3.5
15				---	---	---	6.5	5.5	6.0	4.0	.5	2.5
16				---	---	---	6.5	4.5	5.5	4.5	3.0	3.5
17				---	---	---	5.5	4.0	5.0	5.5	2.5	4.0
18				---	---	---	5.0	2.0	3.5	5.0	2.0	4.0
19				---	---	---	5.5	3.5	4.5	2.0	.0	.5
20				---	---	---	6.0	3.0	4.5	.5	.0	.0
21				---	---	---	6.0	4.0	4.5	4.0	.5	2.0
22				---	---	---	4.5	1.5	3.0	5.5	2.5	3.5
23				---	---	---	5.0	3.0	4.0	5.5	3.5	4.5
24				---	---	---	3.0	.5	2.0	6.0	4.0	5.0
25				---	---	---	2.5	.5	1.5	4.0	.5	2.0
26				---	---	---	4.5	1.0	2.5	4.0	1.0	2.5
27				---	---	---	6.0	4.5	5.5	6.0	2.5	4.5
28				---	---	---	6.0	1.0	3.5	3.5	1.0	3.0
29				7.5	7.0	7.0	5.5	3.0	4.0	5.0	1.5	3.5
30				7.0	6.0	6.5	5.0	2.5	3.5	6.0	2.0	4.5
31				---	---	---	3.5	2.0	3.0	3.5	.5	1.5
MONTH				7.5	6.0	7.0	7.5	.5	4.5	6.5	.0	3.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	3.5	.5	1.0	9.5	4.5	6.0	10.5	4.5	6.5	16.5	10.0	12.5
2	4.5	.5	1.5	9.0	4.0	6.0	10.5	5.0	7.5	17.0	8.5	12.0
3	5.5	1.0	2.5	5.5	1.5	4.0	13.5	6.5	9.0	14.5	9.0	11.5
4	5.0	1.0	2.5	6.0	1.5	3.5	7.0	5.5	6.5	18.0	10.5	13.5
5	6.0	2.5	4.5	7.5	2.5	4.5	6.5	4.5	6.0	15.0	11.5	12.5
6	6.0	2.5	4.5	9.0	2.5	5.0	9.0	5.0	6.5	18.0	11.0	13.5
7	6.0	1.5	3.0	8.5	5.0	6.5	10.0	6.0	7.5	18.0	9.5	12.5
8	6.0	.5	2.5	10.0	4.0	6.0	9.0	5.5	7.0	18.5	9.5	13.0
9	5.0	2.5	4.0	9.0	3.5	5.0	12.5	5.0	8.0	19.0	11.0	14.0
10	6.0	4.0	5.0	10.0	4.0	6.5	14.5	6.0	9.5	19.5	11.5	14.5
11	5.0	2.0	4.0	7.0	4.5	6.0	14.5	7.5	10.5	16.5	12.5	14.0
12	5.5	1.5	3.0	10.0	4.5	6.5	16.5	9.0	12.0	15.5	11.5	13.5
13	6.0	1.5	3.5	6.5	5.0	6.0	14.0	10.0	11.5	16.5	9.5	12.5
14	5.5	1.0	2.5	10.5	5.0	7.0	14.5	9.5	11.5	19.5	11.0	14.5
15	6.0	.5	3.0	11.5	5.0	7.0	17.0	8.0	11.5	13.5	11.5	13.0
16	6.0	3.0	4.5	9.5	5.5	7.0	15.5	8.5	11.0	14.5	11.5	12.5
17	7.5	4.0	5.5	9.0	5.0	6.5	17.0	8.0	12.0	18.0	10.0	13.0
18	7.5	3.5	5.5	11.5	4.5	7.0	19.5	11.5	14.5	18.0	10.5	13.5
19	7.0	2.5	5.0	13.5	6.0	8.5	20.0	12.5	15.0	19.5	10.0	14.0
20	9.0	4.0	6.0	12.5	5.5	8.0	20.0	11.5	15.0	18.5	11.0	14.0
21	6.0	1.5	3.5	12.5	5.0	8.0	17.5	12.0	14.5	18.0*	9.5	13.0
22	2.5	1.5	2.0	13.0	5.0	8.0	17.5	12.0	14.5	18.0	9.5	13.0
23	2.5	1.5	2.0	7.5	6.0	7.0	18.5	12.5	14.5	19.5	10.0	13.5
24	3.5	1.5	2.0	7.0	6.0	6.5	13.5	10.0	12.0	19.0	11.5	14.0
25	5.5	3.0	4.0	12.5	6.0	8.0	15.0	9.5	11.5	19.5	11.0	14.5
26	6.0	3.5	4.5	13.5	6.0	9.5	16.5	10.0	12.5	20.5	12.5	15.0
27	8.0	3.0	5.0	14.0	8.5	10.5	12.5	9.0	11.0	15.5	11.5	13.5
28	9.0	4.0	5.5	9.5	7.0	8.5	18.0	9.0	12.5	18.5	10.0	13.5
29	---	---	---	12.0	7.0	8.5	18.5	8.5	12.5	18.0	10.0	13.5
30	---	---	---	7.5	5.0	6.5	18.0	9.5	13.0	15.5	12.5	13.5
31	---	---	---	7.0	3.5	5.0	---	---	---	15.5	12.0	14.0
MONTH	9.0	.5	3.5	14.0	1.5	6.5	20.0	4.5	11.0	20.5	8.5	13.5

WISCONSIN RIVER BASIN

05406491 GARFOOT CREEK NEAR CROSS PLAINS, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)
OCT, 1984												
16...	1530	6.4	2.3	--	--	--	--	2.6	4.9	.480	--	--
17...	0800	6.9	3.8	--	--	--	--	1.9	5.7	.670	--	--
18...	2355	59	1.6	--	.320	--	5.0	5.3	6.9	1.30	--	--
19...	0630	49	3.8	--	.150	--	2.9	3.0	6.8	1.10	--	--
19...	0810	33	4.4	--	.120	--	2.6	2.7	7.1	1.10	--	--
19...	1055	19	5.0	--	.080	--	2.4	2.5	7.5	.810	--	--
20...	0944	5.8	4.4	--	.060	--	1.0	1.1	5.5	.160	--	--
NOV												
01...	0800	36	1.3	--	.650	--	4.1	4.7	6.0	2.10	--	--
01...	1300	14	2.8	--	.170	--	1.5	1.7	4.5	.770	.530	--
02...	0755	5.7	3.1	--	.060	--	.74	.80	3.9	.190	--	--
DEC												
28...	0545	29	.90	--	1.20	--	7.1	8.3	9.2	1.80	--	--
28...	0915	44	1.2	--	.960	--	3.3	4.3	5.5	1.20	--	--
28...	1015	42	1.3	--	.790	--	3.3	4.1	5.4	1.20	--	--
28...	1145	38	1.3	--	.890	--	3.2	4.1	5.4	1.30	--	--
28...	1230	38	1.2	--	.720	--	3.2	3.9	5.1	1.20	--	--
28...	1231	38	1.4	--	.800	--	3.1	3.9	5.3	1.30	--	--
28...	1445	27	1.6	--	.650	--	3.2	3.8	5.4	1.10	--	--
31...	1120	4.4	2.4	--	.060	--	.64	.70	3.1	.050	--	--
JAN, 1985												
29...	1520	3.9	--	2.1	--	.020	--	.30	--	.060	--	.050
FEB												
21...	1945	31	--	1.3	--	2.20	--	9.4	--	1.96	--	--
21...	2200	26	--	1.4	--	1.80	--	7.2	--	1.46	--	--
22...	1057	13	--	1.7	--	2.10	--	6.3	--	1.23	--	.790
22...	1058	13	--	1.8	--	2.10	--	7.0	--	1.30	--	--
23...	1715	25	--	1.4	--	2.00	--	6.3	--	1.57	--	--
23...	2315	33	--	1.4	--	1.60	--	6.4	--	1.44	--	--
24...	0515	22	--	1.5	--	1.10	--	3.6	--	1.02	--	--
25...	0815	14	--	2.2	--	.370	--	1.6	--	.360	--	--
MAR												
19...	0825	4.9	--	2.2	--	<.100	--	.50	--	.070	--	.028
APR												
11...	0745	5.7	--	2.2	--	.020	--	.40	--	.070	--	.033
25...	0730	5.1	--	2.1	--	.040	--	.40	--	.060	--	.026
MAY												
09...	1255	4.9	--	2.1	--	.050	--	.70	--	.110	--	.051
15...	0935	5.4	--	2.8	--	.140	--	1.3	--	.290	--	--
23...	0750	4.3	--	2.1	--	.060	--	.70	--	.120	--	.030
JUN												
06...	0840	4.2	--	2.1	--	.050	--	.40	--	.120	--	.054
20...	1230	3.7	--	2.0	--	.040	--	.60	--	.080	--	.057
22...	0718	4.6	--	5.1	--	.500	--	2.3	--	.560	--	--
28...	0917	4.2	--	2.9	--	.330	--	3.3	--	.830	--	--
JUL												
02...	0750	3.1	--	2.0	--	.050	--	.50	--	.120	--	--
18...	1320	3.9	--	1.9	--	<.020	--	.40	--	.080	--	.044
24...	2359	11	--	1.8	--	.190	--	2.8	--	.880	--	--
25...	0400	64	--	3.7	--	.450	--	6.5	--	2.70	--	--
25...	0700	88	--	3.4	--	.210	--	3.7	--	1.70	--	--
25...	0840	124	--	3.2	--	.240	--	3.1	--	1.56	--	--
25...	0900	126	--	3.5	--	.230	--	3.0	--	1.48	--	--
25...	0935	128	--	3.4	--	.210	--	3.4	--	1.70	--	.920
25...	1200	121	--	3.5	--	.170	--	3.3	--	1.63	--	--
25...	1435	107	--	2.3	--	.130	--	2.5	--	1.24	--	--
25...	1600	98	--	2.4	--	.280	--	4.4	--	1.82	--	--
25...	2000	68	--	1.9	--	.080	--	2.8	--	1.28	--	--
25...	2200	52	--	2.1	--	.060	--	2.6	--	.930	--	--
26...	0100	22	--	1.9	--	.150	--	3.2	--	.880	--	--
AUG												
13...	0940	4.6	--	1.6	--	.100	--	2.0	--	.540	--	--
21...	0820	4.4	--	1.9	--	.040	--	.40	--	.090	--	.051
SEP												
04...	1145	4.3	--	2.0	--	.090	--	.80	--	.160	--	.086
05...	0720	14	--	1.8	--	.440	--	3.2	--	1.38	--	.840
06...	1140	3.0	--	1.8	--	.060	--	.80	--	.160	--	--
09...	0833	51	--	1.6	--	.150	--	3.2	--	1.41	--	--
09...	0959	44	--	1.7	--	.140	--	3.0	--	1.21	--	--
09...	1005	44	--	2.0	--	.130	--	1.6	--	.290	--	--
09...	1410	19	--	1.9	--	.110	--	2.6	--	.940	--	--
09...	1715	11	--	2.0	--	.100	--	2.1	--	.650	--	--

WISCONSIN RIVER BASIN

05406491 GARFOOT CREEK NEAR CROSS PLAINS, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)
OCT, 1984				MAY, 1985			
16...	1530	6.4	100	05...	0753	4.6	33
17...	0800	6.9	100	09...	1235	4.9	89
18...	2355	59	717	10...	1650	4.9	58
19...	0630	49	143	15...	0935	5.4	123
19...	0810	33	129	18...	1749	4.7	76
19...	1055	19	100	23...	0750	4.3	88
20...	0944	5.8	28	24...	1848	4.3	109
NOV				25...	1513	4.3	28
01...	0800	36	1160	31...	1748	4.6	132
01...	1150	5.7	362	JUN			
01...	1300	14	185	06...	0840	4.2	55
02...	0755	5.7	35	06...	1738	4.3	97
26...	1155	3.9	18	13...	0904	3.8	31
DEC				20...	1400	3.7	22
05...	1020	3.7	207	22...	0718	4.6	129
12...	1530	4.2	15	23...	1313	3.8	37
19...	1605	4.6	20	27...	0737	3.6	83
27...	1650	4.3	27	28...	0917	4.2	133
28...	0545	29	1400	JUL			
28...	0915	44	538	05...	0617	2.9	70
28...	1015	42	468	12...	1745	3.9	19
28...	1145	38	456	16...	1752	3.7	23
28...	1230	38	403	18...	1320	3.9	21
28...	1231	38	436	24...	1728	5.1	25
28...	1445	27	375	24...	2300	7.0	145
31...	1120	4.4	26	25...	0300	52	1170
JAN, 1985				25...	0800	108	351
02...	1640	4.2	33	25...	0840	124	276
10...	0805	4.1	44	25...	0900	126	240
18...	0810	4.2	52	25...	1000	127	247
24...	1004	3.8	31	25...	1300	114	148
29...	1520	3.9	14	25...	1435	107	121
30...	1655	3.9	218	25...	1436	107	160
FEB				25...	1500	105	142
07...	1652	4.1	24	25...	2200	52	108
13...	1145	4.1	18	26...	0745	9.8	118
15...	1645	4.1	35	AUG			
21...	1815	25	1180	02...	1652	4.4	108
21...	2115	28	755	10...	1728	4.6	50
22...	0830	14	281	13...	0940	4.6	91
22...	1057	13	175	17...	1640	4.6	129
22...	1145	13	163	21...	0820	4.4	28
22...	1900	23	241	23...	0705	7.1	46
23...	2015	29	313	28...	0800	4.6	35
24...	0215	34	323	SEP			
25...	0815	14	90	04...	1610	4.3	38
MAR				05...	0720	14	147
01...	0800	5.5	50	06...	1140	5.3	36
08...	0735	5.1	69	09...	0833	51	214
15...	1635	5.4	31	09...	0959	44	197
19...	0825	4.9	37	09...	1410	19	142
22...	1655	5.3	29	09...	1715	11	106
26...	1300	5.1	93	10...	1005	6.5	74
28...	1744	5.8	66	12...	1621	4.9	27
APR				19...	1653	4.6	72
05...	1815	6.9	59	24...	0830	5.3	231
10...	1647	5.7	27	24...	0930	5.3	167
11...	0745	5.7	26	24...	1130	5.1	109
18...	1652	5.1	32	24...	1815	5.0	116
25...	0730	5.1	22	24...	2015	5.0	124
				25...	0245	4.9	57

WISCONSIN RIVER BASIN

05406500 BLACK EARTH CREEK AT BLACK EARTH, WI

LOCATION.--Lat 43°08'03", long 89°43'56", in SW 1/4 sec.25, T.8 N., R.6 E., Dane County, Hydrologic Unit 07070005, on right bank, 0.8 mi east of Black Earth and 2.1 mi upstream from Vermont Creek.

DRAINAGE AREA.--45.6 mi², of which 2.8 mi² probably is noncontributing.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR WI-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 812.95 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: None, except for ice affected periods, Jan. 16-26 and Feb. 1-4. Records good except for period Oct. 1 to Feb. 28, which are fair

AVERAGE DISCHARGE.--31 years, 32.7 ft³/s, 10.38 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft³ July 3, 1954, gage height, 6.58 ft; minimum, 4.8 ft³/s Nov. 29, 1958, gage height, 1.39 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	0800	224	4.38	Feb. 24	0300	242	4.53
Feb. 22	2230	227	4.41	July 25	1445	*710	*5.65

Minimum daily, 27 ft³/s Dec. 9, Jan. 19 and 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	96	38	48	35	84	66	44	43	47	46	37
2	38	68	40	45	35	78	65	43	41	45	43	36
3	37	54	39	45	35	71	60	46	40	44	42	35
4	36	49	35	41	35	66	72	45	39	44	41	35
5	34	47	35	41	35	58	79	45	39	44	40	64
6	34	50	34	41	34	55	84	46	38	43	37	48
7	40	49	29	41	33	57	72	41	38	43	37	39
8	39	47	29	40	33	67	64	40	38	43	35	37
9	36	56	27	40	32	88	62	39	36	41	34	114
10	34	62	28	40	33	85	61	43	34	40	35	69
11	34	49	34	40	33	82	59	45	35	40	32	54
12	36	40	35	35	32	76	58	47	36	42	35	45
13	35	38	32	30	32	70	57	43	39	41	56	41
14	35	41	34	30	31	64	57	46	38	40	45	39
15	37	46	32	30	32	61	56	55	40	36	39	38
16	42	44	58	30	31	58	53	47	40	34	36	39
17	49	44	55	30	31	53	54	45	39	34	39	44
18	57	40	46	30	31	52	53	43	37	34	38	41
19	164	38	42	27	30	53	52	42	37	37	37	39
20	73	39	36	27	28	51	49	42	36	34	37	38
21	60	37	41	29	76	50	50	40	35	31	36	38
22	51	37	40	31	172	49	49	40	45	30	36	42
23	44	39	35	31	192	50	51	40	37	30	36	52
24	42	37	31	31	194	53	52	39	38	34	38	50
25	44	37	30	32	95	51	50	40	40	448	47	44
26	46	37	28	34	76	51	48	39	41	231	49	47
27	53	48	29	34	67	52	47	42	44	83	40	46
28	92	45	122	34	73	61	47	43	51	64	37	43
29	62	38	86	35	---	57	46	42	48	55	39	43
30	53	38	61	35	---	53	44	40	50	52	41	50
31	49	---	52	35	---	58	---	42	---	50	39	---
TOTAL	1523	1390	1293	1092	1596	1914	1717	1334	1192	1914	1222	1387
MEAN	49.1	46.3	41.7	35.2	57.0	61.7	57.2	43.0	39.7	61.7	39.4	46.2
MAX	164	96	122	48	194	88	84	55	51	448	56	114
MIN	34	37	27	27	28	49	44	39	34	30	32	35
CFSM	1.08	1.02	.91	.77	1.25	1.35	1.25	.94	.87	1.35	.86	1.01
IN.	1.24	1.13	1.05	.89	1.30	1.56	1.40	1.09	.97	1.56	1.00	1.13

CAL YR 1984 TOTAL 15778 MEAN 43.1 MAX 229 MIN 27 CFSM .95 IN 12.87
WTR YR 1985 TOTAL 17574 MEAN 48.1 MAX 448 MIN 27 CFSM 1.06 IN 14.34

WISCONSIN RIVER BASIN

05406500 BLACK EARTH CREEK AT BLACK EARTH, WI--CONTINUED

PHOSPHORUS, TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	451	12.00	24.0	15.0	42.0	29.0	26.0	29.0	43.0	45.0	21.0
2	19.0	181	13.00	18.0	15.0	38.0	28.0	25.0	28.0	39.0	44.0	20.0
3	19.0	68.0	12.00	17.0	15.0	35.0	26.0	27.0	26.0	37.0	44.0	19.0
4	18.0	29.0	11.00	16.0	15.0	32.0	78.0	27.0	26.0	36.0	46.0	19.0
5	17.0	19.0	11.00	15.0	14.0	28.0	99.0	28.0	25.0	34.0	48.0	138
6	17.0	20.0	10.00	16.0	14.0	26.0	116	29.0	24.0	33.0	47.0	51.0
7	20.0	19.0	8.50	16.0	14.0	27.0	78.0	26.0	24.0	32.0	49.0	35.0
8	20.0	19.0	8.40	15.0	14.0	65.0	28.0	25.0	24.0	31.0	47.0	31.0
9	18.0	54.0	8.00	15.0	13.0	130	27.0	26.0	23.0	29.0	48.0	663
10	17.0	82.0	8.00	16.0	13.0	119	26.0	33.0	21.0	27.0	52.0	145
11	17.0	19.0	9.80	15.0	13.0	109	26.0	39.0	22.0	26.0	52.0	75.0
12	18.0	15.0	10.00	14.0	13.0	89.0	25.0	47.0	22.0	27.0	59.0	48.0
13	18.0	14.0	8.90	12.0	13.0	32.0	25.0	50.0	23.0	26.0	67.0	41.0
14	18.0	15.0	9.30	12.0	13.0	29.0	26.0	62.0	22.0	24.0	47.0	38.0
15	21.0	17.0	8.90	12.0	13.0	27.0	26.0	82.0	23.0	21.0	37.0	37.0
16	50.0	16.0	44.00	11.0	13.0	26.0	25.0	67.0	22.0	19.0	32.0	37.0
17	59.0	16.0	39.00	11.0	13.0	23.0	26.0	58.0	22.0	19.0	40.0	41.0
18	105	14.0	12.00	11.0	12.0	22.0	26.0	50.0	21.0	18.0	34.0	38.0
19	922	13.0	11.00	10.0	12.0	23.0	26.0	45.0	20.0	20.0	29.0	35.0
20	201	13.0	9.40	10.0	12.0	22.0	24.0	41.0	20.0	18.0	25.0	34.0
21	85.0	13.0	18.00	11.0	437	21.0	26.0	36.0	21.0	16.0	22.0	34.0
22	37.0	13.0	17.00	12.0	1780	21.0	25.0	33.0	67.0	16.0	22.0	36.0
23	18.0	13.0	8.90	12.0	1600	22.0	27.0	30.0	24.0	15.0	22.0	72.0
24	17.0	12.0	7.70	12.0	1340	23.0	28.0	29.0	28.0	32.0	22.0	64.0
25	18.0	12.0	7.50	12.0	295	22.0	27.0	29.0	33.0	3170	50.0	37.0
26	19.0	12.0	7.00	13.0	50.0	22.0	27.0	29.0	38.0	960	52.0	39.0
27	55.0	28.0	7.20	14.0	34.0	23.0	26.0	31.0	35.0	119	23.0	37.0
28	243	22.0	484	14.0	36.0	26.0	26.0	31.0	47.0	72.0	21.0	34.0
29	84.0	12.0	94.00	14.0	---	24.0	26.0	30.0	41.0	58.0	22.0	33.0
30	55.0	12.0	50.00	14.0	---	23.0	25.0	28.0	45.0	52.0	23.0	64.0
31	64.0	---	33.00	14.0	---	25.0	---	29.0	---	47.0	22.0	---
TOTAL	2308.0	1243.0	998.50	428.0	5841.0	1196.0	1053.0	1148.0	846.0	5116.0	1193.0	2016.0
WTR YR 1985 TOTAL	23386.50											

NITROGEN, TOTAL, LOAD POUNDS PER DAY, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	471	2490	521	761	491	1240	964	600	590	608	593	507
2	479	1410	559	775	491	1140	951	576	564	571	559	479
3	464	858	540	777	491	1050	870	617	543	554	539	453
4	451	742	483	696	491	975	1360	606	533	550	533	431
5	436	707	484	688	497	850	1590	606	525	539	537	1070
6	430	754	457	686	483	811	1760	617	508	528	501	661
7	509	735	388	680	473	836	1360	558	507	519	495	529
8	490	711	387	660	473	1210	936	533	507	511	458	511
9	454	968	370	654	455	1910	901	534	484	486	446	3000
10	431	1140	375	660	467	1800	885	609	456	461	461	1230
11	427	782	462	641	467	1690	863	665	472	455	445	878
12	462	587	474	562	452	1490	836	726	484	475	479	689
13	443	554	424	475	459	1030	819	694	515	461	711	584
14	440	599	445	481	446	941	820	783	502	440	551	553
15	470	671	427	477	448	897	795	976	530	391	537	538
16	648	638	970	470	440	850	745	835	518	369	497	558
17	788	658	897	470	443	780	755	768	515	362	542	594
18	1310	579	605	470	437	753	745	715	488	361	526	543
19	5460	551	545	408	427	777	726	685	477	392	515	560
20	771	554	469	408	403	750	677	653	468	362	512	546
21	572	535	583	438	3110	724	696	621	440	332	512	553
22	504	532	562	469	8910	713	674	593	775	321	503	560
23	468	554	452	469	7810	730	697	581	615	316	511	734
24	478	520	392	452	6400	780	705	571	600	438	530	699
25	512	520	386	467	2210	738	671	570	606	9870	580	594
26	559	528	363	496	1480	746	654	566	598	4080	599	688
27	833	756	377	493	1130	760	637	604	678	1290	557	670
28	1940	682	3230	488	1090	1000	630	612	873	927	521	627
29	1060	536	1660	498	---	825	618	590	787	768	551	630
30	833	527	1020	498	---	772	589	562	844	702	570	734
31	710	---	785	496	---	845	---	586	---	649	546	---
TOTAL	24303	22378	20092	17163	41374	30413	25929	19812	17002	29088	16417	21403
WTR YR 1985 TOTAL	285374											

WISCONSIN RIVER BASIN

05406500 BLACK EARTH CREEK AT BLACK EARTH, WI--CONTINUED

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	5.5	5.0	5.5	---	---	---
2				---	---	---	5.5	4.5	5.0	1.5	.0	1.0
3				---	---	---	4.0	1.5	2.5	4.5	1.5	3.5
4				---	---	---	3.0	1.0	2.0	5.5	3.5	5.0
5				---	---	---	3.5	1.5	2.5	5.0	4.0	4.5
6				---	---	---	2.5	.5	1.0	5.0	2.5	4.0
7				---	---	---	4.0	1.0	2.5	4.0	2.5	3.0
8				---	---	---	6.0	3.5	4.5	4.0	.5	2.5
9				---	---	---	6.5	4.5	5.5	3.5	2.5	3.0
10				---	---	---	7.0	5.0	6.0	3.5	.0	1.5
11				---	---	---	6.5	5.0	6.0	4.0	1.0	3.0
12				---	---	---	7.0	6.0	6.5	2.5	2.5	2.5
13				---	---	---	6.0	4.0	5.5	---	---	---
14				---	---	---	5.5	2.5	4.5	---	---	---
15				---	---	---	6.5	5.0	6.0	---	---	---
16				---	---	---	8.0	5.5	7.0	---	---	---
17				---	---	---	5.5	4.0	5.0	---	---	---
18				---	---	---	4.0	2.0	3.0	---	---	---
19				---	---	---	5.0	3.5	4.0	---	---	---
20				---	---	---	4.5	2.5	3.5	---	---	---
21				---	---	---	5.0	3.5	4.5	---	---	---
22				---	---	---	4.0	1.5	2.5	---	---	---
23				---	---	---	4.0	2.5	3.5	---	---	---
24				---	---	---	3.0	.5	1.5	---	---	---
25				---	---	---	4.5	1.0	2.5	---	---	---
26				---	---	---	6.5	3.5	5.5	---	---	---
27				---	---	---	6.5	3.0	5.0	---	---	---
28				---	---	---	5.0	2.5	4.0	---	---	---
29				7.0	5.5	6.5	3.5	3.0	3.5	---	---	---
30				7.0	5.5	6.5	3.0	1.0	2.0	5.0	2.0	3.5
31				---	---	---	3.0	1.5	2.0	1.5	.0	.5
MONTH				7.0	5.5	6.5	8.0	.5	4.0	5.5	.0	3.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	.5	.0	.5	---	---	---	9.5	4.0	6.5	15.5	11.5	13.5
2	.5	.5	.5	---	---	---	10.0	5.0	7.5	15.0	9.0	12.0
3	.5	.5	.5	---	---	---	12.0	5.5	9.5	14.0	9.5	12.0
4	1.0	.5	.5	---	---	---	9.0	5.0	6.5	17.0	11.5	14.0
5	4.0	1.0	2.5	---	---	---	6.5	5.0	5.5	14.5	12.5	13.5
6	4.5	2.0	3.0	---	---	---	8.5	4.5	6.5	17.5	11.5	14.0
7	3.5	.5	2.0	---	---	---	9.5	6.0	7.5	16.5	10.0	13.5
8	2.0	.0	1.0	---	---	---	8.5	5.5	7.0	18.0	10.5	14.0
9	3.0	1.5	2.5	---	---	---	11.5	4.5	8.0	19.5	12.5	15.0
10	4.5	2.5	3.5	---	---	---	13.0	6.0	9.5	19.5	13.0	16.0
11	4.5	2.5	3.5	---	---	---	13.0	8.5	10.5	16.5	14.0	15.0
12	3.5	1.0	2.0	---	---	---	15.5	9.0	12.5	15.5	13.5	14.5
13	1.0	.5	.5	---	---	---	14.0	10.0	12.5	15.5	10.5	13.5
14	---	---	---	9.5	7.5	8.5	14.5	10.0	12.0	19.0	12.0	15.0
15	---	---	---	10.0	5.0	7.5	15.5	9.0	12.0	16.0	12.5	14.0
16	---	---	---	8.5	6.0	7.0	14.5	9.5	12.0	14.5	11.5	12.5
17	---	---	---	8.5	5.0	7.0	15.0	8.0	12.0	17.0	9.5	14.0
18	---	---	---	10.0	4.5	7.5	19.0	11.5	15.0	17.5	12.0	14.5
19	---	---	---	11.5	6.0	9.0	19.5	13.5	16.0	19.5	12.0	15.5
20	---	---	---	11.0	6.0	8.5	19.5	13.0	16.5	19.5	13.5	16.0
21	---	---	---	11.0	5.0	8.0	17.5	13.5	15.5	18.0	11.5	14.5
22	---	---	---	11.0	5.5	8.5	17.5	13.5	15.5	17.5	11.5	14.5
23	---	---	---	9.0	5.5	7.5	17.5	13.5	15.0	19.0	12.0	15.0
24	---	---	---	6.5	6.0	6.0	14.0	11.5	13.0	19.0	14.0	16.0
25	---	---	---	11.5	5.5	8.0	13.5	9.5	11.5	19.0	13.5	16.0
26	---	---	---	12.5	6.5	9.5	16.0	9.5	12.5	20.5	15.0	17.0
27	---	---	---	13.5	10.0	11.5	12.0	10.0	11.0	16.5	13.5	15.0
28	---	---	---	10.5	8.5	9.0	16.0	9.5	12.5	19.0	11.5	14.5
29	---	---	---	11.0	7.5	9.0	17.0	9.5	13.5	17.5	12.5	15.0
30	---	---	---	8.0	5.5	6.5	17.0	9.5	14.0	17.0	14.5	15.5
31	---	---	---	6.0	3.5	4.5	---	---	---	16.5	14.0	15.0
MONTH	4.5	.0	1.5	13.5	3.5	8.0	19.5	4.0	11.5	20.5	9.0	14.5

WISCONSIN RIVER BASIN

05406500 BLACK EARTH CREEK AT BLACK EARTH, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (00061)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00671)
OCT, 1984												
16...	1545	42	2.5	--	--	--	--	.90	3.4	.210	--	--
19...	0019	186	2.0	--	.460	--	5.2	5.7	7.7	1.20	--	--
19...	0740	222	1.8	--	.370	--	4.5	4.9	6.7	1.10	--	--
19...	0900	222	<.10	--	<.010	--	--	<.10	--	<.010	--	--
19...	0950	216	1.9	--	.200	--	3.6	3.8	5.7	.880	--	--
20...	1015	74	.40	--	.050	--	1.4	1.4	1.8	.560	--	--
NOV												
01...	0810	105	2.2	--	.350	--	2.3	2.6	4.8	1.00	--	--
01...	1430	115	1.9	--	.370	--	3.0	3.4	5.3	.950	.670	--
02...	0135	81	2.8	--	.130	--	.67	.80	3.6	.430	--	--
DEC												
28...	1130	177	.90	--	.840	--	4.5	5.3	6.2	1.20	--	--
28...	1346	179	.90	--	.950	--	3.3	4.2	5.1	1.30	--	--
JAN, 1985												
02...	1315	45	2.7	--	.030	--	.47	.50	3.2	.070	--	--
29...	1455	35	--	2.4	--	.030	--	.40	--	.080	--	.052
FEB												
21...	0400	38	--	1.0	--	3.20	--	11	--	2.20	--	--
21...	2200	159	--	1.3	--	2.50	--	11	--	2.30	--	--
22...	1120	147	--	1.3	--	2.30	--	7.5	--	1.71	--	--
22...	1121	147	--	1.3	--	2.60	--	7.5	--	1.60	--	.970
22...	1900	181	--	1.2	--	2.50	--	8.4	--	1.93	--	--
23...	0100	218	--	1.3	--	2.70	--	8.0	--	1.89	--	--
23...	1000	218	--	1.4	--	2.20	--	6.4	--	1.52	--	--
23...	1600	172	--	1.4	--	2.00	--	5.8	--	1.44	--	--
23...	2200	223	--	1.3	--	2.10	--	6.4	--	1.72	--	--
24...	0400	242	--	1.3	--	1.90	--	6.2	--	1.60	--	--
24...	1000	194	--	1.5	--	1.50	--	4.7	--	1.27	--	--
24...	1900	170	--	1.6	--	1.30	--	4.2	--	1.20	--	--
25...	0100	138	--	1.6	--	1.10	--	3.8	--	1.07	--	--
25...	0850	89	--	2.0	--	.680	--	2.5	--	.650	--	--
MAR												
19...	0850	53	--	2.3	--	<.100	--	.40	--	.080	--	.044
APR												
11...	0805	60	--	2.3	--	.030	--	.40	--	.080	--	.044
25...	0805	51	--	2.1	--	.040	--	.40	--	.100	--	.063
MAY												
09...	0835	39	--	2.1	--	.050	--	.40	--	.120	--	.075
15...	1010	55	--	2.3	--	.190	--	1.2	--	.300	--	--
06...	0930	38	--	2.1	--	<.020	--	.40	--	.120	--	.083
20...	0940	36	--	2.2	--	<.020	--	<.20	--	.100	--	.071
22...	0300	57	--	1.6	--	.160	--	1.7	--	.400	--	--
22...	0800	48	--	1.8	--	.170	--	1.6	--	.400	--	--
28...	0930	51	--	1.9	--	.150	--	.80	--	.230	--	--
JUL												
02...	0811	45	--	1.9	--	.020	--	.60	--	.160	--	--
18...	1145	32	--	1.8	--	<.020	--	.30	--	.100	--	.079
25...	0300	187	--	1.8	--	.030	--	5.0	--	1.84	--	--
25...	1030	391	--	1.3	--	.250	--	3.5	--	1.60	--	.620
25...	1200	476	--	1.6	--	.030	--	3.2	--	1.45	--	--
25...	1500	710	--	1.5	--	.160	--	3.1	--	1.45	--	.560
25...	1700	645	--	1.2	--	.020	--	2.4	--	1.18	--	--
25...	2300	510	--	.96	--	.020	--	2.1	--	1.01	--	--
26...	0500	382	--	1.4	--	.080	--	2.2	--	.960	--	--
AUG												
13...	1000	57	--	1.8	--	.080	--	1.0	--	.340	--	--
21...	0845	37	--	2.2	--	<.020	--	.40	--	.120	--	.078
SEP												
04...	1500	35	--	2.1	--	.020	--	.20	--	.100	--	.078
05...	0915	70	--	1.6	--	.280	--	1.8	--	.550	--	.310
06...	1200	3.0	--	1.9	--	.090	--	.80	--	.190	--	--
09...	0500	120	--	1.9	--	.180	--	6.0	--	1.41	--	--
09...	0815	137	--	1.5	--	.330	--	3.5	--	1.25	--	--
09...	0900	144	--	1.5	--	.300	--	4.4	--	1.45	--	--
09...	1430	144	--	1.4	--	.210	--	3.3	--	1.22	--	--
10...	0835	71	--	2.0	--	.180	--	1.4	--	.380	--	--

WISCONSIN RIVER BASIN
05406500 BLACK EARTH CREEK AT BLACK EARTH, WI--CONTINUED
WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)
OCT, 1984				APR, 1985			
16...	1545	42	29	26...	1524	48	26
19...	0015	173	536	28...	1751	47	71
19...	0740	222	542	MAY			
19...	0900	222	488	03...	0802	46	22
19...	0950	216	410	09...	0835	39	52
20...	1015	74	112	10...	1700	41	24
NOV				10...	1701	41	37
01...	0810	105	275	15...	1010	55	97
01...	1430	115	416	18...	1758	43	29
02...	0735	71	98	23...	0840	40	132
26...	1055	38	54	24...	1859	38	31
DEC				31...	1801	44	57
05...	1030	35	19	JUN			
12...	1600	36	21	06...	0930	38	48
19...	1615	41	17	06...	1757	37	45
27...	1702	29	29	13...	0852	40	70
28...	1133	177	601	20...	0640	37	11
29...	1346	81	405	22...	0800	48	43
JAN, 1985				23...	1324	37	28
02...	1315	45	9	27...	0746	42	66
02...	1650	45	17	28...	0930	51	35
10...	0815	40	29	JUL			
18...	0821	33	31	02...	0811	45	42
24...	1014	32	47	05...	0626	44	130
29...	1455	35	31	12...	1754	40	136
30...	1705	35	31	16...	1809	33	55
FEB				18...	1145	32	24
07...	1704	33	136	24...	1741	30	146
13...	1015	37	37	24...	2400	67	232
15...	1654	30	75	25...	0600	373	915
21...	1900	112	449	25...	1500	710	459
22...	0100	181	688	25...	1900	583	260
22...	0700	163	379	26...	0100	469	169
22...	1120	147	272	26...	0900	233	136
22...	1121	147	236	26...	0901	233	122
22...	1155	145	227	27...	1500	78	128
22...	1530	148	211	AUG			
22...	2200	226	353	02...	1705	42	29
23...	0700	187	216	10...	1736	33	29
23...	1300	163	192	13...	1000	57	71
23...	1900	198	227	17...	1649	38	26
24...	0100	238	314	21...	0845	37	25
24...	1300	168	186	23...	0715	36	38
24...	2200	163	193	28...	0807	37	27
25...	0850	89	115	SEP			
MAR				04...	1500	35	33
01...	0812	82	144	04...	1622	35	20
08...	0746	58	64	05...	0915	70	93
15...	1645	61	24	06...	1200	48	27
19...	0850	53	66	09...	0600	139	371
22...	1705	49	24	09...	0815	137	342
27...	1145	53	175	09...	1200	155	404
APR				09...	1430	144	356
05...	1829	75	38	10...	0835	71	83
11...	0805	60	58	12...	1628	44	26
18...	1702	53	71	19...	1702	38	119
25...	0805	51	27				

WISCONSIN RIVER BASIN

05407000 WISCONSIN RIVER AT MUSCODA, WI
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

LOCATION.--Lat 43°11'54", long 90°26'26", in NW 1/4 sec.1, T.8 N., R.1 W., Grant County, Hydrologic Unit 07070005, on left bank at bridge on State Highway 80, 0.5 mi upstream from Egle Mill Creek and 1.0 mi north of Muscoda.

DRAINAGE AREA.--10,400 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1902 to December 1903, October 1913 to current year. Monthly discharge only for October and November 1913, published in WSP 1308. Gage-height records collected at same site November 1908 to December 1912 are contained in reports of U. S. Weather Bureau.

REVISED RECORDS.--WSP 785: 1921(M). WSP 875: 1921. WSP 1308: 1915(M), 1917-18(M), 1920-21(M), 1924(M).
WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 666.77 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 22, 1929, nonrecording gage on bridge 200 ft upstream at same datum. Nov. 22, 1929, to Mar. 15, 1930, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair. Flow regulated by 23 reservoirs and many powerplants upstream from station. In 1938 when the maximum of record occurred, there were 21 reservoirs upstream from station, the two large reservoirs, Petenwell and Castle Rock were not yet in existence. Usually less than 20 ft³/s was diverted out of basin through Portage Canal to Fox River throughout the year. Gage-height telemeter at station.

AVERAGE DISCHARGE.--72 years (1914-85), 8,710 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,800 ft³/s Sept. 16, 1938, gage height, 11.48 ft; minimum daily, 2,000 ft³/s Feb. 11, 1918.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,500 ft³/s Apr. 3, gage height, 6.87 ft; maximum gage height, 8.27 ft Jan. 7, backwater from ice; minimum discharge, 4,020 ft³/s July 22, gage height, 0.94 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Mar. 10 to Apr. 1 and Apr. 5-26; stage-discharge relation affected by ice Dec. 4-11, 24-29, and Jan. 2 to Mar. 9.)

0.9	3,910	3.0	11,100
1.0	4,180	5.0	20,200
2.0	7,260	7.0	32,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6990	16400	11300	13500	7200	16000	27100	18700	7400	7280	5410	6360
2	5530	17400	11800	14000	7000	18000	29200	15300	8170	7110	5130	7520
3	5800	19300	11700	14000	7000	20000	31200	14300	7490	7370	4880	6710
4	5670	22600	10000	13000	7000	19000	29000	13100	7400	5990	5000	5710
5	5930	24000	8000	11000	7200	18000	23800	11400	7600	5220	5010	6890
6	5840	21600	6000	12000	7000	16000	22400	11800	7910	5520	4950	7560
7	5390	19700	6400	13000	6800	16000	22200	10700	7860	5510	4740	7210
8	6380	16300	6400	12000	7400	17000	23600	11800	6900	6050	4680	7190
9	5780	15000	7000	11000	7600	18000	24400	9860	6830	5830	4410	9560
10	6730	15800	9000	11000	7400	18800	24000	9590	6530	5660	4910	11000
11	8400	14600	9400	10000	7600	17000	22100	8290	6260	5220	4950	11300
12	8560	15700	9320	9000	7800	16100	20400	9280	6290	5020	4490	14400
13	9550	19800	9520	9000	7600	16100	18200	8550	5810	4830	5210	18200
14	9430	16900	9290	8400	7600	16400	16100	9000	4950	4660	7020	16900
15	9270	15000	9280	7800	7400	16400	15400	10800	5360	4730	9490	12000
16	9200	13700	9260	7600	7400	16200	16600	9980	5880	4910	12800	9200
17	9900	13500	11500	7000	7600	16100	16700	10200	5770	4400	13000	7600
18	10500	13300	10900	7400	7800	16200	16600	10900	6360	4430	9820	7320
19	12900	12700	11300	8000	7800	16600	17500	10400	7070	5050	6940	6750
20	15100	10900	14100	7600	8000	18900	18700	10700	6420	4660	6330	6640
21	18800	11000	16000	7200	8200	18400	19500	11300	5770	4630	5900	6800
22	18800	9060	15100	6800	8800	18000	19100	11200	5910	4130	5460	7110
23	18200	9040	13200	8000	9600	17400	18500	9650	5770	4500	5420	7030
24	18100	9000	10000	8600	10000	16600	17700	10400	6390	4330	5360	7490
25	15700	8440	8200	8200	11000	17400	17600	10500	5530	4850	5920	8350
26	13300	8730	6800	8600	12000	17400	18200	9770	5050	8130	5980	11600
27	11400	8860	7200	8200	13000	17500	21100	8490	5280	9110	5750	14300
28	11700	8950	8000	7600	14000	18800	22100	8750	5710	8560	7260	15500
29	12900	9390	10000	7200	---	20200	20300	7400	6300	7110	6830	17200
30	13000	11400	14400	7600	---	20700	20000	7000	6200	6160	6450	16400
31	15000	---	13300	7400	---	24000	---	7960	---	5340	6600	---
TOTAL	329750	428070	313670	291700	234800	549200	629300	327070	192170	176300	196100	297800
MEAN	10640	14270	10120	9410	8386	17720	20980	10550	6406	5687	6326	9927
MAX	18800	24000	16000	14000	14000	24000	31200	18700	8170	9110	13000	18200
MIN	5390	8440	6000	6800	6800	16000	15400	7000	4950	4130	4410	5710
CAL YR 1984	TOTAL	3714050		MEAN	10150	MAX	38200	MIN	3780			
WTR YR 1985	TOTAL	3965930		MEAN	10870	MAX	31200	MIN	4130			

05407000 WISCONSIN RIVER AT MUSCODA, WI--CONTINUED
(NATIONAL STREAM-QUALITY ACCOUNTING NETWORK STATION)

WATER-QUALITY RECORDS.

PERIOD OF RECORD.--Water years 1964-67, 1971, 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0,7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, KF AGAR (COLS. PER 100 ML) (31673)
NOV, 1984												
06...	1055	21800	--	205	7.8	4.5	9.5	10.4	741	83	590	680
JAN, 1985												
30...	1115	--	7600	260	7.5	.0	2.0	7.3	763	50	K7	K7
MAR												
20...	1130	19000	--	208	7.8	4.5	4.5	12.2	745	96	K2	80
MAY												
29...	1300	7440	--	235	8.6	21.0	4.5	8.6	734	100	--	38
JUL												
10...	1315	5660	--	245	8.6	26.5	3.5	9.5	738	122	48	K17
AUG												
14...	1045	7080	--	235	8.5	24.5	10	9.8	739	121	2200	1000

DATE	HARD-NESS (MG/L AS CAC03) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CAC03) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	PERCENT SODIUM (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY FIELD (MG/L CAC03) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV, 1984												
06...	88	13	21	8.7	8.7	17	.4	2.3	75	16	16	<.10
JAN, 1985												
30...	120	0	28	13	7.4	11	.3	1.9	195	14	13	.10
MAR												
20...	85	19	20	8.4	6.2	13	.3	2.4	66	12	13	<.10
MAY												
29...	95	9	22	9.8	5.0	10	.2	2.1	86	11	10	<.10
JUL												
10...	96	1	22	10	5.4	11	.2	2.1	95	12	9.0	.20
AUG												
14...	110	5	24	11	5.9	11	.3	2.6	100	12	11	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SI02) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC AS (MG/L AS N) (00625)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV, 1984											
06...	3.4	137	120	.19	8060	.59	.080	1.3	.010	<.010	.020
JAN, 1985											
30...	12	214	210	.29	4390	1.1	.160	1.0	.040	.070	.060
MAR											
20...	9.2	159	110	.22	8160	.86	.130	.80	.140	.030	.040
MAY											
29...	2.4	150	110	.20	3010	.56	.040	.50	.100	.090	.080
JUL											
10...	3.7	147	120	.20	2250	<.10	.030	.80	.100	.040	.010
AUG											
14...	3.6	161	130	.22	3080	.12	.010	1.2	.200	<.010	<.010

K RESULTS BASED ON COUNT OUTSIDE OF THE ACCEPTABLE RANGE (NON-IDEAL COLONY COUNT).

WISCONSIN RIVER BASIN

05407000 WISCONSIN RIVER AT MUSCODA, WI--CONTINUED

WATER-QUALITY DATA, WTER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV, 1984											
06...	1055	21800	<10	<1	26	<.5	2	3	<3	3	300
MAR, 1985											
20...	1130	19000	<10	<1	25	<.5	<1	<1	<3	3	300
MAY											
29...	1300	7440	20	<1	23	<.5	<1	7	<3	3	190
AUG											
14...	1045	7080	30	1	20	.5	2	4	<3	5	9

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV, 1984										
06...	4	<4	14	--	<10	2	<1	40	<6	25
MAR, 1985										
20...	14	<4	10	<.1	<10	2	<1	36	<6	12
MAY										
29...	6	8	7	.2	<10	4	<1	38	<6	9
AUG										
14...	<1	<4	3	<.1	<10	6	<1	39	<6	11

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	DISCHARGE, IN CUBIC FEET PER SECOND (00060)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SEDIMENT, SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV, 1984								
06...	1055	21800	--	205	4.5	60	3530	57
JAN, 1985								
30...	1115	--	7600	260	.0	10	205	75
MAR								
20...	1130	19000	--	208	4.5	70	3590	35
MAY								
29...	1300	7440	--	235	21.0	48	964	91
JUL								
10...	1315	5660	--	245	26.5	41	627	85
AUG								
14...	1045	7080	--	235	24.5	112	2140	86

05408000 KICKAPOO RIVER AT LA FARGE, WI

LOCATION.--Let 43°34'27", long 90°38'35", on east-west quarter section line in W 1/2 sec.29, T.13 N., R.2 W., Vernon County, Hydrologic Unit 07070006, on left bank 10 ft upstream from bridge on State Highway 82, in La Farge, 0.3 mi upstream from Otter Creek, and 1.3 mi downstream from powerplant.

DRAINAGE AREA.--266 mi².

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

REVISED RECORDS.--WSP 1388: 1951(M), 1954(M). WSP 1438: 1944-45(M), 1946, 1948, 1950(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 781.54 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 4, 1939, nonrecording gage on highway bridge at same datum.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair. Gage-height telemeter at station.

AVERAGE DISCHARGE.--47 years, 178 ft³/s, 9.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,300 ft³/s July 1, 1978, gage height, 14.92 ft; minimum, 1.8 ft³/s Mar. 24, 1951; minimum daily, 36 ft³/s Nov. 3, 1939.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Nov. 1	2130	1,950	9.75	Feb. 24	1600	A 1,800	ice jam
Dec. 29	0730	*2,250	10.57	Mar. 12	0630	1,910	9.61
Feb. 22	1900	A 1,900	B *10.94				

A Estimated, ice affected.
B Ice jam.

Minimum daily discharge, 137 ft³/s July 23.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Aug. 13, Sept. 5, 6, 9, 23, 24, 26 and 30; stage-discharge relation effected by ice Nov. 21-22, Dec. 2-15, 18-28, Dec. 31 to Feb. 25, and Mar. 5-6.)

2.6	127	6.0	804
3.0	174	8.0	1,370
4.0	332	10.0	2,040

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	1420	218	310	180	531	292	262	204	156	160	152
2	154	730	210	270	180	424	307	248	189	136	147	150
3	153	365	190	250	180	289	443	242	182	155	143	151
4	150	326	170	240	180	217	524	240	178	155	141	195
5	149	287	160	240	180	230	653	236	180	160	145	464
6	149	262	170	230	180	240	676	234	175	159	146	353
7	168	255	200	230	180	261	457	227	173	155	167	191
8	249	265	210	220	170	281	370	222	173	152	155	177
9	186	258	220	220	170	380	327	220	170	152	144	382
10	169	370	230	210	170	640	314	217	164	151	191	249
11	165	309	250	210	170	1120	305	217	171	147	161	197
12	185	265	300	210	170	1240	294	238	174	147	151	176
13	216	249	300	210	170	569	288	224	168	147	443	166
14	179	250	260	200	170	418	277	222	167	152	196	161
15	210	253	230	200	170	366	272	310	177	151	166	159
16	310	232	481	200	170	354	264	250	183	145	158	158
17	990	221	654	200	170	334	253	228	181	143	154	158
18	343	223	280	200	170	298	253	215	172	144	152	159
19	832	213	270	200	170	297	249	209	171	143	146	155
20	375	206	260	190	180	296	242	206	167	141	145	152
21	281	210	250	190	500	280	270	199	166	140	145	150
22	246	210	240	190	1700	275	289	194	181	139	146	181
23	226	203	220	190	1400	276	643	192	168	137	147	404
24	216	204	200	190	1500	310	716	192	160	138	154	418
25	213	208	190	190	800	289	416	190	158	220	164	237
26	246	213	300	190	486	276	359	189	158	171	160	246
27	230	246	400	190	344	309	325	191	157	151	150	225
28	440	259	1100	190	306	321	298	187	160	147	146	199
29	262	222	1550	190	---	300	279	183	171	144	152	217
30	234	227	359	190	---	273	269	255	163	141	164	553
31	222	---	350	180	---	279	---	234	---	164	161	---
TOTAL	8304	9161	10422	6520	10516	11973	10924	6873	5161	4703	5100	6935
MEAN	268	305	336	210	376	386	364	222	172	152	165	231
MAX	990	1420	1550	310	1700	1240	716	310	204	220	443	553
MIN	149	203	160	180	170	217	242	183	157	137	141	150
CFSM	1.01	1.15	1.26	.79	1.41	1.45	1.37	.83	.65	.57	.62	.87
IN.	1.16	1.28	1.46	.91	1.47	1.67	1.53	.96	.72	.66	.71	.97
CAL YR 1984	TOTAL	93174	MEAN	255	MAX	2430	MIN	117	CFSM	.96	IN.	13.03
WTR YR 1985	TOTAL	96592	MEAN	265	MAX	1700	MIN	137	CFSM	1.00	IN.	13.51

WISCONSIN RIVER BASIN

05410490 KICKAPOO RIVER AT STEUBEN, WI

LOCATION.--Lat 43°10'58", long 90°51'30", in NE 1/4 SW 1/4 sec.9, T.8 N., R.4 W., Crawford County, Hydrologic Unit 07070006, on right bank at upstream corner of town road bridge at Steuben and 18.6 mi upstream from mouth.

DRAINAGE AREA.--687 mi².

PERIOD OF RECORD.--May 1933 to current year.

REVISED RECORDS.--WSP 855: Drainage area. WSP 1438: 1933-38. WDR WI-79-1: 1978(M).

GAGE.--Water-stage recorder. Datum of gage is 657.00 ft above National Geodetic Vertical Datum of 1929. May 1933 to Oct. 19, 1938, nonrecording gage at same site at datum 1.7 ft higher. Oct. 20, 1938 to September 1982, recording gage at site 1.2 mi downstream at datum 0.36 ft higher.

REMARKS.--Estimated daily discharges: Dec. 2 to Feb. 25. Records good except for estimated daily discharges, which are fair. Gage-height telemeter at station.

AVERAGE DISCHARGE.--52 years, 485 ft³/s, 9.59 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s July 3, 1978, gage height, 14.81 ft; minimum observed, 161 ft³/s Aug. 9, 1936, gage height, 0.76 ft site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Feb. 25	2000	*3,420	*12.85	No other peak greater than base discharge.			

Minimum daily, 430 ft³/s July 24.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Aug. 13 to Sept. 30.)

6.5	430	10.0	1,120
7.0	511	11.0	1,400
8.0	690	12.0	1,890
9.0	882	12.4	2,370
		12.8	3,290

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	551	1230	666	1500	560	1290	799	787	657	496	482	486
2	544	1410	640	1300	560	1170	829	758	608	488	497	475
3	541	1460	600	1000	560	1140	873	735	573	483	471	467
4	533	1510	580	840	560	960	1030	714	555	477	455	467
5	530	1490	560	740	560	814	1260	701	549	472	456	569
6	526	1110	580	700	560	743	1360	694	546	471	458	781
7	543	870	600	680	560	747	1400	681	541	476	454	907
8	591	802	620	660	540	802	1390	668	540	470	457	643
9	649	788	640	640	540	953	1190	655	535	464	472	673
10	667	802	660	640	540	1230	988	645	524	467	488	764
11	603	826	700	640	540	1370	906	643	525	463	532	755
12	593	843	740	620	540	1460	864	660	527	453	556	603
13	604	771	760	620	540	1540	832	675	531	451	566	543
14	638	737	740	620	540	1610	810	674	523	505	629	515
15	652	726	740	620	520	1650	789	680	524	483	689	500
16	708	720	720	620	520	1470	773	735	530	466	523	491
17	981	699	900	600	520	1110	753	748	551	452	494	488
18	1240	676	1000	600	520	980	737	682	539	444	484	488
19	1330	663	960	600	520	897	726	650	528	445	474	487
20	1340	649	840	580	520	854	715	632	515	443	464	483
21	1310	624	760	580	700	835	701	614	513	440	460	475
22	1040	593	700	580	1200	809	720	602	524	436	459	490
23	818	631	660	580	1600	791	850	590	528	432	460	620
24	747	634	620	580	2500	814	1150	587	519	430	480	827
25	712	629	600	580	3100	834	1340	586	497	788	504	928
26	710	632	620	580	2780	823	1430	583	491	773	489	775
27	720	651	700	580	2350	795	1260	577	489	599	490	685
28	757	683	900	580	1910	830	1010	576	485	503	473	653
29	846	707	1300	580	---	865	884	567	486	478	474	622
30	854	689	1500	580	---	831	823	561	495	469	483	725
31	735	---	1600	560	---	806	---	566	---	472	485	---
TOTAL	23613	25255	24206	21180	26960	31823	29192	20226	15948	15189	15358	18385
MEAN	762	842	781	683	963	1027	973	652	532	490	495	613
MAX	1340	1510	1600	1500	3100	1650	1430	787	657	788	689	928
MIN	526	593	560	560	520	743	701	561	485	430	454	467
CFSM	1.11	1.23	1.14	.99	1.40	1.49	1.42	.95	.77	.71	.72	.89
IN.	1.28	1.37	1.31	1.15	1.46	1.72	1.58	1.10	.86	.82	.83	1.00
CAL YR 1984	TOTAL	253471	MEAN	693	MAX	2630	MIN	430	CFSM	1.01	IN.	13.73
WTR YR 1985	TOTAL	267335	MEAN	732	MAX	3100	MIN	430	CFSM	1.07	IN.	14.48

RESERVOIRS IN WISCONSIN RIVER BASIN

- The 24 reservoirs listed below are used to stabilize the flow of the Wisconsin and Tomahawk Rivers for power generation and are also used for recreational purposes. The first 21 reservoirs are owned and operated by the Wisconsin Valley Improvement Co., which furnishes the gage heights and capacity tables. Revised capacity tables for all 21 reservoirs were received from the Company in April 1957 and were used to compute month-end usable contents beginning Sept. 30, 1955. Another revised capacity table for Burnt Rollways Reservoir was used to compute month-end usable contents beginning Sept. 30, 1964. Lake Dubay is owned by the Consolidated Water Power Co. Petenwell and Castle Rock are owned and operated by the Wisconsin River Power Co., which furnished the gage heights and capacity tables for those two reservoirs. Month-end contents are computed by the U.S. Geological Survey. The usable capacity of these reservoirs is usually less in summer than in winter because the allowable summer drawdown is limited by the Department of Natural Resources in the interest of riparian property owners. There are occasionally formal or informal changes in capacity and in minimum drawdown levels. Usable capacity figures listed below are for winter regulation.
- 05390100 Lac Vieux Desert on Wisconsin River, lat 46°07'18", long 89°09'07", in SE 1/4 NW 1/4 sec.17, T.42 N., R.11 E., Vilas County, 4.8 mi northwest of Phelps, used as a reservoir since 1908, has a usable capacity of 652,000,000 ft³. Drainage area, 34.4 mi².
- 05390150 Twin Lakes on Twin River, lat 46°01'20", long 89°10'05", in SW 1/4 NE 1/4 sec.19, T.41 N., R.11 E., Vilas County, 3.0 mi southwest of Phelps, used as a reservoir since 1908, has a usable capacity of 313,000,000 ft³. Drainage area, 26 mi².
- 05390200 Buckatambon Lakes on Buckatambon Creek, lat 46°01'18", long 89°18'40", in SE 1/4 NE 1/4 sec.24, T.41 N., R.9 E., Vilas County, 3.3 mi southwest of Conover, used as a reservoir since 1908, has a usable capacity of 130,000,000 ft³. Drainage area, 16.9 mi².
- 05390250 Sevenmile Lake on Sevenmile Creek, lat 45°52'30", long 89°04'07", in SE 1/4 NE 1/4 sec.11, T.39 N., R.11 E., Oneida County, 9.1 mi southeast of town of Eagle River, used as a reservoir since 1908, has a usable capacity of 93,000,000 ft³. Drainage area, 12.1 mi².
- 05390300 Lower Ninemile Lake on Ninemile Creek, lat 45°53'37", long 89°07'15", in NE 1/4 NW 1/4 sec.4, T.39 N., R.11 E., Oneida County, 6.6 mi southeast of town of Eagle River, used as a reservoir since 1908, has a usable capacity of 121,000,000 ft³. Drainage area, 28.8 mi².
- 05390350 Burnt Rollways Reservoir on Eagle River, lat 45°53'40", long 89°08'28", in NE 1/4 NW 1/4 sec.5, T.39 N., R.11 E., Oneida County, 5.3 mi southeast of town of Eagle River, used as a reservoir since 1908, has a usable capacity of 779,000,000 ft³. This reservoir includes 18 lakes controlled by the same dam. Drainage area, 142 mi².
- 05390400 Long Lake on Deerskin River, lat 46°02'37", long 89°02'44", in NW 1/4 SE 1/4 sec.7, T.41 N., R.12 E., Vilas County, 2.5 mi southeast of Phelps, used as a reservoir since 1908, has a usable capacity of 400,000,000 ft³. Drainage area, 22.9 mi².
- 05390600 Deerskin Lake on Little Deerskin River, lat 45°59'07", long 89°09'40", in SE 1/4 sec.31, T.41 N., R.11 E., Vilas County, 6.3 mi northeast of town of Eagle River, used as a reservoir since 1908, has a usable capacity of 22,000,000 ft³. Drainage area, 2.47 mi².
- 05390650 Sugar Camp Reservoir on Sugar Camp Creek, lat 45°52'19", long 89°23'40", in NE 1/4 sec.17, T.39 N., R.9 E., Oneida County, 7.6 mi southwest of town of Eagle River, used as a reservoir since 1908, has a usable capacity of 471,000,000 ft³. Drainage area, 48.4 mi².
- 05390700 Little St. Germain Lake on Little St. Germain Creek, lat 45°53'57", long 89°27'08", in SE 1/4 sec.35, T.40 N., R.8 E., Vilas County, 9.6 mi west of town of Eagle River, used as a reservoir since 1908, has a usable capacity of 79,000,000 ft³. Drainage area, 19 mi².
- 05390750 Big St. Germain Lake on St. Germain River, lat 45°55'06", long 89°31'55", in SE 1/4 sec.30, T.40 N., R.8 E., Vilas County, 5.0 mi south of Sayner, used as a reservoir since 1908, has a usable capacity of 202,000,000 ft³. Drainage area, 73.1 mi².
- 05390800 Pickerel Lake on St. Germain River, lat 45°52'22", long 89°31'47", in NE 1/4 sec.18, T.39 N., R.8 E., Oneida County, 5.0 mi northeast of town of Lake Tomahawk, used as a reservoir since 1935, has a usable capacity of 338,000,000 ft³. Drainage area, 86.2 mi².
- 05390900 Rainbow Lake on Wisconsin River, lat 45°50'02", long 89°32'42", in SW 1/4 sec.30, T.39 N., R.8 E., Oneida County, 800 ft upstream from U.S. Geological Survey river gaging station, 2.7 mi northeast of town of Lake Tomahawk, used as a reservoir since 1935, has a usable capacity of 2,181,000,000 ft³. Drainage area, 744 mi².
- 05391100 South Pelican Lake on Pelican River, lat 45°31'37", long 89°12'24", in S 1/2 sec.11, T.35 N., R.10 E., Oneida County, 2.8 mi northwest of town of Pelican Lake, used as a reservoir since 1909, has a usable capacity of 305,000,000 ft³. Drainage area, 19.8 mi².
- 05391300 North Pelican Lake (includes Moen Lakes) on North Branch Pelican River, lat 45°38'05", long 89°14'38", in SE 1/4 sec.4, T.36 N., R.10 E., Oneida County, 0.2 mi below Twin Lakes Creek and 8.0 mi east of Rhinelander city limits, used as a reservoir since 1908, has a usable capacity of 218,000,000 ft. Drainage area, 95 mi².
- 05392100 Minocqua Lake on Tomahawk River, lat 45°52'35", long 89°43'38", on line between secs.10 and 15, T.39 N., R.6 E., Oneida County, 1.0 mi west of Minocqua, used as a reservoir since 1910, has a usable capacity of 628,000,000 ft³. Drainage area, 72.5 mi².
- 05392200 Squirrel Lake on Squirrel River, lat 45°50'37", long 89°54'13", in NE 1/4 sec.30, T.39 N., R.5 E., Oneida County, 9.4 mi west of Minocqua, used as a reservoir since 1908, has a usable capacity of 182,000,000 ft³. Drainage area, 15.2 mi².
- 05392300 Willow Reservoir on Tomahawk River, lat 45°42'45", long 89°50'38", in NE 1/4 sec.10, T.37 N., R.5 E., Oneida County, 8.8 mi southwest of Hazelhurst, used as a reservoir since 1927, has a usable capacity of 3,302,000,000 ft³. Drainage area, 310 mi².
- 05392500 Lake Nokomis on Tomahawk River, lat 45°32'20", long 89°44'48", in NW 1/4 sec.9, T.35 N., R.6 E., Lincoln County, at U.S. Geological Survey river gaging station, 0.5 mi east of Bradley, used as a reservoir since 1912, has a usable capacity of 1,808,000,000 ft³. Drainage area, 544 mi².
- 05393600 Spirit River Flowage on Spirit River, lat 45°26'18", long 89°44'30", in NE 1/4 sec.16, T.34 N., R.6 E., Lincoln County, 2.0 mi south of Tomahawk, used as a reservoir since 1923, has a usable capacity of 756,000,000 ft³. Drainage area, 158 mi².

WISCONSIN RIVER BASIN

RESERVOIRS IN WISCONSIN RIVER BASIN--CONTINUED

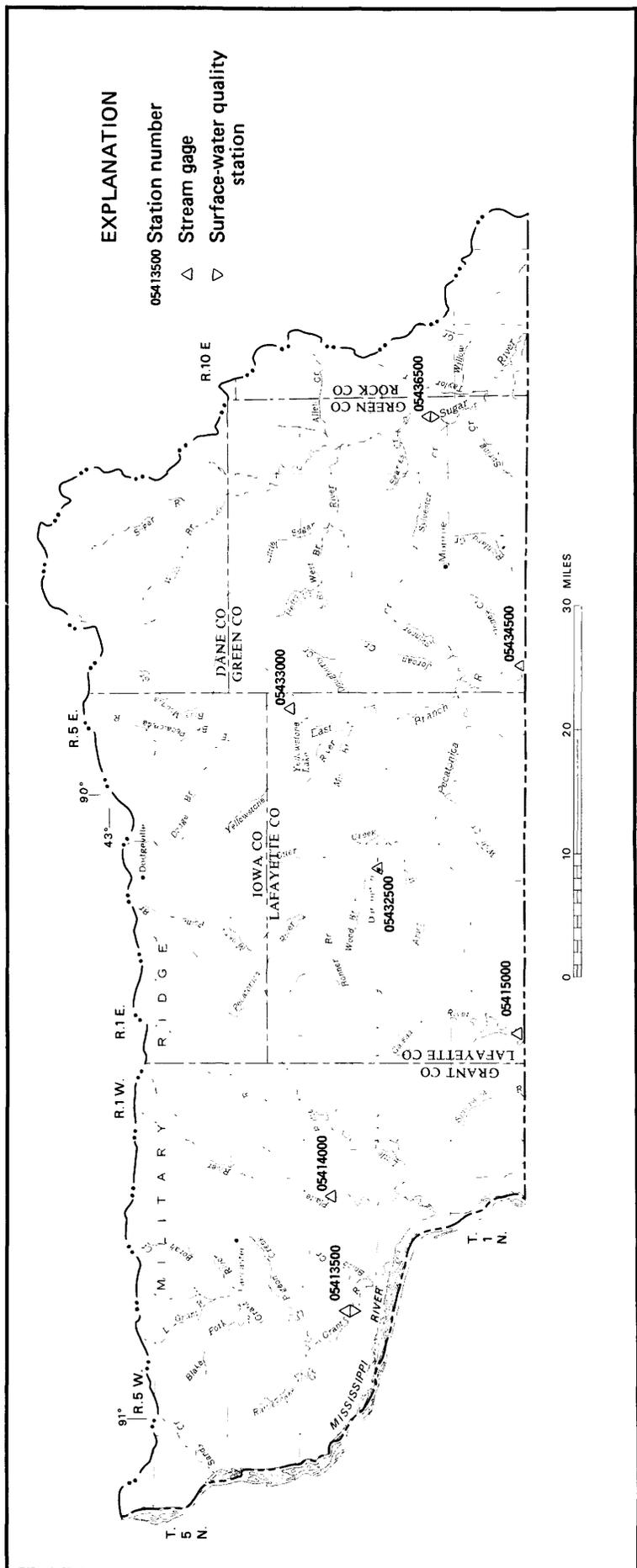
- 05399600 Big Eau Pleine Reservoir on Big Eau Pleine River, lat 44°43'52", long 89°45'35", in SW 1/4 sec.14, T.26 N., R.6 E., Marathon County, 3.0 mi northeast of Dancy, used as a reservoir since 1937, has a capacity of 4,457,000,000 ft³. Drainage area, 363 mi².
- 05400295 Lake Dubay on Wisconsin River, lat 44°39'54", long 89°39'03", in sec.10, T.25 N., R.7 E., Wood County, 1.5 mi downstream of Little Eau Pleine River and 10.5 mi northwest of Stevens Point, has a usable capacity of 2,117,000,000 ft³. Drainage area, 4,900 mi².
- 05401400 Petenwell Flowage on Wisconsin River, lat 44°03'26", long 90°01'18", in SE 1/4 sec.4, T.18 N., R.4 E., Adams County, 5.2 mi upstream from Roche a Cri Creek, 2.4 mi west of Strongs Prairie, and 3.5 mi northeast of Necedah, used as a reservoir since 1950, has a total capacity of 19,880,000,000 ft³. Drainage area, 5,970 mi².
- 05403200 Castle Rock Flowage on Wisconsin River, lat 43°51'48", long 89°57'38", in sec.13, T.16 N., R.4 E., Adams County, 4.5 mi upstream from Duck Creek, and 2.0 mi south of Germantown, and 7.0 mi northeast of Mauston, used as a reservoir since 1950, has a total capacity of 7,630,000,000 ft³. Drainage area, 7,056 mi².

MONTH-END CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1984 to SEPTEMBER 1985

	LAC VIEUX DESERT	TWIN LAKES	BUCKATABON LAKE	SEVENMILE LAKE	LOWER NINEMILE LAKE	BURNT ROLLWAYS RESERVOIR	LONG LAKE	DEERSKIN LAKE
SEPT. 30.....	406	274	115	64	103	565	254	18
OCT. 31.....	252	192	91	46	83	435	242	14
NOV. 30.....	440	153	64	37	73	371	237	12
DEC. 31.....	100	78	41	16	27	190	108	10
JAN. 31.....	34	5	19	10	9	0	10	10
FEB. 29.....	4	5	0	0	29	0	11	9
MAR. 31.....	77	73	58	14	91	197	65	13
APR. 30.....	277	200	118	52	101	542	251	17
MAY 31.....	344	256	120	65	102	555	255	18
JUNE 30.....	367	277	115	60	100	549	247	17
JULY 31.....	359	253	117	60	102	536	236	15
AUG. 31.....	367	259	115	59	102	539	238	17
SEPT. 30.....	462	296	122	70	103	588	267	18

	SUGAR CAMP RESERVOIR	LITTLE ST. GERMAIN LAKE	BIG ST. GERMAIN LAKE	PICKEREL LAKE	RAINBOW LAKE	SOUTH PELICAN LAKE	NORTH PELICAN LAKE	MINOCQUA LAKE
SEPT. 30.....	416	71	158	265	1,915	264	124	556
OCT. 31.....	408	67	141	231	2,088	298	140	348
NOV. 30.....	338	54	77	228	2,017	292	112	188
DEC. 31.....	359	33	40	193	2,104	292	66	18
JAN. 31.....	238	15	21	167	1,803	240	37	20
FEB. 29.....	31	14	24	161	1,144	139	34	25
MAR. 31.....	219	39	40	186	744	224	109	201
APR. 30.....	408	74	157	274	1,986	305	158	428
MAY 31.....	422	74	160	272	2,115	286	136	528
JUNE 30.....	405	71	157	263	1,978	267	130	534
JULY 31.....	395	70	158	265	1,672	260	133	522
AUG. 31.....	406	69	158	264	1,318	284	131	505
SEPT. 30.....	423	78	165	280	1,753	300	146	522

	SQUIRREL LAKE	WILLOW RESERVOIR	LAKE NOKOMIS	SPIRIT RIVER FLOWAGE	BIG EAU PLEINE RESERVOIR	LAKE DUBAY	PETENWELL FLOWAGE	CASTLE ROCK FLOWAGE
SEPT. 30.....	170	2,197	1,457	542	3,445	4,204	17,738	5,818
OCT. 31.....	119	1,801	1,473	687	3,868	4,181	17,712	5,916
NOV. 30.....	57	2,199	1,621	717	4,430	4,125	16,712	5,956
DEC. 31.....	8	2,220	1,444	666	4,349	4,032	17,351	5,760
JAN. 31.....	14	1,566	1,052	488	3,492	3,942	16,276	5,568
FEB. 29.....	18	1,040	636	313	2,848	3,588	15,898	4,723
MAR. 31.....	74	1,158	835	640	4,169	4,051	17,021	5,748
APR. 30.....	170	2,830	1,732	658	4,277	4,400	18,002	6,357
MAY 31.....	171	3,286	1,779	713	4,247	4,461	17,773	5,916
JUNE 30.....	168	3,117	1,692	708	4,022	4,175	17,782	5,863
JULY 31.....	166	2,541	1,459	565	3,255	4,132	17,747	5,929
AUG. 31.....	170	2,429	1,363	649	3,537	4,229	17,668	5,824
SEPT. 30.....	170	3,286	1,771	745	4,373	4,233	17,747	5,916



Base from U.S. Geological Survey
State base map, 1968

PECATONICA-SUGAR RIVER BASIN

GRANT RIVER BASIN

05413500 GRANT RIVER AT BURTON, WI

LOCATION.--Lat 42°43'13", long 90°49'09", in NW 1/4 sec.23, T.3 N., R.4 W., Grant County, Hydrologic Unit 07060003, on right bank at downstream side of highway bridge at Burton, 5.9 mi northwest of Potosi and 9.5 mi upstream from mouth.

DRAINAGE AREA.--269 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year. Published as "near Burton" October 1934 to September 1947. Records published for both sites March to September 1947. October 1934, monthly discharge only, published in WSP 1308.

REVISED RECORDS.--WSP 1308: 1935-37(M), 1941(M), 1945-46(M), 1949(M). WSP 1728: 1942(M). WDR WI-76-1: Drainage areas.

GAGE.--Water-stage recorder. Datum of gage is 606.43 ft above National Geodetic Vertical Datum of 1929. Oct. 17, 1934, to Sept. 30, 1947, nonrecording gage at site 6 mi upstream at datum 33.18 ft higher. Mar. 18, 1947, to July 27, 1949, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Mar. 26 to Apr. 11, and ice periods listed in rating tables below. Records good except for ice-affected periods, which are fair.

COOPERATION.--Four discharge measurements provided by U. S. Army Corps of Engineers.

AVERAGE DISCHARGE.--51 years, 169 ft³/s, 8.53 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s July 16, 1950, gage height, 24.82 ft, from rating curve extended above 18,000 ft³/s on basis of slope-area measurement of peak flow; minimum, 21 ft³/s Mar. 4, 1954, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Feb. 21	1715	*6,800	A *21.42	Mar. 9	0200	2,540	17.39
Feb. 23	--	3,200	ice jam				

A Backwater from ice.

Minimum discharge, 111 ft³/s, Sept. 20, 21, gage height, 5.14 ft.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 4-13, 21-28, and Jan. 1 to Feb. 23.)

Oct. 1 to Feb. 25				Feb. 26 to Sept. 30			
5.6	155	13.0	1,220	5.1	108	10.0	721
6.0	187	15.0	1,640	6.0	181	12.0	1,040
7.0	278	17.0	2,340	7.0	280	14.0	1,420
9.0	571	19.0	3,640	8.0	421		
11.0	874						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	898	180	200	130	291	242	194	190	132	128	120
2	161	397	182	200	130	251	278	187	167	133	122	116
3	161	263	172	190	130	219	340	185	161	133	120	115
4	160	245	160	190	130	252	321	184	158	130	119	115
5	161	224	140	190	130	269	492	184	158	129	122	218
6	161	211	140	190	130	218	436	193	156	128	122	169
7	252	207	150	180	130	240	360	180	154	127	118	129
8	238	204	160	180	130	847	312	177	156	126	115	123
9	178	213	160	180	130	1140	290	175	152	127	115	157
10	171	245	160	170	130	493	272	172	146	126	135	148
11	168	207	160	170	130	333	260	196	154	125	120	125
12	175	198	170	170	130	293	248	248	155	125	118	119
13	177	195	170	160	130	268	239	192	150	141	198	117
14	169	196	168	160	130	268	232	193	147	131	132	114
15	182	196	171	150	130	243	228	256	161	125	121	114
16	244	188	269	150	130	235	222	209	158	121	117	114
17	615	187	268	150	130	224	213	196	154	120	117	114
18	244	189	183	150	130	215	213	187	148	120	117	114
19	651	184	191	140	130	215	209	182	145	122	113	113
20	253	177	187	140	140	209	204	184	142	124	112	112
21	215	178	180	140	3000	204	201	175	142	122	112	113
22	198	180	170	140	3400	201	222	170	150	119	112	126
23	188	181	170	140	2400	211	296	168	144	117	113	183
24	183	181	160	140	1380	241	249	168	138	120	117	182
25	183	181	160	140	611	221	219	166	136	216	125	136
26	204	184	170	140	326	206	213	169	137	156	118	142
27	194	207	200	140	263	221	206	227	136	128	115	133
28	227	199	1200	140	244	268	204	173	134	124	113	124
29	195	185	509	140	---	247	197	166	137	121	145	133
30	187	184	222	140	---	223	195	166	135	123	155	222
31	182	---	203	140	---	244	---	241	---	132	126	---
TOTAL	6838	6884	6885	4950	14234	9210	7813	5863	4501	4023	3832	4060
MEAN	221	229	222	160	508	297	260	189	150	130	124	135
MAX	651	898	1200	200	3400	1140	492	256	190	216	198	222
MIN	160	177	140	140	130	201	195	166	134	117	112	112
CFSM	.82	.85	.83	.60	1.89	1.10	.97	.70	.56	.48	.46	.50
IN.	.95	.95	.95	.68	1.97	1.27	1.08	.81	.62	.56	.53	.56
CAL YR 1984	TOTAL	86257	MEAN 236	MAX 1720	MIN 140	CFSM .88	IN 11.93					
WTR YR 1985	TOTAL	79093	MEAN 217	MAX 3400	MIN 112	CFSM .81	IN 10.94					

GRANT RIVER BASIN
05413500 GRANT RIVER AT BURTON, WI--CONTINUED
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-67, 1977 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: Water years 1977-82, October 1983 to current year.

PERIOD OF MONTHLY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: April 1983 to September 1983.

REMARKS.--Sediment records for periods during considerable discharge (greater than 250 ft³/s) are good because sampling and analysis effort were concentrated on high-discharge periods. Records during remaining periods are fair to poor because of infrequent (about once per week) sampling. Monthly load values are good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 6,450 mg/l June 17, 1978; minimum daily mean, 7 mg/l on many days. Maximum observed, 13,600 mg/l July 13, 1979; minimum observed, 7 mg/l Mar. 2, 1978.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 95,300 tons June 17, 1978; minimum daily, 1.5 tons Mar. 1, 2, 1978.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,190 mg/l Mar. 9, minimum daily mean, 16 mg/l Oct. 4. Maximum observed, 3,810 mg/l Mar. 9; minimum observed, 14 mg/l Oct. 4.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 12,700 tons Mar. 9; minimum daily, 6.8 tons Oct. 4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)
OCT , 1984					MAY , 1985				
11...	1430	163	610	16.0	13...	1005	195	610	15.0
NOV					JUN				
23...	1440	176	650	2.5	26...	1550	140	600	26.5
JAN , 1985					AUG				
09...	1520	186	450	.0	08...	1740	114	965	24.5
FEB					SEP				
22...	1115	3080	260	.5	17...	1510	119	680	19.5
APR									
03...	1615	331	640	10.0					

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	MEAN CONCENTRATION (MG/L)		MEAN CONCENTRATION (MG/L)									
	LOADS (T/DAY)	LOADS (T/DAY)	LOADS (T/DAY)									
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	55	24	808	2660	63	31	96	51	35	12	258	206
2	36	16	278	330	63	31	90	49	35	12	197	135
3	23	10	111	80	64	30	90	46	35	12	125	74
4	16	6.8	77	51	65	25	80	41	30	11	175	123
5	18	7.9	72	44	65	25	80	41	30	11	175	131
6	25	11	67	38	65	25	70	36	30	11	90	53
7	97	72	63	35	60	24	70	34	30	11	107	77
8	111	72	59	32	60	26	65	32	30	11	2180	6190
9	95	46	67	39	55	24	62	30	30	11	3190	12700
10	82	38	100	67	55	24	60	28	30	11	761	1060
11	66	30	75	42	50	22	60	28	30	11	446	402
12	52	25	65	35	60	28	55	25	30	11	316	252
13	61	29	61	32	60	28	55	24	30	11	229	166
14	51	23	62	33	65	29	55	24	30	11	168	122
15	45	22	63	34	65	30	55	22	30	11	140	92
16	98	82	65	33	140	121	50	20	30	11	121	77
17	578	1070	66	34	169	130	50	20	30	11	105	64
18	221	150	68	35	104	52	45	18	30	11	91	53
19	709	1350	69	35	84	43	45	17	30	11	79	46
20	289	201	71	34	72	36	40	15	40	15	69	39
21	138	80	72	35	62	30	40	15	612	7340	60	33
22	88	47	74	36	54	25	40	15	930	8640	52	28
23	85	43	69	34	51	23	40	15	1240	8000	50	29
24	81	40	59	29	53	23	40	15	1780	7060	49	32
25	78	39	59	29	55	24	40	15	794	1400	49	29
26	75	41	60	30	57	26	35	13	383	341	59	32
27	72	38	60	34	59	32	35	13	187	134	76	41
28	69	42	61	33	1560	6570	35	13	119	78	95	64
29	66	35	62	31	238	406	35	13	---	---	92	60
30	64	32	62	31	119	72	35	13	---	---	84	49
31	61	30	---	---	98	53	35	13	---	---	76	50
TOTAL	---	3752.7	---	4045	---	8068	---	754	---	33220	---	22509

GRANT RIVER BASIN
GRANT RIVER AT BURTON, WI--CONTINUED

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)										
1	69	46	54	28	250	128	113	40	158	55	189	61
2	71	52	54	27	230	104	122	44	120	39	189	59
3	105	98	54	26	220	96	131	47	90	29	180	56
4	109	93	54	27	213	91	141	50	80	26	139	43
5	479	625	54	27	196	84	140	49	80	26	268	179
6	353	437	98	51	190	80	104	36	80	26	232	109
7	222	216	103	50	181	75	75	26	76	24	200	70
8	141	118	106	51	173	73	55	19	72	22	188	62
9	99	76	110	52	164	68	57	19	100	31	167	71
10	100	74	111	52	157	62	64	22	132	48	152	61
11	104	74	177	99	149	62	72	24	120	39	120	41
12	108	72	320	215	143	60	84	28	110	35	97	31
13	109	70	204	107	138	56	97	37	446	251	85	27
14	109	68	143	75	132	52	113	40	223	80	76	23
15	103	64	348	246	126	55	132	44	177	58	68	21
16	78	47	317	179	120	51	153	50	145	46	63	19
17	58	33	266	141	115	48	178	58	132	42	75	23
18	46	26	232	117	110	44	195	63	121	38	77	24
19	50	28	202	99	106	42	209	69	111	34	79	24
20	56	31	176	88	104	40	215	72	103	31	77	23
21	62	34	162	77	99	38	188	62	112	34	74	23
22	115	74	152	70	88	36	164	53	128	39	71	24
23	269	217	142	64	78	30	153	48	137	42	181	96
24	155	105	128	58	68	25	155	51	124	39	155	79
25	96	57	115	51	52	19	618	369	110	37	96	35
26	83	48	115	53	49	18	90	101	100	32	70	27
27	75	42	321	204	71	26	60	21	99	31	53	19
28	67	37	344	162	80	29	60	20	100	31	75	25
29	60	32	213	95	90	33	53	17	143	58	191	70
30	57	30	154	69	102	37	55	18	190	79	294	177
31	---	---	262	200	---	---	169	60	190	65	---	---
TOTAL	---	3024	---	2860	---	1662	---	1657	---	1467	---	1602
TOTAL LOAD FOR YEAR:	84620.7		TONS.									

PLATTE RIVER BASIN

05414000 PLATTE RIVER NEAR ROCKVILLE, WI

LOCATION.--Lat 42°43'52", long 90°38'25", in SW 1/4 sec.17, T.3 N., R.2 W., Grant County, Hydrologic Unit 07060003, on right bank just downstream from bridge on County Trunk Highway B, 0.8 mi upstream from Blakely Branch, 2.2 mi east of Rockville, 4.5 mi northeast of Potosi, and 15.2 mi upstream from mouth.

DRAINAGE AREA.--142 mi².

PERIOD OF RECORD.--October 1934 to current year. Monthly discharge only for October and November 1934, published in WSP 1308.

REVISED RECORDS.--WSP 1438: 1935-36, 1937(M), 1939(M), 1941-43, 1946(M). WDR WI-76-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 642.50 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1941, nonrecording gage at site 1.3 mi upstream at datum 12.55 ft higher. Oct. 1, 1941, to June 29, 1949, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except for ice-affected periods, which are fair.

COOPERATION.--Four discharge measurements provided by U.S. Army Corps of Engineers.

AVERAGE DISCHARGE.--51 years, 100 ft³/s, 9.56 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,500 ft³/s July 16, 1950, gage height, 17.26 ft, from rating curve extended above 7,000 ft³/s on basis of slope-area measurement of peak flow; no flow Nov. 24, 1950.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Feb. 21	1145	ice jam	*15.54	Feb. 21	----	*4,000	ice jam
Minimum daily, 63 ft ³ /s, July 23.							

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 4-10, 21-27, and Dec. 31 to Feb. 24.)

Oct. 1 to Feb. 21 (1159)				Feb. 21 (1200) to Sept. 30			
3.8	64	6.0	686	3.6	50	6.0	686
4.0	94	7.0	1,070	4.0	121	7.0	1,070
5.0	354	8.0	1,490	5.0	364	8.0	1,490

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	531	106	120	76	199	154	112	123	80	73	70
2	86	255	107	110	74	183	169	108	113	80	67	67
3	86	207	101	110	74	164	185	107	106	78	66	68
4	85	183	96	110	74	181	197	106	103	76	66	67
5	84	164	84	110	74	169	240	109	102	76	69	145
6	86	152	80	100	74	148	251	113	97	74	69	93
7	133	148	82	100	74	188	220	105	95	73	67	75
8	128	144	86	100	74	506	200	102	95	72	65	83
9	98	164	94	100	74	407	185	100	94	72	66	161
10	92	176	98	98	74	264	176	100	91	78	75	94
11	90	149	102	96	74	220	168	114	95	72	67	78
12	94	140	104	94	74	200	159	154	94	74	70	73
13	93	137	99	90	74	191	153	113	91	79	103	69
14	91	133	101	88	74	185	148	132	90	76	75	67
15	121	131	99	84	74	170	144	250	100	75	71	66
16	195	123	210	82	74	161	139	156	94	73	69	66
17	331	120	160	82	74	155	134	140	93	75	69	67
18	210	120	119	80	74	147	133	130	87	74	69	67
19	372	116	122	78	74	145	128	125	86	77	67	65
20	172	107	116	78	80	141	124	125	83	78	68	65
21	152	104	110	78	1400	134	123	116	85	69	68	68
22	139	102	100	78	1600	131	126	112	102	65	68	81
23	130	103	98	78	700	137	137	109	87	63	67	130
24	121	102	94	78	600	148	136	108	83	69	83	108
25	121	102	94	78	316	138	124	105	81	179	78	86
26	125	106	96	78	227	135	121	110	82	91	72	92
27	128	140	110	78	196	138	118	198	81	75	68	86
28	156	119	800	78	180	160	118	118	80	72	65	79
29	137	111	230	78	---	151	113	110	88	70	91	85
30	131	110	147	78	---	140	112	109	82	70	88	138
31	126	---	120	76	---	154	---	195	---	75	74	---
TOTAL	4200	4499	4165	2766	6707	5690	4635	3891	2783	2410	2233	2559
MEAN	135	150	134	89.2	240	184	155	126	92.8	77.7	72.0	85.3
MAX	372	531	800	120	1600	506	251	250	123	179	103	161
MIN	84	102	80	76	74	131	112	100	80	63	65	65
CFSM	.95	1.06	.94	.63	1.69	1.30	1.09	.89	.65	.55	.51	.60
IN.	1.10	1.18	1.09	.72	1.76	1.49	1.21	1.02	.73	.63	.58	.67
CAL YR 1984	TOTAL	49764	MEAN 136	MAX 958	MIN 68	CFSM .96	IN 13.04					
WTR YR 1985	TOTAL	46538	MEAN 128	MAX 1600	MIN 63	CFSM .90	IN 12.19					

GALENA RIVER BASIN

05415000 GALENA RIVER AT BUNCOMBE, WI

LOCATION.--Lat 42°30'49", long 90°22'40", in SW 1/4 sec.33, T.1 N., R.1 E., Lafayette County, Hydrologic Unit 07060005, on left bank at Buncombe, 0.6 mi upstream from Coon Branch, 1.5 mi upstream from Scrabble Branch, 2.0 mi upstream from Wisconsin-Illinois State line, and 3.5 mi southeast of Hazel Green.

DRAINAGE AREA.--125 mi².

PERIOD OF RECORD.--September 1939 to current year.

REVISED RECORDS.--WSP 1438: 1942(P), 1943(M), 1944(P), 1945(M). WDR WI-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 682.31 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1939, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating tables below. Records good except those for ice-affected periods, which are fair. Gage-height telemeter at station.

AVERAGE DISCHARGE.--46 years, 78.4 ft³/s, 8.52 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,700 ft³/s June 29, 1969, gage height, 19.57 ft from rating curve extended above 8,100 ft³/s on basis of slope-area measurements at gage heights 15.68 ft and 19.57 ft; minimum discharge, 0.8 ft³/s Mar. 3, 1954.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of February 1937 reached a stage of about 17.1 ft, from information by local resident, discharge, 18,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Feb. 21	Unknown	A *4,400	B *13.16	No other peak greater than base discharge.			

A Estimated
B Ice jam

Minimum, 41 ft³/s, July 23, 24.

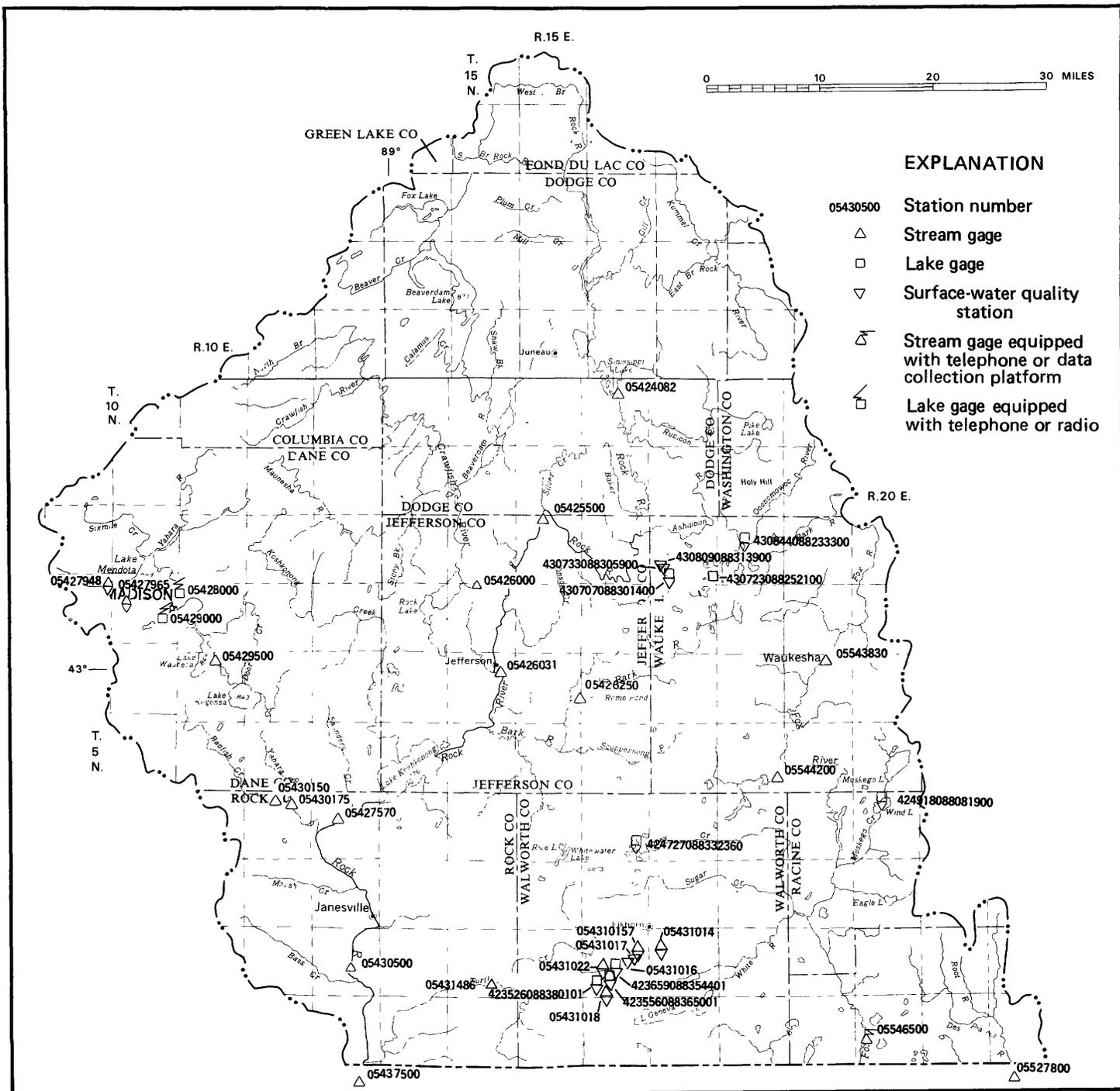
RATING TABLES (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 3-8, 22-27, and Jan. 1 to Feb. 21.)

Oct. 1 to Feb. 21 (1045)				Feb. 21 (1100) to Sept. 30			
2.8	48	4.5	332	2.7	40	5.0	503
3.0	69	5.0	456	3.0	73	6.0	848
3.5	144	6.0	796	3.5	148	7.0	1,280
4.0	234			4.0	246	8.0	1,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	189	81	98	62	192	169	85	68	54	50	48
2	55	142	83	96	62	170	153	81	67	55	46	45
3	55	128	82	90	60	146	148	79	66	53	45	45
4	54	121	80	90	60	169	141	79	66	53	45	45
5	54	110	78	90	58	156	145	84	67	52	48	58
6	54	103	78	90	58	139	156	87	66	50	48	68
7	112	101	84	90	58	152	135	79	66	49	76	50
8	110	99	82	86	56	350	129	77	68	49	51	49
9	69	112	80	82	56	302	125	76	64	49	46	102
10	64	118	79	82	56	186	123	74	61	51	63	58
11	62	100	77	82	54	173	120	81	66	47	52	50
12	68	94	82	82	54	157	115	116	64	48	48	46
13	65	92	76	82	54	151	114	82	62	52	71	44
14	62	91	77	80	52	150	112	86	61	51	53	43
15	96	92	77	78	52	134	110	127	77	48	48	43
16	115	85	196	78	50	129	107	94	68	44	45	44
17	280	86	124	78	50	123	100	87	65	44	45	50
18	256	85	90	76	50	117	101	82	61	44	44	48
19	758	82	96	76	50	117	99	80	60	49	42	46
20	186	83	124	74	54	112	96	78	60	49	42	45
21	152	87	107	74	2700	106	94	74	62	46	42	46
22	126	89	100	72	1470	104	94	72	78	44	42	54
23	111	79	100	70	874	117	95	72	63	42	43	132
24	106	79	96	68	865	136	94	72	58	43	61	90
25	103	79	92	68	331	120	90	71	56	86	76	66
26	102	80	100	68	234	115	89	73	57	66	56	71
27	106	106	110	66	185	121	87	106	55	49	48	67
28	226	92	583	66	170	160	87	77	67	46	45	59
29	129	84	256	64	---	144	85	72	67	45	50	59
30	116	84	122	64	---	131	84	72	58	48	67	69
31	110	---	101	62	---	162	---	72	---	54	53	---
TOTAL	4018	2972	3593	2422	7935	4741	3397	2547	1924	1560	1591	1740
MEAN	130	99.1	116	78.1	283	153	113	82.2	64.1	50.3	51.3	58.0
MAX	758	189	583	98	2700	350	169	127	78	86	76	132
MIN	54	79	76	62	50	104	84	71	55	42	42	43
CFSM	1.04	.79	.93	.63	2.26	1.22	.90	.66	.51	.40	.41	.46
IN.	1.20	.88	1.07	.72	2.36	1.41	1.01	.76	.57	.46	.47	.52

CAL YR 1984 TOTAL 34247 MEAN 93.6 MAX 758 MIN 46 CFSM .75 IN 10.19
WTR YR 1985 TOTAL 38440 MEAN 105 MAX 2700 MIN 42 CFSM .84 IN 11.44



EXPLANATION

- 05430500 Station number
- △ Stream gage
- Lake gage
- ▽ Surface-water quality station
- △ with telephone or data collection platform
- with telephone or radio

Base from U.S. Geological Survey
State base map, 1968

ROCK-FOX RIVER BASIN

ROCK RIVER BASIN

05424082 ROCK RIVER AT HUSTISFORD, WI

LOCATION.--Lat 43°20'44", long 88°35'52", in NE 1/4 sec.9, T.10 N., R.16 E., Dodge County, Hydrologic Unit 07090001, on left bank 400 ft downstream from Stata Highway 106 bridge, 40 ft downstream from the Hustisford dam, at Hustisford.

DRAINAGE AREA.--511 mi².

PERIOD OF RECORD.--May 1978 to September 1985 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 845.67 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: May 14, June 11 to July 26, Aug. 11-13, 22-24, and Sept. 9. Records good except for estimated daily discharges, which are poor. Some regulation caused by manipulation of gates at dams on Horicon Marsh and Lake Sinissippi.

AVERAGE DISCHARGE.--7 years, 393 ft³/s, 10.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,550 ft³/s Apr. 4, 1979, gage height, 6.80 ft; minimum daily, no flow Aug. 24-26, 1984, June 21 to July 11, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,040 ft³/s Mar. 11, gage height, 5.27 ft; minimum daily, no flow June 21 to July 11.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second).

Oct. 1 to May 14				May 15 to Sept. 9(0100)				Sept. 9 (013) to 30			
1.8	2.2	3.0	133	0.21	0	1.0	19	2.7	148		
2.0	15	3.5	270	0.3	0.4	1.1	31	2.8	185		
2.2	26	4.0	522	0.4	0.8	1.2	52	2.9	228		
2.4	41	4.5	935	0.5	1.4	1.3	82	3.0	276		
2.6	64	5.0	1,570	0.6	2.3	1.4	128	3.1	330		
2.8	92	5.2	1,910	0.7	3.8	1.5	193	3.2	391		
				0.8	6.2	1.6	280	3.3	458		
				0.9	11			3.4	531		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	1290	499	415	267	1210	1320	578	82	.00	72	56
2	60	1270	483	534	257	1280	1230	427	92	.00	46	46
3	74	956	513	753	250	1310	1250	119	66	.00	32	43
4	64	951	494	839	212	1420	1160	10	57	.00	21	38
5	55	1070	428	779	151	1420	1230	20	60	.00	19	44
6	44	1170	359	716	142	1400	1410	44	43	.00	21	42
7	52	1090	290	684	142	1390	1510	47	39	.00	27	36
8	65	1020	296	524	144	1390	1550	224	31	.00	18	105
9	61	1050	300	448	148	1430	1460	392	33	.00	12	380
10	65	1150	297	366	156	1520	1350	406	17	.00	17	498
11	71	1200	286	317	164	1820	1280	364	16	.00	11	511
12	76	1140	274	318	166	1890	1280	350	15	1.0	7.0	492
13	84	1100	227	310	222	1840	1270	330	10	1.0	14	484
14	90	1010	214	305	282	1810	1180	110	9.0	1.0	21	466
15	95	1010	228	301	303	1780	1120	17	7.0	2.0	31	450
16	105	1050	246	298	351	1750	1120	45	5.0	2.0	39	220
17	139	982	265	298	351	1700	1070	56	11	2.0	26	170
18	133	986	477	298	346	1660	998	71	11	2.0	31	222
19	611	922	618	296	277	1560	951	105	8.0	3.0	22	202
20	1050	691	708	284	241	1510	945	239	3.0	4.0	17	222
21	1120	534	797	282	241	1390	937	202	.00	6.0	13	229
22	1120	432	744	251	241	1330	902	178	.00	8.0	8.0	251
23	1210	169	664	213	241	1310	879	170	.00	10	9.0	339
24	1310	111	550	213	326	1310	856	151	.00	13	11	395
25	1250	154	513	213	513	1180	773	125	.00	16	11	363
26	1200	295	345	210	742	1080	725	126	.00	21	14	458
27	1040	372	265	206	933	1000	730	186	.00	56	32	492
28	1090	497	253	202	1060	1120	743	150	.00	75	61	509
29	1010	529	290	203	---	1280	732	89	.00	101	59	488
30	1040	510	325	263	---	1280	633	101	.00	62	66	444
31	1000	---	363	283	---	1240	---	160	---	72	52	---
TOTAL	15451	24711	12611	11624	8869	44610	32594	5592	615.00	458.00	840.0	8695
MEAN	498	824	407	375	317	1439	1086	180	20.5	14.8	27.1	290
MAX	1310	1290	797	839	1060	1890	1550	578	92	101	72	511
MIN	44	111	214	202	142	1000	633	10	.00	.00	7.0	36
CFSM	.98	1.61	.80	.73	.62	2.82	2.13	.35	.04	.03	.05	.57
IN.	1.12	1.80	.92	.85	.65	3.25	2.37	.41	.04	.03	.06	.63

CAL YR 1984	TOTAL	187090.10	MEAN 511	MAX 1800	MIN .00	CFSM 1.00	IN 13.62
WTR YR 1985	TOTAL	166670.00	MEAN 457	MAX 1890	MIN .00	CFSM .89	IN 12.13

ROCK RIVER BASIN

235

430844088233300 NORTH LAKE NEAR NORTH LAKE, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 43°08'44", long 88°23'33", in NE 1/4 sec.20, T.8 N., R.18 E., Waukesha County, Hydrologic Unit 07090001, 1.4 miles southwest of North Lake.

PERIOD OF RECORD.--April to September 1985.

GAGE.--Staff gage read by observer. Elevation of gage is 896 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 11.50 ft, Apr. 9; minimum, 10.00 ft, July 21-23.

GAGE HEIGHT (FEET ABOVE DATUM) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	10.85	10.48	10.30	10.17	10.14
2							---	10.70	10.48	10.28	10.16	---
3							---	10.70	10.47	10.26	10.14	10.11
4							---	10.68	10.45	10.24	10.13	10.10
5							---	10.68	10.42	10.25	10.12	10.14
6							---	10.65	10.41	10.28	10.12	10.14
7							---	10.63	10.40	10.28	10.15	10.14
8							---	10.62	10.38	10.28	10.15	10.15
9							11.50	10.62	10.37	10.26	10.15	10.49
10							---	10.60	10.36	10.24	10.15	10.59
11							11.40	10.55	10.35	10.22	10.15	10.60
12							---	10.55	10.32	10.20	10.15	10.60
13							---	10.55	10.32	10.19	---	10.61
14							11.33	10.55	10.32	10.16	10.20	10.60
15							---	10.65	10.34	10.10	10.21	10.60
16							---	10.68	10.34	10.08	10.18	10.50
17							11.25	10.68	10.34	10.06	10.16	10.50
18							11.10	10.68	10.33	10.04	10.14	10.48
19							---	10.68	10.32	10.03	10.12	10.42
20							11.03	10.68	10.31	10.01	10.10	10.40
21							10.98	10.65	10.32	10.00	10.09	10.40
22							10.93	10.63	10.37	10.00	10.08	10.38
23							10.90	10.61	10.37	10.00	10.04	10.32
24							10.90	10.60	10.37	10.02	10.02	10.32
25							10.88	10.58	10.34	10.02	10.08	10.32
26							10.88	10.55	10.32	10.20	10.15	10.30
27							10.85	10.52	10.31	10.20	10.10	10.30
28							10.83	10.51	10.30	10.18	10.08	10.29
29							10.88	10.50	10.30	10.18	10.12	10.28
30							10.88	10.50	10.28	10.18	10.14	10.28
31							---	10.48	---	10.18	10.15	---
MEAN							---	10.62	10.36	10.16	---	---
MAX							---	10.85	10.48	10.30	---	---
MIN							---	10.48	10.28	10.00	---	---

WATER-QUALITY RECORDS

LOCATION.--Lat 43°08'50", long 88°23'17", in NE 1/4 sec.20, T.8 N., R.18 E., Waukesha County, Hydrologic Unit 07090001, near center of southwest lobe of lake, and 1.1 miles southwest of North Lake.

PERIOD OF RECORD.--May to September 1985.

REMARKS.--Secchi disc readings made by David Bykowski.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 6.2 meters, Sept. 28; minimum transparency, 0.8 meter, June 29.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
MAY 1	2.8	MAY 30	4.3	JUNE 23	1.7	JULY 21	1.5	AUG. 16	2.3	SEPT. 14	3.5
MAY 8	2.4	JUNE 2	4.3	JUNE 29	0.8	JULY 28	2.0	AUG. 22	1.7	SEPT. 21	4.7
MAY 14	4.1	JUNE 9	3.7	JULY 7	1.2	AUG. 3	3.2	AUG. 31	2.0	SEPT. 28	6.2
May 22	4.6	JUNE 16	2.9	JULY 14	1.2	AUG. 9	2.6	SEPT. 7	2.3	SEPT. 30	5.8

LOCATION.--LAT 43°07'23", LONG 88°25'21", IN NE 1/4 NE 1/4 Sec. 36, T.8 N., R.17 E., Waukesha County at Okauchee.

DRAINAGE AREA.--80.7 MI².

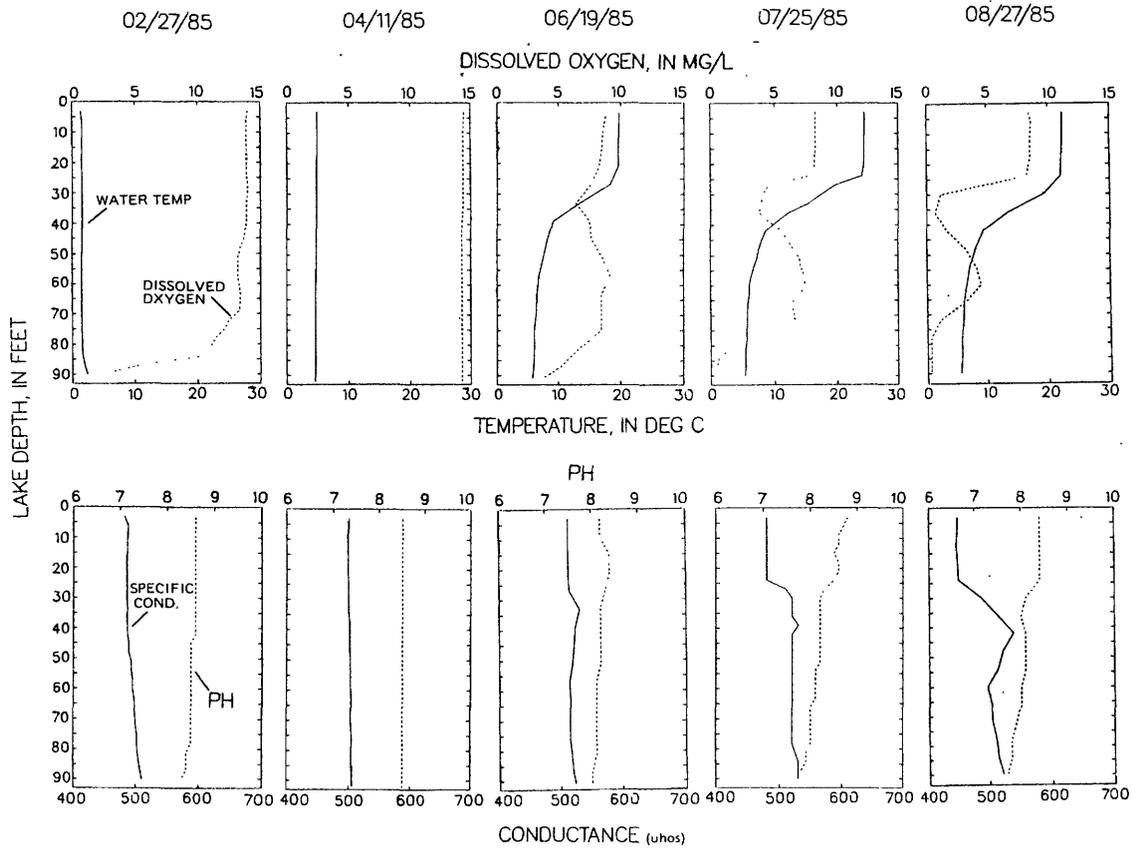
PERIOD OF RECORD.--February 15, 1984 to current year.

REMARKS.--A detailed water quality management plan has been developed for Okauchee Lake by Southeastern Wisconsin Regional Planning Commission; previous water-quality data are available in this report.

Lake sampled near center at a depth of 93 feet.

WATER-QUALITY DATA, FEBRUARY 27 TO AUGUST 27, 1985
(Milligrams per liter unless otherwise indicated)

	Feb. 27		Apr. 11		June 19		July 25		Aug. 27	
Depth of sample (ft)	3	90	3	90	3	89	3	90	3	90.5
Specific conductance (umhos)	482	510	501	506	513	522	480	530	448	522
pH	8.6	8.3	8.5	8.5	8.2	8.0	8.8	7.8	8.4	7.7
Water temperature (°C)	1.5	2.5	5.0	4.5	20.0	6.0	24.5	5.5	22.5	5.5
Color (Pt-Co. scale)	--	--	15	20	--	--	--	--	--	--
Turbidity (NTU)	--	--	.7	1.0	--	--	--	--	--	--
Secchi-disc (meters)	--	--	3.8	--	2.2	--	2.4	--	2.0	--
Dissolved oxygen	14.0	2.4	14.5	14.3	8.9	4.5	8.3	0.5	8.5	0.3
Hardness, as CaCO ₃	--	--	270	270	--	--	--	--	--	--
Calcium, dissolved (Ca)	--	--	56	56	--	--	--	--	--	--
Magnesium, dissolved (Mg)	--	--	32	32	--	--	--	--	--	--
Dissolved sodium (Na)	--	--	8.1	7.9	--	--	--	--	--	--
Potassium, dissolved (K)	--	--	1.8	1.7	--	--	--	--	--	--
Alkalinity as CaCO ₃	--	--	232	232	--	--	--	--	--	--
Sulfate, dissolved (SO ₄)	--	--	29	29	--	--	--	--	--	--
Chloride, dissolved (Cl)	--	--	19	19	--	--	--	--	--	--
Silica, dissolved (SiO ₂)	--	--	4.7	4.7	--	--	--	--	--	--
Solids, dissolved, at 180°C	--	--	296	297	--	--	--	--	--	--
Nitrogen, nitrate, total (as N)	--	--	.69	--	--	--	--	--	--	--
Nitrogen, nitrite, total (as N)	--	--	.01	<.01	--	--	--	--	--	--
Nitrogen, ammonia, total (as N)	--	--	.07	<.01	--	--	--	--	--	--
Nitrogen, organic, total (as N)	--	--	.63	--	--	--	--	--	--	--
Total phosphorus (as P)	--	--	.012	.014	.016	.096	--	.006	.013	.060
Phosphorus, ortho, diss (as P)	--	--	.003	<.001	--	--	--	--	--	--
Iron, dissolved (Fe) ug/L	--	--	8	8	--	--	--	--	--	--
Manganese, dissolved (Mn) ug/L	--	--	1	1	--	--	--	--	--	--
Chlorophyll a, phyto. (ug/L)	--	--	2.30	--	.20	--	2.50	--	5.80	--
Chlorophyll b, phyto. (ug/L)	--	--	<.10	--	<.10	--	<.10	--	<.10	--



DISSOLVED OXYGEN, WATER TEMPERATURE, pH AND SPECIFIC CONDUCTANCE DEPTH PROFILES FOR OKAUCHEE LAKE

ROCK RIVER BASIN
430733088305900 LAC LA BELLE AT OCONOMOWOC, WI--CONTINUED
WATER-QUALITY RECORDS

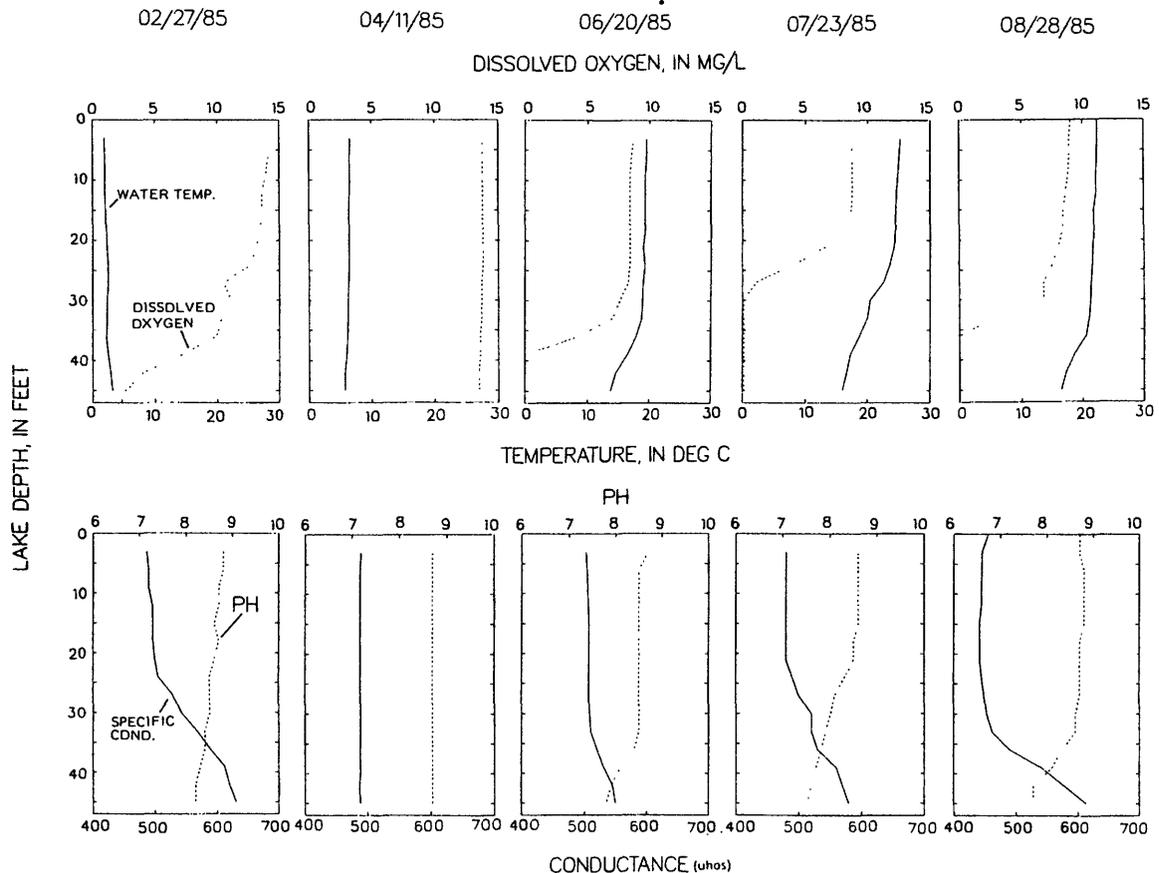
PERIOD OF RECORD.--February 22, 1984 to current year.

REMARKS.--A detailed water-quality management plan has been developed for Lac La Belle by Southeastern Wisconsin Regional Planning Commission; previous water-quality data are available in that report.

Three sites were monitored for water quality: the first site was near the center of the lake at a depth of 47 ft (station number 430733088305900); the second site was at the southeast end of the lake at a depth of 37 ft (station number 430707088301400); the third site was at the northwest end of the lake at a depth of 33 ft (station number 430809088313900).

WATER QUALITY DATA, FEBRUARY 27 TO AUGUST 28, 1985
(Milligrams per liter unless otherwise indicated)

	Feb. 27		Apr. 11		June 20		July 23		Aug. 28	
Depth of sample (ft)	3	45	3	43	3	45	3	45	3	45.5
Specific conductance (umhos)	487	631	489	487	502	550	480	580	455	614
pH	8.8	8.2	8.7	8.7	8.7	7.8	8.6	7.5	8.7	8.7
Water temperature (°C)	2.0	3.0	6.5	5.5	19.5	13.5	25.5	16.0	22.5	16.5
Color (Pt-Co. scale)	--	--	10	15	--	--	--	--	--	--
Turbidity (NTU)	--	--	1.0	0.6	--	--	--	--	--	--
Sacchi-disc (meters)	--	--	--	2.5	--	2.2	--	1.5	--	1.3
Dissolved oxygen	14.1	2.6	13.8	13.5	8.7	0.0	8.7	0.1	8.9	0.0
Hardness, as CaCO ₃	--	--	260	250	--	--	--	--	--	--
Calcium, dissolved (Ca)	--	--	51	49	--	--	--	--	--	--
Magnesium, dissolved (Mg)	--	--	31	31	--	--	--	--	--	--
Sodium, dissolved (Na)	--	--	9.6	10	--	--	--	--	--	--
Potassium, dissolved (K)	--	--	1.7	1.6	--	--	--	--	--	--
Alkalinity as CaCO ₃	--	--	215	214	--	--	--	--	--	--
Sulfate, dissolved (SO ₄)	--	--	29	29	--	--	--	--	--	--
Chloride, dissolved (Cl)	--	--	23	23	--	--	--	--	--	--
Silica, dissolved (SiO ₂)	--	--	3.5	3.5	--	--	--	--	--	--
Solids, dissolved, at 180°C	--	--	330	289	--	--	--	--	--	--
Nitrogen, nitrate, total (as N)	--	--	.89	--	--	--	--	--	--	--
Nitrogen, nitrite, total (as N)	--	--	.01	<.01	--	--	--	--	--	--
Nitrogen, ammonia, total (as N)	--	--	.05	.02	--	--	--	--	--	--
Nitrogen, organic, total (as N)	--	--	.65	.48	--	--	--	--	--	--
Total phosphorus (as P)	--	--	.041	.009	.028	.026	<.001	<.001	.013	.040
Phosphorus, ortho, dias (as P)	--	--	.005	<.001	--	--	--	--	--	--
Iron, dissolved (Fe) ug/L	--	--	5	8	--	--	--	--	--	--
Manganese, dissolved (Mn) ug/L	--	--	<1	1	--	--	--	--	--	--
Chlorophyll a, phyto. (ug/L)	--	--	1.0	--	1.60	--	5.50	--	6.30	--
Chlorophyll b, phyto. (ug/L)	--	--	<.10	--	<.10	--	<.10	--	<.10	--



DISSOLVED OXYGEN, WATER TEMPERATURE, pH AND SPECIFIC CONDUCTANCE DEPTH PROFILES FOR LAC LA BELLE

430707088301400 LAC LA BELLE AT OCONOMOWOC, WI

WATER-QUALITY RECORDS

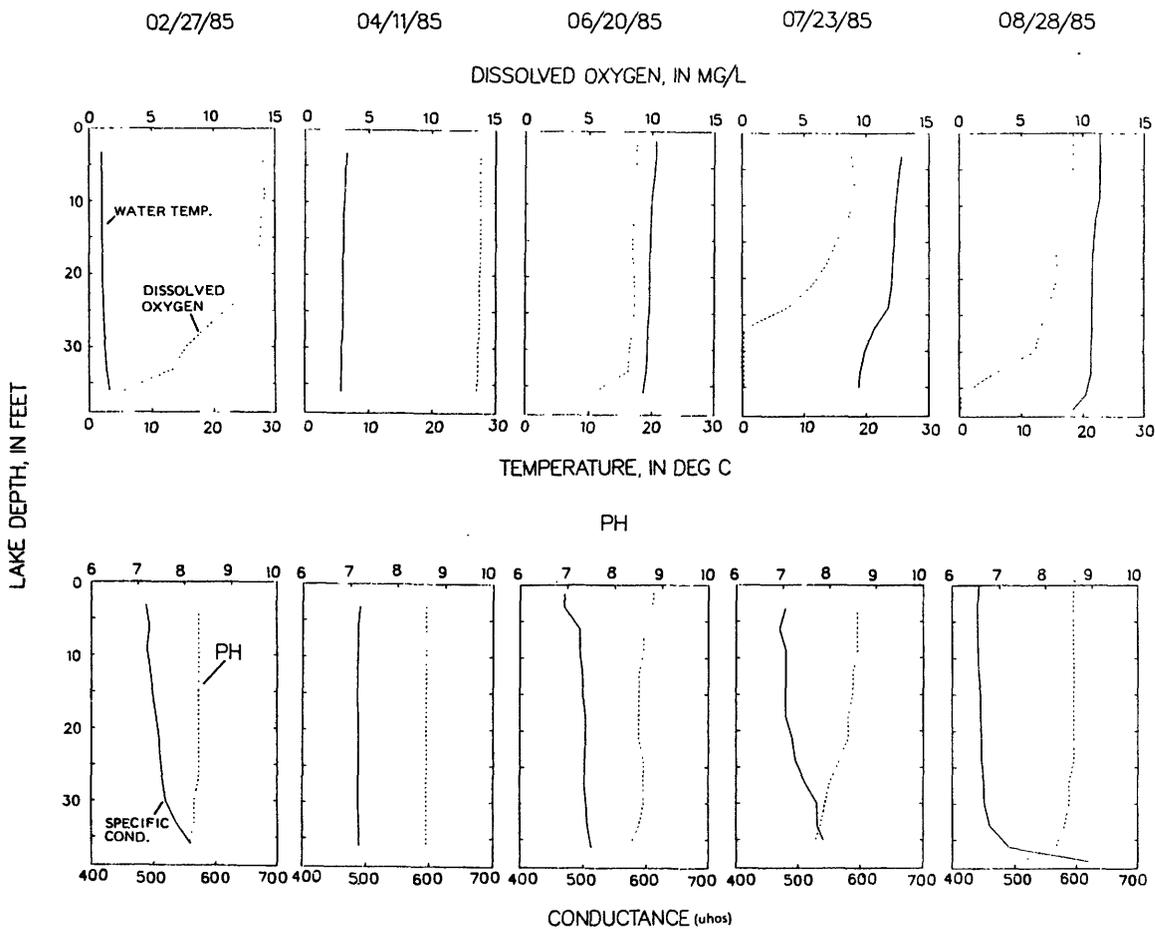
LOCATION.--Lat 43°07'07", long 88°30'14", in SE 1/4 NE 1/4 sec.32, T.8 N., R.17 E., Waukesha County, Hydrologic Unit 07090001, at Oconomowoc.

PERIOD OF RECORD.--February 22, 1984 to current year.

REMARKS.--Sampling site at southeast end of lake at a depth of 37 ft.

WATER QUALITY DATA, FEBRUARY 27 TO AUGUST 28, 1985
(Milligrams per liter unless otherwise indicated)

	Feb. 27		Apr. 11		June 20		July 23		Aug. 28	
Depth of sample (ft)	3	36	3	35	3	35	3	36	3	37.5
Specific conductance (umhos)	488	560	490	489	470	512	480	540	440	619
pH	8.3	8.1	8.6	8.6	8.8	8.3	7.7	8.6	8.6	7.4
Water temperature (°C)	2.0	3.5	6.5	5.5	20.5	18.5	25.5	19.0	23.0	18.5
Secchi-disc (meters)	--	--	--	3.1	--	2.3	--	1.3	--	1.4
Dissolved oxygen	14.0	2.8	13.8	13.5	8.8	5.3	8.8	0.1	9.2	0.0
Total phosphorus (as P)	--	--	.003	.008	.020	.026	<.001	.023	.014	.040
Chlorophyll <i>a</i> , phyto. (ug/L)	--	--	.90	--	1.80	--	5.10	--	8.00	--
Chlorophyll <i>b</i> , phyto. (ug/L)	--	--	<.10	--	<.10	--	<.10	--	<.10	--



DISSOLVED OXYGEN, WATER TEMPERATURE, pH AND SPECIFIC CONDUCTANCE DEPTH PROFILES FOR LAC LA BELLE

ROCK RIVER BASIN
 430809088313900 LAC LA BELLE AT OCONOMOWOC, WI
 WATER-QUALITY RECORDS

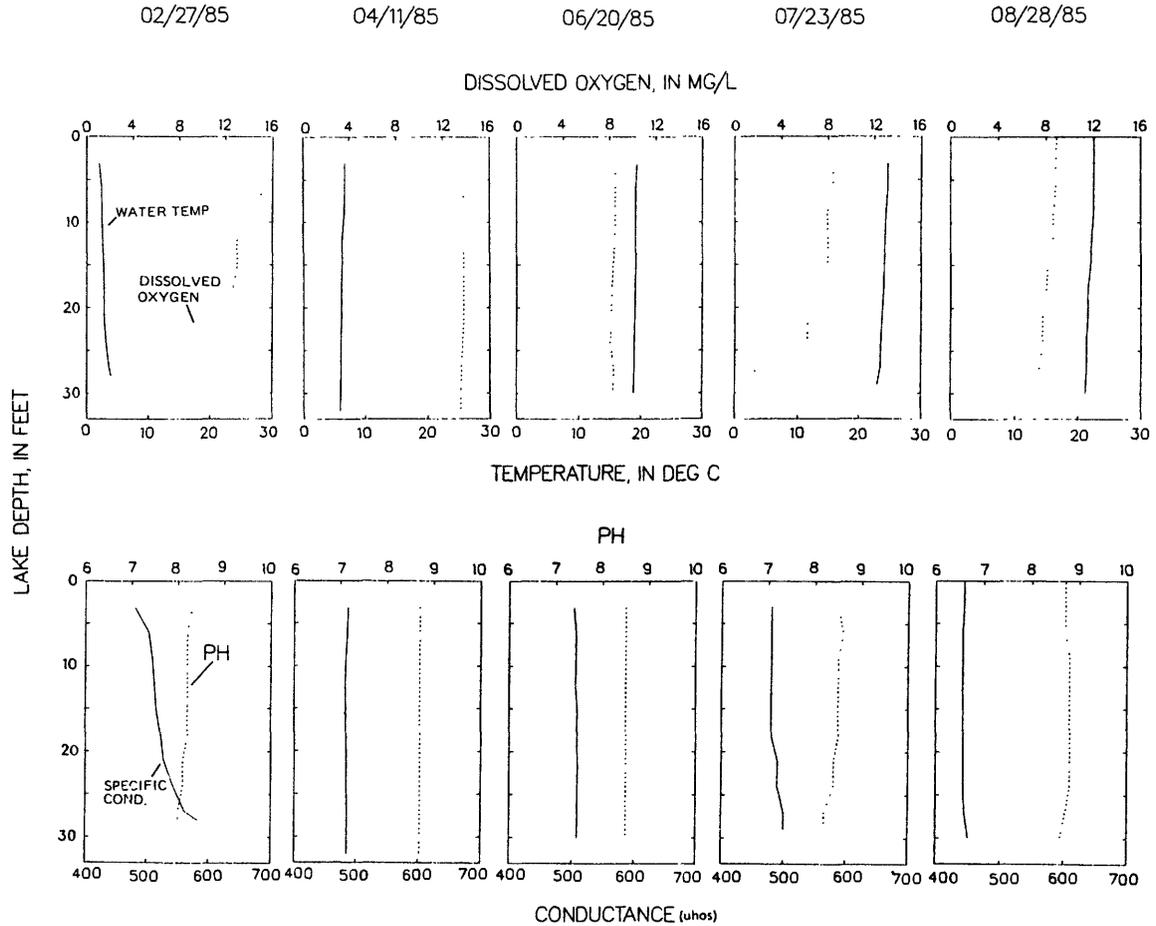
LOCATION.--Lat 43°08'09", long 88°31'39", in NW 1/4 NE 1/4 sec.30, T.8 N., R.17 E., Waukesha County, Hydrologic Unit 07090001, at Oconomowoc.

PERIOD OF RECORD.--February 22, 1984 to current year.

REMARKS.--Sampling site at northwest end of lake at a depth of 30 ft.

WATER QUALITY DATA, FEBRUARY 27 TO AUGUST 28, 1985
 (Milligrams per liter unless otherwise indicated)

	Feb. 27		Apr. 11		June 20		July 23		Aug. 28	
Depth of sample (ft)	3	28	3	29	3	29	3	27	3	30.5
Specific conductance (umhos)	479	582	487	486	503	508	480	500	444	451
pH	8.3	8.0	8.7	8.7	8.5	8.5	8.5	8.2	8.7	8.6
Water temperature (°C)	2.0	4.0	7.0	6.0	19.5	19.0	24.5	23.0	22.5	21.0
Secchi-disc (meters)	--	--	--	2.4	--	2.1	--	2.1	--	1.2
Dissolved oxygen	14.9	5.1	13.8	13.5	8.5	8.3	8.4	1.7	8.8	6.8
Total phosphorus (as P)	--	--	.006	.008	.020	.015	<.001	<.001	.017	.030
Chlorophyll <i>a</i> , phyto. (ug/L)	--	--	1.00	--	<.100	--	6.10	--	5.30	--
Chlorophyll <i>b</i> , phyto. (ug/L)	--	--	<.10	--	<.100	--	<.100	--	<.100	--



DISSOLVED OXYGEN, WATER TEMPERATURE, pH AND SPECIFIC CONDUCTANCE DEPTH PROFILES FOR LAC LA BELLE

ROCK RIVER BASIN

05425500 ROCK RIVER AT WATERTOWN, WI

LOCATION.--Lat 43°11'17", long 88°43'34", in SW 1/4 sec.4, T.8 N., R.15 E., Jefferson County, Hydrologic Unit 07090001, on left bank, 700 ft downstream from Milwaukee Street bridge, 1.1 mi downstream from Silver Creek, at Watertown.

DRAINAGE AREA.--969 mi².

PERIOD OF RECORD.--June 1931 to September 1970, October 1976 to current year.

REVISED RECORDS.--WSP 1438: 1933,1935(M), 1937(M), 1938-39, 1945(M); WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 792.58 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 26, 1933, nonrecording gage at site 700 ft upstream at different datum.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except for ice-affected periods, which are fair. Some regulation caused by manipulation of gates at dams on Horicon Marsh, Lake Sinissippi, and other dams in the basin.

AVERAGE DISCHARGE.--48 years, (water years 1932-70, 1977-85), 458 ft³/s, 6.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft³/s Mar. 31, 1979, gage height, 6.19 ft; maximum gage height, 6.32 ft Apr. 4, 1959; minimum daily discharge, 0.9 ft³/s Oct. 15, 1939, Sept. 9, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,180 ft³/s Mar. 10, gage height, 4.96 ft; minimum daily, 3.4 ft³/s July 11.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5-27 and Jan. 3 to Feb. 19.)

0.44	1.4	1.5	146
0.50	4.2	2.0	311
0.60	9.8	2.5	594
0.70	16.7	3.0	977
0.90	35.4	4.0	1,970
1.2	78	5.0	3,240

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	1880	1020	1160	440	1840	2310	1340	176	80	129	128
2	196	2020	1010	995	430	1920	2290	1290	177	79	120	124
3	187	1970	990	980	420	1960	2250	1230	177	77	109	115
4	187	1930	709	1000	410	1920	2270	1200	160	77	102	107
5	182	1910	680	1000	400	1950	2350	1140	134	75	93	124
6	185	1920	660	1000	390	2100	2410	985	124	73	83	109
7	210	1910	660	1000	390	2210	2510	560	116	73	104	114
8	188	1890	640	1000	390	2420	2420	334	115	73	89	193
9	205	1920	640	1000	380	2730	2380	288	103	67	89	276
10	225	1970	640	1000	380	3010	2350	345	100	38	88	459
11	220	1960	640	980	380	3050	2340	426	99	3.4	80	622
12	219	1910	620	940	380	2900	2310	488	96	28	78	651
13	213	1870	600	900	370	2860	2290	524	91	20	99	650
14	214	1860	580	880	370	2790	2260	555	86	33	104	643
15	217	1810	640	820	370	2740	2220	589	91	33	110	622
16	238	1780	660	800	370	2700	2170	464	94	33	128	591
17	273	1770	600	780	370	2690	2110	339	94	34	126	562
18	433	1740	560	760	380	2660	2040	291	94	32	114	494
19	925	1700	540	740	420	2620	1990	263	99	32	109	454
20	1140	1660	520	720	520	2570	1920	251	97	33	106	421
21	1100	1620	500	700	740	2540	1880	234	98	31	96	410
22	1120	1580	490	660	1030	2490	1850	229	106	28	86	399
23	1150	1540	480	640	1460	2440	1800	222	115	26	77	425
24	1240	1490	470	620	1900	2440	1740	213	115	25	63	421
25	1250	1430	460	580	2020	2390	1710	205	110	77	70	457
26	1310	1340	470	560	1850	2330	1700	208	103	86	67	495
27	1380	1280	700	540	1690	2240	1560	214	97	141	68	490
28	1460	1220	1030	520	1750	2400	1540	206	96	175	78	472
29	1500	1120	1740	500	---	2390	1460	194	87	173	89	444
30	1530	1060	1500	480	---	2290	1390	185	84	152	110	458
31	1560	---	1400	450	---	2290	---	174	---	139	117	---
TOTAL	20676	51060	22849	24705	20400	75880	61820	15186	3334	2046.4	2981	11930
MEAN	667	1702	737	797	729	2448	2061	490	111	66.0	96.2	398
MAX	1560	2020	1740	1160	2020	3050	2510	1340	177	175	129	651
MIN	182	1060	460	450	370	1840	1390	174	84	3.4	63	107
CFSM	.69	1.76	.76	.82	.75	2.53	2.13	.51	.12	.07	.10	.41
IN.	.79	1.96	.88	.95	.78	2.91	2.37	.58	.13	.08	.11	.46
CAL YR 1984	TOTAL	316293.0	MEAN	864	MAX	2020	MIN	85	CFSM	.89	IN	12.14
WTR YR 1985	TOTAL	312867.4	MEAN	857	MAX	3050	MIN	3.4	CFSM	.88	IN	12.01

ROCK RIVER BASIN

05426000 CRAWFISH RIVER AT MILFORD, WI

LOCATION.--Lat 43°06'00", long 88°50'58", in SW 1/4 sec.4, T.7 N., R.14 E., Jefferson County, Hydrologic Unit 07090002, on left bank near upstream side of highway bridge in Milford, 1.4 mi downstream from Rock Creek and 9.8 mi upstream from mouth.

DRAINAGE AREA.--762 mi².

PERIOD OF RECORD.--June 1931 to current year.

REVISED RECORDS.--WSP 975: 1937-38. WSP 1438: 1932-33(M), 1935(M), 1937, 1938-41(M), 1943-44(M), 1947-48(M).
WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 779.40 ft above National Geodetic Vertical Datum of 1929. Prior to July 28, 1966, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: None, except for periods listed in rating table below. Records are good except for ice-affected periods, which are fair. Some diurnal fluctuation at lower flows, due to manipulation of gates on small dams upstream.

AVERAGE DISCHARGE.--54 years, 380 ft³/s, 6.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,140 ft³/s Apr. 6, 1959, gage height, 11.15 ft; minimum observed, 0.2 ft³/s Sept. 15, 1958, gage height, 1.11 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,250 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Mar. 4	0600	*3,120	*8.14	No other peak greater than base discharge.			
Minimum daily discharge, 41 ft ³ /s July 24.							

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 7 and Dec. 16 to Mar. 2.)

1.6	34	2.5	282
1.7	42	3.0	510
1.8	58	4.0	1,030
1.9	81	6.0	1,950
2.2	171	8.0	3,040

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	1120	561	980	330	1800	1480	508	198	96	301	158
2	150	1160	516	960	330	2300	1450	494	209	87	258	159
3	195	1140	482	920	330	2770	1480	430	188	83	228	130
4	194	1180	470	880	330	2960	1510	328	169	61	189	149
5	181	1200	450	840	320	2700	1580	323	164	94	150	189
6	166	1160	440	800	320	2560	1630	351	136	102	159	210
7	171	1090	430	780	320	2390	1710	293	132	78	177	231
8	188	1060	440	740	310	2220	1790	273	120	88	180	261
9	183	1090	448	720	310	2110	1800	227	121	98	155	442
10	175	1140	465	700	310	2130	1760	212	121	105	167	759
11	172	1110	485	660	310	2200	1770	181	119	87	154	928
12	169	1060	524	640	310	2220	1730	196	116	79	101	1010
13	173	1040	557	600	310	2170	1660	236	107	68	121	1050
14	172	985	595	580	310	2150	1630	221	90	80	139	1040
15	158	995	599	560	310	2100	1560	252	98	84	149	998
16	167	985	600	520	310	2040	1510	316	125	72	153	923
17	198	927	740	500	310	2000	1380	413	102	59	154	853
18	244	918	720	490	310	1890	1300	413	114	50	174	823
19	468	874	680	470	310	1830	1230	391	120	58	168	774
20	679	781	640	450	310	1760	1170	415	102	71	152	747
21	870	734	620	430	320	1680	1100	406	65	69	129	717
22	971	693	600	420	340	1610	1000	358	70	67	99	645
23	1030	697	600	400	380	1540	956	313	105	55	89	588
24	1040	669	600	390	440	1510	934	274	113	41	100	579
25	1040	644	620	360	540	1430	884	241	97	89	105	615
26	1020	583	640	350	800	1320	836	209	93	172	106	655
27	967	590	660	340	1000	1290	781	249	94	270	93	641
28	1020	602	700	330	1400	1360	717	242	118	316	99	625
29	994	617	800	330	---	1380	627	209	123	355	114	612
30	997	606	940	330	---	1410	563	213	110	345	148	593
31	968	---	1000	330	---	1430	---	186	---	337	148	---
TOTAL	15306	27450	18622	17800	11530	60260	39528	9373	3639	3716	4659	18104
MEAN	494	915	601	574	412	1944	1318	302	121	120	150	603
MAX	1040	1200	1000	980	1400	2960	1800	508	209	355	301	1050
MIN	150	583	430	330	310	1290	563	181	65	41	89	130
CFSM	.65	1.20	.79	.75	.54	2.55	1.73	.40	.16	.16	.20	.79
IN.	.75	1.34	.91	.87	.56	2.94	1.93	.46	.18	.18	.23	.88
CAL YR 1984	TOTAL	223412	MEAN 610	MAX 1850	MIN 60	CFSM .80	IN 10.91					
WTR YR 1985	TOTAL	229987	MEAN 630	MAX 2960	MIN 41	CFSM .83	IN 11.23					

ROCK RIVER BASIN

05426031 ROCK RIVER AT JEFFERSON, WI

LOCATION.--Lat 42°59'46", long 88°48'26", in sec.2, T.6 N., R.14 E., Jefferson County, Hydrologic Unit 07090001, on right bank 30 ft downstream from bridge on State Highway 26, in Jefferson.

DRAINAGE AREA.--1,850 mi².

PERIOD OF RECORD.--April 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage 774.97 ft above National Geodetic Vertical Datum of 1929 (levels by Wisconsin Department of National Resources). Auxiliary water-stage recorder 6.9 mi downstream from base gage to provide slope data.

REMARKS.--Estimated daily discharges: Dec. 5 to Mar. 3 and June 11 to July 24. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--7 years, 1,393 ft³/s, 10.23 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,300 ft³/s Apr. 1, 1979, gage height, 10.79 ft; maximum gage height, 10.84 ft Apr. 2, 1979; minimum daily discharge, 90 ft³/s July 18, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,340 ft³/s Mar. 4, gage height, 7.96 ft; minimum daily discharge, 90 ft³/s July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	454	2870	1750	2200	780	3500	3850	1960	382	190	386	276	
2	440	3100	1620	2300	760	4000	3840	1830	372	180	357	232	
3	413	3140	1390	2200	740	4500	3800	1700	357	170	334	337	
4	367	3090	1310	2000	720	4990	3770	1580	331	160	305	305	
5	354	3010	1200	1900	700	4890	3840	1490	310	170	292	320	
6	338	2910	1100	1800	700	4880	3990	1420	287	180	262	324	
7	380	2830	1100	1700	700	4820	4160	1230	274	170	285	309	
8	396	2760	1000	1700	700	4750	4240	756	275	170	286	356	
9	375	2780	1000	1700	700	4650	4230	639	265	170	279	585	
10	372	2830	1100	1600	700	5020	4170	638	246	160	268	910	
11	373	2830	1100	1600	700	5200	4100	666	230	140	254	1230	
12	371	2760	1100	1600	680	5290	4020	747	220	110	246	1490	
13	382	2740	1100	1500	680	5170	3910	775	200	120	274	1650	
14	385	2690	1100	1400	680	5070	3820	802	200	120	268	1640	
15	380	2640	1200	1400	680	4950	3740	887	210	120	259	1550	
16	416	2610	1200	1300	680	4820	3630	873	220	120	268	1500	
17	510	2570	1200	1200	680	4660	3480	870	220	110	292	1480	
18	579	2520	1200	1200	700	4500	3400	798	220	90	295	1450	
19	1570	2450	1200	1200	740	4370	3260	750	220	100	285	1380	
20	1900	2350	1100	1100	860	4180	3120	702	210	110	264	1260	
21	2140	2270	1100	1100	1000	4030	3020	647	200	110	242	1130	
22	2260	2240	1100	1100	1400	3920	2900	577	210	100	232	1040	
23	2280	2190	1100	1000	1800	3800	2820	512	220	92	227	1040	
24	2280	2130	1100	1000	2000	3770	2700	467	220	110	214	1020	
25	2280	2090	1100	950	2200	3730	2620	432	210	203	223	992	
26	2280	2050	1200	920	2500	3650	2550	418	200	224	210	1040	
27	2290	2040	1400	860	2600	3560	2340	429	210	314	219	1050	
28	2400	2010	1600	840	3000	3700	2250	407	210	397	218	1040	
29	2480	1960	1800	820	---	3750	2140	395	210	443	236	1010	
30	2540	1860	2000	800	---	3750	2050	393	200	444	253	986	
31	2480	---	2100	780	---	3750	---	449	---	426	266	---	
TOTAL	36465	76320	39670	42770	30780	135620	101760	26239	7339	5723	8299	28932	
MEAN	1176	2344	1280	1380	1099	4375	3392	846	245	185	268	964	
MAX	2540	3140	2100	2300	3000	5290	4240	1960	382	444	386	1650	
MIN	338	1860	1000	780	680	3500	2050	393	200	90	210	232	
CFSM	.64	1.38	.69	.75	.59	2.36	1.83	.46	.13	.10	.14	.52	
IN.	.73	1.53	.80	.86	.62	2.73	2.05	.53	.15	.12	.17	.58	
CAL YR 1984	TOTAL	551759		MEAN	1508	MAX	3400	MIN	259	CFSM	.82	IN.	11.09
WTR YR 1985	TOTAL	539917		MEAN	1479	MAX	5290	MIN	90	CFSM	.80	IN.	10.86

ROCK RIVER BASIN

05426250 BARK RIVER NEAR ROME, WI

LOCATION.--Lat 42°57'39", long 88°40'09", in SE 1/4 SW 1/4 sec.24, T.6 N., R.15 E., Jefferson County, Hydrologic Unit 07090001, on left bank just upstream from bridge on Cushman Road, 2.8 mi southwest of Rome.

DRAINAGE AREA.--122 mi².

PERIOD OF RECORD.--November 1979 to September 1982. October 1982 to September 1983 (fragmentary). October 1983 to present.

GAGE.--Water-stage recorder. Elevation of gage is 810 ft, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1, Apr. 8-11, and ice periods listed in rating table below. Records are good except for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 443 ft³/s Apr. 6, 1982, gage height, 2.39 ft; minimum, 10 ft³/s July 22, 23, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum recorded discharge, 325 ft³/s Mar. 2, gage height, 2.12 ft; minimum, 10 ft³/s July 22, 23, gage height, 0.47 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5, 25-26, Jan. 2-12, and Jan. 17 to Feb. 22.)

0.49	11	1.5	171
0.6	18	2.0	293
0.8	42	2.2	347
1.0	73		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	210	118	126	86	294	199	102	50	33	16	46
2	41	216	123	120	86	314	210	100	52	37	15	39
3	34	224	110	120	84	282	203	92	55	36	14	36
4	23	219	95	120	84	259	207	92	65	34	14	30
5	24	210	94	120	82	256	205	90	58	36	17	31
6	26	210	92	120	82	242	203	91	50	37	20	30
7	39	207	95	120	80	233	213	90	45	36	18	27
8	47	197	93	120	80	233	220	88	36	35	16	25
9	57	194	94	110	78	234	230	79	31	35	16	57
10	74	199	93	110	78	236	210	69	33	33	15	84
11	65	183	96	110	76	239	200	73	29	32	15	83
12	61	185	108	110	76	232	197	73	27	32	16	72
13	59	181	111	108	74	244	188	67	21	27	19	70
14	58	179	115	111	74	237	182	72	23	26	16	57
15	63	165	113	108	74	235	172	77	27	23	18	55
16	71	148	121	106	72	224	149	76	28	22	22	57
17	83	153	124	100	72	226	134	75	32	21	24	75
18	98	143	128	100	70	225	128	75	32	19	20	76
19	146	128	126	100	70	221	124	75	33	20	18	68
20	129	117	128	100	70	216	120	73	34	20	18	57
21	132	110	116	100	140	210	119	72	36	13	18	54
22	131	103	108	98	250	203	120	65	39	11	23	49
23	135	98	104	98	235	197	120	63	34	11	25	50
24	144	94	75	96	216	203	117	61	36	13	23	42
25	130	91	72	94	204	196	114	58	42	14	21	46
26	122	90	74	94	213	188	115	56	43	13	22	50
27	123	107	104	92	238	183	112	48	44	13	21	54
28	133	112	132	90	271	210	106	28	43	16	21	49
29	132	122	181	90	---	206	100	33	39	15	22	46
30	127	122	186	88	---	211	100	42	35	15	30	43
31	123	---	178	88	---	220	---	55	---	17	45	---
TOTAL	2673	4717	3507	3267	3315	7109	4817	2210	1152	745	618	1558
MEAN	86.2	157	113	105	118	229	161	71.3	38.4	24.0	19.9	51.9
MAX	146	224	186	126	271	314	230	102	65	37	45	84
MIN	23	90	72	88	70	183	100	28	21	11	14	25
CFSM	.71	1.29	.93	.86	.97	1.88	1.32	.58	.31	.20	.16	.43
IN.	.82	1.44	1.07	1.00	1.01	2.17	1.47	.67	.35	.23	.19	.48
CAL YR 1984	TOTAL	34653	MEAN	94.7	MAX	249	MIN	23	CFSM	.78	IN.	10.57
WTR YR 1985	TOTAL	35688	MEAN	97.8	MAX	314	MIN	11	CFSM	.80	IN.	10.88

ROCK RIVER BASIN

245

05427570 ROCK RIVER AT INDIANFORD, WI

LOCATION.--Lat 42°48'15", long 89°05'25", in SW 1/4 SW 1/4 sec.16, T.4 N., R.12 E., Rock County, Hydrologic Unit 07090001, on right bank 50 ft upstream from bridge on County Trunk Highways F and M, 250 ft upstream from dam in Indianford, and 1.8 mi upstream from Yahara River.

DRAINAGE AREA.--2,630 mi².

PERIOD OF RECORD.--May 1975 to current year.

REVISED RECORDS.--WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 763.74 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Natural flow of stream affected by dam in Indianford. Discharge is adjusted for flow through wicket gates.

AVERAGE DISCHARGE.--10 years, 1,766 ft³/s, 9.12 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft³/s Apr. 5, 1979, gage height, 16.23 ft; minimum daily, 69 ft³/s May 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,870 ft³/s Mar. 17, gage height, 14.45 ft; minimum daily discharge, 181 ft³/s July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	4040	3310	2360	1660	4860	5530	3710	692	346	499	444
2	804	4270	3210	2470	1610	5320	5530	3470	788	355	473	466
3	750	4390	2940	2860	1560	5750	5600	2940	763	351	472	327
4	762	4560	2390	3040	1520	5690	5760	2460	734	279	454	426
5	782	4750	2400	3220	1500	5810	5670	2500	606	377	409	441
6	756	4770	2290	3400	1490	5950	5580	2470	564	397	450	423
7	775	4700	2270	3430	1440	6010	5680	2360	529	345	464	483
8	856	4700	2290	3430	1410	6090	5790	2290	511	374	459	555
9	907	4850	2320	3510	1400	6240	5770	1670	486	418	434	605
10	898	5040	2290	3570	1400	6390	5610	1370	526	415	458	1080
11	876	4810	2200	3420	1400	6510	5800	1290	568	392	469	1580
12	851	4700	2240	3210	1330	6590	5760	1150	516	354	382	1760
13	833	4670	2300	3090	1250	6730	5700	1180	351	292	434	1760
14	850	4520	2310	3100	1240	6800	5680	1090	218	336	449	1720
15	814	4290	2250	2890	1130	6860	5590	1130	250	369	475	1710
16	842	4400	2030	2870	1080	6800	5580	1600	301	356	447	1660
17	824	4420	2340	2740	1080	6820	5270	2040	246	317	386	1670
18	1060	4430	2370	2680	980	6660	5080	1890	307	252	371	1760
19	1070	4290	2420	2330	920	6610	4970	1640	344	262	406	1650
20	1640	4130	2460	2230	960	6500	4900	1740	353	316	413	1620
21	1970	3990	2460	2200	1040	6340	4770	1720	259	283	416	1650
22	2480	3780	2420	2160	1490	6220	4590	1610	224	316	399	1460
23	2960	3780	2410	2070	1910	6070	4470	1520	328	276	373	1580
24	3080	3670	2090	2060	2320	6040	4310	1410	475	181	377	1800
25	3220	3590	2030	1990	2850	5850	4220	1300	415	273	419	1900
26	3270	3460	2140	1940	3470	5600	4220	1190	341	328	417	1880
27	3310	3460	2170	1890	3960	5550	4060	1410	346	316	372	1770
28	3570	3340	2300	1840	4350	5760	3900	1260	382	321	389	1720
29	3630	3460	2660	1800	---	5650	3760	940	385	415	400	1700
30	3680	3400	2890	1800	---	5870	3680	629	381	465	468	1510
31	3740	---	3120	1680	---	5570	---	512	---	559	416	---
TOTAL	53110	126660	75320	81280	47750	189510	152830	53491	13189	10636	13250	39110
MEAN	1713	4222	2430	2622	1705	6113	5094	1726	440	343	427	1304
MAX	3740	5040	3310	3570	4350	6860	5800	3710	788	559	499	1900
MIN	750	3340	2030	1680	920	4860	3680	512	218	181	371	327
CFSM	.65	1.61	.92	1.00	.65	2.32	1.94	.66	.17	.13	.16	.50
IN.	.75	1.79	1.07	1.15	.68	2.68	2.16	.76	.19	.15	.19	.55
CAL YR 1984	TOTAL	878577	MEAN	2400	MAX	5040	MIN	223	CFSM	.91	IN	12.43
WTR YR 1985	TOTAL	856136	MEAN	2346	MAX	6860	MIN	181	CFSM	.89	IN	12.11

ROCK RIVER BASIN

05427948 PHEASANT BRANCH AT MIDDLETON, WI

LOCATION.--Lat 43°06'12", long 89°30'42", in NE 1/4 NW 1/4 sec.11, T.7 N., R.8 E., Dane County, Hydrologic Unit 07090001, on left bank at bridge on U.S. Highway 12, 2.5 mi upstream from Lake Mendota, at Middleton.

DRAINAGE AREA.--18.3 mi², of which 1.22 mi² is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1974 to current year.

GAGE.--Water-stage recorder, parshall flume, and concrete control. Datum of gage is 901.5 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 19-30 and ice periods listed in rating table below. Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--11 years, 4.19 ft³/s, 3.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 516 ft³/s Mar. 21, 1975, gage height, 7.54 ft; maximum gage height, 8.54 ft Mar. 12, 1976; minimum discharge, 0.29 ft³/s Jan. 26, 1978, gage height, 3.56 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s end maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	0445	217	6.51	Mar. 9	1900	131	5.92
Dec. 28	0915	212	6.48	July 25	0930	*492	*7.92
Feb. 24	0200	210	A 6.57				

A Affected by ice

Minimum discharge, 0.84 ft³/s July 22-24, gage height, 3.80 ft, but may have been lower Jan. 19-30 during period of no gage-height record.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second), (Stage-discharge relation affected by ice Jan. 31 to Feb. 19 and Feb. 22-24.)

3.8	0.84	4.4	3.7	5.0	34
4.0	1.4	4.5	5.3	5.5	80
4.2	2.2	4.6	9.6	6.0	141
4.3	2.8	4.8	20	7.0	302
				8.0	510

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	23	1.8	2.9	1.0	18	11	1.7	1.8	3.0	2.7	1.7
2	1.4	6.2	2.3	2.8	1.0	9.5	8.3	1.6	1.7	2.2	2.2	1.6
3	1.3	4.0	1.9	2.4	1.0	4.0	5.2	1.6	1.6	1.8	2.0	1.6
4	1.2	3.3	1.7	2.3	1.0	3.5	12	1.6	1.6	1.7	1.9	1.6
5	1.3	2.9	1.5	2.2	1.0	3.1	12	1.6	1.6	1.6	1.9	17
6	1.3	2.6	1.5	2.1	1.0	2.7	13	1.6	1.4	1.6	1.8	3.5
7	2.0	2.5	1.5	2.0	1.0	2.9	5.8	1.5	1.5	1.5	1.8	2.5
8	1.5	2.5	1.5	1.8	1.0	19	4.1	1.4	1.5	1.5	1.6	2.1
9	1.2	4.2	1.6	1.7	1.0	53	4.0	1.4	1.4	1.4	1.6	41
10	1.1	4.0	1.5	1.7	1.0	32	3.8	1.4	1.5	1.4	2.1	6.6
11	1.0	3.0	1.6	1.6	1.0	17	3.4	1.6	1.5	1.4	1.6	4.0
12	1.2	2.7	1.7	1.6	1.0	12	3.2	2.2	1.5	1.4	3.7	3.1
13	1.2	2.5	1.7	1.6	.98	11	2.9	1.5	1.6	1.4	19	2.6
14	1.2	2.5	1.8	1.6	.98	7.5	3.1	2.7	1.5	1.3	2.9	2.3
15	1.9	2.4	1.7	1.5	.98	4.7	2.8	4.7	3.2	1.1	2.2	2.1
16	3.4	2.1	8.6	1.5	.96	4.3	2.5	1.9	1.7	.91	1.9	1.9
17	4.7	2.0	4.7	1.5	.96	3.7	2.3	1.8	1.7	.92	1.7	3.0
18	16	1.9	3.1	1.5	.94	4.2	2.3	1.7	1.7	.91	1.7	2.0
19	84	1.8	2.7	1.4	.90	4.5	2.1	1.6	1.7	1.1	1.6	1.8
20	9.7	1.7	2.3	1.2	1.2	3.7	2.0	1.6	1.7	1.1	1.6	1.7
21	5.0	1.6	3.8	1.2	13	3.0	1.9	1.4	2.3	.93	1.6	1.9
22	3.8	1.6	3.7	1.2	120	2.8	1.8	1.3	4.4	.94	1.5	2.7
23	3.3	1.7	2.2	1.2	130	3.0	2.3	1.4	1.6	.88	1.5	4.3
24	2.9	1.7	1.8	1.2	140	3.9	2.0	1.8	1.4	5.8	1.8	3.2
25	2.8	1.8	1.6	1.2	41	3.9	1.9	2.1	1.3	310	3.4	2.6
26	2.6	1.7	1.6	1.2	25	3.5	1.8	3.9	1.3	45	2.0	3.8
27	5.6	2.7	1.8	1.2	11	3.8	1.8	4.7	3.6	14	1.6	3.1
28	13	2.1	91	1.1	10		1.8	2.1	5.5	6.4	1.5	2.5
29	4.2	1.9	26	1.1	---	6.3	1.7	1.9	9.1	4.1	2.5	2.6
30	3.3	1.9	5.6	1.1	---	4.1	1.7	2.4	14	3.2	2.0	3.6
31	2.9	---	3.6	1.0	---	8.4	---	2.1	---	3.2	1.7	---
TOTAL	187.5	96.5	189.4	49.6	509.90	274.0	124.5	61.8	77.9	423.69	78.6	134.0
MEAN	6.05	3.22	6.11	1.60	18.2	8.84	4.15	1.99	2.60	13.7	2.54	4.47
MAX	84	23	91	2.9	140	53	13	4.7	14	310	19	41
MIN	1.0	1.6	1.5	1.0	.90	2.7	1.7	1.3	1.3	.88	1.5	1.6
CFSM	.33	.18	.33	.09	1.00	.48	.23	.11	.14	.75	.14	.24
IN.	.38	.20	.38	.10	1.04	.56	.25	.13	.16	.86	.16	.27
CAL YR 1984	TOTAL	1636.28	MEAN	4.47	MAX	127	MIN	.87	CFSM	.24	IN	3.33
WTR YR 1985	TOTAL	2207.39	MEAN	6.05	MAX	310	MIN	.88	CFSM	.33	IN	4.49

ROCK RIVER BASIN

05427948 PHEASANT BRANCH AT MIDDLETON, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	NITRO-GEN, NO2+NO3 TOTAL (MG/L) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L) (00605)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L) (00625)	TEMPERATURE (DEG C) (00010)	PHOSPHORUS, TOTAL (MG/L) (00665)	PHOSPHORUS, SOLVED (MG/L) (00666)
FEB 27...	1330			9.5	740		1.0		
JUL 25...	0855			488	102		21.5		
JUL 25...	1655			336	120		23.5		

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	NITRO-GEN, NO2+NO3 TOTAL (MG/L) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L) (00605)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L) (00625)	TEMPERATURE (DEG C) (00010)	PHOSPHORUS, TOTAL (MG/L) (00665)	PHOSPHORUS, SOLVED (MG/L) (00666)
FEB, 1985									
21...	2230	60	1.8	1.80	6.7	8.5	10	1.50	.710
22...	0200	88	1.80	1.40	1.9	3.3	4.1	.650	1.30
22...	0500	128	1.2	2.50	9.5	12	13	1.20	1.70
22...	0830	161	1.2	2.40	6.6	9.0	10	1.50	1.30
22...	0835	161	1.2	3.50	5.5	9.0	10	1.60	1.20
23...	1330	113	1.9	3.40	7.6	11	13	1.70	1.40
23...	1930	187	1.7	3.70	8.3	12	14	1.70	1.30
24...	0230	227	1.8	3.10	6.9	10	12	1.80	1.30
24...	1445	118	2.5	2.20	8.8	11	14	1.40	1.10
25...	0745	32	4.9	1.80	5.2	7.0	12	1.10	.680
JUL									
25...	0145	65	2.5	.710	4.1	4.8	7.3	1.10	.610
25...	0445	350	1.0	.660	8.7	9.4	10	2.10	.360
25...	0845	483	1.1	.570	4.2	4.8	5.9	1.90	.570
25...	0846	483	1.3	.630	3.0	3.6	4.9	1.80	.630
25...	1145	450	1.4	.450	3.0	3.4	4.8	1.20	.770
25...	1945	224	1.7	.420	3.6	4.0	5.7	1.50	.790
26...	0745	49	7.1	.470	3.3	3.8	11	1.20	.760

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SEDI-MENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDI-MENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SEDI-MENT, DISCHARGE, SUSPENDED (MG/L) (80154)	SEDI-MENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
OCT, 1984					FEB, 1985				
19...	0725	120	770	249	24...	0830	158	1050	448
19...	0746	108	711	207	24...	1345	115	766	238
NOV					24...	1445	118	--	--
01...	0540	66	5130	914	24...	2245	99	443	118
01...	0700	32	432	37	25...	0745	32	--	--
01...	0930	29	265	21	25...	1045	29	132	10
01...	1130	34	309	28	25...	1600	41	258	29
01...	1300	39	476	50	26...	1200	23	115	7.1
01...	1530	32	336	29	27...	1330	9.5	--	--
01...	1945	20	288	16	MAR				
DEC					08...	1815	46	633	79
28...	0715	171	1400	646	08...	2015	77	960	200
28...	0856	204	1320	727	09...	0015	47	282	36
28...	1130	172	2340	1090	09...	0615	23	134	8.3
28...	1131	172	1120	520	09...	1615	93	1290	324
28...	1330	128	1890	653	09...	1915	132	1860	663
28...	1600	90	1380	335	10...	0215	38	349	36
28...	2038	40	689	74	JUL				
28...	2200	39	757	80	24...	2245	78	1990	419
29...	0400	51	1490	205	25...	0045	39	469	49
29...	1200	20	678	37	25...	0145	65	--	--
FEB, 1985					25...	0245	171	1890	873
21...	2130	36	132	13	25...	0445	350	--	--
21...	2230	60	--	--	25...	0545	403	2570	2800
21...	2300	62	493	83	25...	0745	472	2620	3340
22...	0200	88	--	--	25...	0746	472	1120	1430
22...	0430	107	1280	370	25...	0845	483	--	--
22...	0500	128	--	--	25...	0846	483	--	--
22...	0800	161	1270	552	25...	0855	488	--	--
22...	0830	161	--	--	25...	0945	492	2730	3630
22...	0835	161	257	112	25...	1145	450	--	--
22...	1500	138	1340	499	25...	1245	445	703	845
23...	0645	125	441	149	25...	1545	360	625	607
23...	0650	125	259	87	25...	1655	336	--	--
23...	1230	113	533	163	25...	1845	279	953	718
23...	1330	113	--	--	25...	1945	224	--	--
23...	1830	137	724	268	26...	0045	109	2250	662
23...	1930	187	--	--	26...	0645	52	748	105
23...	2230	202	829	452	26...	0745	49	--	--
24...	0145	225	1000	607	26...	1100	37	1860	186

ROCK RIVER BASIN

05427965 SPRING HARBOR STORM SEWER AT MADISON, WI

LOCATION.--Lat 43°04'45", long 89°28'15", in NW 1/4 SE 1/4 sec.18, T.7 N., R.9 E., Dane County, Hydrologic Unit 07090001, in city park near the junction of Spring Harbor Drive and University Avenue in Madison.

DRAINAGE AREA.--3.29 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1976 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 855.3 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge: May 9-13. Records are good except those for period of estimated daily discharges, May 11-13, and flow less than 0.3 ft³/s, which are poor.

AVERAGE DISCHARGE.--9 years (1977-85), 1.42 ft³/s, 5.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 706 ft³/s Aug. 31, 1981, gage height, 4.04 ft; no flow many days during period of record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 259 ft³/s Oct. 18, gage height, 2.67 ft; no flow on many days during current year.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).

0.41	0.0	0.9	12
0.5	0.55	1.0	18
0.6	1.8	1.1	26
0.7	3.8	1.2	34
0.8	6.7	1.3	42

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	14	.00	.00	.00	2.0	1.5	.32	.15	.04	.04	.00
2	.00	.07	2.1	.00	.00	.21	.18	.07	.00	.03	.00	.00
3	.10	.00	.01	.00	.00	.03	.14	.06	.00	.00	.00	.02
4	.00	.00	.00	.00	.00	.67	4.9	.01	.00	.18	.00	.00
5	.04	.00	.00	.00	.00	.28	1.7	.16	.06	.50	.00	18
6	.00	.00	.00	.00	.00	.17	2.7	.15	.00	.11	.00	.12
7	3.1	.15	.00	.00	.00	.93	.17	.01	.00	.00	1.9	.00
8	.04	.11	.00	.00	.00	6.0	.01	.01	.00	.00	.01	1.8
9	.00	7.9	.00	.00	.00	4.9	.00	.00	.00	.00	.21	21
10	.00	.28	.00	.00	.00	3.1	.00	.00	.00	.00	2.6	.14
11	.00	.01	.02	.00	.00	2.1	.00	1.0	.12	.00	.01	.00
12	1.0	.00	.28	.00	.00	.51	.00	.50	.00	.00	6.0	.00
13	.01	.00	.05	.00	.00	.90	.00	.10	.00	.00	3.9	.00
14	.00	.00	.49	.00	.00	.36	.41	8.1	.00	.00	.08	.00
15	4.1	.00	.96	.00	.00	.35	.03	5.9	6.1	.00	.02	.00
16	9.9	.00	5.3	.00	.00	.33	.03	.26	1.1	.00	.00	.00
17	3.6	.00	.29	.00	.00	.24	.01	.16	.80	.00	.00	7.6
18	35	.00	.00	.00	.06	.16	.00	.00	.12	.00	.00	.13
19	26	.00	.00	.00	.00	.30	.10	.00	.06	.04	.00	.00
20	.04	.00	.00	.00	.29	.15	.04	.44	.00	.01	.00	.00
21	1.0	.00	7.0	.00	36	.09	.00	.04	3.7	.00	.00	.97
22	.02	.00	.12	.00	15	.08	.01	.00	1.7	.00	.00	.68
23	.05	.00	.00	.00	17	1.2	3.3	.00	.23	.00	.00	6.1
24	.05	.00	.00	.00	12	1.2	.42	.00	.09	10	1.5	.20
25	1.7	.00	.00	.00	1.4	.17	.05	.00	.00	26	4.3	1.3
26	.25	.00	.00	.00	.76	.13	.00	9.1	.00	.20	.44	1.0
27	7.8	3.8	.96	.00	.35	.89	.05	2.7	8.7	.11	.01	.00
28	1.1	.01	38	.00	2.0	7.8	.02	.12	6.3	.02	.00	.00
29	.25	.02	6.1	.00	---	.55	.03	.00	9.0	.00	3.5	.96
30	.00	.15	.00	.00	---	.04	.29	.56	.76	.06	.22	1.7
31	3.6	---	.00	.00	---	10	---	4.4	---	1.6	.01	---
TOTAL	98.75	26.50	61.68	.00	84.86	45.84	16.09	34.17	38.99	38.90	24.75	61.72
MEAN	3.19	.88	1.99	.000	3.03	1.48	.54	1.10	1.30	1.25	.80	2.06
MAX	35	14	38	.00	36	10	4.9	9.1	9.0	26	6.0	21
MIN	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00
CFSM	.97	.27	.61	.000	.92	.45	.16	.33	.40	.38	.24	.63
IN.	1.12	.30	.70	.00	.96	.52	.18	.39	.44	.44	.28	.70
CAL YR 1984	TOTAL 610.36	MEAN 1.67	MAX 40	MIN .00	CFSM .51	IN 6.90						
WTR YR 1985	TOTAL 532.25	MEAN 1.46	MAX 38	MIN .00	CFSM .44	IN 6.02						

ROCK RIVER BASIN

05427965 SPRING HARBOR STORM SEWER AT MADISON, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Februery 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT, 1984					MAR, 1985				
16...	1250	34	240	22	08...	1540	27	821	60
16...	1320	43	291	34	09...	1340	10	1120	30
16...	1350	48	261	34	09...	1540	19	829	43
16...	1355	48	240	31	09...	1810	9.6	514	13
16...	1520	34	134	12	28...	0010	11	398	12
16...	1715	18	58	2.8	28...	0040	44	845	100
16...	1745	12	54	1.7	28...	0110	64	1470	256
16...	1800	10	337	9.1	28...	0310	11	281	8.3
16...	1805	9.6	45	1.2	MAY				
16...	1830	6.7	153	2.8	26...	1645	17	653	30
16...	1900	5.3	439	6.3	26...	1720	42	1360	154
16...	1930	3.8	363	3.7	26...	1920	11	131	3.9
16...	2015	3.0	410	3.3	26...	1935	91	1630	400
16...	2100	2.4	330	2.1	26...	1950	42	944	107
18...	2145	141	522	199	26...	2005	87	1860	437
19...	1100	33	297	26	26...	2120	32	355	31
19...	1101	33	155	14	26...	2320	9.6	80	2.1
DEC					JUN				
28...	0915	50	327	44	15...	0605	20	605	33
28...	1030	58	424	66	15...	0620	25	248	17
28...	1031	58	489	77	15...	0705	57	1120	172
28...	1100	60	549	89	15...	0750	44	779	93
28...	1230	48	497	64	15...	0950	9.2	259	6.4
28...	1500	21	317	18	27...	1535	45	667	81
28...	2030	6.7	126	2.3	27...	1550	43	556	65
28...	2200	52	1150	161	27...	1600	98	4130	1090
28...	2300	96	2250	583	27...	1605	91	2180	536
28...	2400	54	2740	399	27...	1610	93	2160	542
29...	0200	28	1330	101	27...	1720	45	975	118
FEB, 1985					JUL				
22...	0940	10	46	1.2	27...	2005	8.2	224	5.0
22...	1150	11	140	4.2	24...	2050	8.7	491	12
22...	1500	19	222	11	24...	2125	24	668	43
23...	1710	15	204	8.3	24...	2140	109	478	141
23...	2010	23	181	11	24...	2220	130	735	258
23...	2310	38	343	35	24...	2255	83	496	111
24...	0700	5.8	98	1.5	25...	0010	41	153	17
MAR					25...				
08...	1410	14	290	11	0140	33	73	6.5	

ROCK RIVER BASIN

05428000 LAKE MENDOTA AT MADISON, WI

LOCATION.--Lat 43°05'42", long 89°22'12", in SE 1/4 sec.12, T.7 N., R.9 E., Dane County, Hydrologic Unit 07090001, in city boat house at dam at outlet, in Madison.

DRAINAGE AREA.--233 mi². Area of Lake Mendota, 15.2 mi².

PERIOD OF RECORD.--December 1902 to May 1903, January 1916 to current year (incomplete).

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

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above National Geodetic Vertical Datum of 1929, or 5.60 ft below city of Madison datum. Prior to Oct. 1, 1979, at datum 7.82 ft higher; prior to Nov. 15, 1971, nonrecording gage at same site and datum.

REMARKS.--Estimated daily lake levels: Jan. 3-9. Lake level regulated by concrete dam with two 12-foot gates and 20-foot lock at outlet. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 12.01 ft Apr. 5, 1959; minimum observed, 8.02 ft Feb. 24 to Mar. 10, 1920, current datum.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.69 ft July 27, 28; minimum, 9.11 ft Feb. 20.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.68	10.58	10.28	10.13	9.53	10.34	10.35	10.14	10.04	10.05	10.55	10.21
2	9.66	10.55	10.28	10.10	9.52	10.38	10.32	10.11	10.03	10.05	10.50	10.20
3	9.65	10.54	10.27	10.08	9.49	10.42	10.32	10.09	10.01	10.04	10.45	10.20
4	9.64	10.56	10.23	10.06	9.46	10.51	10.33	10.06	10.00	10.03	10.41	10.20
5	9.64	10.56	10.20	10.04	9.44	10.49	10.37	10.04	9.99	10.05	10.37	10.31
6	9.63	10.54	10.18	10.02	9.42	10.47	10.39	10.05	9.97	10.04	10.36	10.34
7	9.66	10.52	10.11	10.00	9.40	10.43	10.37	10.01	9.96	10.04	10.35	10.35
8	9.68	10.53	10.10	9.98	9.38	10.42	10.35	10.00	9.96	10.03	10.30	10.35
9	9.68	10.58	10.08	9.96	9.35	10.43	10.30	9.98	9.97	10.03	10.26	10.54
10	9.69	10.62	10.06	9.94	9.35	10.48	10.26	9.97	9.93	10.03	10.28	10.57
11	9.68	10.61	10.04	9.92	9.35	10.52	10.23	9.95	9.92	10.01	10.23	10.57
12	9.69	10.59	10.03	9.88	9.32	10.52	10.19	9.97	9.91	9.99	10.19	10.55
13	9.70	10.58	10.01	9.87	9.30	10.52	10.16	9.95	9.89	9.98	10.28	10.52
14	9.71	10.55	10.02	9.85	9.27	10.51	10.14	9.97	9.87	9.98	10.28	10.51
15	9.72	10.58	10.01	---	9.26	10.49	10.10	10.05	9.91	9.97	10.27	10.50
16	9.76	10.55	10.01	---	9.23	10.46	10.07	10.06	9.93	9.93	10.25	10.47
17	9.83	10.52	10.02	---	9.21	10.43	10.05	10.06	9.94	9.90	10.22	10.50
18	9.86	10.50	10.01	---	9.19	10.40	10.07	10.03	9.92	9.88	10.21	10.52
19	10.16	10.48	9.99	---	9.16	10.37	10.08	10.01	9.90	9.87	10.17	10.51
20	10.24	10.45	9.97	---	9.15	10.35	10.08	10.01	9.89	9.85	10.13	10.52
21	10.30	10.43	9.97	---	9.21	10.31	10.08	9.98	9.88	9.84	10.11	10.51
22	10.32	10.40	9.99	---	9.27	10.29	10.08	9.96	9.94	9.81	10.08	10.50
23	10.32	10.38	9.97	---	9.44	10.26	10.11	9.95	9.92	9.78	10.06	10.56
24	10.31	10.36	9.96	---	9.71	10.27	10.16	9.95	9.91	9.75	10.08	10.55
25	10.32	10.35	9.94	---	9.96	10.23	10.16	9.94	9.89	10.16	10.15	10.53
26	10.33	10.32	9.94	---	10.13	10.19	10.16	9.96	9.89	10.49	10.19	10.55
27	10.35	10.35	9.93	---	10.23	10.20	10.15	10.03	9.90	10.62	10.19	10.54
28	10.43	10.35	9.96	---	10.29	10.23	10.15	10.03	9.97	10.66	10.18	10.52
29	10.43	10.32	10.07	---	---	10.25	10.15	10.02	9.99	10.65	10.21	10.51
30	10.44	10.31	10.09	---	---	10.23	10.14	10.03	10.05	10.61	10.23	10.52
31	10.42	---	10.09	---	---	10.31	---	10.08	---	10.59	10.21	---
MEAN	9.97	10.49	10.06	---	9.47	10.38	10.20	10.01	9.94	10.09	10.25	10.46
MAX	10.44	10.62	10.28	---	10.29	10.52	10.39	10.14	10.05	10.66	10.55	10.57
MIN	9.63	10.31	9.93	---	9.15	10.19	10.05	9.94	9.87	9.75	10.06	10.20

ROCK RIVER BASIN

05429000 LAKE MONONA AT MADISON, WI

LOCATION.--Lat 43°03'48", long 89°23'49", in SW 1/4 sec.23, T.7 N., R.9 E., Dane County, Hydrologic Unit 07090001, in Brittingham Park, in Madison.

DRAINAGE AREA.--279 mi². Area of Lake Monone, 5.3 mi².

PERIOD OF RECORD.--September 1915 to current year (fragmentary) in reports of the Geological Survey. For 1856 to March 1917 in reports of Wisconsin Railroad Commission, volume 19.

REVISED RECORDS.--WSP 1338: Lake area. WDR WI-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above National Geodetic Vertical Datum of 1929, or 5.60 ft below city of Madison datum. Prior to Oct. 1, 1979, datum 3.61 ft higher; prior to Nov. 15, 1971, nonrecording gage at same site and datum.

REMARKS.--Records good, no estimated daily lake levels. Lake level regulated by concrete dam with four 12-foot stop-log sections and 12-foot lock at outlet of Lake Waubesa. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 7.27 ft July 28, 1929; minimum observed, 3.22 ft Jan. 20, 1965, current datum.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 5.85 ft Mar. 28, 29; minimum, 4.83 ft May 4.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.22	5.61	5.35	5.74	5.35	5.67	5.69	4.88	5.23	5.05	5.38	5.40
2	5.18	5.62	5.38	5.74	5.35	5.64	5.68	4.85	5.22	5.04	5.42	5.39
3	5.14	5.63	5.36	5.73	5.35	5.62	5.66	4.84	5.20	5.03	5.47	5.36
4	5.11	5.59	5.37	5.71	5.35	5.66	5.69	4.85	5.18	5.03	5.51	5.36
5	5.09	5.53	5.35	5.69	5.36	5.68	5.72	4.88	5.16	5.11	5.55	5.56
6	5.07	5.50	5.34	5.67	5.36	5.68	5.76	4.89	5.16	5.09	5.56	5.60
7	5.09	5.49	5.35	5.64	5.36	5.68	5.77	4.91	5.14	5.07	5.58	5.61
8	5.10	5.47	5.36	5.61	5.36	5.68	5.76	4.93	5.14	5.05	5.59	5.64
9	5.08	5.50	5.36	5.59	5.37	5.70	5.75	4.93	5.11	5.03	5.60	5.80
10	5.06	5.50	5.36	5.56	5.37	5.73	5.74	4.94	5.09	5.00	5.63	5.81
11	5.04	5.45	5.37	5.54	5.38	5.76	5.74	4.97	5.09	4.98	5.62	5.79
12	5.03	5.42	5.38	5.52	5.37	5.77	5.74	4.99	5.05	4.98	5.62	5.77
13	5.01	5.42	5.37	5.50	5.36	5.78	5.73	4.99	5.02	4.98	5.65	5.74
14	5.00	5.42	5.41	5.48	5.35	5.79	5.74	5.05	5.01	4.98	5.62	5.71
15	5.01	5.37	5.41	5.46	5.35	5.78	5.73	5.19	5.06	4.96	5.59	5.68
16	5.06	5.33	5.43	5.45	5.34	5.78	5.71	5.20	5.07	4.94	5.56	5.66
17	5.09	5.32	5.45	5.45	5.33	5.76	5.61	5.20	5.05	4.93	5.53	5.69
18	5.16	5.30	5.42	5.44	5.33	5.76	5.51	5.21	5.03	4.92	5.48	5.69
19	5.53	5.28	5.42	5.42	5.32	5.75	5.43	5.21	5.01	4.91	5.44	5.68
20	5.59	5.28	5.42	5.41	5.32	5.73	5.37	5.22	5.01	4.92	5.41	5.65
21	5.61	5.28	5.44	5.41	5.43	5.73	5.31	5.22	5.02	4.90	5.39	5.63
22	5.60	5.28	5.44	5.41	5.54	5.72	5.27	5.23	5.04	4.89	5.37	5.62
23	5.57	5.29	5.39	5.41	5.58	5.73	5.23	5.23	5.03	4.88	5.35	5.66
24	5.54	5.29	5.39	5.41	5.72	5.75	5.18	5.21	5.02	4.87	5.35	5.64
25	5.52	5.29	5.40	5.41	5.77	5.75	5.11	5.18	5.01	5.05	5.42	5.63
26	5.50	5.30	5.43	5.40	5.76	5.75	5.06	5.20	5.00	5.11	5.44	5.64
27	5.51	5.34	5.47	5.39	5.73	5.76	5.01	5.29	5.01	5.15	5.42	5.62
28	5.55	5.34	5.54	5.38	5.70	5.83	4.96	5.25	5.05	5.19	5.40	5.63
29	5.52	5.35	5.70	5.37	---	5.84	4.92	5.23	5.05	5.23	5.41	5.65
30	5.49	5.35	5.71	5.36	---	5.79	4.89	5.22	5.07	5.27	5.43	5.67
31	5.46	---	5.71	5.35	---	5.77	---	5.23	---	5.34	5.41	---
MEAN	5.28	5.40	5.43	5.50	5.44	5.74	5.48	5.08	5.08	5.03	5.49	5.63
MAX	5.61	5.63	5.71	5.74	5.77	5.84	5.77	5.29	5.23	5.34	5.65	5.81
MIN	5.00	5.28	5.34	5.35	5.32	5.62	4.89	4.84	5.00	4.87	5.35	5.36
CAL YR 1984	MEAN 5.22	MAX 6.26	MIN 4.29									
WTR YR 1985	MEAN 5.38	MAX 5.84	MIN 4.84									

ROCK RIVER BASIN

05429500 YAHARA RIVER NEAR MCFARLAND, WI

LOCATION.--Lat 43°00'32", long 89°18'18", in SW 1/4 sec.3, T.6 N., R.10 E., Dane County, Hydrologic Unit 07090001, on left bank just upstream from bridge on U.S. Highway 51, at dam at outlet of Lake Waubesa and 1.0 mi southwest of McFarland.

DRAINAGE AREA.--327 mi².

PERIOD OF RECORD.--September 1930 to current year.

REVISED RECORDS.--WSP 805, WDR WI-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 840.00 ft above National Geodetic Vertical Datum of 1929 (levels by Wisconsin Department of Natural Resources). September 1930 to Dec. 22, 1934, nonrecording gage at same site at datum 0.40 ft higher. Dec. 23, 1934 to Sept. 30, 1982, recording gage at same site at datum 0.40 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by dams at outlet of Lake Mendota and Lake Waubesa. The Madison Metropolitan Sewerage District diverted an average of 55 ft³/s of effluent into the Badfish Creek basin during 1985 water year. The data were provided by the Madison Metropolitan Sewerage District. Prior to 1958 the effluent was discharged into the Yahara River above Mc Farland. Gage-height telemeter at station for Lake Waubesa stage.

AVERAGE DISCHARGE.--55 years, 155 ft³/s, 6.44 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 867 ft³/s Apr. 10, 1959, gage height, 5.82 ft; maximum gage height, 6.33 ft July 23, 24, 1950, backwater from aquatic vegetation; minimum discharge, 1.0 ft³/s Oct. 18, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 426 ft³/s Apr. 1, gage height, 5.36 ft; maximum gage height, 5.54 ft Sept. 10, backwater from aquatic vegetation; minimum, 38 ft³/s July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	262	235	365	242	384	417	213	140	90	96	111
2	178	270	240	370	241	380	400	159	140	93	101	110
3	169	258	248	363	240	375	394	121	136	92	104	97
4	161	254	249	354	237	384	389	127	133	88	108	93
5	153	252	248	344	238	383	397	126	134	95	113	140
6	145	243	248	339	240	382	410	142	128	100	119	148
7	147	231	246	333	242	375	409	144	126	101	127	144
8	147	222	246	325	242	378	406	145	125	98	161	142
9	144	232	245	318	241	384	404	145	123	90	196	167
10	140	245	246	316	242	388	396	142	116	85	202	172
11	135	244	245	311	246	394	393	134	114	82	202	172
12	130	235	250	309	248	399	390	133	110	76	197	164
13	128	228	252	300	253	400	391	134	107	73	208	160
14	124	221	263	291	254	400	394	139	102	71	204	157
15	123	225	262	283	256	395	391	163	107	69	201	149
16	131	223	256	275	259	391	390	169	112	67	191	144
17	143	215	264	270	259	389	375	175	116	65	183	146
18	154	212	276	266	261	384	361	175	109	54	177	149
19	244	209	274	263	262	382	345	172	105	52	169	147
20	259	206	270	269	265	382	328	168	101	52	161	144
21	266	205	274	262	297	381	313	163	95	52	149	147
22	266	201	284	253	336	378	297	160	98	49	134	152
23	259	203	277	248	364	380	285	158	93	44	124	172
24	249	206	278	246	391	396	283	160	93	40	121	174
25	239	208	283	251	401	394	275	158	82	50	135	171
26	233	209	285	248	400	386	263	153	73	59	143	176
27	228	221	289	245	395	384	250	162	77	66	139	176
28	241	227	299	243	386	403	240	157	83	71	132	176
29	235	227	340	243	---	412	228	145	87	76	127	180
30	226	233	349	242	---	408	219	136	89	82	126	189
31	218	---	346	244	---	415	---	142	---	92	118	---
TOTAL	5804	6827	8367	8989	7938	12066	10433	4720	3254	2274	4668	4569
MEAN	187	228	270	290	284	389	348	152	108	73.4	151	152
MAX	266	270	349	370	401	415	417	213	140	101	208	189
MIN	123	201	235	242	237	375	219	121	73	40	96	93
CFSM	.57	.70	.83	.89	.87	1.19	1.06	.47	.33	.22	.46	.47
IN.	.66	.78	.95	1.02	.90	1.37	1.19	.54	.37	.26	.53	.52
CAL YR 1984	TOTAL	75276	MEAN 206	MAX 349	MIN 85	CFSM .63	IN 8.56					
WTR YR 1985	TOTAL	79909	MEAN 219	MAX 417	MIN 40	CFSM .67	IN 9.09					

ROCK RIVER BASIN

05430150 BADFISH CREEK NEAR COOKSVILLE, WI

LOCATION.--Lat 42°50'00", long 89°11'48", in SW 1/4 SE 1/4 sec.4, T.4 N., R.11 E., Rock County, Hydrologic Unit 07090001, on right bank, 20 ft upstream from bridge on State Highway 59, 2.2 mi east of Cooksville, and 2.2 mi above the mouth.

DRAINAGE AREA.--82.6 mi².

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 810 ft, from topographic map.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating tables below. Records good except for ice-affected periods, which are fair. Approximately 48 percent of flow is effluent from Nine Springs treatment plant. (Data provided by Madison Metropolitan Sewerage District.)

AVERAGE DISCHARGE.--8 years, 101 ft³/s.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 870 ft³/s Sept. 1, 1981, gage height, 8.11 ft; minimum daily, 35 ft³/s Aug. 1, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 710 ft³/s Oct. 19, gage height, 7.61 ft; minimum daily, 68 ft³/s Oct. 1, 5.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used June 25 to July 31; stage-discharge relation affected by ice Dec. 24-27, Jan. 3, 8, 10, 18, Jan. 20 to Feb. 4, and Feb. 8.)

Oct. 1 to Feb. 22				Feb. 23 to Sept. 30			
4.6	66	7.0	548	4.6	72	6.0	329
5.0	136	7.3	628	5.0	143	7.0	548
6.0	330						

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	253	95	107	78	194	188	113	95	92	92	81
2	70	168	101	104	78	176	153	110	92	98	88	75
3	70	138	103	100	76	157	145	109	92	92	84	83
4	70	126	97	100	82	157	144	105	95	90	82	89
5	68	118	94	97	91	153	153	105	93	96	83	102
6	70	116	92	95	89	142	182	110	96	89	89	93
7	87	112	91	95	89	148	157	108	94	83	97	88
8	81	111	87	94	80	189	142	106	94	82	85	85
9	79	131	85	93	85	190	135	107	91	86	87	120
10	78	142	89	92	85	170	138	104	92	85	95	99
11	78	119	92	92	91	173	130	100	104	83	79	91
12	79	111	101	88	90	164	129	101	101	83	78	90
13	78	109	96	88	93	159	125	98	102	81	106	85
14	74	110	98	91	89	155	129	117	101	79	92	82
15	80	110	95	91	88	145	132	157	110	77	88	78
16	111	104	156	90	85	138	130	125	103	81	85	76
17	140	98	133	91	83	127	126	124	105	80	83	115
18	154	96	111	90	86	123	127	113	110	82	79	94
19	604	97	104	77	88	126	126	105	108	83	76	90
20	213	98	98	90	88	123	122	103	109	80	85	88
21	167	96	118	110	309	123	117	101	109	75	82	83
22	148	92	112	110	524	121	120	101	115	76	83	85
23	129	87	93	110	477	120	127	102	104	84	85	98
24	121	87	84	100	466	147	132	102	104	84	87	96
25	116	88	82	90	307	134	124	97	108	111	93	88
26	122	95	80	84	227	129	122	92	109	104	101	93
27	127	120	90	82	191	130	116	126	107	89	90	93
28	168	110	267	82	179	196	112	105	115	85	88	86
29	130	105	250	82	---	158	116	106	102	83	94	83
30	121	102	142	82	---	137	114	108	95	91	97	91
31	115	---	116	80	---	197	---	105	---	99	87	---
TOTAL	3816	3449	3452	2877	4394	4701	4013	3365	3055	2683	2720	2700
MEAN	123	115	111	92.8	157	152	134	109	102	86.5	87.7	90.0
MAX	604	253	267	110	524	197	188	157	115	111	106	120
MIN	68	87	80	77	76	120	112	92	91	75	76	75
CFSM	1.49	1.39	1.34	1.12	1.90	1.84	1.62	1.32	1.24	1.05	1.06	1.09
IN.	1.72	1.55	1.55	1.30	1.98	2.12	1.81	1.52	1.38	1.21	1.22	1.22

CAL YR 1984	TOTAL	40945	MEAN 112	MAX 604	MIN 53	CFSM 1.36	IN 18.44
WTR YR 1985	TOTAL	41225	MEAN 113	MAX 604	MIN 68	CFSM 1.37	IN 18.57

ROCK RIVER BASIN

05430175 YAHARA RIVER NEAR FULTON, WI

LOCATION.--Lat 42°49'50", long 89°10'09", in NE 1/4 NE 1/4 sec.10, T.4 N., R.11 E., Rock County, Hydrologic Unit 07090001, on right bank, 700 ft downstream from Badfish Creek, 2,000 ft upstream from bridge on State Highway 59, and 2.8 mi northwest of Fulton.

DRAINAGE AREA.--517 mi².

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 792.7 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating tables below. Records good except for ice-affected periods, which are fair. Diurnal fluctuation caused by powerplant at Stebbensville 1.5 mi upstream, and additional regulation from other dams and powerplants upstream.

AVERAGE DISCHARGE.--8 years, 360 ft³/s, 9.46 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,040 ft³/s Sept. 1, 1981, gage height, 8.36 ft; minimum daily, 60 ft³/s Aug. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,650 ft³/s Oct. 19, gage height, 6.35 ft; minimum daily, 124 ft³/s July 8.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 4, 7, 24-26, Jan. 2-4, 9, 12, 13, 15-18, and Jan. 20 to Feb. 20.)

Oct. 1 to Feb. 22				Feb. 23 to Sept. 30			
3.6	235	5.0	840	3.1	111	4.5	561
4.0	365	6.0	1,440	3.5	210	5.0	796
4.5	563			4.0	366	6.0	1,410

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	362	827	413	514	410	949	810	412	272	160	157	271
2	283	642	409	500	410	1000	763	427	249	217	148	244
3	338	568	432	500	410	946	754	257	283	179	182	269
4	326	564	360	520	410	855	753	297	293	160	183	252
5	285	549	261	534	400	687	773	259	266	243	169	273
6	253	534	331	533	400	761	809	384	271	210	201	320
7	383	508	370	532	400	788	778	279	244	197	191	389
8	337	498	376	523	400	851	751	249	285	124	180	373
9	364	502	392	490	400	859	739	270	255	174	200	417
10	295	536	395	482	400	800	728	180	253	190	208	410
11	264	518	394	478	390	838	690	202	231	244	198	381
12	296	509	410	480	390	770	690	305	269	196	209	394
13	361	495	390	480	390	784	685	149	224	215	252	408
14	346	439	417	473	390	768	676	167	140	140	271	407
15	277	423	411	470	390	746	659	314	180	260	314	392
16	378	429	500	450	390	725	651	368	230	195	392	361
17	479	447	499	420	390	700	649	365	251	154	244	396
18	484	457	456	410	400	690	647	350	300	188	313	414
19	1430	425	421	408	410	684	646	335	273	202	277	306
20	755	395	438	420	430	672	605	325	266	183	259	376
21	620	433	463	440	720	662	598	393	278	174	278	368
22	669	424	456	440	1300	636	603	341	364	157	313	357
23	597	405	466	430	1290	555	580	280	254	182	271	289
24	570	376	440	420	1280	686	583	281	213	165	273	379
25	571	362	420	420	1070	685	569	269	204	205	254	367
26	573	366	390	420	920	684	564	304	217	233	278	367
27	541	359	404	420	837	619	554	312	182	138	275	369
28	570	479	702	420	866	770	552	309	152	182	271	359
29	505	420	748	420	---	750	535	279	167	173	267	229
30	555	448	559	420	---	713	443	298	199	203	308	393
31	536	---	529	410	---	805	---	300	---	213	238	---
TOTAL	14603	14337	13652	14277	16293	23438	19837	9260	7265	5856	7574	10530
MEAN	471	478	440	461	582	756	661	299	242	189	244	351
MAX	1430	827	748	534	1300	1000	810	427	364	260	392	417
MIN	253	359	261	408	390	555	443	149	140	124	148	229
CFSM	.91	.93	.85	.89	1.13	1.46	1.28	.58	.47	.37	.47	.68
IN.	1.05	1.03	.98	1.03	1.17	1.69	1.43	.67	.52	.42	.54	.76
CAL YR 1984	TOTAL	147586	MEAN	403	MAX	1430	MIN	140	CFSM	.78	IN	10.62
WTR YR 1985	TOTAL	156922	MEAN	430	MAX	1430	MIN	124	CFSM	.83	IN	11.29

ROCK RIVER BASIN

05430500 ROCK RIVER AT AFTON, WI

LOCATION.--Lat 42°36'33", long 89°04'14", in NE 1/4 sec.28, T.2 N., R.12 E., Rock County, Hydrologic Unit 07090001, on right bank in Afton, 0.3 mi downstream from highway bridge and 1.1 mi upstream from Bass Crsek.

DRAINAGE AREA.--3,340 mi².

PERIOD OF RECORD.--January 1914 to currant year. Monthly discharge only for January 1914, published in WSP 1308.

REVISED RECORDS.--WSP 1238: 1916(M), 1919(M), 1933, 1937-38, 1943. WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 742.36 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 21, 1932, a nonrecording gage, and Aug. 21, 1932, to Sept. 30, 1933, water-stage recorder, at same site at datum 1 ft higher.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods and discharge below 800 ft³/s, which are fair. Diurnal fluctuation caused by powerplants above atation.

AVERAGE DISCHARGE.--71 years, 1,823 ft³/s, 7.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s Mar. 23, 24, 1929, gage height, 11.81 ft present datum; maximum gage height observed, 13.05 ft Feb. 5, 1916, present datum (backwater from ice); minimum discharge, 22 ft³/s Sept. 9, 1964; minimum daily, 42 ft³/s Aug. 25, 26, 1934; minimum gage height, 0.09 ft Aug. 26, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,730 ft³/s Mar. 14, gage height, 9.58 ft; minimum daily, 358 ft³/s July 4.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 25-28, Jan. 2 to Feb. 25.)

2.3	311	6.0	3,160
3.0	740	8.0	5,480
4.0	1,440	10.0	8,360

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1510	5030	3510	3200	2100	5590	6330	3720	1150	921	982	761
2	1490	5080	3460	3300	2100	6110	6300	3620	1190	842	787	871
3	1170	5000	3200	3500	2000	6530	6270	3270	1220	933	767	748
4	1200	5030	2720	3700	2000	6850	6410	2840	1210	358	787	841
5	1220	5160	2770	3900	1900	6520	6530	2750	1190	854	799	853
6	1230	5190	2550	4000	1900	6640	6400	2750	1040	763	715	884
7	1400	5150	2780	4000	1900	6820	6460	2750	1040	834	820	920
8	1400	5030	2720	3900	1900	6930	6480	2560	958	761	805	1120
9	1440	5330	2720	3800	1800	7100	6490	2300	948	724	626	1300
10	1410	5530	2700	3700	1800	7180	6380	1790	938	810	761	1340
11	1380	5460	2640	3600	1800	7330	6380	1720	1020	771	830	1690
12	1340	5140	2660	3500	1700	7500	6430	1700	972	784	1010	1940
13	1360	5040	2670	3400	1700	7610	6330	1680	913	749	895	2070
14	1390	4910	2760	3400	1700	7710	6310	1820	625	880	862	2080
15	1340	4650	2680	3300	1600	7690	6220	2020	572	801	937	2100
16	1430	4490	2660	3300	1500	7640	6140	2000	874	735	841	2070
17	1500	4640	2720	3100	1500	7580	3980	2280	734	756	962	2160
18	1680	4660	2850	3000	1400	7470	5650	2220	646	577	872	2190
19	2240	4600	2870	2800	1400	7370	5520	1940	937	528	764	2190
20	3020	4370	2850	2700	1400	7220	5410	2110	1030	691	834	2110
21	2860	4210	3010	2600	1700	7080	5240	2040	563	652	779	2240
22	3170	4080	2900	2500	2500	6890	5060	2000	794	642	827	2170
23	3570	3980	2810	2500	3500	6700	4900	1820	867	505	830	2090
24	3610	3890	2490	2500	3800	6730	4770	1750	951	527	809	1810
25	3680	3760	2400	2500	4100	6590	4590	1670	1120	556	897	2000
26	3770	3630	2600	2400	4330	6340	4520	1540	1170	676	863	2080
27	3770	3640	2600	2300	4690	6130	4460	1750	1160	680	878	2030
28	3920	3560	3100	2300	5070	6490	4230	1740	915	512	740	1990
29	4000	3640	3640	2300	---	6450	4050	1600	965	675	847	1970
30	3980	3600	3520	2200	---	6540	3880	1500	941	732	872	1880
31	4090	---	3610	2100	---	6620	---	1190	---	917	920	---
TOTAL	70570	137480	89170	95300	64790	213950	170120	66440	28653	22146	25918	50498
MEAN	2276	4583	2876	3074	2314	6902	5671	2143	955	714	836	1683
MAX	4090	5530	3640	4000	5070	7710	6530	3720	1220	933	1010	2240
MIN	1170	3560	2400	2100	1400	5590	3880	1190	563	358	626	748
CFSM	.68	1.37	.86	.92	.69	2.07	1.70	.64	.29	.21	.25	.50
IN.	.79	1.53	.99	1.06	.72	2.38	1.89	.74	.32	.25	.29	.56
CAL YR 1984	TOTAL	997016	MEAN	2724	MAX	5530	MIN	412	CFSM	.82	IN	11.10
WTR YR 1985	TOTAL	1035035	MEAN	2836	MAX	7710	MIN	358	CFSM	.85	IN	11.53

ROCK RIVER BASIN

05431014 JACKSON CREEK AT PETRIE ROAD NEAR ELKHORN, WI

LOCATION.--Lat 42°31'18", long 88°30'59", in SW 1/4 SW 1/4 sec.8, T.2 N., R.17 E., Walworth County, Hydrologic Unit 07090001, on left bank 5 ft upstream of Petrie Road bridge, 2.5 mi upstream from Delavan Lake inlet at Mounds Road, and 2.5 mi southeast of Elkhorn.

DRAINAGE AREA.--8.96 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 960 ft, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 29 to Dec. 3 and ice period listed below. Records good except for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 177 ft³/s Feb. 13, 1984, gage height, 8.29 ft; minimum daily, 0.07 ft³/s, Sept. 23, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 103 ft³/s Dec. 29, gage height, 7.66 ft; minimum daily, 0.10 ft³/s, Aug. 28, Sept. 1-7.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Jan. 2 to Feb. 26.)

Oct. 1 to Nov. 1				Nov. 1 (0815) to Sept. 30			
4.9	.05	5.9	9.7	4.9	0.06	5.9	7.8
5.0	.12	6.1	13	5.0	.12	6.1	11
5.1	.38	6.3	16	5.1	.28	6.3	14
5.2	.80	6.5	22	5.2	.61	6.5	19
5.3	1.6	6.7	30	5.3	1.2	6.7	26
5.5	4.0	7.0	46	5.5	3.2	7.0	46
5.7	6.8	7.5	89	5.7	5.4	7.5	89

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	57	5.0	7.2	.62	22	9.3	1.1	1.7	.14	.21	.10
2	.18	27	7.0	6.6	.60	18	6.9	.99	1.4	.20	.18	.10
3	.20	12	6.0	4.5	.60	11	6.3	.90	1.1	.17	.18	.10
4	.21	8.3	4.5	4.0	.60	17	5.8	.88	1.1	.13	.18	.10
5	.24	6.1	3.0	3.4	.65	31	6.2	.96	.94	.15	.22	.10
6	.26	4.9	2.9	3.0	.65	14	11	.96	.64	.15	.18	.10
7	.50	4.3	2.4	2.7	.58	14	11	.64	.59	.12	.16	.10
8	.40	3.9	2.3	2.3	.52	30	7.7	.57	.55	.12	.14	1.5
9	.30	21	2.0	2.0	.50	23	6.2	.53	.43	.11	.13	7.5
10	.28	24	2.0	1.8	.52	19	5.5	.48	.31	.11	.18	1.6
11	.29	12	2.1	1.7	.70	20	4.8	.47	.47	.11	.14	.42
12	.34	7.7	5.9	1.5	1.0	15	4.3	.53	.46	.11	.14	.22
13	.34	6.2	6.5	1.4	1.2	12	4.4	.36	.38	.15	.56	.14
14	.36	5.6	5.7	1.3	.53	12	4.3	.37	.29	1.1	.21	.12
15	.34	5.0	7.1	1.3	.48	9.0	3.9	.73	.94	.21	.14	.12
16	1.6	4.0	15	1.2	.50	8.1	3.4	.61	1.4	.14	.13	.11
17	2.6	3.6	12	1.2	.45	6.7	3.0	.82	.78	.13	.13	.11
18	2.9	3.5	7.5	1.2	.43	5.7	3.0	.56	.54	.14	.14	.11
19	19	2.9	6.2	1.2	.45	5.5	2.6	.50	.43	.20	.14	.11
20	7.0	2.3	4.8	1.1	.47	4.7	2.3	.45	.34	.19	.11	.11
21	7.8	2.0	5.2	1.0	15	4.0	2.0	.36	.43	.16	.18	.13
22	6.4	2.1	4.5	.98	60	3.8	1.8	.37	.50	.14	.19	.15
23	4.2	2.2	3.7	.90	66	3.9	1.9	.38	.31	.13	.15	.16
24	3.2	2.2	3.2	.80	80	6.0	2.0	.36	.25	.15	.51	.15
25	2.6	2.2	2.9	.76	45	4.8	1.6	.37	.21	.26	5.5	.15
26	2.5	2.2	2.8	.78	25	4.6	1.4	.98	.21	.20	.61	.16
27	3.6	9.4	2.9	.78	18	5.0	1.3	11	.19	.16	.16	.15
28	12	9.9	20	.76	16	15	1.2	5.4	.17	.15	.10	.14
29	6.7	8.0	72	.70	---	9.6	1.1	3.6	.15	.15	.13	.15
30	5.0	6.0	21	.66	---	6.9	1.2	2.9	.14	.17	.27	.18
31	3.8	---	11	.62	---	9.9	---	2.3	---	.32	.12	---
TOTAL	95.33	263.5	259.1	59.34	337.05	371.2	127.4	41.43	17.35	5.87	11.52	14.39
MEAN	3.08	8.78	8.36	1.91	12.0	12.0	4.25	1.34	.58	.19	.37	.48
MAX	19	57	72	7.2	80	31	11	11	1.7	1.1	5.5	7.5
MIN	.18	2.0	2.0	.62	.43	3.8	1.1	.36	.14	.11	.10	.10
CFSM	.34	.98	.93	.21	1.34	1.34	.47	.15	.07	.02	.04	.05
IN.	.40	1.09	1.08	.25	1.40	1.54	.53	.17	.07	.02	.05	.06
CAL YR 1984	TOTAL	2009.82	MEAN	5.49	MAX	135	MIN	.07	CFSM	.61	IN	8.34
WTR YR 1985	TOTAL	1603.48	MEAN	4.39	MAX	80	MIN	.10	CFSM	.49	IN	6.66

05431014 JACKSON CREEK AT PETRIE ROAD NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1983 to current year.
 TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: October 1983 to current year.
 TOTAL NITRITE PLUS NITRATE DISCHARGE: October 1983 to current year.
 TOTAL PHOSPHORUS DISCHARGE: October 1983 to current year.

INSTRUMENTATION.--Automatic pumping sampler since October 1983.

REMARKS.--Records good.

COOPERATION.--Observer furnished by Delavan Lake Sanitary District.

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 802 mg/L Feb. 13, 1984; minimum observed, 1 mg/L Mar. 12, 1984.
 SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 117 tons Feb. 13, 1984; minimum daily, 0.01 ton on many days during 1984 and 1985.
 TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 9.4 mg/L Nov. 9, 1984; minimum observed, 0.30 mg/L on several days, 1985.
 TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Maximum daily, 2,510 lb Feb. 13, 1984; minimum daily, 0.15 lb Aug. 20, 1985.
 TOTAL NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 17 mg/L June 18, 1984; minimum observed, 0.01 mg/L on several days during 1984.
 TOTAL NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 3,150 lb Feb. 13, 1984; minimum daily, 0.01 lb on many days during 1984.
 TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 1.40 mg/L Feb. 13, 1984; minimum observed, <0.01 mg/L June 5 and Aug. 7, 1985.
 TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 773 lb Feb. 13, 1984; minimum daily, 0.01 lb on several days during 1985.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 449 mg/L Nov. 9; minimum observed, 3 mg/L Sept. 30.
 SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 21 tons Nov. 1; minimum daily, 0.01 ton on many days.
 TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 9.4 mg/L Nov. 9; minimum observed, 0.30 mg/L on several days.
 TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Maximum daily, 631 lb Feb. 24; minimum daily, 0.15 lb Aug. 20, several days.
 TOTAL NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 14 mg/L May 27; minimum observed, <0.10 mg/L on several days.
 TOTAL NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 2,290 lb Dec. 29; minimum daily, 0.05 lb Sept. 7.
 TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 1.1 mg/L Nov. 1; minimum observed, <0.01 mg/L June 5 and Aug. 7.
 TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 222 lb Nov. 1; minimum daily, 0.01 lb on several days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	NITRO-GEN, NO2+NO3 (MG/L AS N) (00630)	NITRO-GEN, AMMONIA + ORGANIC (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
OCT, 1984						
08...	0940	.38	<.10	.30	--	.080
12...	0750	.30	1.8	.80	2.6	.270
17...	0015	2.9	.80	2.3	3.1	.380
17...	0345	3.5	.80	2.1	2.9	.420
17...	0815	3.1	1.6	2.7	4.3	.480
18...	1845	3.0	1.0	1.2	2.2	.190
18...	2115	7.7	1.4	3.1	4.5	.570
19...	0015	21	3.2	3.3	6.5	.790
19...	0345	30	4.6	3.3	7.9	.870
19...	0655	26	6.6	2.3	8.9	.630
19...	1030	20	6.7	1.8	8.5	.550
19...	1301	17	6.7	2.1	8.8	.600
19...	1945	12	6.8	1.4	8.2	.360
20...	1310	6.5	8.3	1.2	9.5	.260
21...	1100	8.7	5.1	1.2	6.3	.370
21...	1500	10	5.4	1.3	6.7	.340
22...	0300	7.5	7.7	1.0	8.7	.270
25...	0925	2.6	6.6	.60	7.2	.090
27...	2130	7.1	4.9	1.3	6.2	.190
27...	2345	14	5.5	3.2	8.7	.670
28...	0145	16	5.2	2.1	7.3	.490
28...	0445	14	5.3	2.2	7.5	.500
28...	0742	13	8.2	1.7	9.9	.390
28...	0915	12	7.4	1.3	8.7	.360
28...	1614	9.9	5.3	.90	6.2	.460
28...	1715	9.6	8.8	.90	9.7	.240
NOV						
01...	0345	10	6.0	1.7	7.7	.600
01...	0545	52	4.3	4.0	8.3	.840
01...	0815	99	4.5	2.8	7.3	1.10
01...	1045	91	5.3	2.6	7.9	.800
01...	1046	91	4.8	2.1	6.9	.750

ROCK RIVER BASIN

05431014 JACKSON CREEK AT PETRIE ROAD NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
NOV, 1984						
01...	1530	72	7.5	3.5	11	.580
01...	1531	72	7.8	1.5	9.3	.590
02...	0300	32	9.4	1.0	10	.440
02...	1100	25	10	.80	11	.400
09...	1430	9.3	7.0	2.6	9.6	.200
09...	1545	23	5.2	2.3	7.5	.410
09...	1546	23	5.1	4.1	9.2	.380
09...	1830	67	4.5	9.4	14	.610
09...	2300	43	7.0	4.8	12	.490
10...	0330	32	7.3	2.3	9.6	.360
21...	0720	2.0	8.6	1.4	10	.110
27...	0800	11	4.5	2.8	7.3	.840
27...	0801	11	4.6	2.9	7.5	.570
27...	0930	12	4.4	2.4	6.8	.620
27...	1430	10	4.4	3.1	7.5	.410
27...	2000	12	4.8	2.1	6.9	.350
DEC						
04...	0115	9.9	7.7	.80	8.5	.080
12...	1106	1.9	4.6	1.0	5.6	.350
16...	0045	13	7.0	1.3	8.3	.500
16...	0545	15	7.2	.80	8.0	.380
16...	1145	16	7.3	1.0	8.3	.290
19...	0940	6.4	9.4	1.2	11	.180
28...	0045	9.7	5.1	1.5	6.6	.290
28...	0645	18	4.4	1.7	6.1	.430
29...	0615	101	5.6	3.4	9.0	.720
JAN, 1985						
24...	0650	--	8.0	.40	8.4	.060
FEB						
21...	1545	--	2.8	1.1	3.9	.220
22...	1010	--	3.9	1.8	5.7	.610
22...	1800	--	4.2	1.7	5.9	.520
23...	1200	--	4.6	1.5	6.1	.460
23...	1201	--	4.8	1.5	6.3	.470
23...	2400	--	4.5	2.3	6.8	.520
24...	1215	--	4.8	1.5	6.3	.450
24...	1700	--	4.7	1.7	6.4	.440
25...	1000	--	5.3	1.2	6.5	.420
MAR						
01...	2015	33	5.0	1.1	6.1	.240
02...	0245	21	5.3	1.0	6.3	.210
04...	2115	34	5.6	1.2	6.8	.240
05...	0835	46	5.6	1.1	6.7	.200
08...	1400	27	4.9	1.2	6.1	.220
08...	1900	53	4.4	1.3	5.7	.320
09...	0100	31	4.8	1.3	6.1	.210
28...	0330	9.7	4.7	1.8	6.5	.480
28...	0500	20	4.6	4.2	8.8	.530
28...	0600	20	4.2	3.1	7.3	.500
28...	0731	20	4.5	1.9	6.4	.350
28...	1000	18	4.9	1.3	6.2	.270
28...	1330	16	5.4	1.0	6.4	.220
APR						
02...	1105	6.8	7.1	.80	7.9	.050
16...	0635	3.6	7.5	1.9	9.4	.270
MAY						
01...	0705	1.2	4.8	.50	5.3	.030
22...	0700	.38	1.2	.40	1.6	.060
27...	0030	9.9	5.2	1.8	7.0	.450
27...	0430	16	13	2.4	15	.500
27...	0730	14	14	1.8	16	.410
JUN						
05...	0650	1.1	7.2	.90	8.1	<.010
19...	1045	.48	3.7	.50	4.2	.050
JUL						
10...	0001	.11	.20	1.0	1.2	.170
23...	1310	.14	<.10	.40	--	.060
AUG						
07...	1045	.18	<.10	.30	--	<.010
21...	1300	.20	<.10	.40	--	.050
25...	0045	11	.50	1.6	2.1	.210
25...	0145	18	2.9	3.0	5.9	.450
25...	0245	18	3.1	3.2	6.3	.710
25...	0445	9.9	4.2	2.5	6.7	.980
SEP						
04...	0725	.10	<.10	.60	--	.080
09...	0330	7.8	1.3	1.1	2.4	.380
09...	0730	13	2.9	3.0	5.9	.910
09...	1000	10	3.1	2.2	5.3	.800
16...	1225	.11	.10	.60	.70	.190
30...	0750	.20	<.10	.30	--	.050

ROCK RIVER BASIN

05431014 JACKSON CREEK AT PETRIE ROAD NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT, 1984					NOV, 1984				
08...	0940	.38	30	.03	19...	0915	2.9	33	.26
08...	1915	3.2	45	.39	21...	0720	2.0	72	.39
12...	0730	3.30	21	.02	26...	0730	2.2	51	.30
18...	1815	2.9	25	.20	27...	0700	9.4	97	2.5
18...	2145	9.4	168	4.3	27...	0801	11	138	4.1
18...	2245	13	205	7.2	27...	1000	12	82	2.7
18...	2345	18	180	8.7	27...	1330	11	52	1.5
19...	0145	23	180	11	27...	1700	10	47	1.3
19...	0315	30	146	12	27...	1900	12	46	1.5
19...	0445	30	114	9.2	DEC				
19...	0645	26	88	6.2	03...	1010	4.1	40	.44
19...	0853	23	56	3.4	09...	2315	2.1	12	.07
19...	1032	20	60	3.2	10...	0245	2.1	17	.10
19...	1245	17	33	1.5	12...	1106	1.9	54	.28
19...	1645	14	30	1.1	15...	2245	11	41	1.2
19...	2045	12	31	1.0	16...	0215	14	43	1.6
20...	0045	10	25	.68	16...	0445	15	41	1.7
20...	0645	7.8	25	.53	16...	0615	15	33	1.7
20...	0945	7.2	16	.31	16...	0945	15	24	.97
21...	0900	7.5	21	.43	17...	0940	12	19	.62
21...	1030	8.5	20	.46	28...	0115	12	79	2.6
21...	1300	10	22	.59	28...	0415	16	81	3.5
21...	1900	9.1	18	.44	28...	0615	18	76	3.7
21...	2200	8.4	17	.39	28...	0915	19	32	1.6
22...	0600	6.9	18	.34	29...	0215	41	161	18
22...	1030	6.5	24	.42	29...	1815	66	133	24
25...	0925	2.6	44	.31	JAN, 1985				
27...	2215	9.4	105	2.7	24...	0650	--	20	.04
27...	2315	13	124	4.4	FEB				
28...	0015	15	136	5.5	18...	0835	.40	21	.02
28...	0115	16	116	5.0	21...	1345	3.8	26	.27
28...	0215	16	88	3.8	21...	1545	--	42	1.7
28...	0415	15	46	1.9	21...	1745	46	45	5.6
28...	0515	14	43	1.6	21...	2030	47	42	5.3
28...	0715	13	45	1.6	21...	2230	48	39	5.1
28...	0742	13	30	1.1	22...	0300	--	57	9.2
28...	1045	12	25	.81	22...	1300	--	64	10
28...	1345	11	20	.59	22...	1700	--	73	12
28...	1945	9.0	19	.46	22...	2100	--	44	7.1
28...	2245	8.3	17	.38	23...	0400	--	38	6.8
29...	0115	8.0	17	.37	23...	0900	--	39	6.9
29...	1235	6.7	24	.43	23...	1400	--	55	9.8
NOV					23...	1700	--	82	15
01...	0315	8.0	155	3.3	23...	2100	--	104	19
01...	0415	13	110	3.9	24...	0100	--	75	16
01...	0445	19	149	7.6	24...	0600	--	53	11
01...	0615	76	424	87	24...	0900	--	46	9.9
01...	0715	93	319	80	24...	1200	--	62	13
01...	0745	95	269	69	24...	1600	--	100	22
01...	0845	98	199	53	24...	1800	--	133	29
01...	0945	93	181	45	24...	2400	--	50	11
01...	1046	91	142	35	25...	0500	--	34	4.1
01...	1200	87	125	29	25...	1100	--	32	3.9
01...	1300	83	111	25	MAR				
01...	1430	77	101	21	01...	1545	24	37	2.4
01...	1530	72	89	17	01...	1745	30	45	3.6
01...	1800	59	55	8.8	01...	1945	33	44	3.9
01...	2200	43	41	4.8	01...	2045	33	38	3.4
01...	2400	39	43	4.5	01...	2245	29	29	2.3
02...	0500	28	32	2.4	02...	0215	22	20	1.2
02...	0700	26	28	2.0	04...	1615	30	62	5.0
02...	0900	24	29	1.9	04...	1915	31	29	2.4
09...	1500	13	268	9.4	04...	2145	34	42	3.9
09...	1530	18	192	9.3	05...	0115	40	12	1.3
09...	1546	23	258	16	05...	0415	40	11	1.2
09...	1630	41	449	50	07...	2100	20	19	1.0
09...	1730	59	334	53	07...	2400	21	20	1.1
09...	1800	65	296	52	08...	0200	21	15	.85
09...	1900	66	250	45	08...	0500	19	11	.56
09...	1930	62	226	38	08...	1230	19	11	.56
09...	2000	59	213	34	08...	1800	51	100	14
09...	2130	52	160	22	08...	2000	49	68	9.0
09...	2330	42	121	14	09...	0200	28	25	1.9
10...	0100	39	101	11	28...	0400	16	260	11
10...	0300	34	79	7.3	28...	0530	20	244	13
12...	1000	7.7	22	.46	28...	0630	20	179	9.7

ROCK RIVER BASIN

05431014 JACKSON CREEK AT PETRIE ROAD NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
MAR, 1985					AUG, 1985				
28...	0800	19	100	5.1	05...	1000	.23	38	.02
28...	0900	19	72	3.7	07...	1045	.18	51	.02
28...	1100	17	60	2.8	21...	1300	.20	27	.01
28...	1200	17	39	1.8	25...	0115	15	442	18
APR					25...	0215	18	375	18
02...	1105	6.8	52	.95	25...	0315	16	200	8.6
09...	0815	6.3	29	.49	25...	0415	12	136	4.4
15...	0750	4.0	57	.62	25...	0515	8.7	86	2.0
16...	0635	3.6	51	.50	25...	0615	6.8	52	.95
22...	1030	1.8	31	.15	25...	0715	5.7	66	1.0
29...	1050	1.1	28	.08	26...	1050	.58	5	.00
MAY					SEP				
22...	0700	.38	33	.03	09...	0300	6.7	54	.98
27...	0130	12	177	5.7	09...	0400	7.7	27	.56
27...	0400	16	104	4.5	09...	0430	7.4	24	.48
27...	0700	15	61	2.5	09...	0500	7.6	30	.6E
27...	1000	13	28	.98	09...	0630	12	89	2.9
JUN					09...	0700	13	115	4.0
11...	1300	.54	5	.00	09...	0800	13	155	5.4
17...	1335	.74	21	.04	09...	0930	11	75	2.2
19...	1045	.48	40	.05	09...	1030	10	60	1.6
JUL					09...	1100	9.9	53	1.4
01...	1245	.14	22	.00	30...	0750	.20	3	.00
08...	1115	.12	43	.01					
23...	1310	.14	61	.02					

ROCK RIVER BASIN

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI

LOCATION.--Lat 42°39'03", long 88°33'03", in NW 1/4 NE 1/4 sec.12, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, on left bank 200 ft downstream of State Highway 15, 1.1 mi upstream from Delavan Lake inlet at Mounds Road, and 1.5 mi south of Elkhorn.

DRAINAGE AREA.--4.34 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 930 ft, from topographic map.

REMARKS.--Estimated daily discharges: June 10 to July 2 and ice period listed in rating tables below. Records good except for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 129 ft³/s Nov. 1, 1984, gage height, 9.29 ft; minimum daily, 0.25 ft³/s, July 10, 27, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 129 ft³/s Nov. 1, gage height, 9.29 ft; minimum daily, 0.25 ft³/s, July 10, 27.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Jan. 1 to Feb. 29.)

Oct. 1 to Feb. 24				Feb. 24 (0115) to Sept. 30			
5.0	.33	7.0	37	5.1	0.16	5.8	7.4
5.2	.96	7.5	53	5.2	.34	6.0	12
5.4	1.97	8.0	72	5.3	.62	6.5	23
5.6	4.10	8.5	92	5.4	1.0	7.0	37
5.8	7.50	9.0	115	5.5	1.7	8.0	72
6.0	11.8			5.6	3.0		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	.53	54	3.0	5.0	1.0	16	7.8	1.2	.74	.29	.32	.32	
2	.56	10	5.5	4.0	1.1	13	5.7	1.1	.69	1.5	.30	.36	
3	.58	6.5	3.5	3.7	1.1	7.6	5.3	.93	.72	.47	.28	.44	
4	.67	5.2	2.5	3.7	1.1	17	6.2	.84	.71	.86	.30	.35	
5	.68	4.3	2.1	3.4	1.1	17	6.4	1.3	.69	.62	.43	.34	
6	.75	3.8	1.9	3.2	1.1	11	16	1.0	.63	.38	.47	.35	
7	7.9	3.3	1.9	3.0	1.0	12	9.7	1.1	.73	.27	.87	.33	
8	1.1	4.3	1.9	2.7	1.0	21.	6.2	.76	.75	.31	.42	33	
9	.75	29	1.8	2.6	1.0	16	5.0	.76	.72	.38	.37	29	
10	.62	13	1.9	2.4	1.1	15	4.2	.77	.78	.25	1.5	2.3	
11	.56	7.1	4.5	2.3	1.1	16	3.9	.80	1.0	.27	.38	1.2	
12	2.0	5.5	12	2.2	1.1	11	3.5	1.1	.80	.27	.39	.73	
13	.72	4.6	7.2	2.3	1.1	11	3.6	.68	.70	.80	6.8	.60	
14	.64	5.1	7.2	2.2	1.1	10	3.2	.70	.60	8.6	.47	.57	
15	2.6	4.8	9.3	2.1	1.1	7.5	3.0	3.0	2.2	.47	.40	.47	
16	6.4	3.8	14	1.9	1.1	6.5	2.6	1.6	3.0	.42	.43	.60	
17	5.5	2.9	7.2	1.8	1.2	5.6	2.2	1.2	1.5	.31	.34	1.0	
18	21	2.9	4.6	1.6	1.3	5.3	2.6	.68	1.1	.30	.41	.58	
19	30	2.7	3.6	1.4	1.4	5.0	2.2	.62	.84	1.3	.42	.55	
20	4.3	2.4	2.8	1.4	1.5	4.2	2.0	.62	.72	.34	.46	.52	
21	11	2.1	5.4	1.4	1.0	3.6	1.7	.57	.90	.29	.47	1.4	
22	4.3	2.2	3.3	1.4	4.0	3.1	1.9	.55	1.1	.32	.45	.74	
23	2.7	2.3	2.6	1.4	4.5	4.2	3.9	.54	.64	.30	.42	2.4	
24	2.2	1.9	2.2	1.4	6.0	7.5	2.7	.60	.45	.35	1.8	.73	
25	2.1	1.8	1.9	1.3	3.0	4.1	1.9	.46	.35	2.1	4.2	.77	
26	2.0	2.0	2.1	1.3	15	3.5	1.6	4.5	.32	.34	.49	.62	
27	11	15	3.1	1.2	12	5.2	1.5	8.3	.31	.25	.43	.46	
28	9.4	6.7	23	1.2	12	20	1.4	1.3	.30	.26	.37	.41	
29	3.7	4.3	45	1.2	---	7.2	1.4	1.0	.29	.32	3.4	.35	
30	2.7	3.7	9.8	1.1	---	5.1	1.3	.98	.29	.64	.81	.69	
31	2.8	---	6.3	1.0	---	12	---	.89	---	1.7	.36	---	
TOTAL	141.76	217.2	203.1	66.8	246.6	303.2	120.6	40.45	24.57	25.28	28.96	82.18	
MEAN	4.57	7.24	6.55	2.15	8.81	9.78	4.02	1.30	.82	.82	.93	2.74	
MAX	30	54	45	5.0	60	21	16	8.3	3.0	8.6	6.8	33	
MIN	.53	1.8	1.8	1.0	1.0	3.1	1.3	.46	.29	.25	.28	.32	
CFSM	1.05	1.67	1.51	.50	2.03	2.25	.93	.30	.19	.19	.21	.63	
IN.	1.22	1.86	1.74	.57	2.11	2.60	1.03	.35	.21	.22	.25	.70	
CAL YR 1984	TOTAL	1472.58		MEAN	4.02	MAX	56	MIN	.39	CFSM	.93	IN.	12.62
WTR YR 1985	TOTAL	1500.70		MEAN	4.11	MAX	60	MIN	.25	CFSM	.95	IN.	12.86

ROCK RIVER BASIN

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1983 to current year.
 TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: October 1983 to current year.
 TOTAL NITRITE PLUS NITRATE DISCHARGE: October 1983 to current year.
 TOTAL PHOSPHORUS DISCHARGE: October 1983 to current year.

INSTRUMENTATION.--Automatic pumping sampler since October 1983.

REMARKS.--Records good.

COOPERATION.--Observer furnished by Delavan Lake Sanitary District.

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 5,520 mg/L Aug. 7, 1984; minimum observed, 1 mg/L on several days during 1984.
 SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 58 tons Nov. 1, 1984; minimum daily, 0.01 ton on many days during 1984 and 1985.
 TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 16 mg/L Nov. 19, 1983; minimum observed, 0.10 mg/L Oct. 12, 1984.
 TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Maximum daily, 788 lb Nov. 9, 1984; minimum daily, 0.56 lb Oct. 11, 1984.
 TOTAL NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 6.10 mg/L Oct. 19, 1984; minimum observed, <0.10 mg/L Oct. 12 and July 23.
 TOTAL NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 1,489 lb May 28, 1984; minimum daily, 0.17 lb July 23.
 TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 8.20 mg/L Aug. 7, 1984; minimum observed, 0.04 mg/L Oct. 12, 1984.
 TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 216 lb May 25, 1984; minimum daily, 0.18 lb Oct. 11, 1984.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 2,460 mg/L Nov. 1; minimum observed, 4 mg/L Oct. 28.
 SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 58 tons Nov. 1; minimum daily, 0.01 ton on many days.
 TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 13 mg/L May 26; minimum observed, 0.10 mg/L Oct. 12.
 TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Maximum daily, 788 lb Nov. 9; minimum daily, 0.56 lb Oct. 11.
 TOTAL NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 6.10 mg/L Oct. 19; minimum observed, <0.10 mg/L Oct. 12 and July 23.
 TOTAL NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 880 lb Feb. 24; minimum daily, 0.17 lb July 23.
 TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 4.10 mg/L Oct. 31; minimum observed, 0.04 mg/L Oct. 12.
 TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 206 lb Nov. 1; minimum daily, 0.18 lb Oct. 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT, 1984						
05...	1100	.69	3.8	1.2	5.0	.170
07...	0900	20	1.0	3.9	4.9	1.60
07...	1015	30	1.3	1.7	3.0	1.00
07...	1045	34	1.3	1.7	3.0	.850
07...	1200	28	2.5	3.7	6.2	.850
07...	1300	20	2.9	4.2	7.1	.990
07...	1301	20	3.1	4.7	7.8	1.10
07...	1415	13	3.1	4.7	7.8	1.00
07...	1800	4.0	4.0	2.9	6.9	.680
08...	0920	1.0	4.8	.90	5.7	.270
12...	0730	.54	<.10	.10	--	.040
12...	0945	5.2	2.5	2.8	5.3	.660
12...	1030	5.4	2.5	3.3	5.8	1.00
12...	1115	9.6	1.9	3.0	4.9	3.00
12...	1200	6.9	1.6	2.3	3.9	1.20
12...	1330	3.7	2.2	2.0	4.2	.700
15...	0900	6.6	2.6	3.3	5.9	.670
15...	0930	9.2	1.7	4.3	6.0	.600
15...	1215	3.2	2.4	2.3	4.7	.620
15...	2200	8.5	2.0	4.2	6.2	.850
15...	2345	4.2	3.1	2.5	5.6	.800
16...	0245	2.5	5.2	6.8	12	1.30
16...	1900	21	2.7	3.1	5.8	.640
16...	2330	7.5	4.4	2.8	7.2	.610
17...	0800	6.2	4.9	2.5	7.4	.550
18...	1600	8.7	3.0	3.3	6.3	.570
18...	1730	29	2.2	3.2	5.4	.530
18...	1930	68	2.9	4.2	7.1	.610
18...	2115	65	3.2	2.6	5.8	.620
19...	0030	90	3.3	1.3	4.6	.480
19...	0300	79	3.5	1.7	5.2	.540
19...	0530	51	4.0	1.7	5.7	.530

ROCK RIVER BASIN

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT, 1984						
19...	0920	20	5.2	1.4	6.6	.410
19...	1000	18	5.4	1.3	6.7	.420
19...	1001	18	5.5	1.3	6.8	.440
19...	1730	9.2	6.1	1.7	7.8	.500
20...	1330	4.0	5.7	1.6	7.3	.250
21...	0500	12	3.3	2.0	5.3	.520
21...	0700	14	3.8	3.0	6.8	.560
21...	0830	16	3.8	1.8	5.6	.600
21...	1400	14	4.4	1.9	6.3	.450
21...	2000	7.7	5.0	1.2	6.2	.310
27...	1900	21	5.1	1.0	6.1	.470
27...	2045	43	5.1	.90	6.0	.440
27...	2145	52	5.3	.90	6.2	.460
27...	2400	35	5.3	.70	6.0	.450
28...	0814	8.9	4.9	1.0	5.9	.540
28...	0815	8.9	2.6	2.0	4.6	3.90
28...	1145	7.1	5.3	1.1	6.4	.480
28...	1200	6.9	2.6	2.9	5.5	2.00
31...	2345	25	1.8	6.2	8.0	4.10
NOV						
01...	0100	32	2.1	7.6	9.7	1.40
01...	0215	25	2.6	4.2	6.8	.820
01...	0345	28	2.9	2.7	5.6	1.30
01...	0615	129	1.5	3.2	4.7	.650
01...	1000	97	2.7	2.2	4.9	.770
01...	1001	97	2.8	1.2	4.0	.690
01...	1331	51	4.1	1.1	5.2	.670
01...	1338	49	3.9	1.8	5.7	.630
02...	0940	10	4.5	.90	5.4	.300
09...	1330	11	2.9	4.1	7.0	1.00
09...	1430	67	1.0	9.0	10	1.40
09...	1530	100	1.6	7.5	9.1	.790
09...	1531	100	1.6	8.5	10	.420
09...	1945	54	2.7	1.8	4.5	.560
21...	0715	2.1	2.6	1.1	3.7	.270
27...	0746	20	2.6	2.4	5.0	.740
27...	0800	19	2.5	2.4	4.9	.670
27...	1200	12	2.7	4.6	7.3	.420
DEC						
02...	1200	12	2.6	2.3	4.9	.710
11...	2045	13	1.3	3.9	5.2	1.40
11...	2215	20	1.4	1.6	3.0	.700
11...	2315	21	1.7	4.1	5.8	.720
15...	2330	16	3.9	1.1	5.0	.440
16...	0145	18	4.3	1.4	5.7	.360
16...	0445	17	4.3	1.0	5.3	.360
17...	0925	8.6	4.5	1.0	5.5	.230
28...	0030	15	1.8	1.9	3.7	.740
28...	0245	24	1.4	2.1	3.5	.510
28...	0530	29	1.4	2.0	3.4	.490
29...	0145	44	3.0	2.7	5.7	1.40
29...	0230	61	3.2	2.0	5.2	.770
29...	0330	82	3.1	4.2	7.3	1.20
29...	0430	92	3.1	1.6	4.7	1.20
29...	0530	96	2.6	2.6	5.2	.920
29...	0600	96	3.0	2.7	5.7	.830
29...	0630	95	3.3	3.8	7.1	.710
29...	0815	81	3.8	1.5	5.3	.560
29...	0915	69	3.4	2.2	5.6	.690
JAN, 1985						
24...	0710	--	3.4	.40	3.8	.160
FEB						
21...	1001	--	1.6	2.5	4.1	.650
22...	0030	--	2.5	1.7	4.2	.360
22...	0614	--	2.8	2.0	4.8	.720
22...	0615	--	2.7	1.8	4.5	.640
22...	2100	--	3.1	1.9	5.0	.670
23...	0500	--	2.9	1.5	4.4	.600
23...	1145	--	3.3	1.5	4.8	.520
23...	1400	--	3.4	1.5	4.9	.500
24...	1330	--	3.5	1.1	4.6	.410
MAR						
01...	1815	23	3.5	2.1	5.6	.670
01...	2145	19	3.7	1.6	5.3	.590
04...	1530	31	3.0	4.2	7.2	.600
05...	0925	17	3.6	1.1	4.7	.240
08...	1530	30	2.7	2.4	5.1	.490
08...	1730	36	2.5	2.2	4.7	.680
08...	2000	31	2.7	1.5	4.2	.470

ROCK RIVER BASIN

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
MAR, 1985						
28...	0230	48	1.3	4.1	5.4	.660
28...	0445	44	2.2	5.6	7.8	.650
28...	0615	33	2.4	5.3	7.7	.750
28...	0754	25	1.7	5.5	7.2	.470
28...	0800	24	2.6	3.1	5.7	.530
28...	0801	24	2.7	2.9	5.6	.480
28...	1130	16	2.0	6.0	8.0	1.10
APR						
02...	1115	5.5	4.3	.90	5.2	.240
16...	0645	2.7	3.6	.60	4.2	.170
MAY						
01...	0715	1.2	3.2	.80	4.0	.150
15...	0740	1.9	5.7	7.7	13	4.00
22...	0715	.53	.80	.90	1.7	.510
26...	2000	21	2.0	13	15	3.90
26...	2115	17	2.5	4.3	6.8	1.80
27...	0130	30	4.0	12	16	3.10
JUN						
05...	0700	.73	3.6	.90	4.5	.250
19...	1030	--	3.9	1.0	4.9	.290
JUL						
10...	0740	.21	1.2	.50	1.7	.250
14...	0001	.27	.70	2.8	3.5	1.30
14...	0215	16	1.3	3.5	4.8	.550
14...	0245	35	1.1	5.2	6.3	.750
14...	0530	29	2.5	3.3	5.8	1.40
14...	0730	13	2.0	3.7	5.7	1.50
14...	0731	13	2.0	3.6	5.6	1.40
23...	1330	.30	<.10	.70	--	.130
AUG						
07...	1100	.77	.80	.50	1.3	.380
13...	0230	41	.70	4.3	5.0	2.30
13...	0245	40	.90	1.4	2.3	.650
13...	0330	32	.70	1.2	1.9	.600
13...	0445	20	1.9	1.8	3.7	1.30
13...	0545	16	2.8	3.1	5.9	1.30
13...	0820	5.3	2.1	3.3	5.4	1.30
21...	1330	.44	.90	1.6	2.5	.200
24...	2245	20	1.3	4.9	6.2	.650
25...	0015	22	.80	1.5	2.3	.460
25...	0215	17	1.6	2.1	3.7	.790
SEP						
04...	0745	.34	.40	1.4	1.8	.630
08...	1330	62	.50	3.2	3.7	.830
08...	1430	110	.90	3.5	4.4	.410
08...	1515	116	1.3	3.0	4.3	.420
08...	1545	115	1.6	2.6	4.2	.900
08...	1546	115	1.5	2.9	4.4	.590
08...	1730	100	2.4	2.3	4.7	1.30
08...	1915	76	2.2	1.7	3.9	.980
09...	1005	34	2.3	1.9	4.2	.820
16...	1250	1.3	1.9	.60	2.5	1.60
30...	0805	.97	1.3	1.0	2.3	.340

ROCK RIVER BASIN

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT, 1984					OCT, 1984				
07...	0845	15	611	25	28...	0845	8.7	22	.52
07...	0915	25	513	35	28...	1000	7.9	15	.32
07...	0945	25	196	13	28...	1145	7.1	11	.21
07...	1015	30	280	23	28...	1215	6.9	11	.20
07...	1115	32	139	12	28...	1500	6.0	4	.06
07...	1230	24	151	9.8	28...	1615	5.7	11	.17
07...	1301	20	124	6.7	29...	0945	3.6	15	.15
07...	1345	16	91	3.9	31...	2330	14	2020	76
07...	1445	11	87	2.6	31...	2400	26	725	51
07...	1600	7.1	76	1.5	NOV				
07...	1700	5.4	103	1.5	01...	0015	28	415	31
07...	1745	4.2	43	.49	01...	0030	30	363	29
07...	1830	3.6	36	.35	01...	0045	32	800	69
07...	1945	3.0	35	.28	01...	0115	31	749	63
08...	0925	1.0	80	.22	01...	0145	29	589	46
12...	0750	.54	90	.13	01...	0230	24	311	20
12...	1000	4.9	73	.97	01...	0300	21	223	13
12...	1045	7.5	215	4.4	01...	0330	22	179	11
12...	1130	8.5	164	3.8	01...	0400	43	302	35
12...	1230	6.2	51	.85	01...	0430	74	417	83
12...	1300	4.9	66	.87	01...	0515	116	875	274
12...	1445	2.4	39	.25	NOV				
15...	0845	5.0	396	5.3	01...	0600	128	1450	501
15...	0945	.65	247	.43	01...	1001	97	158	41
15...	1015	.65	88	.15	01...	1100	85	84	19
15...	1230	.65	41	.07	01...	1230	65	70	12
15...	1415	.65	26	.05	01...	1331	51	101	14
15...	2215	.60	276	.45	01...	1430	40	61	6.6
15...	2230	.60	184	.30	01...	1630	27	44	3.2
15...	2330	.60	53	.09	01...	1800	23	38	2.4
16...	0030	3.4	60	.55	01...	2000	19	52	2.7
16...	0130	2.8	53	.40	01...	2230	17	40	1.8
16...	0230	2.6	57	.40	01...	2330	7.9	31	.66
16...	1615	15	436	18	02...	0940	10	9	.24
16...	1900	21	310	18	09...	1315	11	254	7.5
16...	2300	8.1	48	1.0	09...	1345	12	188	6.1
17...	0230	15	64	2.6	09...	1415	42	1310	149
17...	0630	7.7	42	.87	09...	1445	81	768	168
17...	0930	5.0	27	.36	09...	1515	96	1270	328
18...	1545	6.6	275	4.9	09...	1531	100	1460	394
18...	1615	13	361	13	09...	1600	101	1070	292
18...	1715	29	171	13	09...	1700	93	474	119
18...	1815	57	482	74	09...	1800	78	283	60
18...	1900	66	526	94	09...	1900	65	205	36
18...	2000	68	442	81	12...	0930	5.4	36	.52
18...	2100	65	173	30	19...	1130	3.7	37	.37
18...	2215	73	210	41	21...	0715	2.1	81	.46
19...	0100	89	269	65	25...	1100	1.8	121	.59
19...	0400	70	134	25	26...	0755	1.8	92	.45
19...	0600	46	65	8.1	27...	0745	20	92	5.0
19...	0800	26	58	4.1	27...	0746	20	105	5.7
19...	0920	20	48	2.6	27...	1015	14	39	1.5
19...	1002	18	37	1.8	27...	1215	12	32	1.0
19...	1330	12	30	.97	27...	1415	9.8	27	.71
19...	1600	10	27	.73	DEC				
19...	1800	8.9	23	.55	02...	1215	12	40	1.3
19...	2030	7.5	21	.43	02...	1400	12	71	2.3
19...	2200	6.9	22	.41	03...	1035	9.4	22	.56
20...	0330	5.4	27	.39	11...	2100	14	484	18
20...	1330	4.0	47	.51	11...	2200	18	296	14
21...	0300	8.3	44	.99	11...	2230	20	309	17
21...	0430	11	62	1.8	11...	2300	21	262	15
21...	0515	12	59	1.9	11...	2330	20	252	14
21...	0600	13	50	1.8	12...	0200	14	134	5.1
21...	0645	14	54	2.0	15...	2345	17	50	2.3
21...	0815	16	55	2.4	16...	0045	18	44	2.1
21...	1330	13	34	1.2	16...	0130	17	43	2.0
21...	1530	11	27	.80	16...	0230	17	38	1.7
21...	1700	9.6	35	.91	16...	0345	18	35	1.7
21...	2000	7.7	19	.40	16...	0600	16	23	.99
21...	2300	3.2	18	.16	17...	0925	8.6	5	.12
22...	0200	5.7	30	.46	28...	0100	17	313	14
22...	0945	4.2	102	1.2	28...	0145	21	258	15
27...	1745	16	938	41	28...	0300	24	215	14
27...	1930	23	244	15	28...	0415	27	132	9.6
27...	2130	51	371	51	28...	0545	29	121	9.5
28...	0015	33	89	7.9	28...	0645	29	96	7.5
28...	0710	9.9	19	.51	29...	0200	50	2460	332

ROCK RIVER BASIN

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
DEC, 1984					MAR, 1985				
29...	0300	72	1050	205	31...	1430	17	111	5.1
29...	0400	88	686	163	31...	1330	16	50	2.2
29...	0500	95	628	161	APR				
29...	0700	92	303	75	09...	0800	4.9	44	.58
29...	0800	84	232	53	MAY				
FEB, 1985					15...	0740	1.9	27	.14
21...	1015	--	295	8.0	22...	0715	.53	28	.04
21...	1145	--	290	7.8	24...	1327	.70	15	.03
21...	1415	--	357	9.6	26...	1945	23	712	44
21...	1715	--	218	5.9	26...	2026	18	174	8.5
21...	2015	--	360	9.7	26...	2100	17	198	9.1
21...	2245	--	189	5.1	27...	0115	30	50	4.1
22...	0615	--	116	13	JUN				
22...	0815	--	102	11	17...	1400	.88	22	.05
22...	1045	--	104	11	19...	1030	--	9	.02
22...	1315	--	128	14	JUL				
22...	2200	--	118	13	01...	1210	.88	15	.04
23...	0100	--	142	17	14...	0230	18	191	9.3
23...	0400	--	144	17	14...	0300	48	647	84
23...	0600	--	127	15	14...	0315	50	417	56
23...	0900	--	109	13	14...	0330	48	223	29
23...	1300	--	71	8.6	14...	0400	44	153	18
23...	1500	--	94	11	14...	0430	39	151	16
24...	1600	--	106	17	14...	0515	31	100	8.4
24...	2200	--	62	11	14...	0545	26	103	7.2
MAR					14...	0615	21	138	7.8
01...	1630	21	210	12	14...	0645	17	144	6.6
01...	1800	23	104	6.5	14...	0715	14	151	5.7
01...	1830	23	105	6.5	14...	0731	13	264	9.3
01...	2000	22	103	6.1	AUG				
01...	2130	19	60	3.1	07...	1100	.77	16	.03
01...	2200	19	52	2.7	13...	0215	37	206	21
04...	1245	22	410	24	13...	0300	36	70	6.8
04...	1345	27	452	33	13...	0345	30	140	11
04...	1430	29	230	18	13...	0630	13	129	4.5
04...	1515	18	262	13	13...	0820	5.3	41	.59
04...	1545	17	255	12	21...	1330	.44	41	.05
04...	1615	17	254	12	24...	2300	21	271	15
04...	1700	16	171	7.4	24...	2330	21	100	5.7
04...	1845	27	81	5.9	24...	2400	22	171	10
08...	1430	25	125	8.4	25...	0030	22	104	6.2
08...	1615	34	264	24	25...	0115	21	76	4.3
08...	1715	36	271	26	25...	0145	20	66	3.6
08...	1745	36	216	21	25...	0245	15	54	2.2
08...	1845	35	129	12	SEP				
08...	2015	30	85	6.9	08...	1400	102	730	201
28...	0145	31	1810	151	08...	1415	106	628	180
28...	0215	44	674	80	08...	1500	114	597	184
28...	0245	51	737	101	08...	1530	115	319	99
28...	0315	53	856	122	08...	1545	115	246	76
28...	0345	53	675	97	08...	1546	115	183	57
28...	0415	48	491	64	08...	1600	114	190	58
28...	0515	40	350	38	08...	1715	102	91	25
28...	0545	36	284	28	08...	1800	94	68	17
28...	0645	30	184	15	08...	1900	80	75	16
28...	0715	27	212	15	08...	1930	72	79	15
28...	0745	25	203	14	09...	1045	27	75	5.5
28...	0800	24	228	15	16...	1250	1.3	39	.14
31...	1300	17	125	5.7	30...	0805	.97	10	.03

ROCK RIVER BASIN

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI--CONTINUED

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)										
1	29	.04	257	58	15	.12	27	.36	9	.02	54	2.7
2	30	.04	12	.36	34	.61	25	.27	9	.03	31	1.1
3	30	.05	8	.14	25	.25	23	.23	9	.03	14	.31
4	31	.06	7	.10	21	.14	21	.21	9	.03	128	7.4
5	32	.06	7	.08	20	.11	19	.17	9	.03	31	1.4
6	33	.07	6	.06	19	.10	19	.16	9	.03	21	.63
7	87	3.6	5	.05	18	.09	18	.15	9	.02	14	.46
8	73	.20	5	.06	17	.09	18	.13	9	.02	61	4.9
9	83	.17	191	36	16	.08	17	.12	9	.02	31	1.4
10	85	.14	69	2.6	15	.08	17	.11	9	.03	28	1.2
11	88	.13	43	.83	55	2.1	16	.10	9	.03	32	1.4
12	70	.47	37	.34	57	2.0	16	.10	9	.03	28	.85
13	26	.05	36	.45	20	.40	15	.09	9	.03	26	.75
14	22	.04	36	.50	21	.70	15	.09	9	.03	25	.68
15	52	.68	36	.46	26	1.2	15	.09	9	.03	23	.47
16	94	3.6	37	.38	19	.79	14	.07	9	.03	22	.38
17	30	.60	37	.29	6	.11	14	.07	11	.04	21	.31
18	110	15	37	.29	5	.06	14	.06	13	.05	19	.28
19	64	9.9	39	.29	5	.05	13	.05	15	.06	18	.25
20	35	.39	58	.37	5	.04	13	.05	17	.07	17	.20
21	36	1.2	81	.47	5	.40	13	.05	183	6.6	16	.16
22	77	.85	91	.55	5	.13	12	.05	118	13	15	.13
23	79	.59	100	.61	5	.03	12	.05	102	12	15	.50
24	62	.36	110	.58	5	.03	12	.05	89	15	17	1.1
25	48	.27	115	.57	5	.03	11	.04	52	4.3	17	.19
26	38	.20	91	.48	5	.03	11	.04	43	1.8	14	.13
27	115	7.5	87	4.6	21	.33	11	.04	35	1.1	11	.70
28	22	.86	18	.33	90	5.6	11	.04	34	1.2	219	18
29	14	.14	17	.20	272	47	10	.03	---	---	50	.98
30	12	.09	16	.16	42	1.1	10	.03	---	---	27	.37
31	49	1.9	---	---	32	.55	10	.03	---	---	56	2.0
TOTAL	---	49.25	---	110.40	---	64.35	---	3.13	---	55.66	---	51.33

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)										
1	47	.98	33	.10	20	.04	15	.01	17	.01	23	.02
2	47	.72	32	.09	20	.04	14	.12	17	.01	23	.02
3	46	.85	32	.08	20	.04	14	.02	16	.01	22	.03
4	46	.90	31	.07	20	.04	13	.04	16	.01	21	.02
5	46	3.2	31	.18	20	.04	13	.03	16	.02	21	.02
6	45	1.6	30	.08	20	.03	13	.01	16	.02	20	.02
7	45	1.2	30	.09	20	.04	12	.01	16	.04	20	.02
8	44	.73	30	.06	21	.04	12	.01	16	.02	97	20
9	44	.59	29	.06	21	.04	11	.01	15	.01	50	17
10	43	.49	29	.06	21	.04	11	.01	15	.12	29	.18
11	43	.45	28	.06	21	.06	10	.01	15	.02	31	.10
12	42	.40	28	.13	21	.05	10	.01	14	.01	32	.06
13	42	.41	28	.05	21	.04	10	.04	63	2.0	34	.05
14	41	.35	27	.05	22	.04	105	4.5	41	.05	35	.05
15	40	.33	27	.90	22	.23	22	.03	41	.04	37	.05
16	40	.28	27	.27	22	.40	19	.02	41	.05	38	.06
17	39	.23	27	.15	21	.08	19	.02	41	.04	35	.12
18	39	.27	27	.05	14	.03	19	.02	41	.05	32	.05
19	38	.22	28	.05	9	.02	18	.09	41	.05	29	.04
20	38	.20	28	.05	9	.02	18	.02	41	.05	26	.04
21	37	.17	28	.04	10	.02	18	.01	41	.05	24	.20
22	37	.19	26	.04	10	.03	18	.02	40	.05	22	.04
23	36	.46	20	.03	11	.02	18	.01	39	.04	20	.13
24	36	.28	15	.03	11	.01	18	.02	47	.62	18	.04
25	35	.18	12	.02	12	.01	18	.22	37	.71	16	.04
26	35	.15	47	2.1	12	.01	17	.02	28	.04	15	.02
27	34	.13	36	.99	13	.01	17	.01	27	.03	13	.02
28	34	.13	19	.07	13	.01	17	.01	26	.03	12	.01
29	33	.13	19	.05	14	.01	17	.01	26	.23	11	.01
30	33	.11	19	.05	14	.01	17	.03	25	.05	10	.02
31	---	---	19	.05	---	---	17	.15	24	.02	---	---
TOTAL	---	16.33	---	6.10	---	1.50	---	5.54	---	4.50	---	38.48
TOTAL LOAD FOR YEAR:	406.57		TONS.									

ROCK RIVER BASIN
05431016 JACKSON CREEK AT MOUNDS RD NEAR ELKHORN, WI

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)
OCT, 1984						
11...	0740	1.5	.60	2.1	.210	.130
25...	0855	4.5	.90	5.4	.180	.120
NOV						
20...	1350	7.0	1.2	8.2	.300	.200
DEC						
17...	1010	6.5	.70	7.2	.180	.120
JAN, 1985						
24...	0730	5.7	.30	6.0	.140	.080
MAR						
05...	1300	5.1	1.0	6.1	.200	.190
APR						
02...	0945	5.1	.60	5.7	.030	.020
16...	0655	5.1	1.1	6.2	.270	.070
MAY						
01...	0730	3.0	1.0	4.0	.170	.030
22...	0725	1.6	.80	2.4	.220	.200
JUN						
05...	0720	4.1	1.7	5.8	.180	.120
19...	1020	3.3	1.2	4.5	.220	.130
JUL						
10...	0815	.10	2.1	2.2	.550	<.010
23...	1340	.60	1.1	1.7	.260	<.010
AUG						
07...	1115	.20	1.9	2.1	.270	.110
21...	1340	.20	1.3	1.5	.190	.110
SEP						
16...	1305	.70	1.2	1.9	.240	.130
30...	0001	<.10	1.3	--	.250	.080

ROCK RIVER BASIN
05431017 DELAVAN LAKE INLET AT US HWY 50 AT LAKE LAWN, WI

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DIS-CHARGE, CUBIC FEET PER SECOND (00060)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)
OCT, 1984							
07...	1335	E8.9	--	--	--	.390	--
08...	0930	E1.9	--	--	--	.370	--
08...	1345	E1.9	--	--	--	.360	--
08...	1430	E1.9	--	--	--	.380	--
09...	0700	E1.3	--	--	--	.470	--
09...	1055	E1.3	--	--	--	.440	--
09...	1450	E1.3	--	--	--	.380	--
10...	0825	E1.2	--	--	--	.210	--
10...	1500	E1.2	--	--	--	.240	--
11...	0805	E1.1	.10	3.5	3.6	.280	.080
13...	0840	E1.4	.20	3.9	4.1	.280	--
14...	0900	E1.3	.20	4.3	4.5	.280	--
15...	1540	E3.2	<.10	3.7	--	.240	--
16...	1220	E9.5	.10	3.4	3.5	.320	--
17...	1250	E11	.10	3.6	3.7	.220	--
18...	0755	E26	.20	4.0	4.2	.150	--
18...	1155	E26	.20	3.9	4.1	.200	--
18...	1450	E26	.20	4.7	4.9	.180	--
18...	1845	E26	.20	3.6	3.8	.220	--
18...	2345	E26	.20	3.8	4.0	.320	--
19...	0820	E67	1.1	4.4	5.5	.270	--
20...	0845	E18	1.1	3.0	4.1	.290	--
20...	1245	E18	1.3	3.1	4.4	.260	--
20...	1500	E18	2.3	2.9	5.2	.280	--
21...	0715	E26	2.5	3.1	5.6	.270	--
21...	1110	E26	2.3	2.9	5.2	.270	--
21...	1445	E26	2.3	3.0	5.3	.340	--
23...	0810	E11	5.3	.80	6.1	.210	--
23...	1215	E11	5.5	.90	6.4	.210	--
23...	1435	E11	5.3	.80	6.1	.170	--
25...	0910	E7.2	2.7	2.4	5.1	.270	.100
28...	0640	E32	2.7	2.6	5.3	.210	--
28...	1020	E32	2.9	2.7	5.6	.240	--
29...	0730	E17	2.9	2.4	5.3	.360	--
29...	1250	E17	2.9	2.3	5.2	.380	--
NOV							
01...	1255	E164	3.6	1.9	5.5	.480	--
01...	1525	E164	2.1	2.5	4.6	.640	--
02...	0820	E35	3.0	1.9	4.9	.430	--
02...	1145	E55	3.3	1.8	5.1	.520	--
02...	1635	E55	3.4	1.4	4.8	.450	--
03...	1010	E30	4.7	.80	5.5	.570	--
03...	1630	E30	5.3	.80	6.1	.400	--
04...	0755	E21	5.5	1.3	6.8	.390	--
05...	0835	E16	4.3	.90	5.2	.310	--
09...	1640	E71	5.1	3.0	8.1	.180	--
10...	0730	E60	8.6	1.3	9.9	.210	--
10...	0945	E60	3.8	2.1	5.9	.240	--
10...	1305	E60	10	1.9	12	.200	--
11...	0930	E30	9.8	2.5	12	.190	--
11...	1345	E30	9.7	2.2	12	.180	--
12...	1015	E21	4.6	2.8	7.4	.260	--
13...	0730	E17	4.3	5.5	9.8	.250	--
20...	1405	E6.8	5.8	1.8	7.6	.150	.130
27...	0835	E34	3.6	1.9	5.5	.210	--
27...	1600	E34	3.4	1.9	5.3	.130	--
28...	0800	E26	3.2	3.0	6.2	.280	--
DEC							
17...	1020	E30	3.2	.80	4.0	.240	.070
JAN, 1985							
24...	1630	E3.0	5.6	.20	5.8	.080	.040
FEB							
22...	1500	E157	2.9	2.4	5.3	.350	--
23...	0730	E174	2.1	1.3	3.4	.240	--
23...	1600	E174	2.2	1.2	3.4	.250	--
24...	0730	E216	2.6	1.3	3.9	.250	--
24...	1430	E216	2.9	1.2	4.1	.280	--
MAR							
05...	1325	E77	4.4	1.2	5.6	.260	.210
28...	0835	E48	5.6	.90	6.5	.180	--
28...	1140	E48	5.7	1.2	6.9	.140	--

E ESTIMATED VALUE.

ROCK RIVER BASIN

05431017 DELAVAN LAKE INLET AT US HWY 50 AT LAKE LAWN, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	DIS- CHARGE, IN CUBIC FEET PER SECOND (00060)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00671)
MAR, 1985							
28...	1515	E48	5.5	1.0	6.5	.180	--
29...	0820	E26	5.4	.80	6.2	.140	--
29...	1325	E26	3.2	1.4	4.6	.260	--
APR							
02...	1350	E19	3.0	1.3	4.3	.160	.060
16...	0720	E9.2	3.0	1.6	4.6	.430	.020
MAY							
01...	0755	E3.4	.20	3.1	3.3	.290	<.010
22...	0740	E1.3	<.10	5.3	--	.860	.060
27...	0945	E31	<.10	9.3	--	.590	--
27...	1910	E31	.20	10	10	.420	--
27...	2026	E31	2.1	10	12	3.80	--
JUN							
05...	0735	E2.5	.10	7.0	7.1	.400	.090
19...	1005	E1.7	.20	4.8	5.0	.340	.120
JUL							
10...	0900	E.46	.10	6.4	6.5	.670	.100
14...	0810	E11	.10	6.6	6.7	.890	--
23...	1355	E.55	.30	1.7	2.0	.410	.160
AUG							
07...	1300	E1.2	.10	3.6	3.7	.370	.060
21...	1510	E.82	<.10	2.3	--	.120	.010
SEP							
04...	0800	E.55	<.10	3.0	--	.370	.100
04...	0900	E.55	<.10	3.0	--	.230	.040
16...	1315	E.81	.80	1.2	2.0	.200	.130
30...	0001	E1.0	<.10	1.8	--	.230	.020

E ESTIMATED VALUE.

ROCK RIVER BASIN

423602088344600 BULK PRECIPITATION COLLECTOR AT D.L.S.D. NEAR DELAVAN, WI

LOCATION.--Lat 42°36'02", long 88°34'46", in SW 1/4 SW 1/4 sec.25, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, at the Delavan Lake Sanitation District Administration building, on east side of County Highway F, 1.1 mi south of State Highway 50, and 4.0 mi southeast of Delavan.

PERIOD OF RECORD.--October 1984 to September 1985.

INSTRUMENTATION.-- Open stainless steel collector.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
1984					
OCT 01 - OCT 07	.30	--	.20	.50	<.010
OCT 13 - OCT 17	.50	--	.90	1.4	.020
OCT 18 - OCT 21	.20	.220	.30	.50	<.010
OCT 25 - NOV 07	.20	.130	.70	.90	.010
NOV 08 - NOV 10	.60	--	.40	1.0	<.010
NOV 27 - NOV 30	.40	--	.10	.50	<.010
DEC 01 - DEC 02	.40	--	.10	.50	<.010
DEC 11 - DEC 13	.60	.360	.40	1.0	<.010
DEC 14 - DEC 31	.60	.350	.60	1.2	.020
1985					
JAN 01 - JAN 17	.60	.350	.60	1.2	.020
JAN 18 - MAR 09	.60	.020	1.0	1.6	<.010
MAR 06 - APR 02	.60	.970	1.7	2.3	.260
APR 05 - APR 06	.80	--	.90	1.7	.030
APR 16 - MAY 01	<.10	--	1.3	--	<.010
MAY 22	.70	--	.50	1.2	<.010
MAY 27 - JUN 05	.40	.690	1.2	1.6	<.010
JUN 05 - JUL 08	.60	--	2.6	3.2	.310
JUL 08 - JUL 15	.50	--	.50	1.0	<.010
JUL 15 - AUG 07	.50	--	.60	1.1	<.010
AUG 07 - AUG 21	.30	.240	.60	.90	.030
AUG 26 - SEP 09	.20	--	.50	.70	.060

ROCK RIVER BASIN

05431018 DELAVAN LAKE TRIBUTARY AT SOUTH SHORE DRIVE AT DELAVAN LAKE, WI

LOCATION.--43°35'08", long 88°37'19", in SE 1/4 SE 1/4 sec.32, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, on left bank at bridge on South Shore Drive, at Delavan Lake, and 0.3 mi upstream from Delavan Lake.

DRAINAGE AREA.--9.99 mi², of which 2.33 mi² is non-contributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 930 ft, from topographic map.

REMARKS.--Artificial weir. Estimated daily discharges Aug. 29 to Sept. 3 and ice periods listed in rating table below. Records good except for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22 ft³/s July 14, 1985, gage height, 6.56 ft; minimum daily discharge, 0.15 ft³/s Sept. 3, 4, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft³/s July 14, gage height, 6.56 ft; minimum daily discharge, 0.15 ft³/s Sept. 3, 4.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5-7, 24-26, Jan. 2-7, 19-21, 26, 27, Feb. 1-4, 15-20.)

Dec. 4 to Sept. 30

5.69	0.22	6.1	5.0
5.73	.35	6.2	7.6
5.80	.77	6.3	11
5.90	1.7	6.4	14
6.00	3.1	6.5	19

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	5.5	1.7	3.6	.54	7.7	2.2	.50	.41	.21	.99	.17
2	.30	6.2	1.6	3.0	.52	7.3	2.1	.51	.51	.30	.60	.16
3	.31	5.3	1.5	2.5	.50	5.9	2.6	.46	.49	.30	.57	.15
4	.31	4.2	1.4	2.1	.48	6.7	2.9	.44	.41	.26	.25	.15
5	.29	3.3	1.4	1.8	.46	6.6	2.7	.54	.44	.36	.28	.25
6	.30	2.7	1.2	1.6	.45	6.1	2.9	.47	.43	.37	.27	.30
7	.79	2.3	.95	1.5	.41	5.2	3.1	.44	.40	.32	.28	.27
8	.36	1.9	.81	1.4	.36	5.2	3.1	.43	.43	.34	.27	1.4
9	.35	3.0	.77	1.4	.35	5.5	2.7	.40	.45	.32	.22	.95
10	.35	4.4	.77	1.3	.35	4.8	2.3	.40	.36	.26	.31	.58
11	.36	4.1	.83	1.2	.39	4.8	1.9	.40	.37	.25	.20	.45
12	.59	3.3	1.2	1.2	.47	4.2	1.9	.53	.31	.95	.22	.41
13	.52	2.8	1.3	1.1	.51	3.9	1.7	.45	.31	1.4	2.8	.38
14	.48	2.3	1.5	1.0	.46	3.9	1.6	.45	.30	4.5	.64	.37
15	.66	2.0	1.7	1.0	.38	3.6	1.6	.71	.49	.36	.50	.40
16	.80	1.7	2.1	.96	.33	3.0	1.5	.59	.37	.30	.39	.40
17	1.0	1.5	2.1	.85	.32	2.7	1.4	.54	.34	.42	.39	.39
18	1.4	1.5	2.1	.84	.31	2.5	1.2	.45	.30	.38	.38	.38
19	2.5	1.4	1.9	.80	.31	2.2	1.0	.43	.28	.37	.26	.35
20	1.5	1.2	1.6	.76	.31	1.9	.92	.40	.30	.41	.25	.30
21	1.4	1.1	1.6	.74	.94	1.8	.87	.40	.56	.35	.23	.50
22	1.3	1.0	1.6	.70	2.2	1.7	.78	.42	.49	.42	.36	.37
23	1.1	.98	1.5	.70	6.1	1.7	.86	.45	.40	.39	.32	.32
24	.95	.92	1.4	.65	12	2.0	.91	.40	.34	.42	.16	.29
25	.92	.92	1.2	.63	15	1.9	.74	.73	.31	.67	.30	.32
26	.85	.92	1.1	.60	13	1.7	.60	3.9	.31	.36	.26	.32
27	1.0	1.7	1.0	.58	11	2.3	.57	2.8	.31	.30	.21	.28
28	1.4	1.7	1.8	.57	8.8	3.4	.56	.72	.25	.27	.19	.28
29	1.6	1.8	4.3	.57	---	2.6	.51	.60	.22	.27	.17	.29
30	1.6	1.8	5.9	.57	---	2.6	.51	.54	.21	.99	.20	.29
31	1.5	---	4.4	.56	---	2.7	---	.45	---	1.2	.18	---
TOTAL	27.07	73.44	54.23	36.78	77.25	118.1	48.23	20.95	11.10	18.02	12.65	11.47
MEAN	.87	2.45	1.75	1.19	2.76	3.81	1.61	.68	.37	.58	.41	.38
MAX	2.5	6.2	5.9	3.6	15	7.7	3.1	3.9	.56	4.5	2.8	1.4
MIN	.28	.92	.77	.56	.31	1.7	.51	.40	.21	.21	.16	.15
CFSM	.09	.25	.18	.12	.28	.38	.16	.07	.04	.06	.04	.04
IN.	.10	.27	.20	.14	.29	.44	.18	.08	.04	.07	.05	.04
CAL YR 1984	TOTAL	614.65	MEAN	1.68	MAX	17	MIN	.23	CFSM	.17	IN	2.29
WTR YR 1985	TOTAL	509.29	MEAN	1.40	MAX	15	MIN	.15	CFSM	.14	IN	1.90

ROCK RIVER BASIN

05431018 DELAVAN LAKE TRIBUTARY AT SOUTH SHORE DRIVE AT DELAVAN LAKE, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

PERIOD OF DAILY RECORD.--

- SUSPENDED-SEDIMENT DISCHARGE: October 1983 to current year.
- TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: October 1983 to current year.
- TOTAL NITRITE PLUS NITRATE DISCHARGE: October 1983 to current year.
- TOTAL PHOSPHORUS DISCHARGE: October 1983 to current year.

INSTRUMENTATION.--Automatic pumping sampler since November 1983.

REMARKS.--Records good.

COOPERATION.--Observer furnished by Delavan Lake Sanitary District.

EXTREMES FOR PERIOD OF RECORD.--

- SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 7,720 mg/L May 26, 1985; minimum observed, 1 mg/L on several days during 1984.
- SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 23 tons May 26, 1985; minimum daily, 0.01 ton on many days during 1984 and 1985.
- TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 13 mg/L June 18, 1984; minimum observed, 0.20 mg/L Jan. 24, 1985.
- TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Maximum daily, 495 lb Feb. 13, 1984; minimum daily, 0.61 lb Sept. 22-23, 1984.
- TOTAL NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 5.20 mg/L June 19, 1985; minimum observed, 0.20 mg/L May 27, 1984 and July 23, 1985.
- TOTAL NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 102 lb Feb. 25, 1985; minimum daily, 0.53 lb July 23, 1985.
- TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 1.20 mg/L July 14, 1985; minimum observed, 0.04 mg/L Mar. 13, 1984.
- TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 21 lb Feb. 24, 1985; minimum daily, 0.01 lb Aug. 12, 1985.

EXTREMES FOR CURRENT YEAR.--

- SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 7,720 mg/L May 26; minimum observed, 3 mg/L Nov. 19.
- SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 23 tons May 26; minimum daily, 0.01 ton on several days.
- TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 7.80 mg/L July 14; minimum observed, 0.20 mg/L Jan. 24.
- TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Maximum daily, 126 lb Feb. 24; minimum daily, 0.18 lb Feb. 18-20.
- TOTAL NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 5.20 mg/L June 19; minimum observed, 0.20 mg/L July 23.
- TOTAL NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 102 lb Feb. 25; minimum daily, 0.53 lb July 23.
- TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 1.20 mg/L July 14; minimum observed, <0.10 mg/L Aug. 7.
- TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 21 lb Feb. 24; minimum daily, 0.01 lb Aug. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NITRO- GEN AM- MONIA + NITRO- GEN, PHOS- PHORUS, TOTAL (MG/L AS P)			
			NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	ORGANIC TOTAL (MG/L AS N) (00625)	TOTAL (MG/L AS N) (00600)	TOTAL (MG/L AS P) (00665)
OCT, 1984						
08...	0805	.35	3.2	.40	3.6	.160
12...	0835	.47	3.4	.60	4.0	.260
18...	1845	2.5	1.0	1.3	2.3	.210
18...	2145	2.8	.70	1.1	1.8	.240
19...	0615	2.6	.50	1.0	1.5	.260
19...	1245	2.5	1.3	2.4	3.7	.570
19...	1246	2.5	1.1	2.6	3.7	.550
20...	1130	1.5	1.0	2.2	3.2	.500
25...	0820	.92	1.6	1.1	2.7	.230
NOV						
01...	0345	3.3	.90	1.2	2.1	.240
01...	0515	7.6	.40	1.4	1.8	.370
01...	0731	6.2	.40	1.4	1.8	.530
01...	0945	5.1	.50	.80	1.3	.250
01...	1500	6.2	.80	1.7	2.5	.550
01...	1501	6.2	.70	1.6	2.3	.610
02...	0730	6.2	.40	1.4	1.8	.550
09...	1600	5.3	.50	4.1	4.6	.370
21...	0810	1.1	1.5	1.5 3 . 0	0	.110
27...	0915	1.6	1.3	1.1	2.4	.140
DEC						
12...	1045	1.2	1.4	.70	2.1	.120
17...	0835	2.1	.50	.60	1.1	.090
JAN, 1985						
03...	0415	--	.70	.60	1.3	.080
03...	0845	--	.80	.80	1.6	.060
03...	1145	--	.80	.70	1.5	.060
24...	0805	.70	2.7	.20	2.9	.050
FEB						
22...	0945	1.5	1.6	.80	2.4	.110
23...	1545	7.3	1.3	1.9	3.2	.460

ROCK RIVER BASIN

05431018 DELAVAN LAKE TRIBUTARY AT SOUTH SHORE DRIVE AT DELAVAN LAKE, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
DEC, 1984					MAY, 1985				
12...	1045	1.2	6	.02	26...	2200	16	2030	88
17...	0835	2.1	4	.02	26...	2300	11	637	19
24...	0905	--	217	.82	JUN				
JAN, 1985					05...	0755	.45	89	.11
03...	0445	--	8	.05	19...	0945	.28	24	.02
03...	0915	--	9	.06	24...	1055	.35	20	.02
03...	1215	--	6	.04	JUL				
07...	0840	--	155	.63	01...	1600	.22	38	.02
14...	1010	1.0	148	.40	08...	1230	.35	220	.21
21...	0930	--	32	.06	10...	1410	.25	166	.11
24...	0805	.70	26	.05	14...	0145	7.0	188	3.6
29...	0935	.57	115	.18	14...	0345	18	730	35
FEB					14...	0400	19	1200	62
04...	0935	--	104	.13	14...	0445	22	466	28
22...	0945	1.5	140	.57	14...	0515	19	865	44
23...	1515	7.3	42	.83	14...	0545	14	517	20
23...	1745	7.9	41	.87	14...	0615	9.7	131	3.4
24...	0245	10	41	1.1	14...	0745	6.0	319	5.2
24...	1015	11	54	1.6	14...	0845	4.2	296	3.4
24...	1130	13	151	5.3	14...	0846	4.2	235	2.7
24...	1445	13	47	1.6	22...	1115	.51	99	.14
24...	2245	14	33	1.2	23...	1420	.51	150	.21
25...	0545	15	30	1.2	AUG				
25...	1145	15	23	.93	05...	1050	.28	129	.10
MAR					07...	1245	.35	115	.11
05...	1020	8.3	110	2.5	13...	0215	12	1390	45
11...	1000	4.8	162	2.1	13...	0345	13	1190	42
18...	1000	2.6	80	.56	13...	0545	9.1	155	3.8
25...	1010	1.9	104	.53	13...	0715	4.6	281	3.5
28...	0915	4.2	142	1.6	21...	1410	.22	88	.05
APR					SEP				
02...	1235	2.1	84	.48	03...	1005	.15	79	.03
09...	0725	2.8	44	.33	04...	0820	.12	141	.05
15...	0852	1.6	76	.33	08...	1400	10	2230	60
16...	0730	1.5	68	.28	08...	1430	7.0	1460	28
22...	0935	.77	111	.23	08...	1500	4.6	865	11
MAY					08...	1600	4.4	537	6.4
01...	0805	.51	205	.28	08...	1630	4.4	385	4.6
06...	0900	.45	218	.26	08...	1700	4.4	403	4.8
20...	0855	.40	213	.23	08...	1701	4.4	402	4.8
22...	0755	.40	186	.20	08...	1800	3.5	220	2.1
26...	2000	13	7720	271	08...	1830	3.0	197	1.6
26...	2100	16	468	20	16...	1200	.40	56	.06
26...	2130	17	3930	180	23...	1030	.17	28	.01
					30...	0905	.35	18	.02

ROCK RIVER BASIN

423526088380101 DELAVAN LAKE AT SW END NEAR DELAVAN LAKE, WI

LOCATION.--Lat 42°35'26", long 88°38'01", sec. 32, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, 2.6 mi southeast of Delavan.

DRAINAGE AREA.--41.2 mi².

PERIOD OF RECORD.--October 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	LAKE STAGE ABOVE DATUM (00065)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TRANS-PAR-ENCY (SECCHI DISK) (M) (00078)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT, 1984									
11...	1150	--	--	--	--	--	1.0	--	--
11...	1155	3.00	4.94	500	8.2	17.0	--	.1	<.10
11...	1200	30.0	4.94	500	8.1	17.0	--	.1	.10
24...	1215	3.00	4.90	490	8.8	12.0	--	.1	<.10
24...	1220	30.0	4.90	490	8.6	12.0	--	.1	<.10
NOV									
20...	1140	--	--	--	--	--	2.1	--	--
20...	1145	3.00	4.46	490	8.9	5.5	--	<.1	.40
20...	1150	29.0	4.46	490	8.6	5.0	--	<.1	.40
DEC									
18...	1135	--	--	--	--	--	4.5	--	--
18...	1140	3.00	4.42	510	8.6	2.0	--	.1	.30
18...	1145	30.0	4.42	510	8.5	2.0	--	.1	.20
JAN, 1985									
24...	1315	--	--	--	--	--	6.5	--	--
24...	1320	3.00	4.38	550	8.2	1.0	--	.1	.70
24...	1325	30.0	4.38	510	8.0	1.0	--	.1	.70
24...	1330	42.0	4.38	520	8.0	1.5	--	.2	.70
MAR									
06...	1210	3.00	5.24	520	8.9	2.0	--	1.5	.90
06...	1215	36.0	5.24	530	8.6	2.5	--	.4	.70
06...	1220	42.0	5.24	550	8.4	2.5	--	1.4	.80
APR									
03...	1100	--	--	--	--	--	1.5	--	--
03...	1105	3.00	5.08	500	8.8	4.5	--	<.1	1.1
03...	1110	30.0	5.08	500	8.8	4.5	--	<.1	1.1
16...	0940	--	--	--	--	--	2.6	--	--
16...	0945	30.0	4.75	520	8.9	6.5	--	.1	1.1
16...	0950	3.00	4.75	520	8.9	8.0	--	<.1	1.1

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)
OCT, 1984								
11...	--	--	--	--	--	--	--	--
11...	--	--	1.4	--	.160	.090	7.50	<.100
11...	--	--	1.0	1.1	.140	.160	--	--
24...	--	--	1.1	--	.160	.110	5.90	<.100
24...	--	--	1.4	--	.150	.110	--	--
NOV								
20...	--	--	--	--	--	--	--	--
20...	--	--	1.6	2.0	.130	.120	2.40	<.100
20...	--	--	1.6	2.0	.130	.120	--	--
DEC								
18...	--	--	--	--	--	--	--	--
18...	--	--	1.0	1.3	.120	.100	2.30	<.100
18...	--	--	.70	.90	.100	.090	--	--
JAN, 1985								
24...	--	--	--	--	--	--	--	--
24...	--	--	.50	1.2	.130	.110	2.20	<.100
24...	--	--	.60	1.3	.130	.110	--	--
24...	--	--	.50	1.2	.140	.120	--	--
MAR								
06...	.390	.81	1.2	2.1	.100	.040	<.100	<.100
06...	.480	1.0	1.5	2.2	.100	.090	--	--
06...	.750	.75	1.5	2.3	.170	.170	--	--
APR								
03...	--	--	--	--	--	--	--	--
03...	.270	.53	.80	1.9	.130	.060	8.10	<.100
03...	.260	.54	.80	1.9	.140	.060	--	--
16...	--	--	--	--	--	--	--	--
16...	.240	.76	1.0	2.1	.110	.060	--	--
16...	.210	.59	.80	1.9	.110	.050	.400	<.100

ROCK RIVER BASIN

423526088380101 DELAVAN LAKE AT SW END NEAR DELAVAN LAKE, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	LAKE STAGE (FT ABOVE DATUM) (00065)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TRANS-PAR-ENCY (SECCHI DISK) (M) (00078)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
MAY, 1985									
01...	1125	--	--	--	--	--	1.1	--	--
01...	1130	30.0	4.52	530	9.3	14.5	--	<.1	.90
01...	1135	3.00	4.52	530	9.4	14.5	--	<.1	.90
22...	1005	--	--	--	--	--	5.1	--	--
22...	1010	30.0	4.68	560	8.5	17.0	--	.5	.80
22...	1015	25.0	4.68	550	8.5	17.5	--	.3	.70
22...	1020	3.00	4.68	550	8.8	17.5	--	.5	.80
JUN									
05...	0955	--	--	--	--	--	1.5	--	--
05...	1000	3.00	4.82	540	8.9	19.5	--	.5	.70
05...	1020	25.0	4.82	550	8.6	18.5	--	1.0	.70
05...	1025	30.0	4.82	560	8.5	18.0	--	1.1	.70
19...	1030	--	--	--	--	--	1.5	--	--
19...	1035	30.0	4.88	540	8.6	19.0	--	.5	.50
19...	1040	25.0	4.88	540	8.6	19.0	--	.5	.40
19...	1045	3.00	4.88	540	8.9	19.5	--	.3	.40
JUL									
10...	1150	--	--	--	--	--	.5	--	--
10...	1155	30.0	4.90	540	8.2	20.5	--	1.7	.20
10...	1200	25.0	4.90	530	8.4	24.0	--	1.3	.10
10...	1205	3.00	4.90	470	9.0	25.5	--	.4	--
24...	0950	--	--	--	--	--	.6	--	--
24...	0955	30.0	5.04	530	8.0	22.0	--	1.5	.10
24...	1000	25.0	5.04	510	8.1	23.0	--	1.1	<.10
24...	1005	3.00	5.04	470	8.9	24.5	--	.4	<.10
AUG									
08...	0840	--	--	--	--	--	.6	--	--
08...	0855	3.00	5.00	498	8.5	24.5	--	.9	<.10
08...	0900	18.0	5.00	506	8.2	23.5	--	1.1	.10
08...	0905	27.0	5.00	520	7.8	22.5	--	1.4	.10
08...	0910	30.5	5.00	530	7.8	22.0	--	1.8	<.10
22...	1110	--	--	--	--	--	1.9	--	--
22...	1115	30.5	4.99	490	8.6	23.0	--	1.5	<.10
22...	1120	25.0	4.99	490	8.7	23.0	--	1.2	<.10
22...	1125	3.00	4.99	490	9.0	23.5	--	1.3	<.10

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)
MAY, 1985								
01...	--	--	--	--	--	--	--	--
01...	.020	.98	1.0	1.9	.040	<.010	--	--
01...	<.010	--	1.0	1.9	.070	<.010	19.0	<.100
22...	--	--	--	--	--	--	--	--
22...	.360	.54	.90	1.7	.070	.050	--	--
22...	--	--	.60	1.3	.070	.050	--	--
22...	.370	.63	1.0	1.8	.080	.060	5.80	<.100
JUN								
05...	--	--	--	--	--	--	--	--
05...	.170	1.2	1.4	2.1	.070	.030	8.20	<.100
05...	.330	.67	1.0	1.7	.100	.070	--	--
05...	.370	.63	1.0	1.7	.100	.080	--	--
19...	--	--	--	--	--	--	--	--
19...	.290	.71	1.0	1.5	.090	.070	--	--
19...	--	--	1.0	1.4	.090	.050	--	--
19...	.130	1.2	1.3	1.7	.090	.030	9.80	<.100
JUL								
10...	--	--	--	--	--	--	--	--
10...	.590	.71	1.3	1.5	.171	.144	--	--
10...	--	--	1.3	1.4	.117	.088	--	--
10...	--	--	2.0	--	--	.002	100	<.100
24...	--	--	--	--	--	--	--	--
24...	.620	.78	1.4	1.5	.111	.106	--	--
24...	--	--	1.4	--	.096	.087	--	--
24...	.040	1.7	1.7	--	.107	.002	47.0	<.100
AUG								
08...	--	--	--	--	--	--	--	--
08...	.020	1.8	1.8	--	.086	.012	47.0	<.100
08...	.190	.71	.90	1.0	.086	.051	--	--
08...	.330	.67	1.0	1.1	.100	.087	--	--
08...	.730	.27	1.0	--	.160	.153	--	--
22...	--	--	--	--	--	--	--	--
22...	.140	.76	.90	--	.210	.018	--	--
22...	--	--	1.5	--	.100	.007	--	--
22...	<.10	--	1.6	--	.150	<.001	78.0	<.100

ROCK RIVER BASIN

423526088380101 DELAVAN LAKE AT SW END NEAR DELAVAN LAKE, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM-PLING DEPTH (FEET) (000003)	LAKE STAGE (FT ABOVE DATUM) (00065)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TRANS-PAR-ENCY (SECCHI DISK) (M) (00078)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)		
SEP, 1985											
05...	0955	--	--	--	--	--	1.1	--	--		
05...	1000	30.5	5.04	525	8.4	22.5	--	1.9	<.10		
05...	1010	25.0	5.04	525	8.5	22.5	--	1.8	<.10		
05...	1015	3.00	5.04	525	8.6	22.5	--	1.6	<.10		
18...	1220	--	--	--	--	--	1.0	--	--		
18...	1225	3.00	4.92	495	8.5	20.5	--	1.3	<.10		
18...	1252	21.0	4.92	502	8.2	20.0	--	1.3	<.10		
18...	1255	31.5	4.92	500	8.2	20.0	--	1.3	<.10		
30...	1105	--	--	--	--	--	1.0	--	--		
30...	1110	30.5	4.92	540	8.6	17.5	--	<.1	<.10		
30...	1115	3.00	4.92	570	8.4	17.5	--	<.1	<.10		
DATE	TIME	NITRO-GEN AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)		
SEP, 1985											
05...		--	--	--	--	--	--	--	--		
05...		.370	1.1	1.5	--	.108	.082	--	--		
05...		--	--	1.7	--	.099	.092	--	--		
05...		.210	1.3	1.5	--	.092	.079	14.0	<.100		
18...		--	--	--	--	--	--	--	--		
18...		.510	.59	1.1	--	.141	.124	17.0	<.100		
18...		--	--	1.3	--	.112	.082	--	--		
18...		.440	1.5	1.9	--	.142	.089	--	--		
30...		--	--	--	--	--	--	--	--		
30...		.530	.57	1.1	--	.132	.073	--	--		
30...		.540	.76	1.3	--	.130	.090	6.90	.400		
DATE	TIME	SAM-PLING DEPTH (FEET) (000003)	LAKE STAGE (FT ABOVE DATUM) (00065)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L AS CL) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
APR, 1985											
03...	1105	3.00	5.08	500	8.8	4.5	230	54	41	32	19
03...	1110	30.0	5.08	500	8.8	4.5	230	48	40	31	19
DATE	PERCENT SODIUM (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	
APR, 1985											
03...	15	.6	2.7	180	.5	27	45	.10	<.1	316	
03...	15	.6	2.5	180	.5	27	45	.20	<.1	328	
DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NO2+NO3 (MG/L AS N) (00630)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)	
APR, 1985											
03...	.43	1.1	.80	1.9	.130	.060	<3	1	8.10	<.100	
03...	.45	1.1	.80	1.9	.140	.060	3	2	--	--	

ROCK RIVER BASIN

281

423556088365001 DELAVAN LAKE AT CENTER NEAR DELAVAN LAKE, WI

LOCATION---Lat 42°35'60", long 88°36'50", sec. 28, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, 2.6 mi southeast of Delavan.

DRAINAGE AREA---41.2 mi².

PERIOD OF RECORD---October 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	LAKE STAGE ABOVE DATUM (FT) (00065)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TRANS-PAR-ENCY (SECCHI DISK) (M) (00078)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT, 1984											
11...	1240	--	--	--	--	--	1.0	--	--	--	--
11...	1245	3.00	4.94	490	8.1	17.0	--	.1	--	--	<.10
11...	1250	33.0	4.94	500	7.9	16.5	--	.2	--	--	<.10
11...	1255	51.0	4.94	520	7.5	16.0	--	.9	--	--	<.10
24...	1305	--	--	--	--	--	.9	--	--	--	--
24...	1310	3.00	4.90	490	8.9	12.0	--	.1	--	--	<.10
24...	1315	42.0	4.90	490	8.5	12.0	--	.2	--	--	.10
24...	1320	50.0	4.90	500	8.2	12.0	--	.5	--	--	.10
NOV											
20...	1215	--	--	--	--	--	2.5	--	--	--	--
20...	1220	3.00	4.46	490	8.7	5.5	--	<.1	--	--	.40
20...	1223	30.0	4.46	490	8.5	5.5	--	<.1	--	--	.40
20...	1225	50.0	4.46	490	8.5	5.5	--	<.1	--	--	.40
DEC											
18...	1210	3.00	4.42	510	8.5	2.0	--	.1	--	--	.50
18...	1215	33.0	4.42	510	8.5	2.0	--	.1	--	--	.40
18...	1220	50.0	4.42	510	8.5	2.0	--	.1	--	--	.50
JAN, 1985											
24...	1415	--	--	--	--	--	3.5	--	--	--	--
24...	1420	3.00	4.38	520	8.2	.5	--	.1	--	--	1.1
24...	1425	30.0	4.38	510	8.2	1.5	--	.1	--	--	.70
24...	1430	42.0	4.38	530	8.0	1.5	--	.2	--	--	.80
24...	1440	51.0	4.38	740	7.6	2.5	--	.2	--	--	.80
MAR											
06...	1255	--	--	--	--	--	7.5	--	--	--	--
06...	1300	3.00	5.24	490	8.5	1.5	--	.2	--	--	.70
06...	1305	36.0	5.24	540	8.5	2.0	--	.3	--	--	.70
06...	1310	51.0	5.24	710	8.0	3.0	--	5.9	--	--	1.7
APR											
03...	1210	--	--	--	--	--	1.1	--	--	--	--
03...	1215	50.0	5.08	500	8.8	4.5	--	<.1	--	--	1.1
03...	1220	42.0	5.08	500	8.8	4.5	--	<.1	--	--	1.0
03...	1225	3.00	5.08	500	8.8	4.5	--	<.1	--	--	1.1

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS P) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)
OCT, 1984											
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	1.4	--	.150	.100	--	--	--	7.60	<.100
11...	--	--	1.4	--	.130	.110	--	--	--	--	--
11...	--	--	1.4	--	.230	.170	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	1.1	--	.150	.120	--	--	--	4.30	<.100
24...	--	--	1.2	1.3	.150	.080	--	--	--	--	--
24...	--	--	1.7	1.8	.200	.140	--	--	--	--	--
NOV											
20...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	1.3	1.7	.140	.120	--	--	--	2.40	<.100
20...	--	--	.90	1.3	.150	.130	--	--	--	--	--
20...	--	--	3.4	3.8	.270	.130	--	--	--	--	--
DEC											
18...	--	--	1.0	1.5	.130	.110	--	--	--	<.100	<.100
18...	--	--	1.5	1.9	.140	.050	--	--	--	--	--
18...	--	--	.90	1.4	.130	.110	--	--	--	--	--
JAN, 1985											
24...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	.70	1.8	.150	.110	--	--	--	4.30	<.100
24...	--	--	.60	1.3	.140	.110	--	--	--	--	--
24...	--	--	.50	1.3	.150	.110	--	--	--	--	--
24...	--	--	.50	1.3	.140	.120	--	--	--	--	--
MAR											
06...	--	--	--	--	--	--	--	--	--	--	--
06...	.510	.99	1.5	2.2	.100	.080	--	--	--	<.100	<.100
06...	--	--	1.2	1.9	.100	.070	--	--	--	--	--
06...	1.50	.70	2.2	3.9	.300	.310	--	--	--	--	--
APR											
03...	--	--	--	--	--	--	--	--	--	--	--
03...	.220	.78	1.0	2.1	.180	.080	--	<3	--	--	--
03...	--	--	1.0	2.0	.130	.060	--	--	--	--	--
03...	.260	.74	1.0	2.1	.150	.060	--	3	--	15.0	<.100

ROCK RIVER BASIN

423556088365001 DELAVAN LAKE AT CENTER NEAR DELAVAN LAKE, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM- PLING DEPTH (FEET) (000003)	LAKE STAGE (FT DATE) (00065)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	SILICA, DIS- SOLVED (MG/L AS SI02) (00955)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
APR, 1985											
16...	1045	--	--	--	--	--	2.5	--	--	--	--
16...	1050	50.0	4.75	530	8.8	6.0	--	<.1	--	--	1.1
16...	1055	42.0	4.75	530	8.9	6.0	--	<.1	--	--	1.1
16...	1100	25.0	4.75	520	8.9	6.5	--	<.1	--	--	1.1
16...	1105	3.00	4.75	520	9.0	8.5	--	<.1	--	--	1.1
MAY											
01...	1225	--	--	--	--	--	1.7	--	--	--	--
01...	1230	52.0	4.52	540	8.9	12.0	--	.2	--	--	1.1
01...	1235	42.0	4.52	540	9.0	12.5	--	.1	--	--	1.0
01...	1240	24.0	4.52	530	9.5	13.5	--	<.1	--	--	1.0
01...	1245	3.00	4.52	530	9.7	13.5	--	<.1	--	--	1.0
22...	1120	--	--	--	--	--	4.3	--	--	--	--
22...	1125	50.0	4.68	560	8.4	16.5	--	.9	--	--	.70
22...	1130	42.0	4.68	560	8.5	17.0	--	.6	--	--	.70
22...	1135	25.0	4.68	550	8.5	17.0	--	.5	--	--	.80
22...	1140	3.00	4.68	560	8.5	17.5	--	.5	--	--	.20
JUN											
05...	1150	--	--	--	--	--	1.6	--	--	--	--
05...	1155	3.00	4.82	550	8.7	19.5	--	.5	--	--	.70
05...	1200	25.0	4.82	550	8.7	19.0	--	.6	--	--	.80
05...	1205	42.0	4.82	560	8.3	18.0	--	1.2	--	--	.70
05...	1210	50.0	4.82	570	8.0	17.5	--	1.7	--	--	.60
19...	1300	--	--	--	--	--	1.5	--	--	--	--
19...	1305	50.0	4.88	550	8.1	18.5	--	1.4	.26	.040	.30
19...	1310	46.0	4.88	550	8.2	18.5	--	1.3	.36	.040	.40
19...	1315	40.0	4.88	550	8.3	18.5	--	1.2	.35	.050	.40
19...	1320	36.0	4.88	540	8.4	18.5	--	1.0	.36	.040	.40
19...	1325	30.0	4.88	540	8.5	19.0	--	.6	.36	.040	.40
19...	1330	23.0	4.88	540	8.6	19.5	--	.3	.36	.040	.40
19...	1335	16.0	4.88	530	8.9	20.0	--	.1	.35	.050	.40
19...	1338	9.00	4.88	530	8.8	20.0	--	.1	.36	.040	.40
19...	1340	3.00	4.88	530	8.9	20.0	--	.2	.46	.040	.50
JUL											
10...	1230	--	--	--	--	--	.8	--	--	--	--
10...	1235	50.0	4.90	570	7.7	19.0	--	10	--	--	<.10
10...	1240	42.0	4.90	560	7.9	19.5	--	2.1	--	--	.10
10...	1245	25.0	4.90	530	8.4	24.0	--	2.0	--	--	.10
10...	1250	3.00	4.90	480	9.0	25.0	--	.7	--	--	<.10
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70954)
APR, 1985											
16...	--	--	--	--	--	--	--	--	--	--	--
16...	.270	.43	.70	1.8	.100	.050	--	--	--	--	--
16...	--	--	.70	1.8	.110	.060	--	--	--	--	--
16...	--	--	.70	1.8	.100	.050	--	--	--	--	--
16...	.160	.54	.70	1.8	.110	.040	--	--	3.50	<.100	--
MAY											
01...	.230	.87	1.1	2.2	.100	.040	--	--	--	--	--
01...	--	--	.80	1.8	.080	.060	--	--	--	--	--
01...	--	--	.80	1.8	.060	.020	--	--	--	--	--
01...	.060	.84	.90	1.9	.060	.010	--	--	10.0	<.100	--
22...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	1.5	2.2	.120	.090	--	--	--	--	--
22...	--	--	1.0	1.7	.090	.070	--	--	--	--	--
22...	--	--	1.2	2.0	.080	.060	--	--	--	--	--
22...	.060	1.6	1.7	1.9	.070	.060	--	--	1.80	<.100	--
JUN											
05...	--	--	--	--	--	--	--	--	--	--	--
05...	.120	1.6	1.7	2.4	.080	.030	--	--	<.100	<.100	--
05...	--	--	1.2	2.0	.060	.030	--	--	--	--	--
05...	--	--	1.3	2.0	.120	.100	--	--	--	--	--
05...	.640	1.7	2.3	2.9	.170	.140	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	.640	.66	1.3	1.6	.130	.140	130	<10	20	--	--
19...	.530	.67	1.2	1.6	.130	.130	170	<10	20	--	--
19...	.760	.54	1.3	1.7	.130	.130	90	<10	20	--	--
19...	.420	.68	1.1	1.5	.110	.110	140	20	20	--	--
19...	.340	.66	1.0	1.4	.060	.080	--	--	--	--	--
19...	.200	.80	1.0	1.4	.080	.090	--	--	--	--	--
19...	.180	1.4	1.6	2.0	.030	.020	--	--	--	--	--
19...	.140	1.1	1.2	1.6	.100	.030	--	--	--	--	--
19...	.250	.95	1.2	1.7	.100	.050	80	<10	10	13.0	<.100
JUL											
10...	--	--	--	--	--	--	--	--	--	--	--
10...	.760	.44	1.2	--	.547	.192	--	--	--	--	--
10...	--	--	1.4	1.5	.299	.181	--	--	--	--	--
10...	--	--	1.3	1.4	.093	.044	--	--	--	--	--
10...	.190	1.8	2.0	--	.125	<.001	--	--	87.0	<.100	--

423556088365001 DELAVAN LAKE AT CENTER NEAR DELAVAN LAKE, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM-PLING DEPTH (FEET) (000003)	LAKE STAGE (FT ABOVE DATUM) (00065)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TRANS-PAR-ENCY (SECCHI DISK) (M) (00078)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	NITRO-GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO-GEN, NITRITE TOTAL (MG/L AS N) (00615)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
JUL, 1985											
24...	1225	--	--	--	--	--	.6	--	--	--	--
24...	1230	3.00	5.04	470	9.0	25.0	--	.2	--	--	<.10
24...	1235	9.00	5.04	470	9.0	25.0	--	.2	--	--	<.10
24...	1240	15.0	5.04	470	8.9	24.5	--	.2	--	--	<.10
24...	1245	21.0	5.04	480	8.8	24.5	--	.2	--	--	<.10
24...	1250	24.0	5.04	500	8.4	23.5	--	.3	--	--	<.10
24...	1255	27.0	5.04	510	8.1	23.0	--	.5	--	--	<.10
24...	1300	31.0	5.04	530	8.1	21.5	--	1.4	--	--	<.10
24...	1305	36.0	5.04	550	8.0	20.5	--	1.8	--	--	<.10
24...	1310	39.0	5.04	550	7.9	20.0	--	1.9	--	--	<.10
24...	1315	46.0	5.04	560	7.9	19.5	--	2.9	--	--	<.10
24...	1320	51.0	5.04	580	7.0	19.0	--	4.1	--	--	.10
AUG											
08...	1115	--	--	--	--	--	.5	--	--	--	--
08...	1120	51.5	5.00	598	7.3	19.0	--	4.5	--	--	<.10
08...	1125	48.0	5.00	586	7.4	19.5	--	3.6	--	--	<.10
08...	1130	36.0	5.00	515	7.7	22.5	--	1.5	--	--	<.10
08...	1135	3.00	5.00	482	8.7	25.0	--	.9	--	--	<.10
22...	1210	--	--	--	--	--	.8	--	--	--	--
22...	1215	3.00	4.99	490	8.8	23.0	--	1.1	--	--	<.10
22...	1220	25.0	4.99	490	8.6	23.0	--	1.0	--	--	<.10
22...	1225	42.0	4.99	560	7.8	21.0	--	2.3	--	--	<.10
22...	1230	51.5	4.99	610	7.6	19.5	--	4.6	--	--	<.10
SEP											
05...	1250	--	--	--	--	--	1.0	--	--	--	--
05...	1255	50.5	5.04	655	7.4	19.0	--	5.8	--	--	.30
05...	1320	46.0	5.04	540	8.2	21.5	--	2.8	--	--	<.10
05...	1325	39.0	5.04	525	8.2	22.0	--	1.8	--	--	.30
05...	1329	36.0	5.04	525	8.3	22.5	--	1.6	--	--	<.10
05...	1333	30.0	5.04	510	2.5	22.5	--	1.5	--	--	<.10
05...	1337	23.0	5.04	510	8.6	22.5	--	1.7	--	--	<.10
05...	1341	16.0	5.04	510	8.6	23.0	--	1.3	--	--	<.10
05...	1343	9.00	5.04	510	8.7	23.0	--	1.4	--	--	<.10
05...	1345	3.00	5.04	510	8.7	23.0	--	1.4	--	--	.20
18...	1155	--	--	--	--	--	1.0	--	--	--	--
18...	1200	3.00	4.92	490	8.2	20.5	--	1.3	--	--	<.10
18...	1202	30.0	4.92	503	8.1	20.5	--	1.3	--	--	<.10

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	CHLOR-A-PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B-PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)
JUL, 1985											
24...	--	--	--	--	--	--	90	<10	10	57.0	<.100
24...	.020	1.7	1.7	--	.054	<.001	--	--	--	--	--
24...	.010	1.6	1.6	--	.054	<.001	--	--	--	--	--
24...	.020	1.4	1.4	--	.053	.009	--	--	--	--	--
24...	.060	1.1	1.2	--	.057	<.001	--	--	--	--	--
24...	.120	.88	1.0	--	.052	.005	--	--	--	--	--
24...	.480	.82	1.3	--	.128	.071	--	--	--	--	--
24...	.740	.76	1.5	--	.156	.138	--	--	--	--	--
24...	.970	.53	1.5	--	.209	.195	90	<10	90	--	--
24...	1.00	.60	1.6	--	2.50	.213	90	<10	10	--	--
24...	1.70	.80	2.5	--	1.40	.377	140	<10	200	--	--
24...	2.50	1.4	3.9	4.0	1.50	.528	110	30	240	--	--
AUG											
08...	--	--	--	--	--	--	--	--	--	--	--
08...	2.30	.90	3.2	--	1.10	.444	--	--	--	--	--
08...	1.80	1.0	2.8	--	1.70	.389	--	--	--	--	--
08...	.510	.69	1.2	--	.122	.106	--	--	--	--	--
08...	<.010	--	2.3	--	.131	.021	--	--	--	110	<.100
22...	--	--	--	--	--	--	--	--	--	--	--
22...	<.010	--	.90	--	.110	.008	--	--	--	40.0	<.100
22...	--	--	1.4	--	.110	.016	--	--	--	--	--
22...	--	--	2.6	--	.290	.258	--	--	--	--	--
22...	3.50	.30	3.8	--	.660	.591	--	--	--	--	--
SEP											
05...	--	--	--	--	--	--	--	--	--	--	--
05...	4.50	1.4	5.9	6.2	.770	.310	90	10	300	--	--
05...	.220	2.0	2.2	--	.310	.308	60	<10	200	--	--
05...	.510	.89	1.4	1.7	.160	.124	50	<10	40	--	--
05...	<.010	--	1.4	--	.087	.088	50	<10	30	--	--
05...	.230	1.5	1.7	--	.080	.072	--	--	--	--	--
05...	.190	.91	1.1	--	.081	.048	--	--	--	--	--
05...	.040	1.4	1.4	--	.110	.084	--	--	--	--	--
05...	.420	.88	1.3	--	.075	.061	--	--	--	--	--
05...	.140	1.2	1.3	1.5	.085	.071	100	<10	40	16.0	<.100
18...	--	--	--	--	--	--	--	--	--	--	--
18...	.460	.84	1.3	--	.119	.083	--	--	--	19.0	<.100
18...	--	--	1.2	--	.120	.085	--	--	--	--	--

ROCK RIVER BASIN

423556088365001 DELAVAN LAKE AT CENTER NEAR DELAVAN LAKE, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	LAKE STAGE (FT ABOVE DATUM) (00065)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TRANS-PAR-ENCY (SECCHI DISK) (M) (00078)	SILICA, DIS-SOLVED (MG/L AS SI02) (00955)	NITRO-GEN, NITRATE (MG/L AS N) (00620)	NITRO-GEN, NITRITE (MG/L AS N) (00615)	NITRO-GEN, NO2+NO3 (MG/L AS N) (00630)
SEP, 1985											
18...	1203	42.0	4.92	506	8.2	20.5	--	1.3	--	--	<.10
18...	1205	54.5	4.92	510	8.0	20.0	--	1.7	--	--	<.10
30...	1205	--	--	--	--	--	1.0	--	--	--	--
30...	1210	50.5	4.92	540	8.7	17.5	--	<.1	--	--	<.10
30...	1215	42.0	4.92	540	8.7	17.5	--	<.1	--	--	<.10
30...	1220	3.00	4.92	540	8.5	17.5	--	<.1	--	--	<.10

DATE	NITRO-GEN, AMMONIA (MG/L AS N) (00610)	NITRO-GEN, ORGANIC (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)
SEP, 1985											
18...	--	--	1.2	--	.126	.090	--	--	--	--	--
18...	.840	1.6	2.4	--	.181	.134	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
30...	.500	.60	1.1	--	.127	.081	--	--	--	--	--
30...	--	--	1.2	--	.128	.085	--	--	--	--	--
30...	.490	.71	1.2	--	.130	.078	--	--	--	3.20	.300

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	LAKE STAGE (FT ABOVE DATUM) (00065)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L AS F) (00902)	CALCIUM SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
APR, 1985											
03...	1215	50.0	5.08	500	8.8	4.5	240	60	41	33	19
03...	1225	3.00	5.08	500	8.8	4.5	230	54	41	32	19

DATE	PERCENT SODIUM (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	CARBON DIOXIDE SOLVED (MG/L AS CO2) (00405)	SULFATE SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SI02) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
APR, 1985										
03...	15	.5	2.7	178	.5	27	45	.10	<.1	315
03...	15	.6	2.6	180	.5	27	46	.10	<.1	320

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NO2+NO3 (MG/L AS N) (00630)	NITRO-GEN, AM-MONIA + ORGANIC (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)
APR, 1985										
03...	.43	1.1	1.0	2.1	.180	.080	<3	2	--	--
03...	.44	1.1	1.0	2.1	.150	.060	3	2	15.0	<.100

ROCK RIVER BASIN

423659088354401 DELAVAN LAKE AT NORTH END NEAR LAKE LAWN, WI

LOCATION.--Lat 42°36'59", long 88°35'44", sec. 22, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, 2.6 mi southeast of Delavan.

DRAINAGE AREA.--41.2 mi².

PERIOD OF RECORD.--October 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	LAKE STAGE (FT ABOVE DATUM) (00065)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N) (00630)
OCT, 1984									
11...	1105	--	--	--	--	--	1.1	--	--
11...	1110	3.00	4.94	510	8.3	16.5	--	.2	<.10
11...	1120	30.0	4.94	520	8.1	16.5	--	.3	<.10
24...	1110	--	--	--	--	--	1.0	--	--
24...	1115	3.00	4.90	495	9.2	14.0	--	.2	<.10
24...	1120	30.0	4.90	490	9.2	13.5	--	.1	.10
NOV									
20...	1050	--	--	--	--	--	2.3	--	--
20...	1055	3.00	4.46	490	8.7	5.0	--	<.1	.40
20...	1100	30.0	4.46	490	8.5	5.0	--	<.1	.40
DEC									
18...	1045	--	--	--	--	--	4.0	--	--
18...	1050	3.00	4.42	510	9.0	2.0	--	.1	.50
18...	1055	30.0	4.40	510	8.8	2.0	--	.1	.50
JAN, 1985									
24...	1510	--	--	--	--	--	3.5	--	--
24...	1515	3.00	4.38	--	--	1.0	--	.2	.70
24...	1520	30.0	4.38	--	--	--	--	.1	.70
24...	1525	42.0	4.38	--	--	--	--	.3	.70
MAR									
06...	1405	3.00	5.24	530	8.5	2.0	--	.6	.80
06...	1410	36.0	5.24	540	8.5	2.0	--	1.6	1.4
06...	1415	42.0	5.24	560	8.3	2.0	--	2.8	2.1
APR									
03...	1255	--	--	--	--	--	2.0	--	--
03...	1300	30.0	5.08	500	8.8	4.5	--	<.1	1.2
03...	1305	3.00	5.08	490	8.8	4.5	--	<.1	1.2
16...	1130	--	--	--	--	--	3.3	--	--
16...	1135	30.0	4.75	530	8.9	6.5	--	.1	1.0
16...	1145	3.00	4.75	520	8.9	8.0	--	<.1	1.1

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70954)
OCT, 1984								
11...	--	--	--	--	--	--	--	--
11...	--	--	1.0	--	.150	.110	--	--
11...	--	--	1.0	--	.150	.110	--	--
24...	--	--	--	--	--	--	--	--
24...	--	--	1.5	--	.150	.120	8.80	<.100
24...	--	--	1.3	1.4	.150	.050	--	--
NOV								
20...	--	--	--	--	--	--	--	--
20...	--	--	1.2	1.6	.130	.120	1.90	<.100
20...	--	--	4.4	4.8	.130	.120	--	--
DEC								
18...	--	--	--	--	--	--	--	--
18...	--	--	1.5	2.0	.140	.050	2.10	<.100
18...	--	--	1.3	1.8	.140	.110	--	--
JAN, 1985								
24...	--	--	--	--	--	--	--	--
24...	--	--	.50	1.2	.140	.110	1.40	<.100
24...	--	--	.50	1.2	.140	.110	--	--
24...	--	--	.70	1.4	.150	.120	--	--
MAR								
06...	.510	1.4	1.9	2.7	.110	.100	1.80	<.100
06...	.430	.87	1.3	2.7	.130	.130	--	--
06...	.430	.77	1.2	3.3	.150	.140	--	--
APR								
03...	--	--	--	--	--	--	--	--
03...	.260	.74	1.0	2.2	.230	<.010	--	--
03...	.100	1.1	1.2	2.4	.130	.070	17.0	<.100
16...	--	--	--	--	--	--	--	--
16...	.210	.89	1.1	2.1	.140	.070	--	--
16...	.180	.52	.70	1.8	.080	.050	.800	<.100

ROCK RIVER BASIN

423659088354401 DELAVAN LAKE AT NORTH END NEAR LAKE LAWN, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	LAKE STAGE (FT ABOVE DATUM) (00065)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	SILICA, DIS- SOLVED (MG/L AS SI02) (00955)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
MAY, 1985									
01...	1015	--	--	--	--	--	1.9	--	--
01...	1020	30.0	4.52	540	8.8	12.0	--	.1	1.0
01...	1025	24.0	4.52	540	8.9	12.0	--	.1	1.0
01...	1045	3.00	4.52	540	9.3	13.0	--	.1	1.1
22...	1215	30.0	4.68	550	8.5	16.5	--	.5	.70
22...	1220	25.0	4.68	550	8.5	16.5	--	.5	.80
22...	1225	3.00	4.68	550	8.6	17.0	--	.5	.80
JUN									
05...	1100	--	--	--	--	--	2.6	--	--
05...	1105	3.00	4.82	550	8.7	19.0	--	.5	.70
05...	1110	25.0	4.82	550	8.6	18.5	--	.6	.70
05...	1115	30.0	4.82	560	8.4	18.0	--	.7	.70
19...	1150	--	--	--	--	--	1.5	--	--
19...	1155	30.0	4.88	550	8.3	18.5	--	1.0	.40
19...	1200	25.0	4.88	540	8.5	19.0	--	1.3	.40
19...	1205	3.00	4.88	520	8.7	19.5	--	.5	.40
JUL									
10...	1015	--	--	--	--	--	.7	--	--
10...	1020	30.0	4.90	540	8.3	21.5	--	1.3	.10
10...	1025	25.0	4.90	530	8.8	22.0	--	.9	.10
10...	1030	3.00	4.90	480	8.8	24.0	--	.6	<.10
24...	1110	--	--	--	--	--	.6	--	--
24...	1115	30.0	5.04	470	8.9	24.0	--	.2	<.10
24...	1120	25.0	5.04	470	8.9	24.5	--	.2	<.10
24...	1125	3.00	5.04	470	8.9	24.5	--	.1	<.10
AUG									
08...	1000	--	--	--	--	--	.5	--	--
08...	1005	30.5	5.00	508	7.9	23.0	--	1.3	.10
08...	1010	28.0	5.00	506	7.9	23.0	--	1.2	.10
08...	1015	21.0	5.00	499	8.1	23.5	--	1.1	<.10
08...	1020	3.00	5.00	485	8.6	24.5	--	.9	<.10
22...	1000	--	--	--	--	--	.8	--	--
22...	1005	3.00	4.99	480	9.0	23.5	--	1.3	<.10
22...	1020	25.0	4.99	490	8.8	23.0	--	1.1	<.10
22...	1025	30.5	4.99	490	8.7	23.0	--	1.1	<.10

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00671)	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM (UG/L) (70954)
MAY, 1985								
01...	--	--	--	--	--	--	--	--
01...	.060	.74	.80	1.8	.070	<.010	--	--
01...	--	.60	.60	1.6	.030	.020	--	--
01...	.130	.77	.90	2.0	.040	.040	3.30	<.100
22...	.360	.84	1.2	1.9	.090	.060	--	--
22...	--	--	1.4	2.2	.090	.050	--	--
22...	.360	.44	.80	1.6	.070	.060	.500	<.100
JUN								
05...	--	--	--	--	--	--	--	--
05...	.260	1.0	1.3	2.0	.070	.040	4.10	<.100
05...	.250	1.3	1.5	2.2	.080	.050	--	--
05...	.310	.99	1.3	2.0	.080	.060	--	--
19...	--	--	--	--	--	--	--	--
19...	--	--	1.3	1.7	.120	.100	--	--
19...	--	--	1.5	1.9	.140	.120	--	--
19...	.290	.81	1.1	1.5	.090	.050	6.50	<.100
JUL								
10...	--	--	--	--	--	--	--	--
10...	.460	1.0	1.5	1.6	.141	.108	--	--
10...	--	--	1.2	1.3	.102	.083	--	--
10...	.020	1.7	1.7	--	.067	<.001	49.0	<.100
24...	--	--	--	--	--	--	--	--
24...	.020	1.3	1.3	--	.093	<.001	--	--
24...	--	--	1.3	--	.086	<.001	--	--
24...	<.010	--	1.6	--	.059	<.001	28.0	<.100
AUG								
08...	--	--	--	--	--	--	--	--
08...	.410	1.3	1.7	1.8	.104	.079	--	--
08...	.370	.63	1.0	1.1	.093	.070	--	--
08...	.230	.47	.70	--	.060	.068	--	--
08...	<.010	--	1.6	--	.110	.011	58.0	<.100
22...	--	--	--	--	--	--	--	--
22...	<.010	--	--	--	.069	.018	<.100	<.100
22...	--	--	1.4	--	.130	.025	--	--
22...	.110	.49	.60	--	.070	.041	--	--

ROCK RIVER BASIN

423659088354401 DELAVAN LAKE AT NORTH END NEAR LAKE LAWN, WI--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	LAKE STAGE ABOVE DATUM (FT) (00065)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TRANS-PAR-ENCY (SECCHI DISK) (M) (00078)	SILICA, DIS-SOLVED (MG/L SI02) (00955)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
SEP, 1985									
05...	1115	--	--	--	--	--	.7	--	--
05...	1120	30.5	5.04	510	8.7	22.5	--	1.7	<.10
05...	1125	25.0	5.04	510	8.7	23.0	--	1.6	<.10
05...	1130	3.00	5.04	510	8.9	23.5	--	1.5	<.10
18...	1050	3.00	4.92	499	8.2	20.0	--	1.1	<.10
18...	1053	18.0	4.92	500	8.2	20.0	--	1.0	<.10
18...	1055	32.0	4.92	500	8.4	20.0	--	1.0	<.10
30...	1255	--	--	--	--	--	1.0	--	--
30...	1300	30.5	4.92	530	8.8	17.5	--	<.1	<.10
30...	1305	3.00	4.92	540	9.1	17.5	--	<.1	<.10

DATE	NITRO-GEN, AM-MONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, OR-GANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + OR-GANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-OR-THO, DIS-SOLVED (MG/L AS P) (00671)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)
SEP, 1985								
05...	--	--	--	--	--	--	--	--
05...	.080	1.1	1.2	--	.087	.068	--	--
05...	--	--	1.4	--	.081	.076	--	--
05...	<.010	--	2.5	--	.139	.047	21.0	<.100
18...	.340	1.1	1.4	--	.119	.067	27.0	<.100
18...	--	--	1.4	--	.113	.084	--	--
18...	.340	1.1	1.4	--	.107	.072	--	--
30...	--	--	--	--	--	--	--	--
30...	.410	.99	1.4	--	.138	.077	--	--
30...	.400	1.0	1.4	--	.140	.083	12.0	.300

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	LAKE STAGE ABOVE DATUM (FT) (00065)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L AS CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
APR, 1985											
03...	1300	30.0	5.08	500	8.8	4.5	240	59	43	32	19
03...	1305	3.00	5.08*	490	8.8	4.5	240	59	43	32	19

DATE	PERCENT SODIUM (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SI02) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
APR, 1985										
03...	15	.5	2.6	180	.5	27	46	.20	<.1	328
03...	15	.5	2.6	180	.5	27	47	.20	<.1	320

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AM-MONIA + OR-GANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-OR-THO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70953)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L) (70954)
APR, 1985										
03...	.45	1.2	1.0	2.2	.230	<.010	7	1	--	--
03...	.44	1.2	1.2	2.4	.130	.070	5	2	17.0	<.100

ROCK RIVER BASIN

05431022 DELAVAN LAKE OUTLET AT BORG ROAD NEAR DELAVAN, WI

LOCATION.--Lat 42°36'53", long 88°37'29", in SW 1/4 SE 1/4 sec.20, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, on right bank 25 ft upstream from bridge on Borg Road, 1.4 mi southeast of Delavan, and 0.2 mi downstream from Delavan Lake dam outlet.

DRAINAGE AREA.--42.1 mi², of which 2.3 mi² is non-contributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 920 ft, from topographic map

REMARKS.--Estimated daily discharges: Feb. 24, May 21-24, 28, and ice period listed in rating table below. Records good except for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 163 ft³/s Sept. 11, 1985, gage height, 7.55 ft; minimum daily discharge, 0.18 ft³/s May 22, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 163 ft³/s Sept. 11, gage height, 7.55 ft; minimum daily discharge 0.18 ft³/s May 22.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Jan. 10 to Feb. 17.)

Oct. 1 to Dec. 11, Apr. 29 (0815) to Sept. 30				Dec. 11 (0900) to Apr. 29			
5.09	0.38	5.35	5.5	5.09	0.38	5.35	5.5
5.11	.51	5.40	8.0	5.11	.51	5.40	8.2
5.15	.88	5.70	27	5.15	.88	5.70	30
5.20	1.6	6.00	49	5.20	1.6	6.00	55
5.25	2.5	6.50	88	5.25	2.5	6.50	102
5.30	3.8			5.30	3.8		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	59	29	48	10	66	57	3.1	.29	.89	2.7	3.3
2	1.0	64	29	50	9.8	68	58	2.5	.30	1.1	2.2	3.4
3	.96	64	29	50	9.6	69	57	1.2	.30	1.1	2.1	2.9
4	.94	61	39	51	9.4	73	58	.52	.29	1.0	2.1	3.0
5	1.1	60	29	53	9.4	78	56	.52	.34	1.0	2.2	3.0
6	1.1	59	27	53	9.2	77	56	.56	.38	1.0	2.2	3.4
7	1.8	58	27	52	9.2	76	57	.53	.41	1.0	2.3	3.8
8	6.4	56	27	49	9.2	76	55	.44	.47	1.0	2.4	36
9	8.8	57	26	47	9.0	79	56	.39	.45	1.1	2.5	88
10	9.3	59	26	45	9.0	80	46	.47	.43	1.0	2.9	85
11	10	58	15	44	9.0	80	57	.35	.42	1.0	2.7	87
12	20	50	24	43	9.0	80	56	.35	.40	.97	2.9	75
13	25	53	32	41	9.0	79	56	.27	.47	1.0	32	49
14	25	55	34	39	9.0	79	55	.29	.59	9.1	45	1.6
15	38	52	34	38	9.0	77	53	.27	.76	5.7	28	1.5
16	47	51	34	38	9.0	75	53	.28	.68	5.0	2.8	1.3
17	53	50	36	37	9.4	73	49	.22	.65	4.3	2.4	1.1
18	56	50	35	36	11	70	46	.24	.55	3.4	2.1	1.2
19	57	47	36	35	16	69	46	.29	.59	3.0	1.9	1.2
20	58	42	35	34	21	31	45	.30	.63	3.2	1.9	.98
21	57	34	36	33	21	13	44	.22	.74	2.6	1.9	.99
22	56	33	35	32	24	13	43	.18	.73	2.6	1.9	1.2
23	59	33	35	31	38	13	25	.22	.67	2.1	1.9	1.0
24	63	32	34	30	45	14	17	.22	.68	1.7	1.7	.77
25	61	32	34	29	60	14	17	.25	1.6	2.3	2.0	.88
26	49	24	34	28	63	29	18	.35	1.9	2.7	2.1	.93
27	43	21	35	27	64	56	17	.29	1.9	2.3	2.1	.94
28	44	21	37	26	65	67	17	.22	1.7	2.3	1.8	.94
29	49	27	44	25	---	64	7.5	.28	1.4	2.5	2.2	.91
30	50	30	47	16	---	64	2.6	.32	1.2	2.5	3.3	.87
31	50	---	48	10	---	58	---	.30	---	3.7	3.1	---
TOTAL	1002.50	1392	1022	1170	585.2	1860	1280.1	15.94	21.92	74.16	169.3	461.11
MEAN	32.3	46.4	33.0	37.7	20.9	60.0	42.7	.51	.73	2.39	5.46	15.4
MAX	63	64	48	53	65	80	58	3.1	1.9	9.1	45	88
MIN	.94	21	15	10	9.0	13	2.6	.18	.29	.89	1.7	.77
CFSM	.77	1.10	.78	.90	.50	1.43	1.01	.01	.02	.06	.13	.37
IN.	.89	1.23	.90	1.03	.52	1.64	1.13	.01	.02	.07	.15	.41

CAL YR 1984	TOTAL	8800.90	MEAN 24.0	MAX 128	MIN .41	CFSM .57	IN 7.78
WTR YR 1985	TOTAL	9054.23	MEAN 24.8	MAX 88	MIN .18	CFSM .59	IN 8.00

ROCK RIVER BASIN

05431022 DELAVAN LAKE OUTLET AT BORG ROAD NEAR DELAVAN, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to current year.

PERIOD OF DAILY RECORD.--

- SUSPENDED-SEDIMENT DISCHARGE: October 1983 to current year.
- TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: October 1983 to current year.
- TOTAL NITRITE PLUS NITRATE DISCHARGE: October 1983 to current year.
- TOTAL PHOSPHORUS DISCHARGE: October 1983 to current year.

INSTRUMENTATION.--Automatic pumping sampler from October to December. Observer sampler from January to September.

REMARKS.--Records good.

COOPERATION.--Observer furnished by Delevan Lake Sanitary District.

EXTREMES FOR PERIOD OF RECORD.--

- SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 238 mg/L Feb. 22, 1985; minimum observed, 1 mg/L on many days during 1984.
- SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 29 tons Feb. 25, 1985; minimum daily, 0.01 ton on many days during 1984 and 1985.
- TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 7.50 mg/L July 14, 1985; minimum observed, 0.50 mg/L May 23, 1984 and May 22, 1985.
- TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Maximum daily, 1,800 lb Apr. 26, 1984; minimum daily, 0.63 lb May 21-22, 1985.
- TOTAL NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 5.70 mg/L Oct. 7, 1984; minimum observed, 0.10 mg/L Oct. 7, 1983 and Oct. 15, 1984.
- TOTAL NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 967 lb Feb. 16, 1984; minimum daily, 0.96 lb Aug. 12, 1984.
- TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 4.60 mg/L Apr. 22, 1984; minimum observed, 0.06 mg/L May 22, 1985.
- TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 432 lb May 28, 1984; minimum daily, 0.06 lb May 22, 28, 1985.

EXTREMES FOR CURRENT YEAR.--

- SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 238 mg/L Feb. 22; minimum observed, 3 mg/L Sept. 30.
- SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 29 tons Feb. 25; minimum daily, 0.01 ton on many days.
- TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 7.50 mg/L July 14; minimum observed, 0.50 mg/L May 22.
- TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Maximum daily, 1,230 lb Nov. 11; minimum daily, 0.63 lb May 21-22.
- TOTAL NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 5.70 mg/L Oct. 7; minimum observed, 0.10 mg/L Oct. 15.
- TOTAL NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 629 lb Mar. 5; minimum daily, 1.67 lb Sept. 24.
- TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.68 mg/L Feb. 22; minimum observed, 0.06 mg/L May 22.
- TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 137 lb Aug. 13; minimum daily, 0.06 lb May 22, 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	NITRO-GEN, NO2+NO3	NITRO-GEN, AMMONIA + ORGANIC	NITRO-GEN, TOTAL	PHOSPHORUS, TOTAL
			(MG/L AS N) (00630)	(MG/L AS N) (00625)	(MG/L AS N) (00600)	(MG/L AS P) (00665)
OCT, 1984						
07...	1320	2.3	5.7	6.5	12	3.90
08...	0835	2.1	1.3	2.8	4.1	.360
12...	0805	9.8	.20	2.7	2.9	.280
15...	1355	47	.10	2.0	2.1	.190
16...	1400	49	.20	1.9	2.1	.090
18...	0735	54	.20	1.7	1.9	.100
19...	0051	58	.20	1.8	2.0	.190
19...	1017	56	.20	1.8	2.0	.100
20...	0910	59	.30	1.9	2.2	.140
20...	1545	58	.20	1.9	2.1	.140
21...	1220	59	.20	1.7	1.9	.160
21...	1535	57	.20	1.8	2.0	.140
22...	0900	56	.20	1.6	1.8	.150
23...	0835	55	.20	1.5	1.7	.150
25...	0840	61	.20	1.9	2.1	.130
28...	0610	44	.20	1.8	2.0	.130
28...	1545	44	.30	1.7	2.0	.130
29...	0900	52	.20	1.7	1.9	.140
30...	0730	50	.30	1.9	2.2	.140
NOV						
01...	0830	56	.50	1.6	2.1	.350
01...	1115	57	.50	1.4	1.9	.360
02...	0810	63	.30	1.1	1.4	.180
02...	1345	63	.30	1.5	1.8	.160
03...	0950	64	.30	1.1	1.4	.140
04...	0740	61	.30	1.0	1.3	.140
05...	0850	60	.30	1.2	1.5	.150
09...	1630	60	.60	4.2	4.8	.810
10...	1020	59	.40	1.8	2.2	.090
10...	1545	61	1.0	2.5	3.5	.110

ROCK RIVER BASIN

05431022 DELAVAN LAKE OUTLET AT BORG ROAD NEAR DELAVAN, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NITRO- GEN, NO2+NO3	NITRO- GEN, AM- MONIA + ORGANIC	NITRO- GEN, TOTAL	PHOS- PHORUS, TOTAL
			(MG/L AS N) (00630)	(MG/L AS N) (00625)	(MG/L AS N) (00600)	(MG/L AS P) (00665)
NOV, 1984						
11...	0805	58	1.0	5.6	6.6	.110
11...	1545	58	1.0	3.1	4.1	.100
12...	0915	49	.50	2.8	3.3	.070
13...	0745	48	.60	2.5	3.1	.110
21...	0745	34	.60	1.1	1.7	.130
27...	0855	21	.80	2.0	2.8	.230
27...	1610	22	.60	2.9	3.5	.130
28...	0830	21	.70	4.1	4.8	.110
DEC						
12...	1030	31	.60	1.3	1.9	.160
17...	0850	37	.60	1.1	1.7	.130
JAN						
24...	0740	--	.80	.80	1.6	.140
FEB						
22...	0935	21	1.5	3.4	4.9	.680
23...	1345	39	.80	1.0	1.8	.170
23...	1545	40	.90	1.5	2.4	.180
24...	0800	48	1.4	1.2	2.6	.220
24...	1415	52	1.4	1.2	2.6	.280
MAR						
05...	1035	78	1.5	1.6	3.1	.140
28...	0900	69	.90	1.5	2.4	.310
28...	1500	70	.90	1.2	2.1	.130
29...	0830	67	1.0	1.5	2.5	.140
29...	1355	68	1.1	1.2	2.3	.160
APR						
02...	1300	60	1.1	.90	2.0	.140
16...	0700	55	1.1	.70	1.8	.150
MAY						
01...	0740	3.0	2.7	.90	3.6	.080
22...	0810	.22	2.3	.50	2.8	.060
27...	1040	.32	3.9	1.9	5.8	.480
JUN						
05...	0810	.32	3.2	2.6	5.8	.140
19...	1105	.59	2.0	2.2	4.2	.190
JUL						
10...	1410	1.0	1.0	3.6	4.6	.400
14...	0830	8.1	2.0	7.5	9.5	.970
23...	1410	2.1	.20	2.8	3.0	.250
AUG						
07...	1135	2.3	.40	1.6	2.0	.240
21...	1400	1.9	.30	2.9	3.2	.170
SEP						
04...	0855	3.0	.30	3.3	3.6	.200
16...	1150	1.3	.40	1.1	1.5	.220
30...	0835	1.1	.40	1.1	1.5	.090

ROCK RIVER BASIN

05431022 DELAVAN LAKE OUTLET AT BORG ROAD NEAR DELAVAN, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT, 1984					JAN, 1985				
07...	1315	2.3	148	.92	29...	0915	--	43	2.9
08...	0830	2.1	60	.34	FEB				
12...	0805	9.8	70	1.9	18...	0940	11	26	.77
15...	1355	47	45	5.7	22...	0935	21	238	13
16...	1400	49	32	4.2	23...	1315	39	93	9.8
18...	0735	54	26	3.8	23...	1545	40	32	3.5
18...	1900	62	29	4.9	24...	0800	48	160	21
19...	0015	59	36	5.7	24...	1415	52	188	26
19...	1017	56	68	10	MAR				
20...	0910	59	27	4.3	05...	1035	78	106	22
20...	1545	58	21	3.3	11...	0855	81	62	14
21...	1220	59	19	3.0	18...	0920	72	86	17
21...	1535	57	21	3.2	20...	0835	15	83	3.4
22...	0900	56	21	3.2	25...	0930	17	22	1.0
23...	0835	55	17	2.5	28...	0900	69	151	28
25...	0840	61	20	3.3	28...	1500	70	97	18
28...	0610	44	34	4.0	29...	0830	67	79	14
28...	1210	45	30	3.6	29...	1355	68	115	21
28...	1545	44	24	2.9	APR				
29...	0900	52	14	2.0	02...	1300	60	85	14
29...	1500	53	16	2.3	09...	0740	57	144	22
30...	0730	50	20	2.7	16...	0700	55	101	15
NOV					22...	1010	47	105	13
01...	0830	56	36	5.4	MAY				
01...	1115	57	37	5.7	01...	0740	3.0	22	.18
02...	0810	63	21	3.6	22...	0810	.22	63	.04
02...	1345	63	17	2.9	27...	1040	.32	24	.02
03...	0950	64	20	3.5	JUN				
04...	0740	61	39	6.4	17...	1305	.59	9	.01
09...	1630	60	52	8.4	19...	1105	.59	9	.01
10...	1020	59	29	4.6	24...	1120	.68	13	.02
10...	1545	61	24	4.0	JUL				
11...	0805	58	29	4.5	01...	1520	.78	32	.07
11...	1545	58	26	4.1	08...	1300	1.0	52	.14
12...	0915	49	10	1.3	14...	0830	8.1	230	5.0
13...	0745	48	9	1.2	22...	1240	2.8	75	.57
19...	1150	48	7	.91	23...	1410	2.1	92	.52
21...	0745	34	11	1.0	AUG				
26...	0815	31	16	1.3	07...	1135	2.3	48	.30
27...	0855	21	25	1.4	21...	1400	1.9	26	.13
27...	1610	22	42	2.5	26...	1345	1.9	36	.18
28...	0830	21	27	1.5	SEP				
DEC					03...	1025	2.8	40	.30
03...	1050	32	6	.52	04...	0835	3.0	78	.63
12...	1030	31	32	2.7	05...	1040	2.3	47	.29
17...	0850	37	13	1.3	08...	1615	89	69	17
JAN					16...	1150	1.3	50	.18
07...	0825	52	62	8.7	23...	1035	1.4	30	.11
24...	0740	--	45	3.6	30...	0835	1.1	3	.00

ROCK RIVER BASIN

05431486 TURTLE CREEK AT CARVERS ROCK ROAD NEAR CLINTON, WI

LOCATION.--Lat 42°35'50", long 88°49'45", in SW 1/4 sec.27, T.2 N., R.14 E., Rock County, Hydrologic Unit 07090001, on left bank 25 ft downstream from bridge on Carvers Rock Road, 3.3 mi northeast of Clinton, 13 mi northeast of Beloit, and 17.8 mi upstream from mouth.

DRAINAGE AREA.--199 mi², of which 2.33 mi² is noncontributing.

PERIOD OF RECORD.--September 1939 to current year.

REVISED RECORDS.--WSP 955: 1940. WSP 1308: 1950(M). WDR WI-71-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 823 ft, from topographic msp. September 1939 to December 1979, water-stage recorder at site 1.8 mi downstream at a different datum.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair. Some seasonal regulation caused by dams used to maintain levels of Turtle and Delavan Lakes.

AVERAGE DISCHARGE.--46 years, 122 ft³/s, 8.41 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s Apr. 21, 1973, gage height, 12.85 ft, from rating curve extended above 6,500 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 8.0 ft³/s Dec. 29, 1956, gage height, 2.04 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Feb. 23	2300	A	*7.20	Feb. 24	----	*1,100	A

A Backwater from ice.

Minimum discharge, 58 ft³/s Aug. 9, 10, gage height, 3.54 ft.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Nov. 20, 21, Dec. 3-10, 20-28, Jan. 2 to Feb. 24.)

3.5	50	5.0	374
4.0	134	6.0	726
4.5	246	7.0	1,180

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	458	165	211	110	441	299	111	97	69	84	72
2	67	443	160	180	110	440	271	110	94	70	76	70
3	66	318	150	170	110	370	261	106	88	73	70	68
4	67	275	150	160	110	390	251	102	85	72	69	66
5	65	239	140	160	100	456	262	99	85	70	69	66
6	65	208	140	160	100	359	305	109	85	72	82	68
7	90	198	130	150	98	339	322	104	83	72	89	69
8	120	191	130	150	96	370	283	102	82	70	69	178
9	95	239	130	150	96	390	260	98	77	70	60	393
10	93	362	130	140	94	371	245	95	73	70	69	298
11	88	279	127	140	94	385	235	88	76	67	71	253
12	102	248	160	140	94	365	219	96	79	64	66	191
13	131	223	180	140	94	338	218	93	80	71	217	172
14	121	209	178	130	94	335	215	94	78	295	174	148
15	116	198	188	130	92	309	213	109	90	159	130	109
16	155	186	231	130	92	291	205	107	107	111	112	92
17	219	178	229	130	92	276	184	109	95	95	85	85
18	213	174	202	130	90	261	184	102	89	88	79	82
19	508	168	185	130	90	248	178	95	84	83	74	80
20	333	160	170	130	90	241	175	90	81	85	70	78
21	306	150	160	130	140	207	174	88	95	83	69	79
22	286	132	160	130	360	177	170	85	109	77	67	87
23	242	130	150	130	760	171	168	83	98	71	64	84
24	213	133	130	130	960	218	157	83	88	66	65	80
25	194	134	130	130	876	210	147	80	83	68	72	80
26	190	136	130	130	620	196	142	85	82	72	79	80
27	189	199	160	120	463	206	136	201	79	70	75	80
28	286	245	250	120	401	317	135	167	77	69	73	80
29	231	201	435	120	---	328	131	130	70	64	71	77
30	207	184	327	120	---	286	119	114	70	66	80	75
31	192	---	267	110	---	295	---	104	---	80	77	---
TOTAL	5316	6598	5574	4331	6526	9586	6264	3239	2559	2612	2607	3440
MEAN	171	220	180	140	233	309	209	104	85.3	84.3	84.1	115
MAX	508	458	435	211	960	456	322	201	109	295	217	393
MIN	65	130	127	110	90	171	119	80	70	64	60	66
CFSM	.87	1.12	.91	.71	1.18	1.57	1.06	.53	.43	.43	.43	.58
IN.	1.00	1.25	1.05	.82	1.23	1.81	1.18	.61	.48	.49	.49	.65

CAL YR 1984	TOTAL	58269	MEAN	159	MAX	1110	MIN	62	CFSM	.81	IN.	11.00
WTR YR 1985	TOTAL	58652	MEAN	161	MAX	960	MIN	60	CFSM	.82	IN.	11.08

ROCK RIVER BASIN

05432500 PECATONICA RIVER AT DARLINGTON, WI

LOCATION.--Lat 42°40'40", long 90°07'07", in NE 1/4 sec.3, T.2 N., R.3 E., Lafayette County, Hydrologic Unit 07090003, on right bank in Darlington, 0.3 mi downstream from Vinegar Branch, and 3.6 mi upstream from Otter Creek.

DRAINAGE AREA.--273 mi².

PERIOD OF RECORD.--September 1939 to current year.

REVISED RECORDS.--WDR WI-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 802.42 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--46 years, 188 ft³/s, 9.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,000 ft³/s July 16, 1950, gage height, 20.71 ft, from rating curve extended above 11,000 ft³/s basis of slope-area determination of peak flow; minimum, 17 ft³/s Nov. 29, 1966, gage height, 2.09 ft, result of freezeup; minimum gage height, 1.07 ft Dec. 6, 1968, result of freezeup.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Feb. 21, 1937, reached a stage of 17.6 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Dec. 29	1200	1,710	11.71	Feb. 22	2000	*4,030	*14.75

Minimum daily discharge, 93 ft³/s Aug. 22.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 2-9, 19-28, Dec. 31 to Feb. 21.)

2.0	89	7.0	653	12.0	1,830
3.0	172	8.0	804	13.0	2,320
4.0	270	9.0	966	14.0	3,080
5.0	385	10.0	1,160	15.0	4,400
6.0	512	11.0	1,450		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	416	211	270	150	450	395	206	207	146	126	109
2	128	576	200	250	150	434	401	200	177	139	114	105
3	127	371	180	230	150	359	391	192	168	135	108	101
4	125	342	170	220	150	362	372	190	162	130	106	101
5	124	312	160	220	150	377	420	189	162	127	110	163
6	123	282	160	210	150	331	459	210	159	125	110	215
7	173	269	170	210	150	334	423	198	154	121	117	125
8	251	264	180	210	150	514	371	188	154	118	107	342
9	196	274	190	200	150	1010	348	182	151	116	101	435
10	155	366	189	200	150	778	334	176	143	115	117	216
11	146	309	184	200	150	511	328	182	148	111	114	146
12	148	263	197	190	150	457	314	254	155	111	104	127
13	153	250	193	190	150	406	302	250	148	114	133	117
14	145	246	177	180	150	402	297	210	142	121	140	112
15	225	246	190	180	150	359	289	399	158	110	108	109
16	331	232	295	170	150	336	279	330	160	104	102	107
17	616	220	502	170	150	321	264	245	152	102	99	111
18	477	221	249	160	150	303	259	219	143	101	99	112
19	1100	215	220	160	160	296	254	205	136	103	96	107
20	898	196	210	150	170	289	244	201	133	107	94	103
21	412	191	200	150	900	276	238	196	132	104	94	104
22	341	198	200	150	3220	269	235	184	275	99	93	124
23	284	200	190	150	3060	276	236	179	262	96	95	261
24	254	199	190	150	2470	330	237	176	150	97	101	295
25	241	201	190	150	1800	320	229	173	137	267	121	180
26	255	203	200	150	755	290	224	181	133	349	121	182
27	253	262	210	150	468	294	217	271	138	142	106	183
28	556	281	700	150	393	373	217	212	224	122	100	156
29	403	226	1510	150	---	386	211	184	236	116	112	147
30	314	218	590	150	---	331	205	179	172	112	150	171
31	284	---	290	150	---	349	---	185	---	121	127	---
TOTAL	9369	8049	8697	5620	16096	12123	8993	6546	4971	3981	3425	4866
MEAN	302	268	281	181	575	391	300	211	166	128	110	162
MAX	1100	576	1510	270	3220	1010	459	399	275	349	150	435
MIN	123	191	160	150	150	269	205	173	132	96	93	101
CFSM	1.11	.98	1.03	.66	2.11	1.43	1.10	.77	.61	.47	.40	.59
IN.	1.28	1.10	1.19	.77	2.19	1.65	1.23	.89	.68	.54	.47	.66
CAL YR 1984	TOTAL	91055	MEAN	249	MAX	1510	MIN	110	CFSM	.91	IN.	12.41
WTR YR 1985	TOTAL	92736	MEAN	254	MAX	3220	MIN	93	CFSM	.93	IN.	12.64

ROCK RIVER BASIN

05433000 EAST BRANCH PECATONICA RIVER NEAR BLANCHARDVILLE, WI

LOCATION.--Lat 42°47'10" long 89°51'40", in SE 1/4 sec. 26, T.4 N., R.5 E., Lafayette County, Hydrologic Unit 07090003, on left bank at downstream side of bridge on State Highway 78, 1.8 mi south of Blanchardville and 4.5 mi upstream from Sawmill Creek.

DRAINAGE AREA.--221 mi².

PERIOD OF RECORD.--September 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 796.8 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 20, 1939, nonrecording gage at bridge 50 ft upstream at same datum. Auxiliary nonrecording gage 2.7 mi upstream at same datum read during high flows.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating tables below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--46 years, 145 ft³/s, 8.91 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft³/s Feb. 28, 1948, gage height, 15.74 ft; minimum, 18 ft³/s Nov. 29, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 19	1900	1,520	11.76	Feb. 23	0300	*1,800	A *12.68

A Ice jam

Minimum daily, 123 ft³/s, Sept. 14, 15, 20 and 21.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second).
(Shifting-control method used Oct. 1-18 and June 6-23; stage-discharge relation affected by ice Dec. 3-10 and Dec. 20 to Feb. 24.)

Oct. 1 to June 23				June 24 to Sept. 30			
4.2	123	9.0	676	4.3	119	6.0	274
5.0	196	10.0	894	5.0	177	8.0	526
6.0	304	11.0	1,210				
7.0	420	12.0	1,650				
8.0	542	13.0	2,520				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	404	193	230	130	383	347	187	171	140	140	128
2	145	384	195	220	130	357	306	184	163	140	133	126
3	145	267	190	200	130	295	290	182	160	139	131	125
4	144	260	180	190	130	297	276	182	156	138	129	125
5	144	243	180	190	130	306	337	181	156	137	131	188
6	144	227	170	180	130	256	380	188	154	137	131	163
7	156	221	170	180	130	256	333	181	153	136	130	132
8	182	222	170	180	130	307	293	180	153	136	127	138
9	157	233	170	170	130	582	276	178	152	136	127	160
10	150	287	180	170	130	456	271	176	148	135	132	148
11	148	232	183	170	130	389	267	178	150	135	128	132
12	149	214	185	160	130	364	257	194	151	135	127	127
13	151	209	183	160	130	326	249	183	148	135	144	125
14	150	209	182	160	130	326	248	184	146	136	132	123
15	175	210	182	150	130	288	242	227	153	131	128	123
16	253	202	261	150	130	277	233	195	156	129	127	124
17	332	196	305	150	130	264	222	182	150	129	126	128
18	254	196	196	140	130	251	223	176	145	129	127	128
19	1190	195	191	140	130	250	217	174	144	129	125	125
20	672	189	180	140	130	244	212	173	142	129	125	123
21	302	186	170	140	440	232	209	169	141	128	125	123
22	255	187	160	140	1400	228	208	166	169	126	125	130
23	220	188	160	140	1700	233	213	166	152	124	125	159
24	208	189	160	140	1600	277	219	165	141	124	127	176
25	203	189	160	140	1050	258	207	163	140	394	135	137
26	215	192	170	140	513	236	202	170	140	337	139	142
27	214	227	200	140	382	242	196	269	140	144	129	140
28	461	224	450	140	323	316	196	180	152	137	127	134
29	285	196	800	140	---	316	190	167	160	135	129	133
30	238	196	400	140	---	254	188	166	144	133	139	140
31	222	---	250	140	---	286	---	176	---	139	131	---
TOTAL	7810	6774	6926	4970	10008	9352	7507	5642	4530	4612	4031	4105
MEAN	252	226	223	160	357	302	250	182	151	149	130	137
MAX	1190	404	800	230	1700	582	380	269	171	394	144	188
MIN	144	186	160	140	130	228	188	163	140	124	125	123
CFSM	1.14	1.02	1.01	.72	1.62	1.37	1.13	.82	.68	.67	.59	.62
IN.	1.31	1.14	1.17	.84	1.68	1.57	1.26	.95	.76	.78	.68	.69

CAL YR 1984	TOTAL	78631	MEAN	215	MAX	2030	MIN	110	CFSM	.97	IN	13.24
WTR YR 1985	TOTAL	76267	MEAN	209	MAX	1700	MIN	123	CFSM	.95	IN	12.84

ROCK RIVER BASIN

05434500 PECATONICA RIVER AT MARTINTOWN, WI

LOCATION.--Lat 42°30'34", long 89°47'58", in SE 1/4 sec.32, T.1 N., R.6 E., Green County, Hydrologic Unit 07090003, on right bank about 400 ft downstream from highway bridge in Martintown, 0.3 mi upstream from Wisconsin-Illinois State line and 8.8 mi downstream from Skinner Creek.

DRAINAGE AREA.--1,034 mi².

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1308: 1949-50(M). WDR WI-71-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 757.83 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 6, 1940, nonrecording gage at same site and datum. Auxiliary recording gage 1.2 mi downstream, at same datum, which records stage above 7.4 ft.

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except those for ice-affected periods, which are fair.

AVERAGE DISCHARGE.--46 years, 723 ft³/s, 9.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s July 1, 1969, gage height, 21.46 ft; no flow for part of Dec. 14, 1939.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Feb. 25	1500	*8,660	A *18.79	No other peak greater than base discharge.			

A Ice jam

Minimum daily discharge, 404 ft³/s Aug. 22.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second). (Shifting-control method used Oct. 25 to Nov. 1, Nov. 4 to Dec. 28, Jan. 2, and July 13 to Aug. 31; stage-discharge relation affected by ice Dec. 6-13, 20-28, and Jan. 3 to Feb. 28.)

4.0	396	13.0	3,170
5.0	643	15.0	4,560
7.0	1,160	17.0	6,700
9.0	1,710	19.0	9,700
11.0	2,280		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	617	1640	925	1990	620	4620	1580	902	755	715	477	508
2	603	1790	904	1280	620	3490	1600	887	765	634	482	471
3	591	1810	902	1200	620	2620	1560	869	737	600	454	451
4	583	1650	805	1100	620	2160	1510	853	707	583	432	444
5	576	1440	677	960	620	1970	1490	847	693	570	426	447
6	567	1300	680	1000	600	1810	1570	864	685	556	430	518
7	611	1210	740	1000	600	1680	1620	868	674	544	552	659
8	699	1160	780	1000	600	1690	1580	853	663	531	573	570
9	776	1320	820	960	600	1880	1460	825	653	519	467	762
10	751	1560	820	920	600	2090	1380	806	640	510	462	1070
11	672	1440	820	880	600	2260	1320	793	642	500	478	854
12	645	1320	820	840	600	2270	1270	815	646	493	464	647
13	650	1180	820	800	600	2090	1240	865	651	491	471	558
14	647	1110	819	780	600	1900	1220	918	643	571	518	523
15	671	1080	801	760	600	1750	1200	939	648	562	528	503
16	851	1050	897	720	600	1620	1170	1050	672	493	470	494
17	1210	1010	1130	700	600	1500	1130	1100	687	468	439	506
18	1420	980	1310	680	620	1420	1100	953	657	452	427	542
19	2390	961	1120	660	640	1370	1070	871	631	455	418	524
20	2600	933	920	640	660	1320	1060	825	612	464	413	488
21	2790	891	900	640	1000	1280	1030	797	603	461	406	469
22	2890	860	880	640	2200	1230	1010	779	613	451	404	472
23	2530	859	860	640	2700	1220	1010	756	673	433	406	514
24	1780	865	820	620	4800	1310	1040	742	788	421	419	648
25	1290	868	800	620	8500	1370	1030	732	664	427	474	812
26	1140	872	800	620	8400	1350	995	728	598	625	511	714
27	1120	928	900	620	7400	1280	965	868	583	945	515	650
28	1310	1020	1300	620	6000	1400	948	1050	649	657	483	639
29	1490	1060	2100	620	---	1530	932	947	802	497	450	597
30	1510	979	2220	620	---	1530	917	817	818	465	454	570
31	1310	---	2350	620	---	1500	---	772	---	468	509	---
TOTAL	37290	35146	31440	25750	53220	56510	37007	26691	20252	16561	14412	17624
MEAN	1203	1172	1014	831	1901	1823	1234	861	675	534	465	587
MAX	2890	1810	2350	1990	8500	4620	1620	1100	818	945	573	1070
MIN	567	859	677	620	600	1220	917	728	583	421	404	444
CFSM	1.16	1.13	.98	.80	1.84	1.76	1.19	.83	.65	.52	.45	.57
IN.	1.34	1.26	1.13	.93	1.91	2.03	1.33	.96	.73	.60	.52	.63
CAL YR 1984	TOTAL	343518	MEAN	939	MAX	2890	MIN	460	CFSM	.91	IN	12.36
WTR YR 1985	TOTAL	371903	MEAN	1019	MAX	8500	MIN	404	CFSM	.99	IN	13.38

ROCK RIVER BASIN

05436500 SUGAR RIVER NEAR BRODHEAD, WI

LOCATION.--Lat 42°36'42", long 89°23'53", in SW 1/4 sec.26, T.2 N., R.9 E., Green County, Hydrologic Unit 07090004, on left bank at downstream side of highway bridge, 1.2 mi southwest of Brodhead, and 1.9 mi upstream from Sylvester Creek.

DRAINAGE AREA.--523 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1914 to current year. Monthly discharge only for January and February 1914, published in WSP 1308.

REVISED RECORDS.--WSP 1238: 1914-16, 1918, 1922, 1927, 1933. WSP 1508: 1916-17(M), 1919(M), 1920, 1921(M), 1927-28(M), 1930(M), 1931, 1936(M), 1943(M). WDR WI-71-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 768.14 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1938, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: None, except for ice periods listed in rating tables below. Records good except those for periods of ice effect, which are fair. Some regulation from dam and powerplant upstream.

AVERAGE DISCHARGE.--71 years, 348 ft³/s, 9.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s Sept. 13, 1915, gage height, 11.4 ft from floodmarks, from rating curve extended above 7,500 ft³/s; minimum, 35 ft³/s Sept. 19, 1959, gage height, -0.16 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)	DATE	TIME	DISCHARGE (ft ³ /s)	GAGE HEIGHT (ft)
Oct. 21	2000	2,080	5.60	Feb. 24	1000	*4,290	*8.13
Dec. 31	0300	1,420	4.28				

minimum discharge, 244 ft³/s Aug. 23, gage height, 0.64 ft.

RATING TABLES (gage height, in feet, and discharge, in cubic feet per second). (Stage-discharge relation affected by ice Dec. 2-8, 22-28, and Jan. 1 to Feb. 22.)

Oct. 1 to Feb. 23 (1100)				Feb. 23 (1200) to Sept. 30			
0.8	250	4.0	1,280	0.60	236	6.0	2,320
1.0	296	6.0	2,320	1.0	319	8.0	4,090
2.0	572	8.0	4,090	2.0	592	8.1	4,240
				4.0	1,310		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298	893	432	820	310	1220	799	409	392	349	273	273
2	292	939	420	740	310	997	845	422	393	325	280	267
3	296	986	410	700	310	941	824	376	360	314	268	264
4	284	920	380	640	310	875	706	387	355	302	256	260
5	291	698	350	600	310	807	661	387	350	315	257	257
6	277	570	340	580	310	761	707	394	346	319	261	266
7	320	529	350	540	310	729	751	395	339	304	279	310
8	392	505	360	500	310	755	745	388	333	293	289	337
9	376	566	395	470	310	849	672	382	326	287	269	373
10	338	729	394	440	310	903	604	374	317	281	273	399
11	320	676	394	420	310	973	556	369	321	275	266	387
12	321	636	411	410	310	934	555	374	327	273	262	352
13	308	542	400	390	310	868	541	378	325	272	270	318
14	314	504	404	380	310	808	541	390	318	348	281	291
15	346	512	398	370	310	743	547	459	326	298	287	273
16	349	481	459	360	310	704	507	522	354	274	283	271
17	488	455	565	350	320	652	499	489	357	268	263	287
18	586	446	611	340	340	605	471	439	338	265	255	317
19	1550	437	545	340	360	586	477	410	321	265	252	317
20	1780	423	451	330	400	560	467	388	312	268	247	294
21	2030	408	440	330	500	543	457	360	311	267	247	280
22	1810	397	430	330	1900	528	440	354	322	260	247	282
23	1140	383	420	320	3880	525	427	355	320	254	255	296
24	728	397	380	320	4140	572	464	352	313	250	256	319
25	555	399	360	320	3800	613	468	346	303	258	268	348
26	503	401	360	320	3170	619	456	350	296	284	277	338
27	522	431	430	320	2300	580	439	664	293	295	291	330
28	668	476	500	320	1700	657	431	748	320	291	289	323
29	674	500	961	320	---	723	424	711	351	277	272	309
30	715	457	1240	320	---	741	416	572	353	259	280	304
31	605	---	1330	320	---	766	---	440	---	262	278	---
TOTAL	19476	16696	15320	13260	27770	23137	16897	13384	9992	8852	8331	9242
MEAN	628	557	494	428	992	746	563	432	333	286	269	308
MAX	2030	986	1330	820	4140	1220	845	748	393	349	291	399
MIN	277	383	340	320	310	525	416	346	293	250	247	257
CFSM	1.20	1.07	.95	.82	1.90	1.43	1.08	.83	.64	.55	.51	.59
IN.	1.39	1.19	1.09	.94	1.98	1.65	1.20	.95	.71	.63	.59	.66
CAL YR 1984	TOTAL	174446	MEAN 477	MAX 2050	MIN 230	CFSM .91	IN 12.41					
WTR YR 1985	TOTAL	182357	MEAN 500	MAX 4140	MIN 247	CFSM .96	IN 12.97					

ROCK RIVER BASIN

05436500 SUGAR RIVER NEAR BRODHEAD, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-67, 1973, 1976, 1979 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1979 to September 1982 (discontinued), October 1983 to current year.

PERIOD OF MONTHLY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: April to September 1983.

REMARKS.--Sediment records for period during considerable discharge (greater than 300 ft³/s) are good because sampling and analysis effort were concentrated on high-discharge periods. Records during remaining periods are fair to poor because of infrequent (about once per week) sampling. Monthly load values are good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 623 mg/l July 11, 1983; minimum daily mean, 1 mg/l

Dec. 20-23, 1979. Maximum observed, 786 mg/l July 10, 1984; minimum observed, 1 mg/l Dec. 20, 30, 1979.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 2,160 tons July 13, 1984; minimum daily, 0.65 ton Dec. 20, 1979

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 198 mg/l May 27; minimum daily mean, 9 mg/l Jan. 3-5. Maximum observed, 498 mg/l Feb. 23; minimum observed, 8 mg/l Feb. 21.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 1,870 tons Feb. 23; minimum daily, 9.2 tons Feb. 1-16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)
OCT , 1984					FEB , 1985				
10...	0937	342	550	16.5	25...	1340	3880	235	1.0
NOV					APR				
02...	1113	917	200	7.0	02...	1048	830	500	5.5
26...	1030	410	550	5.5	MAY				
JAN , 1985					14...	0945	389	690	18.0
08...	1345	493	700	.5	JUN				
FEB					25...	1015	300	585	23.0
05...	1348	304	580	.0	AUG				
19...	0945	362	660	.0	07...	1305	282	550	26.0

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16 MM	BED MAT. SIEVE DIAM. % FINER THAN 32 MM
60-115 FT FROM LEFT BANK												
NOV, 1984												
02...	1015	899	--	--	11	71	92	96	98	99	100	--
20-60 FT AND 115-125 FT FROM LEFT BANK												
NOV, 1984												
02...	1015	899	--	--	10	32	40	45	59	81	100	--
12-88 FT FROM LEFT BANK												
FEB, 1985												
02...	1320	3770	--	--	2	22	36	44	58	80	99	--
102-132 FT FROM LEFT BANK												
FEB, 1985												
02...	1320	3770	--	1	13	63	74	77	81	90	100	--

05436500 SUGAR RIVER NEAR BRODHEAD, WI--CONTINUED

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)										
1	32	26	48	115	27	31	25	55	11	9.2	27	90
2	30	24	100	249	27	30	12	24	11	9.2	30	80
3	30	24	64	171	27	30	9	17	11	9.2	51	130
4	30	23	46	114	27	28	9	16	11	9.2	55	130
5	26	20	34	65	26	25	9	15	11	9.2	25	56
6	28	19	27	41	26	24	10	16	11	9.2	19	39
7	54	47	57	81	25	24	10	15	11	9.2	17	34
8	70	74	59	80	24	23	10	14	11	9.2	49	100
9	66	67	49	75	24	25	10	13	11	9.2	47	108
10	66	60	93	182	23	24	10	12	11	9.2	37	91
11	62	54	83	152	23	24	10	11	11	9.2	33	86
12	60	52	47	82	20	23	10	11	11	9.2	32	80
13	55	46	35	51	19	21	10	11	11	9.2	25	59
14	55	47	27	37	19	21	11	11	11	9.2	23	50
15	55	51	29	40	19	20	11	11	11	9.2	20	41
16	50	47	33	43	25	31	11	11	11	9.2	24	45
17	58	76	32	40	58	88	11	10	14	12	23	41
18	62	98	31	38	75	124	11	10	25	23	19	32
19	76	318	30	35	50	74	11	10	33	32	19	29
20	82	394	29	33	40	49	11	9.8	23	25	28	43
21	80	438	27	30	27	32	11	9.8	16	22	26	38
22	74	362	26	28	26	30	11	9.8	87	446	30	43
23	68	209	25	26	25	28	11	9.5	176	1870	36	51
24	66	130	24	26	22	23	11	9.5	87	981	28	43
25	58	87	23	25	22	21	11	9.5	41	421	13	22
26	50	68	25	27	20	19	11	9.5	44	381	21	36
27	46	65	28	33	38	49	11	9.5	30	185	35	54
28	50	91	35	45	43	63	11	9.5	25	116	80	144
29	49	90	55	74	70	184	11	9.5	---	---	48	93
30	48	93	30	37	75	251	11	9.5	---	---	32	64
31	47	77	---	---	40	144	11	9.5	---	---	24	49
TOTAL	---	3277	---	2075	---	1583	---	407.9	---	4661.2	---	2001

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)										
1	29	64	102	112	138	146	86	80	74	55	61	45
2	50	114	101	115	145	154	94	83	80	61	60	43
3	46	102	94	96	148	144	104	88	88	63	59	42
4	41	79	88	92	132	127	110	90	92	63	58	41
5	46	82	87	91	117	111	102	86	84	58	58	40
6	52	100	88	94	106	99	93	80	76	54	62	45
7	59	120	89	95	102	93	84	69	78	59	68	57
8	42	85	91	95	98	88	78	62	77	60	74	67
9	20	35	95	98	95	83	78	60	70	51	77	78
10	24	39	101	102	91	78	79	60	70	52	72	77
11	29	43	108	108	89	77	79	59	71	51	66	69
12	46	69	124	125	86	76	80	59	72	51	61	58
13	72	104	147	150	83	73	81	60	72	53	60	51
14	82	120	154	162	84	72	83	78	73	55	59	46
15	87	128	105	129	86	75	81	65	72	56	58	43
16	93	126	102	143	88	84	79	58	70	53	57	42
17	112	151	99	131	93	90	76	55	67	48	56	43
18	104	133	101	120	100	91	73	53	65	45	56	48
19	97	125	111	123	107	92	69	50	64	43	55	47
20	92	116	118	124	110	93	65	47	63	42	67	53
21	95	117	127	123	100	84	61	44	62	41	69	52
22	98	117	131	125	94	82	59	42	61	41	63	48
23	102	118	121	116	106	92	64	44	63	43	59	47
24	105	132	110	105	113	96	70	47	65	45	57	49
25	108	136	113	105	96	79	76	53	66	48	55	52
26	110	135	172	163	77	62	80	61	68	51	53	49
27	110	130	198	349	66	52	84	67	67	52	53	48
28	102	119	143	289	69	60	87	68	65	51	60	52
29	94	108	120	230	74	70	82	61	64	47	63	52
30	91	102	124	192	79	76	76	53	63	48	51	42
31	---	---	131	156	---	---	72	51	62	47	---	---
TOTAL	---	3149	---	4258	---	2699	---	1933	---	1587	---	1526

TOTAL LOAD FOR YEAR: 29157.1 TONS.

ROCK RIVER BASIN

05437500 ROCK RIVER AT ROCKTON, IL

LOCATION.--Lat 42°26'55", long 89°04'11", in SW 1/4 NE 1/4 sec.24, T.46 N., R.1 E., Winnebago County, Hydrologic Unit 07090005, on right bank 750 ft downstream from State Highway 75 in Rockton, 1.0 mi downstream from Pecatonica River, and at mile 156.1.

DRAINAGE AREA.--6,363 mi².

PERIOD OF RECORD.--June 1903 to July 1906, October 1906 to March 1909, July 1914 to September 1919, October 1939 to current year. Published as "below mouth of Pecatonica River at Rockton" 1903-09; as "at Rockford" 1914-19. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 325: 1903-9. WSP 895: 1904(M). WSP 1508: 1915, 1916-17(M). WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 707.94 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1906, nonrecording gage at site 800 ft upstream at datum about 1 ft higher. Oct. 1, 1906, to Mar. 31, 1909, nonrecording gage at site 800 ft upstream at datum about 2 ft higher. July 30, 1914, to Apr. 30, 1919, nonrecording gage at site at Rockford about 21 mi downstream, at different datum. Oct. 1, 1939, to Aug. 10, 1973, at site 800 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 1 to Feb. 21, Aug. 20, and Aug. 22 to Sept. 9. Water-discharge records good except those for period of estimated daily record, Aug. 20 and Aug. 22 to Sept. 9, which are fair, and those for period of estimated daily record, Jan. 1 to Feb. 21, which are poor. Low flow regulated by powerplant above station.

AVERAGE DISCHARGE.--53 years (water years 1904-5, 1915-19, 1940-85), 4,027 ft³/s, 8.59 in/yr, discharge for site at Rockford adjusted for difference in drainage area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft³/s Mar. 30, 1916, gage height, 13.06 ft, site and datum then in use; minimum daily, 501 ft³/s Sept. 14, 1958.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood in February 1937 reached a stage of 14.6 ft, backwater from ice, from painted floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,600 ft³/s Mar. 1, gage height, 12.07 ft; minimum daily, 1,580 ft³/s Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2810	9250	6390	7560	3890	20400	11100	6430	3220	2720	2460	1840
2	2930	11100	6190	6430	3830	20000	11100	6240	3160	2770	2100	1750
3	2450	11300	5940	5620	3800	19200	11000	5920	3110	2490	2070	1580
4	2340	11300	5260	5030	3700	18700	10900	5350	3040	2070	2360	1700
5	2300	11000	4850	5210	3680	17800	11100	5160	3010	2080	2020	1620
6	2410	10700	4630	5600	3620	16500	11000	5240	2680	2400	1860	1600
7	2530	10100	4310	6200	3600	15600	11000	5190	2680	2160	1950	1610
8	2690	9370	4730	7360	3570	14900	10900	4980	2510	2020	1900	1700
9	2930	9000	4900	7180	3570	14300	10900	4780	2600	2040	2060	2020
10	2920	9790	5180	6900	3520	13900	10700	4170	2380	2150	2340	2750
11	2800	10100	5240	7200	3500	13600	10400	3800	2700	1920	2570	2680
12	2830	10300	5300	6850	3500	13400	10400	3910	2480	1970	2740	3090
13	2660	10000	5330	6200	3490	13300	10200	3760	2490	1990	2920	3420
14	2770	9510	5310	5600	3490	13300	9920	4070	2340	2490	2680	3260
15	2890	8780	5330	5200	3480	13200	9830	4860	2090	2420	2440	3230
16	3100	7960	5340	4900	3470	13000	9610	4860	2300	2350	2350	3660
17	3190	7810	5550	4710	3420	12700	9400	4730	2610	2150	2500	3590
18	4260	7770	5890	4600	3400	12300	9030	4920	2270	2080	2280	3560
19	5310	7620	5960	4500	3450	11800	8700	4520	2450	1860	2050	3590
20	7520	7360	6020	4460	3550	11300	8580	4460	2450	1910	2150	3520
21	7860	7020	5930	4420	4000	10900	8360	4300	2180	1960	2060	3670
22	8650	6820	5870	4400	5940	10500	8120	4140	2330	1940	1900	3640
23	8770	6560	5530	4350	8880	10300	7950	3890	2310	1920	1810	3450
24	9440	6480	5150	4290	11700	10200	7820	3680	2420	1630	1770	3230
25	8760	6350	3780	4240	14100	10300	7550	3580	2580	1860	1800	3440
26	8710	6270	4860	4200	16100	10100	7450	3420	2730	1830	2020	3650
27	7810	6180	5520	4150	17600	9940	7370	4310	2820	1990	1860	3890
28	7530	6500	6170	4100	19400	10200	7140	4830	2440	2030	1780	3750
29	7820	6410	8130	4010	---	10700	6850	4470	2430	2270	1910	3680
30	7870	6480	8480	3980	---	10700	6580	4200	2570	2440	2060	3580
31	7870	---	8630	3910	---	11000	---	3800	---	2540	1900	---
TOTAL	154730	255190	175700	163360	169250	414040	280960	141970	77380	66450	66670	87750
MEAN	4991	8506	5668	5270	6045	13360	9365	4580	2579	2144	2151	2925
MAX	9440	11300	8630	7560	19400	20400	11100	6430	3220	2770	2920	3890
MIN	2300	6180	3780	3910	3400	9940	6580	3420	2090	1630	1770	1580
CFSM	.78	1.34	.89	.83	.95	2.10	1.47	.72	.41	.34	.34	.46
IN.	.90	1.49	1.03	.96	.99	2.42	1.64	.83	.45	.39	.39	.51
CAL YR 1984	TOTAL	2016720	MEAN	5510	MAX	11300	MIN	1400	CFSM	.87	IN.	11.79
WTR YR 1985	TOTAL	2053450	MEAN	5626	MAX	20400	MIN	1580	CFSM	.88	IN.	12.01

ILLINOIS RIVER BASIN

301

05527800 DES PLAINES RIVER AT RUSSELL, IL

LOCATION.--Lat 42°29'22", long 87°55'32", in SE 1/4 sec.3, T.46 N., R.11 E., Lake County, Hydrologic Unit 07120004, on right bank at upstream side of Russell Road bridge, 0.3 mi west of Russell, 7.2 mi upstream from Mill Creek, and at mile 109.3.

DRAINAGE AREA.--123 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1961-63, and annual maximum, water years 1962-66. June 1967 to current year.

REVISED RECORDS.--WDR IL-75-1: Drainage area. WDR IL-76-1: 1960-68(M), 1973(M).

GAGE.--Water-stage recorder. Datum of gage is 662.00 ft above National Geodetic Vertical Datum of 1929. Oct. 17, 1961, to June 29, 1967, crest-stage gage at left downstream side of bridge at datum 4.29 ft higher.

REMARKS.--Estimated daily discharges: Oct. 12 to Dec. 7, Dec. 25, 26, and Jan. 13 to Mar. 2. Water-discharge records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--18 years, 98.0 ft³/s, 10.82 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft³/s Mar. 21, 1979, gage height, 9.69 ft; maximum gage height, 10.75 ft Mar. 6, 1976; no flow at times during several years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 950 ft³/s Mar. 5, gage height, 8.69 ft; minimum daily, 1.1 ft³/s Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	175	120	316	27	700	182	29	25	2.5	2.4	2.7
2	7.9	210	110	245	26	750	183	26	19	3.0	2.5	2.5
3	6.4	220	105	227	26	789	178	24	15	3.2	2.9	2.2
4	5.8	200	90	262	25	803	163	22	13	3.3	2.5	1.6
5	5.9	180	85	293	25	933	148	22	12	4.3	3.7	1.6
6	5.6	160	77	258	24	929	147	30	11	3.3	3.1	1.6
7	5.9	190	66	229	24	916	155	31	10	2.9	3.2	1.1
8	6.0	210	60	200	23	866	165	26	9.4	2.1	2.9	3.5
9	5.8	230	52	169	23	795	170	23	8.2	1.5	2.8	36
10	5.5	240	46	144	22	743	166	20	6.9	1.9	3.2	56
11	5.4	230	44	127	22	690	152	18	6.5	1.9	2.5	44
12	5.2	200	56	114	21	630	136	17	7.8	1.9	2.2	24
13	5.0	180	101	100	21	555	120	16	9.2	2.0	40	12
14	5.0	150	148	90	20	487	109	15	8.1	5.8	71	7.7
15	9.0	145	194	80	20	416	101	20	8.2	9.6	47	5.4
16	12	160	222	70	20	359	94	28	13	7.7	24	4.1
17	15	165	239	65	25	310	85	30	17	6.3	13	3.4
18	18	145	248	60	30	265	77	29	14	5.1	8.4	2.5
19	50	125	250	55	35	235	67	25	10	4.3	5.3	1.9
20	40	100	240	50	45	207	59	21	8.8	3.9	3.9	1.5
21	50	80	228	45	60	180	51	16	11	3.6	3.5	1.8
22	80	70	212	40	90	155	45	14	10	3.2	3.0	2.2
23	110	60	193	35	160	136	41	13	8.7	3.0	2.4	3.3
24	100	55	176	33	250	128	48	13	7.5	2.9	2.2	3.3
25	85	50	160	30	400	126	61	12	6.2	3.0	2.1	2.5
26	75	50	140	30	500	124	59	12	5.0	3.2	1.6	2.7
27	65	90	130	29	680	119	47	37	4.3	3.3	1.6	3.2
28	60	120	140	29	640	119	39	69	4.5	3.7	1.6	3.3
29	75	135	197	28	---	137	35	66	3.5	2.9	1.7	3.6
30	100	130	246	28	---	153	31	47	2.9	2.2	2.1	4.4
31	140	---	298	27	---	168	---	35	---	2.7	2.1	---
TOTAL	1168.2	4455	4673	3508	3284	13923	3114	806	295.7	110.2	270.4	245.6
MEAN	37.7	149	151	113	117	449	104	26.0	9.86	3.55	8.72	8.19
MAX	140	240	298	316	680	933	183	69	25	9.6	71	56
MIN	5.0	50	44	27	20	119	31	12	2.9	1.5	1.6	1.1
CFSM	.31	1.21	1.23	.92	.95	3.65	.85	.21	.08	.03	.07	.07
IN.	.35	1.35	1.41	1.06	.99	4.21	.94	.24	.09	.03	.08	.07
CAL YR 1984	TOTAL	40732.2	MEAN	111	MAX	560	MIN	3.0	CFSM	.90	IN.	12.32
WTR YR 1985	TOTAL	35853.1	MEAN	98.2	MAX	933	MIN	1.1	CFSM	.80	IN.	10.84

ILLINOIS RIVER BASIN

05543830 FOX RIVER AT WAUKESHA, WI

LOCATION.--Lat 43°00'17", long 88°14'37", in SW 1/4 sec.3, T.6 N., R.18 E., Waukesha County, Hydrologic Unit 07120006, on left bank 20 ft downstream from Prairie Street bridge in Waukesha, 1.0 mi downstream from dam and 3.2 mi downstream from Pewaukee River.

DRAINAGE AREA.--126 mi².

PERIOD OF RECORD.--January 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 793.04 ft above National Geodetic Vertical Datum of 1929 (levels by city of Waukesha).

REMARKS.--Estimated daily discharge: None, except for ice periods listed in rating table below. Records good except for ice-affected periods, which are fair. There is occasional regulation from mill dam 1.0 mi upstream

AVERAGE DISCHARGE.--22 years, 95.4 ft³/s, 10.28 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,260 ft³/s Apr. 22, 1973, gage height, 7.42 ft; minimum, 3.0 ft³/s Jan. 1, 1964, gage height, 1.52 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 646 ft³/s Feb. 26, gage height, 4.81 ft; minimum, 9.8 ft³/s Jan. 11, gage height, 1.83 ft, result of freezeup.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).
(Stage-discharge relation affected by ice Dec. 5-7, 25-26, Jan. 2-4, 16-24, and Feb. 1-21.)

1.9	14	3.0	167
2.1	31	4.0	393
2.4	67	5.0	720

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	306	154	325	82	513	269	61	35	24	23	17
2	22	389	143	260	80	463	263	58	34	24	19	16
3	24	365	141	240	78	424	244	56	35	23	14	20
4	23	339	102	220	80	309	237	56	34	27	14	23
5	22	328	90	202	80	313	241	56	34	34	18	22
6	21	306	84	172	78	352	271	57	36	34	23	21
7	48	270	80	154	78	320	304	56	33	27	24	19
8	52	234	80	147	76	317	284	53	32	26	19	84
9	42	239	80	138	74	382	255	50	30	24	17	166
10	36	262	82	128	74	422	237	48	30	23	18	101
11	33	270	85	88	72	436	225	47	33	23	16	44
12	34	242	132	105	70	429	203	49	31	22	18	28
13	32	215	161	115	68	410	186	45	31	22	36	26
14	31	194	169	115	68	385	176	41	31	18	27	25
15	62	179	164	101	68	355	167	67	65	18	20	24
16	119	162	176	100	66	322	150	61	66	18	21	24
17	125	142	204	98	66	288	133	57	44	18	17	28
18	125	126	208	96	66	257	125	53	33	17	16	26
19	244	117	205	92	64	236	119	47	28	28	19	24
20	233	107	177	90	66	225	112	47	26	24	21	23
21	199	100	175	88	90	206	109	43	33	20	20	24
22	190	93	160	90	175	193	105	39	37	19	18	24
23	168	89	128	92	284	187	104	38	31	20	17	30
24	148	89	105	90	441	208	107	38	29	19	24	28
25	128	87	94	90	574	214	106	38	28	28	33	26
26	113	90	90	87	635	203	100	44	27	28	24	24
27	129	134	122	89	514	197	92	53	27	21	18	20
28	177	170	173	90	497	243	97	49	26	16	17	18
29	175	178	415	87	---	257	101	41	24	18	32	15
30	158	170	474	87	---	235	75	39	23	20	34	20
31	140	---	431	85	---	242	---	35	---	23	27	---
TOTAL	3076	5992	5084	3961	4664	9543	5197	1522	1006	706	664	990
MEAN	99.2	200	164	128	167	308	173	49.1	33.5	22.8	21.4	33.0
MAX	244	389	474	325	635	513	304	67	66	34	36	166
MIN	21	87	80	85	64	187	75	35	23	16	14	15
CFSM	.79	1.59	1.30	1.02	1.33	2.44	1.37	.39	.27	.18	.17	.26
IN.	.91	1.77	1.50	1.17	1.38	2.82	1.53	.45	.30	.21	.20	.29

CAL YR 1984	TOTAL	46861.0	MEAN	128	MAX	554	MIN	4.0	CFSM	1.02	IN	13.84
WTR YR 1985	TOTAL	42405.0	MEAN	116	MAX	635	MIN	14	CFSM	.92	IN	12.52

ILLINOIS RIVER BASIN

303

05544200 MUKWONAGO RIVER AT MUKWONAGO, WI

LOCATION.--Lat 42°51'24", long 88°19'40", in NE 1/4 NE 1/4 sec.35, T.5 N., R.18 E., Waukesha County, Hydrologic Unit 07120006, on left bank 100 ft upstream from bridge on State Highway 83 in Mukwonago, 100 ft downstream from railroad bridge, and 800 ft downstream from dam.

DRAINAGE AREA.--74.1 mi².

PERIOD OF RECORD.--July 1973 to current year.

REVISED RECORDS.--WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 779.23 ft above National Geodetic Vertical Datum of 1929 (South-eastern Wisconsin Regional Planning Commission bench mark). Prior to Oct. 19, 1981, at datum 0.85 ft higher.

REMARKS.--Estimated daily discharges: Jan. 21 and July 12 to Sept. 30. Records fair except for estimated daily discharges, which are poor. Discharge affected by manipulation of gates at dams 800 ft and 11.4 mi upstream.

AVERAGE DISCHARGE.--12 years, 58.5 ft³/s, 10.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 300 ft³/s Mar. 5, 1976, gage height, 2.50 ft; maximum gage height, 2.97 ft, Dec. 4, 1985; minimum daily, 1.8 ft³/s Dec. 23, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 209 ft³/s Dec. 4, gage height, 2.97 ft; minimum daily, 9.9 ft³/s June 18.

RATING TABLE (gage height, in feet, and discharge, in cubic feet per second).

1.8	8.0	2.4	64
2.0	15	2.6	103
2.2	34	3.0	215

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	127	86	121	52	137	115	41	66	23	26	23
2	16	136	81	115	53	131	103	38	61	23	25	22
3	18	130	82	106	50	127	75	38	58	23	23	21
4	18	126	123	101	46	130	75	40	57	22	23	21
5	18	75	66	98	47	128	90	41	44	23	23	20
6	20	59	63	90	49	121	100	41	32	24	25	20
7	26	58	62	83	47	96	104	42	35	24	27	21
8	58	57	61	56	46	89	119	42	28	24	25	23
9	67	105	58	42	46	94	119	43	26	23	24	50
10	61	162	25	42	49	98	113	42	25	22	24	90
11	56	119	10	48	49	121	105	41	26	23	23	86
12	29	70	16	48	49	129	60	43	26	24	23	82
13	24	73	26	50	49	124	47	40	27	26	30	78
14	28	74	67	51	52	119	50	24	26	40	45	66
15	41	75	113	52	53	102	54	26	32	50	42	58
16	49	70	106	57	50	77	71	31	106	47	40	45
17	85	63	67	59	48	76	76	40	51	45	35	38
18	101	60	49	57	48	78	72	41	9.9	40	30	35
19	139	31	53	57	49	78	67	41	12	34	25	32
20	130	21	65	57	48	75	64	40	17	34	23	31
21	131	25	89	56	52	74	60	39	20	33	22	31
22	127	28	79	55	66	74	58	58	24	31	21	32
23	68	38	57	52	83	73	56	61	39	28	20	31
24	45	51	57	54	145	74	53	54	38	26	20	30
25	67	51	51	57	173	81	39	47	29	24	21	30
26	75	52	51	53	161	83	42	44	23	22	24	30
27	77	83	52	52	150	90	44	47	23	23	23	30
28	114	94	79	53	144	96	44	68	27	23	23	29
29	69	89	111	54	---	102	44	77	25	22	22	29
30	59	88	113	55	---	104	44	72	24	23	23	28
31	70	---	118	53	---	105	---	71	---	25	24	---
TOTAL	1915	2290	2136	1984	1954	3086	2163	1413	1036.9	874	804	1162
MEAN	61.8	76.3	68.9	64.0	69.8	99.5	72.1	45.6	34.6	28.2	25.9	38.7
MAX	139	162	123	121	173	137	119	77	106	50	45	90
MIN	16	21	10	42	46	73	39	24	9.9	22	20	20
CFSM	.83	1.03	.93	.86	.94	1.34	.97	.62	.47	.38	.35	.52
IN.	.96	1.15	1.07	1.00	.98	1.55	1.09	.71	.52	.44	.40	.58
CAL YR 1984	TOTAL	22792.0	MEAN	62.3	MAX	162	MIN	10	CFSM	.84	IN	11.44
WTR YR 1985	TOTAL	20817.9	MEAN	57.0	MAX	173	MIN	9.9	CFSM	.77	IN	10.45

ILLINOIS RIVER BASIN
474848088083100 WIND LAKE AT WIND LAKE, WI

LOCATION.--Lat 42°48'48", long 88°08'31", in NE 1/4 NW 1/4 Sec.16, T.4 N., R.20 E., Racine County, Hydrologic Unit 07120006, at Wind Lake.

DRAINAGE AREA.--40.2 mi².

LAKE-STAGE RECORDS

PERIOD OF RECORD.--March 6 to September 30, 1985.

REMARKS.--Lake stages read at the lake outlet by M. Reisner.

EXTREMES FOR CURRENT YEAR.--Maximum stage observed during year, 8.54 ft Apr. 17, 24, 29; minimum observed, 7.12 ft Mar. 20.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	---	---	---	---	---	---
2						---	8.49	8.51	8.22	8.06	7.56	---
3						---	---	---	---	---	---	7.33
4						---	---	---	---	---	---	---
5						---	---	---	---	---	7.56	7.32
6						8.12	---	---	8.16	7.97	---	---
7						---	---	---	---	---	---	---
8						7.87	---	---	---	---	7.60	---
9						---	8.43	---	---	---	---	---
10						---	---	8.43	---	---	---	---
11						---	---	---	---	7.86	---	---
12						7.83	8.24	---	---	7.85	---	7.37
13						---	---	---	---	---	---	---
14						---	---	8.42	---	---	---	---
15						7.54	---	---	---	---	---	---
16						---	---	---	---	---	7.49	---
17						---	8.54	8.50	---	---	---	---
18						---	---	---	---	---	---	---
19						---	---	---	8.24	---	7.48	---
20						7.12	---	---	---	7.72	---	7.24
21						---	---	---	8.14	---	---	---
22						7.24	8.43	8.29	---	---	7.45	---
23						---	---	---	---	---	---	---
24						---	8.54	---	---	---	---	---
25						---	---	8.31	8.04	---	---	---
26						7.70	---	---	---	---	7.41	---
27						---	---	---	8.01	---	---	7.21
28						---	---	---	---	---	7.38	---
29						8.24	8.54	---	---	---	---	---
30						---	---	8.29	---	7.62	---	7.20
31						---	---	---	---	---	---	---
MEAN						---	---	---	---	---	---	---
MAX						---	---	---	---	---	---	---
MIN						---	---	---	---	---	---	---

ILLINOIS RIVER BASIN

424915088083900 WIND LAKE AT WIND LAKE, WI

WATER-QUALITY RECORDS

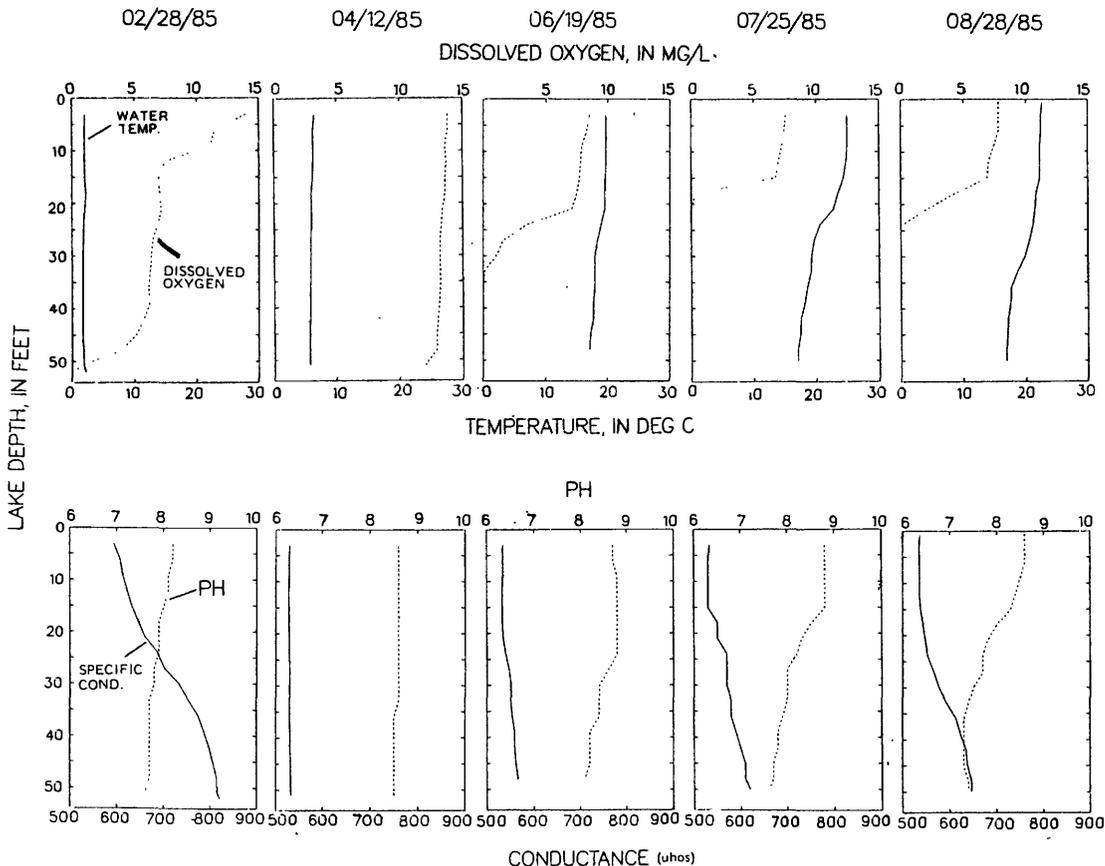
LOCATION.--Lat 42°49'15", long 88°08'39", in NW 1/4 SW 1/4 Sec.9, T.4 N., R.20 E., Racine County, Hydrologic Unit 07120006, at Wind Lake.

PERIOD OF RECORD.--February 20, 1984 to August 28, 1985.

REMARKS.--Lake sampled near center at a depth of 52 feet.

WATER QUALITY DATA, FEBRUARY 28 TO AUGUST 28, 1985
(Milligrams per liter unless otherwise indicated)

	Feb. 28		Apr. 12		June 19		July 25		Aug. 28	
Depth of sample (ft)	3	52	3	51	3	49	3	50	3	50.5
Specific conductance (umhos)	594	821	529	533	533	566	534	620	535	645
pH	8.3	7.5	8.6	8.5	8.7	8.1	8.8	7.6	8.6	7.4
Water temperature (°C)	2.1	2.2	6.5	5.5	19.5	17.0	25.0	17.0	22.5	17.0
Color (Pt-Co. scale)	--	--	5	400	--	--	--	--	--	--
Turbidity (NTU)	--	--	1.5	1.1	--	--	--	--	--	--
Secchi-disc (meters)	--	--	--	1.2	--	0.8	--	0.6	--	1.1
Dissolved oxygen	14.0	0.6	13.8	12.0	9.5	0.0	7.6	0.0	7.8	0.0
Hardness, as CaCO ₃	--	--	230	220	--	--	--	--	--	--
Calcium, dissolved (Ca)	--	--	46	45	--	--	--	--	--	--
Magnesium, dissolved (Mg)	--	--	27	26	--	--	--	--	--	--
Dissolved sodium (Na)	--	--	25	25	--	--	--	--	--	--
Potassium, dissolved (K)	--	--	2.3	2.2	--	--	--	--	--	--
Alkalinity as CaCO ₃	--	--	159	159	--	--	--	--	--	--
Sulfate, dissolved (SO ₄)	--	--	50	50	--	--	--	--	--	--
Chloride, dissolved (Cl)	--	--	49	49	--	--	--	--	--	--
Silica, dissolved (SiO ₂)	--	--	0.0	0.0	--	--	--	--	--	--
Solids, dissolved, at 180°C	--	--	335	331	--	--	--	--	--	--
Nitrogen, nitrate, total (as N)	--	--	.39	.39	--	--	--	--	--	--
Nitrogen, nitrite, total (as N)	--	--	.01	.01	--	--	--	--	--	--
Nitrogen, ammonia, total (as N)	--	--	.21	.21	--	--	--	--	--	--
Nitrogen, organic, total (as N)	--	--	.99	.59	--	--	--	--	--	--
Total phosphorus (as P)	--	--	.037	.047	.054	.177	.061	.833	.036	.870
Phosphorus, ortho, diss (as P)	--	--	<.001	.003	--	--	--	--	--	--
Iron, dissolved (Fe) ug/L	--	--	14	14	--	--	--	--	--	--
Manganese, dissolved (Mn) ug/L	--	--	2	3	--	--	--	--	--	--
Chlorophyll a, phyto. (ug/L)	--	--	1.80	--	22.0	--	16.0	--	13.0	--
Chlorophyll E, phyto. (ug/L)	--	--	<.10	--	<.10	--	<.10	--	<.10	--



DISSOLVED OXYGEN, WATER TEMPERATURE, PH AND SPECIFIC CONDUCTANCE DEPTH PROFILES FOR WIND LAKE AT WIND LAKE, WI.

ILLINOIS RIVER BASIN

424727088332300 PLEASANT LAKE NEAR LA GRANGE, WI

LAKE-STAGE RECORDS

LOCATION.--Lat 42°47'27", long 88°33'23", in SW 1/4 sec.24, T.4N., R.16 E., Walworth County, Hydrologic Unit 07120006, 2.6 mi southeast of LaGrange.

PERIOD OF RECORD.--October 1984 to September 1985.

GAGE.--Steff gage read by observer. Elevation of gage is 879 ft, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.50 ft, June 13; minimum, 7.69 ft, Oct. 6.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT	DATE	GAGE HEIGHT
OCT. 6	7.69	NOV. 17	8.05	JUNE 13	8.50	JULY 6	7.99	JULY 29	7.70	SEPT. 7	7.79
OCT. 13	7.75	NOV. 24	8.03	JUNE 16	8.10	JULY 9	7.90	AUG. 1	7.70	SEPT. 11	7.89
OCT. 20	7.95	JUNE 2	8.18	JUNE 23	8.10	JULY 15	7.85	AUG. 9	7.73	SEPT. 15	7.85
OCT. 27	7.99	JUNE 5	8.12	JUNE 30	8.00	JULY 20	7.80	AUG. 13	7.74	SEPT. 22	7.82
NOV. 3	8.03	JUNE 8	8.10	JULY 3	8.00	JULY 23	7.75	AUG. 26	7.79	SEPT. 28	7.79
NOV. 10	8.10										

WATER-QUALITY RECORDS

LOCATION.--Lat 42°47'16", long 88°33'02", in SE 1/4 sec.24, T.4N., R.16 E., Walworth County, Hydrologic Unit 07120006, near center of lake, and 2.7 mi southeast of LaGrange.

PERIOD OF RECORD.--June to September 1985

REMARKS.--Secchi disc readings made by Gordon Dobbs.

EXTREMES FOR CURRENT YEAR.--Maximum transparency, 3.4 meters, June 8, July 9; minimum transparency, 1.7 meters, July 27, Aug. 1, 13.

SECCHI DISC TRANSPARENCY (IN METERS) WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH	DATE	SECCHI DEPTH
JUNE 2	3.0	JUNE 23	2.7	JULY 9	3.4	AUG. 1	1.7	AUG. 26	1.8	SEPT. 15	1.8
JUNE 5	3.0	JUNE 30	3.0	JULY 14	2.1	AUG. 9	1.8	SEPT. 7	1.8	SEPT. 22	1.8
JUNE 8	3.4	JULY 4	2.7	JULY 20	1.8	AUG. 13	1.7	SEPT. 11	1.8	SEPT. 28	2.1
JUNE 15	3.0	JULY 6	3.0	JULY 27	1.7						

05546500 FOX RIVER AT WILMOT, WI

LOCATION.--Lat 42°30'40", long 88°10'45", in SW 1/4 sec.30, T.1 N., R.20 E., Kenosha County, Hydrologic Unit 07120006, on right bank 100 ft downstream from bridge on County Trunk Highway C, 300 ft upstream from Wilmot Dam, 1.0 mi north of Wisconsin-Illinois State line, and 6.0 mi upstream from Fox Chain of Lakes.

DRAINAGE AREA.--868 mi².

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1308: 1943(M), 1945(M). WDR WI-67-1: Drainage area.

GAGE.--Water-stage recorder and concrete dam. Datum of gage is 735.22 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 1, 1956, nonrecording gage and concrete dam.

REMARKS.--Estimated daily discharges: Jan. 15 to Feb. 23. Records good except for period of no gage-height record, Jan. 15 to Feb. 23, and when debris was caught under the lift gates, May 8 to Aug. 19, which are fair. Three 6-ft lift gates in Wilmot dam were in operation during the year; discharge through gates computed by weir and orifice formulas and added to flow over dam. Gage-height telemeter at station.

AVERAGE DISCHARGE.--46 years, 536 ft³/s, 8.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,520 ft³/s Mar. 31, 1960, gage height, 9.25 ft, from graph based on gage readings; no flow part of day Oct. 26, 1945; minimum daily discharge, 35 ft³/s Sept. 9, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,220 ft³/s Mar. 3, gage height, 7.61 ft; minimum daily, 69 ft³/s July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298	1030	924	1660	680	2450	1300	552	424	220	184	190
2	283	1520	908	1160	680	2750	1300	535	399	200	180	187
3	260	1650	926	896	680	3020	1290	512	371	198	169	176
4	255	1580	688	986	680	2500	1270	502	345	192	162	160
5	250	1500	600	1190	680	2750	1250	467	326	208	172	90
6	235	1390	679	1330	660	2900	1310	472	328	207	172	151
7	236	1270	713	1370	640	2680	1400	505	330	213	184	162
8	277	1180	675	1310	620	2510	1420	453	287	249	182	194
9	307	1190	630	1250	620	2540	1380	471	270	274	177	332
10	320	1420	575	1180	620	2570	1300	454	256	151	184	463
11	316	1610	562	1090	620	2560	1220	453	267	99	182	445
12	313	1590	632	989	620	2550	1160	454	267	69	169	437
13	358	1490	782	919	600	2410	1120	449	267	144	233	389
14	351	1360	891	900	600	2260	1110	448	270	217	241	332
15	312	1240	905	880	600	2150	1080	464	282	246	238	297
16	345	1160	992	840	580	2050	985	495	292	227	225	277
17	518	1080	1150	820	580	1950	915	559	343	193	206	259
18	600	1010	1210	800	580	1830	855	558	377	169	196	266
19	975	944	1140	780	560	1670	810	501	366	161	185	269
20	1300	829	1020	780	560	1550	797	455	319	167	187	238
21	1300	695	986	760	580	1460	775	437	272	163	175	222
22	1280	641	968	760	720	1320	730	404	260	155	160	227
23	1240	603	916	740	980	1220	587	397	263	146	152	225
24	1080	585	741	740	1270	1230	511	380	266	136	151	222
25	940	577	465	720	1590	1260	625	365	258	164	151	217
26	879	551	666	720	2020	1220	644	361	244	185	165	226
27	830	645	741	720	2190	1160	612	490	233	176	170	230
28	884	861	900	700	2290	1230	595	598	251	163	148	222
29	994	972	1430	700	---	1430	574	535	260	157	159	212
30	988	1020	1750	680	---	1400	556	481	201	157	182	208
31	870	---	1830	680	---	1310	---	452	---	172	196	---
TOTAL	19394	33193	27995	29050	24100	61890	29481	14659	8894	5578	5637	7525
MEAN	626	1106	903	937	861	1996	983	473	296	180	182	251
MAX	1300	1650	1830	1660	2290	3020	1420	598	424	274	241	463
MIN	235	551	465	680	560	1160	511	361	201	69	148	90
CFSM	.72	1.27	1.04	1.08	.99	2.30	1.13	.55	.34	.21	.21	.29
IN.	.83	1.42	1.20	1.24	1.03	2.65	1.26	.63	.38	.24	.24	.32
CAL YR 1984	TOTAL	277021	MEAN 757	MAX 2230	MIN 182	CFSM .87	IN 11.87					
WTR YR 1985	TOTAL	267396	MEAN 733	MAX 3020	MIN 69	CFSM .84	IN 11.46					

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual minimum has been determined.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1985

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	DATE	ANNUAL MAXIMUM	
						GAGE HEIGHT (FT)	DIS-CHARGE (FT ³ /S)
STREAMS TRIBUTARY TO LAKE SUPERIOR							
04024384	LAKE SUPERIOR TRIBUTARY AT SUPERIOR, WI	LAT 46°43'18", LONG 92°04'02", IN SE 1/4 SW 1/4 SEC.13, T.49 N., R.14 W., DOUGLAS COUNTY, AT CULVERT ON U.S. HIGHWAY 2, 1.6 MI NORTH OF 24TH AVENUE, AND 0.5 MI DOWNSTREAM FROM CENTRAL PARK, AT SUPERIOR.	4.90	1982-85	09-03-85	6.82	1,000
04024400	STONY BROOK NEAR SUPERIOR, WIS.	LAT 46°35'01", LONG 92°07'10", IN SE 1/4 SEC.4, T.47 N., R.14 W., DOUGLAS COUNTY, AT BOX CULVERT ON STATE HIGHWAY 35, 12.5 MI SOUTH OF TOLL BRIDGE ON U.S. HIGHWAYS 2 AND 35 AT ST. LOUIS RIVER AT SUPERIOR.	2.20	1959-85	09-02-85	35.23	595
04025200	PEARSON CREEK NEAR MAPLE, WIS.	LAT 46°38'51", LONG 91°42'55", ON COMMON BOUNDARY OF SECS.11 AND 14, T.48 N., R.11 W., DOUGLAS COUNTY, AT BOX CULVERT ON STATE HIGHWAY 13, 4.0 MI NORTH OF MAPLE.	4.01	1957-85	09-02-85	31.83	1,440
04026200	SAND RIVER TRIBUTARY NEAR RED CLIFF, WIS.	LAT 46°53'53", LONG 90°56'47", IN NE 1/4 SEC.14, T.51 N., R.5 W., BAYFIELD COUNTY, AT BOX CULVERT ON STATE HIGHWAY 13, 8.0 MI NORTHWEST OF RED CLIFF.	1.14	1959-85	05-12-85	11.72	145
*04026300	SIOUX RIVER NEAR WASHBURN, WIS.	LAT 46°41'20", LONG 90°57'02", IN NE 1/4 SEC.35, T.49 N., R.5 W., BAYFIELD COUNTY, ON COUNTY TRUNK HIGHWAY C, 2.5 MI WEST OF WASHBURN.	35.2	1959-65 1966# 1967-85	09-02-85	29.45	2,200
04026450	BAD RIVER NEAR MELLEN, WIS.	LAT 46°16'14", LONG 90°42'26", IN NE 1/4 NW 1/4 SEC.26, T.44 N., R.3 W., ASHLAND COUNTY, ON LEFT BANK 150 FT DOWNSTREAM FROM BRIDGE ON U.S. FOREST SERVICE ROAD, 4.4 MI SOUTHEAST OF MELLEN.	83.4	1971-75# 1976-85	09-03-85	6.72	1,500
*04027200	PEARL CREEK AT GRANDVIEW, WIS.	LAT 46°22'05", LONG 91°05'27", IN NE 1/4 SEC.22, T.45 N., R.6 W., BAYFIELD COUNTY, AT BOX CULVERT ON U.S. HIGHWAY 63, 0.8 MI EAST OF GRANDVIEW.	16.9	1960-85	09-03-85	12.18	208
STREAMS TRIBUTARY TO LAKE MICHIGAN							
*04059900	ALLEN CREEK TRIBUTARY NEAR ALVIN, WIS.	LAT 45°58'05", LONG 88°47'24", ON NORTH BOUNDARY SEC.7, T.40 N., R.14 E., FOREST COUNTY, AT CULVERT ON STATE HIGHWAY 70, 2.2 MI SOUTHEAST OF ALVIN.	1.24	1960-85	09-24-85	11.02	17
04063640	NORTH BRANCH PINE RIVER AT WINDSOR DAM NEAR ALVIN, WIS.	LAT 45°55'43", LONG 88°51'38", IN SE 1/4 SEC.21, T.40 N., R.13 E., FOREST COUNTY, AT BRIDGE ON COUNTRY ROAD, AT WINDSOR DAM, 3.8 MI UPSTREAM FROM CONFLUENCE OF NORTH AND SOUTH FORKS, 4.0 MI SOUTHWEST OF ALVIN.	27.8	1967-68# 1970-85	07-05-85	2.35	54
04063688	SOUTH BRANCH POPPLE RIVER NEAR NEWALD, WIS.	LAT 45°44'42", LONG 88°35'31", IN NW 1/4 SEC.26, T.38 N., R.15 E., FLORENCE COUNTY, AT CORRUGATED TWIN BARREL CULVERTS ON U.S. FOREST SERVICE ROAD 2159, 5.4 MI EAST OF NEWALD.	9.47	1970-85	06-09-85	11.73	44
*04063800	WOODS CREEK NEAR FENCE, WIS.	LAT 45°49'53", LONG 88°23'17", IN SE 1/4 SEC.29, T.39 N., R.17 E., FLORENCE COUNTY, AT BOX CULVERT ON STATE HIGHWAY 101, 6.0 MI NORTH OF FENCE.	41.40	1958-85	06-09-85	11.17	180
04064800	LITTLE POPPLE RIVER NEAR AURORA, WIS.	LAT 45°47'34", LONG 88°11'40", IN SW 1/4 SEC.1, T.38 N., R.18 E., FLORENCE COUNTY, AT 3-BARREL CORRUGATED CULVERT ON COUNTY TRUNK HIGHWAY N, 5.5 MI WEST OF AURORA.	35.0	1970-85	07-06-85	12.44	285

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1985		
					DATE	ANNUAL MAXIMUM GAGE HEIGHT (FT)	DIS-CHARGE (FT ³ /S)
STREAMS TRIBUTARY TO LAKE MICHIGAN--CONTINUED							
04067760	PESHIGO RIVER NEAR CAVOUR, WIS.	LAT 45°39'20", LONG 88°38'52", IN SW 1/4 SEC.29, T.37 N., R.15 E., FOREST COUNTY, AT BRIDGE ON U.S. HIGHWAY 8, 0.7 MI NORTHWEST OF CAVOUR.	150	1970-85	05-26-85	12.57	700
04067800	ARMSTRONG CREEK NEAR ARMSTRONG CREEK, WIS.	LAT 45°39'29", LONG 88°28'44", IN W 1/2 SEC.27, T.37 N., R.16 E., FOREST COUNTY, AT BRIDGE ON U.S. HIGHWAY 8, 1.8 MI NORTHWEST OF ARMSTRONG CREEK.	23.2	1958-85	06-09-85	10.12	97
04069700	NORTH BRANCH OCONTO RIVER NEAR WABENO, WIS.	LAT 45°26'19", LONG 88°37'40", IN SW 1/4 SEC.9, T.34 N., R.15 E., FOREST COUNTY, AT PIPE ARCH CULVERT ON COUNTY TRUNK HIGHWAY C, 0.6 MI EAST OF INTERSECTION WITH STATE HIGHWAY 32 AT WABENO.	34.1	1970-85	06-26-85	11.32	87
04071700	NORTH BRANCH LITTLE RIVER NEAR COLEMAN, WIS.	LAT 45°00'37", LONG 88°02'43", ON COMMON BOUNDARY OF SECS.2 AND 3, T.29 N., R.20 E., OCONTO COUNTY, AT BRIDGE ON U.S. HIGHWAY 141, 3.8 MI SOUTH OF COLEMAN.	21.4	1958-85	03-26-85	13.36	325
*04071800	PENSAUKEE RIVER NEAR PULASKI, WIS.	LAT 44°45'48", LONG 88°15'07", IN NE 1/4 SEC.1, T.26 N., R.18 E., SHAWANO COUNTY, AT BRIDGE ON STATE HIGHWAY 32, 6.1 MI NORTH OF PULASKI.	41.80	1961-85	10-18-84	15.43	1,160
*04073400	BIRD CREEK AT WAUTOMA, WIS.	LAT 44°06'00", LONG 89°18'00", IN S 1/2 SEC.34, T.19 N., R.10 E., WAUSHARA COUNTY, AT CONCRETE CULVERT ON STATE HIGHWAY 21, 0.2 MI WEST OF WAUTOMA.	3.59	1959-85	11-01-84	11.72	78
04074300	MUD CREEK NEAR NASHVILLE, WIS.	LAT 45°34'19", LONG 89°02'39", IN SW 1/4 SEC.30, T.36 N., R.12 E., FOREST COUNTY, AT CONCRETE CIRCULAR CULVERT ON U.S. HIGHWAY 8, 3.5 MI NORTH OF NASHVILLE.	10.0	1970-85	08-10-85	13.15	70
*04074700	HUNTING RIVER NEAR ELCHO, WIS.	LAT 45°25'10", LONG 89°11'15", IN N 1/2 SEC.24, T.34 N., R.10 E., LANGLADE COUNTY, AT TWIN CULVERTS ON U.S. HIGHWAY 45 AND STATE HIGHWAY 47, 1.5 MI SOUTH OF ELCHO.	9.00	1958-85	09-30-85	11.75	69
*04074850	LILY RIVER NEAR LILY, WIS.	LAT 45°20'59", LONG 88°49'52", IN SE 1/4 SEC.11, T.33 N., R.13 E., LANGLADE COUNTY, AT CULVERT ON COUNTY TRUNK HIGHWAY A, 3.2 MI NORTH FROM JUNCTION OF STATE HIGHWAYS 55 AND 52 AT LILY.	52.4	1970-85	05-27-85	10.82	130
*04075200	EVERGREEN CREEK NEAR LANGLADE, WIS.	LAT 45°10'11", LONG 88°48'12", IN NW 1/4 SEC.18, T.31 N., R.14 E., LANGLADE COUNTY, AT CULVERT ON STATE HIGHWAY 64, 3.5 MI SOUTHWEST OF LANGLADE.	8.00	1959-65 1966-72# 1973-85	08-13-85	10.87	45
*04079700	SPAULDING CREEK NEAR BIG FALLS, WIS.	LAT 44°38'13", LONG 89°01'20", ON COMMON BOUNDARY OF SECS.14 AND 15, T.25 N., R.12 E., WAUPACA COUNTY, AT CULVERT ON COUNTY TRUNK HIGHWAY E, 1.5 MI NORTH OF BIG FALLS.	4.90	1959-65 1966# 1967-85	10-28-84	11.37	79
04081900	SAWYER CREEK AT OSHKOSH, WIS.	LAT 44°02'00", LONG 88°35'00", IN SW 1/4 SEC.15, T.18 N., R.16 E., WINNEBAGO COUNTY, AT BRIDGE ON U.S. HIGHWAY 41, 1.0 MI SOUTHWEST OF BRIDGE ON ALGOMA STREET AT FOX RIVER, AT OSHKOSH.	15.3	1961-85	10-19-84	13.28	695
*04085030	APPLE CREEK NEAR KAUKAUNA, WIS.	LAT 44°19'15", LONG 88°17'33", ON WEST BOUNDARY SEC.2, T.21 N., R.18 E., OUTAGAMIE COUNTY, AT BRIDGE ON STATE HIGHWAY 55, 3.0 MI NORTH OF KAUKAUNA.	15.0	1960-85	10-18-84	15.29	1,510
04085300	NESHOTA RIVER TRIBUTARY NEAR DENMARK, WIS.	LAT 44°23'43", LONG 87°52'13", IN NE 1/4 SEC.7, T.22 N., R.22 E., BROWN COUNTY, AT BOX CULVERT ON U.S. HIGHWAY 141, 3.8 MI NORTHWEST OF DENMARK.	3.08	1959-85	10-18-84	12.85	190
*04085400	KILLSNAKE RIVER NEAR CHILTON, WIS.	LAT 44°03'33", LONG 88°08'36", IN E 1/2 SEC.6, T.18 N., R.20 E., CALUMET COUNTY, AT BRIDGE ON COUNTRY ROAD, 2.4 MI NORTHEAST OF CHILTON.	29.5	1961-85	03-10-85	11.81	630

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1985		
					DATE	ANNUAL MAXIMUM GAGE HEIGHT (FT)	DIS-CHARGE (FT ³ /S)
STREAMS TRIBUTARY TO LAKE MICHIGAN--CONTINUED							
*04087050	LITTLE MEMONONEE RIVER NEAR FREISTADT, WIS.	LAT 43°12'24", LONG 88°02'24", ON COMMON BOUNDARY OF SECS.29 AND 32, T.9 N., R.21 E., OZAUKEE COUNTY, AT BRIDGE ON DONGES BAY ROAD, 2.0 MI SOUTH OF FREISTADT.	8.00	1958-85	11-09-84	11.10	130
04087100	HONEY CREEK AT MILWAUKEE, WIS.	LAT 42°58'41", LONG 87°59'52", IN SE 1/4 SEC.15, T.6 N., R.21 E., MILWAUKEE COUNTY, 400 FT UPSTREAM FROM BRIDGE ON S. 68TH STREET, 6.0 MI SOUTHWEST OF MOUTH OF MILWAUKEE RIVER, AT MILWAUKEE.	3.26	1959-85	11-01-84	20.40	420
*04087200	OAK CREEK NEAR SOUTH MILWAUKEE, WIS.	LAT 42°52'58", LONG 87°53'31", ON COMMON BOUNDARY OF SECS.21 AND 22, T.5 N., R.22 E., MILWAUKEE COUNTY, AT BRIDGE ON WEST NICHOLSON ROAD, 3.0 MI SOUTHWEST OF SOUTH MILWAUKEE.	13.8	1958-85	01-09-85	15.19	225
04087230	WEST BRANCH ROOT RIVER CANAL TRIBUTARY NEAR NORTH CAPE, WIS.	LAT 42°45'44", LONG 88°01'04", IN SE 1/4 SEC.33, T.4 N., R.21 E., RACINE COUNTY, AT CULVERT ON COUNTY TRUNK HIGHWAY U, 3.0 MI SOUTHEAST OF NORTH CAPE.	3.92	1962-85	11-10-84	12.19	128
*04087250	PIKE CREEK NEAR KENOSHA, WIS.	LAT 42°36'12", LONG 87°53'41", IN W 1/2 SEC.27, T.2 N., R.22 E., KENOSHA COUNTY, AT BOX CULVERT ON STATE HIGHWAY 43, 3.0 MI NORTHWEST OF KENOSHA.	7.25	1960-85	10-18-84	15.47	100
ST. CROIX RIVER BASIN							
*05333100	LITTLE FROG CREEK NEAR MINONG, WIS.	LAT 46°05'48", LONG 91°46'39", IN NW 1/4 SEC.29, T.42 N., R.11 W., WASHBURN COUNTY, AT CULVERT ON COUNTRY ROAD, 2.5 MI EAST OF MINONG.	13.0	1961-85	06-26-85	14.41	195
*05335380	BASHAW BROOK NEAR SHELL LAKE, WIS.	LAT 45°47'02", LONG 92°07'51", IN SW 1/4 SEC.8, T.38 N., R.14 W., BURNETT COUNTY, AT TWIN BOX CULVERTS ON COUNTRY ROAD, 10.5 MI NORTHWEST OF SHELL LAKE.	24.9	1959-65 1966# 1967-85	10-27-84	11.97	73
*05340300	TRADE RIVER NEAR FREDERIC, WIS.	LAT 45°37'41", LONG 92°29'19", IN SW 1/4 SEC.4, T.36 N., R.17 W., POLK COUNTY, AT BOX CULVERT ON STATE HIGHWAYS 35 AND 48, 2.5 MI SOUTHWEST OF FREDERIC.	6.34	1958-85	06-26-85	12.93	200
05341900	KINNICKINNIC RIVER TRIBUTARY AT RIVER FALLS, WIS.	LAT 44°49'57", LONG 92°38'23", IN NE 1/4 SEC.14, T.27 N., R.19 W., PIERCE COUNTY, AT BRIDGE ON COUNTY TRUNK HIGHWAY FF, 1.6 MI SOUTHWEST OF RIVER FALLS.	7.26	1959-85	03-04-85	12.94	1,130
CHIPPEWA RIVER BASIN							
05357360	BEAR RIVER NEAR POWELL, WIS.	LAT 46°04'40", LONG 90°00'52", IN NE 1/4 SEC.32, T.42 N., R.4 E., IRON COUNTY, AT BRIDGE ON STATE HIGHWAY 182, 3.0 MI WEST OF POWELL.	118	1970-85	09-03-85	12.87	650
05357390	WEBER CREEK NEAR MERCER, WIS.	LAT 46°11'16", LONG 90°07'57", IN SE 1/4 SEC.21, T.43 N., R.3 E., IRON COUNTY, AT CULVERT ON U.S. HIGHWAY 51, 3.7 MI NORTHEAST OF MERCER.	5.86	1970-85	09-03-85	11.45	95
05358100	SMITH CREEK NEAR PARK FALLS, WIS.	LAT 45°57'06", LONG 90°28'07", IN NE 1/4 SEC.15, T.40 N., R.1 W., PRICE COUNTY, AT CULVERT ON STATE HIGHWAY 13, 1.5 MI NORTHWEST OF PARK FALLS.	9.11	1970-85	09-08-85	14.49	330
*05359600	PRICE CREEK NEAR PHILLIPS, WIS.	LAT 45°43'33", LONG 90°40'12", IN SW 1/4 SEC.31, T.38 N., R.2 W., PRICE COUNTY, AT CULVERT ON COUNTY TRUNK HIGHWAY W, 13.0 MI WEST OF PHILLIPS.	16.9	1958-65 1966# 1967-85	09-08-85	12.84	177
*05361400	HAY CREEK NEAR PRENTICE, WIS.	LAT 45°32'32", LONG 90°21'37", IN SE 1/4 SEC.4, T.35 N., R.1 E., PRICE COUNTY, AT CULVERT ON U.S. HIGHWAY 8, 3.5 MI WEST OF PRENTICE.	21.9	1961-85	09-08-85	12.01	405

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1985		
					DATE	ANNUAL MAXIMUM GAGE HEIGHT (FT)	DIS-CHARGE (FT ³ /S)
CHIPPEWA RIVER BASIN--CONTINUED							
05361420	DOUGLAS CREEK NEAR PRENTICE, WIS.	LAT 45°31'06", LONG 90°15'28", IN NE 1/4 SEC.17, T.35 N., R.2 E., PRICE COUNTY, AT CULVERT ON COUNTY TRUNK HIGHWAY C, 2.3 MI SOUTHEAST OF INTERSECTION WITH STATE HIGHWAY 13 AT PRENTICE.	24.6	1970-85	09-08-85	14.25	752
05361600	NORTH FORK JUMP RIVER NEAR PHILLIPS, WIS.	LAT 45°37'45", LONG 90°23'32", IN SW 1/4 SEC.5, T.36 N., R.1 E., PRICE COUNTY, AT CULVERT ON STATE HIGHWAY 13, 4.0 MI SOUTH OF PHILLIPS.	10.4	1970-85	09-08-85	11.48	54
*05364000	YELLOW RIVER AT CADOTT, WIS.	LAT 44°57'21", LONG 91°08'48", IN NE 1/4 SEC.31, T.29 N., R.6 W., CHIPPEWA COUNTY, AT BRIDGE ON STATE HIGHWAY 27, AT CADOTT.	351	1943-61# 1962-85	04-03-85	9.64	2,620
05364100	SETH CREEK NEAR CADOTT, WIS.	LAT 44°59'24", LONG 91°08'48", IN SW 1/4 SEC.17, T.29 N., R.6 W., CHIPPEWA COUNTY, AT CULVERT ON STATE HIGHWAY 27, 3.1 MI NORTH OF CADOTT.	3.04	1962-85	04-03-85	14.13	300
05364500	DUNCAN CREEK AT BLOOMER, WIS.	LAT 45°07'00", LONG 91°30'00", IN SEC.8, T.30 N., R.9 W., CHIPPEWA COUNTY, 0.2 MI BELOW BLOOMER DAM, AT BLOOMER.	49.2	1945-51# 1958-85	08-10-85	4.62	350
*05365700	GOGGLE-EYE CREEK NEAR THORP, WIS.	LAT 44°58'40", LONG 90°48'00", ON WEST BOUNDARY SEC.19, T.29 N., R.3 W., CLARK COUNTY, AT CULVERT ON STATE HIGHWAY 73, 1.3 MI NORTH OF THORP.	6.70	1958-85	11-01-84	12.84 D	200
*05366500	EAU CLAIRE RIVER NEAR FALL CREEK, WIS.	LAT 44°48'35", LONG 91°16'50", IN NW 1/4 SEC.19, T.27 N., R.7 W., EAU CLAIRE COUNTY, 500 FT EAST OF COUNTY TRUNK HIGHWAY K, 3.2 MI NORTH OF FALL CREEK.	758	1943-55# 1958-85	10-16-84	7.85	4,250
05367030	WILLOW CREEK NEAR EAU CLAIRE, WIS.	LAT 44°44'11", LONG 91°26'48", ON COMMON BOUNDARY OF SECS.14 AND 15, T.26 N., R.9 W., EAU CLAIRE COUNTY, AT BOX CULVERT ON STATE HIGHWAY 93, 4.0 MI SOUTH OF EAU CLAIRE.	4.38	1958-85	10-16-84	10.95	110
*05367480	EAST BRANCH PINE CREEK TRIBUTARY NEAR DALLAS, WIS.	LAT 45°16'50", LONG 91°48'30", IN SW 1/4 SEC.1, T.32 N., R.12 W., BARRON COUNTY, AT CULVERT ON COUNTY TRUNK HIGHWAY O, 1.5 MI NORTH OF DALLAS.	3.85	1960-85	04-01-85	12.23	120
05367700	LIGHTNING CREEK AT ALMENA, WIS.	LAT 45°25'17", LONG 92°01'57", IN NW 1/4 SEC.19, T.34 N., R.13 W., BARRON COUNTY, AT BRIDGE ON COUNTY TRUNK HIGHWAY P, AT ALMENA.	19.8	1958-85	10-19-84	10.23	160
05370600	ARKANSAW CREEK TRIBUTARY NEAR ARKANSAW, WIS.	LAT 44°38'31", LONG 92°03'09", IN SW 1/4 SEC.14, T.25 N., R.14 W., PEPIN COUNTY, AT BOX CULVERT ON U.S. HIGHWAY 10, 1.2 MI NORTHWEST OF ARKANSAW.	2.56	1959-85	03-12-85	12.82	260
*05370900	SPRING CREEK NEAR DURAND, WIS.	LAT 44°34'13", LONG 91°57'48", IN S 1/2 SEC.9, T.24 N., R.13 W., BUFFALO COUNTY, AT BRIDGE ON COUNTRY ROAD, 4.0 MI SOUTH OF BRIDGE ON CHIPPEWA RIVER AT DURAND.	6.49	1962-85	03-12-85	12.77	225
BUFFALO RIVER BASIN							
05371800	BUFFALO RIVER TRIBUTARY NEAR OSSEO, WIS.	LAT 44°35'01", LONG 91°05'40", IN S 1/2 SEC.3, T.24 N., R.6 W., JACKSON COUNTY, AT CULVERT ON U.S. HIGHWAY 10, 6.5 MI EAST OF OSSEO.	1.44	1960-85	03-04-85	12.55	82
05371920	BUFFALO RIVER NEAR MONDOVI, WIS.	LAT 44°31'36", LONG 91°41'46", IN SW 1/4 SE 1/4 SEC.27, T.24 N., R.11 W., BUFFALO COUNTY, AT BRIDGE ON STATE HIGHWAY 88, 4.0 MI SOUTH OF MONDOVI.	280	1974-85	03-11-85	13.86	2,280

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1985		
					DATE	ANNUAL MAXIMUM GAGE HEIGHT (FT)	DIS-CHARGE (FT ³ /S)
WAUMANDEE CREEK BASIN							
*05378200	EAGLE CREEK NEAR FOUNTAIN CITY, WIS.	LAT 44°09'49", LONG 91°42'28", IN SW 1/4 SEC.33, T.20 N., R.11 W., BUFFALO COUNTY, AT BRIDGE ON COUNTY TRUNK HIGHWAY G, 2.5 MI NORTH OF FOUNTAIN CITY.	26.8	1961-85	1985	B	<600
BLACK RIVER BASIN							
05380800	BLACK RIVER TRIBUTARY NEAR WHITTLESEY, WIS.	LAT 45°12'34", LONG 90°19'05", IN SW 1/4 SEC.35, T.32 N., R.1 E., TAYLOR COUNTY, AT BRIDGE ON STATE HIGHWAY 13, 1.1 MI SOUTH OF WHITTLESEY.	2.12	1960-85	08-10-85	11.00	74
*05380900	POPLAR RIVER NEAR OWEN, WIS.	LAT 44°53'10", LONG 90°34'17", IN NW 1/4 SEC.25, T.28 N., R.2 W., CLARK COUNTY, AT BRIDGE ON COUNTY TRUNK HIGHWAY N, 4.2 MI SOUTH OF OWEN.	157	1958-65 1966# 1967-85	08-13-85	14.42	3,120
*05380970	CAWLEY CREEK NEAR NEILLSVILLE, WIS.	LAT 44°36'42", LONG 90°34'31", IN SW 1/4 SEC.25, T.25 N., R.2 W., CLARK COUNTY, AT BRIDGE ON STATE HIGHWAY 73, 3.7 MI NORTH OF NEILLSVILLE.	38.6	1961-85	10-17-84	13.58	760
*05382200	FRENCH CREEK NEAR ETRICK, WIS.	LAT 44°11'04", LONG 91°18'49", IN NE 1/4 SEC.27, T.20 N., R.8 W., TREMPALEAU COUNTY, AT BRIDGE ON COUNTY TRUNK HIGHWAYS D AND T, 2.5 MI WEST OF ETRICK.	14.3	1960-85	11-01-84	10.77	330
MORMON CREEK BASIN							
*05386300	MORMON CREEK NEAR LA CROSSE, WIS.	LAT 43°46'00", LONG 91°08'27", IN NE 1/4 SEC.19, T.15 N., R.6 W., LA CROSSE COUNTY, AT BRIDGE ON COUNTRY ROAD, 6.0 MI SOUTHEAST OF LA CROSSE.	25.5	1961-85	10-17-84	13.42	1,460
BAD AXE RIVER BASIN							
*05387100	NORTH FORK BAD AXE RIVER NEAR GENOA, WIS.	LAT 43°33'10", LONG 91°08'58", IN SW 1/4 SEC.36, T.13 N., R.7 W., VERNON COUNTY, AT BRIDGE ON STATE HIGHWAY 56, 4.1 MI SOUTHEAST OF GENOA.	80.9	1959-65 1966# 1967-85	02-23-85	13.01	840
WISCONSIN RIVER BASIN							
*05390140	MUSKRAT CREEK AT CONOVER, WIS.	LAT 46°03'27", LONG 89°15'24", IN SW 1/4 SEC.4, T.41 N., R.10 E., VILAS COUNTY, AT CORRUGATED CULVERT ON U.S. HIGHWAY 45, 0.1 MI NORTH OF CONOVER.	10.2	1970-85	04-17-85	11.86	62
05390240	FOURMILE CREEK NEAR THREE LAKES, WIS.	LAT 45°50'17", LONG 89°04'32", IN NE 1/4 SEC.26, T.39 N., R.11 E., ONEIDA COUNTY, AT 2-BARREL CORRUGATED CULVERT ON FOURMILE CREEK ROAD, 5.5 MI NORTHEAST OF THREE LAKES.	10.3	1970-85	10-18-84	12.25	60
05391260	GUDEGAST CREEK NEAR STARKS, WIS.	LAT 45°41'41", LONG 89°15'42", IN NW 1/4 SEC.16, T.37 N., R.10 E., ONEIDA COUNTY, AT CORRUGATED CULVERT ON COUNTRY ROAD, 3.0 MI NORTHWEST OF STARKS.	14.0	1970-85	09-23-85	11.69	56
05391950	SQUAW CREEK NEAR HARRISON, WIS.	LAT 45°32'47", LONG 89°29'16", IN SW 1/4 SEC.3, T.35 N., R.8 E., LINCOLN COUNTY, AT CULVERT ON COUNTY TRUNK HIGHWAY A, 5.0 MI NORTHEAST OF HARRISON.	3.23	1970-85	04-17-85	10.82	21
*05392150	MISHONAGON CREEK NEAR WOODRUFF, WIS.	LAT 45°54'41", LONG 89°45'30", IN NE 1/4 SEC.32, T.40 N., R.6 E., VILAS COUNTY, AT TWIN CULVERTS ON STATE HIGHWAY 47, 3.0 MI NORTHWEST OF WOODRUFF.	17.6	1958-85	08-10-85	10.41	71

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1985		
					DATE	ANNUAL MAXIMUM GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)
WISCONSIN RIVER BASIN--CONTINUED							
*05392350	BEARSKIN CREEK NEAR HARSHAW, WIS.	LAT 45°38'43", LONG 89°41'12", IN SW 1/4 SEC.36, T.37 N., R.6 E., ONEIDA COUNTY, AT CULVERT ON COUNTY TRUNK HIGHWAY K, 2.1 MI SOUTHWEST OF HARSHAW.	31.1	1958-65 1966# 1967-85	09-23-85	9.64	78
05393640	LITTLE PINE CREEK NEAR IRMA, WIS.	LAT 45°23'37", LONG 89°40'20", IN NW 1/4 SEC.31, T.34 N., R.7 E., LINCOLN COUNTY, AT BOX CULVERT ON U.S. HIGHWAY 51, 3.0 MI NORTH OF IRMA.	22.0	1970-85	09-25-85	13.12	158
*05394200	DEVIL CREEK NEAR MERRILL, WIS.	LAT 45°08'56", LONG 89°47'13", IN N 1/2 SEC.30, T.31 N., R.6 E., LINCOLN COUNTY, AT CULVERT ON COUNTY TRUNK HIGHWAY F, 5.8 MI SOUTHWEST OF MERRILL.	9.58	1961-85	09-25-85	12.37	245
05395020	LLOYD CREEK NEAR DOERING, WIS.	LAT 45°13'57", LONG 89°22'04", IN SE 1/4 SEC.21, T.32 N., R.9 E., LANGLADE COUNTY, AT BRIDGE ON COUNTY TRUNK HIGHWAY C, 4.5 MI EAST OF DOERING.	7.80	1970-85	09-25-85	12.69	234
05395100	TRAPPE RIVER TRIBUTARY NEAR MERRILL, WIS.	LAT 45°08'07", LONG 89°30'08", IN SW 1/4 SEC.28, T.31 N., R.8 E., LINCOLN COUNTY, AT CULVERT ON COUNTY TRUNK HIGHWAY P, 9.5 MI SOUTHEAST OF MERRILL.	1.58	1959-85	09-25-85	12.25	100
05396100	PET BROOK TRIBUTARY NEAR EDGAR, WIS.	LAT 44°56'40", LONG 89°57'05", IN SE 1/4 SEC.31, T.29 N., R.5 E., MARATHON COUNTY, AT CULVERT ON STATE HIGHWAY 29, 1.5 MI NORTHEAST OF EDGAR.	6.86	1962-85	09-29-85	15.00	720
05396300	WISCONSIN RIVER TRIBUTARY AT WAUSAU, WI	LAT 44°57'28", LONG 89°39'52", IN NE 1/4 NW 1/4 SEC.34, T.29 N., R.7 E., MARATHON COUNTY, ON ROAD RIGHT-OF-WAY OF 24TH AVENUE OPPOSITE THE ACE MOTEL, 300 FT EAST OF U.S. HIGHWAY 51, AT WAUSAU.	1.10	1982-85	08-12-85	9.35	733
05397600	BIG SANDY CREEK NEAR WAUSAU, WIS.	LAT 45°01'55", LONG 89°27'00", IN SE 1/4 SEC.31, T.30 N., R.9 E., MARATHON COUNTY, AT BRIDGE ON STATE HIGHWAY 52, 10.0 MI NORTHEAST OF WAUSAU.	11.5	1959-85	09-29-85	12.00	345
05400025	JOHNSON CREEK NEAR KNOWLTON, WIS.	LAT 44°44'19", LONG 89°36'39", IN SE 1/4 NE 1/4 SEC.13, T.26 N., R.7 E., MARATHON COUNTY, AT BRIDGE ON COUNTY TRUNK HIGHWAY X, 2.7 MI EAST OF KNOWLTON.	25.1	1973-85	08-13-85	10.35	47
05401800	YELLOW RIVER TRIBUTARY NEAR PITTSVILLE, WIS.	LAT 44°28'58", LONG 90°07'05", ON COMMON BOUNDARY OF SECS.11 AND 14, T.23 N., R.3 E., WOOD COUNTY, AT BRIDGE ON COUNTY TRUNK HIGHWAY C, 2.0 MI NORTH OF PITTSVILLE.	7.23	1959-85	05-15-85	12.09	325
*05403520	WEBSTER CREEK AT NEW LISBON, WIS.	LAT 43°51'23", LONG 90°10'25", IN NE 1/4 SEC.19, T.16 N., R.3 E., JUNEAU COUNTY, AT BRIDGE ON STATE HIGHWAY 80, 1.2 MI SOUTH OF NEW LISBON.	11.8	1961-85	10-08-84	13.24	200
*05403550	ONEMILE CREEK NEAR MAUSTON, WIS.	LAT 43°45'50", LONG 90°04'45", IN SE 1/4 SEC.24, T.15 N., R.3 E., JUNEAU COUNTY, AT BRIDGE ON STATE HIGHWAY 58, 2.4 MI SOUTH OF MAUSTON.	30.2	1958-85	11-01-84	15.07	740
05403630	HULBERT CREEK NEAR WISCONSIN DELLS, WIS.	LAT 43°37'37", LONG 89°48'36", IN SE 1/4 SW 1/4 SEC.5, T.13 N., R.6 E., SAUK COUNTY, 1.6 MI UPSTREAM FROM MOUTH, AND 2.0 MI WEST OF WISCONSIN DELLS.	11.2	1971-77# 1978-85	07-25-85	4.61	200
05403700	DELL CREEK NEAR LAKE DELTON, WIS.	LAT 43°33'05", LONG 89°51'55", IN NW 1/4 SEC.2, T.12 N., R.5 E., SAUK COUNTY, ON RIGHT BANK 50 FT UPSTREAM FROM HIGHWAY BRIDGE, 6.0 MI SOUTHWEST OF LAKE DELTON, AND 7.0 MI UPSTREAM FROM MOUTH.	44.9	1957-65# 1966-70 1971-80# 1983-85	07-25-85	6.71	420
*05404200	NARROWS CREEK AT LOGANVILLE, WIS.	LAT 43°26'32", LONG 90°02'06", IN SE 1/4 SEC.8, T.11 N., R.4 E., SAUK COUNTY, AT BRIDGE ON STATE HIGHWAYS 23 AND 154, 0.2 MI NORTH OF LOGANVILLE.	40.1	1958-65 1966# 1967-85	10-19-84	15.22	3,000

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1985

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	ANNUAL MAXIMUM		
					DATE	GAGE HEIGHT (FT)	DIS-CHARGE (FT ³ /3)
WISCONSIN RIVER BASIN--CONTINUED							
*05405600	ROWAN CREEK AT POYNETTE, WIS.	LAT 43°23'13", LONG 89°23'25", IN S 1/2 SEC.35, T.11 N., R.9 E., COLUMBIA COUNTY, AT BRIDGE ON U.S. HIGHWAY 51, AT POYNETTE.	10.4	1961-85	09-08-85	14.64	680
05406800	ROCKY BRANCH NEAR RICHLAND CENTER, WIS.	LAT 43°18'52", LONG 90°23'22", IN E 1/2 SEC.29, T.10 N., R.1 E., RICHLAND COUNTY, AT CULVERT ON STATE HIGHWAY 80, 1.5 MI SOUTH OF RICHLAND CENTER.	1.68	1960-85	05-16-85	11.80	100
*05407100	RICHLAND CREEK NEAR PLUCTOWN, WIS.	LAT 43°11'12", LONG 90°44'23", IN NW 1/4 SEC.9, T.8 N., R.3 W., CRAWFORD COUNTY, AT BRIDGE ON U.S. HIGHWAY 61, 2.0 MI SOUTH OF PLUCTOWN.	19.2	1958-85	09-05-85	16.88	1,620
*05407200	CROOKED CREEK NEAR BOSCOBEL, WIS.	LAT 43°06'27", LONG 90°42'18", IN SE 1/4 SEC.2, T.7 N., R.3 W., GRANT COUNTY, AT BRIDGE ON U.S. HIGHWAY 61, 1.6 MI SOUTH OF BOSCOBEL.	12.9	1959-85	02-21-85	10.60	205
GRANT RIVER BASIN							
*05413400	PIGEON CREEK NEAR LANCASTER, WIS.	LAT 42°49'00", LONG 90°43'20", IN SW 1/4 SEC.15, T.4 N., R.3 W., GRANT COUNTY, AT CULVERT ON COUNTRY ROAD, 2.0 MI SOUTH OF LANCASTER.	6.93	1960-65 1966# 1967-85	02-21-85	12.35	390
PLATTE RIVER BASIN							
*05414200	BEAR BRANCH NEAR PLATTEVILLE, WIS.	LAT 42°45'46", LONG 90°30'06", IN NW 1/4 SEC.4, T.3 N., R.1 W., GRANT COUNTY, AT BOX CULVERT ON STATE HIGHWAY 81, 2.3 MI NORTHWEST OF PLATTEVILLE.	2.80	1958-85	02-21-85	12.20	240
GALENA RIVER BASIN							
*05414900	PATS CREEK NEAR ELK GROVE, WIS.	LAT 42°40'03", LONG 90°22'40", IN SW 1/4 SEC.4, T.2 N., R.1 E., LAFAYETTE COUNTY, AT BRIDGE ON STATE HIGHWAY 81, 7.0 MI SOUTHEAST OF PLATTEVILLE.	8.49	1960-85	02-21-85	12.75	430
05414915	MADDEN BRANCH NEAR BELMONT, WIS.	LAT 42°40'03", LONG 90°19'45", IN NE 1/4 SEC.11, T.2 N., R.1 E., LAFAYETTE COUNTY, AT STATE HIGHWAY 81, 4.7 MI SOUTH OF BELMONT.	2.83	1981-82# 1984-85	02-21-85	7.59	187
ROCK RIVER BASIN							
*05423800	EAST BRANCH ROCK RIVER TRIBUTARY NEAR SLINGER, WIS.	LAT 43°23'06", LONG 88°18'29", IN S 1/2 SEC.26, T.11 N., R.18 E., WASHINGTON COUNTY, AT CULVERT ON U.S. HIGHWAY 41, 4.0 MI NORTHWEST OF SLINGER.	4.42	1960-85	10-18-84	11.35	115
*05425700	ROBBINS CREEK AT COLUMBUS, WIS.	LAT 43°20'48", LONG 89°01'55", IN SE 1/4 SEC.11, T.10 N., R.12 E., COLUMBIA COUNTY, AT CULVERT ON U.S. HIGHWAY 16, AT COLUMBUS.	8.01	1960-85	09-08-85	14.70	335
05425827	MAUNESHA RIVER NEAR SUN PRAIRIE, WIS.	LAT 43°13'37", LONG 89°09'33", IN SE 1/4 SEC.23, T.9 N., R.11 E., DANE COUNTY, AT BRIDGE ON TOWN ROAD, 4.2 MI NORTHEAST OF SUN PRAIRIE.	26.0	1973-85	02-26-85	12.46	490
*05427200	ALLEN CREEK NEAR FORT ATKINSON, WIS.	LAT 42°53'54", LONG 88°51'35", IN NE 1/4 SEC.17, T.5 N., R.14 E., JEFFERSON COUNTY, AT BOX CULVERT ON STATE HIGHWAY 26, 2.5 MI SOUTHWEST OF FORT ATKINSON.	10.2	1958-85	09-08-85	10.59	112
05427800	TOKEN CREEK NEAR MADISON, WIS.	LAT 43°10'52", LONG 89°19'28", IN SW 1/4 SEC.4, T.8 N., R.10 E., DANE COUNTY, AT CULVERT ON U.S. HIGHWAY 51, 8 MI NORTHEAST OF STATE CAPITOL IN MADISON.	24.3	1961-65 1966# 1967-75 1976-81# 1982-85	07-25-85	14.03	560

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1985

STATION NO.	STATION NAME	LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	ANNUAL MAXIMUM		
					DATE	GAGE HEIGHT (FT)	DIS-CHARGE (FT ³ /S)
ROCK RIVER BASIN--CONTINUED							
05430403	FISHER CREEK TRIBUTARY AT JANESVILLE, WI	LAT 42°40'18", LONG 89°03'31", IN SW 1/4 SE 1/4 SEC.34, T.3 N., R.12 E., ROCK COUNTY, AT CULVERT ON ROCKPORT ROAD, 0.4 MI WEST OF SOUTH CROSBY AVENUE, AND 0.6 MI UPSTREAM FROM COUNTY TRUNK HIGHWAY D, AT JANESVILLE.	1.95	1982-85	07-14-85	6.91	520
*05431400	LITTLE TURTLE CREEK AT ALLENS GROVE, WIS.	LAT 42°34'46", LONG 88°45'33", IN NE 1/4 SEC.6, T.1 N., R.15 E., WALWORTH COUNTY, AT BRIDGE ON COUNTRY ROAD, 0.2 MI SOUTH OF ALLENS GROVE.	41.8	1962-85	02-24-85	12.53	490
*05432300	ROCK BRANCH NEAR MINERAL POINT, WIS.	LAT 42°50'02", LONG 90°09'15", IN SE 1/4 SEC.8, T.4 N., R.3 E., IOWA COUNTY, AT BOX CULVERT ON STATE HIGHWAY 23, 2.5 MI SOUTH OF MINERAL POINT.	4.83	1959-85	02-25-85	11.57	185
*05433500	YELLOWSTONE RIVER NEAR BLANCHARDVILLE, WIS.	LAT 42°46'55", LONG 89°59'50", IN NE 1/4 SEC.34, T.4 N., R.4 E., LAFAYETTE COUNTY, 0.6 MI UPSTREAM FROM BRIDGE ON COUNTY TRUNK HIGHWAY F, 7.0 MI WEST-SOUTHWEST OF BLANCHARDVILLE.	28.5	1954-65# 1966-85	02-21-85	8.93	1,220
05435900	SUGAR RIVER TRIBUTARY NEAR PINE BLUFF, WIS.	LAT 43°02'48", LONG 89°38'42", IN SE 1/4 SEC.27, T.7 N., R.7 E., DANE COUNTY, AT CULVERT ON COUNTY TRUNK HIGHWAY J, 1.1 MI SOUTHEAST OF PINE BLUFF.	7.42	1961-85	12-28-84	12.39	140
*05436200	GILL CREEK NEAR BROOKLYN, WIS.	LAT 42°49'38", LONG 89°26'43", IN NW 1/4 SEC.16, T.4 N., R.9 E., GREEN COUNTY, AT CULVERT ON STATE HIGHWAY 92, 4.3 MI WEST OF BROOKLYN.	3.34	1961-85	09-09-85	13.61	130
*05437200	EAST FORK RACCOON CREEK TRIBUTARY NEAR BELOIT, WIS.	LAT 42°30'44", LONG 89°06'40", ON COMMON BOUNDARY OF SECS.30 AND 31, T.1 N., R.12 E., ROCK COUNTY, AT CULVERT ON STATE HIGHWAY 81, 2.9 MI WEST OF BELOIT.	4.64	1958-85	05-15-85	13.01 D	130
ILLINOIS RIVER BASIN							
05545100	SUGAR CREEK AT ELKHORN, WIS.	LAT 42°41'05", LONG 88°30'50", IN SW 1/4 SEC.29, T.3 N., R.17 E., WALWORTH COUNTY, AT CULVERT ON STATE HIGHWAY 11, 2.0 MI NORTHEAST OF ELKHORN.	6.68	1962-85	02-25-85	12.45	160
05545200	WHITE RIVER TRIBUTARY NEAR BURLINGTON, WIS.	LAT 42°41'03", LONG 88°21'37", ON COMMON BOUNDARY OF SECS.27 AND 34, T.3 N., R.18 E., WALWORTH COUNTY, AT BOX CULVERT ON STATE HIGHWAY 11, 4.5 MI WEST OF BURLINGTON.	2.42	1958-85	02-25-85	11.49	85
*05548150	NORTH BRANCH NIPPERSINK CREEK TRIBUTARY NEAR GENOA CITY, WIS.	LAT 42°30'15", LONG 88°23'01", IN E 1/2 SEC.32, T.1 N., R.18 E., WALWORTH COUNTY, AT BRIDGE ON COUNTY TRUNK HIGHWAY B, 3.0 MI WEST OF GENOA CITY.	13.8	1962-85	02-25-85	10.65	105

* Also a low-flow partial-record station.
Operated as a continuous-record station.
B Peak did not reach bottom of gage.
D Backwater from beaver dam.

MEASUREMENTS AT MISCELLANEOUS SITES

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985

Stream	Tributary to	Location	Drainage Area (mi ²)	Measured Previously (Water Years)	Measurements	
					Date	Discharge (ft ³ /s)
STREAMS TRIBUTARY TO LAKE MICHIGAN						
Beartrap Creek	Kakagon River	Lat 46°34'58", long 90°47'48", in SW 1/4 NW 1/4 sec.6, T.47 N., R.3 W., Ashland County, at CTH "A", 4.0 mi east of Ashland.	18.3	1970	07-16-85	1.05
Bad River	Lake Superior	Lat 46°22'33", long 90°38'18", in NW 1/4 SE 1/4 sec.17, T.45 N., R.2 W., Ashland County, downstream from Tyler Forks River, 3.6 mi north of Mellen.	---	--	07-17-85	31.3
Marengo River	Bad River	Lat 46°25'00", long 90°44'13", in SE 1/4 SE 1/4 sec.33, T.46 N., R.3 W., Ashland County, at town road, 7.4 mi northwest of Mellen.	195	1970	07-18-85	74.9
Silver Creek	Marengo River	Lat 46°24'50", long 90°43'35", in SE 1/4 NW 1/4 sec.3, T.45 N., R.3 W., Ashland County, at town road, 1.5 mi north of High Bridge.	--	--	07-17-85	1.96
Potato River	Bad River	Lat 46°28'02", long 90°35'12", in SW 1/4 NW 1/4 sec.14, T.46 N., R.2 W., Ashland County, at town road, 1.5 mi east of Gurney.	101	--	06-17-85	19.6
Vaughn Creek	Potato River	Lat 46°28'33", long 90°36'00", in NW 1/4 SE 1/4 sec.10, T.46 N., R.2 W., Ashland County, at bridge on town road, 4.4 mi west of Gurney.	18.0	--	07-17-85	1.79
White River	Bad River	Lat 46°31'00", long 90°50'33", in SW 1/4 SW 1/4 sec.26, T.47 N., R.4 W., Ashland County, at bridge on State Highway 13, 5.5 mi southeast of the courthouse in Ashland.	317	--	07-18-85	224
Denomie Creek	Bad River	Lat 46°36'05", long 90°39'08", in SW 1/4 SW 1/4 sec.29, T.48 N., R.2 W., Ashland County, at town road, 2 mi southeast of Odanah.	--	--	07-16-85	1.044
Morrisson Creek	Leke Superior	Lat 46°35'21", long 90°33'51", in SE 1/4 SW 1/4 sec.36, T.48 N., R.2 W., Ashland County, at mouth, 3.6 mi north of Birch.	4.84	--	06-17-85	1.68
South Branch Oconto River	Oconto River	Lat 45°03'40", long 88°31'50", in SW 1/4 SW 1/4 sec.23, T.30 N., R.16 E., Menominee County, at town road, 4.9 mi west of Breed.	143	1969 1983-84	06-19-85	166
Pecore Creek	South Branch Oconto River	Lat 45°01'36", long 88°31'37", in NW 1/4 NW 1/4 sec.2, T.29 N., R.16 E., Menominee County, at trail on section line, upstream from Marsh Lake.	--	--	06-19-85	10.9
Linzy Creek	Oconto River	Lat 44°56'07", long 88°30'47", in NE 1/4 SE 1/4 sec.2, T.28 N., R.16 E., Menominee County, at trail crossing.	--	--	06-19-85	17.7
Swamp Creek	Wolf River	Lat 45°30'30", long 88°52'34", in SE 1/4 SW 1/4 sec.16, T.35 N., R.13 E., Forest County, at bridge on town road, 4.35 mi southeast of Crendon.	15.0	--	10-02-84 07-16-85	2.25 5.9
Hemlock Creek	Swamp Creek	Lat 45°28'31", long 88°52'02", in SW 1/4 NE 1/4 sec.33, T.35 N., R.13 E., Forest County, at outlet Ground Hemlock Lake, 6.6 mi east of Mole Lake.	--	--	10-02-84	2.35

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985

Stream	Tributary to	Location	Drainage Area (mi ²)	Measured Previously (Water Years)	Measurements	
					Date	Discharge (ft ³ /s)
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued						
Hemlock Creek	Swamp Creek	Lat 45°28'47", long 88°52'36", in NW 1/4 NE 1/4 NW 1/4 sec.33, T.35 N., R.13 E., Forest County, at trail crossing.	--	--	10-02-84	3.11
					07-16-85	4.85
Outlet Creek	Swamp Creek	Lat 45°30'45, long 88°54'17", in NW 1/4 SE 1/4 sec.18, T.35 N., R.13 E., Forest County, 3.9 mi south of Crandon.	13.6	--	10-02-84	1.304
					07-16-85	13.2
Swamp Creek	Wolf River	Lat 45°29'52", long 88°54'40", in SW 1/4 SE 1/4 sec.19, T.35 N., R.13 E., Forest County, 3.5 mi east of Mole Lake.	39.2	--	10-02-84	10.5
					07-16-85	30.0
Hoffman Creek	Swamp Creek	Lat 45°29'04", long 88°57'10", in NW 1/4 SE 1/4 sec.26, T.35 N., R.12 E., Forest County, 1.3 mi east of Mole Lake.	--	--	10-05-84	0.47
					07-16-85	0.268
Hoffman Creek	Swamp Creek	Lat 45°29'16", long 88°57'12", in SW 1/4 NE 1/4 sec.26, T.35 N., R.12 E., Forest County, 1,300 ft downstream from Hoffman Springs, and 4.4 mi south of Crandon.	--	--	07-16-85	0.55
Swamp Creek	Wolf River	Lat 45°28'22", long 89°01'05", in SE 1/4 NW 1/4 sec.32, T.35 N., R.12 E., Forest County, 0.4 mi above Squaw Creek, 1.7 mi west of Mole Lake.	--	--	10-02-84	29.2
Swamp Creek	Wolf River	Lat 44°26'24", long 89°02'32", in NE 1/4 SW 1/4 sec.7, T.34 N., R.12 E., Langlade County, at CTH K, 2.1 mi east of Poat Lake.	76.5	1965 1983	10-02-84	37.8
					07-16-85	49.3
Duck Lake Outlet	Tributary to Pickerel Creek Tributary	Lat 45°28'01", long 88°54'25", in SW 1/4 SE 1/4 sec.31, T.35 N., R.13 E., Forest County, at 12-inch culvert on Sand Lake Road and 6.0 mi south of Crandon.	--	--	07-16-85	0.01
Pickerel Creek	Wolf River	Lat 45°26'37", long 88°56'11", in NE 1/4 SW 1/4 sec.12, T.34 N., R.12 E., Langlade County, about 2,000 ft upstream from Rolling Stone Lake.	--	--	10-02-84	2.42
					07-16-85	2.01
Pickerel Creek Tributary	Pickerel Creek	Lat 45°26'46", long 88°57'26", in SE 1/4 NW 1/4 sec.11, T.34 N., R.12 E., Langlade County, 2.6 mi south of Mole Lake.	2.16	--	10-02-84	1.01
Tributary to Pickerel Creek	Pickerel Creek	Lat 45°26'50", long 88°56'44", in SE 1/4 NE 1/4 sec.11, T.34 N., R.12 E., Langlade County, at town road culvert about 1,300 ft upstream from Rolling Stone Lake, 3.0 mi southeast of Mole Lake.	--	--	10-02-84	0.274
Pickerel Creek	Wolf River	Lat 45°25'16", long 88°56'08", in NE 1/4 NW 1/4 sec.24, T.34 N., R.12 E., Langlade County, at town road and 4.6 mi south of Mole Lake.	14.3	--	10-02-84	10.4
					07-16-85	7.22
Wolf River	Fox River	Lat 45°07'38", long 88°39'45", in SE 1/4 NE 1/4 sec.31, T.31 N., R.15 E., Langlade County, at CTY "M" bridge.	--	--	08-06-85	316
					08-28-85	420
Elton Creek	Evergreen Creek	Lat 45°06'08", long 88°49'59", in NE 1/4 NW 1/4 sec.8, T.30 N., R.13 E., Menominee County, at trail crossing.	--	--	06-18-85	11.29
Evergreen Creek	Wolf River	Lat 45°04'23", long 88°42'30", in NW 1/4 NW 1/4 sec.20, T.30 N., R.15 E., Menominee County, at CTH "WW", 8.2 mi south of Langlade.	54.6	1966 1983-84	06-18-85	50.9
West Branch Wolf River	Wolf River	Lat 45°01'06", long 88°52'27", in SW 1/4 SW 1/4 sec.1, T.29 N., R.13 E., Menominee County, at town road, 3.0 mi northeast of Neopit.	41.8	1982-84	06-18-85	47.8

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985

Stream	Tributary to	Location	Drainage Area (mi ²)	Measured Previously (Water Years)	Measurements	
					Date	Discharge (ft ³ /s)
STREAMS TRIBUTARY TO LAKE MICHIGAN--Continued						
Little West Branch Wolf River	West Branch Wolf River	Lat 45°05'02", long 88°58'55", in NE 1/4 NE 1/4 sec.13, T.30 N., R.12 E., Langlade County, at county line between Langlade and Menominee Counties, and 6.2 mi northwest of Zoar.	9.19	--	06-17-85	8.82
Little West Branch Wolf River	Wolf River	Lat 44°59'11", long 88°52'49", in SE 1/4 SE 1/4 sec.14, T.29 N., R.13 E., Menominee County, at Wagon Bridge Road, 2.5 mi west of Neopit.	--	1982-84	06-20-85	31.4
West Branch Wolf River	Wolf River	Lat 44°56'08", long 88°40'11", in NW 1/4 SW 1/4 sec.3, T.28 N., R.15 E., Menominee County, at town road, 4.2 mi northwest of Keshena.	163	1966 1982-84	06-17-85	170
Red River	Wolf River	Lat 44°56'34", long 88°55'45", in SW 1/4 SE 1/4 sec.33, T.29 N., R.13 E., Menominee County, at county line, 5.7 mi southwest of Neopit.	46.4	--	06-18-85	60.0
Miller Creek	Red River	Lat 44°56'34", long 88°49'55", in SE 1/4 SW 1/4 sec.32, T.29 N., R.14 E., Menominee County, at county line, 2.7 mi south of Neopit.	10.9	--	06-20-85	15.1
Holt Creek	Little Wolf River	Lat 44°41'46", long 89°16'24", in SW 1/4 SE 1/4 sec.27, T.26 N., R.10 E., Marathon County, at town road culvert, 1.3 mi southwest of Galloway.	11.4	1972 1976 1984	10-25-84	10.5
ST. CROIX RIVER BASIN						
Namekagon River	St. Croix River	Lat 46°03'06", long 91°25'53", in NE 1/4 NE 1/4 sec.12, T.41 N., R.9 W., Sawyer County, St. Croix National Scenic Riverway, at bridge on town road, 3.7 mi northeast of Hayward.	169	1975-78 1980-83	08-26-85	375
Kettle River	St. Croix River	Lat 45°54'13", long 92°43'47", in SW 1/4 SW 1/4 sec.33, T.40 N., R.19 W., Pine County, MN, St. Croix National Scenic Riverway, 200 ft west of town road, 8.0 mi south of Cloverdale, MN, and 9.0 mi northwest of Grantsburg.	1,050	1981-83	08-27-85	383
North Fork Wood River	Wood River	Lat 45°48'30", long 92°33'48", in SE 1/4 NW 1/4 sec.2, T.38 N., R.18 W., Burnett County, at CTH "D", 6.2 mi northeast of Grantsburg.	17.9	--	07-23-85 08-28-85 09-27-85	6.2 12.1 30.2
North Fork Wood River	Wood River	Lat 45°48'35", long 92°36'03", in SE 1/4 NW 1/4 sec.4, T.38 N., R.18 W., Burnett County, at CTH "D", 4.4 mi northeast of Grantsburg.	53.4	--	07-22-85 08-28-85 09-27-85	10.4 31.9 66.6
Whiskey Creek	Wood River	Lat 45°47'40", long 92°39'09", in NE 1/4 SE 1/4 sec.12, T.38 N., R.19 W., Burnett County, at CTH "D", 1.9 mi northeast of Grantsburg.	--	--	07-22-85 08-28-85 09-27-85	4.70 7.91 14.3
Hay Creek	Wood River	Lat 45°47'34", long 92°41'33", in NW 1/4 SW 1/4 sec.11, T.38 N., R.19 W., Burnett County, at Borg Road, 1.2 mi northwest of Grantsburg.	--	--	07-23-85 08-28-85 09-27-85	2.60 5.92 10.7
WISCONSIN RIVER BASIN						
Black Earth Creek	Blue Mounds Creek	Lat 43°05'15", long 89°34'52", in NW 1/4 NW 1/4 sec.17, T.7 N., R.8 E., Dane County, at bridge on Twin Valley Road, 3.7 mi southeast of Cross Plains.	3.32	--	10-19-84 01-29-85 02-22-85 05-29-85 07-25-85	8.47 1.53 7.51 1.68 11.6
Black Earth Creek	Blue Mounds Creek	Lat 43°00'01", long 89°37'32", in SE 1/4 NE 1/4 sec.11, T.7 N., R.7 E., Dane County, on bridge on private road.	--	--	01-29-85 05-29-85	1.83 1.87

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1985

Stream	Tributary to	Location	Drainage Area (mi ²)	Measured Previously (Water Years)	Measurements	
					Date	Discharge (ft ³ /s)
WISCONSIN RIVER BASIN--Continued						
Black Earth Creek	Blue Mounds Creek	Lat 43°05'17", long 89°35'25", in SW 1/4 SE 1/4 sec.7, T.7 N., R.8 E., Dane County, on bridge on Low Road.	--	--	10-29-84 05-09-85	1.71 1.60
Black Earth Creek	Blue Mounds Creek	Lat 43°00'39", long 89°38'16", in NW 1/4 NW 1/4 sec.11, T.7 N., R.7 E., Dane County.	--	--	01-29-85 05-09-85	7.21 7.86
Enchanted Valley Creek	Black Earth Creek	Lat 43°06'41", long 89°38'25", in NW 1/4 SW 1/4 sec.2, T.7 N., R.7 E., Dane County, at bridge on Brewery Road.	--	--	02-22-85 07-25-85	5.61 3.81
Brewery Creek	Black Earth Creek	Lat 43°07'57", long 89°37'00", in NW 1/4 NW 1/4 sec.36, T.7 N., R.7 E., Dane County, at bridge on county road.	--	--	01-29-85 02-22-85 05-29-85 07-25-85	1.62 14.1 0.960 110
Black Earth Creek	Blue Mounds Creek	Lat 43°01'55", long 89°39'37", in SW 1/4 NW 1/4 sec.3, T.7 N., R.7 E., Dane County, at bridge on CTH "KP" in Cross Plains.	26.1	1972-73 1975	01-29-85 05-09-85	12.5 13.3
Black Earth Creek	Blue Mounds Creek	Lat 43°02'30", long 89°40'12", in NW 1/4 NE 1/4 sec.4, T.7 N., R.7 E., Dane County, on U.S. Highway 14, 0.3 mi west of the sewage disposal plant at Cross Plains.	26.7	1958 1964	01-29-85 05-29-85	15.7 15.3
Black Earth Creek	Blue Mounds Creek	Lat 43°03'17", long 89°40'59", in NE 1/4 NE 1/4 sec.5, T.7 N., R.7 E., Dane County, just upstream from tributary, 2.0 mi west of Cross Plains.	27.0	1964	01-29-85 05-29-85	18.1 21.4
Black Earth Creek Tributary	Black Earth Creek	Lat 43°07'05", long 89°40'58", in NE 1/4 NE 1/4 sec.5, T.7 N., R.7 E., Dane County, at mouth, 2.2 mi west of Cross Plains.	--	1973	10-19-84 01-29-85 02-22-85 05-09-85 07-25-85	33.0 2.50 31.3 4.18 228
Black Earth Creek	Blue Mounds Creek	Lat 43°03'39", long 89°41'24", in NW 1/4 NE 1/4 sec.5, T.7 N., R.7 E., Dane County, at bridge on town road, 2.2 mi west of Cross Plains.	39.1	1958 1964 1974	01-29-85 05-09-85	26.2 30.2
Black Earth Creek	Blue Mounds Creek	Lat 43°05'06", long 89°42'36", in NW 1/4 SE 1/4 sec.31, T.8 N., R.7 E., Dane County, at bridge on town road, 2.1 mi southeast of Black Earth.	40.6	1973	01-29-85 05-29-85	29.8 31.5
Black Earth Creek Tributary	Black Earth Creek	Lat 43°07'19", long 89°42'54", in SE 1/4 SW 1/4 sec.31, T.8 N., R.7 E., Dane County, at bridge on CTH "KP".	--	--	10-19-84 02-22-85 05-09-85 07-25-85 07-25-85	4.88 2.84 0.276 18.1 35.2
Unnamed Tributary to Black Earth Creek	Blue Mounds Creek	Lat 43°07'47", long 89°43'05", in SW 1/4 NW 1/4 sec.31, T.8 N., R.6 E., Dane County, at bridge on U.S. Highway 14.	--	--	05-09-85	0.136

WATER-QUALITY PARTIAL-RECORD STATIONS

Water-quality partial-record stations are particular sites where chemical-quality, biological, physical, and/or sediment data are collected systematically over a period of years for use in hydrologic analyses.

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)
------	------	--	--	--	------	------	--	--	--

STREAMS TRIBUTARY TO LAKE SUPERIOR

04027000 - BAD RIVER NEAR ODANAH, WI (LAT 46 29 15 LONG 090 41 45)

OCT , 1984					JUN , 1985				
10...	1730	360	86	12.5	26...	1050	295	128	19.0
JAN , 1985					JUL				
10...	1200	204	140	.0	24...	0710	175	120	21.0
FEB					SEP				
21...	1315	158	--	.0	03...	1245	3030	90	17.0
MAY									
29...	1320	713	80	14.5					

04027500 - WHITE RIVER NEAR ASHLAND, WI (LAT 46 29 50 LONG 090 54 15)

OCT , 1984					MAY , 1985				
11...	0815	326	151	12.0	29...	1740	430	120	13.5
NOV					JUN				
20...	1020	174	205	1.5	26...	1240	327	170	18.5
JAN , 1985					JUL				
09...	1720	182	193	.5	24...	1430	215	165	18.0
FEB					SEP				
21...	1050	326	204	1.0	03...	1430	2000	80	17.0
APR					12...	1205	264	140	12.5
17...	1340	675	100	6.5					

STREAMS TRIBUTARY TO LAKE MICHIGAN

04066003 - MENOMINEE RIVER BELOW PEMENE CRK NR PEMBINE, WI (LAT 45 34 46 LONG 087 47 13)

APR , 1985					AUG , 1985				
19...	1440	8880	170	6.0	01...	1405	1510	202	23.5
25...	1830	15000	110	11.5					
JUN									
27...	1640	2400	194	22.5					

04069500 - PESHTIGO RIVER AT PESHTIGO, WI (LAT 45 02 49 LONG 087 44 40)

JAN , 1985					JUL , 1985				
02...	1400	470	250	2.0	02...	1100	780	220	20.0
FEB									
21...	1300	488	400	5.5					

04071000 - OCONTO RIVER NEAR GILLETT, WI (LAT 44 51 53 LONG 088 18 00)

NOV , 1984					APR , 1985				
14...	1030	1010	240	4.0	30...	1015	1270	340	15.0
JAN , 1985					JUL				
03...	1130	482	300	.0	02...	1600	354	245	20.0
FEB					AUG				
20...	1540	345	300	.0	29...	1000	707	225	19.0
MAR									
27...	1530	1100	195	2.0					

04071858 - PENSANKEE RIVER NEAR PENSANKEE, WI (LAT 44 49 08 LONG 087 57 12)

OCT , 1984					APR , 1985				
10...	1340	136	425	15.0	30...	1410	59	620	16.5
NOV					JUL				
14...	1250	164	470	4.5	02...	1250	9.9	465	22.5
JAN , 1985					AUG				
02...	1530	72	540	.5	29...	1325	64	490	19.5
MAR									
19...	1505	467	475	3.0					

WATER-QUALITY PARTIAL-RECORD STATIONS

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)
------	------	--	--	--	------	------	--	--	--

STREAMS TRIBUTARY TO LAKE MICHIGAN--CONTINUED

04073500 - FOX RIVER AT BERLIN, WI (LAT 43 57 14 LONG 088 57 08)

OCT , 1984					MAY , 1985				
31...	1215	2240	470	7.0	29...	1545	993	360	20.5
DEC					JUL				
11...	1030	2020	420	.0	02...	1240	682	345	26.0
JAN , 1985					05...	1100	767	340	24.0
22...	1430	986	440	.0	AUG				
FEB					13...	1224	1060	320	24.0
20...	1200	822	490	.0	SEP				
APR					26...	1210	1420	660	11.5
10...	1210	3220	295	6.5					

04074538 - SWAMP CREEK ABOVE RICE LAKE, AT MOLE LAKE, WI (LAT 45 29 18 LONG 088 57 49)

OCT , 1984					MAR , 1985				
02...	1500	14	160	8.5	05...	1530	28	208	.5
05...	1230	15	--	10.5	APR				
16...	1335	30	203	12.5	16...	1340	84	120	6.5
NOV					JUN				
06...	1510	27	190	3.0	03...	1310	42	175	14.5
DEC					25...	1535	35	180	20.0
17...	1550	49	178	.5	JUL				
JAN , 1985					23...	1240	23	205	19.5
22...	1340	21	265	.5	31...	1355	19	205	21.0
FEB									
22...	1230	22	228	1.0					

04074548 - SWAMP CREEK BELOW RICE LAKE, AT MOLE LAKE, WI (LAT 45 28 46 LONG 088 59 52)

OCT , 1984					MAR , 1985				
02...	1030	30	215	8.0	19...	1225	41	--	1.5
05...	1100	26	--	10.5	27...	1325	61	--	3.5
16...	1435	37	212	14.0	APR				
NOV					10...	1220	52	190	4.5
28...	1500	55	225	1.0	16...	1225	103	140	7.0
DEC					30...	1150	73	150	15.0
17...	1255	56	235	.5	JUN				
JAN , 1985					10...	1315	49	190	20.5
08...	1315	38	215	.5	25...	1355	50	175	21.0
22...	1650	32	260	.5					
FEB									
05...	1445	27	250	.0					

04074950 - WOLF RIVER AT LANGLADE, WI (LAT 44 11 25 LONG 088 44 00)

NOV , 1984					MAY , 1985				
14...	1600	504	165	2.5	06...	1500	639	150	15.0
DEC					21...	1400	500	155	17.0
27...	1650	421	190	.5	JUN				
FEB , 1985					19...	1400	--	190	15.5
07...	1215	279	240	.5	27...	1050	511	165	21.5
MAR					AUG				
15...	1300	363	175	.5	28...	1130	382	190	19.0

04078500 - EMBARRASS RIVER NEAR EMBARRASS, WI (LAT 44 43 29 LONG 088 44 10)

JAN , 1985					APR , 1985				
03...	1530	240	410	.0	29...	1315	603	280	14.0
FEB					JUL				
20...	1130	188	400	.0	01...	1400	180	390	20.0
MAR					AUG				
19...	1030	833	300	3.0	28...	1300	719	250	18.5

04079000 - WOLF RIVER AT NEW LONDON, WI (LAT 44 23 32 LONG 088 44 25)

NOV , 1984					MAY , 1985				
13...	1630	5320	350	5.0	01...	1000	4580	280	15.0
JAN , 1985					JUL				
23...	1130	1190	280	.0	03...	1200	1200	300	23.5
MAR					SEP				
20...	1115	6260	210	.5	11...	1310	2010	265	16.0

WATER-QUALITY PARTIAL-RECORD STATIONS

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW- INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEC C) (00010)	DATE	TIME	STREAM- FLOW- INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEC C) (00010)
STREAMS TRIBUTARY TO LAKE MICHIGAN--CONTINUED									
04080000 - LITTLE WOLF RIVER AT ROYALTON, WI (LAT 44 24 45 LONG 088 51 55)									
NOV , 1984					MAY , 1985				
13...	1300	1030	320	4.0	01...	1245	584	360	15.5
JAN , 1985					JUL				
04...	1400	552	300	1.0	03...	1500	258	350	25.5
MAR					AUG				
18...	1500	1350	250	3.0	27...	1215	703	290	19.0
04087088 - UNDERWOOD CREEK AT WAUWATOSA, WI (LAT 43 03 17 LONG 088 02 46)									
OCT , 1984					JUL , 1985				
22...	1420	8.8	920	14.0	10...	1515	3.2	905	31.0
APR , 1985					AUG				
12...	1445	14	1300	18.0	19...	1214	3.8	1010	22.5
JUN									
07...	0930	3.8	1230	18.5					
04087120 - MEMONONEE RIVER AT WAUWATOSA, WI (LAT 43 02 44 LONG 087 59 59)									
OCT , 1984					JUN , 1985				
22...	1300	188	770	10.0	07...	1037	17	1020	17.5
FEB , 1985					JUL				
19...	0915	46	2850	.0	10...	1740	15	900	25.5
APR					AUG				
12...	1215	127	910	11.5	19...	1648	19	1050	20.5
04087159 - KINNICKINNIC R AT S. 11TH ST AT MILWAUKEE, WI (LAT 42 59 51 LONG 087 55 35)									
NOV , 1984					JUN , 1985				
08...	1220	12	925	11.5	06...	0938	7.1	840	18.0
APR , 1985									
12...	1010	11	1200	13.5					
04087204 - OAK CREEK AT SOUTH MILWAUKEE, WI (LAT 42 55 30 LONG 087 52 12)									
NOV , 1984					JUL , 1985				
09...	1240	27	850	8.5	11...	0845	1.8	1080	19.5
09...	1245	33	630	9.0	AUG				
APR , 1985					20...	0818	1.6	1080	16.0
16...	1245	15	1190	14.0					
MAY									
21...	1020	5.3	980	14.0					
04087220 - ROOT RIVER NEAR FRANKLIN, WI (LAT 42 52 25 LONG 087 59 45)									
MAR , 1985					JUL , 1985				
07...	1230	9.0	970	1.0	11...	1615	2.7	830	24.0
APR					AUG				
16...	1145	33	960	12.0	20...	1043	4.5	830	17.5
04087233 - ROOT RIVER CANAL NEAR FRANKLIN, WI (LAT 42 48 55 LONG 087 59 40)									
APR , 1985					JUL , 1985				
19...	0920	32	775	16.5	11...	1250	2.2	1220	24.0
MAY					AUG				
21...	1430	8.7	910	18.0	20...	1228	2.1	1230	18.0
04087240 - ROOT RIVER AT RACINE, WI (LAT 42 45 05 LONG 087 49 25)									
APR , 1985					AUG , 1985				
19...	1205	113	800	19.0	21...	1537	5.2	920	23.5
JUL									
10...	1615	9.3	1010	27.0					
04087257 - PIKE RIVER NEAR RACINE, WI (LAT 42 30 49 LONG 087 51 30)									
APR , 1985					JUL , 1985				
17...	1650	26	710	12.5	11...	1100	5.7	450	21.0

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)
ST. CROIX RIVER BASIN									
05333500 - ST. CROIX RIVER NEAR DANBURY, WI (LAT 46 04 28 LONG 092 14 50)									
OCT , 1984					APR , 1985				
02...	1350	1680	94	13.5	04...	1320	2270	100	6.0
NOV					MAY				
27...	1405	1500	108	1.0	30...	1100	2080	125	14.5
JAN , 1985					JUL				
08...	1200	1330	156	.0	23...	1315	1350	124	21.0
FEB					AUG				
19...	1140	1060	173	.0	27...	1100	1920	109	18.0
CHIPPEWA RIVER BASIN									
05356000 - CHIPPEWA RIVER AT BISHOPS BRIDGE NEAR WINTER, WI (LAT 45 50 57 LONG 091 04 44)									
OCT , 1984					APR , 1985				
03...	1400	1350	68	13.0	18...	1540	202	56	12.5
NOV					JUN				
30...	1455	1080	65	1.0	04...	1130	753	60	16.5
JAN , 1985					AUG				
10...	1440	1010	85	2.5	29...	0830	1060	62	19.0
FEB									
21...	1525	877	102	3.0					
05356500 - CHIPPEWA RIVER NEAR BRUCE, WI (LAT 45 27 08 LONG 091 15 39)									
OCT , 1984					MAY , 1985				
12...	1130	1100	94	14.0	31...	0825	1100	80	17.5
NOV					JUL				
28...	1400	1500	95	1.5	19...	1250	851	73	21.5
JAN , 1985					AUG				
10...	1040	1360	100	.0	29...	1200	1700	80	18.0
MAR					SEP				
01...	1340	571	149	.0	19...	0815	735	95	20.0
APR									
18...	1500	2710	60	10.0					
05360500 - FLAMBEAU RIVER NEAR BRUCE, WI (LAT 45 22 21 LONG 091 12 34)									
OCT , 1984					APR , 1985				
11...	1530	1570	110	15.0	18...	1050	7100	65	7.0
NOV					MAY				
28...	1305	345	148	2.5	30...	1415	4440	70	19.0
JAN , 1985					JUL				
09...	1300	780	100	.5	19...	1330	1250	115	22.5
MAR					AUG				
01...	1245	860	167	.0	29...	1250	1490	100	19.0
05362000 - JUMP RIVER AT SHELDON, WI (LAT 45 18 29 LONG 090 57 23)									
OCT , 1984					MAY , 1985				
11...	1210	379	115	15.0	30...	1330	222	110	19.0
NOV					JUL				
28...	1210	220	132	.5	24...	1110	65	156	21.0
JAN , 1985					SEP				
09...	1115	240	128	.5	17...	1230	334	89	17.0
MAR									
01...	1035	275	160	.5					
29...	1420	7030	58	1.0					
05368000 - HAY RIVER AT WHEELER, WI (LAT 45 02 52 LONG 091 54 39)									
OCT , 1984					MAR , 1985				
10...	1030	300	340	13.5	29...	1445	942	240	6.0
NOV					MAY				
27...	1000	289	358	5.0	29...	1230	306	348	15.0
JAN , 1985					JUL				
07...	1515	240	380	.5	18...	1115	221	362	18.5
FEB					AUG				
27...	1545	469	347	1.5	27...	1030	209	353	16.0
MAR									
22...	1405	979	200	5.0					

WATER-QUALITY PARTIAL-RECORD STATIONS

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW- INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW- INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)
------	------	--	--	--	------	------	--	--	--

CHIPPEWA RIVER BASIN--CONTINUED

05369000 - RED CEDAR RIVER AT MENOMONIE, WI (LAT 44 53 02 LONG 091 55 57)

OCT , 1984					APR , 1985				
10...	1130	2490	200	14.5	17...	0845	3020	180	9.5
NOV					MAY				
27...	1115	2260	232	3.0	29...	1040	1420	210	19.0
JAN , 1985					JUL				
07...	1620	865	242	1.5	18...	1015	586	225	22.5
FEB					SEP				
28...	0755	1260	250	1.5	04...	1330	1360	215	20.5
MAR									
22...	1130	4150	190	3.0					

05370000 - EAU GALLE RIVER AT SPRING VALLEY, WI (LAT 44 51 10 LONG 092 14 17)

OCT , 1984					MAY , 1985				
10...	1320	19	365	13.5	29...	0900	18	370	14.5
NOV					JUL				
28...	1345	24	542	9.5	17...	1230	11	340	23.0
JAN , 1985					AUG				
07...	1315	24	415	1.5	23...	1245	20	295	19.5
MAR					SEP				
11...	1400	186	318	1.5	20...	1430	4.8	325	18.0
29...	1020	106	227	4.5					
APR									
15...	1500	35	300	11.0					

TREMPEALEAU RIVER BASIN

05379500 - TREMPEALEAU RIVER AT DODGE, WI (LAT 44 07 55 LONG 091 33 14)

OCT , 1984					APR , 1985				
10...	1240	486	274	14.5	02...	1520	741	285	6.5
NOV					JUN				
29...	1125	568	260	1.5	04...	1630	362	290	16.5
JAN , 1985					18...	1630	380	385	19.5
16...	0910	334	345	.0	AUG				
MAR					06...	1810	303	275	24.5
12...	1600	5040	142	.5	28...	1450	320	--	19.5

BLACK RIVER BASIN

05380806 - BLACK RIVER AT MEDFORD, WI (LAT 45 08 09 LONG 090 20 45)

OCT , 1984					MAR , 1985				
11...	0815	42	120	13.0	29...	1050	475	70	1.0
17...	1140	132	105	11.5	APR				
17...	1300	126	105	11.5	23...	0810	153	90	15.0
NOV					MAY				
28...	0950	53	128	.5	30...	0935	12	160	16.0
29...	1040	57	125	.5	JUN				
JAN , 1985					03...	1430	16	155	15.5
08...	1515	28	138	.5	JUL				
FEB					24...	1450	12	144	21.0
28...	1325	32	240	1.0	SEP				
MAR					17...	0910	24	110	15.0
28...	1510	389	75	2.0					

05381000 - BLACK RIVER AT NEILLSVILLE, WI (LAT 44 33 35 LONG 090 36 54)

OCT , 1984					MAR , 1985				
11...	1130	304	152	15.5	29...	1210	4990	100	3.0
NOV					APR				
28...	1405	446	136	1.0	03...	1340	1860	95	5.0
JAN , 1985					JUN				
17...	1115	120	195	.0	05...	1240	126	134	20.0
FEB					JUL				
28...	0930	1100	201	.5	25...	0845	118	158	21.5

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)
WISCONSIN RIVER BASIN									
05391000 - WISCONSIN R AT RAINBOW LK NEAR LAKE TOMAHAWK, WI (LAT 45 49 58 LONG 089 32 51)									
OCT , 1984					MAY , 1985				
03...	1600	598	80	12.5	23...	1555	701	75	19.5
JAN , 1985					AUG				
03...	1605	820	80	1.0	21...	1155	631	78	18.5
APR									
11...	1500	431	90	7.0					
05393500 - SPIRIT RIVER AT SPIRIT FALLS, WI (LAT 45 26 58 LONG 089 58 47)									
OCT , 1984					APR , 1985				
01...	1405	43	100	10.0	11...	1150	277	60	2.0
NOV					MAY				
12...	1530	102	67	.5	24...	1600	44	80	19.0
DEC					JUL				
11...	1420	51	84	.5	19...	1500	16	110	24.0
JAN , 1985					AUG				
17...	1220	20	105	.0	27...	1430	49	95	17.0
FEB									
22...	1230	16	140	.0					
05394500 - PRAIRIE RIVER NEAR MERRILL, WI (LAT 45 14 09 LONG 089 38 59)									
OCT , 1984					MAR , 1985				
01...	1150	115	170	8.0	27...	1100	596	85	1.5
NOV					MAY				
12...	1345	209	110	3.0	09...	1025	191	155	16.0
DEC					JUN				
10...	1555	138	149	.0	26...	1415	102	170	22.0
JAN , 1985					AUG				
17...	1505	104	145	.0	09...	0955	80	175	17.5
FEB					SEP				
22...	1530	102	180	.0	13...	1450	229	110	13.5
05395000 - WISCONSIN RIVER AT MERRILL, WI (LAT 45 10 41 LONG 089 40 52)									
MAR , 1985					JUL , 1985				
28...	1200	6380	175	3.5	12...	1430	2180	80	24.0
05397500 - EAU CLAIRE RIVER AT KELLY, WI (LAT 44 55 06 LONG 089 33 00)									
OCT , 1984					MAY , 1985				
05...	1520	113	235	15.0	14...	1600	227	170	17.5
NOV					JUL				
15...	1600	409	150	2.0	02...	1115	93	265	23.0
JAN , 1985					AUG				
04...	1610	231	185	.5	29...	1225	429	150	17.5
FEB					SEP				
11...	1430	81	200	.0	30...	1600	1750	88	9.5
MAR									
14...	1330	336	170	.5					
28...	1610	1580	75	3.0					
05398000 - WISCONSIN RIVER AT ROTHSCHILD, WI (LAT 44 53 09 LONG 089 38 05)									
OCT , 1984									
05...	1345	2120	150	15.0					
05399500 - BIG EAU PLEINE RIVER NEAR STRATFORD, WI (LAT 44 49 19 LONG 090 04 46)									
OCT , 1984					APR , 1985				
04...	1415	17	190	8.5	11...	1155	228	185	3.5
NOV					MAY				
28...	1115	235	185	1.5	10...	1125	68	160	17.0
JAN , 1985					JUL				
21...	1255	24	230	.0	02...	1845	71	180	25.5
MAR					SEP				
08...	1100	81	165	1.5	04...	1225	187	150	18.0

WATER-QUALITY PARTIAL-RECORD STATIONS

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)
------	------	--	--	--	------	------	--	--	--

WISCONSIN RIVER BASIN--CONTINUED

05403500 - LEMONWEIR RIVER AT NEW LISBON, WI (LAT 43 52 47 LONG 090 09 40)									
OCT , 1984					MAY , 1985				
26...	1215	768	120	8.5	28...	1045	231	150	19.0
DEC					JUL				
06...	1055	343	140	.0	03...	1100	199	135	23.0
JAN , 1985					AUG				
18...	1330	299	150	.0	22...	1100	101	205	18.0
APR									
09...	1235	1370	80	5.5					

05404000 - WISCONSIN RIVER NEAR WISCONSIN DELLS, WI (LAT 43 36 22 LONG 089 45 25)									
OCT , 1984					JUL , 1985				
29...	1215	12900	195	10.5	01...	1315	5760	150	24.0
APR , 1985					AUG				
02...	1250	17800	160	3.5	26...	1245	5780	200	20.0
MAY									
21...	1345	7890	120	20.0					

05405000 - BARABOO RIVER NEAR BARABOO, WI (LAT 43 28 51 LONG 089 38 09)									
OCT , 1984					APR , 1985				
30...	1240	697	310	10.0	12...	1340	948	260	11.5
DEC					MAY				
05...	1210	311	340	.5	28...	1510	311	360	19.0
JAN , 1985					JUL				
14...	1400	331	360	.5	02...	1350	353	350	22.0
FEB					AUG				
28...	1110	2850	175	.5	26...	0845	284	380	18.0

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 SOLVED (MG/L AS N) (00631)	NITRO- GEN, DIS- AMMONIA TOTAL (MG/L AS N) (00610)
05406450 - BLACK EARTH CREEK NEAR CROSS PLAINS, WI (LAT 43 05 15 LONG 089 34 52)								
OCT, 1984								
19...	0920	8.7	--	--	--	1.8	--	.290
JAN, 1985								
29...	0830	1.5	--	8.0	4.0	--	3.2	--
FEB								
22...	1015	7.5	--	--	--	--	1.8	--
MAY								
09...	0730	1.7	--	7.9	10.5	--	2.8	--
JUL								
25...	0820	12	--	--	--	--	.61	--

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00671)	SEDI- MENT, SUS- PENDEd (MG/L) (80154)
05406450 - BLACK EARTH CREEK NEAR CROSS PLAINS, WI (LAT 43 05 15 LONG 089 34 52)							
OCT, 1984							
19...	1.7	--	2.0	3.8	.420	--	266
JAN, 1985							
29...	--	.240	.70	--	.040	.021	24
FEB							
22...	--	.570	1.6	--	.350	.230	73
MAY							
09...	--	.100	.60	--	.090	.028	105
JUL							
25...	--	.150	2.0	--	.380	--	66

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
WISCONSIN RIVER BASIN--CONTINUED												
054064502 - BLACK EARTH CREEK AT FLOW SITE NO. 1 (LAT 43 05 17 LONG 089 35 25)												
JAN , 1985												
29...	0930	1.7	--	8.5	2.5	--	3.1	.210	.70	.080	.048	127
MAY												
09...	0830	1.6	--	8.1	12.0	--	2.6	.030	.60	.060	.024	57
054064509 - BLACK EARTH CREEK LOW FLOW SITE NO. 3 (LAT 43 00 01 LONG 089 37 32)												
JAN , 1985												
29...	1100	1.8	--	8.4	.5	--	3.1	.200	.80	.100	.079	41
MAY												
09...	0920	1.9	--	8.3	13.5	--	2.1	.150	.80	.110	.047	119
05406454 - BLACK EARTH CREEK LOW FLOW SITE NO. 4 (LAT 43 00 39 LONG 089 38 16)												
JAN , 1985												
29...	1400	7.2	--	--	--	--	--	--	--	--	--	36
29...	1605	7.2	--	--	6.0	8.2	2.4	.040	.40	.050	.020	--
MAR												
19...	1040	--	--	8.1	9.0	--	2.5	<.100	.40	.050	.016	65
APR												
11...	0930	--	--	8.1	9.0	--	2.4	<.020	.40	.040	.013	34
25...	0940	--	--	8.3	12.5	--	2.3	<.020	.30	.040	.013	61
MAY												
09...	1010	7.9	--	8.0	13.5	--	2.2	.040	.40	.040	.023	81
23...	1000	--	--	8.2	13.0	--	2.5	.020	.40	.060	.023	70
JUN												
06...	1145	--	--	8.4	15.0	--	2.4	<.020	.40	.050	.019	38
20...	1200	--	--	--	--	--	2.4	.030	.30	.060	.017	13
JUL												
18...	1045	--	--	7.9	15.0	--	2.6	<.020	.50	.080	.028	--
18...	1100	--	--	--	--	--	--	--	--	--	--	208
AUG												
21...	0955	--	--	8.4	14.0	--	2.4	<.020	.40	.120	.079	46
SEP												
04...	1330	--	--	7.8	15.5	10.2	2.4	.020	.20	.040	.023	32
05406459 - ENCHANTED VALLEY CREEK AT BREWERY ROAD (LAT 43 06 41 LONG 089 38 25)												
FEB , 1985												
22...	0845	--	--	--	--	--	.80	2.50	5.8	1.02	.780	--
22...	0900	5.6	--	--	--	--	--	--	--	--	--	17
JUL												
25...	0935	3.8	--	--	--	--	1.1	.140	1.9	1.33	--	142
05406468 - BREWERY CREEK AT ENCHANT. VLY. RD NR CROSS PLAINS (LAT 43 07 57 LONG 089 37 00)												
JAN , 1985												
29...	1415	1.6	--	--	3.0	--	2.5	.170	.60	.120	.027	--
FEB												
22...	1130	14	--	--	--	--	1.2	4.00	8.6	1.96	1.40	200
MAY												
09...	1255	.96	--	--	--	--	--	--	--	--	--	433
JUL												
25...	1400	110	--	--	--	--	.57	.110	5.8	2.60	--	2030
05406478 - BLACK EARTH CREEK LOW FLOW SITE NO. 6 (LAT 43 01 55 LONG 089 39 37)												
JAN , 1985												
29...	1515	13	560	--	6.0	--	2.5	.030	.50	.070	.021	--
MAR												
19...	1005	--	--	8.3	8.5	--	2.4	<.100	.60	.080	.017	49
APR												
11...	0900	--	--	8.2	9.0	--	2.4	<.020	.30	.040	.015	16
25...	0850	--	--	8.4	12.0	--	2.2	.020	.20	.040	.014	11
MAY												
09...	1445	13	--	--	17.0	--	2.0	.020	.30	.040	.023	177
23...	0920	--	--	8.3	11.0	--	2.3	<.020	.40	.060	.029	68
JUN												
06...	1050	--	--	--	14.0	8.5	2.3	<.020	.20	.050	.029	38
20...	1050	--	--	--	--	--	2.3	<.020	.40	.100	.021	--
20...	1130	--	--	--	--	--	--	--	--	--	--	178
JUL												
18...	1200	--	--	8.3	15.0	--	2.0	<.020	.40	.090	.028	--
18...	1230	--	--	--	--	--	--	--	--	--	--	36
AUG												
21...	0920	--	--	--	--	--	--	--	--	--	--	70
21...	0925	--	--	8.6	13.5	--	2.4	<.020	.20	.060	.036	--
SEP												
04...	1400	--	--	7.9	16.0	10.7	2.3	.020	.20	.040	.029	52

WATER-QUALITY PARTIAL-RECORD STATIONS

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
------	------	--	---	------------------------------	------------------------------	-----------------------------------	---	---	---	--	--	--------------------------------------

WISCONSIN RIVER BASIN--CONTINUED

05406483 - BLACK EARTH CREEK LOW FLOW SITE NO. 7 (LAT 43 02 30 LONG 089 40 12)

OCT, 1984												
19...	1015	--	--	--	--	--	--	--	--	--	--	181
JAN, 1985												
29...	0900	16	--	--	--	--	2.8	.030	.40	.140	.093	57
MAR												
19...	0935	--	--	8.2	7.5	--	2.4	.100	1.0	.240	.059	89
APR												
11...	0845	--	--	8.1	8.5	--	2.6	<.020	.30	.100	.064	31
25...	0835	--	--	8.3	11.0	--	2.4	.020	.30	.150	.117	10
MAY												
09...	1540	15	--	8.3	17.0	--	2.3	.030	.40	.160	.119	23
23...	0910	--	--	8.2	11.0	--	2.4	.030	.40	.120	.087	16
JUN												
01...	1035	--	--	--	--	--	--	--	--	--	--	35
06...	1035	--	--	8.5	13.0	--	2.4	.020	.30	.090	.057	--
20...	1115	--	--	--	--	--	2.8	.030	<.20	.220	.187	16
JUL												
18...	1215	--	--	8.3	15.0	--	2.5	<.020	.20	.220	.194	10
AUG												
21...	0910	--	--	8.3	12.5	--	2.8	<.020	.30	.200	.155	42
SEP												
04...	1420	--	--	7.9	16.5	10.0	2.7	.020	.20	.150	.129	35

05406487 - BLACK EARTH CREEK LOW FLOW SITE NO. 8 (LAT 43 03 17 LONG 089 40 59)

JAN, 1985												
29...	1040	18	--	--	--	--	2.7	.040	.70	.200	.065	124
MAR												
19...	0915	--	--	8.4	7.5	--	2.5	<.100	.40	.080	.050	31
APR												
11...	0835	--	--	8.0	9.0	--	2.5	.020	.30	.080	.057	36
25...	0825	--	--	8.2	11.0	--	2.3	.020	.40	.090	.073	6
MAY												
09...	1455	21	580	8.3	16.0	--	2.2	.030	.20	.140	.123	37
23...	0850	--	--	--	--	--	--	--	--	--	--	59
23...	0855	--	--	8.1	11.0	--	2.3	.020	.40	.100	.080	--
JUN												
06...	1010	--	--	8.5	13.5	--	2.3	<.020	.30	.100	.074	20
20...	1020	--	--	--	--	--	2.5	.020	.20	.140	.093	--
20...	1030	--	--	--	--	--	--	--	--	--	--	72
JUL												
18...	1155	--	--	8.4	16.0	--	2.1	<.020	.20	.130	.106	--
18...	1200	--	--	--	--	--	--	--	--	--	--	7
AUG												
21...	0500	--	--	--	--	--	--	--	--	--	--	53
21...	0900	--	--	8.6	13.0	--	2.3	<.020	.30	.060	.038	--
SEP												
04...	1520	--	--	8.0	14.0	11.0	2.5	.020	.30	.120	.097	34

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)
05406488 - BLACK EARTH CREEK TRIBUTARY NR CROSS PLAINS, WI (LAT 43 07 05 LONG 089 40 58)								
OCT, 1984								
19...	1015	--	--	--	--	2.9	--	.130
JAN, 1985								
29...	1000	2.5	--	--	--	--	2.0	--
29...	1400	2.5	--	--	--	--	--	--
FEB								
22...	1005	31	--	--	--	--	1.0	--
MAY								
09...	1540	4.2	600	8.5	20.0	--	1.6	--
JUL								
25...	1150	228	--	--	--	--	.41	--
25...	1535	--	--	--	--	--	.27	--

WATER-QUALITY PARTIAL-RECORD STATIONS

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDIMENT, SUS-PENDED (MG/L) (80154)					
WISCONSIN RIVER BASIN--CONTINUED												
05406488 - BLACK EARTH CREEK TRIBUTARY NR CROSS PLAINS, WI (LAT 43 07 05 LONG 089 40 58)												
OCT, 1984												
19...	1.5	--	1.6	4.5	.260	--	--					
JAN, 1985												
29...	--	.030	.20	--	.040	.015	--					
FEB												
22...	--	1.00	3.2	--	.820	.580	145					
MAY												
09...	--	.030	.40	--	.040	.019	--					
JUL												
25...	--	.050	2.7	--	1.30	--	495					
25...	--	.060	1.9	--	1.01	--	277					
DATE	TIME	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L AS N) (00300)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDIMENT, SUS-PENDED (MG/L) (80154)	
05406494 - BLACK EARTH CREEK LOW FLOW SITE NO. 9 (LAT 43 03 39 LONG 089 41 24)												
OCT, 1984												
19...	1015	--	--	--	--	--	--	--	--	--	181	
JAN, 1985												
29...	1130	26	--	--	--	2.6	.030	.40	.110	.054	37	
MAY												
09...	1355	30	640	8.4	16.0	--	2.1	.030	.40	.140	.107	
05406497 - BLACK EARTH CREEK LOW FLOW SITE NO. 10 (LAT 43 05 06 LONG 089 42 36)												
JAN, 1985												
29...	1500	30	--	--	--	2.4	.030	.60	.140	.051	81	
MAY												
09...	1035	32	625	8.2	13.5	--	2.0	.030	.30	.090	.061	
DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L AS N) (00300)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDIMENT, SUS-PENDED (MG/L) (80154)
054064975 - BLACK EARTH CREEK TRIBUTARY (LAT 43 07 19 LONG 089 42 54)												
OCT, 1984												
19...	1015	--	--	--	--	--	4.5	--	.840	--	--	
FEB, 1985												
22...	0905	2.8	--	--	--	--	--	.80	--	--	--	
MAY												
09...	1115	.28	625	8.4	20.5	--	2.2	--	--	--	--	
JUL												
25...	1020	18	--	--	--	--	--	3.4	--	--	--	
25...	1445	35	--	--	--	--	--	3.6	--	--	--	
DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L AS N) (00300)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDIMENT, SUS-PENDED (MG/L) (80154)
054064975 - BLACK EARTH CREEK TRIBUTARY (LAT 43 07 19 LONG 089 42 54)												
OCT, 1984												
19...	4.6	--	--	5.4	9.9	3.40	--	--	--	--	--	
FEB, 1985												
22...	--	6.60	16	--	--	3.60	2.80	121	--	--	--	
MAY												
09...	--	.070	.40	--	--	.120	.068	--	--	--	--	
JUL												
25...	--	.550	3.8	--	--	2.30	--	364	--	--	--	
25...	--	.540	4.4	--	--	2.50	--	354	--	--	--	

WATER-QUALITY PARTIAL-RECORD STATIONS

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC (MG/L AS N) (00625)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDIMENT, SUSPENDED (MG/L) (80154)
------	------	--	--------------------------------------	-----------------------------	-----------------------------	-----------------------------------	--	--	---	---------------------------------------	---	------------------------------------

WISCONSIN RIVER BASIN--CONTINUED

054064978 - TRIBUTARY BLACK EARTH CREEK LOW FLOW SITE NO. 11 (LAT 43 07 47 LONG 089 43 05)

MAY , 1985	09...	0940	.14	710	7.8	13.5	--	7.3	.030	.50	.190	.151
------------	-------	------	-----	-----	-----	------	----	-----	------	-----	------	------

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE (DEG C) (00010)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE (DEG C) (00010)
------	------	--	--------------------------------------	-----------------------------	------	------	--	--------------------------------------	-----------------------------

05408000 - KICKAPOO RIVER AT LAFARGE, WI (LAT 43 34 27 LONG 090 38 35)

GCT , 1984	25...	1150	212	470	7.0	MAY , 1985	22...	1440	192	460	17.0
DEC	10...	1420	228	420	.5	JUL	02...	1105	155	460	22.5
JAN , 1985	18...	1120	200	420	.5	AUG	13...	1255	714	325	22.0
FEB	28...	1630	286	420	4.5		21...	1445	146	480	17.0
APR	11...	1435	303	460	10.5						

05410490 - KICKAPOO RIVER AT STEUBEN, WI (LAT 43 10 58 LONG 090 51 30)

OCT , 1984	11...	1058	582	1010	15.0	APR , 1985	03...	1130	866	540	7.0
NOV	23...	1119	617	740	2.0	MAY	01...	1230	788	480	15.0
JAN , 1985	09...	1210	649	350	.0	AUG	08...	1350	458	570	22.0
FEB	26...	1610	2650	341	.5	SEP	17...	1208	489	590	16.0
	28...	1030	1940	310	1.0						

PLATTE RIVER BASIN

05414000 - PLATTE RIVER NEAR ROCKVILLE, WI (LAT 42 43 52 LONG 090 38 25)

OCT , 1984	11...	1700	87	800	16.0	MAY , 1985	13...	1235	113	600	16.0
	19...	1115	405	510	10.0	JUN	26...	1850	84	600	27.0
NOV	21...	1051	107	640	.0	AUG	09...	0843	64	595	19.5
JAN , 1985	10...	0900	99	700	.0	SEP	17...	1730	65	630	19.0
APR	04...	0818	179	620	8.0						

GALENA RIVER BASIN

05415000 - GALENA RIVER AT BUNCOMBE, WI (LAT 42 30 49 LONG 090 22 40)

OCT , 1984	12...	0813	66	890	16.5	MAY , 1985	13...	1533	78	890	18.5
NOV	21...	1340	91	910	.5	JUN	26...	1000	50	920	26.5
JAN , 1985	10...	1105	83	1100	.0	AUG	09...	1319	44	950	25.5
APR	04...	1120	142	954	8.0	SEP	18...	0930	6.0	965	19.0

ROCK RIVER BASIN

05426250 - BARK RIVER NEAR ROME, WI (LAT 42 57 39 LONG 088 40 09)

OCT , 1984	01...	1610	44	580	12.5	JUL , 1985	10...	1045	35	615	24.5
	30...	0940	128	550	9.0	AUG	22...	1047	23	575	20.5
JUN , 1985	21...	1325	38	635	22.0						

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)	DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00010)
------	------	--	---	------------------------------	------	------	--	---	------------------------------

ROCK RIVER BASIN--CONTINUED

05427570 - ROCK RIVER AT INDIANFORD, WI (LAT 42 48 15 LONG 089 05 25)

OCT , 1984					MAY , 1985				
10...	1450	883	540	16.5	31...	1610	533	570	20.0
30...	1235	3650	570	9.0	JUL				
DEC					09...	0925	418	565	25.5
12...	1510	2320	540	1.0	AUG				
MAR , 1985					01...	1235	542	595	22.0
07...	1020	5970	440	1.5	20...	1000	427	590	22.5
APR					SEP				
17...	0955	5350	450	12.5	12...	1325	1810	530	19.5
MAY									
10...	1200	1300	560	19.0					

05429500 - YAHARA RIVER NEAR MC FARLAND, WI (LAT 43 00 32 LONG 089 18 18)

OCT , 1984					APR , 1985				
10...	0936	139	405	15.0	16...	0905	388	430	12.5
31...	1135	217	455	9.5	MAY				
NOV					06...	1351	143	430	19.5
26...	1020	210	450	3.0	30...	0920	131	430	20.5
DEC					JUN				
10...	1312	243	405	1.0	21...	0940	94	460	21.0
JAN , 1985					JUL				
11...	1135	312	435	.0	08...	0930	106	445	24.5
22...	1340	252	415	1.0	AUG				
FEB					01...	0926	94	435	22.5
13...	1445	251	545	1.0	07...	0850	121	440	24.0
MAR					19...	1402	166	400	24.5
06...	0945	380	470	3.0					
26...	1025	385	445	5.5					

05430150 - BADFISH CREEK NEAR COOKSVILLE, WI (LAT 42 50 00 LONG 089 11 48)

OCT , 1984					APR , 1985				
30...	1325	120	1020	11.0	17...	1640	104	1120	16.5
DEC					MAY				
12...	1015	106	1010	7.0	30...	1417	104	1140	19.0
JAN , 1985					JUL				
22...	1130	115	970	.0	09...	1225	93	1200	23.0
FEB					AUG				
14...	1100	85	1330	1.5	19...	0905	82	1150	17.0
MAR					SEP				
07...	1425	131	1070	7.5	12...	1020	97	1140	16.0
26...	1500	111	1040	12.5					

05430175 - YAHARA RIVER NEAR FULTON, WI (LAT 42 49 50 LONG 089 10 09)

OCT , 1984					APR , 1985				
31...	0915	530	890	8.0	17...	1115	625	945	12.0
DEC					MAY				
12...	1155	429	855	5.5	30...	1220	405	1000	19.5
JAN , 1985					JUL				
29...	1030	464	950	.0	09...	1100	184	1250	22.5
FEB					AUG				
14...	0910	400	1080	.5	19...	1000	364	1140	17.5
MAR									
07...	1240	766	890	5.0					

05430500 - ROCK RIVER AT AFTON, WI (LAT 42 36 33 LONG 089 04 14)

OCT , 1984					APR , 1985				
29...	1250	3920	580	10.0	16...	1400	6180	510	14.5
DEC					MAY				
11...	1308	2640	580	2.5	31...	1210	1140	630	20.0
JAN , 1985					JUL				
23...	1355	2490	645	.0	08...	1540	944	670	26.0
FEB					AUG				
12...	1350	1720	750	.5	20...	1122	794	670	19.5
MAR									
06...	1500	6650	475	2.0					

WATER-QUALITY PARTIAL-RECORD STATIONS

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	STREAM- FLOW- INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)	DATE	TIME	STREAM- FLOW- INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	TEMPER- ATURE (DEG C) (00010)
------	------	--	--	--	------	------	--	--	--

ROCK RIVER BASIN--CONTINUED

05431486 - TURTLE CREEK AT CARVERS ROCK ROAD NR CLINTON, WI (LAT 42 35 50 LONG 088 49 45)

OCT , 1984					APR , 1985				
29...	1105	232	700	8.0	16...	1215	207	660	15.5
DEC					MAY				
11...	1045	130	640	1.5	31...	0952	106	685	18.5
JAN , 1985					JUL				
23...	0950	129	650	.0	08...	1237	69	660	26.0
FEB					AUG				
12...	1109	93	720	.0	20...	1540	70	720	19.0
MAR									
06...	1300	362	580	2.5					

05432500 - PECATONICA RIVER AT DARLINGTON, WI (LAT 42 40 40 LONG 090 07 07)

OCT , 1984					MAR , 1985				
12...	1110	149	710	16.5	27...	1405	291	674	11.0
NOV					MAY				
19...	1350	216	700	2.5	15...	1316	474	730	17.5
DEC					AUG				
27...	1250	204	730	.0	06...	1010	112	690	21.5
JAN , 1985					SEP				
11...	1310	203	700	.0	16...	1012	109	710	15.0
21...	1110	150	490	.0					
FEB									
05...	1050	147	700	.0					

05433000 - EAST BR PECATONICA R NR BLANCHARDVILLE, WI (LAT 42 47 10 LONG 089 51 40)

OCT , 1984					MAY , 1985				
10...	1210	149	570	15.0	14...	1420	184	780	17.0
NOV					JUN				
19...	1050	195	550	2.5	24...	1024	138	530	20.0
JAN , 1985					AUG				
11...	1045	171	580	.0	06...	1407	131	600	22.0
MAR					SEP				
27...	1010	239	740	10.5	18...	1257	130	600	18.5

05434500 - PECATONICA RIVER AT MARTINTOWN, WI (LAT 42 30 34 LONG 089 47 58)

OCT , 1984					APR , 1985				
16...	1420	829	690	15.0	02...	1450	1540	600	6.0
NOV					MAY				
26...	1413	867	630	5.0	14...	1215	892	625	18.5
JAN , 1985					JUN				
08...	1045	1040	640	.0	25...	1620	630	570	23.0
FEB					SEP				
19...	1340	632	660	.0	16...	1358	487	635	16.0
25...	1655	8640	265	.5					

ILLINOIS RIVER BASIN

05543830 - FOX RIVER AT WAUKESHA, WI (LAT 43 00 17 LONG 088 14 37)

NOV , 1984					JUL , 1985				
15...	0935	185	980	5.5	10...	1210	23	1040	25.0
MAR , 1985					AUG				
07...	1645	313	755	1.5	19...	1013	18	1210	20.0
APR									
11...	1030	222	730	9.0					

05544200 - MUKWONAGO RIVER AT MUKWONAGO, WI (LAT 42 51 24 LONG 088 19 40)

OCT , 1984					JUL , 1985				
30...	1410	72	470	10.0	12...	1400	24	470	27.0
MAR , 1985					AUG				
07...	1000	86	475	1.0	22...	0835	21	470	21.0
APR									
11...	1245	103	455	8.5					

05546500 - FOX RIVER AT WILMOT, WI (LAT 42 30 40 LONG 088 10 45)

JUL , 1985					AUG , 1985				
11...	1200	181	640	27.0	21...	0920	201	760	20.5

GROUND-WATER RECORDS



Figure 6. Location of observation wells and ground-water-quality sites in Wisconsin.

GROUND-WATER LEVELS

335

ADAMS COUNTY

435759089490001. Local number, AD-17/06E/08-0076.

LOCATION.--Lat 43°57'59", long 89°49'00", Hydrologic Unit 07070003. Owner: Wis. Dept. of Natural Resources.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Driven observation water table well, diameter 1 1/4 in, depth 21 ft, cased to 19 ft, well point 19-21 ft.

DATUM.--Altitude of land-surface is 955 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.61 ft below land-surface datum. May 29, 1973; lowest water level measured, 18.14 ft below land-surface datum, Mar. 7, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	14.18	DEC 3	12.87	FEB 11	13.77	APR 15	11.92	JUN 11	13.88
9	14.22	10	12.82	18	13.93	22	12.19	17	13.77
16	14.04	17	12.77	25	13.47	30	12.40	24	13.96
22	14.18	27	12.70	MAR 4	12.86	MAY 6	12.62	JUL 2	14.13
24	14.33	JAN 2	12.56	11	12.89	13	12.85	8	14.43
NOV 5	12.46	9	12.97	18	12.41	20	12.80	16	14.90
12	12.40	16	13.14	26	12.36	29	13.15	22	15.33
20	12.47	30	13.53	APR 1	12.29	JUN 6	13.62	29	14.80
26	12.84	FEB 4	13.72	8	11.88				

ASHLAND COUNTY

460936090531701. Local number, AS-43/04W/32-0006.

LOCATION.--Lat 46°09'36", long 90°53'17", Hydrologic Unit 07050001. Owner: U.S. Forest Service.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in, depth 89 ft.

DATUM.--Altitude of land-surface datum is 1,470 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of hole in pump base, at land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.4 ft below land-surface datum, Mar. 24, 1985; lowest water level measured, 32.4 ft below land-surface datum, Apr. 1, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL								
OCT 17	27.40	JAN 30	27.65	MAR 25	24.40	JUN 20	27.30	AUG 23	26.10
24	27.01	FEB 26	27.80	APR 25	27.70	JUL 22	27.70	SEP 20	26.10

BARRON COUNTY

451514091582101. Local number, BR-33/13W/21-0046.

LOCATION.--Lat 45°15'14", long 91°58'21", Hydrologic Unit 07050007. Owner: Edward Thuftin.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in, depth 65 ft.

DATUM.--Altitude of land-surface is 1,115 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1956 to current year.

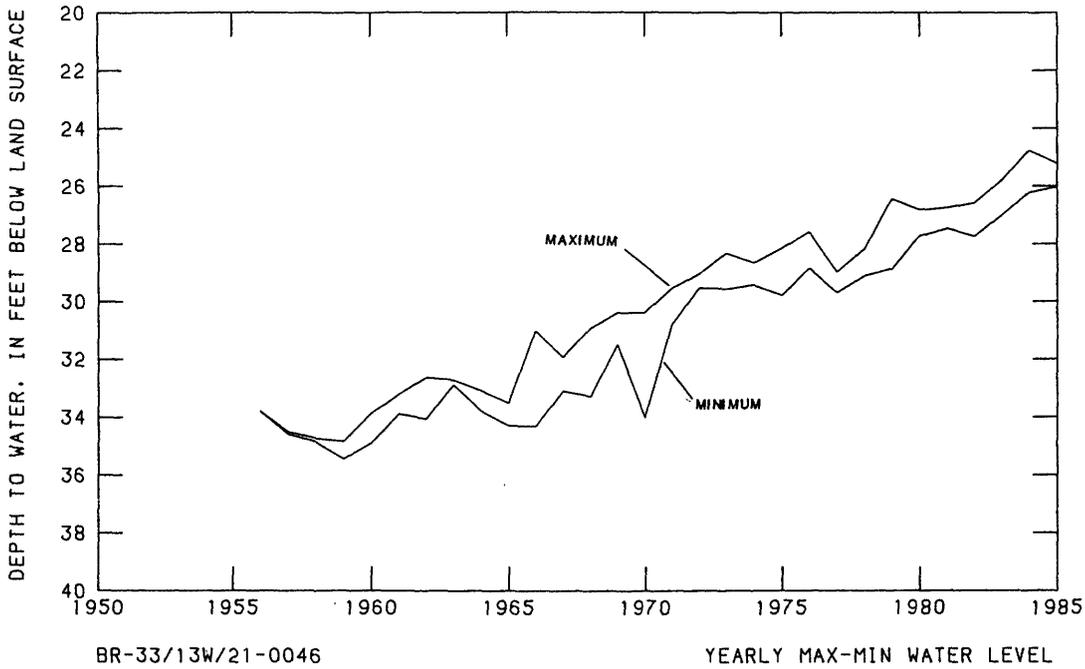
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.77 ft below land-surface datum, June 27, 1984; lowest water level measured, 35.45 ft below land-surface datum, May 13, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	25.54	DEC 26	25.80	FEB 15	25.77	APR 5	25.53	JUN 5	25.32
16	25.49	JAN 4	25.60	20	25.76	11	25.66	19	25.40
23	25.57	7	25.56	26	25.85	17	25.48	28	25.53
NOV 6	25.47	9	25.75	MAR 8	25.90	30	25.44	JUL 12	25.50
DEC 4	25.83	25	25.85	15	25.78	MAY 17	25.38	17	25.65
13	25.79	31	25.79	22	25.68	28	25.36	22	25.60
19	25.55	FEB 6	25.71	27	25.71				

GROUND-WATER LEVELS

BARRON COUNTY



BROWN COUNTY

443228088003101. Local number, BN-24/20E/24-0076.

LOCATION.--Lat 44°32'28", long 88°00'31", Hydrologic Unit 04030204. Owner: Wisconsin Public Service Corp.
 AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 5 in, depth 500 ft, cased to 150 ft, open end.

DATUM.--Altitude of land-surface is 590 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of 3 in pipe, 4.00 ft above land-surface datum.

PERIOD OF RECORD.--April 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured. 41.24 ft below land-surface datum, May 3, 1961;
 lowest water level measured, 248.97 ft below land-surface datum, Aug. 30, 1955.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	25.54	DEC 26	25.80	FEB 15	25.77	APR 5	25.53	JUN 5	25.32	AUG 6	25.56
16	25.49	JAN 4	25.60	20	25.76	11	25.66	19	25.40	19	25.79
23	25.57	7	25.56	26	25.85	17	25.48	28	25.53	23	25.68
NOV 6	25.47	9	25.75	MAR 8	25.90	30	25.44	JUL 12	25.50	27	25.66
4	25.83	25	25.85	15	25.78	MAY 17	25.38	17	25.65	SEP 13	26.03
13	25.79	31	25.79	22	25.68	28	25.36	22	25.60	19	25.77
19	25.55	FEB 6	25.71	27	25.71						

GROUND-WATER LEVELS

337

BURNETT COUNTY

455224092215601. Local number, BT-39/16W/17-0002.

LOCATION.--Lat 45°52'24", long 92°21'56", Hydrologic Unit 07030001. Owner: Wis. Dept. of Natural Resources.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in, depth 46 ft, cased to 46 ft, perforated 44 1/2-46 ft.

DATUM.--Altitude of land-surface is 981 ft above National Geodetic Vertical Datum of 1929. Measuring point: pointer on float gage, 4.87 ft above land-surface datum.

PERIOD OF RECORD.--May 1937 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.33 ft below land-surface datum, June 28, 1968; lowest water level measured, 37.32 ft below land-surface datum, Mar. 3, 1938.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	32.45	DEC 7	32.35	FEB 8	32.45	APR 12	32.48	JUN 14	32.40	AUG 9	32.31
12	32.46	14	32.44	15	32.42	19	32.36	21	32.28	16	32.32
19	32.24	21	32.31	22	32.39	26	32.48	28	32.40	23	32.31
26	32.41	28	32.32	MAR 1	32.31	MAY 3	32.52	JUL 5	32.26	30	32.33
NOV 2	32.45	JAN 4	32.35	8	32.40	10	32.39	12	32.36	SEP 6	32.27
9	32.40	11	32.50	15	32.43	17	32.44	19	32.33	13	32.44
16	32.35	18	32.32	22	32.43	24	32.48	26	32.32	20	32.24
23	32.38	25	32.34	29	32.32	31	32.11	AUG 2	32.39	27	32.27
30	32.39	FEB 1	32.52	APR 5	32.37	JUN 7	32.41				

CHIPPEWA COUNTY

445544091155701. Local number, CH-28/07W/17-0142.

LOCATION.--Lat 44°55'44", long 91°15'57", Hydrologic Unit 07050005. Owner Wis. Dept. of Transportation.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled domestic artesian well, diameter 6 in, depth 60 ft, cased to 39 ft, open end.

DATUM.--Altitude of land-surface is 965 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1/4-in hole in pump base, 2.20 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.36 ft below land-surface datum, May 21, 1984; lowest water level measured, 33.46 ft below land-surface datum, Jan. 10, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	27.48	DEC 5	27.31	FEB 4	28.03	APR 8	28.16	JUN 10	27.61	AUG 13	27.89
8	27.46	11	27.09	11	27.72	15	27.69	17	27.33	20	28.18
16	27.47	17	27.63	18	27.79	23	27.02	25	27.55	27	28.19
23	27.88	26	27.73	25	27.76	29	27.26	JUL 2	27.60	SEP 2	28.21
29	27.58	JAN 2	27.84	MAR 5	28.10	MAY 7	27.24	9	27.67	10	28.38
NOV 6	28.07	9	27.75	12	27.99	13	27.31	16	27.88	17	27.85
12	27.77	14	27.36	20	28.04	20	27.56	23	27.86	23	27.74
20	27.94	22	27.54	25	27.86	28	27.50	30	28.03	30	28.13
26	27.08	29	27.61	APR 2	27.32	JUN 4	27.67	AUG 6	27.76		

CLARK COUNTY

444525090443201. Local number, CK-26/03W/04-0001.

LOCATION.--Lat 44°45'25", long 90°44'32", Hydrologic Unit 07050006. Owner: Wis. Dept. of Natural Resources.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled domestic artesian well, diameter 6 in, depth 150 ft cased to 53 ft, open end.

DATUM.--Altitude of land-surface is 1,210 ft above National Geodetic Vertical Datum of 1929. Measuring point: hole in pump base, at land-surface datum.

PERIOD OF RECORD.--May 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.30 ft below land-surface datum Aug. 23, 1984; lowest water level measured, 70.64 ft below land-surface datum, Sept. 17, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 20	53.55	JAN 3	53.50	APR 10	53.90	JUN 19	53.62	JUL 22	54.25	SEP 3	54.30

GROUND-WATER LEVELS

339

DOOR COUNTY

455757087151701. Local number, DR-29/27E/30-0007.

LOCATION.--Lat 45°57'57", long 87°15'17", Hydrologic Unit 04030102. Owner: Fred Peterson.

AQUIFER.--Silurian dolomite.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 4 in, depth 111 ft.

DATUM.--Altitude of land-surface is 725 ft above National Geodetic Vertical Datum of 1929. Measuring point: hole in pump base, 1.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.00 ft below land-surface datum, Mar. 22, 1979; lowest water level measured, 56.12 ft below land-surface datum, Feb. 21, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL										
OCT 9	31.79	JAN 22	41.84	MAR 19	15.36	MAY 22	38.94	JUN 19	38.84	AUG 21	43.81
NOV 13	29.01	FEB 20	42.65	APR 24	30.62						

445055087213801. Local number, DR-27/26E/05-0265

LOCATION.--Lat 44°50'55", long 87°21'38", Hydrologic Unit 04030102. Owner: U.S. Geol. Survey.

AQUIFER.--Silurian dolomite.

WELL CHARACTERISTICS.--Drilled observation, diameter 6 in, depth 442 ft, cased to 170 ft, open end.

DATUM.--Altitude of land-surface is 616 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.57 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.57 ft above land-surface datum, June 18, 1974; lowest water level, 35.33 ft below land-surface datum, Feb. 1, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.78	6.02	7.07	9.01		7.97	1.48		9.81	12.54	17.95	5.64
10	19.50	5.99	7.24			5.73	1.01		10.15	12.79	18.27	5.66
15	19.64	7.13	9.37			1.51	1.13		11.03	14.10	18.08	6.10
20	10.26	8.41	7.34			2.11	1.87		11.95	15.83	18.58	8.67
25	10.27	9.05	8.19		12.50	1.31	3.11	9.03	8.77	17.12	18.52	10.83
EOM	9.11	8.97	7.41		10.07	1.43		7.91	12.90	18.40	5.48	11.06
WTR YEAR 1985	MAX	19.75	FEB 21	MIN	+1.52	APR 9						

DOUGLAS COUNTY

463217091342801. Local number, DS-47/10W/23-0001.

LOCATION.--Lat 46°32'17", long 91°34'28", Hydrologic Unit 04010301. Owner: Wis. Dept. of Natural Resources.

AQUIFER.--Sand end gravel.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in, depth 40 ft, cased to 40 ft, perforated 37-40 ft.

DATUM.--Altitude of land-surface is 980 ft above National Geodetic Vertical Datum of 1929. Measuring point: pointer on float gage, 4.33 ft above land-surface datum.

PERIOD OF RECORD.--June 1937 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.81 ft above land-surface datum, Apr. 28, 1978; lowest water level measured, 29.59 ft below land-surface datum, July 29, 1939.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	1.02	DEC 3	1.70	JAN 28	3.44	APR 2	9.10	JUN 3	0.31	AUG 12	4.94
9	1.88	10	1.97	FEB 4	3.89	9	9.46	11	1.80	20	5.57
15	2.02	17	0.27	12	4.53	15	9.64	19	2.43	28	5.95
22	0.37	24	0.87	19	5.92	22	0.44	24	2.77	SEP 3	0.17
29	0.90	31	1.49	25	6.77	29	0.58	JUL 1	1.48	9	1.25
NOV 5	0.24	JAN 2	2.13	MAR 6	7.45	MAY 6	1.06	8	2.18	18	2.18
12	1.20	7	2.30	11	7.86	13	0.91	16	2.90	23	2.38
19	1.64	14	2.65	18	8.29	20	0.45	22	3.35	30	0.21
26	1.27	22	3.06	25	8.76	28	0.50				

GROUND-WATER LEVELS

FOND DU LAC COUNTY

434358088301001. Local number. FL-15/17E/30-0374.

LOCATION.--Lat 43°43'58", long 88°30'46", Hydrologic Unit 04030203. Owner: Wis. Dept. of Transportation.

AQUIFER.--Galena-Platteville.

WELL CHARACTERISTICS.--Drilled domestic artesian well, diameter 6 in, depth 120 ft, cased to 63 ft, open end.

DATUM.--Altitude of land-surface is 835 ft above National Geodetic Vertical Datum of 1928. Measuring point: hole in pump base, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--October 16, 1967, to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.37 ft below land-surface datum, May 23, 1968; lowest water level measured, 34.99 ft below land-surface datum, Mar. 21, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	21.48	JAN 3	17.43	APR 1	16.19	MAY 16	16.08	JUN 28	20.38	AUG 29	22.47
17	21.36	MAR 1	18.67	MAY 1	15.08	JUN 3	18.07	AUG 1	22.02	SEP 27	21.77
NOV 1	18.00										

FOREST COUNTY

460156088474901. Local number, FR-41/14E/18-0002.

LOCATION.--Lat 46°01'56", long 88°47'49", Hydrologic Unit 04030106. Owner: Wis. Dept. of Transportation.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1 1/4 in, depth 18 ft, cased to 15 ft, well point 15-18 ft.

DATUM.--Land-surface datum is 1,552 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.70 ft above land-surface datum.

PERIOD OF RECORD.--October 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.96 ft below land-surface datum, Apr. 29, 1954; lowest water level measured, 11.89 ft below land-surface datum, Aug. 13, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29	10.95	JAN 2	10.74	MAR 1	10.36	MAY 1	9.46	JUN 27	10.84	AUG 29	11.21
NOV 29	11.18	FEB 1	10.67	APR 2	10.88	30	10.71	JUL 31	11.23		

GRANT COUNTY

425551090391301. Local number, GR-05/02W/06-0005.

LOCATION.--Lat 42°55'51", long 90°39'13", Hydrologic Unit 07060003. Owner: Ralph Shackelford.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in, depth 35 ft, cased to 5 ft, open end.

DATUM.--Altitude of land-surface is 980 ft above National Geodetic Vertical Datum of 1929. Measuring point: edge of pump base, 0.50 ft above land-surface datum.

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

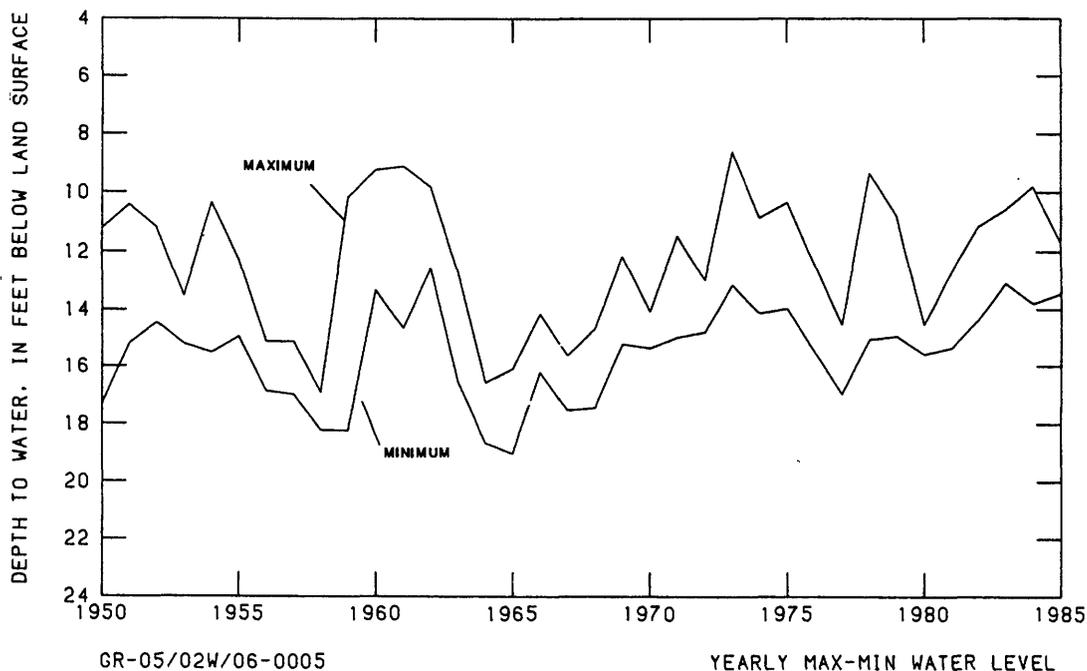
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.60 ft below land-surface datum, May 22, 1973; lowest water level measured, 19.03 ft below land-surface datum, Aug. 17, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL										
OCT 31	12.23	DEC 27	12.58	FEB 20	13.37	APR 16	11.71	JUN 27	11.95	AUG 28	12.84
NOV 21	12.37	JAN 22	12.92	MAR 14	12.17	MAY 23	11.74	JUL 25	12.08	SEP 27	12.98

GROUND-WATER LEVELS

GRANT COUNTY



IOWA COUNTY

425644090101901. Local number, IW-06/03E/32-0032.

LOCATION.--Lat 42°56'44", long 90°10'19", Hydrologic Unit 07090003. Owner: Archie Lee.

AQUIFER.--Galena-Pletteville.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in, depth 92 ft.

DATUM.--Altitude of land-surface is 1,200 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1/4-in hole pump base, at land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.40 ft below land-surface datum, May 17, 1960; lowest water level measured, 68.81 ft below land-surface datum, Aug. 18, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10	57.06	DEC 11	55.49	FEB 6	55.61	APR 10	54.59	JUN 11	56.72	AUG 6	57.36
12	56.97	27	55.63	22	55.78	23	54.58	24	57.21	SEP 11	57.42
NOV 8	55.24	JAN 8	55.23	MAR 6	54.50	MAY 7	55.48	JUL 9	57.09	16	57.21
19	55.60	11	55.38	27	53.79	13	55.87	22	57.13		

GROUND-WATER LEVELS

JACKSON COUNTY

441051090470901. Local number, JA-20/03W/30-0005.

LOCATION.--Lat 44°10'51", long 90°47'09", Hydrologic Unit 07040007. Owner: Robert Foulker.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in, depth 190 ft, cased to 54 ft, open end.

DATUM.--Altitude of land-surface is 845 ft above National Geodetic Vertical Datum of 1929. Measuring point: hole in pump base, at land-surface datum.

PERIOD OF RECORD.--June 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.53 ft below land-surface datum, May 22, 1973; lowest water level measured, 22.60 ft below land-surface datum, Dec. 19, 1958.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	18.84	JAN 9	18.64	APR 9	19.67	MAY 14	18.21	JUL 18	18.75	AUG 13	19.78
NOV 1	18.80	FEB 12	18.67	22	18.18	JUN 12	18.40	AUG 9	19.67	SEP 16	19.80
DEC 7	18.60	MAR 12	19.45								

JUNEAU COUNTY

435515090152901. Local number, JU-17/02E/28-0098.

LOCATION.--Lat 43°55'15", long 90°15'29", Hydrologic Unit 07070003. Owner: Wis. Dept. of Transportation.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 6 in, depth 71 ft, cased to 42 ft, open end.

DATUM.--Altitude of land-surface is 930 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1/4-in hole in pump base, 1.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.86 ft below land-surface datum, May 24, 1973; lowest water level measured, 13.90 ft below land-surface datum, Jan. 10, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL										
OCT 28	11.72	JAN 31	11.29	MAR 29	10.89	APR 25	10.66	JUN 28	11.35	AUG 28	11.79
NOV 30	11.01	FEB 28	10.79	APR 22	10.66	MAY 31	12.97	JUL 31	11.52	SEP 30	11.10
DEC 29	10.67										

KENOSHA COUNTY

423907087521701. Local number, KE-02/22E/11-0006.

LOCATION.--Lat 42°39'07", long 87°52'17", Hydrologic Unit 04040002. Owner: Kenosha County.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in, depth 1,751 ft, cased to 492 ft, open end.

DATUM.--Altitude of land-surface is 639 ft above National Geodetic Vertical Datum of 1929. Measuring point: bottom of breather pipe, 1.35 ft above land-surface datum.

REMARKS.--Water level affected by regional pumping of wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.10 ft below land-surface datum, Dec. 3, 1947; lowest water level measured, 196.33 ft below land-surface datum, Sept. 24, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL
SEP 24	196.33

GROUND-WATER LEVELS

343

LAFAYETTE COUNTY

423113090161101. Local number, LF-01/02E/33-0057.

LOCATION.--Lat 42°31'13", long 90°16'11", Hydrologic Unit 07060005. Owner: Coulthard Estate.

AQUIFER.--Galena-Plattville.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in, depth 265 ft, cased to 16 ft, open end.

DATUM.--Altitude of land-surface is 1,000 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.40 ft below land-surface datum, Apr. 23, 1985; lowest water level, 130.99 ft below land-surface datum, Nov. 6, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	40.07	38.95	38.53	37.92	38.06	36.43	33.46	32.80	34.03	34.91	35.98	36.89
10	40.32	38.56	38.25	38.09	38.16	35.73	33.55	32.98	34.18	35.21	36.41	37.54
15	39.92	38.34	38.57	38.05	38.20	35.24	32.92	33.00	34.06	35.48	36.48	37.76
20	40.00	38.83	38.35	38.02	38.32	34.88	32.71	33.38	34.40	35.66	36.83	37.84
25	40.01	38.13	38.59	38.19	37.42	34.85	32.85	33.48	34.73	35.73	36.81	37.84
EOM	40.01	39.70	38.02	38.18	36.69	33.99	32.81	33.56	35.07	36.11	36.99	38.01

WTR YEAR 1984 MAX 32.40 APR 23 MIN 40.34 OCT 18

424620089590001. Local number, LF-04/04E/35-0078.

LOCATION.--Lat 42°46'20", long 89°58'57", Hydrologic Unit 07090003. Owner: Wis. Dept. of Natural Resources.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 3/4 in, depth 29 ft, cased to 16 ft, open end.

DATUM.--Altitude of land-surface is 850 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 0.20 ft above land-surface datum.

PERIOD OF RECORD.--May 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.89 ft below land-surface datum, May 23, 1974; lowest water level measured, 19.81 ft below land-surface datum, Mar. 3, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL										
OCT 10	15.79	DEC 27	14.61	FEB 22	12.67	APR 23	11.46	JUN 24	14.59	AUG 6	15.05
NOV 19	15.15	JAN 11	13.66	MAR 27	10.67	MAY 15	13.24	JUL 22	14.86	SEP 16	15.30

LANGLADE COUNTY

450942089085301. Local number, LA-31/11E/20-0118.

LOCATION.--Lat 45°09'42", long 89°08'53", Hydrologic Unit 07070002. Owner: Wis. Public Service Corp.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1 1/2 in, depth 21 ft, cased to 19 ft, well point 19-21 ft.

DATUM.--Land-surface datum is 1,510 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 2.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.09 ft below land-surface datum, May 18, 1973; lowest water level measured, 13.84 ft below land-surface datum, Feb. 28, 1949.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL										
OCT 29	9.58	DEC 27	9.61	FEB 26	10.14	APR 27	8.19	JUN 27	9.11	AUG 27	8.88
NOV 26	9.54	JAN 28	9.82	MAR 26	9.32	MAY 20	8.16	JUL 30	8.15	SEP 30	9.18

GROUND-WATER LEVELS

LINCOLN COUNTY

452318089402501. Local number, LN-34/06E/36-0060.

LOCATION.--Lat 45°23'18", long 89°40'25", Hydrologic Unit 07070002. Owner: U.S. Geol. Survey.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1 1/4 in, depth 22 ft, cased to 20 ft, well point 20-22 ft.

DATUM.--Altitude of land-surface is 1,435 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of pipe, 3.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.38 ft below land-surface datum, May 15, 1960; lowest water level measured, 10.38 ft below land-surface datum, Jan. 17, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	8.99	DEC 11	8.31	MAR 18	8.36	JUN 23	8.30	JUL 23	8.90	AUG 28	8.48
10	8.90	JAN 3	8.18	26	8.09	28	8.40	31	8.80	SEP 4	8.48
23	8.66	17	8.44	APR 11	7.77	JUL 3	8.48	AUG 7	8.88	10	9.20
NOV 1	8.21	22	8.57	25	7.79	12	8.77	13	8.55	18	7.27
13	8.37	FEB 19	8.84	JUN 5	7.80	19	8.78	21	8.50	25	7.17

MANITOWOC COUNTY

440430087420401. Local number, MN-19/23E/35-0028.

LOCATION.--Lat 44°04'30", long 87°42'04", Hydrologic Unit 04030101. Owner: Wis. Dept. of Transportation.

AQUIFER.--Silurian dolomite.

WELL CHARACTERISTICS.--Drilled domestic artesian well, diameter 6 in, depth 147 ft, cased to 133 ft, open end.

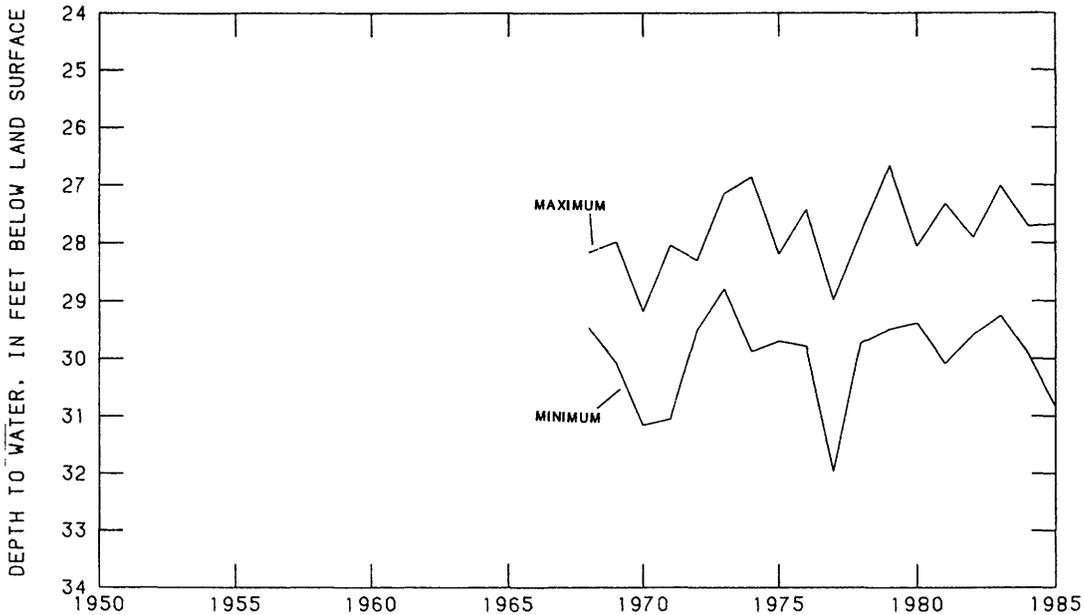
DATUM.--Altitude of land-surface is 670 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1/4-in hole in pump base, 1.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.66 ft below land-surface datum, June 11, 1979; lowest water level measured, 31.97 ft below land-surface datum, Jan. 26, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	29.66	OCT 17	29.45	OCT 29	29.22	FEB 19	28.18	JUN 24	29.75	JUL 22	30.83
8	29.63	18	29.50	NOV 5	28.66	JUN 4	29.50	JUL 2	30.50	AUG 5	30.00
15	29.56	22	29.33	JAN 9	27.68	17	29.50	8	29.84	SEP 25	29.59



GROUND-WATER LEVELS

345

MARATHON COUNTY

444114090082501. Local number, MR-26/03E/33-0007.

LOCATION.--Lat 44°41'14", long 90°08'25", Hydrologic Unit 07070002. Owner: City of Marshfield.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 7 in, depth 49 ft, cased to 30 ft, screened 30-49 ft.

DATUM.--Altitude of land-surface is 1,190 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--June 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.16 ft below land-surface datum, Nov. 12, 1982; lowest water level, 38.96 ft below land-surface datum, Jan. 9, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.81	5.46	6.90	6.83	10.34				7.30	7.39	11.71	
10	7.44	4.52	7.10	7.18	12.35				7.57	7.63	13.27	
15	7.02	5.38	6.87	7.44	14.39				8.02	8.17		
20	4.16	6.41	6.42	7.80	16.79				8.48	8.81		8.84
25	5.83	6.63	7.02	8.24	18.92				8.84			6.39
EOM	5.13	6.25	6.64	9.07					7.31			4.37

WTR YEAR 1985 MAX 18.92 FEB 25 MIN 3.89 OCT 31

444709089265301. Local number, MR-27/09E/31-0028.

LOCATION.--Lat 44°47'09", long 89°26'53", Hydrologic Unit 07070002. Owner: U.S. Geol. Survey.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1 1/4 in, depth 27 ft, cased to 25 ft, well point 25-27 ft.

DATUM.--Altitude of land-surface is 1,229 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of pipe, 0.80 ft above land-surface datum.

PERIOD OF RECORD.--November 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.77 ft below land-surface datum, July 21, 1973; lowest water level measured, 26.09 ft below land-surface datum, Mar. 30, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	17.58	DEC 9	17.00	FEB 9	16.50	APR 13	15.68	JUN 16	15.81	AUG 11	16.20
14	17.59	16	16.97	17	16.53	21	15.69	23	15.81	18	16.22
21	17.59	23	16.43	24	16.58	27	15.64	30	15.93	25	16.32
28	17.60	30	16.55	MAR 3	16.45	MAY 4	15.61	JUL 7	15.97	SEP 1	16.30
NOV 4	17.41	JAN 6	16.48	10	16.41	12	15.60	14	15.99	8	16.28
11	17.31	13	16.49	17	16.08	18	15.61	21	16.06	15	16.30
18	17.21	20	16.49	24	16.19	25	15.61	28	16.12	22	16.30
25	17.12	27	16.48	31	16.68	JUN 2	15.74	AUG 4	16.18	28	16.30
DEC 2	17.09	FEB 3	16.50	APR 7	19.85	9	15.78				

MARINETTE COUNTY

453816087590101. Local number, MT-37/20E/34-0007.

LOCATION.--Lat 45°38'16", long 87°59'01", Hydrologic Unit 04030108. Owner: Wis. Dept. of Natural Resources.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in, depth 33 ft, cased to 33 ft, open end.

DATUM.--Altitude of land-surface is 980 ft above National Geodetic Vertical Datum of 1929. Measuring point: pointer on float gage, 4.00 ft above land-surface datum.

PERIOD OF RECORD.--March 1939 to current year.

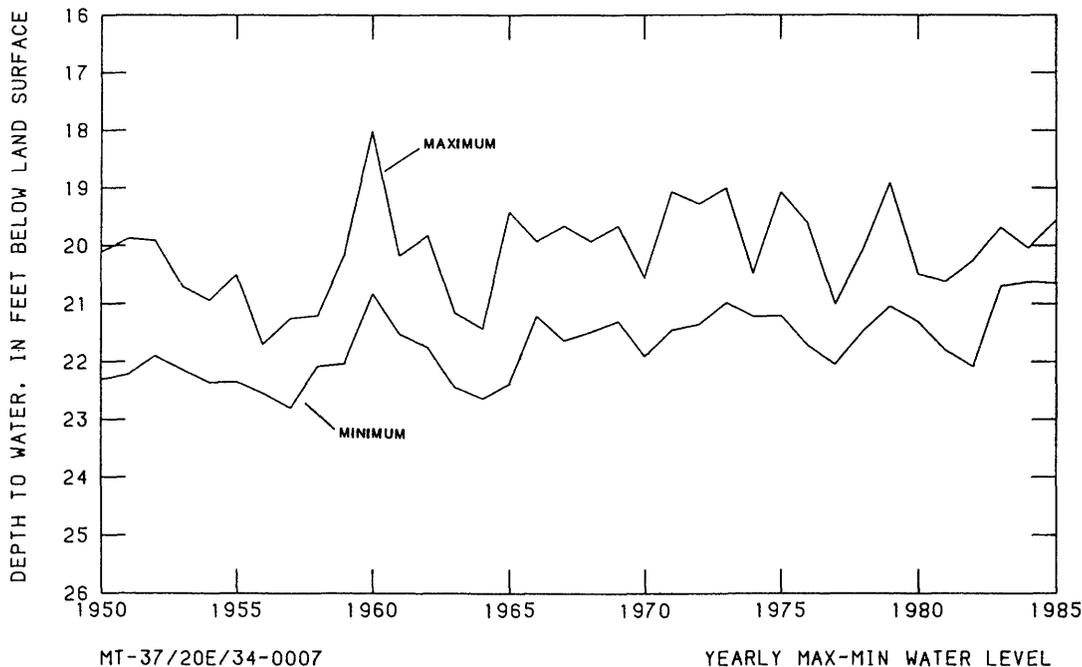
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.01 ft below land-surface datum, May 17, 1960; lowest water level measured, 23.26 ft below land-surface datum, Nov. 2, 1948.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	20.25	DEC 4	20.08	FEB 5	20.49	APR 9	20.04	JUN 11	19.90	AUG 6	20.44
9	20.32	11	20.10	12	20.56	16	19.95	18	19.96	13	20.50
16	20.40	18	20.14	19	20.60	23	19.80	25	20.03	20	20.52
23	20.32	25	20.19	26	20.64	30	19.68	JUL 2	20.04	27	20.54
30	20.26	JAN 1	20.20	MAR 5	20.50	MAY 7	19.68	9	20.16	SEP 3	20.55
NOV 6	20.13	8	20.24	12	20.47	14	19.69	16	20.22	10	20.60
13	20.06	15	20.30	19	20.45	21	19.70	23	20.32	17	20.60
20	20.05	22	20.35	26	20.30	28	19.77	30	20.39	24	20.65
27	20.08	29	20.42	APR 2	20.13	JUN 4	19.84				

GROUND-WATER LEVELS

MARINETTE COUNTY



MARQUETTE COUNTY

435244089293401. Local number, MQ-16/08E/12-0009.

LOCATION.--Lat 43°52'44", long 89°29'34", Hydrologic Unit 04030201. Owner: Village of Westfield.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unuaed artasian well, diameter 6 in, depth 274 ft.

DATUM.--Altitude of land-surface is 880 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, at land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.17 ft below land-surface datum, Jun 22, 1985; lowest water level measured, 18.21 ft below land-surface datum, Feb. 18, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL										
OCT 22	14.00	JAN 23	13.85	MAR 22	13.73	MAY 22	13.68	JUL 10	14.06	AUG 24	14.10
NOV 21	13.74	FEB 22	13.20	APR 22	13.50	JUN 22	13.17	JUL 22	14.04	SEP 25	14.06
DEC 20	13.70										

MILWAUKEE COUNTY

425819087551201. Local number, ML-06/22E/20-0085.

LOCATION.--Lat 42°58'19", long 87°55'12", Hydrologic Unit 04040003. Owner: City of Milwaukee.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 16 in, depth 1,834 ft, cased to 705 ft, open end.

DATUM.--Altitude of land-surface ia 705 ft above National Geodetic Vertical Datum of 1929. Measuring point: hole in cover on casing, 6.00 ft below land-surface datum.

PERIOD OF RECORD.--Water years 1938, 1944, 1946, 1950, 1952, 1961, 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 110.00 ft below land-surface datum, 1938; lowest water level, 288.29 ft below land-surface datum, Oct. 14, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	279.98	279.06	279.12	277.81	277.79		278.30	279.35	280.47	281.39	283.01	284.96
10	280.18	278.78	278.73	277.88	277.98		278.91	279.40	280.52	281.46	283.47	285.60
15	279.79	278.76	278.69	277.80	277.71		278.84	279.46	280.67	281.80	284.02	286.23
20	279.82	279.50	278.36	277.62	277.79		279.05	279.68	281.03	282.28	284.49	285.99
25	279.85	279.05	278.57	277.64	277.66		279.08	279.97	281.38	282.30	284.73	285.91
EOM	279.52	278.58	278.24	277.71		278.52		280.05	281.75	282.81	285.07	285.92
WTR YEAR 1985	MAX	286.32	SEP 14	MIN	276.97	JAN 18						

GROUND-WATER LEVELS

MILWAUKEE COUNTY

430412087545801. Local number, ML-07/22E/17-0120.

LOCATION.--Lat 43°04'12", long 87°54'58", Hydrologic Unit 04040003. Owner: Nunn-Buah Shoe Co.

AQUIFER.--Silurian dolomite.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in, depth 400 ft, cased to 215 ft, open end.

DATUM.--Altitude of land-surface is 685 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of concrete, 8.75 ft below land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.18 ft below land-surface datum, Apr. 5, 1985; lowest water level, 107.95 ft below land-surface datum, Feb. 28, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	57.07	56.50			56.49	56.45	55.46	55.71	56.11	56.00	56.46	56.50
10	57.12			56.50	56.39	56.21	56.00	55.72	56.01	56.17	56.30	56.76
15	56.62			56.33	56.09	56.20	55.73	55.68	55.92	56.32	56.60	57.14
20	56.63			56.11	56.33	56.25	55.78	55.77	56.01	56.52	56.67	56.07
25	56.97			56.12	56.22	56.22	55.83	55.86	56.18	56.32	56.48	55.85
EOM	56.85			56.30	56.34	55.85		55.63	56.39	56.62	56.68	55.76

WTR YEAR 1985 MAX 57.29 SEP 14 MIN 55.18 APR 5

425613088014301. Local number, ML-06/21E/32-0148.

LOCATION.--Lat 42°56'13", long 88°01'43", Hydrologic Unit 04040002. Owner: Milwaukee County.

AQUIFER.--Silurian dolomite.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in, depth 180 ft, cased to 43 ft, open end.

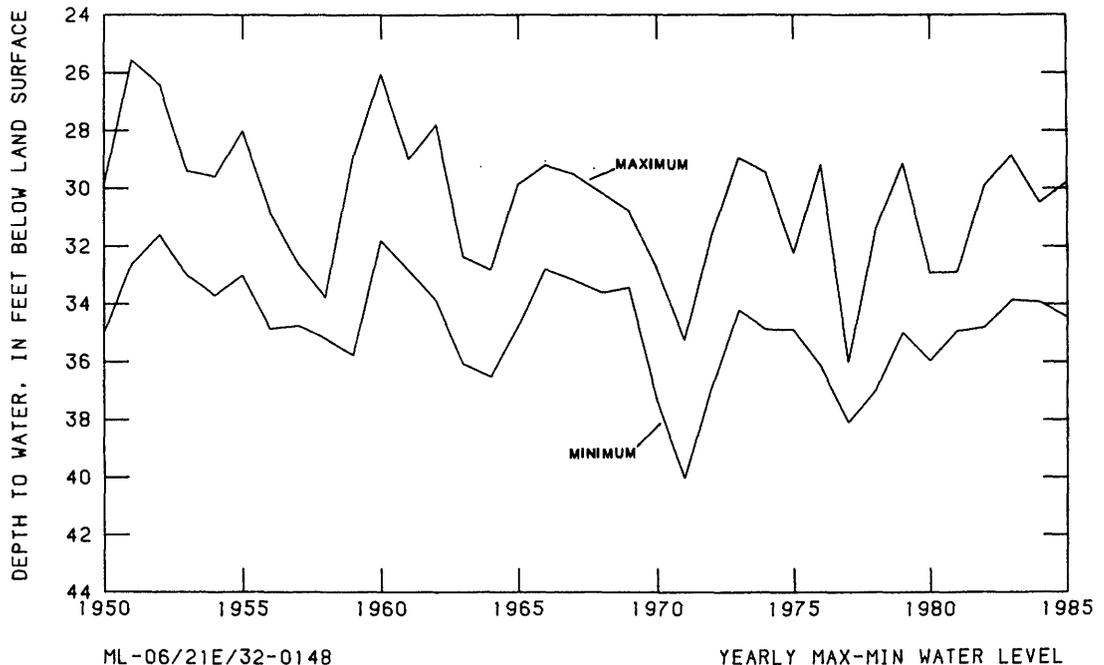
DATUM.--Altitude of land-surface is 774 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of 1/4-inch pipe, at land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.44 ft below land-surface datum, May 3, 1951; lowest water level measured, 40.03 ft below land-surface datum, Aug. 13, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	33.08	DEC 11	32.61	FEB 14	32.65	APR 30	29.96	JUN 27	32.43	AUG 29	34.05
NOV 7	32.63	JAN 8	32.26	MAR 26	29.78	MAY 30	31.06	JUL 30	33.52	SEP 30	34.46



GROUND-WATER LEVELS

MONROE COUNTY

434342090495601. Local number, MO-15/04W/34-0002.

LOCATION.--Lat 43°43'42", long 90°49'56", Hydrologic Unit 07060001. Owner: Joseph Anderson.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in, depth 44 ft.

DATUM.--Altitude of land-surface is 1,100 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 0.50 ft above land-surface datum.

REMARKS.--No measurements made in 1981-82 water year.

PERIOD OF RECORD.--July 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.70 ft below land-surface datum, Apr. 10, 1976; lowest water level measured, 18.23 ft below land-surface datum, Mar. 27, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.37	6.25	6.40	6.33	6.61	6.49	5.73	5.96	6.30			6.58
10	6.38	6.11	6.33	6.57	6.65	6.20	5.89	6.03	6.32		6.57	6.32
15	6.29	6.18	6.34	6.60	6.63	6.03	6.01	6.10	6.32		6.50	6.53
20	5.98	6.32	6.15	6.62	6.63	6.09	6.09	6.23	6.37		6.61	6.62
25	6.33	6.25	6.36	6.66	6.16	6.20	5.29	6.23	6.40		6.60	6.23
EOM	6.35	6.30	6.14	6.62	6.35	6.10		6.21			6.60	6.37

WTR YEAR 1985 MAX 6.70 FEB 7 MIN 4.91 APR 24

440026090390101. Local number, MO-18/02W/29-0017.

LOCATION.--Lat 44°00'26", long 90°39'01", Hydrologic Unit 07040006. Owner: U.S. Army.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 9 in, depth 192 ft, cased to 109 ft, open end.

DATUM.--Altitude of land-surface is 909 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.43 ft below land-surface datum, May 8, 1973; lowest water level, 7.75 ft below land-surface datum, Mar. 2, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.76	5.68	5.91	5.60	6.25	6.10	5.13	4.78	5.19	6.06	6.60	7.05
10	6.81	5.57	5.99	5.73	6.32	6.10	4.90	5.00	5.43	6.21	6.70	6.94
15	6.85	5.58	6.05	5.86	6.38	5.50	4.86	5.13	5.58	6.36	6.78	6.70
20	6.66	5.63	5.79	6.02	6.47	5.25	5.00	5.26	5.70	6.48	6.86	6.80
25	6.37	5.67	5.65	6.10	6.08	5.20	4.80	5.35	5.84	6.55	6.92	6.80
EOM	6.35	5.80	5.61	6.18	6.03	5.15		5.20	5.92	6.46	7.00	6.49

WTR YEAR 1985 MAX 7.10 SEP 8 MIN 4.64 APR 30

OCONTO COUNTY

445054088025201. Local number, OC-27/20E/03-0020.

LOCATION.--Lat 44°50'54", long 88°02'52", Hydrologic Unit 04030104. Owner: Wis. Dept. of Transportation.

AQUIFER.--Prairie du Chien.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 6 in, depth 100 ft, cased to 88 ft, open end.

DATUM.--Altitude of land-surface is 640 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1/4-in hole in pump base, 2.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.07 ft below land-surface datum, June 20, 1969; lowest water level measured, 13.52 ft below land-surface datum, Aug. 27, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL								
OCT 30	9.56	DEC 19	9.58	JAN 23	9.80	FEB 27	9.81	MAY 23	9.60	AUG 6	9.99
NOV 29	9.55	JAN 8	9.77	FEB 21	9.89	MAR 21	9.42	JUN 25	9.84		

GROUND-WATER LEVELS

ONEIDA COUNTY

455213089323501. Local number, ON-39/08E/18-0022.

LOCATION.--Lat 45°52'13", long 89°32'35", Hydrologic Unit 07070001. Owner: Wisconsin Valley Improvement Co.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Jetted unused water-table well, diameter 6 in, depth 27 ft, cased to 27 ft, open end.

DATUM.--Altitude of land-surface is 1,607 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 6.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.29 ft below land-surface datum, May 28, 1973; lowest water level, 19.29 ft below land-surface datum, Apr. 9, 1949.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.00	16.10	16.13	16.26	16.47	16.66	16.76	15.63	14.89	14.72	15.14	15.43
10	16.00	16.07	16.15	16.30		16.66	16.78	15.45	14.85	14.70	15.24	15.45
15	15.99	16.05	16.16	16.33	16.52	16.71	16.72	15.29	14.80	14.82	15.24	15.51
20	16.01	16.11	16.19		16.56	16.75	16.55	15.17	14.76	14.88	15.34	15.56
25	16.03	16.07	16.21	16.39	16.60	16.77	16.27	15.12	14.74	14.98	15.35	15.55
EOM	16.05	16.09	16.26	16.43	16.61	16.78		14.99	14.75	15.06	15.40	15.54
WTR YEAR 1985 MAX			16.79	MAR 9	MIN			14.68	JUL 7			

454026089425301. Local number, ON-37/06E/27-0023.

LOCATION.--Lat 45°40'26", long 89°42'53", Hydrologic Unit 07070001. Owner: U.S. Geol. Survey.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1 1/4 in, depth 37 ft, cased to 35 ft, well point 35-37 ft.

DATUM.--Altitude of land-surface is 1,529 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.35 ft below land-surface datum, July 22, 1973; lowest water level measured, 33.67 ft below land-surface datum, Apr. 15, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	28.78	DEC 9	29.04	FEB 17	29.59	APR 20	29.75	JUN 16	28.94	AUG 11	28.75
14	28.81	16	29.27	24	29.60	28	29.40	24	28.95	19	28.90
21	28.86	23	28.80	MAR 3	29.61	MAY 5	29.60	29	28.90	26	29.15
28	28.80	30	28.73	10	29.54	12	29.60	JUL 7	29.11	SEP 2	29.27
NOV 5	28.52	JAN 13	29.46	17	29.44	20	29.37	16	28.66	8	29.17
11	28.60	21	29.37	24	29.66	27	29.20	22	28.79	15	29.13
18	28.92	27	29.16	31	29.67	JUN 2	29.13	27	28.69	22	29.40
25	29.03	FEB 3	29.26	APR 7	29.61	8	29.26	AUG 4	29.13	29	29.17
DEC 3	28.96	10	29.57	15	29.75						

OUTAGAMIE COUNTY

441734088251101. Local number, OU-21/17E/15-0029.

LOCATION.--Lat 44°17'34", long 88°25'11", Hydrologic Unit 04030204. Owner: Highland Memorial Park.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 10 in, depth 300 ft.

DATUM.--Altitude of land-surface is 839 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of breather hole, 2.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.84 ft below land-surface datum, Nov. 24, 1955; lowest water level measured, 64.48 ft below land-surface datum, Dec. 30, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	59.56	NOV 13	57.53	DEC 5	57.03	JAN 3	57.36	FEB 1	57.74	MAR 1	57.82

GROUND-WATER LEVELS

POLK COUNTY

453013092314601. Local number, PK-35/17W/08-0040.

LOCATION.--Lat 45°30'13", long 92°31'46", Hydrologic Unit 07030005. Owner: Village of Milltown.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in, depth 52 ft.

DATUM.--Altitude of land-surface is 1,250 ft above National Geodetic Vertical Datum of 1929. Measuring point: hole in pump base, at land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.14 ft below land-surface datum, Aug. 29, 1984; lowest water level measured, 41.38 ft below land-surface datum, July 22, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL										
OCT 9	30.52	JAN 7	31.25	MAR 27	31.98	MAY 28	31.90	JUL 22	31.87	AUG 12	31.77
NOV 7	30.68	FEB 27	31.98	APR 15	32.10	JUN 19	31.82	AUG 8	31.78	SEP 13	31.65
DEC 26	31.14										

452352092332001. Local number, PK-34/18W/26-0093.

LOCATION.--Lat 45°23'52", long 92°33'20", Hydrologic Unit 07030005. Owner: Wis. Dept. of Transportation.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled domestic artesian well, diameter 6 in, depth 64 ft, cased to 60 ft, open end.

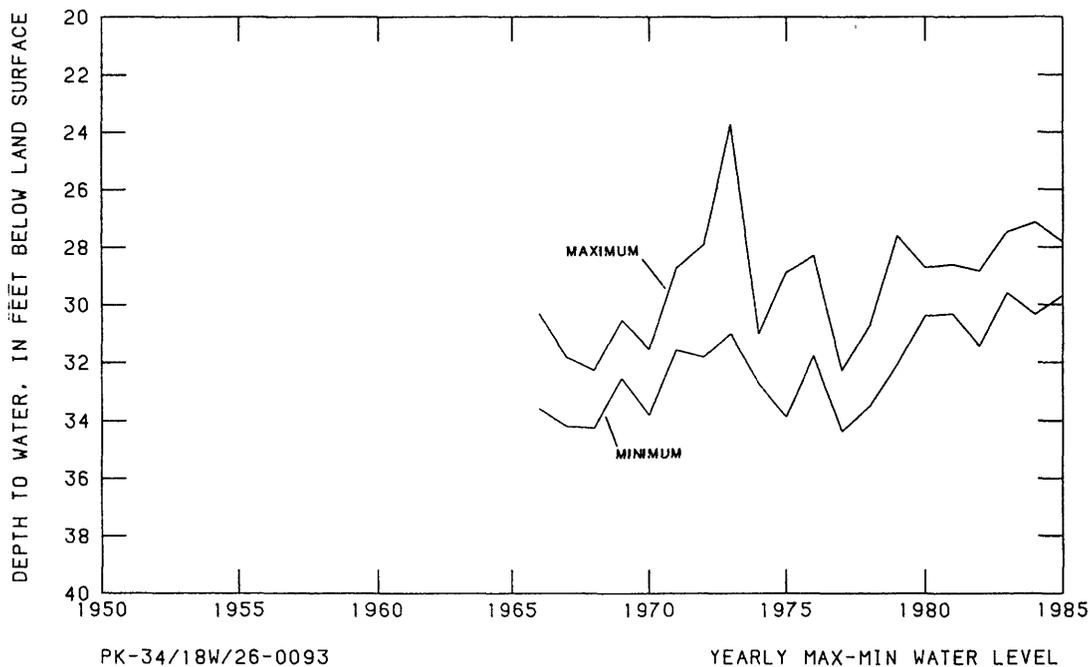
DATUM.--Altitude of land-surface is 1,140 ft above National Geodetic Vertical Datum of 1929. Measuring point: hole in pump base, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--March 10, 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.72 ft below land-surface datum, June 20, 1973; lowest water level measured, 34.37 ft below land-surface datum, Sept. 6, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	28.10	DEC 5	28.57	JAN 30	29.28	MAR 27	28.66	MAY 21	27.88	AUG 1	28.77
10	28.15	12	28.67	FEB 6	29.35	APR 3	28.58	29	27.88	14	28.91
17	28.22	19	28.71	13	29.46	10	28.51	JUN 19	28.10	21	29.03
24	28.23	26	28.77	20	29.56	17	28.09	27	28.18	28	29.13
31	28.26	JAN 2	28.88	27	29.62	24	27.97	JUL 2	28.46	SEP 4	29.17
NOV 7	28.29	9	28.95	MAR 6	29.68	MAY 1	27.88	10	28.41	11	29.14
14	28.32	16	29.01	13	29.44	8	27.85	17	28.49	18	29.10
21	28.45	23	29.39	20	28.78	15	27.81	24	28.59	25	29.06
28	28.51										



PK-34/18W/26-0093

YEARLY MAX-MIN WATER LEVEL

GROUND-WATER LEVELS

PORTAGE COUNTY

443127089174101. Local number, PT-24/10E/28-0015.

LOCATION.--Lat 44°31'27", long 89°17'41", Hydrologic Unit 04030202. Owner: Lawrence Krogwold.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Driven unused water-table well, diameter 2 in, depth 52 ft, cased to 50 ft, screened 50-52 ft.

DATUM.--Altitude of land-surface is 1,133 ft above National Geodetic Vertical Datum of 1929. Measuring point: rim of casing, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--August 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.50 ft below land-surface datum, Aug. 4, 1973; lowest water level measured, 38.81 ft below land-surface datum, Nov. 12, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	30.50	DEC 22	29.47	MAR 2	29.11	APR 27	28.66	JUN 22	28.62	AUG 17	29.00
27	30.48	JAN 5	29.33	16	29.06	MAY 11	28.63	JUL 6	28.64	31	29.27
NOV 10	30.28	19	29.19	30	28.86	25	28.61	20	28.66	SEP 14	29.24
24	30.05	FEB 2	29.13	APR 13	28.73	JUN 8	28.61	AUG 3	28.69	28	29.25
DEC 8	29.78	16	29.11								

442623089302701. Local number, PT-23/08E/25-0376.

LOCATION.--Lat 44°26'23", long 89°30'27", Hydrologic Unit 07070003. Owner: U. S. Geol. Survey.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Driven observation water table well, diameter 1 1/4 in, depth 36 ft, cased to 34 ft, well point 34-36 ft.

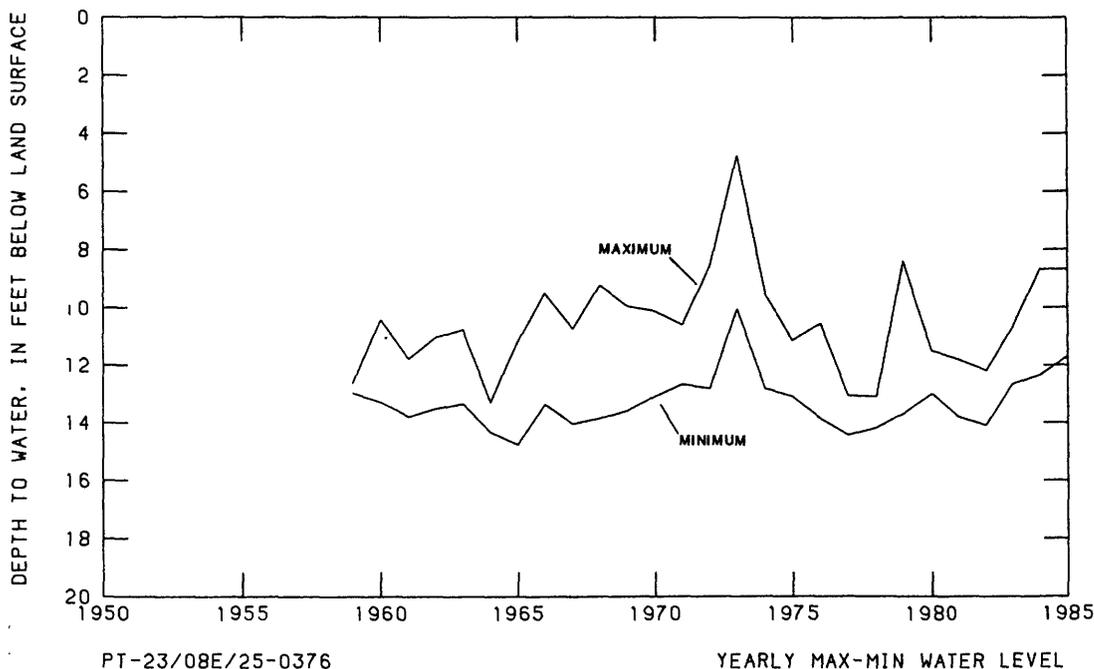
DATUM.--Altitude of land-surface is 1,099 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 4.20 ft above land-surface datum.

PERIOD OF RECORD.--December 1, 1959, to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.77 ft below land-surface datum, June 5, 1973; lowest water level measured, 14.78 ft below land-surface datum, Feb. 28, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL										
OCT 26	9.84	DEC 19	9.18	FEB 22	9.99	APR 18	8.69	JUN 19	9.98	AUG 15	11.50
NOV 15	8.68	JAN 24	9.40	MAR 21	9.04	MAY 24	9.25	JUL 16	10.66	SEP 16	11.69



PT-23/08E/25-0376

YEARLY MAX-MIN WATER LEVEL

GROUND-WATER LEVELS

PRICE COUNTY

455448090263401. Local number, PR-40/01W/24-0006.

LOCATION.--Lat 45°54'48", long 90°26'34", Hydrologic Unit 07050002. Owner: Wis. Dept. of Natural Resources.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Jetted unused water-table well, diameter 8 in, depth 13 ft, cased to 13 ft.

DATUM.--Altitude of land-surface is 1,510 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 5.00 ft above land-surface datum.

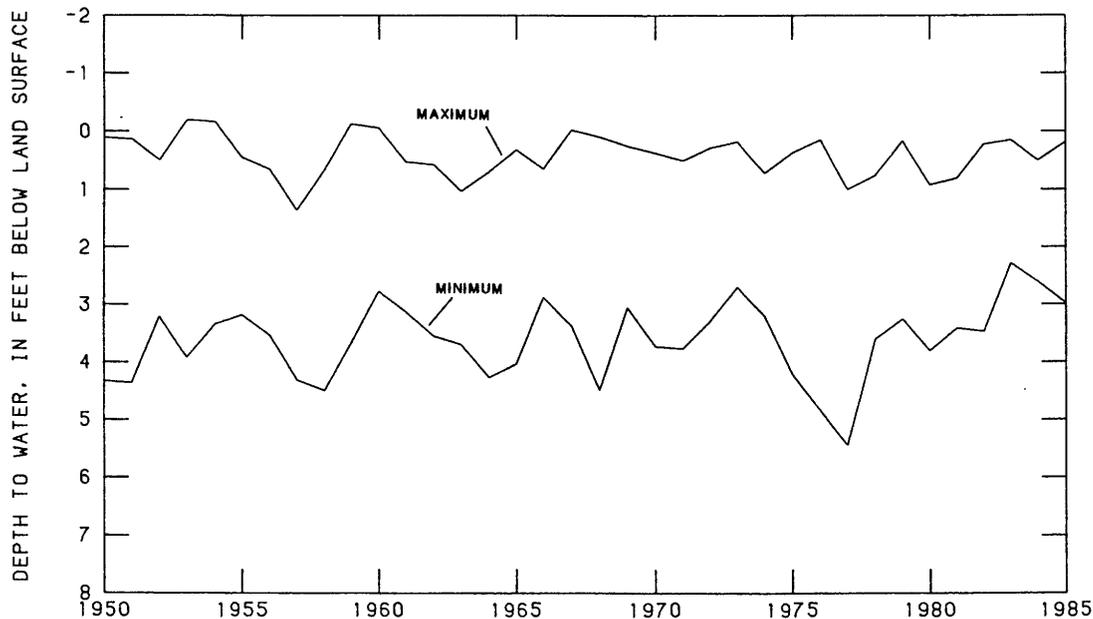
PERIOD OF RECORD.--March 1937 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.41 ft above land-surface datum, June 29, 1946; lowest water level measured, 5.67 ft below land-surface datum, Oct. 31, 1948.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	2.50	DEC 14	2.23	FEB 8	2.98	APR 5	0.60	JUN 7	0.85	JUL 31	1.78
12	2.00	21	2.35	15	2.97	12	0.43	14	1.20	AUG 2	1.91
19	1.50	28	2.40	22	2.87	19	0.70	21	1.05	9	1.74
26	1.78	JAN 4	2.55	28	2.80	26	0.70	28	0.30	16	1.57
NOV 2	1.29	11	2.77	MAR 1	2.23	MAY 3	0.68	JUL 6	1.58	23	1.56
9	1.66	18	2.87	8	2.05	10	0.49	12	1.27	30	1.90
16	2.00	25	2.92	15	1.26	17	0.55	15	1.58	SEP 6	1.38
23	2.22	31	2.97	22	0.81	24	1.01	19	1.36	13	1.15
30	1.93	FEB 1	2.97	29	0.90	31	0.19	26	1.45	20	1.43
DEC 7	1.91										

HYDROGRAPH FOR PR-6



PR-40/01W/24-0006

YEARLY MAX-MIN WATER LEVEL

GROUND-WATER LEVELS

RACINE COUNTY

4242020875423C1. Local number, RA-03/22E/21-0005.

LOCATION.--Lat 42°42'02", long 87°54'23", Hydrologic Unit 04040002. Owner: Chicago, Milwaukee, St. Paul and Pacific Railroad Co.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in, depth 1,176 ft, cased to 586 ft, 10 in liner 976-1,083 ft.

DATUM.--Altitude of land-surface is 730 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.00 ft above land-surface datum.

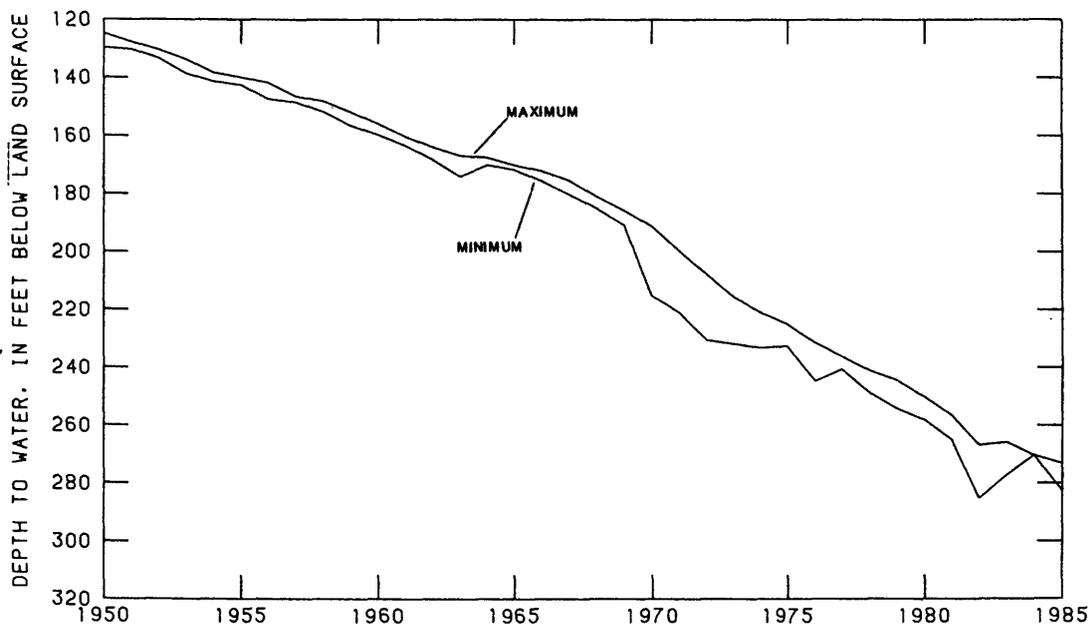
REMARKS.--Water level affected by regional pumping of wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 109.00 ft below land-surface datum, July 29, 1946; lowest water level measured, 282.54 ft below land-surface datum, Aug. 20, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL								
NOV 29	270.39	JUL 11	273.23	AUG 20	282.54	SEP 12	280.05	SEP 24	281.12



RA-03/22E/21-0005

YEARLY MAX-MIN WATER LEVEL

GROUND-WATER LEVELS

RICHLAND COUNTY

431840090203201. Local number, RI-10/01E/26-0023.

LOCATION.--Lat 43°18'40", long 90°20'32", Hydrologic Unit 07070005. Owner: Koch Tractor, Inc.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled domestic artesian well, diameter 6 in, depth 160 ft, cased to 135 ft, open end.

DATUM.--Altitude of land-surface is 725 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of 1-in breather pipe, 1.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.11 ft below land-surface datum, May 22, 1973; lowest water level measured, 15.70 ft below land-surface datum, Dec. 13, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10	14.02	DEC 11	12.29	FEB 5	13.56	APR 10	12.17	JUN 11	12.22	AUG 6	14.18
NOV 8	13.03	JAN 8	12.45	MAR 6	12.29	MAY 6	11.73	JUL 9	14.39	SEP 10	13.14

ROCK COUNTY

423956089022301. Local number, RO-02/12E/02-0003.

LOCATION.--Lat 42°39'56", long 89°02'23", Hydrologic Unit 07090001. Owner: School for the Blind, Janesville.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in, depth 470 ft, cased to 113 ft, open end.

DATUM.--Altitude of land-surface is 824 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1/4-in hole cap of casing, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--July 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.75 ft below land-surface datum, June 3, 1983; lowest water level measured, 59.43 ft below land-surface datum, Aug. 5, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	51.26	DEC 5	50.56	FEB 13	50.14	APR 17	51.06	JUN 12	52.24	AUG 7	52.30
10	51.40	12	50.20	19	50.48	27	51.24	19	52.25	14	52.20
18	51.33	19	50.45	28	50.30	MAY 2	51.60	26	52.33	21	53.02
24	51.18	JAN 3	50.49	MAR 6	50.63	8	51.74	JUL 5	52.31	28	52.88
31	51.10	9	50.37	13	50.50	15	51.60	10	52.62	SEP 5	51.57
NOV 7	50.74	16	50.12	20	50.77	23	51.82	17	52.83	11	51.79
14	50.53	23	50.01	28	50.62	29	51.92	24	52.63	18	51.42
21	50.79	30	50.20	APR 3	50.84	JUN 5	52.11	AUG 1	52.73	25	51.33
28	50.32	FEB 7	50.30								

RUSK COUNTY

453107090420101. Local number, RU-35/03W/14-0089.

LOCATION.--Lat 45°31'07", long 90°42'01", Hydrologic Unit 07050004. Owner: Hawkins Cemetery.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled public-supply water-table well, diameter 6 in, depth 25 ft.

DATUM.--Altitude of land-surface is 1,380 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.35 ft below land-surface datum, May 29, 1984; lowest water level measured, 23.50 ft below land-surface datum, Mar. 2, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL
OCT 25	14.19

ST. CROIX COUNTY

450812092223601. Local number, SC-31/16W/29-0094.

LOCATION.--Lat 45°08'12", long 92°22'36", Hydrologic Unit 07030005. Owner: Cylon Methodist Church.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled domestic artesian well, diameter 4 in, depth 73 ft, cased to 63 ft, open end.

DATUM.--Altitude of land-surface is 1,059 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 2.90 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.29 ft below land-surface datum, Sept. 24, 1973; lowest water level measured, 36.04 ft below land-surface datum, Sept. 13, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 22	30.22	JUL 12	30.64	AUG 8	30.86

SAUK COUNTY

432201089460101. Local number, SK-10/06E/03-0001.

LOCATION.--Lat 43°22'01", long 89°46'01", Hydrologic Unit 07070005. Owner: Badger Army Ammunition Plant.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 16 in, depth 426 ft, cased to 203 ft, open end.

DATUM.--Altitude of land-surface is 865 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.43 ft above land-surface datum.

REMARKS.--Water level effected by pumping of nearby wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.45 ft below land-surface datum, May 20, 1953; lowest water level, 93.25 ft below land-surface datum, June 4, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	70.35	71.60	72.98	68.22	68.90	72.54	66.32	65.95	65.41	66.23	68.93	69.35
10	70.11	72.11	73.16	69.00	68.27	69.11	66.37	65.85	66.21	67.35	69.29	69.27
15	70.14	72.40	72.25	68.66	67.96	67.74	66.11	65.49	66.01	67.36	69.67	69.64
20	70.16	73.93	70.07	69.98	67.90	67.40	66.03	65.71	66.06	69.28	70.23	69.35
25	70.27	72.64	69.01	68.99	70.86	67.10	65.59	65.18	66.02	69.32	69.65	68.75
EOM	70.56	72.50	68.70	69.01	71.70	66.67		64.80	65.78	68.82	69.45	68.64

WTR YEAR 1985 MAX 73.16 DEC 10 MIN 64.24 MAY 19

SHAWANO COUNTY

444203088214601. Local number, SH-26/18E/30-0001.

LOCATION.--Lat 44°42'03", long 88°21'46", Hydrologic Unit 04030103. Owner: Harry Sievert.

AQUIFER.--Prairie du Chien.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in, depth 132 ft.

DATUM.--Altitude of land-surface is 917 ft above National Geodetic Vertical Datum of 1929. Measuring point: hole in pump base, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--April 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.86 ft below land-surface datum, Apr. 25, 1973; lowest water level measured, 64.60 ft below land-surface datum, Jan. 11, 1956.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL								
OCT 10	55.72	DEC 18	54.18	FEB 21	58.74	APR 25	54.92	JUN 20	57.67
NOV 14	53.49	JAN 23	56.23	MAR 20	56.90	MAY 23	57.06	JUL 17	58.07
								AUG 22	58.87

GROUND-WATER LEVELS

TAYLOR COUNTY

450947090483902. Local number, TA-31/04W/13-0001.

LOCATION.--Lat 45°09'47", long 90°48'39", Hydrologic Unit 07050005. Owner: Village of Gilman.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 18 in, depth 26 ft, cased to 16 ft, screened 16-26 ft.

DATUM.--Altitude of land-surface is 1,200 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 2.00 ft above land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.93 ft below land-surface datum, Apr. 18, 1982; lowest water level, 13.11 ft below land-surface datum, Oct. 15, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.53	8.68	9.20	9.08	9.41	9.06	---	---	10.04	---	---	---
10	8.94	8.70	8.99	9.25	9.49	9.05	---	---	10.17	---	---	---
15	9.15	8.77	9.38	9.26	9.49	8.79	---	---	10.18	---	---	---
20	8.26	9.03	8.62	9.25	9.61	7.83	---	---	---	---	---	9.37
25	8.82	9.37	8.93	9.42	9.03	7.34	---	---	---	10.29	---	---
EOM	8.63	9.15	8.79	9.41	8.99	---	---	9.90	---	---	---	---
WTR YEAR 1985 MAX				10.29	JUL 29	MIN		6.04	MAR 30			

450830090215201. Local number, TA-31/01E/28-0006.

LOCATION.--Lat 45°08'30", long 90°21'52", Hydrologic Unit 07040007. Owner: P. J. Ziehlke.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Dug domestic water table well, diameter 3.00 ft, depth 35 ft, open end.

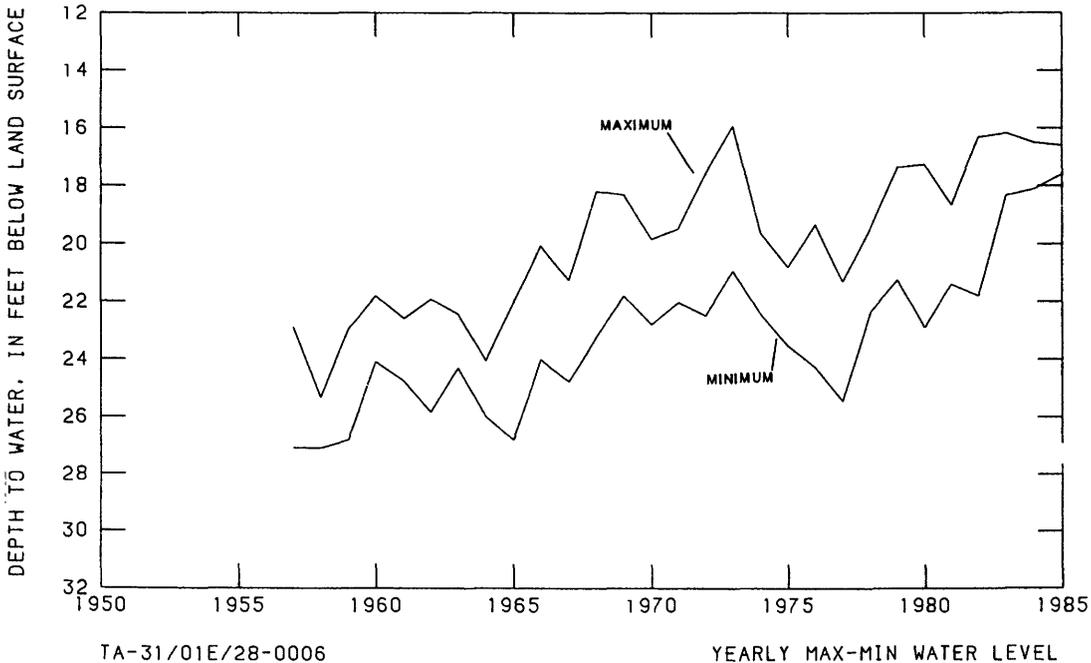
DATUM.--Altitude of land-surface is 1,460 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of curb, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--August 20, 1957, to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.91 ft below land-surface datum, May 31, 1973; lowest water level measured, 27.10 ft below land-surface datum, Mar. 13, 1958.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL						
DEC 17	17.30	JAN 16	17.50	APR 20	17.46	MAY 20	17.00	AUG 6	16.70	SEP 8	17.59



GROUND-WATER LEVELS

357

TAYLOR COUNTY

451919090172401. Local number, TA-33/02E/30-0009.

LOCATION.--Lat 45°19'19", long 90°17'24", Hydrologic Unit 07050005. Owner: Wis. Dept. of Transportation.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 6 in, depth 160 ft, cased to 155 ft, open end.

DATUM.--Altitude of land-surface is 1,591 ft above National Geodetic Vertical Datum of 1929. Measuring point: 1/4-in hole in pump base, 0.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.30 ft below land-surface datum, July 19, 1979; lowest water level measured, 35.35 ft below land-surface datum, June 2, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL						
DEC 17	33.10	JAN 16	30.78	APR 20	30.30	MAY 20	30.15	AUG 6	31.30	SEP 8	31.19

TREMPEALEAU COUNTY

440422091182901. Local number, TR-19/08W/35-0001.

LOCATION.--Lat 44°04'22", long 91°18'29", Hydrologic Unit 07040007. Owner: Mrs. William Davidson.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in, depth 195 ft.

DATUM.--Altitude of land-surface is 820 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 133.18 ft below land-surface datum, Jan. 13, 1955; lowest water level measured, 144.95 ft below land-surface datum, Oct. 27, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	137.74	DEC 6	136.00	MAR 10	136.81	MAY 13	136.91	JUL 21	138.17	SEP 16	137.76
30	136.74	FEB 5	136.65	APR 16	136.99	JUN 19	139.91	AUG 16	138.45		

440414091270401. Local number, TR-19/09W/33-0009.

LOCATION.--Lat 44°04'14", long 91°27'04", Hydrologic Unit 07040005. Owner: Village of Centerville.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled public-supply water-table, diameter 6 in, depth 71 ft, cased to 66 ft, screened 66-71 ft.

DATUM.--Altitude of land-surface is 740 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of breather pipe, at land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--May 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.29 ft below land-surface datum, Apr. 2, 1985; lowest water level measured, 57.11 ft below land-surface datum, Mar. 16, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL										
OCT 8	46.02	DEC 6	46.07	FEB 6	46.13	APR 2	44.29	JUN 1	46.02	AUG 7	45.59
NOV 5	46.01	JAN 8	46.16	MAR 7	45.79	MAY 1	45.09	JUL 2	45.19	SEP 5	45.98

GROUND-WATER LEVELS

VILAS COUNTY

455814089130301. Local number, VI-40/10E/10-0021.

LOCATION.--Lat 45°58'14", long 89°13'03", Hydrologic Unit 07070001. Owner: U.S. Geol. Survey.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1 1/4 in, depth 27 ft, cased to 25 ft, well point 25-27 ft.

DATUM.--Altitude of land-surface is 1,640 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--November 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.38 ft below land-surface datum, May 21, 1973; lowest water level measured, 16.86 ft below land-surface datum, Mar. 21, 1949.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	13.78	OCT 10	13.78	OCT 15	13.82	OCT 22	13.83

WALWORTH COUNTY

423532088254601. Local number, WW-02/17E/36-0037.

LOCATION.--Lat 42°35'32", long 88°25'46", Hydrologic Unit 07120006. Owner: Lake Geneva Water Works.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in, depth 820 ft, cased to 10 in 0-214 ft, 8 in 214-227 ft, open end.

DATUM.--Altitude of land-surface is 860 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--February 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 129.48 ft below land-surface datum, Feb. 14, 1962; lowest water level measured, 205.87 ft below land-surface datum, Sept. 30, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL										
OCT 28	202.27	DEC 31	201.78	FEB 28	201.25	APR 30	201.46	JUN 17	202.96	AUG 29	205.40
NOV 8	202.05	JAN 31	201.46	MAR 18	201.64	MAY 28	202.27	JUL 30	204.89	SEP 30	205.87

WAUKESHA COUNTY

430049088131301. Local number, WK-06/19E/02-0014.

LOCATION.--Lat 43°00'49", long 88°13'13", Hydrologic Unit 07120006. Owner: New Tribes Mission, Waukesha.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in, depth 1,300 ft.

DATUM.--Altitude of land-surface is 875 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, at land-surface datum.

REMARKS.--Water level affected by pumping of nearby municipal wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 249.86 ft below land-surface datum, July 6, 1947; lowest water level, 470.13 ft below land-surface datum, Sept. 13, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	464.46	459.37	455.37	451.46	446.95	450.07	447.67			457.44	462.51	469.17
10	466.14	457.71	456.07	451.94	449.54	449.90	447.72			456.36	463.03	469.66
15	465.31	457.66	456.27	451.33	450.00	448.97	448.15			458.13	465.72	469.56
20	464.42	457.68	455.68	451.13	450.30	448.22	448.87			460.97	467.70	469.70
25	464.32	455.99	456.00	450.06	450.63	448.24	447.85			462.15	465.53	
EOM	465.54	453.50	452.60	449.86	451.27	448.13		450.97	456.27	462.93	469.50	467.26
WTR YEAR 1985 MAX 470.13 SEP 13 MIN 445.98 FEB 6												

GROUND-WATER LEVELS

359

WAUKESHA COUNTY

425535088131701. Local number, WK-05/19E/02-0031.

LOCATION.--Lat 42°55'35", long 88°13'17", Hydrologic Unit 07120006. Owner: William M. Foss.

AQUIFER.--Silurian dolomite.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in, depth 508 ft, cased to 434 ft, open end.

DATUM.--Altitude of land-surface is 962 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--May 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 126.28 ft below land-surface datum, June 10, 1974;
lowest water level, 138.14 ft below land-surface datum, Feb. 2, 1959.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5				130.50	130.55	130.17	129.19	129.31	130.13	130.58	131.14	131.24
10				130.58	130.56	129.93	129.33	129.37	130.60	130.65	131.31	131.45
15				130.52	130.51	129.77	129.12	129.58	130.23	131.41	131.20	131.46
20				130.45	130.63	129.77	129.18	129.58	130.05	131.29	131.31	131.52
25				130.45	130.50	129.71	129.17	130.09	130.32	131.61	131.27	131.51
EOM				130.51	130.38	129.42		129.78	130.66	131.35	131.17	131.52

WTR YEAR 1985 MAX 131.62 SEP 8 MIN 129.07 APR 18

WAUPACA COUNTY

441545088522901. Local number, WP-21/13E/25-0002.

LOCATION.--Lat 44°15'45", long 88°52'29", Hydrologic Unit 04030202. Owner: Village of Fremont.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in, depth 205 ft, cased to 109 ft, open end.

DATUM.--Altitude of land-surface is 764 ft above National Geodetic Vertical Datum of 1929. Measuring point: hole in cap, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--August 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.65 ft below land-surface datum, Apr. 7, 1979;
lowest water level measured, 15.91 ft below land-surface datum, Feb. 23, 1954.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	12.92	DEC 8	12.28	FEB 9	13.61	APR 13	11.63	JUN 15	13.43	AUG 10	13.86
13	12.86	15	12.54	16	13.64	20	11.80	22	13.50	17	13.73
20	12.42	22	12.40	23	13.56	27	11.99	29	13.50	24	13.74
27	11.97	29	12.48	MAR 2	12.57	MAY 4	12.22	JUL 6	13.65	31	13.61
NOV 3	11.57	JAN 5	12.33	9	12.38	11	12.55	13	13.60	SEP 7	13.50
10	11.08	12	12.59	16	12.16	18	12.83	20	13.82	14	13.56
17	11.23	19	12.83	23	11.74	25	13.02	27	13.84	21	13.86
24	11.80	26	13.22	30	11.96	JUN 1	13.16	AUG 3	13.74	28	13.70
DEC 1	12.12	FEB 2	13.39	APR 6	11.75	8	13.22				

WAUSHARA COUNTY

440713089320801. Local number, WS-19/08E/15-0008.

LOCATION.--Lat 44°07'13", long 89°32'08", Hydrologic Unit 07070003. Owner: University of Wisconsin Experiment Farm, Hancock.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Jetted observation water-table well, diameter 4 in, depth 18 ft, cased to 18 ft.

DATUM.--Altitude of land-surface is 1,080 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 5.88 ft below land-surface datum, July 5, 1973;
lowest water level, 15.71 ft below land-surface datum, June 10, 1959.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.55	7.93	7.91	7.90	7.92	7.91	7.19	6.78	7.27	7.71	8.23	8.73
10	8.56	7.92	7.91	7.91	7.93	7.91	7.11	7.04	7.58	7.86	8.38	8.77
15	8.52	7.92	7.92	7.91	7.97	7.90	6.96	6.96	7.51	8.02	8.47	8.80
20	8.34	7.92	7.91	7.91	8.04	7.19	6.87	7.02	7.51	8.03	8.54	8.82
25	8.12	7.92	7.91	7.91	7.91	7.17	6.81	7.08	7.58	8.08	8.62	8.83
EOM	8.02	7.91	7.90	7.92	7.90	7.26		7.26	7.81	8.14	8.69	8.87

WTR YEAR 1985 MAX 8.88 SEP 29 MIN 6.78 MAY 5

GROUND-WATER LEVELS

WAUSHARA COUNTY

441414089091101. Local number, WS-20/11E/02-0053.

LOCATION.--Lat 44°14'14", long 89°09'11", Hydrologic Unit 04030202. Owner: Merle Knox.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 6 in, depth 177 ft, cased to 172 ft, screened 172-177 ft.

DATUM.--Altitude of land-surface is 923 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--February 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.97 ft below land-surface datum, June 26, 1973; lowest water level measured, 40.41 ft below land-surface datum, Mar. 4, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL										
OCT 17	34.54	DEC 14	33.98	FEB 17	34.06	APR 17	33.20	JUN 19	33.30	AUG 20	34.13
NOV 15	34.12	JAN 18	33.82	MAR 17	33.62	MAY 20	33.09	JUL 21	33.94	SEP 20	34.20

WINNEBAGO COUNTY

440122088324601. Local number, WI-18/16E/23-0006.

LOCATION.--Lat 44°01'22", long 88°32'46", Hydrologic Unit 04030201. Owner: City of Oshkosh.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in, depth 200 ft.

DATUM.--Altitude of land-surface is 765 ft above National Geodetic Vertical Datum of 1929. Measuring point: top of 1 in pipe, at land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

PERIOD OF RECORD.--August 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.20 ft below land-surface datum, Apr. 26, 1979; lowest water level measured, 39.75 ft below land-surface datum, Sept. 1, 1960.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31	18.22	JAN 2	17.95	FEB 28	18.65	MAY 2	18.40	JUN 26	20.88	AUG 29	20.36
NOV 29	18.10	30	18.85	MAR 28	17.60	28	19.73	JUL 26	21.47	SEP 27	19.86

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

GEOLOGICAL UNIT.--110QRNR, rocks of the Quaternary System of the Cenozoic Era. 372MNSN, Mount Simon Sandstone. 400PCMB, rocks of the Precambrian Era.

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CaCO3) (00900)	HARDNESS, NONCARBONATE (MG/L CaCO3) (00902)
ADAMS									
440146089364402	AD-18/07E/13-0224	110QRNR	09-05-85	27.70	440	8.1	9.0	--	--
440151089363001	AD-18/07E/13-0225	110QRNR	09-05-85	70.60	270	8.3	10.5	--	--
440151089363002	AD-18/07E/13-0226	110QRNR	09-05-85	28.00	355	8.2	9.5	--	--
440159089370501	AD-18/07E/13-0221	110QRNR	09-05-85	62.70	235	8.5	10.5	--	--
440159089370502	AD-18/07E/13-0222	110QRNR	09-05-85	28.20	373	8.6	9.5	--	--
440207089363001	AD-18/07E/13-0227	110QRNR	09-05-85	70.50	255	8.2	10.5	--	--
440207089363002	AD-18/07E/13-0228	110QRNR	09-05-85	20.60	170	8.8	10.0	--	--
440211089365101	AD-18/07E/13-0229	110QRNR	09-05-85	70.20	250	8.3	10.5	--	--
440211089365102	AD-18/07E/13-0230	110QRNR	09-05-85	30.35	135	8.7	10.0	--	--
450158089364701	AD-18/07E/13-0138	110QRNR	09-05-85	100	355	8.4	10.5	170	63
BURNETT									
4547550923390101	BT-38/18W/07-0134	110QRNR	08-06-85	17.00	56	6.1	14.0	20	14
454804092335301	BT-38/18W/11-0135	110QRNR	08-07-85	13.00	520	7.4	15.0	250	0
454814092383101	BT-38/18W/06-0136	110QRNR	08-06-85	17.00	61	6.2	15.0	13	2
454820092390401	BT-38/19W/01-0137	110QRNR	08-06-85	11.00	57	5.9	14.0	17	5
454826092383702	BT-38/18W/06-0722	110QRNR	08-06-85	20.00	137	6.7	16.0	48	0
454833092363801	BT-38/18W/05-0720	110QRNR	08-07-85	40.00	116	6.7	15.0	27	2
454908092351801	BT-39/18W/34-0150	110QRNR	08-07-85	20.00	450	6.8	15.0	160	0
454909092405401	BT-39/19W/35-0138	110QRNR	08-07-85	12.00	237	6.5	13.0	40	0
454913092362801	BT-39/18W/33-0139	110QRNR	08-07-85	15.00	151	7.0	14.0	59	0
454932092392702	BT-39/19W/36-0140	110QRNR	08-06-85	30.00	84	6.4	13.0	20	0
454944092354001	BT-39/18W/33-0141	110QRNR	08-07-85	20.00	152	6.6	19.0	70	5
455005092335102	BT-39/18W/26-0721	110QRNR	08-07-85	21.00	94	6.4	15.0	36	0
455027092385101	BT-39/18W/30-0142	110QRNR	08-06-85	12.00	124	6.3	18.0	30	0
455031092371701	BT-39/18W/29-0143	110QRNR	08-06-85	17.00	132	6.2	16.0	20	0
455136092345601	BT-39/18W/15-0144	110QRNR	08-07-85	22.00	44	6.1	13.0	12	1
455140092381501	BT-39/18W/18-0145	110QRNR	08-06-85	12.00	41	6.0	16.0	11	4
455222092405401	BT-39/19W/14-0146	110QRNR	08-07-85	12.00	22	6.9	15.0	7	2
455225092331101	BT-39/18W/14-0147	110QRNR	08-07-85	12.00	288	6.0	15.0	53	24
455230092361901	BT-39/18W/09-0148	110QRNR	08-07-85	12.00	37	6.1	14.0	11	2
455313092383101	BT-39/18W/07-0149	110QRNR	08-06-85	12.00	29	5.9	16.0	9	2
PORTAGE									
441650089305001	PT-21/08E/23-1003	110QRNR	09-03-85	54.70	70	6.5	10.5	--	--
441650089305002	PT-21/08E/23-1004	110QRNR	09-03-85	20.40	135	8.6	9.5	--	--
441651089311101	PT-21/08E/23-1001	110QRNR	09-03-85	49.00	135	8.7	9.5	--	--
441651089311102	PT-21/08E/23-1002	110QRNR	09-03-85	20.60	120	8.7	10.5	--	--
441702089310401	PT-21/08E/23-0403	110QRNR	09-03-85	85.00	440	8.2	10.0	160	100
441704089304101	PT-21/08E/23-1009	110QRNR	09-03-85	49.40	790	8.2	10.0	--	--
441704089304102	PT-21/08E/23-1010	110QRNR	09-03-85	14.80	395	8.0	12.0	--	--
441706089312301	PT-21/08E/23-1005	110QRNR	09-03-85	49.20	490	8.3	10.0	--	--
441706089312302	PT-21/08E/23-1006	110QRNR	09-03-85	15.50	190	8.8	12.0	--	--
441714089310602	PT-21/08E/23-1008	110QRNR	09-03-85	20.40	560	8.3	12.0	--	--
442317089415301	PT-22/07E/17-1024	110QRNR	09-04-85	34.00	330	7.0	9.5	--	--
442317089415302	PT-22/07E/17-1025	110QRNR	09-04-85	13.10	65	5.5	11.0	--	--
442318089404401	PT-22/07E/16-1015	110QRNR	09-04-85	39.50	110	7.3	9.0	--	--
442318089404402	PT-22/07E/16-1016	110QRNR	09-04-85	17.70	220	5.3	10.5	--	--
442318089411601	PT-22/07E/16-1017	110QRNR	09-04-85	18.40	105	5.5	10.5	--	--
442329089411801	PT-22/07E/17-1021	110QRNR	09-04-85	42.00	150	7.0	9.5	--	--
442329089411802	PT-22/07E/17-1022	110QRNR	09-04-85	12.85	80	6.3	12.0	--	--
442330089405801	PT-22/07E/16-1018	110QRNR	09-04-85	64.00	220	7.1	10.5	93	47
442330089413601	PT-22/07E/17-1026	110QRNR	09-04-85	49.00	220	7.4	10.5	76	55
442342089415101	PT-22/07E/17-1019	110QRNR	09-04-85	35.70	215	7.2	8.5	--	--
442342089415102	PT-22/07E/17-1020	110QRNR	09-04-85	10.00	34	5.4	11.0	--	--
442343089404501	PT-22/07E/09-1011	110QRNR	09-04-85	42.20	140	7.6	9.0	--	--
442343089404502	PT-22/07E/09-1012	110QRNR	09-04-85	19.90	38	7.3	9.0	--	--
442343089411501	PT-22/07E/09-1013	110QRNR	09-04-85	19.55	52	5.9	8.5	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

STATION NUMBER	DATE OF SAMPLE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM DIS-SOLVED (MG/L AS MG) (00925)	SODIUM DIS-SOLVED (MG/L AS NA) (00930)	POTASSIUM DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE DIS-SOLVED (MG/L AS F) (00950)	SILICA DIS-SOLVED (MG/L AS SiO2) (00955)
ADAMS											
440146089364402	09-05-85	--	--	2.0	.80	--	--	--	27	--	--
440151089363001	09-05-85	--	--	1.1	.40	--	--	--	1.2	--	--
440151089363002	09-05-85	--	--	1.4	.60	--	--	--	5.4	--	--
440159089370501	09-05-85	--	--	1.4	.40	--	--	--	20	--	--
440159089370502	09-05-85	--	--	2.8	1.3	--	--	--	28	--	--
440207089363001	09-05-85	--	--	1.0	.50	--	--	--	2.3	--	--
440207089363002	09-05-85	--	--	1.0	.60	--	--	--	6.5	--	--
440211089365101	09-05-85	--	--	.90	.40	--	--	--	1.3	--	--
440211089365102	09-05-85	--	--	.80	.40	--	--	--	.60	--	--
450158089364701	09-05-85	37	18	1.8	1.0	104	.8	15	14	--	--
BURNETT											
454755092390101	08-06-85	5.4	1.6	1.6	1.5	6.0	9.2	16	1.7	<.10	11
454804092335301	08-07-85	67	19	5.0	.50	252	19	14	2.6	.30	31
454814092383101	08-06-85	3.4	1.1	.80	1.0	11	13	6.0	.90	.10	13
454820092390401	08-06-85	4.4	1.4	1.7	.80	12	29	7.2	2.4	<.10	9.8
454826092383702	08-06-85	12	4.3	1.8	2.2	58	22	1.8	.70	.20	7.8
454833092363801	08-07-85	7.1	2.2	2.7	.70	25	9.7	13	2.3	<.10	28
454908092351801	08-07-85	41	14	5.8	.60	166	51	16	5.3	.10	27
454909092405401	08-07-85	11	3.1	1.6	.60	50	31	20	5.6	<.10	28
454913092362801	08-07-85	16	4.6	1.1	13	67	13	6.7	.40	<.10	5.4
454932092392702	08-06-85	5.2	1.7	.90	1.1	22	17	1.9	1.8	<.10	3.9
454944092354001	08-07-85	23	3.1	1.3	<.10	65	32	7.9	.80	<.10	5.5
455005092335102	08-07-85	8.7	3.5	3.0	.40	36	28	7.7	1.0	.10	40
455027092385101	08-06-85	6.5	3.3	1.1	1.4	35	34	2.2	1.7	<.10	10
455031092371701	08-06-85	5.5	1.4	1.5	2.7	22	27	4.5	3.1	<.10	9.7
455136092345601	08-07-85	3.3	.98	.80	2.3	11	17	6.5	.40	<.10	12
455140092381501	08-06-85	2.7	.94	.70	.70	7.0	14	4.2	1.6	<.10	7.4
45522092405401	08-07-85	1.8	.54	.50	.40	5.0	1.2	3.9	.30	<.10	7.1
455225092331101	08-07-85	13	5.1	25	1.8	30	58	16	47	<.10	19
455230092361901	08-07-85	3.0	.96	.60	.90	9.0	14	5.9	.30	<.10	9.2
455313092383101	08-06-85	2.4	.80	.50	.40	7.0	17	4.4	.20	<.10	7.9
PORTAGE											
441650089305001	09-03-85	--	--	.80	.60	--	--	--	.80	--	--
441650089305002	09-03-85	--	--	1.4	.70	--	--	--	7.8	--	--
441651089311101	09-03-85	--	--	.70	.50	--	--	--	.80	--	--
441651089311102	09-03-85	--	--	1.3	.60	--	--	--	1.3	--	--
441702089310401	09-03-85	39	16	2.9	3.9	63	.8	14	25	--	--
441704089304101	09-03-85	--	--	3.4	.70	--	--	--	77	--	--
441704089304102	09-03-85	--	--	1.9	3.7	--	--	--	22	--	--
441706089312301	09-03-85	--	--	2.7	.80	--	--	--	38	--	--
441706089312302	09-03-85	--	--	1.6	1.4	--	--	--	5.1	--	--
441714089310602	09-03-85	--	--	2.5	23	--	--	--	34	--	--
442317089415301	09-04-85	--	--	3.0	.70	--	--	--	49	--	--
442317089415302	09-04-85	--	--	1.6	.60	--	--	--	1.7	--	--
442318089404401	09-04-85	--	--	1.8	.30	--	--	--	1.6	--	--
442318089404402	09-04-85	--	--	1.1	9.8	--	--	--	16	--	--
442318089411601	09-04-85	--	--	.80	2.8	--	--	--	5.9	--	--
442329089411801	09-04-85	--	--	2.2	.50	--	--	--	2.4	--	--
442329089411802	09-04-85	--	--	.80	3.8	--	--	--	2.5	--	--
442330089405801	09-04-85	19	11	2.3	2.5	46	7.1	20	14	--	--
442330089413601	09-04-85	19	6.9	2.7	1.5	21	1.6	16	18	--	--
442342089415101	09-04-85	--	--	2.6	.80	--	--	--	7.3	--	--
442342089415102	09-04-85	--	--	1.3	1.0	--	--	--	1.0	--	--
442343089404501	09-04-85	--	--	1.7	.70	--	--	--	2.3	--	--
442343089404502	09-04-85	--	--	1.4	.80	--	--	--	.80	--	--
442343089411501	09-04-85	--	--	1.0	.70	--	--	--	.60	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

STATION NUMBER	DATE OF SAMPLE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
ADAMS											
440146089364402	09-05-85	--	--	--	<.010	17	<.010	--	<.10	--	--
440151089363001	09-05-85	--	--	--	<.010	.36	.010	.29	.30	.66	--
440151089363002	09-05-85	--	--	--	<.010	<.10	.180	.42	.60	--	--
440159089370501	09-05-85	--	--	--	<.010	.17	.090	.21	.30	.47	--
440159089370502	09-05-85	--	--	--	<.010	17	.050	.25	.30	17	--
440207089363001	09-05-85	--	--	--	<.010	2.7	.020	.38	.40	3.1	--
440207089363002	09-05-85	--	--	--	<.010	6.3	<.010	--	.40	6.7	--
440211089363101	09-05-85	--	--	--	<.010	3.8	.040	--	<.10	--	--
440211089363102	09-05-85	--	--	--	<.010	.20	<.010	--	<.10	--	--
450158089364701	09-05-85	203	--	--	<.010	9.0	.020	--	<.10	--	--
BURNETT											
454755092390101	08-06-85	46	42	--	--	.45	--	--	--	--	46
454804092335301	08-07-85	295	290	--	--	<.10	--	--	--	--	1800
454814092383101	08-06-85	39	40	--	--	<.10	--	--	--	--	7200
454820092390401	08-06-85	36	36	--	--	<.10	--	--	--	--	940
454826092383702	08-06-85	73	66	--	--	<.10	--	--	--	--	630
454833092363801	08-07-85	92	81	--	--	<.10	--	--	--	--	10000
4549080923351801	08-07-85	290	250	--	--	.11	--	--	--	--	39000
454909092405401	08-07-85	152	140	--	--	<.10	--	--	--	--	45000
454913092362801	08-07-85	96	87	--	--	1.0	--	--	--	--	45
454932092392702	08-06-85	27	38	--	--	<.10	--	--	--	--	8800
454944092354001	08-07-85	87	82	--	--	.17	--	--	--	--	390
455005092335102	08-07-85	64	86	--	--	<.10	--	--	--	--	470
455027092385101	08-06-85	52	60	--	--	<.10	--	--	--	--	13000
455031092371701	08-06-85	66	64	--	--	<.10	--	--	--	--	22000
455136092345601	08-07-85	32	34	--	--	.13	--	--	--	--	770
455140092381501	08-06-85	24	24	--	--	.53	--	--	--	--	1200
455222092405401	08-07-85	12	18	--	--	.19	--	--	--	--	220
455225092331101	08-07-85	160	150	--	--	1.7	--	--	--	--	1700
455230092361901	08-07-85	25	27	--	--	<.10	--	--	--	--	990
455313092383101	08-06-85	20	21	--	--	.15	--	--	--	--	360
PORTAGE											
441650089305001	09-03-85	--	--	--	<.010	.93	.010	.19	.20	1.1	--
441650089305002	09-03-85	--	--	--	<.010	1.0	<.010	--	.40	1.4	--
441651089311101	09-03-85	--	--	--	<.010	.14	<.010	--	.20	.34	--
441651089311102	09-03-85	--	--	--	<.010	1.8	<.010	--	.80	--	--
441702089310401	09-03-85	106	--	--	<.010	18	<.010	--	.30	18	--
441704089304101	09-03-85	--	--	--	<.010	22	.260	-.16	.10	22	--
441704089304102	09-03-85	--	--	--	<.010	18	.080	.12	.20	18	--
441706089312301	09-03-85	--	--	--	<.010	21	<.010	--	<.10	--	--
441706089312302	09-03-85	--	--	--	<.010	10	<.010	--	.10	10	--
441714089310602	09-03-85	--	--	--	<.010	27	.190	.01	.20	27	--
442317089415301	09-04-85	--	--	--	<.010	<.10	.210	.19	.40	--	--
442317089415302	09-04-85	--	--	--	<.010	1.1	<.010	--	.30	1.4	--
442318089404401	09-04-85	--	--	--	<.010	<.10	.150	.45	.60	--	--
442318089404402	09-04-85	--	--	--	<.010	9.1	<.010	--	.30	9.4	--
442318089411601	09-04-85	--	--	--	<.010	5.9	.020	.18	.20	6.1	--
442329089411801	09-04-85	--	--	--	<.010	<.10	.160	.14	.30	--	--
442329089411802	09-04-85	--	--	2.2	.060	2.3	.070	.43	.50	2.8	--
442330089405801	09-04-85	137	--	3.8	.130	3.9	.100	.50	.60	4.5	--
442330089413601	09-04-85	154	--	--	<.010	5.0	.260	.34	.60	5.6	--
442342089415101	09-04-85	--	--	--	.060	<.10	.160	.24	.40	--	--
442342089415102	09-04-85	--	--	--	<.010	.60	.080	.12	.20	.80	--
442343089404501	09-04-85	--	--	--	<.010	.15	.060	.14	.20	.35	--
442343089404502	09-04-85	--	--	--	<.010	6.6	.090	.41	.50	7.1	--
442343089411501	09-04-85	--	--	--	<.010	<.10	.010	.19	.20	--	--

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

STATION NUMBER	LOCAL IDENTIFIER	GEO-LOGIC UNIT	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CaCO3) (00900)	HARDNESS, NONCARBONATE (MG/L CaCO3) (00902)
WALWORTH									
423513088383701	WW-02/16E/31-0849	110QRNR	11-08-84	15.60	--	--	--	--	--
		110QRNR	02-14-85	15.60	--	--	--	--	--
423522088372201	WW-02/16E/32-0851	110QRNR	05-02-85	15.60	--	--	--	--	--
		110QRNR	11-08-84	14.80	--	--	--	--	--
		110QRNR	02-14-85	14.80	--	--	--	--	--
		110QRNR	05-02-85	14.80	--	--	--	--	--
423547088375801	WW-02/16E/32-0847	110QRNR	08-28-85	14.80	--	--	--	--	--
		110QRNR	11-08-84	17.00	--	--	--	--	--
		110QRNR	02-14-85	17.00	--	--	--	--	--
		110QRNR	05-02-85	17.00	--	--	--	--	--
		110QRNR	08-28-85	17.00	--	--	--	--	--
423621088354001	WW-02/16E/27-0853	110QRNR	11-08-84	18.00	--	--	--	--	--
		110QRNR	02-14-85	18.00	--	--	--	--	--
		110QRNR	05-02-85	18.00	--	--	--	--	--
		110QRNR	08-28-85	18.00	--	--	--	--	--
423701088350101	WW-02/16E/22-0841	110QRNR	11-08-84	17.80	--	--	--	--	--
		110QRNR	02-14-85	17.80	--	--	--	--	--
		110QRNR	05-02-85	17.80	--	--	--	--	--
		110QRNR	08-28-85	17.80	--	--	--	--	--
423730088353901	WW-02/16E/22-0842	110QRNR	11-08-84	13.80	--	--	--	--	--
		110QRNR	02-14-85	13.80	--	--	--	--	--
		110QRNR	05-02-85	13.80	--	--	--	--	--
		110QRNR	08-28-85	13.80	--	--	--	--	--
WOOD									
441557089463501	WD-21/06E/27-0557	110QRNR	09-03-85	45.00	105	8.2	10.0	46	7
442109090174701	WD-22/02E/29-0770	372MNSN	09-04-85	44.00	30	5.7	11.0	19	16
442201090004701	WD-22/04E/22-0760	400PCMB	09-04-85	304	290	7.0	12.0	140	0
442456090093201	WD-22/03E/04-0777	400PCMB	09-04-85	68.00	180	6.5	12.0	63	28
442515089552601	WD-22/05E/04-0800	400PCMB	09-04-85	83.00	78	6.7	10.0	26	0
442804090013001	WD-23/04E/16-0871	400PCMB	09-05-85	85.00	700	6.7	18.0	220	160
442846089540701	WD-23/05E/16-0423	400PCMB	09-03-85	95.00	620	6.9	17.0	240	100
442855090085701	WD-23/03E/16-0839	400PCMB	09-04-85	68.00	240	7.3	10.0	110	0
443228090145601	WD-24/02E/27-0945	400PCMB	09-04-85	100	230	6.8	12.0	100	0
443342089511501	WD-24/05E/12-1065	400PCMB	09-05-85	92.00	280	7.4	13.0	140	11
443455089574901	WD-24/05E/07-1055	400PCMB	09-05-85	70.00	300	7.9	16.0	150	0
443808089515801	WD-25/05E/23-1222	400PCMB	09-05-85	290	480	7.6	10.0	210	96
443920090173401	WD-25/02E/17-1099	372MNSN	09-04-85	67.00	480	7.3	12.0	180	0
444028089590201	WD-25/04E/01-1166	400PCMB	09-05-85	104	260	7.3	10.0	120	36

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

STATION NUMBER	DATE OF SAMPLE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2) (00405)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SI02) (00955)
WALWORTH											
423513088383701	11-08-84	--	--	--	--	--	--	--	--	--	--
	02-14-85	--	--	--	--	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--	--	--	--	--
423522088372201	11-08-84	--	--	--	--	--	--	--	--	--	--
	02-14-85	--	--	--	--	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--	--	--	--	--
423547088375801	11-08-84	--	--	--	--	--	--	--	--	--	--
	02-14-85	--	--	--	--	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--	--	--	--	--
	08-28-85	--	--	--	--	--	--	--	--	--	--
423621088354001	11-08-84	--	--	--	--	--	--	--	--	--	--
	02-14-85	--	--	--	--	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--	--	--	--	--
	08-28-85	--	--	--	--	--	--	--	--	--	--
423701088350101	11-08-84	--	--	--	--	--	--	--	--	--	--
	02-14-85	--	--	--	--	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--	--	--	--	--
	08-28-85	--	--	--	--	--	--	--	--	--	--
423730088353901	11-08-84	--	--	--	--	--	--	--	--	--	--
	02-14-85	--	--	--	--	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--	--	--	--	--
	08-28-85	--	--	--	--	--	--	--	--	--	--
WOOD											
441557089463501	09-03-85	10	5.0	1.4	.50	39	.5	12	.80	<.10	8.8
442109090174701	09-04-85	4.6	1.8	1.4	2.6	3.0	12	12	2.8	<.10	7.6
442201090004701	09-04-85	38	11	5.5	3.3	142	27	6.1	4.0	.10	14
442456090093201	09-04-85	15	6.1	5.6	2.9	35	21	4.7	8.7	<.10	16
442515089552601	09-04-85	6.8	2.1	1.0	1.9	33	13	4.3	.80	<.10	13
442804090013001	09-05-85	55	20	23	31	60	23	37	60	.20	12
442846089540701	09-03-85	60	21	13	3.0	137	33	21	82	.10	25
442855090085701	09-04-85	27	10	4.7	1.8	114	11	4.3	5.5	.20	17
443228090145601	09-04-85	26	9.2	6.9	3.4	116	36	1.9	1.2	.20	23
443342089511501	09-05-85	33	15	4.6	2.3	133	10	4.3	13	.20	16
443455089574901	09-05-85	39	13	5.6	.80	160	3.9	.8	1.3	.10	17
443808089515801	09-05-85	61	13	9.1	1.4	110	5.3	14	50	<.10	17
443920090173401	09-04-85	36	23	35	1.1	250	24	2.0	3.5	.20	21
444028089590201	09-05-85	23	16	4.0	.70	87	8.4	3.9	13	.10	16

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

STATION NUMBER	DATE OF SAMPLE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)
WALWORTH											
423513088383701	11-08-84	--	--	--	--	<.10	--	--	.60	--	--
	02-14-85	--	--	--	--	<.10	--	--	.60	--	<.010
	05-02-85	--	--	--	--	.18	--	--	.60	--	<.010
423522088372201	11-08-84	--	--	--	--	<.10	--	--	.30	--	--
	02-14-85	--	--	--	--	<.10	--	--	.50	--	<.010
	05-02-85	--	--	--	--	<.10	--	--	1.7	--	.010
	08-28-85	--	--	--	--	<.10	--	--	.20	--	.030
423547088375801	11-08-84	--	--	--	--	2.1	--	--	.70	--	--
	02-14-85	--	--	--	--	2.6	--	--	1.3	--	<.010
	05-02-85	--	--	--	--	1.4	--	--	.60	--	.040
	08-28-85	--	--	--	--	1.5	--	--	.30	1.8	.120
	11-08-84	--	--	--	--	10	--	--	3.0	--	--
423621088354001	02-14-85	--	--	--	--	8.9	--	--	.80	--	<.010
	05-02-85	--	--	--	--	4.6	--	--	.30	--	<.010
	08-28-85	--	--	--	--	8.2	--	--	.20	8.4	.050
423701088350101	11-08-84	--	--	--	--	4.9	--	--	.40	--	--
	02-14-85	--	--	--	--	4.8	--	--	1.2	--	<.010
	05-02-85	--	--	--	--	4.5	--	--	.50	--	<.010
	08-28-85	--	--	--	--	4.8	--	--	.20	5.0	.040
423730088353901	11-08-84	--	--	--	--	<.10	--	--	1.1	--	--
	02-14-85	--	--	--	--	<.10	--	--	1.5	--	.670
	05-02-85	--	--	--	--	<.10	--	--	1.5	--	.530
	08-28-85	--	--	--	--	.14	--	--	1.2	1.3	.440
WOOD											
441557089463501	09-03-85	63	62	--	<.010	.49	<.010	--	.50	.99	.040
442109090174701	09-04-85	46	35	--	<.010	1.8	.010	.39	.40	2.2	.040
442201090004701	09-04-85	163	170	--	<.010	.17	.090	.51	.60	.77	.020
442456090093201	09-04-85	134	80	--	<.010	7.5	.020	.38	.40	7.9	.020
442515089552601	09-04-85	54	51	--	<.010	.11	<.010	--	.30	.41	.020
442804090013001	09-05-85	531	280	33	.020	33	.050	.65	.70	34	.110
442846089540701	09-03-85	383	330	--	<.010	<.10	.100	.40	.50	--	.010
442855090085701	09-04-85	140	140	--	<.010	<.10	.050	.15	.20	--	.050
443228090145601	09-04-85	141	140	--	<.010	.12	.040	.46	.50	.62	.030
443342089511501	09-05-85	182	170	--	.010	<.10	.040	.16	.20	--	.020
443455089574901	09-05-85	194	170	--	<.010	<.10	.130	.27	.40	--	.080
443808089515801	09-05-85	371	230	8.4	.010	8.4	.020	.28	.30	8.7	.030
443920090173401	09-04-85	293	270	--	<.010	2.5	<.010	--	.40	2.9	.100
444028089590201	09-05-85	155	130	--	<.010	6.1	<.010	--	.40	6.5	.040

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

STATION NUMBER	DATE OF SAMPLE	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)
WALWORTH							
423513088383701	11-08-84	<.010	--	--	--	--	--
	02-14-85	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--
423522088372201	11-08-84	.030	--	--	--	--	--
	02-14-85	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--
	08-28-85	--	--	--	--	--	--
423547088375801	11-08-84	.020	--	--	--	--	--
	02-14-85	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--
	08-28-85	--	--	--	--	--	--
423621088354001	11-08-84	.020	--	--	--	--	--
	02-14-85	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--
	08-28-85	--	--	--	--	--	--
423701088350101	11-08-84	.010	--	--	--	--	--
	02-14-85	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--
	08-28-85	--	--	--	--	--	--
423730088353901	11-08-84	.050	--	--	--	--	--
	02-14-85	--	--	--	--	--	--
	05-02-85	--	--	--	--	--	--
	08-28-85	--	--	--	--	--	--
WOOD							
441557089463501	09-03-85	--	17	53	11	4	16
442109090174701	09-04-85	--	47	17	6	26	22
442201090004701	09-04-85	--	85	2500	12	45	520
442456090093201	09-04-85	--	66	18	11	43	160
442515089552601	09-04-85	--	24	1200	8	200	36
442804090013001	09-05-85	--	330	9	13	220	360
442846089540701	09-03-85	--	140	18000	27	1000	210
442855090085701	09-04-85	--	68	3500	7	240	68
443228090145601	09-04-85	--	32	1300	13	130	91
443342089511501	09-05-85	--	38	1200	15	290	79
443455089574901	09-05-85	--	64	870	9	180	80
443808089515801	09-05-85	--	34	9	12	<1	240
443920090173401	09-04-85	--	67	8	15	<1	85
444028089590201	09-05-85	--	21	5	12	<1	43

ACID DEPOSITION RECORDS

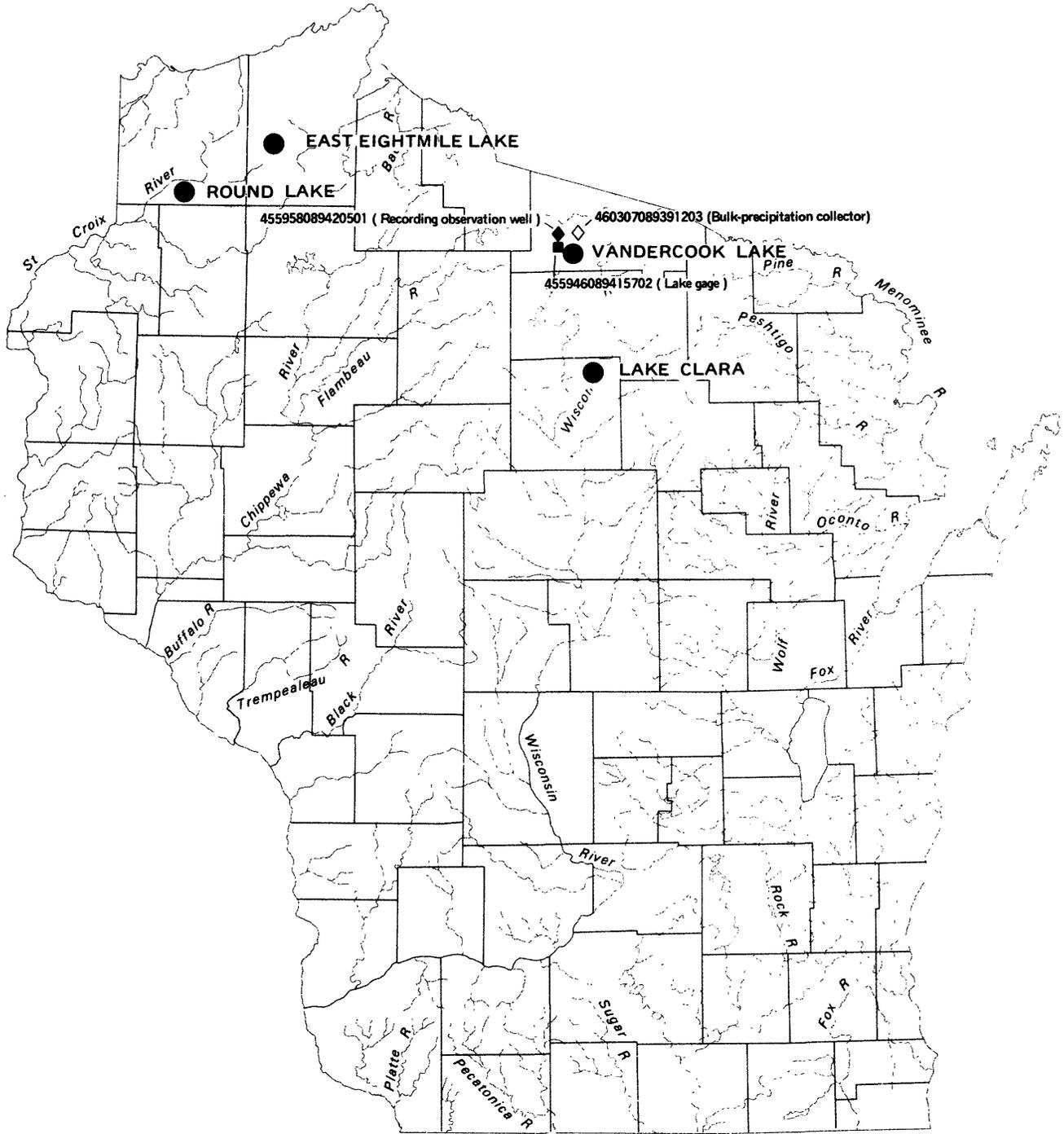


Figure 7. Location of Acid deposition sites in Wisconsin.

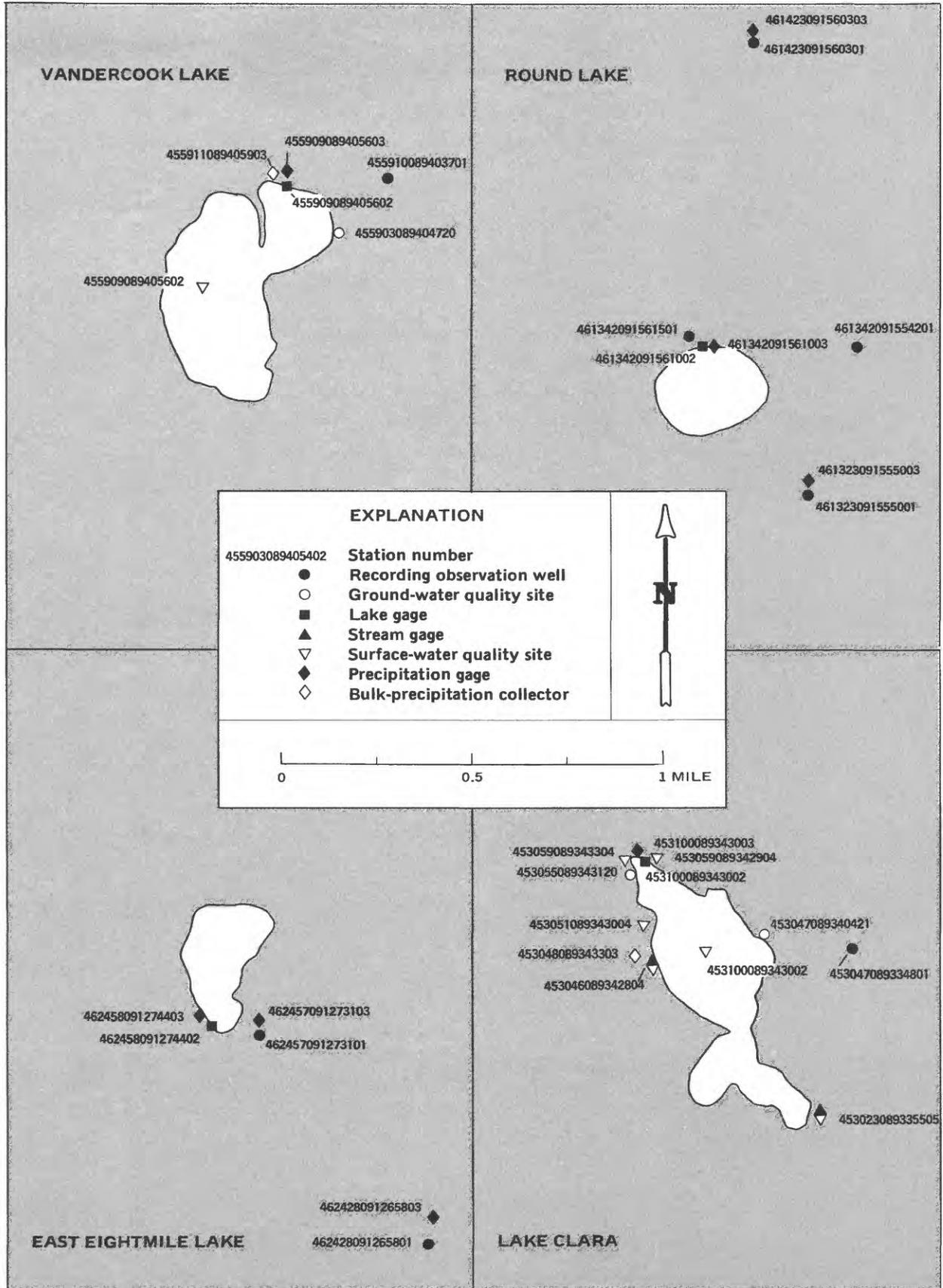


Figure 8. Location of Data-collection sites at Acid deposition sites in Wisconsin.

ACID DEPOSITION RECORDS

Streamflow, lake stages, precipitation quantity, ground-water levels, and water quality for acid deposition investigations in northern Wisconsin.

WATER-DISCHARGE RECORDS

453046089342804 LAKE CLARA TRIBUTARY NEAR TOMAHAWK, WI

LOCATION.--Lat 45°30'46", long 89°34'28", in NE 1/4 SW 1/4 SE 1/4 sec.14, T.35 N., R.7 E., Lincoln County, Hydrologic Unit 07070001, on west side of lake, 8.2 mi east of Tomahawk.

DRAINAGE AREA.--0.03 mi².

PERIOD OF RECORD.--September 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,500.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Tributary is intermittent. Discharge data need to be divided by 100 to obtain correct values.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 0.46 ft³/s, Apr. 30, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 0.20 ft³/s, May 26; minimum daily discharge, 0 ft³/s, on many days.

REVISIONS.--Revised figures of discharge for the water year 1984, superseding those published in the report for 1984 are given below.

Water year 1984 maximum discharge, 0.46 ft³/s, Apr. 30, 1984; minimum discharge, 0 ft³/s on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	1.7	8.0	.22	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	1.9	5.0	.60	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	2.0	3.5	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	2.1	1.5	.00	.00	.00	.00
5	.50	.00	.00	.00	.00	.00	2.1	1.2	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.00	.00	.00
7	1.3	.00	.00	.00	.00	.00	1.7	3.6	.63	.00	.49	.00
8	.00	.50	.00	.00	.00	.00	1.5	3.7	1.8	.00	.00	.00
9	.00	3.4	.00	.00	.00	.00	1.2	3.0	.00	.00	.00	.00
10	.00	5.0	.00	.00	.00	.00	1.0	1.9	.41	.52	.00	.00
11	1.5	1.0	.00	.00	.00	.00	9.0	.89	.00	1.5	.00	.00
12	4.3	.00	.00	.00	.00	.00	8.0	.50	.65	1.0	.00	1.3
13	.50	.00	.00	.00	.00	.00	7.0	3.7	.10	1.0	.00	.00
14	.00	.00	.00	.00	.00	.00	7.0	2.5	.00	1.1	.00	.00
15	.00	.00	.00	.00	.00	.00	8.0	.94	.00	1.5	.00	.00
16	.00	.00	.00	.00	.00	.00	9.0	1.0	.00	1.0	.00	.00
17	.00	.00	.00	.00	.00	.00	1.0	1.0	.00	2.1	.00	.00
18	.00	.00	.00	.00	.00	.00	1.1	.75	.00	1.8	.00	.00
19	.00	.00	.00	.00	.00	.00	1.3	.50	.00	1.5	.00	.00
20	.00	.00	.00	.00	.00	.00	1.5	.50	.00	1.5	.00	.00
21	.00	.00	.00	.00	.00	.00	1.0	.50	.00	1.5	.00	.00
22	.00	.00	.00	.00	.00	.00	1.5	.70	.00	1.0	.00	.00
23	.00	.00	.00	.00	.00	.00	1.0	.00	.00	1.0	.00	.00
24	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.50	.00	.00
25	.00	.00	.00	.00	.00	.00	1.0	.00	.00	1.0	.00	.00
26	.00	.00	.00	.00	.00	.30	1.0	.00	.44	1.0	.00	.00
27	.00	.00	.00	.00	.00	.50	1.9	.00	.00	.50	.00	.00
28	.00	.00	.00	.00	.00	.80	2.5	.00	.00	.50	.00	.00
29	.00	.00	.00	.00	.00	1.0	4.2	.00	.00	.50	.00	.00
30	.00	.00	.00	.00	---	1.2	46	.00	.00	.25	.00	.00
31	.00	---	.00	.00	---	1.4	---	.00	---	.00	.00	---
TOTAL	8.10	9.90	.00	.00	.00	5.20	131.2	44.88	4.85	22.27	.49	1.30
MEAN	.26	.33	.000	.000	.000	.17	4.37	1.45	.16	.72	.016	.043
MAX	4.3	5.0	.00	.00	.00	1.4	46	8.0	1.8	2.1	.49	1.3
MIN	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00	.00
CFSM	8.67	11.0	.000	.000	.000	5.67	146	48.3	5.33	24.0	.53	1.43
IN.	9.72	11.88	.00	.00	.00	6.24	157.44	53.86	5.82	26.72	.59	1.56

WTR YR 1984 TOTAL 228.19 MEAN .62 MAX 46 MIN .00 CFSM 20.7 IN 273.83

ACID DEPOSITION RECORDS

373

WATER-DISCHARGE RECORDS

453046089342804 LAKE CLARA TRIBUTARY NEAR TOMAHAWK, WI--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.40	.00	.00	.00	.00	1.0	.00	.50	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.80	.00	.00
3	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	1.0	.00	.00	1.7	.00	.00
5	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.58	.00	.00
6	.00	.00	.00	.00	.00	.00	1.0	.21	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00	.30
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.7
9	.00	.00	.00	.00	.00	.00	.00	.28	.00	.00	1.7	4.3
10	.00	.00	.00	.00	.00	.00	.00	4.3	.00	.00	1.6	.83
11	.00	.00	.00	.00	.00	.00	1.0	1.7	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	1.5	.00	.00	.00	.58	.00
13	.00	.00	.00	.00	.00	.00	1.5	.00	.00	.00	2.3	.00
14	.00	.00	.00	.00	.00	.00	1.5	.15	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	2.0	6.3	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	2.0	1.0	.00	.00	.00	.00
17	.45	.00	.00	.00	.00	.00	1.5	.63	.40	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	1.5	.00	.13	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	2.0	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	3.0	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	2.0	.00	.29	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	2.4	.00	.71	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	9.6	.00	.00	.00	.35	13
24	.00	.00	.00	.00	.00	.00	9.5	.00	.00	.33	.00	5.8
25	.00	.00	.00	.00	.00	.50	1.0	.76	.00	.00	.00	.25
26	.00	.00	.00	.00	.00	1.0	1.0	20	.00	.00	.00	.96
27	1.0	.00	.00	.00	.00	1.0	.00	5.0	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	1.0	.00	.88	.00	.00	.00	.09
29	.00	.00	.00	.00	---	1.0	.00	.38	.00	.00	.00	10
30	.00	.00	.00	.00	---	1.0	.00	.35	.00	.00	.00	20
31	.50	---	.00	.00	---	1.0	---	2.4	---	.00	.00	---
TOTAL	1.95	.40	.00	.00	.00	6.50	50.00	44.34	2.03	3.41	6.53	63.23
MEAN	.06	.01	.00	.00	.00	.21	1.67	1.43	.07	.11	.21	2.11
MAX	1.0	.40	.00	.00	.00	1.0	9.6	20	.71	1.7	2.3	20
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CAL YR 1984	TOTAL	212.54	MEAN	.58	MAX	46	MIN	.00				
WTR YR 1985	TOTAL	178.39	MEAN	.49	MAX	20	MIN	.00				

NOTE: DIVIDE VALUES IN TABLE BY 100 TO OBTAIN CORRECT VALUES.

ACID DEPOSITION RECORDS

WATER-DISCHARGE RECORDS

453023089335505 LAKE CLARA OUTLET NEAR TOMAHAWK, WI

LOCATION.--Lat 45°30'23", long 89°33'55", in SE 1/4 NW 1/4 NW 1/4 sec.24, T.35 N., R.7 E., Lincoln County,
Hydrologic Unit 07070001, on southeast side of leake, 8.2 mi east of Tomahawk.

DRAINAGE AREA.--0.48 mi². Area of lake, 0.13 mi².

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,500.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Outlet is intermittent.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2.7 ft³/s, Apr. 24, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2.7 ft³/s, Apr. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.01	.00	.00	.92	.00	.01
2	.00	.00	.00	.00	.00	.00	.02	.00	.00	.97	.00	.01
3	.00	.00	.00	.00	.00	.00	.02	.00	.00	.84	.00	.03
4	.00	.00	.00	.00	.00	.00	.02	.00	.00	.92	.00	.04
5	.00	.00	.00	.00	.00	.00	.02	.00	.00	1.0	.00	.03
6	.00	.00	.00	.00	.00	.00	.01	.00	.00	.97	.00	.03
7	.00	.00	.00	.00	.00	.00	.01	.00	.00	.89	.00	.02
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.78	.00	.70
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.60	.01	.83
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.47	.09	.71
11	.00	.00	.00	.00	.00	.00	.00	.00	.01	.34	.06	.55
12	.00	.00	.00	.00	.00	.00	.00	.00	.02	.27	.08	.44
13	.00	.00	.00	.00	.00	.00	.00	.00	.04	.22	.17	.34
14	.00	.00	.00	.00	.00	.00	.00	.00	.06	.18	.12	.27
15	.00	.00	.00	.00	.00	.00	.00	.00	.08	.13	.09	.22
16	.00	.00	.00	.00	.00	.00	.00	.00	.12	.09	.07	.17
17	.00	.00	.00	.00	.00	.00	.00	.00	.18	.06	.07	.14
18	.00	.00	.00	.00	.00	.00	.00	.00	.25	.06	.07	.12
19	.00	.00	.00	.00	.00	.00	.00	.00	.48	.06	.05	.10
20	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.04	.03	.10
21	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.03	.02	.07
22	.00	.00	.00	.00	.00	.00	.00	.00	1.4	.31	.01	.09
23	.00	.00	.00	.00	.00	.00	1.2	.00	1.4	.01	.05	.41
24	.00	.00	.00	.00	.00	.00	2.7	.00	1.4	.02	.07	.89
25	.00	.00	.00	.00	.00	.00	.01	.00	1.4	.03	.07	.77
26	.00	.00	.00	.00	.00	.00	1.8	.00	2.6	.02	.05	.54
27	.00	.00	.00	.00	.00	.00	.20	.00	.62	.01	.04	.65
28	.00	.00	.00	.00	.00	.00	.10	.00	1.2	.01	.04	.57
29	.00	.00	.00	.00	---	.00	.05	.00	1.1	.01	.04	.78
30	.00	.00	.00	.00	---	.00	.02	.00	1.0	.01	.03	1.4
31	.00	---	.00	.00	---	.00	---	.00	---	.01	.02	---
TOTAL	.00	.00	.00	.00	.00	.00	6.19	.00	16.16	9.98	1.35	11.03
MEAN	.00	.00	.00	.00	.00	.00	.21	.00	.54	.32	.04	.37
MAX	.00	.00	.00	.00	.00	.00	2.7	.00	2.6	1.0	.17	1.4
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
CAL YR 1984	TOTAL	15.94		MEAN	.04	MAX	2.2	MIN	.00			
WTR YR 1985	TOTAL	44.71		MEAN	.12	MAX	2.7	MIN	.00			

ACID DEPOSITION RECORDS

375

STAGE RECORDS

453100089343002 LAKE CLARA NEAR TOMAHAWK, WI

LOCATION.--Lat 45°31'00", long 89°34'30", in NE 1/4 NW 1/4 SE 1/4 sec.14, T.35 N., R.7 E., Lincoln County, Hydrologic Unit 07070001, at north end of lake, 8.2 mi east of Tomahawk.

DRAINAGE AREA.--0.48 mi². Area of lake, 0.13 mi².

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,500.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Lake has intermittent surface inlet and outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed gage height, 16.90 ft, June 16 and 17, 1981; minimum observed gage height, 15.50 ft, Aug. 16, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum observed gage height, 16.83 ft, May 26 and 27; minimum observed gage height, 15.67 ft, Aug. 4.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.91	16.07	16.08	16.23	16.19	16.27	16.53	16.71	16.81	16.01	15.72	15.79
2	15.90	16.04	16.11	16.22	16.19	16.26	16.53	16.70	16.79	16.05	15.71	15.76
3	15.89	16.05	16.14	16.22	16.19	16.25	16.53	16.71	16.74	16.02	15.70	15.79
4	15.89	16.05	16.12	16.23	16.19	16.33	16.54	16.69	16.70	16.06	15.67	15.81
5	15.89	16.03	16.13	16.23	16.19	16.35	16.54	16.69	16.67	16.11	15.68	15.81
6	15.88	16.03	16.13	16.24	16.19	16.33	16.55	16.68	16.66	16.10	15.68	15.80
7	15.88	16.03	16.13	16.22	16.21	16.34	16.55	16.68	16.62	16.07	15.68	15.81
8	15.92	16.03	16.14	16.23	16.19	16.34	16.53	16.68	16.59	16.05	15.68	16.03
9	15.94	16.04	16.13	16.22	16.21	16.34	16.52	16.67	16.54	16.02	15.72	16.05
10	15.94	16.09	16.13	16.22	16.20	16.34	16.53	16.72	16.50	15.98	15.87	16.04
11	15.91	16.09	16.11	16.22	16.22	16.35	16.52	16.73	16.46	15.96	15.85	16.01
12	15.90	16.09	16.12	16.21	16.23	16.38	16.53	16.73	16.43	15.94	15.86	15.98
13	15.90	16.09	16.12	16.21	16.23	16.39	16.56	16.72	16.42	15.92	15.92	15.96
14	15.91	16.12	16.13	16.21	16.23	16.38	16.57	16.71	16.39	15.90	15.89	15.95
15	15.92	16.11	16.14	16.21	16.23	16.37	16.58	16.75	16.36	15.87	15.88	15.93
16	15.94	16.08	16.17	16.21	16.23	16.37	16.58	16.75	16.34	15.85	15.86	15.90
17	15.98	16.08	16.19	16.21	16.23	16.37	16.61	16.75	16.31	15.83	15.84	15.89
18	15.98	16.08	16.18	16.21	16.23	16.37	16.65	16.75	16.31	15.83	15.82	15.88
19	15.99	16.07	16.18	16.20	16.24	16.38	16.69	16.75	16.27	15.82	15.80	15.88
20	15.98	16.06	16.17	16.19	16.23	16.37	16.72	16.74	16.25	15.81	15.80	15.86
21	15.96	16.06	16.17	16.20	16.25	16.37	16.73	16.73	16.23	15.78	15.80	15.85
22	15.96	16.06	16.19	16.21	16.26	16.37	16.75	16.72	16.27	15.76	15.78	15.86
23	15.94	16.06	16.20	16.20	16.26	16.36	16.75	16.72	16.25	15.74	15.82	15.95
24	15.94	16.06	16.19	16.20	16.27	16.36	16.80	16.71	16.22	15.77	15.85	16.05
25	15.93	16.06	16.19	16.19	16.27	16.35	16.80	16.73	16.19	15.79	15.83	16.04
26	15.93	16.06	16.19	16.19	16.25	16.35	16.80	16.83	16.16	15.78	15.83	16.05
27	15.99	16.07	16.20	16.19	16.26	16.40	16.76	16.83	16.14	15.76	15.82	16.03
28	16.03	16.08	16.21	16.19	16.26	16.42	16.73	16.81	16.11	15.76	15.82	16.01
29	16.03	16.08	16.22	16.20	---	16.44	16.73	16.81	16.07	15.75	15.82	16.04
30	16.03	16.08	16.22	16.21	---	16.45	16.72	16.81	16.04	15.74	15.81	16.14
31	16.03	---	16.23	16.19	---	16.48	---	16.81	---	15.74	15.79	---
MEAN	15.94	16.07	16.16	16.21	16.23	16.36	16.63	16.74	16.39	15.89	15.79	15.93
MAX	16.03	16.12	16.23	16.24	16.27	16.48	16.80	16.83	16.81	16.11	15.92	16.14
MIN	15.88	16.03	16.08	16.19	16.19	16.25	16.52	16.67	16.04	15.74	15.67	15.76
CAL YR 1984	MEAN	16.16	MAX	16.43	MIN	15.84						
WTR YR 1985	MEAN	16.19	MAX	16.83	MIN	15.67						

ACID DEPOSITION RECORDS
PRECIPITATION QUANTITY

453100089343003 LAKE CLARA RAIN GAGE NEAR TOMAHAWK, WI

LOCATION.--Lat 45°31'00", long 89°34'30", in NE 1/4 NW 1/4 SE 1/4 sec.14, T.35 N., R.7 E., Lincoln County,
Hydrologic Unit 07070001, at north end of lake, 8.2 mi east of Tomshawk.

PERIOD OF RECORD.--March 1981 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 6.49 in., June 14, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 2.47 in., Aug. 9.

RAINFALL, ACCUMULATED (INCHES), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
SUMMATION VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.14				---	.53	.03	.13	.60	.00	.01
2	.00	.00				---	.15	.00	.01	.31	.00	.16
3	.00	.00				---	.00	.00	.00	.38	.00	.39
4	.02	.00				---	.01	.00	.00	1.16	.00	.00
5	.00	.00				---	.03	.00	.00	.32	.16	.00
6	.00	.00				---	.00	.23	.00	.00	.16	.00
7	.73	.01				---	.00	.05	.08	.04	.01	1.06
8	.00	.00				---	.02	.00	.00	.01	.02	2.12
9	.00	.00				---	.01	.51	.00	.02	2.47	.28
10	.00	.00				---	.00	1.01	.00	.02	.09	.00
11	.00	.26				---	.00	.03	.00	.00	.00	.01
12	.04	.18				---	.01	.05	.00	.00	1.02	.00
13	.00	.05				---	.29	.02	.00	.00	.01	.00
14	.00	---				---	.00	.37	.00	.00	.00	.00
15	.22	---				---	.00	.29	.20	.00	.01	.00
16	.40	---				---	.00	.15	.15	.00	.00	.00
17	.27	---				---	.65	.12	.46	.08	.04	.00
18	.13	---				.00	.00	.02	.00	.14	.00	.00
19	.11	---				.00	.42	.15	.00	.01	.00	.00
20	.00	---				.00	.00	.00	.00	.00	.01	.05
21	.00	---				.00	.16	.01	.67	.00	.00	.02
22	.00	---				.00	.39	.00	.16	.00	.03	.36
23	.00	---				.00	.65	.00	.00	.00	.80	2.43
24	.00	---				.05	.11	.03	.01	.81	.17	.14
25	.18	---				.00	.01	.85	.00	.00	.00	.18
26	.00	---				.28	.00	.79	.01	.00	.00	.14
27	1.06	---				.18	.03	.00	.01	.00	.00	.00
28	.00	---				.07	.01	.00	.00	.12	.12	.35
29	.00	---				.29	.00	.13	.01	.00	.03	1.28
30	.03	---				.01	.00	.01	.00	.00	.02	.40
31	.32	---				.00	---	.30	---	.16	.00	---
TOTAL	3.51	---				---	3.48	5.15	1.90	4.18	5.17	9.38

ACID DEPOSITION RECORDS

377

GROUND-WATER LEVELS

453047089334801 WELL LN-35/07E/13-0063

LOCATION.--Lat 45°30'47", long 89°33'48", in NW 1/4 SE 1/4 SW 1/4 sec.13, T.35 N., R.7 E., Lincoln County, Hydrologic Unit 07070001, 0.25 mi east of Lake Clara, 8.2 mi east of Tomahawk.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Augered water-table observation well, diameter 3 in., depth 44 ft, cased to 41 ft. well screened 41-44 ft.

PERIOD OF RECORD.--November 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,500.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.-- Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed water level, 13.49 ft, June 30, 1983; minimum observed water level, 11.50 ft, Apr. 4, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum observed water level, 12.89 ft, June 22; minimum observed water level, 11.91 ft, Mar. 6.

GAGE HEIGHT (FEET ABOVE DATUM, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.24	12.32	12.21	12.19	12.07	12.03	12.10	12.32	12.75	12.79	12.60	12.54
2	12.28	12.23	12.24	12.15	12.06	11.94	12.09	12.33	12.73	12.82	12.59	12.52
3	12.28	12.34	12.24	12.16	12.06	11.95	12.12	12.37	12.74	12.81	12.60	12.59
4	12.23	12.35	12.19	12.23	12.04	12.13	12.09	12.47	12.77	12.85	12.60	12.56
5	12.21	12.26	12.24	12.20	12.10	11.94	12.10	12.48	12.81	12.82	12.61	12.55
6	12.22	12.23	12.25	12.21	12.10	11.91	12.11	12.43	12.81	12.77	12.59	12.55
7	12.24	12.26	12.29	12.19	12.04	12.05	12.06	12.42	12.86	12.78	12.56	12.51
8	12.24	12.29	12.25	12.11	12.01	12.02	12.05	12.43	12.88	12.80	12.54	12.51
9	12.21	12.29	12.22	12.10	12.03	11.98	12.07	12.53	12.88	12.79	12.55	12.54
10	12.20	12.27	12.21	12.13	12.05	12.00	12.16	12.54	12.81	12.78	12.54	12.53
11	12.21	12.24	12.26	12.13	12.05	12.02	12.11	12.56	12.81	12.77	12.51	12.52
12	12.24	12.23	12.27	12.17	12.04	11.97	12.10	12.59	12.83	12.77	12.56	12.53
13	12.26	12.24	12.16	12.25	12.05	11.99	12.14	12.51	12.85	12.79	12.59	12.53
14	12.27	12.32	12.17	12.18	12.04	11.97	12.15	12.55	12.85	12.78	12.55	12.56
15	12.27	12.34	12.20	12.09	12.03	11.95	12.16	12.62	12.86	12.76	12.54	12.60
16	12.25	12.26	12.31	12.13	12.07	12.01	12.12	12.62	12.85	12.73	12.54	12.65
17	12.25	12.25	12.17	12.21	12.01	11.96	12.17	12.60	12.87	12.73	12.56	12.66
18	12.22	12.24	12.15	12.18	12.00	11.97	12.24	12.65	12.86	12.75	12.56	12.60
19	12.37	12.23	12.24	12.13	11.99	11.99	12.21	12.70	12.82	12.74	12.54	12.59
20	12.26	12.20	12.21	12.10	12.01	11.94	12.20	12.67	12.83	12.72	12.51	12.58
21	12.24	12.21	12.28	12.13	12.02	11.95	12.20	12.62	12.87	12.74	12.51	12.56
22	12.21	12.28	12.19	12.11	12.00	11.97	12.22	12.66	12.89	12.71	12.52	12.63
23	12.20	12.28	12.15	12.15	11.99	11.98	12.24	12.70	12.82	12.69	12.55	12.67
24	12.23	12.28	12.16	12.16	11.99	11.97	12.26	12.72	12.78	12.73	12.56	12.61
25	12.24	12.27	12.15	12.08	11.98	11.94	12.24	12.75	12.80	12.70	12.53	12.58
26	12.27	12.28	12.14	12.08	11.99	12.01	12.24	12.77	12.84	12.65	12.51	12.62
27	12.31	12.29	12.21	12.15	11.95	12.07	12.26	12.73	12.83	12.64	12.51	12.62
28	12.23	12.28	12.26	12.10	12.04	12.04	12.29	12.71	12.80	12.66	12.51	12.62
29	12.21	12.25	12.18	12.09	---	12.00	12.30	12.77	12.79	12.63	12.55	12.62
30	12.24	12.24	12.10	12.08	---	11.97	12.33	12.85	12.78	12.61	12.54	12.71
31	12.24	---	12.13	12.07	---	12.13	---	12.88	---	12.62	12.54	---
MEAN	12.24	12.27	12.21	12.14	12.03	11.99	12.17	12.60	12.82	12.74	12.55	12.58
MAX	12.37	12.35	12.31	12.25	12.10	12.13	12.33	12.88	12.89	12.85	12.61	12.71
MIN	12.20	12.20	12.10	12.07	11.95	11.91	12.05	12.32	12.73	12.61	12.51	12.51
CAL YR 1984	MEAN	12.46	MAX	12.87	MIN	12.10						
WTR YR 1985	MEAN	12.36	MAX	12.89	MIN	11.91						

ACID DEPOSITION RECORDS

LAKE CLARA

QUALITY OF SURFACE WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUC- TANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ACIDITY (MG/L AS H) (71825)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINIT LAB (MG/I AS CACO ₃) (90410)
453046089342804 - LAKE CLARA TRIBUTARY NEAR TOMAHAWK, WI (LAT 45 30 46 LONG 089 34 28)												
MAR , 1985												
27...	1028	--	30	6.5	--	--	.3	2.5	.75	1.2	2.2	-
APR												
03...	1210	--	37	6.3	--	--	.2	3.5	.89	1.7	1.2	7.0
453051089343004 - LAKE CLARA TRIBUTARY NO. 2 NEAR TOMAHAWK, WI (LAT 45 30 51 LONG 089 34 30)												
MAR , 1985												
27...	1050	--	41	6.2	--	--	.2	3.0	.83	2.8	1.0	5.0
APR												
03...	1225	--	99	6.0	--	--	.2	8.1	2.0	6.3	1.0	5.0
453059089343304 - LAKE CLARA TRIBUTARY NO. 3 NEAR TOMAHAWK, WI (LAT 45 30 59 LONG 089 34 33)												
MAR , 1985												
27...	1155	--	83	4.2	--	--	.7	3.0	1.1	6.7	1.2	<1.0
453059089342904 - LAKE CLARA TRIBUTARY NO. 4 NEAR TOMAHAWK, WI (LAT 45 30 59 LONG 089 34 29)												
MAR , 1985												
27...	1215	--	107	3.9	--	--	.7	2.6	.95	6.2	1.3	<1.0
APR												
03...	1240	--	126	3.7	--	--	.8	2.0	.79	5.9	1.2	<1.0
453023089335505 - LAKE CLARA OUTLET NEAR TOMAHAWK, WI (LAT 45 30 23 LONG 089 33 55)												
APR , 1985												
03...	1313	--	35	5.9	--	--	.2	2.6	.73	3.2	.78	8.0
453100089343002 - LAKE CLARA NEAR TOMAHAWK, WI (LAT 45 31 00 LONG 089 34 30)												
OCT , 1984												
08...	1325	3.00	34	6.2	14.0	9.1	.2	1.9	.61	2.8	.62	3.0
NOV												
07...	1300	3.00	35	6.4	5.0	11.6	.2	1.9	.60	2.9	.17	4.0
JAN , 1985												
09...	0955	3.00	31	6.2	4.0	10.1	.2	2.0	.61	2.7	.68	4.0
FEB												
** 07...	1340	3.00	33	6.2	4.0	8.6	.2	2.0	.68	2.8	.66	3.0
** 07...	1341	3.00	33	6.2	4.0	8.6	.2	2.0	.69	2.8	.82	3.0
MAR												
18...	1325	3.00	34	6.2	4.0	7.2	.2	2.0	.66	2.8	.60	4.0
APR												
25...	1435	3.00	31	6.4	13.0	10.1	.2	1.9	.63	2.5	.75	4.0
25...	1450	30.0	32	6.0	6.0	6.7	.2	1.9	.58	2.6	.64	4.0
JUN												
05...	1020	3.00	32	6.5	17.5	9.1	.1	1.9	.60	2.7	.66	4.0
** 05...	1040	30.0	33	5.8	7.0	.3	.1	2.0	.60	2.9	.70	4.0
** 05...	1041	30.0	33	5.8	7.0	.3	.1	2.0	.62	2.7	.64	4.0
JUL												
02...	1055	3.00	32	6.5	22.0	7.8	.2	1.7	.58	2.6	.65	3.0
02...	1110	29.0	33	6.1	6.5	.1	<.1	2.0	.59	2.9	.66	4.0
AUG												
05...	1215	3.00	32	6.3	22.5	7.5	.2	1.8	.63	2.7	.37	3.0
05...	1220	29.0	34	5.8	9.0	.2	.2	2.4	.68	2.8	.57	5.0
SEP												
03...	1120	3.00	32	6.3	19.0	8.2	.1	1.8	.51	2.6	.75	4.0
03...	1135	26.0	33	5.8	11.5	.4	<.1	2.1	.56	2.8	.63	4.0

**SAMPLES WITH THE SAME DATES ARE REPLICATES.

ACID DEPOSITION RECORDS

379

LAKE CLARA

QUALITY OF SURFACE WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	SULFATE DIS- SOLVED (MG/L AS S04) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
453046089342804 - LAKE CLARA TRIBUTARY NEAR TOMAHAWK, WI (LAT 45 30 46 LONG 089 34 28)												
MAR , 1985												
27...	5.2	1.8	.04	2.6	--	<.01	.019	.018	110	54	8	9.5
APR												
03...	8.0	3.6	.04	5.1	29	.03	.029	.015	80	25	3	4.8
453051089343004 - LAKE CLARA TRIBUTARY NO. 2 NEAR TOMAHAWK, WI (LAT 45 30 51 LONG 089 34 30)												
MAR , 1985												
27...	5.9	5.6	.03	3.9	27	.20	.030	.022	100	42	18	7.8
APR												
03...	10	21	<.10	7.1	59	--	.025	.030	80	29	9	4.7
453059089343304 - LAKE CLARA TRIBUTARY NO. 3 NEAR TOMAHAWK, WI (LAT 45 30 59 LONG 089 34 33)												
MAR , 1985												
27...	7.9	10	.04	5.2	--	.11	.044	.024	230	250	64	27
453059089342904 - LAKE CLARA TRIBUTARY NO. 4 NEAR TOMAHAWK, WI (LAT 45 30 59 LONG 089 34 29)												
MAR , 1985												
27...	11	13	<.10	4.5	--	--	.081	.061	370	240	78	32
APR												
03...	9.3	14	<.10	5.7	--	--	.056	.029	460	240	37	32
453023089335505 - LAKE CLARA OUTLET NEAR TOMAHAWK, WI (LAT 45 30 23 LONG 089 33 55)												
APR , 1985												
03...	2.5	5.1	.05	.7	21	.02	.371	.002	40	350	29	6.0
453100089343002 - LAKE CLARA NEAR TOMAHAWK, WI (LAT 45 31 00 LONG 089 34 30)												
OCT , 1984												
08...	4.5	4.4	<.01	.07	17	<.01	.027	<.001	10	24	6	4.0
NOV												
07...	4.5	4.4	.04	.06	17	<.01	.067	.008	40	13	7	3.4
JAN , 1985												
09...	3.0	3.2	.03	.01	15	<.01	.055	<.001	20	36	13	3.8
FEB												
07...	3.2	.52	.05	.03	12	.05	.033	<.001	50	20	15	4.4
07...	5.5	5.0	<.01	.02	20	.34	.043	<.010	40	26	14	4.0
MAR												
18...	5.1	5.0	.08	.04	19	.08	.047	<.001	<10	22	12	3.8
APR												
25...	4.0	5.0	.03	.2	17	<.01	<.001	<.001	40	19	12	4.1
25...	4.3	4.8	.05	.2	18	.01	.005	<.001	30	14	15	4.0
JUN												
05...	4.5	5.2	.12	.01	18	<.01	.003	.002	20	11	<1	4.7
05...	4.6	5.1	.14	.07	19	<.01	.012	<.001	20	24	43	<1.0
05...	4.5	5.2	.14	.08	18	<.01	<.001	.002	20	23	56	4.1
JUL												
02...	3.9	4.5	.04	<.01	--	<.01	.037	<.001	10	14	2	4.1
02...	3.5	5.2	.04	<.01	--	<.01	.013	<.001	10	37	31	5.7
AUG												
05...	3.8	4.7	.06	.01	16	.01	.026	<.001	<10	10	1	4.8
05...	3.4	4.5	.04	<.01	--	.01	.023	<.001	30	46	140	3.4
SEP												
03...	4.3	3.9	.04	.02	17	<.01	.121	.008	10	6	<1	3.5
03...	3.6	4.0	.04	.04	17	<.01	.167	.006	10	18	87	3.4

ACID DEPOSITION RECORDS

LAKE CLARA

QUALITY OF PRECIPITATION

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	PRECIPITATION DAILY (IN) (00045)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	ACIDITY (MG/L AS H) (71825)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS GACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
453048089343303 - LAKE CLARA BULK PRECIP COLL NR TOMAHAWK, WI (LAT 45 30 48 LONG 089 34 33)										
1984										
OCT 08 - NOV 06	3.98	17	4.5	.2	.35	.09	1.6	.27	1.0	2.1
NOV 06 - NOV 30	1.49	15	4.7	.1	.47	.07	.30	.11	1.0	1.6
NOV 30 - DEC 31	3.25	11	4.7	.2	.13	.09	<.20	.06	2.0	.5
1985										
JAN 01 - FEB 05	.250	21	4.4	.3	.53	.10	.30	.10	<1.0	1.7
FEB 05 - FEB 27	1.38	22	4.4	.2	.31	.10	.30	.03	<1.0	1.9
FEB 27 - APR 02	5.38	8	5.2	.2	.51	.07	<.20	.06	2.0	1.4
APR 02 - MAY 03	2.78	19	6.4	.1	1.0	.18	.20	.12	4.0	4.1
MAY 03 - JUN 03	4.37	23	6.1	.2	1.7	.31	.20	.21	4.0	3.7
JUN 03 - JUL 02	2.53	14	5.5	.3	.88	.20	.20	.13	2.0	2.5
JUL 02 - AUG 05	3.40	23	4.6	.2	.69	.15	.20	.10	1.0	3.9
AUG 05 - SEP 03	5.46	22	4.4	.2	.30	<.01	<.20	.04	<1.0	2.8
SEP 03 - OCT 01	8.93	10	4.7	.2	.28	<.01	.20	.05	1.0	1.1

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SI02) (00955)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
453048089343303 - LAKE CLARA BULK PRECIP COLL NR TOMAHAWK, WI (LAT 45 30 48 LONG 089 34 33)										
1984										
OCT 31 - NOV 06	.09	<.01	.08	.28	.341	.010	10	4	2	1.6
NOV 06 - NOV 30	.10	.02	<.01	.36	.476	.007	10	6	5	1.3
NOV 30 - DEC 31	.05	<.01	<.01	.13	.138	<.001	20	6	2	1.7
1985										
JAN 01 - FEB 05	.28	.60	<.01	<.01	.227	<.001	90	11	7	--
FEB 05 - APR 02	.09	.03	<.01	.48	.234	.004	50	7	<1	3.9
APR 02 - MAY 03	.26	.11	.04	.73	.860	.007	30	4	3	2.4
MAY 03 - JUN 03	.56	<.01	.04	.73	1.00	<.001	20	7	<1	2.7
JUN 03 - JUL 02	.14	<.01	.01	.35	.427	.005	10	4	14	6.5
JUL 02 - AUG 05	.12	.02	<.01	.46	--	<.001	10	8	10	2.5
AUG 05 - SEP 03	.08	.01	<.01	.35	.535	.006	20	5	4	1.4
SEP 03 - OCT 01	.06	.01	<.01	.21	.194	<.001	10	<3	2	1.3

ACID DEPOSITION RECORDS

381

LAKE CLARA

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

QUALITY OF GROUND WATER

STATION NUMBER	LOCAL IDENTIFIER	GEO-LOGIC UNIT	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUC-TANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	ACIDITY (MG/L AS H) (71825)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)					
LINCOLN														
453047089340421	LN-35/07E/13-0064		110QRNR 10-08-84**	11.00	52	5.8	12.5	.3	3.4					
			110QRNR 10-08-84**	11.00	52	5.8	12.5	.4	3.4					
			110QRNR 11-06-84	11.00	53	5.8	11.0	.4	3.2					
			110QRNR 01-09-85	11.00	41	5.9	6.5	.2	3.2					
			110QRNR 02-07-85	11.00	40	6.0	5.0	.6	2.9					
			110QRNR 03-18-85	11.00	39	6.1	5.0	.2	2.9					
			110QRNR 04-26-85**	11.00	46	5.9	5.5	.2	3.5					
			110QRNR 10-08-84	13.00	46	5.9	5.5	.5	3.5					
			110QRNR 06-05-85	11.00	46	5.8	10.0	.2	3.5					
			110QRNR 07-02-85	11.00	47	5.8	--	.4	3.3					
			110QRNR 08-05-85	11.00	47	5.8	12.5	.3	3.4					
			110QRNR 09-03-85	11.00	48	5.8	12.5	.2	3.4					
			110QRNR 10-08-84	13.00	146	5.8	13.0	.3	11					
			110QRNR 11-06-84**	13.00	161	5.9	11.0	.3	10					
110QRNR 11-06-84**	13.00	162	5.9	11.0	.3	10								
453055089343120	LN-35/07E/14-0066		110QRNR 01-09-85	13.00	118	6.0	6.5	.3	10					
			110QRNR 03-18-85	13.00	124	6.2	4.5	.2	10					
			110QRNR 04-25-85	13.00	120	6.0	5.5	.1	10					
			110QRNR 06-05-85	13.00	121	5.9	10.0	.2	9.5					
			110QRNR 07-02-85	13.00	123	5.9	--	.2	9.3					
			110QRNR 08-05-85**	13.00	125	5.9	13.5	.2	9.4					
			110QRNR 08-05-85**	13.00	125	5.9	13.5	.2	9.4					
			110QRNR 09-03-85	13.00	125	5.8	14.0	.3	9.2					
			LINCOLN											
			STATION NUMBER	DATE OF SAMPLE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB AS (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS STO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)
			453047089340421	10-08-84	1.1	3.2	1.4	16	.2	3.8	<.01	2.2	27	<.01
				10-08-84	1.2	3.2	1.3	16	.5	3.7	.04	2.3	27	<.01
				11-06-84	1.1	3.2	.69	16	.6	3.8	.03	2.1	26	<.01
				01-09-85	1.1	2.7	.96	14	.1	3.0	.02	1.8	23	<.01
02-07-85	.97	2.6		.89	10	.6	4.0	.04	1.8	21	<.01			
03-18-85	1.0	2.5		.76	12	<.01	6.7	<.01	1.7	--	<.01			
04-26-85	1.1	2.7		.82	12	1.7	4.3	.18	1.8	25	<.10			
04-26-85	1.1	2.5		.88	12	1.5	4.3	.21	1.9	25	<.10			
06-05-85	.95	3.0		1.1	13	1.1	5.3	.03	2.0	27	<.01			
07-02-85	.82	2.7		1.1	13	.4	5.5	.04	2.0	26	<.01			
08-05-85	.94	2.7		1.1	12	.3	4.4	.02	2.1	24	.01			
09-03-85	.90	2.7		1.1	13	.5	4.2	.04	2.2	25	--			
10-08-84	2.5	12		1.2	15	15	23	<.01	18	93	.17			
11-06-84	2.5	11		.83	16	15	23	.09	17	90	.18			
11-06-84	2.4	11	.82	16	15	23	.07	17	90	.22				
453055089343120	01-09-85	2.4	9.5	.90	15	17	29	.30	16	95	.29			
	03-18-85	2.5	9.4	.80	15	15	20	<.10	15	82	--			
	04-25-85	2.4	9.5	.87	16	17	17	<.10	15	81	--			
	06-05-85	2.2	11	.97	17	18	15	<.10	17	85	--			
	07-02-85	2.2	11	.99	17	18	16	<.10	17	85	--			
	08-05-85	2.2	10	1.1	16	16	17	<.10	18	83	--			
	08-05-85	2.2	10	1.0	17	15	17	<.10	18	83	--			
	09-03-85	2.1	11	1.1	17	15	17	<.10	18	84	--			

**SAMPLES WITH THE SAME DATES ARE REPLICATES.

ACID DEPOSITION RECORDS

LAKE CLARA

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

QUALITY OF GROUND WATER

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS- SOLVED (UG/L AS AL) (01106)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
LINCOLN								
453047089340421	10-08-84	--	.359	.003	70	1300	67	3.8
	10-08-84	--	.348	<.001	70	1300	68	6.4
	11-06-84	--	.358	.005	80	1100	65	3.7
	01-09-85	--	.196	<.001	70	1100	62	4.0
	02-07-85	--	.241	<.010	220	1000	57	3.7
	03-18-85	--	.120	.004	70	1000	56	4.0
	04-26-85	--	.250	.015	170	1200	67	5.6
	04-26-85	--	.220	.001	150	1300	68	5.8
	06-05-85	--	.259	.011	160	1400	66	5.7
	07-02-85	--	.285	.004	150	1300	63	5.3
	08-05-85	--	.292	<.001	130	1300	64	5.2
	09-03-85	--	.540	.008	120	1300	64	5.4
	453055089343120	10-08-84	--	.033	<.001	10	5	<1	2.2
11-06-84		--	.005	.011	30	5	<1	2.6
11-06-84		--	<.001	.011	30	9	1	1.7
01-09-85		--	<.001	.003	30	4	<1	1.7
03-18-85		.13	.014	.003	<10	13	<1	2.0
04-25-85		.11	<.001	<.001	30	5	<1	2.1
06-05-85		<.10	<.001	.001	20	<3	<1	3.7
07-02-85		.21	.019	.005	10	4	<1	3.2
08-05-85		.20	.005	<.001	<10	4	<1	2.1
08-05-85		.10	.013	<.001	20	<3	<1	2.6
09-03-85		.15	.124	.029	<10	3	<1	2.0

ACID DEPOSITION RECORDS

383

STAGE RECORDS

455909089405602 VANDERCOOK LAKE NEAR WOODRUFF, WI

LOCATION.--Lat 45°59'09", long 89°40'56", in SW 1/4 NE 1/4 SE 1/4 sec.36, T.41 N., R.6 E., Vilas County, Hydrologic Unit 07070001, at north end of lake on dirt road off County Trunk Highway M, 6.1 mi north of Woodruff.

DRAINAGE AREA.--1.11 mi². Area of lake, 0.17 mi².

PERIOD OF RECORD.--November 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,600.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Lakes does not have surface inlet or outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed gage height, 32.07 ft, Feb. 22, 1984; minimum observed gage height, 30.74 ft, Sept. 28 and 29, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum observed gage height, 31.89 ft, Apr. 24 and May 31; minimum observed gage height, 31.39 ft, Nov. 26.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.50	31.54	31.40	31.52	31.44	31.51	31.69	31.83	31.89	31.69	31.49	31.42
2	31.49	31.52	31.43	31.51	31.44	31.50	31.68	31.81	31.88	31.70	31.47	31.41
3	31.48	31.51	31.45	31.51	31.44	31.49	31.69	31.81	31.86	31.68	31.46	31.50
4	31.46	31.50	31.45	31.51	31.43	31.56	31.69	31.81	31.85	31.72	31.44	31.51
5	31.46	31.49	31.44	31.51	31.44	31.59	31.68	31.81	31.83	31.77	31.43	31.50
6	31.45	31.48	31.45	31.51	31.44	31.57	31.67	31.81	31.82	31.77	31.43	31.50
7	31.46	31.48	31.45	31.51	31.44	31.58	31.66	31.81	31.83	31.76	31.42	31.50
8	31.52	31.48	31.45	31.50	31.43	31.58	31.65	31.80	31.84	31.75	31.40	31.55
9	31.51	31.47	31.45	31.49	31.43	31.57	31.65	31.81	31.85	31.74	31.41	31.53
10	31.51	31.47	31.45	31.49	31.44	31.57	31.65	31.86	31.81	31.74	31.47	31.52
11	31.51	31.45	31.44	31.49	31.46	31.58	31.64	31.86	31.80	31.73	31.45	31.50
12	31.50	31.44	31.44	31.49	31.46	31.62	31.65	31.86	31.77	31.72	31.46	31.48
13	31.50	31.44	31.43	31.49	31.46	31.62	31.72	31.84	31.75	31.71	31.48	31.47
14	31.50	31.44	31.44	31.49	31.46	31.62	31.73	31.83	31.73	31.70	31.46	31.45
15	31.49	31.44	31.45	31.49	31.46	31.61	31.72	31.85	31.73	31.67	31.43	31.44
16	31.50	31.42	31.49	31.48	31.46	31.61	31.71	31.84	31.73	31.65	31.42	31.43
17	31.56	31.42	31.49	31.49	31.46	31.60	31.71	31.82	31.74	31.64	31.43	31.42
18	31.54	31.41	31.48	31.49	31.46	31.59	31.71	31.82	31.74	31.65	31.45	31.42
19	31.54	31.40	31.49	31.47	31.46	31.59	31.73	31.81	31.72	31.65	31.43	31.42
20	31.53	31.40	31.48	31.47	31.48	31.58	31.77	31.79	31.71	31.64	31.42	31.42
21	31.51	31.40	31.50	31.48	31.52	31.58	31.81	31.77	31.71	31.62	31.42	31.40
22	31.50	31.40	31.53	31.48	31.51	31.58	31.82	31.77	31.78	31.59	31.40	31.40
23	31.49	31.39	31.52	31.47	31.51	31.57	31.86	31.76	31.75	31.57	31.47	31.49
24	31.48	31.40	31.51	31.47	31.51	31.58	31.89	31.74	31.73	31.57	31.49	31.55
25	31.48	31.40	31.51	31.46	31.51	31.57	31.88	31.74	31.72	31.59	31.48	31.53
26	31.48	31.39	31.51	31.45	31.50	31.57	31.87	31.82	31.72	31.57	31.47	31.52
27	31.52	31.41	31.51	31.46	31.50	31.58	31.86	31.80	31.74	31.55	31.46	31.51
28	31.53	31.41	31.53	31.45	31.51	31.59	31.86	31.79	31.73	31.54	31.45	31.50
29	31.52	31.41	31.52	31.45	---	31.60	31.86	31.78	31.71	31.53	31.45	31.54
30	31.51	31.41	31.51	31.46	---	31.60	31.84	31.86	31.70	31.51	31.44	31.62
31	31.50	---	31.52	31.45	---	31.64	---	31.89	---	31.50	31.42	---
MEAN	31.50	31.44	31.47	31.48	31.47	31.58	31.74	31.81	31.77	31.65	31.45	31.48
MAX	31.56	31.54	31.53	31.52	31.52	31.64	31.89	31.89	31.89	31.77	31.49	31.62
MIN	31.45	31.39	31.40	31.45	31.43	31.49	31.64	31.74	31.70	31.50	31.40	31.40
CAL YR 1984	MEAN	31.74	MAX	32.07	MIN	31.39						
WTR YR 1985	MEAN	31.57	MAX	31.89	MIN	31.39						

ACID DEPOSITION RECORDS
 PRECIPITATION QUANTITY

455909089405603 VANDERCOOK LAKE RAIN GAGE NEAR WOODRUFF, WI

LOCATION.--Lat 45°59'09", long 89°40'56", in SW 1/4 NE 1/4 SE 1/4 sec.36, T.41 N., R.6 E., Vilas County,
 Hydrologic Unit 07070001, at north end of lake on dirt road off County Trunk Highway M, 6.1 mi north of
 Woodruff.

PERIOD OF RECORD.--March 1981 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.98 in., Aug. 10, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 2.35 in., Oct. 4.

RAINFALL, ACCUMULATED (INCHES), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
 SUMMATION VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.11				---	.14	.00	.08	.33	.00	.00
2	.00	.00				---	.46	.00	.01	.01	.00	.67
3	.00	.00				---	.35	.00	.00	.24	.00	.61
4	.04	.00				---	.00	.13	.00	1.07	.00	.00
5	.00	.00				---	.02	.06	.02	.35	.07	.01
6	.00	.01				---	.00	.24	.00	.01	.03	.00
7	.60	.04				---	.00	.01	.45	.00	.00	.47
8	.25	.01				---	.05	.00	.12	.00	.00	.34
9	.01	.00				---	.01	.88	.00	.60	1.15	.02
10	.00	.00				---	.00	.04	.00	.06	.11	.01
11	.00	.01				---	.00	.07	.00	.00	.00	.00
12	.00	.01				---	.67	.02	.00	.00	.59	.00
13	.00	.00				---	.43	.00	.00	.00	.00	.00
14	.00	.00				---	.01	.25	.00	.00	.00	.00
15	.08	---				---	.00	.24	.17	.00	.00	.00
16	.19	---				---	.00	.03	.12	.00	.00	.00
17	.41	---				---	.26	.13	.35	.20	.65	.00
18	.14	---				.00	.00	.01	.02	.24	.01	.00
19	.07	---				.00	.37	.03	.00	.00	.00	.00
20	.01	---				.00	.00	.00	.00	.00	.07	.12
21	.00	---				.00	.53	.00	.67	.00	.01	.00
22	.01	---				.00	.10	.00	.22	.00	.49	.19
23	.00	---				.03	.78	.00	.00	.00	.63	1.98
24	.00	---				.06	.03	.00	.00	.47	.01	.04
25	.24	---				.00	.00	.77	.00	.00	.00	.05
26	.00	---				.06	.00	.25	.34	.00	.00	.01
27	.48	---				.21	.03	.00	.02	.00	.00	.00
28	.00	---				.00	.00	.00	.00	.00	.01	.33
29	.01	---				.27	.00	1.27	.00	.00	.01	1.03
30	.09	---				.00	.00	.02	.00	.00	.00	.62
31	.46	---				.00	---	.63	---	.07	.00	---
TOTAL	3.09	---				---	4.24	5.08	2.59	3.65	3.84	6.50

ACID DEPOSITION RECORDS

385

GROUND-WATER LEVELS

455910089403701 WELL VI-41/07E/31-0085

LOCATION.--Lat 45°59'10", long 89°40'37", in SW 1/4 NW 1/4 SW 1/4 sec.31, T.41 N., R.7 E., Vilas County, Hydrologic Unit 07070001, 0.25 mi northeast of Vandercook Lake, about 6.1 mi north of Woodruff.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Augered water-table observation well, diameter 3 in., depth 60 ft, cased to 57 ft, well screened 57-60 ft.

PERIOD OF RECORD.--November 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,600.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except for period of missing record, Apr. 16 to Oct. 12, 1982.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed water level, 33.54 ft, July 4, 1983; minimum observed water level, 31.47 ft, Mar. 27 and 28, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum observed water level, 33.11 ft, July 14; minimum observed water level, 31.85 ft, Apr. 12.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.72	32.66	32.55	32.40	32.20	32.09	31.94	32.94	32.92	33.06	33.06	32.91
2	32.74	32.62	32.55	32.38	32.18	32.05	31.95	32.92	32.92	33.06	33.05	32.89
3	32.72	32.67	32.53	32.38	32.18	32.06	31.95	32.92	32.92	33.06	33.03	32.92
4	32.71	32.69	32.52	32.39	32.17	32.12	31.93	32.92	32.95	33.09	33.03	32.92
5	32.71	32.64	32.52	32.38	32.18	32.05	31.92	32.91	32.96	33.09	33.04	32.92
6	32.71	32.62	32.50	32.38	32.18	32.05	31.91	32.91	32.96	33.09	33.03	32.92
7	32.71	32.63	32.54	32.37	32.17	32.08	31.87	32.90	33.00	33.09	33.02	32.89
8	32.70	32.63	32.51	32.35	32.15	32.06	31.86	32.89	33.03	33.09	33.02	32.86
9	32.69	32.62	32.50	32.35	32.14	32.04	31.86	32.89	33.07	33.09	33.00	32.86
10	32.69	32.61	32.50	32.34	32.14	32.04	31.88	32.89	33.07	33.09	33.01	32.86
11	32.69	32.60	32.53	32.33	32.14	32.03	31.86	32.89	33.07	33.09	33.01	32.86
12	32.69	32.59	32.51	32.34	32.13	32.03	31.85	32.88	33.07	33.09	33.01	32.86
13	32.69	32.58	32.49	32.36	32.14	32.02	31.90	32.88	33.06	33.10	32.97	32.86
14	32.70	32.62	32.48	32.33	32.14	32.02	31.94	32.88	33.06	33.11	32.99	32.84
15	32.70	32.62	32.48	32.31	32.13	32.01	32.01	32.88	33.06	33.10	32.99	32.84
16	32.69	32.59	32.53	32.32	32.14	32.01	32.13	32.88	33.06	33.10	32.99	32.87
17	32.68	32.57	32.49	32.34	32.11	32.00	32.24	32.88	33.06	33.10	32.99	32.87
18	32.68	32.56	32.48	32.32	32.11	32.00	32.29	32.88	33.06	33.10	32.98	32.84
19	32.74	32.56	32.51	32.30	32.11	31.95	32.36	32.87	33.06	33.10	32.97	32.83
20	32.68	32.54	32.48	32.29	32.11	31.95	32.50	32.87	33.06	33.10	32.95	32.83
21	32.67	32.53	32.50	32.28	32.11	31.94	32.67	32.86	33.06	33.10	32.94	32.82
22	32.66	32.55	32.45	32.27	32.10	31.94	32.81	32.85	33.06	33.10	32.94	32.84
23	32.65	32.54	32.44	32.27	32.09	31.94	32.89	32.85	33.06	33.10	32.95	32.87
24	32.65	32.55	32.44	32.27	32.09	31.92	32.94	32.85	33.06	33.10	32.96	32.86
25	32.64	32.56	32.42	32.25	32.08	31.91	32.96	32.85	33.06	33.09	32.95	32.86
26	32.66	32.57	32.41	32.25	32.08	31.93	33.01	32.85	33.06	33.07	32.94	32.88
27	32.69	32.58	32.43	32.24	32.07	31.94	33.03	32.85	33.06	33.07	32.93	32.87
28	32.64	32.60	32.46	32.22	32.10	31.94	33.00	32.85	33.06	33.07	32.92	32.84
29	32.64	32.58	32.41	32.22	---	31.92	32.94	32.85	33.06	33.06	32.92	32.84
30	32.63	32.57	32.39	32.21	---	31.91	32.97	32.87	33.06	33.06	32.92	32.90
31	32.64	---	32.39	32.21	---	31.95	---	32.92	---	33.06	32.92	---
MEAN	32.68	32.59	32.48	32.31	32.13	32.00	32.31	32.88	33.03	33.09	32.98	32.87
MAX	32.74	32.69	32.55	32.40	32.20	32.12	33.03	32.94	33.07	33.11	33.06	32.92
MIN	32.63	32.53	32.39	32.21	32.07	31.91	31.85	32.85	32.92	33.06	32.92	32.82
WTR YR 1985 MEAN		32.62		MAX	33.11	MIN	31.85					

ACID DEPOSITION RECORDS

VANDERCOOK LAKE

QUALITY OF SURFACE WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD) (00400)	TEMPERATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	ACIDITY (MG/L AS H) (71825)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CAC03) (90410)
455909089405602 - VANDERCOOK LAKE NEAR WOODRUFF, WI (LAT 45 59 09 LONG 089 40 56)												
OCT , 1984												
09...	1035	3.00	15	6.0	13.5	9.1	.2	1.3	.42	.70	.13	2.0
NOV												
08...	1140	3.00	16	6.1	5.0	--	.2	1.3	.39	1.0	.04	3.0
JAN , 1985												
09...	1304	3.00	14	5.9	4.0	9.7	.1	1.2	.46	.60	.24	3.0
FEB												
07...	1115	3.00	14	5.8	3.5	8.1	.2	1.3	.45	.70	.39	2.0
MAR												
19...	1133	3.00	17	5.8	4.0	6.5	.1	1.2	.43	.60	.22	4.0
APR												
25...	0955	3.00	14	5.8	9.5	10.0	.1	1.2	.35	.40	.35	3.0
JUN												
04...	1117	3.00	13	6.1	17.0	9.0	--	1.1	.35	.50	.34	3.0
JUL												
01...	1230	3.00	13	6.1	22.0	8.5	.1	1.2	.37	.60	.14	3.0
01...	1245	16.0	13	6.1	18.0	8.5	.1	1.3	.38	.70	.16	3.0
AUG												
06...	1107	3.00	14	6.3	23.0	7.6	.1	1.4	.48	.70	.14	2.0
SEP												
** 04...	1155	3.00	14	6.1	19.0	8.1	.1	1.4	.39	.70	.13	3.0
** 04...	1156	3.00	14	6.0	19.0	8.1	.1	1.4	.46	1.5	.16	3.0

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOSPHORUS, ORTHO DIS-SOLVED (MG/L AS P) (00671)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON ORGANIC, DIS-SOLVED (MG/L AS C) (00681)
------	--	---	--	---	--	--	--	--	---	---------------------------------------	--	--

455909089405602 - VANDERCOOK LAKE NEAR WOODRUFF, WI (LAT 45 59 09 LONG 089 40 56)

OCT , 1984												
09...	3.9	.27	<.01	.6	9	<.01	.034	.001	10	7	3	4.1
NOV												
08...	3.9	.24	.03	.07	9	<.01	.007	.007	20	50	3	4.8
JAN , 1985												
09...	2.6	<.01	.01	.03	--	<.01	.127	<.001	20	7	6	4.3
FEB												
07...	4.7	.27	.47	.04	10	.02	.160	<.001	40	5	8	4.6
MAR												
19...	4.4	.25	.05	.03	10	.04	.091	.005	20	7	9	4.4
APR												
25...	3.4	.27	.04	<.01	--	.06	.086	<.001	50	7	12	5.2
JUN												
04...	4.4	.27	.03	<.01	--	<.01	.036	<.001	10	<3	1	5.4
JUL												
01...	3.8	.24	.02	<.01	--	<.01	.038	<.001	<10	4	<1	7.9
01...	3.7	.22	.04	<.01	--	<.01	.038	<.001	<10	4	<1	6.3
AUG												
06...	3.9	.25	.03	<.01	--	.01	.013	<.001	10	12	1	4.0
SEP												
04...	3.9	.26	.05	<.01	--	<.01	.142	.004	10	4	2	3.6
04...	3.8	.23	.04	<.01	--	<.01	.009	.003	10	10	2	3.3

** SAMPLES WITH SAME DATES ARE REPLICATES.

ACID DEPOSITION RECORDS

387

VANDERCOOK LAKE

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

QUALITY OF PRECIPITATION

DATE	PRECIPITATION DAILY (IN) (00045)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD ARD UNITS) (00400)	ACIDITY (MG/L AS H) (71825)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTASSIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CAC03) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
455911089405903 - VANDERCOOK LK BULK PRECIP COLL NR WOODRUFF, WI (LAT 45 59 11 LONG 089 40 59)										
1984										
OCT 09 - NOV 06	2.73	20	4.4	.2	.27	.04	.70	.13	1.0	2.5
NOV 06 - NOV 30	.300	33	4.4	.2	1.1	.19	.40	.17	<1.0	4.8
NOV 30 - DEC 31	3.46	9	4.7	.2	.24	<.01	.40	.03	2.0	.5
1985										
JAN 01 - FEB 05	.320	20	4.4	.3	.34	.08	.20	.06	<1.0	1.4
FEB 05 - FEB 27	1.18	17	4.5	.2	.14	.07	<.20	.03	<1.0	1.4
FEB 27 - APR 02	4.03	7	5.2	.3	.45	.07	.40	.05	1.0	1.0
APR 02 - MAY 02	4.03	15	6.1	.1	.61	.14	.30	.08	3.0	2.0
MAY 02 - JUN 03	5.19	29	6.3	.2	1.0	.24	.50	.60	6.0	3.9
JUN 03 - JUL 01	2.64	15	6.2	.3	.83	.20	.40	.41	4.0	1.7
JUL 01 - AUG 02	3.40	16	4.8	.2	.63	.15	.20	.17	1.0	2.4
AUG 02 - AUG 30	3.89	19	4.5	.2	.24	.03	.20	.03	<1.0	2.7
AUG 30 - OCT 01	6.61	11	4.8	.1	.34	.14	.20	.08	1.0	1.3

460307089391203 - TROUT LK BULK PRECIP COLL NR BOULDER JCT, WI (LAT 46 03 07 LONG 089 39 12)

1984										
OCT 09 - NOV 06	2.41	22	4.4	.2	.34	.05	1.8	.15	1.0	2.6
NOV 06 - NOV 30	.46	31	4.3	.2	.99	.18	.50	.09	<1.0	4.3
NOV 30 - DEC 31	2.61	9	4.7	.2	.09	.04	<.20	.03	1.0	.4
1985										
JAN 01 - FEB 05	.81	16	4.4	.2	.23	.03	<.20	.04	<1.0	1.0
FEB 05 - FEB 27	1.23	18	4.5	.2	.12	.08	<.20	.06	<1.0	1.5
FEB 27 - APR 02	3.18	7	5.2	--	.44	.06	.40	.04	2.0	1.1
APR 02 - MAY 02	3.25	16	6.1	.2	.72	.09	.30	.06	2.0	3.0
MAY 02 - JUN 03	5.70	15	5.1	.2	.82	.17	<.20	.24	2.0	1.2
JUN 03 - JUL 01	2.86	15	5.7	.1	1.1	.24	.40	.26	2.0	2.7
JUL 01 - AUG 02	3.35	22	4.6	.4	.70	.15	.20	.11	<1.0	3.5
AUG 02 - AUG 30	3.64	21	4.4	.1	.31	.07	.20	.04	<1.0	2.0
AUG 30 - OCT 01	7.08	10	4.9	.2	.34	.05	.30	.07	1.0	1.3

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	NITROGEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITROGEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOSPHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUMINUM, DIS- SOLVED (UG/L AS AL) (01106)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
------	---	--	--	---	---	--	---	---	--	---

455911089405903 - VANDERCOOK LK BULK PRECIP COLL NR WOODRUFF, WI (LAT 45 59 11 LONG 089 40 59)

1984										
OCT 09 - NOV 06	.13	<.01	.02	.36	.357	.008	20	6	4	1.6
NOV 06 - NOV 30	.60	.02	.04	1.0	.934	.018	40	20	29	3.7
NOV 30 - DEC 31	.10	.01	<.01	.14	.127	.001	20	<3	1	1.1
1985										
JAN 01 - FEB 05	.34	<.01	<.01	.30	.170	<.001	60	9	5	3.0
FEB 05 - FEB 27	.06	<.01	<.01	.43	.176	<.001	<10	6	1	2.1
FEB 27 - APR 02	.06	.02	<.01	.20	.152	.009	10	6	4	2.2
APR 02 - MAY 02	.26	.10	.02	1.5	.989	.005	40	5	6	2.2
MAY 02 - JUN 03	.68	.13	<.01	.60	2.00	.248	20	6	5	3.8
JUN 03 - JUL 01	.15	.03	.01	.30	.793	.039	10	<3	4	6.9
JUL 01 - AUG 02	.08	.01	<.01	.35	--	<.001	60	7	12	2.9
AUG 02 - AUG 30	.07	.01	<.01	.33	.341	.026	10	9	3	1.4
AUG 30 - OCT 01	.04	<.01	<.01	.22	.238	<.001	10	6	3	12

460307089391203 - TROUT LK BULK PRECIP COLL NR BOULDER JCT, WI (LAT 46 03 07 LONG 089 39 12)

1984										
OCT 09 - NOV 06	.10	.02	.08	.38	.415	.008	10	4	2	1.6
NOV 06 - NOV 30	.18	.02	.01	.84	1.40	.011	10	10	9	2.8
NOV 30 - DEC 31	<.01	<.01	<.01	.08	.138	<.001	20	6	<1	7.0
1985										
JAN 01 - FEB 05	.13	<.01	<.01	.45	.133	<.001	80	7	3	1.6
FEB 05 - FEB 27	.07	<.01	<.01	.46	.193	.004	<10	5	<1	1.7
FEB 27 - APR 02	.06	.01	<.01	.21	.250	.002	10	<3	3	3.2
APR 02 - MAY 02	.25	.20	.02	1.6	2.60	.006	30	5	4	2.6
MAY 02 - JUN 03	1.4	.03	.01	.01	.498	.006	10	<3	11	3.9
JUN 03 - JUL 01	.15	.01	.05	.36	.408	<.001	<10	<3	14	5.7
JUL 01 - AUG 02	.10	.02	<.01	.43	--	<.001	20	10	8	2.6
AUG 02 - AUG 30	.16	.02	<.01	.34	.305	.030	10	7	3	1.5
AUG 30 - OCT 01	.05	<.01	<.01	.21	.272	.076	20	<3	2	1.6

ACID DEPOSITION RECORDS
VANDERCOOK LAKE
WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
QUALITY OF GROUND WATER

STATION NUMBER	LOCAL IDENTIFIER	GEO-LOGIC UNIT	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	ACIDITY (MG/L AS H) (71825)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
VILAS									
455901089412020	VI-41/06E/36-0875		110QRNR 10-09-84	11.00	16	5.7	15.0	.3	1.1
			110QRNR 11-06-84	11.00	20	6.1	11.0	.2	1.2
			110QRNR 01-09-85**	11.00	15	6.0	3.5	.6	1.1
			110QRNR 01-09-85**	11.00	15	5.9	3.5	.4	1.2
			110QRNR 02-07-85	11.00	16	5.9	3.0	.4	1.3
			110QRNR 03-19-85	11.00	17	5.8	3.5	.3	1.3
			110QRNR 04-25-85	11.00	20	5.8	7.5	.4	1.5
			110QRNR 06-04-85	11.00	14	5.7	14.0	.2	1.1
			110QRNR 07-01-85	11.00	14	5.9	15.5	--	--
			110QRNR 08-06-85	11.00	17	5.7	17.5	.2	1.1
			110QRNR 09-04-85	11.00	15	5.7	17.5	.1	.95
			110QRNR 10-09-84	8.00	62	6.4	11.0	.2	6.2
			110QRNR 11-06-84	8.00	69	6.5	9.5	.2	6.2
			110QRNR 04-25-85	8.00	50	6.4	3.5	.2	5.7
110QRNR 06-04-85	8.00	53	6.3	8.0	.4	5.7			
455903089404720	VI-41/06E/36-0872		110QRNR 07-01-85**	8.00	54	6.5	9.5	.3	6.2
			110QRNR 07-01-85**	8.00	55	6.5	9.5	.2	6.0
			110QRNR 08-06-85	8.00	60	6.4	11.0	.2	6.5
			110QRNR 09-04-85	8.00	61	6.4	11.5	.2	6.4

STATION NUMBER	DATE OF SAMPLE	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKALINITY LAB AS (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITROGEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	
VILAS												
455901089412020	10-09-84	.35	.70	.40	6.0	.6	.25	<.01	1.8	10	<.01	
	11-06-84	.33	1.6	.40	6.0	1.0	.32	.02	1.4	11	<.01	
	01-09-85	.41	.50	.23	5.0	1.2	<.01	.03	.9	--	<.01	
	01-09-85	.37	.40	.34	5.0	1.5	.10	.01	1.0	9	.03	
	02-07-85	.43	.70	.21	4.0	3.1	.33	.10	1.0	11	<.01	
	03-19-85	.45	.70	.32	5.0	2.6	.32	.06	1.0	11	<.01	
	04-25-85	.47	.80	.28	4.0	3.5	.27	.04	.7	11	.01	
	06-04-85	.39	.50	.31	5.0	.5	.22	.03	.8	8	<.01	
	07-01-85	--	--	--	--	--	--	--	--	--	--	
	08-06-85	.37	.60	.45	5.0	.6	.26	.03	1.5	9	.01	
	455903089404720	09-04-85	.22	.60	.42	4.0	.7	.25	.02	1.4	8	<.01
		10-09-84	2.2	2.4	.50	22	8.2	.31	.07	17	50	.04
		11-06-84	2.2	2.4	.18	23	8.0	.34	.07	17	50	.05
		04-25-85	2.1	1.8	.37	21	8.9	.41	.24	13	45	<.10
06-04-85		2.1	2.0	.43	20	.7	.32	.37	15	39	<.01	
07-01-85		2.2	2.2	.33	22	7.1	.27	.07	16	48	.05	
07-01-85		2.2	2.1	.35	21	6.6	.28	.06	16	47	.06	
08-06-85		2.3	2.2	.40	22	8.0	.32	.08	17	50	.07	
09-04-85		2.2	2.3	.46	22	7.2	.30	.07	17	50	.06	

** SAMPLES WITH THE SAME DATES ARE REPLICATES.

ACID DEPOSITION RECORDS
 VANDERCOOK LAKE
 WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
 QUALITY OF GROUND WATER

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
		(00631)	(00608)	(00671)	(01106)	(01046)	(01056)	(00681)
VILAS								
455901089412020	10-09-84	--	.309	.002	110	830	13	4.1
	11-06-84	--	.264	.010	80	590	16	3.3
	01-09-85	--	.164	<.001	90	750	16	3.4
	01-09-85	--	.176	<.001	100	770	15	3.6
	02-07-85	--	.207	.012	240	690	15	4.1
	03-19-85	--	.006	<.001	100	610	15	3.8
	04-25-85	--	.210	<.001	140	780	16	5.0
	06-04-85	--	.119	.002	100	660	13	4.5
	07-01-85	--	.195	.006	--	--	--	4.6
	08-06-85	--	.258	<.001	130	790	15	4.1
	09-04-85	--	.372	.013	140	700	11	3.9
	10-09-84	--	.030	<.001	10	14	9	1.70
	11-06-84	--	<.001	.007	20	8	13	1.2
455903089404720	04-25-85	--	.002	<.001	40	56	50	4.0
	06-04-85	--	.003	<.001	10	30	11	2.9
	07-01-85	--	.009	.002	<10	55	5	2.0
	07-01-85	--	<.001	<.010	<10	75	7	5.4
	08-06-85	--	<.001	<.001	20	58	4	1.4
	09-04-85	--	.134	.009	20	120	7	1.0

ACID DEPOSITION RECORDS

STAGE RECORDS

455946089415702 LITTLE ROCK LAKE NEAR WOODRUFF, WI

LOCATION.--Lat 45°59'46", long 89°41'57", in NW 1/4 NW 1/4 sec.36, T.41 N., R.6 E., Vilas County, Hydrologic Unit 07070001, 7 mi north of Woodruff, 800 ft west of U.S. Highway 57, and 200 ft southeast of boat landing.

DRAINAGE AREA.--0.22 mi². Area of lake, 0.07 mi².

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,600.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Lake does not have surface inlet or outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed gage height, 27.88 ft, Dec. 16, 1983; minimum observed gage height, 27.12 ft, July 31, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum observed gage height, 27.83 ft, June 1; minimum observed gage height, 27.22 ft, Aug. 25-26.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.31	27.36	27.23	27.36	27.28	27.31	27.52	27.75	27.83	27.64	27.46	27.36
2	27.29	27.35	27.25	27.36	27.27	27.31	27.51	27.74	27.82	27.65	27.44	27.36
3	27.28	27.34	27.28	27.35	27.27	27.31	27.53	27.73	27.80	27.63	27.43	27.44
4	27.27	27.33	27.28	27.35	27.27	27.37	27.53	27.73	27.79	27.66	27.41	27.45
5	27.26	27.33	27.27	27.35	27.27	27.39	27.52	27.73	27.78	27.72	27.40	27.45
6	27.26	27.32	27.28	27.34	27.27	27.39	27.51	27.72	27.76	27.73	27.40	27.44
7	27.27	27.31	27.28	27.34	27.27	27.38	27.50	27.72	27.76	27.71	27.38	27.45
8	27.33	27.31	27.28	27.34	27.26	27.38	27.50	27.71	27.77	27.71	27.36	27.50
9	27.33	27.31	27.27	27.33	27.26	27.37	27.50	27.70	27.77	27.71	27.37	27.50
10	27.33	27.30	27.27	27.33	27.26	27.37	27.49	27.76	27.75	27.73	27.44	27.48
11	27.32	27.29	27.26	27.32	27.28	27.38	27.49	27.76	27.74	27.71	27.42	27.47
12	27.32	27.29	27.26	27.32	27.28	27.41	27.51	27.76	27.71	27.69	27.42	27.45
13	27.31	27.28	27.26	27.33	27.28	27.41	27.59	27.74	27.69	27.68	27.44	27.43
14	27.31	27.27	27.26	27.33	27.27	27.41	27.60	27.74	27.68	27.67	27.42	27.42
15	27.30	27.28	27.26	27.33	27.27	27.40	27.60	27.75	27.67	27.65	27.40	27.41
16	27.30	27.26	27.30	27.33	27.26	27.39	27.61	27.75	27.67	27.63	27.39	27.39
17	27.36	27.26	27.33	27.33	27.26	27.39	27.62	27.75	27.69	27.62	27.39	27.38
18	27.35	27.26	27.32	27.32	27.26	27.38	27.63	27.75	27.69	27.63	27.41	27.37
19	27.36	27.25	27.32	27.32	27.27	27.38	27.65	27.74	27.68	27.64	27.39	27.37
20	27.35	27.25	27.31	27.32	27.27	27.38	27.66	27.72	27.66	27.62	27.38	27.37
21	27.34	27.23	27.33	27.31	27.30	27.38	27.69	27.71	27.67	27.60	27.37	27.36
22	27.33	27.23	27.36	27.31	27.30	27.38	27.70	27.70	27.72	27.58	27.36	27.35
23	27.31	27.23	27.36	27.31	27.30	27.38	27.75	27.68	27.71	27.55	27.43	27.41
24	27.30	27.23	27.35	27.31	27.31	27.38	27.78	27.66	27.69	27.55	27.44	27.50
25	27.30	27.22	27.35	27.30	27.31	27.38	27.79	27.66	27.68	27.57	27.44	27.48
26	27.31	27.22	27.36	27.30	27.31	27.38	27.78	27.73	27.67	27.56	27.43	27.48
27	27.32	27.23	27.35	27.30	27.31	27.40	27.77	27.72	27.69	27.54	27.42	27.47
28	27.35	27.24	27.36	27.30	27.31	27.41	27.77	27.71	27.68	27.53	27.41	27.46
29	27.33	27.24	27.36	27.29	---	27.43	27.77	27.70	27.67	27.51	27.41	27.49
30	27.33	27.24	27.36	27.29	---	27.43	27.76	27.78	27.65	27.49	27.39	27.58
31	27.33	---	27.36	27.28	---	27.47	---	27.82	---	27.48	27.38	---
MEAN	27.31	27.28	27.31	27.32	27.28	27.38	27.62	27.73	27.72	27.63	27.41	27.44
MAX	27.36	27.36	27.36	27.36	27.31	27.47	27.79	27.82	27.83	27.73	27.46	27.58
MIN	27.26	27.22	27.23	27.28	27.26	27.31	27.49	27.66	27.65	27.48	27.36	27.35
CAL YR 1984	MEAN	27.51	MAX	27.87	MIN	27.12						
WTR YR 1985	MEAN	27.45	MAX	27.83	MIN	27.22						

ACID DEPOSITION RECORDS

391

GROUND-WATER LEVELS

455958089420501 WELL VI-41/06E/26-0895

LOCATION.--Lat 45°59'58", long 89°42'05", in NE 1/4 SE 1/4 SE 1/4 sec.2, T.41 N., R.6 E., Vilas County, Hydrologic Unit 07070001, 0.5 mi northeast of Little Rock Lake, about 7 mi north of Woodruff.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Augered water-table observation well, diameter 3 in., depth 22 ft, cased to 20 ft, screened 20-22 ft.

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,600.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.-- Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed water level, 26.51 ft, June 8, 9, 1985; minimum observed water level, 25.11 ft, Mar. 21, 25, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum observed water level, 26.51 ft, June 8, 9; minimum observed water level, 25.11 ft, Mar. 21, 25.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.11	26.16	26.25	26.25	26.07	25.98	25.87	26.12	26.37	26.12	25.69	25.58
2	26.11	26.16	26.27	26.25	26.07	25.98	25.87	26.13	26.36	26.11	25.68	25.58
3	26.12	26.13	26.27	26.26	26.07	25.97	25.86	26.16	26.34	26.09	25.67	25.59
4	26.10	26.13	26.29	26.25	26.05	25.97	25.86	26.18	26.33	26.09	25.67	25.60
5	26.10	26.13	26.29	26.24	26.04	25.98	25.87	26.20	26.33	26.08	25.66	25.60
6	26.08	26.13	26.29	26.22	26.04	25.96	25.87	26.21	26.32	26.06	25.66	25.61
7	26.07	26.13	26.30	26.22	26.03	25.96	25.87	26.23	26.31	26.05	25.65	25.63
8	26.06	26.11	26.30	26.20	26.02	25.95	25.86	26.24	26.34	26.03	25.66	25.64
9	26.06	26.10	26.30	26.19	26.02	25.95	25.88	26.26	26.32	26.03	25.68	25.64
10	26.07	26.10	26.30	26.19	26.02	25.95	25.90	26.28	26.32	26.01	25.68	25.63
11	26.09	26.09	26.30	26.18	26.02	25.94	25.92	26.29	26.31	26.00	25.68	25.61
12	26.10	26.08	26.30	26.17	26.01	25.93	25.95	26.30	26.32	25.99	25.68	25.60
13	26.13	26.08	26.30	26.15	26.02	25.96	25.97	26.31	26.32	25.97	25.67	25.60
14	26.15	26.09	26.32	26.15	26.01	25.98	25.98	26.32	26.30	25.96	25.67	25.61
15	26.15	26.08	26.32	26.17	26.00	25.98	25.99	26.33	26.29	25.96	25.66	25.61
16	26.17	26.07	26.30	26.16	26.00	25.95	26.01	26.35	26.29	25.94	25.66	25.61
17	26.17	26.07	26.30	26.16	26.01	25.95	26.03	26.36	26.29	25.93	25.65	25.61
18	26.17	26.07	26.30	26.15	26.01	25.95	26.04	26.37	26.29	25.92	25.65	25.61
19	26.17	26.07	26.30	26.14	26.02	25.95	26.04	26.38	26.26	25.91	25.64	25.61
20	26.17	26.10	26.29	26.12	26.01	25.95	26.04	26.39	26.25	25.89	25.64	25.61
21	26.18	26.10	26.31	26.13	26.01	25.95	26.05	26.40	26.24	25.88	25.63	25.60
22	26.19	26.08	26.31	26.12	26.02	25.93	26.06	26.40	26.24	25.86	25.63	25.60
23	26.19	26.12	26.31	26.11	26.02	25.92	26.08	26.39	26.23	25.85	25.62	25.58
24	26.20	26.15	26.31	26.13	26.00	25.92	26.09	26.41	26.21	25.83	25.61	25.57
25	26.20	26.17	26.31	26.11	25.99	25.90	26.08	26.41	26.18	25.81	25.61	25.58
26	26.20	26.18	26.31	26.09	25.99	25.90	26.09	26.40	26.18	25.80	25.60	25.58
27	26.20	26.19	26.30	26.09	25.99	25.90	26.10	26.38	26.18	25.78	25.59	25.58
28	26.20	26.23	26.29	26.11	25.98	25.90	26.10	26.37	26.15	25.77	25.59	25.59
29	26.16	26.25	26.27	26.08	25.98	25.89	26.08	26.37	26.14	25.75	25.58	25.59
30	26.16	26.25	26.27	26.07	---	25.88	26.12	26.37	26.13	25.73	25.58	25.59
31	26.16	---	26.25	26.07	---	25.87	---	26.37	---	25.71	25.58	---
MEAN	26.14	26.13	26.29	26.16	26.02	25.94	25.98	26.31	26.27	25.93	25.64	25.60
MAX	26.20	26.25	26.32	26.26	26.07	25.98	26.12	26.41	26.37	26.12	25.69	25.64
MIN	26.06	26.07	26.25	26.07	25.98	25.87	25.86	26.12	26.13	25.71	25.58	25.57

ACID DEPOSITION RECORDS

GROUND-WATER LEVELS

455958089420501 WELL VI-41/06E/26-0895

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.59	25.55	25.44	25.37	25.28	25.17	25.22	26.38	26.47	26.37	26.14	25.90
2	25.59	25.55	25.44	25.37	25.28	25.15	25.24	26.40	26.47	26.37	26.13	25.89
3	25.59	25.56	25.44	25.37	25.27	25.15	25.25	26.42	26.47	26.36	26.12	25.89
4	25.58	25.58	25.43	25.37	25.26	25.18	25.26	26.44	26.48	26.37	26.11	25.89
5	25.56	25.58	25.43	25.38	25.26	25.16	25.27	26.46	26.49	26.37	26.11	25.89
6	25.56	25.56	25.42	25.38	25.26	25.14	25.28	26.46	26.49	26.37	26.09	25.89
7	25.56	25.56	25.43	25.37	25.25	25.15	25.28	26.46	26.49	26.37	26.07	25.88
8	25.56	25.56	25.42	25.36	25.24	25.15	25.28	26.46	26.51	26.38	26.06	25.88
9	25.55	25.56	25.41	25.36	25.24	25.13	25.28	26.46	26.51	26.37	26.04	25.88
10	25.55	25.55	25.41	25.36	25.23	25.13	25.29	26.47	26.49	26.36	26.03	25.88
11	25.54	25.54	25.41	25.35	25.23	25.13	25.29	26.48	26.48	26.36	26.03	25.88
12	25.54	25.54	25.41	25.35	25.23	25.13	25.30	26.49	26.48	26.36	26.02	25.88
13	25.54	25.54	25.39	25.36	25.23	25.13	25.32	26.47	26.48	26.36	26.02	25.87
14	25.55	25.54	25.39	25.35	25.23	25.13	25.36	26.47	26.48	26.36	26.02	25.87
15	25.55	25.54	25.38	25.34	25.23	25.13	25.42	26.48	26.48	26.35	26.01	25.87
16	25.55	25.53	25.39	25.34	25.23	25.13	25.47	26.48	26.47	26.32	26.00	25.87
17	25.55	25.52	25.39	25.34	25.21	25.13	25.54	26.48	26.46	26.31	26.00	25.87
18	25.55	25.51	25.38	25.34	25.21	25.12	25.60	26.49	26.46	26.30	25.95	25.86
19	25.60	25.51	25.39	25.33	25.20	25.12	25.66	26.49	26.44	26.30	25.99	25.86
20	25.59	25.49	25.40	25.32	25.19	25.12	25.73	26.47	26.44	26.29	25.97	25.86
21	25.58	25.49	25.40	25.32	25.19	25.11	25.82	26.45	26.44	26.29	25.96	25.86
22	25.56	25.49	25.40	25.31	25.18	25.11	25.90	26.44	26.45	26.27	25.95	25.86
23	25.55	25.48	25.39	25.31	25.18	25.11	25.98	26.43	26.42	26.26	25.95	25.86
24	25.55	25.48	25.39	25.31	25.18	25.11	26.06	26.43	26.41	26.25	25.95	25.87
25	25.55	25.47	25.39	25.30	25.17	25.11	26.12	26.42	26.41	26.24	25.95	25.87
26	25.55	25.47	25.38	25.29	25.17	25.12	26.18	26.43	26.41	26.22	25.95	25.87
27	25.55	25.46	25.38	25.29	25.17	25.14	26.23	26.43	26.41	26.21	25.94	25.87
28	25.55	25.46	25.40	25.29	25.17	25.15	26.27	26.43	26.39	26.20	25.94	25.88
29	25.55	25.46	25.38	25.29	---	25.16	26.32	26.43	26.39	26.19	25.94	25.88
30	25.55	25.45	25.37	25.28	---	25.17	26.36	26.45	26.38	26.17	25.93	25.90
31	25.54	---	25.37	25.28	---	25.21	---	26.47	---	26.16	25.92	---
MEAN	25.56	25.52	25.40	25.33	25.22	25.14	25.62	26.45	26.45	26.31	26.01	25.88
MAX	25.60	25.58	25.44	25.38	25.28	25.21	26.36	26.49	26.51	26.38	26.14	25.90
MIN	25.54	25.45	25.37	25.28	25.17	25.11	25.22	26.38	26.38	26.16	25.92	25.86
CAL YR 1984	MEAN	25.86	MAX	26.41	MIN	25.37						
WTR YR 1985	MEAN	25.74	MAX	26.51	MIN	25.11						

ACID DEPOSITION RECORDS

393

STAGE RECORDS

461342091561002 ROUND LAKE NEAR GORDON, WI

LOCATION.--Lat 46°13'42", long 91°56'10", in NE 1/4 NE 1/4 NW 1/4 sec.12, T.43 N., R.13 W., Douglas County, Hydrologic Unit 07030001, at north end of lake, 6.5 mi west of Gordon.

DRAINAGE AREA.--0.20 mi². Area of lake, 0.053 mi².

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,000.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Lake does not have surface inlet or outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed gage height, 46.43 ft, Sept. 24, 1984, and Oct. 19, 20, 1985; minimum observed gage height, 43.63 ft, July 21-28, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum observed gage height, 46.43 ft, Oct. 19, 20; minimum observed gage height, 45.87 ft, June 24, 25.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.35	46.37	46.24	46.21	46.07	45.95	46.06	46.03	46.04	46.08	46.02	45.97
2	46.34	46.37	46.23	46.21	46.07	45.94	46.05	46.02	46.03	46.07	46.00	46.00
3	46.33	46.37	46.22	46.21	46.06	45.94	46.05	46.00	46.02	46.06	45.99	46.19
4	46.32	46.37	46.21	46.21	46.06	46.04	46.05	45.98	46.00	46.10	45.97	46.19
5	46.32	46.37	46.20	46.21	46.05	46.06	46.04	45.98	46.00	46.12	45.98	46.18
6	46.32	46.37	46.17	46.20	46.04	46.05	46.04	45.99	45.98	46.11	45.98	46.17
7	46.31	46.36	46.15	46.20	46.04	46.05	46.02	45.99	45.97	46.10	45.98	46.16
8	46.34	46.35	46.20	46.20	46.04	46.04	46.01	45.98	45.97	46.09	45.97	46.21
9	46.34	46.35	46.20	46.20	46.03	46.03	46.00	45.97	45.96	46.08	45.97	46.23
10	46.33	46.35	46.19	46.19	46.04	46.03	45.99	45.97	45.96	46.07	45.98	46.23
11	46.33	46.34	46.20	46.19	46.04	46.02	45.99	45.98	45.95	46.05	45.98	46.22
12	46.33	46.33	46.20	46.18	46.02	46.01	45.99	45.99	45.93	46.05	46.01	46.20
13	46.32	46.29	46.20	46.18	46.01	46.00	46.02	46.00	45.92	46.04	46.06	46.18
14	46.32	46.28	46.20	46.17	45.99	46.00	46.02	46.00	45.92	46.03	46.04	46.17
15	46.32	46.27	46.20	46.17	45.99	46.00	46.01	46.02	45.92	46.01	46.04	46.15
16	46.33	46.26	46.26	46.16	45.99	45.99	46.00	46.05	45.92	46.00	46.02	46.14
17	46.37	46.25	46.26	46.16	45.98	45.99	46.00	46.05	45.91	46.00	46.02	46.14
18	46.37	46.22	46.25	46.15	45.99	45.98	46.00	46.04	45.92	46.07	46.00	46.15
19	46.43	46.22	46.25	46.15	45.99	45.98	46.00	46.02	45.91	46.09	45.99	46.15
20	46.43	46.22	46.24	46.14	45.99	45.97	46.00	46.00	45.91	46.08	45.98	46.17
21	46.41	46.22	46.24	46.14	45.98	45.96	46.03	45.99	45.90	46.06	45.97	46.15
22	46.41	46.22	46.23	46.13	45.97	45.96	46.04	45.98	45.89	46.05	45.98	46.17
23	46.41	46.22	46.23	46.13	45.96	45.96	46.09	45.97	45.88	46.02	46.02	46.20
24	46.40	46.22	46.23	46.12	45.96	45.98	46.11	45.96	45.87	46.01	46.02	46.25
25	46.39	46.22	46.22	46.12	45.95	45.98	46.10	45.96	45.87	46.01	46.02	46.23
26	46.39	46.23	46.22	46.11	45.95	45.99	46.08	45.97	46.11	46.02	46.01	46.22
27	46.38	46.24	46.21	46.10	45.95	46.00	46.07	45.97	46.14	46.02	46.00	46.20
28	46.38	46.25	46.21	46.10	45.95	46.00	46.06	45.95	46.12	46.02	45.99	46.19
29	46.37	46.25	46.21	46.09	---	46.02	46.04	45.95	46.11	46.02	45.99	46.19
30	46.37	46.25	46.21	46.08	---	46.02	46.04	45.99	46.09	46.02	45.99	46.23
31	46.37	---	46.21	46.08	---	46.03	---	46.05	---	46.03	45.97	---
MEAN	46.36	46.29	46.22	46.16	46.01	46.00	46.03	45.99	45.97	46.05	46.00	46.17
MAX	46.43	46.37	46.26	46.21	46.07	46.06	46.11	46.05	46.14	46.12	46.06	46.25
MIN	46.31	46.22	46.15	46.08	45.95	45.94	45.99	45.95	45.87	46.00	45.97	45.97
CAL YR 1984	MEAN	45.80	MAX	46.43	MIN	45.13						
WTR YR 1985	MEAN	46.10	MAX	46.43	MIN	45.87						

ACID DEPOSITION RECORDS
PRECIPITATION QUANTITY

461342091561003 ROUND LAKE RAIN GAGE NEAR GORDON, WI

LOCATION.--Lat 46°13'42", long 91°56'10", in NE 1/4 NE 1/4 NW 1/4 sec.12, T.43 N., R.13 W., Douglas County,
Hydrologic Unit 07030001, at north end of lake, 6.5 mi west of Gordon.

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.12 in., July 3, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 2.11 in., June 26.

RAINFALL, ACCUMULATED (INCHES), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
SUMMATION VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02						---	.00	.00	.00	.00
2	.00	.00						.00	.00	.00	.00	1.56
3	.00	.00						.00	.00	.36	.00	.95
4	.00	.00						.00	.01	.24	.00	.00
5	.00	.00						.00	.00	.00	.06	.00
6	.00	.00						.45	.00	.00	.00	.00
7	.26	.01						.00	.01	.00	.00	.00
8	.03	.01						.00	.39	.00	.19	.76
9	.00	.00						.01	.00	.04	.23	.00
10	.00	.00						.01	.00	.00	.00	.02
11	.00	.00						.15	.00	.00	.00	.00
12	.05	.00						.06	.00	.00	1.81	.00
13	.00	---						.00	.04	.00	.00	.00
14	.00	---						.42	.00	.00	.00	.00
15	.13	---						.16	.02	.00	.00	.00
16	.65	---						.22	.00	.00	.00	.02
17	.02	---						.00	.11	.39	.22	.00
18	.38	---						.00	.04	.68	.00	.00
19	.52	---						.00	.00	.00	.00	.33
20	.00	---						.00	.05	.00	.00	.00
21	.01	---						.00	.00	.00	.00	.12
22	.08	---						.00	.03	.00	.72	.23
23	.00	---						.00	.00	.00	.08	1.21
24	.01	---						.00	.00	.81	.00	.00
25	.11	---						.39	1.20	.00	.00	.00
26	.00	---						.00	2.11	.00	.00	.00
27	.20	---						.00	.00	.03	.00	.00
28	.00	---						.00	.00	.00	.00	.08
29	.00	---						.81	.00	.00	.04	.36
30	.28	---						.33	.00	.01	.00	.36
31	.25	---						.47	---	.00	.01	---
TOTAL	2.99	---						---	4.01	2.56	3.36	6.00

ACID DEPOSITION RECORDS

PRECIPITATION QUANTITY

461423091560303 ROUND LAKE RAIN GAGE AT WELL 51R NEAR GORDON, WI

LOCATION.--Lat 46°14'23", long 91°56'03", in NW 1/4 SW 1/4 NE 1/4 sec.1, T.43 N., R.13 W., Douglas County, Hydrologic Unit 07030001, 0.80 mi north of lake, 6.5 mi west of Gordon.

PERIOD OF RECORD.--May to September 1985.

GAGE.--Water-stage recorder.

REMARKS.--Records good.

EXTREMES FOR CURRENT PERIOD.--Maximum daily rainfall, 2.43 in., June 26.

RAINFALL, ACCUMULATED (INCHES), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
SUMMATION VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	.03	.09	.00	.00
2								---	.00	.24	.00	1.50
3								---	.00	.54	.00	1.05
4								---	.03	.24	.00	.00
5								---	.00	.00	.27	.00
6								---	.00	.00	.00	.00
7								---	.03	.03	.00	.00
8								.00	.45	.03	.15	1.11
9								.12	.00	.09	.42	.18
10								.03	.00	.00	.03	.06
11								.39	.00	.00	.00	.00
12								.33	.03	.00	2.28	.00
13								.00	.09	.00	.00	.00
14								.54	.00	.06	.00	.00
15								.24	.03	.03	.00	.00
16								.36	.06	.00	.00	.15
17								.03	.12	.48	.36	.00
18								.00	.06	.93	.00	.00
19								.03	.00	.00	.03	.36
20								.00	.06	.00	.00	.00
21								.00	.00	.00	.00	.12
22								.00	.12	.00	.63	.24
23								.00	.00	.00	.15	1.44
24								.00	.00	.93	.03	.00
25								.66	.99	.00	.00	.00
26								.00	2.43	.00	.00	.00
27								.00	.03	.00	.00	.00
28								.00	.03	.00	.00	.15
29								1.08	.00	.00	.09	.45
30								.36	.00	.03	.00	.48
31								.48	---	.00	.09	---
TOTAL								4.65	4.59	3.72	4.53	7.29
MEAN								.19	.15	.12	.15	.24
MAX								1.08	2.43	.93	2.28	1.50
MIN								.00	.00	.00	.00	.00
WTR YR 1985	TOTAL	24.78		MEAN	.17	MAX	2.43	MIN	.00			

ACID DEPOSITION RECORDS
 PRECIPITATION QUANTITY

461323091555003 ROUND LAKE RAIN GAGE AT WELL 55R NEAR GORDON, WI

LOCATION.--Lat 46°13'23", long 91°55'50", in SE 1/4 SW 1/4 NE 1/4 sec.12, T.43 N., R.13 W., Douglas County,
 Hydrologic Unit 07030001, 0.25 mi southeast of lake, 6.5 mi west of Gordon.

PERIOD OF RECORD.--May to September 1985.

GAGE.--Water-stage recorder.

REMARKS.--Records good.

EXTREMES FOR CURRENT PERIOD.--Maximum daily rainfall, 2.28 in., June 26.

RAINFALL, ACCUMULATED (INCHES), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
 SUMMATION VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	.00	.03	.00	.00
2								---	.00	.00	.03	1.74
3								---	.00	.54	.00	.75
4								---	.03	.36	.00	.00
5								---	.00	.00	.15	.00
6								---	.00	.00	.00	.00
7								---	.09	.03	.03	.00
8								---	.42	.00	.21	1.11
9								---	.00	.06	.33	.09
10								---	.00	.00	.00	.03
11								---	.00	.00	.00	.00
12								---	.00	.00	1.86	.00
13								---	.06	.00	.00	.00
14								.21	.00	.03	.00	.00
15								.21	.03	.00	.00	.00
16								.36	.06	.00	.00	.03
17								.00	.18	.45	.24	.00
18								.03	.06	.75	.00	.00
19								.00	.00	.00	.09	.39
20								.00	.06	.00	.09	.03
21								.00	.00	.00	.06	.18
22								.00	.06	.00	.78	.27
23								.00	.00	.00	.15	1.14
24								.00	.00	.87	.03	.00
25								.42	.93	.00	.00	.00
26								.00	2.28	.00	.00	.00
27								.00	.00	.06	.00	.00
28								.00	.03	.00	.03	.15
29								.81	.00	.00	.06	.42
30								.33	.00	.03	.00	.45
31								.51	---	.00	.09	---
TOTAL								2.88	4.29	3.21	4.23	6.78
MEAN								.16	.14	.10	.14	.23
MAX								.81	2.28	.87	1.86	1.74
MIN								.00	.00	.00	.00	.00
WTR YR 1985	TOTAL	21.39	MEAN	.15	MAX	2.28	MIN	.00				

ACID DEPOSITION RECORDS

GROUND-WATER LEVELS

461423091560301 WELL DS-43/13W/01-0331

LOCATION.--Lat 46°14'23", long 91°56'03", in NW 1/4 SW 1/4 NE 1/4 sec.01, T.43 N., R.13 W., Douglas County, Hydrologic Unit 07030001, 0.80 mi north of Round Lake, about 6.5 mi west of Gordon.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Augered water-table observation well, diameter 3 in., depth 48 ft, cased to 45 ft, screened 45-48 ft.

PERIOD OF RECORD.--November 1984 to September 1985.

GAGE.--Water-stage recorder. Datum of gage is 1,000.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.-- Records good.

EXTREMES FOR CURRENT PERIOD.--Maximum observed water level, 56.83 ft, Nov. 13; minimum observed water level, 55.71 ft, June 3.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	56.54	56.38	56.22	56.05	55.83	55.58	55.75	55.93	56.05	56.17
2		---	56.53	56.37	56.21	55.99	55.82	55.58	55.72	55.95	56.06	56.16
3		---	56.53	56.36	56.20	55.96	55.83	55.59	55.71	55.97	56.07	56.19
4		---	56.50	56.40	56.18	56.03	55.80	55.62	55.72	56.00	56.09	56.18
5		---	56.52	56.39	56.20	55.99	55.79	55.63	55.73	56.00	56.10	56.18
6		---	56.51	56.42	56.22	55.94	55.78	55.60	55.74	55.98	56.11	56.20
7		---	56.56	56.40	56.18	55.97	55.75	55.58	55.78	55.99	56.10	56.17
8		---	56.56	56.34	56.15	55.96	55.72	55.57	55.81	56.00	56.10	56.16
9		---	56.54	56.32	56.15	55.93	55.72	55.60	55.82	55.98	56.11	56.16
10		---	56.51	56.32	56.16	55.92	55.75	55.61	55.80	55.95	56.10	56.14
11		---	56.54	56.30	56.14	55.93	55.73	55.64	55.79	55.96	56.09	56.12
12		---	56.54	56.33	56.14	55.90	55.72	55.65	55.80	55.97	56.11	56.11
13		56.83	56.48	56.41	56.14	55.90	55.72	55.60	55.82	55.99	56.13	56.09
14		56.76	56.45	56.39	56.14	55.88	55.72	55.59	55.84	55.99	56.11	56.08
15		56.73	56.47	56.32	56.13	55.86	55.72	55.61	55.86	55.98	56.11	56.10
16		56.64	56.54	56.31	56.16	55.87	55.70	55.62	55.87	55.98	56.12	56.15
17		56.62	56.49	56.35	56.12	55.85	55.70	55.59	55.89	55.98	56.14	56.18
18		56.59	56.44	56.35	56.10	55.85	55.73	55.61	55.89	56.00	56.14	56.16
19		56.58	56.48	56.30	56.08	55.86	55.72	55.65	55.87	56.00	56.13	56.14
20		56.55	56.49	56.27	56.09	55.84	55.71	55.64	55.88	55.99	56.12	56.12
21		56.56	56.51	56.28	56.09	55.84	55.69	55.61	55.92	56.01	56.12	56.09
22		56.59	56.48	56.27	56.07	55.85	55.68	55.61	55.93	56.01	56.14	56.12
23		56.60	56.44	56.31	56.05	55.85	55.68	55.63	55.90	56.02	56.16	56.14
24		56.62	56.42	56.33	56.04	55.84	55.67	55.65	55.87	56.05	56.16	56.13
25		56.63	56.41	56.29	56.03	55.81	55.64	55.67	55.88	56.04	56.14	56.09
26		56.64	56.39	56.27	56.03	55.84	55.61	55.70	55.92	56.02	56.14	56.09
27		56.62	56.43	56.29	56.00	55.89	55.60	55.69	55.93	56.03	56.14	56.09
28		56.62	56.49	56.26	56.04	55.87	55.60	55.68	55.91	56.05	56.15	56.07
29		56.59	56.45	56.25	---	55.84	55.60	55.70	55.91	56.04	56.16	56.04
30		56.56	56.38	56.23	---	55.78	55.60	55.73	55.91	56.04	56.17	56.04
31		---	56.36	56.22	---	55.82	---	55.78	---	56.05	56.17	---
MEAN		---	56.48	56.32	56.12	55.89	55.71	55.63	55.84	56.00	56.12	56.13
MAX		---	56.56	56.42	56.22	56.05	55.83	55.78	55.93	56.05	56.17	56.20
MIN		---	56.36	56.22	56.00	55.78	55.60	55.57	55.71	55.93	56.05	56.04

ACID DEPOSITION RECORDS
GROUND-WATER LEVELS

461342091561501 WELL DS-43/13W/12-0332

LOCATION.--Lat 46°13'42", long 91°56'15", in NW 1/4 NE 1/4 NW 1/4 sec.12, T.43 N., R.13 W., Douglas County, Hydrologic Unit 07030001, 100 ft northwest of Round Lake, about 6.5 mi west of Gordon.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Augered water-table observation well, diameter 3 in., depth 39 ft, cased to 36 ft, screened 36-39 ft.

PERIOD OF RECORD.--November 1984 to September 1985.

GAGE.--Water-stage recorder. Datum of gage is 1,000.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.-- Records good.

EXTREMES FOR CURRENT PERIOD.--Maximum observed water level, 46.36 ft, Nov. 14; minimum observed water level, 45.91 ft, June 24.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	46.24	46.20	46.10	46.00	46.06	46.02	46.02	46.06	46.03	46.02
2		---	46.26	46.17	46.10	45.97	46.10	46.03	46.00	46.06	46.03	46.04
3		---	46.24	46.19	46.09	45.99	46.08	46.03	46.00	46.07	46.03	46.12
4		---	46.23	46.20	46.09	46.08	46.07	46.06	46.01	46.08	46.02	46.15
5		---	46.25	46.20	46.12	46.00	46.07	46.02	46.00	46.08	46.02	46.17
6		---	46.24	46.20	46.10	46.04	46.05	46.02	46.01	46.07	46.02	46.16
7		---	46.28	46.17	46.06	46.07	46.01	46.01	46.02	46.09	46.01	46.15
8		---	46.24	46.13	46.06	46.03	46.01	46.02	46.02	46.10	46.01	46.16
9		---	46.24	46.14	46.08	46.02	46.02	46.03	46.00	46.12	46.01	46.20
10		---	46.22	46.14	46.07	46.03	46.04	46.02	45.97	46.11	46.00	46.19
11		---	46.27	46.13	46.06	46.03	46.00	46.04	45.97	46.09	46.00	46.19
12		---	46.21	46.18	46.06	46.00	46.00	46.04	45.96	46.09	46.03	46.18
13		46.35	46.17	46.21	46.07	46.02	46.02	45.99	45.97	46.09	46.06	46.17
14		46.36	46.19	46.12	46.05	45.99	46.02	45.98	45.96	46.07	46.05	46.18
15		46.34	46.22	46.12	46.06	46.00	46.03	46.00	45.96	46.05	46.06	46.19
16		46.30	46.27	46.14	46.07	46.00	45.99	46.00	45.95	46.04	46.05	46.20
17		46.30	46.22	46.16	46.03	45.98	46.04	46.00	45.96	46.05	46.07	46.19
18		46.29	46.24	46.13	46.03	46.02	46.03	46.02	45.94	46.07	46.05	46.17
19		46.27	46.28	46.10	46.03	46.02	46.02	46.03	45.93	46.08	46.03	46.18
20		46.26	46.25	46.11	46.04	46.00	46.02	45.98	45.94	46.08	46.02	46.16
21		46.27	46.29	46.14	46.03	46.02	46.02	45.97	45.96	46.08	46.02	46.17
22		46.29	46.23	46.17	46.01	46.02	46.02	45.97	45.94	46.06	46.02	46.20
23		46.28	46.23	46.19	46.01	46.03	46.05	45.97	45.92	46.05	46.06	46.21
24		46.29	46.22	46.19	46.00	46.01	46.06	45.97	45.91	46.05	46.05	46.22
25		46.29	46.21	46.13	46.00	46.02	46.06	45.98	45.92	46.05	46.04	46.22
26		46.29	46.21	46.17	45.99	46.06	46.04	45.98	45.98	46.05	46.04	46.22
27		46.29	46.25	46.16	45.99	46.06	46.05	45.96	46.03	46.06	46.04	46.23
28		46.29	46.26	46.13	46.04	46.05	46.05	45.96	46.04	46.06	46.04	46.20
29		46.27	46.18	46.13	---	46.02	46.05	45.98	46.04	46.03	46.04	46.20
30		46.26	46.17	46.11	---	46.03	46.04	46.01	46.05	46.03	46.04	46.23
31		---	46.19	46.12	---	46.08	---	46.04	---	46.03	46.05	---
MEAN		---	46.23	46.15	46.05	46.02	46.04	46.00	45.98	46.07	46.03	46.18
MAX		---	46.29	46.21	46.12	46.08	46.10	46.06	46.05	46.12	46.07	46.23
MIN		---	46.17	46.10	45.99	45.97	45.99	45.96	45.91	46.03	46.00	46.02

ACID DEPOSITION RECORDS

GROUND-WATER LEVELS

461342091554201 WELL DS-43/13W/12-0367

LOCATION.--Lat 46°13'42", long 91°55'42", in NW 1/4 NE 1/4 NE 1/4, sec.12, T.43 N., R.13 W., Douglas County, Hydrologic Unit 07030001, 0.25 mi northeast of Round Lake, about 6.5 mi west of Gordon.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Augered water-table observation well, diameter 3 in., depth 53 ft, cased to 50 ft, well screened 50-53 ft.

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,000.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed water level, 46.13 ft, Oct. 19, 1984; minimum observed water level, 43.08 ft, July 21, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum observed water level, 46.13 ft, Oct. 19; minimum observed water level, 45.39 ft, June 24, 25.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.09	46.10	45.92	45.85	45.70	45.60	45.61	45.53	45.50	45.53	45.48	45.53
2	46.10	46.08	45.93	45.84	45.70	45.57	45.63	45.53	45.49	45.54	45.48	45.54
3	46.08	46.12	45.92	45.84	45.68	45.57	45.63	45.53	45.48	45.54	45.48	45.63
4	46.07	46.09	45.91	45.85	45.67	45.66	45.62	45.55	45.48	45.56	45.48	45.64
5	46.06	46.06	45.92	45.84	45.69	45.59	45.61	45.53	45.48	45.55	45.48	45.66
6	46.06	46.05	45.91	45.85	45.69	45.60	45.60	45.52	45.48	45.54	45.47	45.67
7	46.07	46.06	45.95	45.83	45.66	45.64	45.57	45.50	45.48	45.54	45.46	45.66
8	46.08	46.06	45.91	45.79	45.65	45.62	45.55	45.50	45.49	45.54	45.45	45.66
9	46.07	46.05	45.90	45.79	45.65	45.61	45.56	45.49	45.48	45.53	45.45	45.68
10	46.06	46.02	45.88	45.79	45.66	45.61	45.58	45.49	45.46	45.52	45.46	45.69
11	46.06	46.01	45.92	45.78	45.65	45.61	45.55	45.51	45.46	45.51	45.45	45.68
12	46.07	46.00	45.88	45.81	45.64	45.59	45.54	45.51	45.45	45.51	45.49	45.68
13	46.08	46.00	45.85	45.84	45.65	45.60	45.56	45.47	45.45	45.51	45.54	45.68
14	46.09	46.03	45.85	45.79	45.65	45.58	45.56	45.48	45.45	45.49	45.54	45.67
15	46.09	46.02	45.87	45.77	45.64	45.58	45.55	45.50	45.45	45.48	45.54	45.67
16	46.08	45.97	45.93	45.78	45.66	45.59	45.52	45.50	45.45	45.47	45.54	45.68
17	46.07	45.97	45.88	45.80	45.63	45.57	45.55	45.50	45.45	45.47	45.55	45.69
18	46.08	45.97	45.89	45.78	45.63	45.59	45.56	45.51	45.44	45.50	45.54	45.67
19	46.13	45.95	45.93	45.76	45.62	45.59	45.54	45.52	45.42	45.51	45.52	45.67
20	46.10	45.94	45.91	45.75	45.62	45.57	45.54	45.49	45.42	45.51	45.51	45.67
21	46.10	45.94	45.94	45.75	45.62	45.57	45.54	45.46	45.44	45.52	45.51	45.66
22	46.09	45.96	45.89	45.74	45.61	45.58	45.54	45.46	45.43	45.50	45.51	45.69
23	46.09	45.95	45.88	45.76	45.60	45.58	45.56	45.46	45.40	45.50	45.55	45.70
24	46.10	45.96	45.87	45.76	45.60	45.58	45.57	45.46	45.39	45.52	45.56	45.71
25	46.10	45.96	45.86	45.72	45.59	45.57	45.57	45.46	45.39	45.52	45.54	45.71
26	46.11	45.96	45.86	45.73	45.58	45.61	45.56	45.47	45.47	45.50	45.54	45.72
27	46.12	45.96	45.89	45.73	45.59	45.63	45.55	45.45	45.52	45.50	45.54	45.72
28	46.07	45.96	45.91	45.70	45.62	45.62	45.55	45.45	45.53	45.51	45.53	45.71
29	46.08	45.95	45.85	45.70	---	45.58	45.55	45.46	45.53	45.50	45.54	45.71
30	46.07	45.94	45.84	45.70	---	45.56	45.55	45.49	45.53	45.49	45.54	45.73
31	46.09	---	45.84	45.70	---	45.62	---	45.53	---	45.49	45.54	---
MEAN	46.08	46.00	45.89	45.78	45.64	45.59	45.57	45.49	45.46	45.51	45.51	45.67
MAX	46.13	46.12	45.95	45.85	45.70	45.66	45.63	45.55	45.53	45.56	45.56	45.73
MIN	46.06	45.94	45.84	45.70	45.58	45.56	45.52	45.45	45.39	45.47	45.45	45.53
WTR YR 1985	MEAN	45.68	MAX	46.13	MIN	45.39						

ACID DEPOSITION RECORDS

GROUND-WATER LEVELS

461323091555001 WELL DS-43/13W/12-0393

LOCATION.--Lat 46°13'23", long 91°55'50", in SE 1/4 SW 1/4 NE 1/4 sec.12, T.43 N., R.13 W., Douglas County, Hydrologic Unit 07030001, 0.25 mi southeast of Round Lake, about 6.5 mi west of Gordon.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Augered water-table observation well, diameter 3 in., depth 48 ft, cased to 45 ft, screened 45-48 ft.

PERIOD OF RECORD.--May to September 1985.

GAGE.--Water-stage recorder. Datum of gage is 1,000.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.-- Records good.

EXTREMES FOR CURRENT PERIOD.--Maximum observed water level, 47.11 ft, Aug. 5, 6; minimum observed water level, 46.80 ft, June 2, 3.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	46.82	46.90	47.07	46.99
2								---	46.80	46.92	47.07	46.99
3								---	46.80	46.94	47.08	47.01
4								---	46.81	46.95	47.10	46.99
5								---	46.82	46.95	47.11	47.00
6								---	46.83	46.94	47.11	47.00
7								---	46.85	46.96	47.10	46.98
8								---	46.87	46.96	47.10	46.98
9								---	46.86	46.96	47.10	46.99
10								---	46.84	46.97	47.07	46.97
11								---	46.85	46.97	47.04	46.97
12								---	46.86	46.98	47.09	46.97
13								---	46.87	46.99	47.08	46.97
14								46.69	46.88	46.99	47.05	46.98
15								46.70	46.89	46.99	47.04	47.01
16								46.71	46.89	46.99	47.04	47.05
17								46.71	46.90	47.00	47.07	47.07
18								46.73	46.90	47.02	47.05	47.03
19								46.76	46.89	47.02	47.02	47.05
20								46.76	46.90	47.02	47.01	47.02
21								46.75	46.92	47.04	47.01	47.01
22								46.75	46.91	47.04	47.02	47.07
23								46.76	46.88	47.06	47.04	47.09
24								46.78	46.86	47.07	47.02	47.05
25								46.79	46.88	47.06	47.00	47.03
26								46.81	46.89	47.04	47.00	47.05
27								46.81	46.89	47.06	47.00	47.07
28								46.81	46.87	47.08	46.99	47.03
29								46.82	46.87	47.06	47.00	47.03
30								46.84	46.87	47.06	46.99	47.07
31								46.84	---	47.07	47.01	---
MEAN								---	46.87	47.00	47.05	47.02
MAX								---	46.92	47.08	47.11	47.09
MIN								---	46.80	46.90	46.99	46.97

ACID DEPOSITION RECORDS

401

STAGE RECORDS

462458091274402 EAST EIGHTMILE LAKE NEAR IRON RIVER, WI

LOCATION.--Lat 46°24'58", long 91°27'44", in NW 1/4 NE 1/4 NW 1/4 sec.2, T.45 N., R.9 W., Bayfield County, Hydrologic Unit 07030001, at south end of lake, 10.2 mi south of Iron River.

DRAINAGE AREA.--0.25 mi². Area of lake, 0.050 mi².

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,100.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Lake does not have surface inlet or outlet.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed gage height, 70.53 ft, Sept. 24, 25, 1985; minimum observed gage height, 66.54 ft, July 2, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum observed gage height, 70.53 ft, Sept. 24, 25; minimum observed gage height, 69.71 ft, Oct. 13-16.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69.73	69.78	69.76	69.80	69.77	69.73	69.94	69.92	70.11	70.16	70.18	70.30
2	69.73	69.78	69.76	69.80	69.77	69.73	69.94	69.92	70.09	70.18	70.17	70.30
3	69.73	69.77	69.76	69.80	69.76	69.72	69.94	69.91	70.08	70.18	70.17	70.44
4	69.73	69.77	69.76	69.80	69.76	69.84	69.94	69.91	70.07	70.17	70.15	70.45
5	69.73	69.77	69.76	69.80	69.76	69.87	69.94	69.91	70.05	70.18	70.15	70.45
6	69.73	69.77	69.76	69.80	69.76	69.86	69.94	69.91	70.04	70.21	70.15	70.45
7	69.72	69.76	69.76	69.80	69.76	69.86	69.93	69.91	70.04	70.21	70.15	70.44
8	69.72	69.76	69.76	69.80	69.76	69.85	69.92	69.90	70.05	70.19	70.15	70.42
9	69.72	69.76	69.76	69.80	69.76	69.85	69.92	69.88	70.04	70.18	70.15	70.42
10	69.72	69.76	69.76	69.80	69.75	69.84	69.92	69.89	70.02	70.16	70.17	70.41
11	69.72	69.76	69.77	69.80	69.75	69.84	69.92	69.92	70.01	70.15	70.17	70.39
12	69.72	69.75	69.77	69.78	69.75	69.83	69.92	69.93	69.99	70.14	70.21	70.38
13	69.71	69.75	69.77	69.78	69.75	69.83	69.93	69.94	69.99	70.14	70.27	70.36
14	69.71	69.75	69.77	69.78	69.73	69.82	69.93	69.93	69.98	70.14	70.27	70.36
15	69.71	69.75	69.77	69.78	69.74	69.82	69.93	69.95	69.98	70.13	70.25	70.35
16	69.71	69.75	69.81	69.78	69.74	69.81	69.94	69.99	69.98	70.12	70.25	70.35
17	69.77	69.75	69.83	69.78	69.73	69.81	69.94	70.01	69.97	70.13	70.24	70.35
18	69.77	69.75	69.83	69.78	69.73	69.81	69.94	70.01	69.98	70.24	70.23	70.36
19	69.78	69.74	69.83	69.78	69.73	69.81	69.96	70.01	69.98	70.26	70.21	70.36
20	69.78	69.74	69.83	69.78	69.73	69.80	69.96	69.98	69.98	70.26	70.21	70.44
21	69.78	69.73	69.83	69.78	69.73	69.79	69.96	69.97	69.98	70.25	70.21	70.43
22	69.78	69.73	69.83	69.78	69.73	69.79	69.97	69.96	69.98	70.22	70.22	70.43
23	69.78	69.73	69.83	69.78	69.73	69.79	69.98	69.95	69.98	70.21	70.32	70.46
24	69.77	69.73	69.82	69.78	69.73	69.82	69.99	69.94	69.97	70.22	70.33	70.53
25	69.76	69.73	69.81	69.78	69.73	69.82	69.99	69.94	69.95	70.24	70.33	70.53
26	69.76	69.73	69.81	69.78	69.74	69.84	69.98	70.02	70.14	70.24	70.33	70.51
27	69.77	69.74	69.80	69.77	69.74	69.85	69.97	70.02	70.19	70.23	70.33	70.49
28	69.79	69.75	69.80	69.77	69.73	69.85	69.96	70.01	70.19	70.23	70.32	70.49
29	69.78	69.76	69.80	69.77	---	69.87	69.95	70.01	70.19	70.21	70.32	70.49
30	69.78	69.76	69.80	69.77	---	69.87	69.94	70.02	70.17	70.20	70.31	70.52
31	69.78	---	69.80	69.77	---	69.90	---	70.10	---	70.20	70.30	---
MEAN	69.75	69.75	69.79	69.79	69.74	69.82	69.95	69.96	70.04	70.19	70.23	70.42
MAX	69.79	69.78	69.83	69.80	69.77	69.90	69.99	70.10	70.19	70.26	70.33	70.53
MIN	69.71	69.73	69.76	69.77	69.73	69.72	69.92	69.88	69.95	70.12	70.15	70.30
CAL YR 1984	MEAN	69.11	MAX	69.83	MIN	68.35						
WTR YR 1985	MEAN	69.95	MAX	70.53	MIN	69.71						

ACID DEPOSITION RECORDS
PRECIPITATION QUANTITY

462458091274403 EAST EIGHTMILE LAKE RAIN GAGE NEAR IRON RIVER, WI

LOCATION.--Lat 46°24'58", long 91°27'44", in NW 1/4 NE 1/4 NW 1/4 sec.2, T.45 N., R.9 W., Bayfield County,
Hydrologic Unit 07030001, at south end of lake, 10.2 mi south of Iron River.

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 3.06 in., July 9, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 3.00 in., June 26.

RAINFALL, ACCUMULATED (INCHES), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
SUMMATION VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00						---	.05	.48	.01	.02
2	.00	.00						---	.00	.00	.00	.87
3	.00	.00						---	.00	.00	.00	1.49
4	.00	.00						---	.10	.20	.06	.00
5	.00	.00						---	.12	.53	.11	.00
6	.00	.00						---	.00	.00	.00	.00
7	.24	.07						---	.24	.11	.00	.00
8	.02	.00						.01	.02	.00	.00	.23
9	.08	.00						.15	.00	.07	.70	.02
10	.09	.00						.07	.00	.03	.10	.01
11	.01	.00						.48	.00	.00	.00	.00
12	.02	.00						.00	.00	.00	1.50	.02
13	.00	.00						---	.00	.00	.09	.00
14	.00	.00						---	.00	.22	.00	.00
15	.23	---						.24	.00	.02	.08	.00
16	.87	---						.41	.28	.00	.00	.10
17	.14	---						.16	.18	1.47	.21	.07
18	.18	---						.00	.02	.98	.00	.00
19	.41	---						.00	.00	.00	.02	1.12
20	.01	---						.00	.02	.00	.03	.02
21	.12	---						.00	.06	.00	.00	.24
22	.04	---						.00	.17	.00	1.59	.24
23	.02	---						.00	.00	.00	.30	1.44
24	.00	---						.01	.00	1.03	.08	.01
25	.14	---						1.26	.05	.00	.00	.00
26	.01	---						.25	3.00	.00	.00	.00
27	.50	---						.00	.05	.03	.00	.00
28	.00	---						.00	.04	.00	.00	.08
29	.00	---						.64	.00	.00	.01	.45
30	.34	---						.12	.00	.03	.00	.60
31	.24	---						.99	---	.03	.02	---
TOTAL	3.71	---						---	4.40	5.23	4.91	7.03

ACID DEPOSITION RECORDS

403

PRECIPITATION QUANTITY

462457091273103 EAST EIGHTMILE LAKE RAIN GAGE AT WELL 45R NEAR IRON RIVER, WI

LOCATION.--Lat 46°24'57", long 91°27'31", in NE 1/4 NE 1/4 NW 1/4 sec.2, T.45 N., R.9 W., Bayfield County,
Hydrologic Unit 07030001, 300 ft southeast of lake, 10.2 mi south of Iron River.

PERIOD OF RECORD.--May to September 1985.

GAGE.--Water-stage recorder.

REMARKS.--Records good.

EXTREMES FOR CURRENT PERIOD.--Maximum daily rainfall, 2.97 in., June 26.

RAINFALL, ACCUMULATED (INCHES), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
SUMMATION VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	.00	.12	.00	.03
2								---	.00	.51	.00	.96
3								---	.00	.00	.00	1.44
4								---	.00	.21	.06	.00
5								---	.00	.66	.18	.00
6								---	.00	.03	.00	.00
7								.00	.00	.00	.00	.00
8								.00	.00	.00	.00	.21
9								.15	.03	.03	.69	.06
10								.09	.00	.03	.09	.00
11								.45	.00	.00	.00	.00
12								.21	.00	.00	.75	.00
13								.03	.00	.00	.06	.00
14								.45	.00	.18	.00	.00
15								.45	.00	.00	.06	.00
16								.45	.24	.00	.00	.06
17								.15	.18	1.38	.21	.06
18								.00	.00	1.02	.06	.00
19								.00	.00	.00	.06	1.23
20								.00	.03	.00	.00	.03
21								.00	.06	.00	.00	.24
22								.00	.15	.00	1.56	.24
23								.00	.00	.00	.36	1.50
24								.00	.00	1.05	.15	.03
25								1.44	.03	.00	.00	.00
26								.03	2.97	.00	.00	.00
27								.00	.00	.00	.00	.00
28								.00	.00	.00	.00	.06
29								.63	.00	.00	.03	.60
30								.18	.00	.06	.00	.63
31								.60	---	.03	.00	---
TOTAL								5.31	3.69	5.31	4.32	7.38
MEAN								.21	.12	.17	.14	.25
MAX								1.44	2.97	1.38	1.56	1.50
MIN								.00	.00	.00	.00	.00
WTR YR 1985	TOTAL	26.01	MEAN	.18	MAX	2.97	MIN	.00				

ACID DEPOSITION RECORDS
PRECIPITATION QUANTITY

462428091265803 EAST EIGHTMILE LAKE RAIN GAGE AT WELL 15R NEAR IRON RIVER, WI

LOCATION.--Lat 46°24'28", long 91°26'58", in NE 1/4 NE 1/4 SE 1/4 sec.2, T.45 N., R.9 W., Bayfield County,
Hydrologic Unit 07030001, 0.75 mi southeast of lake, 10.2 mi south of Iron River.

PERIOD OF RECORD.--May to September 1985.

GAGE.--Water-stage recorder.

REMARKS.--Records good.

EXTREMES FOR CURRENT PERIOD.--Maximum daily rainfall, 2.82 in., June 26.

RAINFALL, ACCUMULATED (INCHES), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
SUMMATION VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	.00	.45	---	.03
2								---	.03	.00	---	1.17
3								---	.00	.00	---	1.50
4								---	.03	.21	---	.00
5								---	.03	.72	---	.00
6								---	.03	.00	---	.00
7								.00	.00	.00	---	.00
8								.00	.03	.03	---	.27
9								.09	.00	.03	---	.03
10								.03	.03	.09	---	.00
11								.51	.03	.21	---	.03
12								.21	.00	.12	---	.00
13								.00	.00	.12	---	.03
14								.48	.69	.78	---	.06
15								.33	.00	.21	---	.03
16								.54	.30	.90	.03	.06
17								.18	.15	1.92	.18	.09
18								.00	.03	.24	.00	.00
19								.00	.00	.00	.03	1.38
20								.03	.03	---	.00	.03
21								.00	.06	---	.00	.27
22								.00	.15	---	1.59	.24
23								.00	.00	---	.33	1.50
24								.00	.03	---	.15	.00
25								1.26	.03	---	.00	.00
26								.12	2.82	---	.00	.06
27								.00	.06	---	.00	.00
28								.03	.06	---	.00	.09
29								.66	.06	---	.03	.54
30								.15	.00	---	.00	.72
31								.63	---	---	.03	---
TOTAL								5.25	4.68	6.03	2.37	8.13
MEAN								.21	.16	.32	.15	.27
MAX								1.26	2.82	1.92	1.59	1.50
MIN								.00	.00	.00	.00	.00
WTR YR 1985	TOTAL	26.46	MEAN	.22	MAX	2.82	MIN	.00				

ACID DEPOSITION RECORDS

GROUND-WATER LEVELS

462428091265801 WELL BA-45/09W/02-0186

LOCATION.--Lat 46°24'28", long 91°26'58", in NE 1/4 NE 1/4 SE 1/4, sec.2, T.45 N., R.9 W., Bayfield County, Hydrologic Unit 07030001, 0.75 mi southeast of East Eightmile Lake, about 10.2 mi south of Iron River.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Augered water-table observation well, diameter 3 in., depth 36 ft, cased to 33 ft, well screened 33-36 ft.

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,100.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum observed water level, 72.40 ft, Sept. 30, 1985; minimum observed water level, 68.54 ft, June 2-5, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum observed water level, 72.40 ft, Sept. 30; minimum observed water level, 71.72 ft, Mar. 5, 6, 15, 17.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71.74	71.79	71.83	71.79	71.78	71.80	71.79	71.78	71.90	72.05	72.16	72.26
2	71.76	71.77	71.83	71.78	71.77	71.73	71.80	71.78	71.89	72.05	72.16	72.26
3	71.75	71.84	71.83	71.78	71.76	71.73	71.82	71.78	71.88	72.06	72.17	72.29
4	71.75	71.83	71.81	71.82	71.75	71.81	71.82	71.84	71.88	72.07	72.18	72.29
5	71.75	71.80	71.83	71.82	71.79	71.72	71.82	71.84	71.88	72.07	72.19	72.29
6	71.76	71.79	71.82	71.84	71.80	71.72	71.81	71.82	71.89	72.07	72.19	72.30
7	71.77	71.82	71.87	71.83	71.75	71.78	71.77	71.81	71.93	72.09	72.20	72.29
8	71.77	71.84	71.85	71.78	71.73	71.75	71.74	71.81	71.95	72.10	72.20	72.29
9	71.77	71.83	71.85	71.78	71.75	71.73	71.74	71.84	71.96	72.10	72.20	72.29
10	71.77	71.82	71.84	71.78	71.77	71.76	71.78	71.84	71.95	72.10	72.20	72.29
11	71.78	71.81	71.87	71.77	71.76	71.79	71.76	71.87	71.95	72.10	72.18	72.29
12	71.79	71.81	71.85	71.81	71.76	71.75	71.76	71.88	71.95	72.10	72.20	72.29
13	71.79	71.82	71.79	71.86	71.78	71.77	71.80	71.83	71.95	72.11	72.21	72.29
14	71.80	71.85	71.78	71.82	71.78	71.74	71.80	71.82	71.97	72.12	72.21	72.30
15	71.81	71.85	71.81	71.79	71.79	71.72	71.80	71.85	71.97	72.12	72.21	72.32
16	71.79	71.82	71.86	71.80	71.83	71.74	71.76	71.85	71.97	72.12	72.21	72.34
17	71.77	71.81	71.79	71.84	71.79	71.72	71.78	71.84	71.98	72.11	72.22	72.37
18	71.76	71.81	71.77	71.84	71.77	71.74	71.81	71.85	71.99	72.12	72.22	72.35
19	71.81	71.80	71.82	71.80	71.76	71.77	71.81	71.88	71.99	72.12	72.22	72.36
20	71.78	71.78	71.81	71.79	71.79	71.74	71.82	71.88	72.00	72.12	72.22	72.34
21	71.77	71.79	71.85	71.80	71.80	71.75	71.81	71.84	72.01	72.14	72.22	72.34
22	71.76	71.83	71.81	71.80	71.78	71.77	71.82	71.84	72.02	72.14	72.22	72.37
23	71.75	71.84	71.80	71.82	71.76	71.83	71.82	71.84	72.01	72.14	72.24	72.38
24	71.77	71.86	71.79	71.85	71.76	71.79	71.82	71.85	72.01	72.16	72.24	72.36
25	71.78	71.86	71.78	71.80	71.76	71.75	71.82	71.86	72.01	72.16	72.24	72.36
26	71.81	71.87	71.76	71.81	71.76	71.82	71.78	71.87	72.03	72.15	72.24	72.37
27	71.83	71.87	71.81	71.82	71.73	71.92	71.78	71.87	72.04	72.16	72.24	72.39
28	71.78	71.87	71.85	71.80	71.80	71.87	71.79	71.87	72.04	72.17	72.24	72.39
29	71.78	71.86	71.80	71.80	---	71.80	71.79	71.87	72.04	72.16	72.25	72.38
30	71.77	71.86	71.76	71.79	---	71.74	71.79	71.88	72.04	72.16	72.25	72.40
31	71.77	---	71.76	71.78	---	71.79	---	71.93	---	72.16	72.26	---
MEAN	71.78	71.83	71.82	71.81	71.77	71.77	71.79	71.85	71.97	72.12	72.21	72.33
MAX	71.83	71.87	71.87	71.86	71.83	71.92	71.82	71.93	72.04	72.17	72.26	72.40
MIN	71.74	71.77	71.76	71.77	71.73	71.72	71.74	71.78	71.88	72.05	72.16	72.26
CAL YR 1984	MEAN	70.98	MAX	71.87	MIN	70.18						
WTR YR 1985	MEAN	71.92	MAX	72.40	MIN	71.72						

ACID DEPOSITION RECORDS

GROUND-WATER LEVELS

462457091273101 WELL BA-45/09W/02-0200

LOCATION.--Lat 46°24'57", long 91°27'31", in NE 1/4 NE 1/4 NW 1/4, sec.2, T.45 N., R.9 W., Bayfield County, Hydrologic Unit 07030001, 300 ft southeast of East Eightmile Lake, about 10.2 mi south of Iron River.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Augered water-table observation well, diameter 3 in., depth 50 ft, cased to 47 ft, well screened 47-50 ft.

PERIOD OF RECORD.--December 1984 to September 1985.

GAGE.--Water-stage recorder. Datum of gage is 1,100.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

EXTREMES FOR CURRENT PERIOD.--Maximum observed water level, 70.75 ft, Sept. 29, 30; minimum observed water level, 70.03 ft, Feb. 27, Mar. 2, 3.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	---	70.09	70.07	70.21	70.25	70.35	70.49	70.52	70.59
2			---	---	70.09	70.03	70.22	70.25	70.35	70.50	70.52	70.58
3			---	---	70.08	70.03	70.23	70.25	70.35	70.52	70.53	70.60
4			---	---	70.06	70.12	70.23	70.26	70.35	70.53	70.53	70.62
5			---	---	70.08	70.08	70.23	70.26	70.36	70.53	70.54	70.64
6			---	---	70.09	70.08	70.23	70.24	70.36	70.53	70.54	70.65
7			---	---	70.06	70.12	70.22	70.24	70.37	70.54	70.53	70.65
8			---	---	70.06	70.12	70.19	70.23	70.38	70.55	70.53	70.65
9			---	---	70.06	70.10	70.19	70.24	70.39	70.55	70.53	70.64
10			---	---	70.06	70.11	70.23	70.24	70.37	70.50	70.53	70.64
11			---	---	70.06	70.12	70.21	70.25	70.37	70.45	70.52	70.64
12			70.08	---	70.06	70.11	70.20	70.27	70.37	70.45	70.55	70.64
13			70.04	---	70.07	70.11	70.20	70.24	70.38	70.46	70.56	70.64
14			70.05	---	70.08	70.11	70.22	70.24	70.39	70.46	70.57	70.64
15			70.07	---	70.08	70.09	70.23	70.27	70.39	70.46	70.57	70.65
16			---	---	70.10	70.10	70.23	70.27	70.39	70.45	70.58	70.65
17			---	---	70.07	70.09	70.24	70.27	70.40	70.45	70.58	70.66
18			---	---	70.06	70.09	70.25	70.27	70.40	70.47	70.57	70.65
19			---	---	70.05	70.11	70.25	70.29	70.40	70.49	70.57	70.65
20			---	---	70.06	70.11	70.26	70.29	70.40	70.50	70.56	70.65
21			---	---	70.07	70.11	70.26	70.27	70.41	70.51	70.56	70.65
22			---	---	70.06	70.13	70.26	70.27	70.41	70.52	70.56	70.68
23			---	---	70.05	70.16	70.26	70.27	70.40	70.52	70.57	70.69
24			---	70.14	70.05	70.16	70.26	70.27	70.37	70.52	70.57	70.70
25			---	70.10	70.05	70.14	70.26	70.27	70.37	70.52	70.57	70.72
26			---	70.10	70.04	70.16	70.25	70.30	70.40	70.52	70.58	70.74
27			---	70.12	70.03	70.19	70.25	70.30	70.45	70.52	70.59	70.74
28			---	70.11	70.07	70.20	70.25	70.30	70.46	70.52	70.60	70.74
29			---	70.11	---	70.19	70.25	70.31	70.47	70.53	70.59	70.75
30			---	70.10	---	70.16	70.25	70.32	70.48	70.53	70.59	70.75
31			---	70.09	---	70.19	---	70.35	---	70.53	70.59	---
MEAN			---	---	70.07	70.12	70.23	70.27	70.39	70.50	70.56	70.66
MAX			---	---	70.10	70.20	70.26	70.35	70.48	70.55	70.60	70.75
MIN			---	---	70.03	70.03	70.19	70.23	70.35	70.45	70.52	70.58

DISCONTINUED STATIONS

407

The following streamflow stations have been discontinued in Wisconsin. Continuous daily streamflow records were collected and published for the period of record shown for each station.

Station number	Station name	Drainage area (sq mi)	Period of record
04024314	Little Balsam Creek at Patzau, WI	5.00	1976-78
04024315	Little Balsam Creek near Patzau, WI	5.18	1975-78
04024318	Little Balsam Creek Tributary near Patzau, WI	0.54	1976-78
04024320	Little Balsam Creek near Foxboro, WI	6.27	1977-78
04025000	Amnicon River near Poplar (Amnicon Falls), WI	112	1914-16
04026000	Bois Brule (Brule) River near Brule, WI	153	1914-17
04026300	Sioux River near Washburn, WI	14.9	1964-66
04026347	Pine Creek at Moquah, WI	5.90	1975-78
04026348	Pine Creek Tributary at Moquah, WI	0.57	1976-78
04026349	Pine Creek near Moquah, WI	21.5	1975-78
04026450	Bad River near Mellen, WI	83.4	1970-75
04026500	Bad River at Mellen, WI	101	1948-55
04026870	Alder Creek near Upton, WI	22.3	1972-77
04028500	Montreal River near Kimball, WI	109	1924-25
04029000	West Fork Montreal River at Gile, WI	78	1918-25, 1942-47
04029500	West Fork Montreal River near Kimball, WI	96	1924-25
04030000	Montreal River near Saxon, WI	262	1938-70
04063640	North Branch Pine River at Windsor Dam nr Alvin, WI	29.4	1966-68
04064000	Pine River near Florence, WI	500	1913-23
04064500	Pine River below Pine River Powerplant near Florence, WI	528	1923-75
04066500	Pike River at Amberg, WI	253	1914-70
04067000	Menominee River below Koss, WI	3,730	1907-09, 1913-81
04068000	Peshigo River at High Falls near Crivitz, WI	554	1912-57
04072000	Suamico River at Suamico, WI	57.0	1951-52
04072750	Lawrence Creek near Westfield, WI	16.0	1967-73
04073050	Grand River near Kingston, WI	73.7	1968-75
04073405	West Branch White River near Wautoma, WI	43	1963-65
04075000	Wolf River near White Lake, WI	482	1935-37
04075200	Evergreen Creek near Langlade, WI	8.0	1964-73
04075500	Wolf River above West Branch Wolf River, WI	633	1927-62
04076000	West Branch Wolf River at Neopit, WI	108	1911-17
04076500	West Branch Wolf River near Keshena, WI	170	1928-31
04079602	Little Wolf River near Galloway, WI	22.5	1973-79
04079700	Spaulding Creek near Big Falls, WI	4.9	1964-66
04080950	Emmons Creek near Rural, WI	27	1968-74
04080976	Storm Sawyer to Mirror Lake at Waupaca, WI	0.04	1971-74
04081800	Daggets Creek at Butte Des Morts, WI	10.3	1976-77
04083000	West Branch Fond du Lac River at Fond du Lac, WI	84.5	1939-54
04083500	East Branch Fond du Lac River near Fond du Lac, WI	77.9	1939-54
04084200	Brothertown Creek at Brothertown, WI	5.59	1976-77
04085813	Onion River at Hingham, WI	37.2	1978-80
04085845	Onion River near Sheboygan Falls, WI	94.1	1978-82
04086150	Milwaukee River at Kewaskum, WI	138	1968-81
04086200	East Branch Milwaukee River near New Fane, WI	54.1	1968-81
04086340	North Branch Milwaukee River near Fillmore, WI	148	1968-81
04086360	Milwaukee River at Waubesa, WI	432	1968-81
04086488	Mud Lake Outlet near Decker Corner, WI	7.36	1982-84
04087010	Milwaukee River above North Avenue Dam at Milwaukee, WI	702	1982-84
04087018	Menomonee River at Germantown, WI	19.0	1974-77
04087019	Jefferson Park Drainageway at Germantown, WI	1.82	1976-78
04087040	Menomonee River at Butler, WI	60.6	1974-79
04087060	Noyes Creek at Milwaukee, WI	1.94	1974-79
04087070	Little Menomonee River at Milwaukee, WI	19.7	1974-77
04087119	Honey Creek at Wauwatosa, WI	10.3	1974-81
04087125	Schoonmaker Creek at Wauwatosa, WI	1.94	1974-79
04087130	Hawley Road Storm Sewer at Milwaukee, WI	1.83	1975-77
04087138	Menomonee River at Milwaukee, WI	134	1981-84
04087160	Kinnickinnic River at Milwaukee, WI	20.4	1976-82
05332000	Namekagon River at Trego, WI	460	1914-27
05332500	Namekagon River near Trego, WI	503	1927-70
05335010	Loon Creek near Danbury, WI	16.9	1970-71
05335380	Bashaw Brook near Shell Lake, WI	24.9	1964-66
05335500	Clam River near Webster, WI	364	1940-42
05336000	St. Croix River near Grantsburg, WI	2,820	1923-70
05339000	Wood River near Grantsburg, WI	190	1939
05341500	Apple River near Somerset, WI	555	1901-70
05342000	Kinnickinnic River near River Falls, WI	167	1916-21
05355500	West Fork Chippewa River at Lessards, nr Winter, WI	577	1911-16
05356121	Couderay River near Couderay, WI	169	1981-83
05357500	Flambeau River at Flambeau Flowage (Flambeau Reservoir), WI	666	1927-61

Station number	Station name	Drainage area (sq mi)	Period of record
05358000	Flambeau River near Butternut, WI	737	1914-38
05358300	Pine Creek near Oxbo, WI	37.8	1970-75
05358500	Flambeau River at Babbs Island near Winter, WI	1,000	1929-75
05359500	South Fork Flambeau River near Phillips, WI	615	1929-75
05359600	Price Creek near Phillips, WI	14.7	1964-66
05360000	Flambeau River near (at) Ladysmith, WI	1,823	1903-06, 1914-61
05361000	Chippewa River near Holcombe, WI	3,790	1944-49
05361500	South Fork Jump River near Ogema, WI	328	1944-54
05362500	Chippewa River at Holcombe, WI	4,700	1942-49
05363000	Fisber River at (near) Holcombe, WI	76	1944-45
05363500	O'Neil Creek near Chippewa Falls, WI	67.1	1944-45
05363700	Yellow River near Hannibal, WI	91.2	1962-63
05364000	Yellow River at Cadott, WI	351	1942-61
05364500	Duncan Creek at Bloomer, WI	49.2	1943-51
05365000	Duncan Creek at Chippewa Falls, WI	114	1942-55
05365500	Chippewa River at Chippewa Falls, WI	5,650	1888-1983
05366000	Eau Claire River near Augusta, WI	500	1914-26
05366300	Bridge Creek at Augusta, WI	34.5	1979-80
05366500	Eau Claire River near Fall Creek, WI	758	1942-55
05367000	Chippewa River at (near) Eau Claire, WI	6,630	1902-09, 1944-54
05367425	Red Cedar River near Cameron, WI	450	1966-70
05367426	Red Cedar River near Cameron, WI	453	1971-73
05367500	Red Cedar River near Colfax, WI	1,100	1914-61
05369900	Eau Galle River near Woodville, WI	39.4	1978-83
05369945	Eau Galle River at Low-Water Bridge at Spring Valley, WI	47.9	1981-83
05369955	French Creek near Spring Valley, WI	6.03	1980-83
05369970	Lousy Creek near Spring Valley, WI	5.97	1980-83
05369985	Lohn Creek near Spring Valley, WI	2.53	1980-83
05370500	Eau Galle River at Elmwood, WI	91.9	1942-53
05372000	Buffalo River near Tell, WI	406	1932-51
05379288	Bruce Valley Creek near Plessantville, WI	10.1	1979-80
05379305	Elk Creek near Independence, WI	99.7	1979-80
05379400	Trempealeau River at Arcadia, WI	552	1960-77
05380000	Trempealeau River near Trempealeau, WI	722	1931-34
05380900	Poplar River near Owen, WI	157	1964-66
05382500	Little LaCrosse River near Leon, WI	77.4	1934-61, 1978-81
05383000	LaCrosse River near West Salem, WI	398	1913-70
05386490	Spring Coonlee Creek near Coon Valley, WI	8.93	1978-81
05386500	Coon Creek at Coon Valley, WI	78.3	1934-40, 1978-81
05386999	Coon Creek near Stoddard, WI	120	1934-40, 1979-81
05387100	North Fork Bad Axe River near Genoa, WI	68.8	1964-66
05390180	Wisconsin River at Conover, WI	176	1966-71
05391226	Pelican River near Rhineland, WI	101	1976-79
05392000	Wisconsin River at Whirlpool Rapids, near Rhineland, WI	1,200	1905-61
05392350	Bearskin Creek near Harshaw, WI	27.8	1964-66
05392400	Tomahawk River near Bradley, WI	422	1914-27, 1928-29
05393000	Tomahawk River at Bradley, WI	565	1930-73
05394000	New Wood River near Merrill, WI	83.1	1952-61
05396000	Rib River at Rib Falls, WI	309	1925-57
05396500	Little Rib River near Wausau, WI	76	1914-16
05397000	East Branch Eau Claire River near Antigo, WI	75	1949-55
05397110	Eau Claire River near Antigo, WI	200	1974-81
05398500	Bull Junior Creek (Bull Creek Junior) near Rothschild, WI	26.4	1944-51
05399000	Big Eau Pleine River near Colby, WI	79	1941-54
05399431	Hamann Creek near Stratford, WI	11.3	1976-79
05400000	Wisconsin River at Knowlton, WI	4,520	1920-42
05400500	Plover River near Stevens Point, WI	136	1914-19, 1944-51
05400600	Little Plover River near Arnot, WI	1.5	1959-75
05400840	Fourmile Creek near Kellner, WI	51	1964-67
05400853	Buena Vista Creek near Kellner, WI	44	1964-67
05401020	Tenmile Creek Ditch 5 near Bancroft, WI	8.8	1964-73
05401050	Tenmile Creek near Nekoosa, WI	73.3	1963-79
05401100	Fourteenmile Creek near New Rome, WI	91.9	1964-79
05401500	Wisconsin River near Necedah, WI	5,860	1902-14, 1944-50
05401510	Big Roche a Cri Creek near Hancock, WI	9.5	1963-67
05401535	Big Roche a Cri Creek near Adams, WI	52.8	1963-78
05402500	Yellow River at Sprague, WI	420	1926-40
05403000	Yellow River at Necedah, WI	526	1940-57
05403630	Hulbert Creek near Wisconsin Dells, WI	11.2	1970-77
05403700	Dell Creek near Lake Delton, WI	44.9	1957-1965, 1970-80
05404200	Narrows Creek at Loganville, WI	40.0	1964-66
05406000	Wisconsin River at Prairie du Sac, WI	8,950	1946-53
05406573	Trout Creek at Confluence with Arneson Creek near Barneveld, WI	8.37	1975-79
05406574	Trout Creek at Twin Parks Dam 8 nr Barneveld, WI	9.02	1975-79
05406575	Trout Creek at County Highway T nr Barneveld, WI	12.1	1975-79

Station number	Station name	Drainage area (sq mi)	Period of record
05406577	Trout Creek near Ridgeway, WI	13.5	1975-79
05406590	Knight Hollow Creek near Arena, WI	7.57	1976-77
05406640	Otter Creek near Highland, WI	16.6	1968-69, 1970-75
05407500	Kickapoo River at Ontario, WI	151	1938-39, 1973-77
05408500	Knapp Creek near Bloomingdale, WI	8.47	1954-69
05409000	West Fork Kickapoo River near Readstown, WI	106	1938-39
05409500	Kickapoo River at Soldiers Grove, WI	530	1938-39
05409830	North Fork Nederlo Creek near Geys Mills, WI	2.21	1967-79
05409890	Nederlo Creek near Gays Mills, WI	9.46	1967-80
05410000	Kickapoo River at Gays Mills, WI	617	1913-34, 1964-77
05413400	Pigeon Creek near Lancaster, WI	6.81	1964-66
05414894	Pats Creek near Belmont, WI	5.42	1980-82
05414915	Madden Branch Tributary near Belmont, WI	2.83	1980-82
05414920	Madden Branch near Meekers Grove, WI	15.1	1980-82
05418731	Apple River near Shullsburg, WI	9.34	1980-82
05423000	West Branch Rock River near Waupun, WI	40.7	1949-70, 1978-81
05423100	West Branch Rock River at County Trunk Highway D near Waupun, WI	43.9	1978-81
05423500	South Branch Rock River at Waupun, WI	62.8	1948-69
05424000	East Branch Rock River near Mayville, WI	179	1949-70
05425537	Johnson Creek near Johnson Creek, WI	1.13	1978-79
05425539	Johnson Creek near Johnson Creek, WI	13.3	1978-79
05425928	Pratt Creek near Juneau, WI	3.54	1978-80
05426500	Whitewater Creek near Whitewater, WI	7.2	1926-28, 1946-54
05426900	Whitewater Creek at Millis Road near Whitewater, WI	20.6	1978-81
05427000	Whitewater Creek at Whitewater, WI	22.7	1926-28, 1946-54
05427507	Koshkonong Creek near Rockdale, WI	150	1976-82
05427718	Yahara River at Windsor, WI	73.6	1976-81
05427800	Token Creek near Madison, WI	24.3	1975-80
05427900	Sixmile Creek near Waunakee, WI	41.1	1976-81
05427943	Pheasant Branch at Airport Road near Middleton, WI	9.61	1977-81
05427945	South Fork Pheasant Branch at Highway 14 near Middleton, WI	5.74	1977-81
05427950	Pheasant Branch at Century Avenue at Middleton, WI	20.8	1977-81
05427952	Pheasant Branch at mouth at Middleton, WI	24.5	1978-81
05427970	Willow Creek at Madison, WI	3.15	1973-83
05428665	Olbrich Park Storm Ditch at Madison, WI	2.57	1976-80
05429040	Manitou Way Storm Sewer at Madison, WI	0.22	1970-77
05429050	Nakoma Storm Sewer at Madison, WI	2.35	1971-77
05429118	Lake Wingra at Madison, WI	6.08	1970-79
05429120	Lake Wingra Outlet at Madison, WI	6.08	1970-77
05429580	Door Creek near Cottage Grove, WI	15.3	1975-79
05430000	Yahara River near Edgerton, WI	459	1916-17
05430030	Oregon Branch at Oregon, WI	9.93	1979-81
05430100	Badfish Creek near Stoughton, WI	43.5	1956-66
05431500	Turtle Creek near Clinton, WI	202	1939-79
05433500	Yellowstone River near Blanchardville, WI	28.5	1954-65, 1977-79
05434000	Pecatonica River at Dill, WI	951	1914-19
05433510	Steiner Branch near Waldwick, WI	5.9	1977-79
05434235	Skinner Creek at Skinner Hollow Road near Monroe, WI	32.6	1978-81
05434240	Skinner Creek at Klondyke Road near Monroe, WI	35.0	1978-81
05435980	West Branch Sugar River near Mount Vernon, WI	32.7	1979-80
05436000	Mount Vernon Creek near Mount Vernon, WI	16.4	1954-65, 1975-80
05545300	White River near Burlington, WI	110	1973-82

INDEX

- Access to WATSTORE data.....22
Accuracy of the records.....15
Acid deposition records.....369
Adams County, ground-water levels in.....335
 quality of ground water in.....361
Afton, Rock River at.....255, 331
Allen Creek (Fox-Wolf River basin), near
 Fort Atkinson.....314
Allen Creek tributary (Menominee-Oconto-Pestigo
 River basin), near Alvin.....308
Alma Lake near St. Germain.....164
Amnicon Lake near South Range.....37
Anvil Lake near Eagle River.....163
Apple Creek near Kaukauna.....309
Arkansaw Creek tributary near Arkansaw.....311
Armstrong Creek near Armstrong Creek.....309
Ashland White River near.....40, 320
Ashland County, ground-water levels in.....335
- Babcock, Yellow River at.....178
Bad River near Mellen.....308
 at Odanah.....41
 near Odanah.....39, 320
Bad Axe River, North Fork near Genoa.....312
Bad Axe River basin, crest-stage partial-record
 stations in.....312
Badfish Creek near Cooksville.....253, 331
Baraboo, Baraboo River near.....184, 326
 Devils Lake near.....183
Baraboo River near Baraboo.....184, 326
Bark River near Rome.....244, 330
Barron County, ground-water levels in.....335
Bashaw Brook near Shell Lake.....310
Bear Branch near Platteville.....314
Bear Lake near Hazelhurst.....168
Bear River near Powell.....310
Bearskin Creek near Harshaw.....313
Berlin, Fox River at.....70, 321
Big Cedar Lake near West Bend.....97
Big Eau Pleine River near Stratford.....175, 325
Big Sandy Creek near Wausau.....313
Bird Creek at Wautoma.....309
Black Earth Creek at Black Earth.....212
 at Cross Plains.....186
 near Cross Plains.....326
 Low flow site No. 1.....327
 Low flow site No. 3.....327
 Low flow site No. 4.....327
 Low flow site No. 6.....327
 Low flow site No. 7.....328
 Low flow site No. 8.....328
 Low flow site No. 9.....329
 Low flow site No. 10.....329
 Tributary.....329
 Tributary, Low flow site No. 11.....330
 Tributary near Cross Plains.....328
Black River basin, crest-stage partial-record
 stations in.....312
 gaging-station records in.....151
 water-quality partial-record stations in.....324
Black River near Galesville.....154
 at Medford.....151, 324
 at Neillsville.....153, 324
 tributary near Whittlesey.....312
Blanchardville, East Branch Pecatonica River near.....295, 332
Bois Brule River near Brule.....38
Bone Lake near Luck.....125
Boulder Junction, Trout Lake bulk precipitation collector.....387
Brewery Creek at Cross Plains.....195
 at Enchanted Valley Road near Cross Plains.....327
Brodhead, Sugar River near.....297
Brown County, ground-water levels in.....336
Bruce, Chippewa River near.....129, 323
 Flambeau River near.....130, 323
Brule, Bois Brule River near.....38
Brule River near Florence.....45
Buffalo River near Mondovi.....311
 tributary near Osseo.....311
Buffalo River basin, crest-stage partial-record
 stations in.....311
 gaging station records in.....143
 tributary near Osseo.....311
Bugle Lake at Independence.....149
Bulk precipitation collection at D.L.S.D. near Delavan.....272
Buncombe, Galena River at.....232, 330
Burnett County, ground-water levels in.....337
 quality of ground water in.....361
Burton, Grant River at.....228
- Cawley Creek near Neillsville.....312
Cedar Creek near Cedarburg.....98
Cedarburg, Cedar Creek near.....98
 Milwaukee River near.....99
Chilton Pond at Chilton.....90
Chippewa County, ground-water levels in.....337
Chippewa River at Bishop's Bridge, near Winter.....128, 323
 near Bruce.....129, 323
 at Durand.....134
Chippewa River basin, crest-stage partial-record
 stations in.....310
 gaging-station records in.....128
 location map of.....127
 water-quality partial-record stations in.....323
Cisco Branch, Ontonagon River at Cisco Lake
 outlet, MI.....43
Clam Lake near Siren.....119
Clark County, ground-water levels in.....337
Clinton, Turtle Creek at Carvers Rock Road near.....293, 332
Cloverdale, MN, Kettle River near.....120
Cooksville, Badfish Creek near.....253, 331
Cooperation.....2
Crawfish River at Milford.....242
Crooked Creek near Boscobel.....314
Cross Plains, Black Earth Creek at.....186
 Black Earth Creek near.....326
 Black Earth Creek Tributary near.....328
 Brewery Creek at.....195
 Brewery Creek at Enchanted Valley Road near.....327
 Garfoot Creek near.....204
Crystal Lake at Strum.....143
- Dakota, Sharon Lake near.....63
Danbury, St. Croix River near.....117, 323
Dane County, ground-water levels in.....338
Darlington, Pecatonica River at.....294, 332
Definition of terms.....23
Delavan, bulk precipitation collector near.....272
 Outlet at Borg Road near.....288
Delavan Lake at center near Delavan Lake.....281
 at North End near Lake Lawn.....285
 at SW End near Delavan Lake.....278
 Inlet at US Hwy 50 at Lake Lawn.....270
 Outlet at Borg Road near Delavan.....288
 Tributary at South Shore Drive at Delavan Lake.....273
Dell Creek near Lake Delton.....313
Des Plaines River at Russell, IL.....301
Devil Creek near Merrill.....313
Devils Lake near Baraboo.....183
Discontinued gaging stations, list of.....407
Dodge County, ground-water levels in.....338
Dodge, Trempealeau River at.....150, 324

Door County, ground-water levels in.....339
Douglas County, ground-water levels in.....339
Douglas Creek near Prentice.....311
Downstream order and station number.....10
Duncan Creek at Bloomer.....311
Durand, Chippewa River at.....134

Eagle Creek near Fountain City.....312
Eagle River, Anvil Lake near.....163
East Eightmile Lake near Iron River.....401
rain gage near Iron River.....402
rain gage at well 15R near Iron River.....404
rain gage at well 45R near Iron River.....403
East Twin River at Mishicot.....89
Eau Claire River (Central Wisconsin River basin)
at Kelly.....173, 325
Eau Claire River (Chippewa River basin) near
Fall Creek.....311
Eau Galle River at Spring Valley.....137, 324
Elkhorn, Jackson Creek at Mounds Road near.....269
Jackson Creek at Petrie Road near.....256
Jackson Creek Tributary near.....262
Embarrass River near Embarrass.....75, 321
Enchanted Valley Creek at Brewery Road.....327
Evergreen Creek near Langlade.....309
Explanation of the records.....10
records of ground-water levels.....19
records of ground-water quality.....21
records of stage and water discharge.....11
records of surface-water quality.....16

Fence, Popple River near.....47
Fish Lake near Sauk City.....185
Fisher Creek tributary at Janesville.....315
Flambeau River near Bruce.....130, 323
Florence, Brule River near.....45
Menominee River near.....46
Fond du Lac County, ground-water levels in.....340
Forest County, ground-water levels in.....340
Fourmile Creek near Three Lakes.....312
Fox River (Lake Michigan basin) at Berlin.....70, 321
at Rapide Croche Dam, near Wrightstown.....83
at Wrightstown.....84
Fox-Wolf River basin location map.....59
Fox River (Illinois River basin) at Waukesha.....302, 332
at Wilmot.....307, 332
Franklin, Root River near.....108, 322
Root River Canal near.....109, 322
French Creek near Ettrick.....312
Fulton, Yahara River near.....254, 331

Galena River at Buncombe.....232, 330
Galena River basin, crest-stage partial-record
stations in.....314
gaging-station records in.....232
water-quality, partial-record stations in.....330
Galesville, Black River near.....154
Garfoot Creek near Cross Plains.....204
Gill Creek near Brooklyn.....315
Gillett, Oconto River near.....57, 320
Goggle-Eye Creek near Thorp.....311
Gordon, Round Lake near.....393
Round Lake rain gage near.....394
Round Lake rain gage at well 51R near.....395
Round Lake rain gage at well 55R near.....396
Grand Marsh, Patrick Lake near.....60
Grant County, ground-water levels in.....340
Grant River at Burton.....228
Grant River basin, crest-stage partial-record
stations in.....314
gaging-stations records in.....228
Green Lake, White Creek at Forest Glen beach near.....64

Ground water, chemical analysis.....361
levels of, by counties.....335
Gudegast Creek near Starks.....312

Hay Creek near Prentice.....310
Hay River at Wheeler.....132, 323
Hayward, Namekagon River near.....114
Hazelhurst, Bear Lake near.....168
Hills Lake near Wild Rose.....57
Honey Creek at Milwaukee.....310
Hulbert Creek near Wisconsin Dells.....313
Hunting River near Elcho.....309
Hustisford, Rock River at.....234
Hydrologic bench-mark program, explanation of.....9

Illinois River basin, crest-stage partial-record
stations in.....315
gaging-station records in.....241
water-quality partial-records stations in.....332
Independence, Bugle Lake at.....149
Indianford, Rock River at.....245, 331
Introduction.....1
Iowa County, ground-water levels in.....341
Iron River, East Eightmile Lake near.....401
East Eightmile Lake rain gage near.....402
East Eightmile Lake rain gage at 15R.....404
East Eightmile Lake rain gage at 45R.....403

Jackson County, ground-water levels in.....342
Jackson Creek at Mounds Road near Elkhorn.....269
at Petrie Road near Elkhorn.....256
tributary near Elkhorn.....262
Jefferson, Rock River at.....243
Johnson Creek near Knowlton.....313
Jump River at Sheldon.....131, 323
North Fork near Phillips.....311
Juneau County, ground-water levels in.....342

Kelly, Eau Claire River at.....173, 325
Kenosha County, ground-water levels in.....342
Keshena, Wolf River at Keshena Falls near.....74
Kettle River near Cloverdale, MN.....120
Kewaunee River near Kewaunee.....87
Kickapoo River at La Farge.....223, 330
at Steuben.....224, 330
Killsnake River near Chilton.....309
Kinnickinnic River (Lake Michigan basin) at
South 11th Street at Milwaukee.....106, 322
Kinnickinnic River tributary (St. Croix River basin)
at River Falls.....310

Lac La Belle at Oconomowoc.....237
La Crosse River basin, gaging station records in.....157
La Farge, Kickapoo River at.....223, 330
Lafayette County, ground-water levels in.....343
La Grange, Pleasant Lake near.....306
Lake Clara near Tomahawk.....375
Outlet near Tomahawk.....374
Rain gage near Tomahawk.....376
Tributary near Tomahawk.....372
Lake Lawn, Delavan Lake at north end near.....285
Delavan Lake inlet at US Hwy 50 near.....270
Lake Mendota at Madison.....250
Lake Michigan, streams tributary to, crest-
stage partial-record stations in.....308
gaging station records in.....45
miscellaneous sites in.....316
Lake Michigan basin location map.....86
water-quality partial-record stations in.....320
Lake Monona at Madison.....251
Lake Morris near Mt. Morris.....79
Lake Puckaway at Marquette.....62

Lake Superior, streams tributary to, basin location map.....	33	McAllister, Menominee River near.....	51
crest-stage partial-records in.....	308	McCaslin Lake near Lakewood.....	54
gaging station records in.....	34	McFarland, Yahara River near.....	252, 331
tributary at Superior.....	308	McGregor, IA, Mississippi River at.....	158
water-quality partial-record stations in.....	320	McKenzie Lake near Spooner.....	116
Lake Tomahawk, Muskellunge Lake near.....	166	Madden Branch near Belmont.....	314
Wisconsin River at Rainbow Lake near.....	167, 325	Madison:	
Lake Winnebago at Oshkosh.....	81	Lake Mendota at.....	250
near Stockbridge.....	82	Lake Monona at.....	251
Lakes:		Spring Harbor Storm Sewer at.....	248
Alma near St. Germain.....	164	Manitowoc County, ground-water levels in.....	344
Amnicon near South Range.....	37	Manitowoc River at Manitowoc.....	91
Anvil near Eagle River.....	163	Marathon County, ground-water levels in.....	345
Bear near Hazelhurst.....	168	Marinette County, ground-water levels in.....	345
Big Cedar near West Bend.....	97	Marquette, Lake Puckaway at.....	62
Bone near Luck.....	125	Marquette County, ground-water levels in.....	346
Bugle at Independence.....	149	Martintown, Pecatonica River at.....	296, 332
Clam near Siren.....	119	Maunasha River near Sun Prairie.....	314
Clara near Tomahawk.....	375	Medford, Black River at.....	151, 324
Crystal at Strum.....	143	Menominee-Oconto-Peshigo River basin location map.....	44
Delavan at center near Delavan Lake.....	281	Menominee River below Pemene Creek near Pembine.....	50, 320
at north end near Lake Lawn.....	285	near Florence.....	46
at SW end near Delavan Lake.....	278	near McAllister.....	51
Devils near Baraboo.....	183	Menomonee River at Menomonee Falls.....	103
East Eightmile near Iron River.....	401	at Wauwatosa.....	105, 322
Fish near Sauk City.....	185	Menomonie, Red Cedar River at.....	133, 324
Lac la Belle at Oconomowoc.....	237	Merrill, Prairie River near.....	170, 325
Little Rock near Woodruff.....	390	Wisconsin River at.....	171, 325
McCaslin near Lakewood.....	54	Middleton, Pheasant Branch at.....	246
McKenzie near Spooner.....	116	Milford, Crawfish River at.....	242
Mendota at Madison.....	250	Milwaukee County, ground-water levels in.....	346
Monona at Madison.....	251	Milwaukee, Kinnickinnic River at South	
Montello at Montello.....	61	11th Street at.....	106, 322
Moon near St. Germain.....	165	Milwaukee River at.....	100
Morris near Mt. Morris.....	79	Milwaukee River at Milwaukee.....	100
Muskellunge near Lake Tomahawk.....	166	near Cedarburg.....	99
Neshonoc at West Salem.....	157	Mishicot, East Twin River at.....	89
North near North Lake.....	235	Mishonagon Creek near Woodruff.....	312
Okauchee at Okauchee.....	236	Mississippi River at McGregor, IA.....	158
Patrick near Grand Marsh.....	60	at Prescott.....	126
Pleasant near La Grange.....	306	at Winona, MN.....	144
Puckaway at Marquette.....	62	Mole Lake, Swamp Creek above Rice Lake at.....	71, 321
Redstone near La Valle.....	182	Swamp Creek below Rice Lake at.....	72, 321
Round near Gordon.....	393	Monroe County, ground-water levels in.....	348
Sharon near Dakota.....	63	Montello Lake at Montello.....	61
Vandercook near Woodruff.....	383	Moon Lake near St. Germain.....	165
Wheeler near Lakewood.....	56	Mormon Creek basin, crest-stage partial-record	
Wind at Wind Lake.....	305	stations in.....	312
Winnebago at Oshkosh.....	81	Mormon Creek near La Crosse.....	312
near Stockbridge.....	82	Mt. Calvary, Wolf Lake near.....	94
Wolf near Mt. Calvary.....	94	Mount Morris, Lake Morris near.....	79
Lakewood, McCaslin Lake near.....	182	Mud Creek near Nashville.....	309
Wheeler Lake near.....	56	Mukwonago River at Mukwonago.....	303, 332
Langlade County, ground-water levels in.....	343	Muscoda, Wisconsin River at.....	220
Langlade, Wolf River at.....	73, 321	Muskellunge Lake near Lake Tomahawk.....	166
La Valle, Redstone Lake near.....	182	Muskrat Creek at Conover.....	312
Lemonweir River at New Lisbon.....	179, 326	Namekagon River near Hayward.....	114
Lightning Creek at Almena.....	311	near Trego.....	115
Lily River near Lily.....	309	Narrows Creek at Loganville.....	313
Lincoln County, ground-water levels in.....	344	National stream-quality accounting network,	
quality of ground water in.....	381	explanation of.....	9
Little Frog Creek near Minong.....	310	Neillsville, Black River at.....	153, 324
Little Menomonee River near Freistadt.....	310	Nemadji River near South Superior.....	34
Little Pine Creek near Irma.....	313	Neshonoc Lake at West Salem.....	157
Little Plover River at Plover.....	176, 260	Neshota River tributary near Denmark.....	309
Little Popple River near Aurora.....	308	New Lisbon, Lemonweir River at.....	179, 326
Little River, North Branch near Coleman.....	309	New London, Wolf River at.....	76, 321
Little Rock Lake near Woodruff.....	390	Nippersink Creek North Branch tributary near	
Little Turtle Creek at Allens Grove.....	315	Genoa City.....	315
Little Wolf River at Royalton.....	77, 322	North Lake near North Lake.....	235
Lloyd Creek near Doering.....	313	Numbering system for ground-water and lake-data sites.....	10
Luck, Bone Lake near.....	125		

Oak Creek at South Milwaukee.....	107, 322	Rock-Fox River basin, location map.....	233
near South Milwaukee.....	310	Rock River basin, crest-stage partial-record	
Oconomowoc, Lac la Belle at.....	237	stations in.....	314
Oconto County, ground-water levels in.....	348	gaging-station records in.....	234
Oconto River near Gillett.....	57, 320	water-quality partial-record stations in.....	330
North Branch, near Wabeno.....	309	Rock River at Afton.....	255, 331
Odanah, Bad River near.....	39, 320	at Hustisford.....	234
Bad River at.....	41	at Indianford.....	245, 331
Okauchee Lake at Okauchee.....	236	at Jefferson.....	243
Oneida County, ground-water levels in.....	349	at Rockton, IL.....	300
Onemile Creek near Mauston.....	313	at Watertown.....	241
Ontonagon River, Cisco Branch at Cisco		East Branch, tributary near Slinger.....	314
Lake outlet, MI.....	43	Rockton, IL, Rock River at.....	300
Oshkosh, Lake Winnebago at.....	81	Rockville, Platte River at.....	231, 330
Outagamie County, ground-water levels in.....	349	Rocky Branch near Richland Center.....	314
Patrick Lake near Grand Marsh.....	60	Rome, Bark River near.....	244, 330
Pats Creek near Elk Grove.....	314	Root River near Franklin.....	108, 322
Pearl Creek at Grandview.....	308	at Racine.....	110, 322
Pearson Creek near Maple.....	308	Root River Canal near Franklin.....	109, 322
Pecatonica River, at Darlington.....	294, 332	West Branch tributary near North Cape.....	310
at Martintown.....	296, 332	Rothschild, Wisconsin River at.....	174, 325
East Branch, near Blanchardville.....	295, 332	Round Lake near Gordon.....	393
Pecatonica-Sugar River basin location map.....	227	rain gage near Gordon.....	394, 394
Pemine, Menominee River below Pemene		rain gage at well 51R near Gordon.....	395
Creek near.....	50, 320	rain gage at well 55R near Gordon.....	396
Pensaukee River near Pensaukee.....	58, 320	Rowan Creek at Poynette.....	314
near Pulaski.....	309	Royalton, Little Wolf River at.....	77, 322
Peshtigo River at Peshtigo.....	55, 320	Rusk County, ground-water levels in.....	354
near Cavour.....	309	Russell, IL, Des Plaines River at.....	301
Pet Brook tributary near Edgar.....	313	St. Croix County, ground-water levels in.....	355
Pheasant Branch at Middleton.....	246	St. Croix River near Danbury.....	117, 323
Pigeon Creek near Lancaster.....	314	at St. Croix Falls.....	122
Pike Creek near Kenosha.....	310	St. Croix River basin, crest-stage partial-record	
Pike River near Racine.....	111, 322	stations in.....	310
Pine City, MN, Snake River near.....	121	gaging-station records in.....	114
Pine Creek, East Branch tributary near Dallas.....	311	location map.....	113
Pine River, North Branch at Windsor		miscellaneous sites in.....	318
Dam near Alvin.....	308	water-quality partial-record stations in.....	323
Platte River basin, crest-stage partial-record		St. Germain, Alma Lake near.....	164
stations in.....	314	Moon Lake near.....	165
gaging-stations records in.....	231	Sauk City, Fish Lake near.....	185
water-quality partial-record stations in.....	330	Sauk County, ground-water levels in.....	355
Platte River near Rockville.....	231, 330	Sawyer Creek at Oshkosh.....	309
Pleasant Lake near La Grange.....	306	Sediment.....	17
Plover, Little Plover River at.....	176	Seth Creek near Cadott.....	311
Polk County, ground-water levels in.....	350	Sharon Lake near Dakota.....	63
Poplar River near Owen.....	312	Shawano County, ground-water levels in.....	355
Popple River near Fence.....	47	Sheboygan River at Sheboygan.....	96
South Branch near Newald.....	308	Sheldon, Jump River at.....	131, 323
Portage County, ground-water levels in.....	351	Sioux River near Washburn.....	308
quality of ground water in.....	361	Siren, Clam Lake near.....	119
Prairie River near Merrill.....	170, 325	Smith Creek near Parks Falls.....	310
Prescott, Mississippi River at.....	126	Snake River near Pine City, MN.....	121
Price County, ground-water levels in.....	352	South Milwaukee, Oak Creek at.....	107, 322
Price Creek near Phillips.....	310	South Range, Amnicon Lake near.....	37
Publications on techniques of water resources		South Superior, Nemadji River near.....	34
investigations.....	29	Spaulding Creek near Big Falls.....	309
Raccoon Creek, East Fork tributary near Beloit.....	315	Special networks and programs.....	9
Racine County, ground-water levels in.....	353	Spirit River at Spirit Falls.....	169, 325
Racine, Root River at.....	110, 322	Spooner, McKenzie Lake near.....	116
Pike River near.....	111, 322	Spring Creek near Durand.....	311
Radiochemical surveillance program, explanation of.....	9	Spring Harbor Storm Sewer at Madison.....	248
Red Cedar River at Menomonie.....	133, 324	Spring Valley, Eau Galle River at.....	137, 324
Redstone Lake near La Valle.....	182	Squaw Creek near Harrison.....	312
Reservoirs in Wisconsin River basin.....	225	Station identification numbers.....	10
Richland County, ground-water levels in.....	354	Steuben, Kickapoo River at.....	224, 330
Richland Creek near Plugtown.....	314	Stockbridge, Lake Winnebago near.....	82
Robbins Creek at Columbus.....	314	Stoney Brook near Superior.....	308
Rock Branch near Mineral Point.....	315	Stratford, Big Eau Pleine River near.....	175, 325
Rock County, ground-water levels in.....	354	Strum, Crystal Lake at.....	143
		Sugar Creek at Elkhorn.....	315
		Sugar River near Brodhead.....	297

tributary, near Pine Bluff.....	315	Wheeler Lake near Lakewood.....	56
Summary of hydrologic conditions.....	3	White Creek at Forest Glen beach near Green Lake.....	64
Swamp Creek above Rice Lake at Mole Lake.....	71, 321	White River (Illinois River basin), tributary	
below Rice Lake at Mole Lake.....	72, 321	near Burlington.....	315
Taylor County, ground-water levels in.....	356	White River (tributary to Lake Superior) near Ashland.....	40, 320
Token Creek near Madison.....	314	Willow Creek near Eau Claire.....	311
Tomahawk, Lake Clara near.....	375	Wilmot, Fox River at.....	307, 332
Lake Clara outlet near.....	374	Wind Lake at Wind Lake.....	305
Lake Clara rain gage near.....	376	Winnebago County, ground-water levels in.....	360
Lake Clara Tributary near.....	372	Winona, MN, Mississippi River at.....	144
Trade River near Frederic.....	310	Winter, Chippewa River at Bishop's Bridge near.....	128, 323
Trappe River tributary near Merrill.....	313	Wisconsin Dells, Wisconsin River near.....	180, 326
Trego, Namekagon River near.....	115	Wisconsin Rapids, Wisconsin River at.....	177
Trempealeau County, ground-water levels in.....	357	Wisconsin River basin, crest-stage partial-record	
Trempealeau-Black River basin location map.....	142	stations in.....	312
Trempealeau River basin, gaging-station		gaging-station records in.....	163
records in.....	149	location map:	
water-quality partial-record stations in.....	324	upper Wisconsin River basin.....	162
Trempealeau River at Dodge.....	150, 324	central Wisconsin River basin.....	172
Trout Lake bulk precipitation collector near		lower Wisconsin River basin.....	181
Boulder Junction.....	387	miscellaneous sites in.....	318
Turtle Creek at Carvers Rock Road near Clinton.....	293, 332	reservoirs in.....	225
Underwood Creek at Wauwatosa.....	104, 322	water-quality partial-record stations in.....	325
Vandercook Lake near Woodruff.....	383	Wisconsin River at Merrill.....	171, 325
rain gage near Woodruff.....	384	at Muscoda.....	220
Vilas County, ground-water levels in.....	358	at Rainbow Lake near Lake Tomahawk.....	167, 325
quality of ground water in.....	388	at Rothschild.....	174, 325
Walworth County, ground-water levels in.....	358	at Wisconsin Rapids.....	177
quality of ground water in.....	364	near Wisconsin Dells.....	180, 326
Watertown, Rock River at.....	241	tributary at Wausau.....	313
WATSTORE data, access to.....	22	Wolf Lake near Mt. Calvary.....	94
Waukesha County, ground-water levels in.....	358	Wolf River at Keshena Falls near Keshena.....	74
Waukesha, Fox River at.....	302, 332	at Langlade.....	73, 321
Waumandee Creek basin, crest-stage partial record		at New London.....	76, 321
stations in.....	312	Wood County, quality of ground water.....	364
Waupaca County, ground-water levels in.....	359	Woods Creek near Fence.....	308
Waupaca River near Waupaca.....	78	Woodruff, Little Rock Lake near.....	390
Waushara County, ground-water levels in.....	359	Vandercook Lake near.....	383
Wauwatosa, Menomonee River at.....	105, 322	Vandercook Lake rain gage near.....	384
Underwood Creek at.....	104, 322	Wrightstown, Fox River at.....	84
Weber Creek near Mercer.....	310	Fox River at Rapide Croche Dam near.....	83
Webster Creek at New Lisbon.....	313	Yahara River at McFarland.....	252, 331
West Bend, Big Cedar Lake near.....	97	near Fulton.....	254, 331
West Salem, Neshonoc Lake at.....	157	Yellow River (central Wisconsin River basin)	
Wheeler, Hay River at.....	132, 323	at Babcock.....	178, 260
		tributary near Pittsville.....	313
		Yellow River (Chippewa River basin) at Cadott.....	311
		Yellowstone River near Blanchardville.....	315

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

U.S. DEPARTMENT OF THE INTERIOR
Geological Survey
6417 Normandy Lane
Madison, WI 53719

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTERIOR
INT 413



OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300
SPECIAL 4TH CLASS BOOK RATE