Water Resources Data
Wisconsin
Water Year 1996



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U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WI-96-1
Prepared in cooperation with the State of Wisconsin
and with other agencies

CALENDAR FOR WATER YEAR 1996

1995

OCTOBER

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1996

JANUARY

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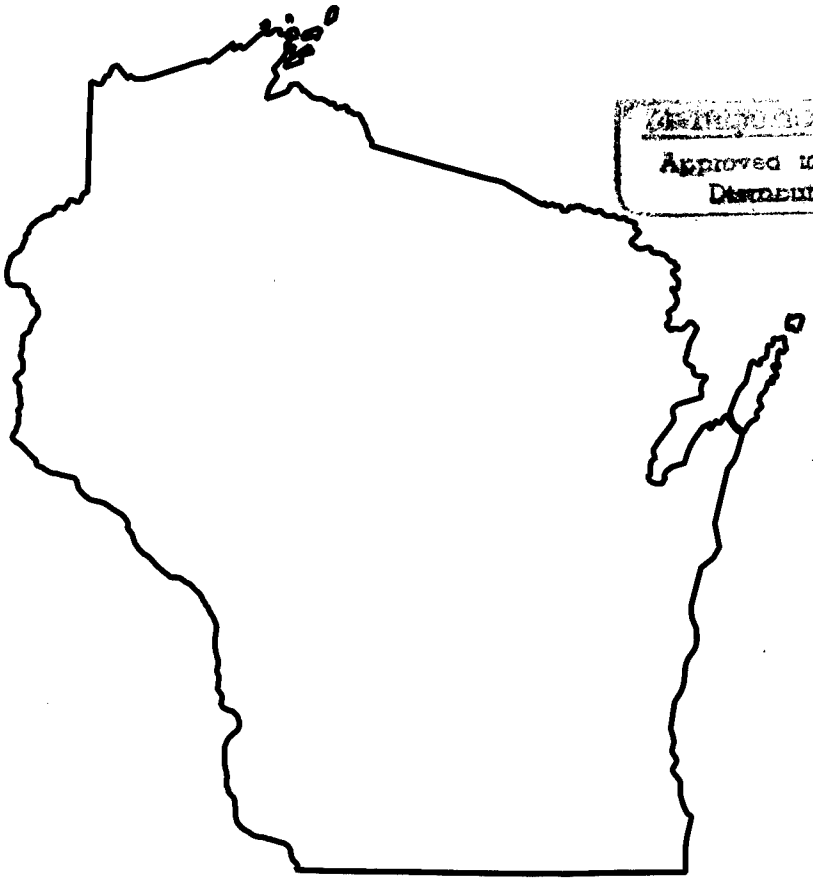
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Water Resources Data Wisconsin Water Year 1996

by B.K. Holmstrom, D. L. Olson, and B.R. Ellefson



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Prepared in cooperation with the State of Wisconsin
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City of Middleton
City of Beaver Dam
City of Thorp
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Green Bay Metropolitan Sewerage District
City of Hillsboro
Illinois Department of Transportation
City of Waupun
City of Peshtigo
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Village of Wittenberg
Menominee Indian Tribe of Wisconsin
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Town of Delavan
Green Lake Sanitary District
City of Fond du Lac
City of Barron
Lac du Flambeau Band of Lake Superior Chippewa
Stockbridge/Munsee Indian Tribe
Dane County Lakes and Watershed Commission
City of Sparta
City of Brookfield
Fontana/Walworth Water Pollution Control Commission
Bad River Band of Lake Superior Chippewa Indians
Walworth County Metropolitan Sewerage District
City of Muskego

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6417 Normandy Lane
Madison, Wisconsin 53719

1997

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 a number of people 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:

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James W. George, Merrill, northeast
Josef Habale, Madison, southwest

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This report was prepared under the general supervision of Warren A. Gebert, District Chief; Herbert S. Garn, Hydrologic Studies and Data Section Chief; Peter E. Hughes, Environmental Studies Section Chief; and James T. Krohelski, Hydrogeologic Studies and Data Section Chief.

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13. ABSTRACT *(Maximum 200 words)*
Water-resources data for the 1996 water year for Wisconsin include records of streamflow at gaging stations, partial-record stations, and miscellaneous sites, records of precipitation, and records of chemical, biological, and physical characteristics of surface water. In addition, water levels in observation wells are reported. These data were collected by the U.S. Geological Survey in cooperation with State and local agencies and other Federal agencies in Wisconsin.

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*Wisconsin, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Chemical analyses, Sediment, Water levels

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[Letters after station names designate type of data: (c) chemical, (d) discharge, (g) gage height, (m) microbiological, (pr) precipitation, (r) radiochemical, (sd) secchi-depth, (s) sediment, (t) water temperature]

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

[Letters after station names designate type of data: (c) chemical, (d) discharge, (g) gage height, (m) microbiological, (pr) precipitation, (r) radiochemical, (sd) secchi-depth, (s) sediment, (t) water temperature]

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The following continuous-record surface-water discharge stations in Wisconsin have been discontinued. Daily streamflow records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Some of the discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Office at the address given on the back side of the title page of this report

Station name	Station number	Drainage area (mi^2)	Period of record
STREAMS TRIBUTARY TO LAKE SUPERIOR			
Tower Avenue at Superior, WI	04024080	0.034	1993-95
Little Balsam Creek at Patzau, WI	04024314	4.89	1976–78
Little Balsam Creek near Patzau, WI	04024315	5.05	1976–78
Little Balsam Creek Tributary near Patzau, WI	04024318	0.60	1976–78
Little Balsam Creek near Foxboro, WI	04024320	3.27	1977–78
Amnicon River near Poplar (Amnicon Falls), WI	04025000	110	1914–16
Bois Brule (Brule) River near Brule, WI	04026000	160	1914–17
Sioux River near Washburn, WI	04026300*	33.9	1965–66
Pine Creek at Moquah, WI	04026347	6.20	1976–78
Pine Creek Tributary at Moquah, WI	04026348	0.48	1976–78
Pine Creek near Moquah, WI	04026349	19.9	1976–78
Bad River near Mellen, WI	04026450*	82.0	1971–75
Bad River at Mellen, WI	04026500	98.3	1948–55
Alder Creek near Upson, WI	04026870	22.2	1972–77
Montreal River near Kimball, WI	04028500	100	1924–26
West Fork Montreal River at Gile, WI	04029000	75.0	1918–26, 1943–47
West Fork Montreal River near Kimball, WI	04029500	86.2	1924–26
STREAMS TRIBUTARY TO LAKE MICHIGAN			
North Branch Pine River at Windsor Dam nr Alvin, WI	04063640*	27.8	1967–68
Pine River near Florence, WI	04064000	510	1914–23
Pine River below Pine River Powerplant nr Florence, WI	04064500	533	1924–76
Pike River at Amberg, WI	04066500	255	1914–70
Menominee River near McAllister, WI	04067500	3,930	1945–61, 1979–86, 1988–90, 1993–95
Menominee River, at Mouth, at Marinette, WI	04067651	4,070	1988–90, 1994–95
Peshtigo River at High Falls near Crivitz, WI	04068000	537	1912–57
Pensaukee River near Krakow, WI	04071795	35.8	1993–95
Suamico River at Suamico, WI	04072000	60.7	1951–52
Lawrence Creek near Westfield, WI	04072750	13.4	1968–73
Grand River near Kingston, WI	04073050	73.5	1968–75
West Branch White River near Wautoma, WI	04073405	38.9	1964–65
White Creek at Forest Glen Beach near Green Lake, WI	04073462	3.05	1982–88
Swamp Creek above Rice Lake at Mole Lake, WI	04074538	46.3	1977–83, 1985–87
Swamp Creek below Rice Lake at Mole Lake, WI	04074548	56.8	1977–79, 1982–85
Wolf River near White Lake, WI	04075000	485	1935–38
Evergreen Creek near Langlade, WI	04075200*	8.09	1964–73
Wolf River above West Branch Wolf River, WI	04075500	616	1928–62
West Branch Wolf River at Neopit, WI	04076000	93.2	1911–17
West Branch Wolf River near Keshena, WI	04076500	163	1928–32
Little Wolf River near Galloway, WI	04079602	22.6	1974–79
Spaulding Creek near Big Falls, WI	04079700*	5.57	1964–66
Little Wolf River at Royalton, WI	04080000	507	1914–70, 1983–85
Tomorrow River near Nelsonville, WI	04080798	44.0	1993–95
Emmons Creek near Rural, WI	04080950	25.1	1968–74
Storm Sewer to Mirror Lake at Waupaca, WI	04080976	0.04	1971–74
Waupaca River near Waupaca, WI	04081000	265	1916–66, 1983–85
Daggets Creek at Butte Des Morts, WI	04081800	10.6	1977
West Branch Fond du Lac River at Fond du Lac, WI	04083000	83.1	1939–54
East Branch Fond du Lac River near Fond du Lac, WI	04083500	78.4	1939–54

Station name	Station number	Drainage area (mi^2)	Period of record
STREAMS TRIBUTARY TO LAKE MICHIGAN--CONTINUED			
Brothertown Creek at Brothertown, WI	04084200	5.10	1976–77
East River at Midway Road near De Pere, WI	04085109	47.0	1993–95
Onion River at Hingham, WI	04085813	37.2	1979–80
Onion River near Sheboygan Falls, WI	04085845	94.1	1979–82
Milwaukee River at Kewaskum, WI	04086150	138	1968–81
East Branch Milwaukee River near New Fane, WI	04086200	54.1	1968–81
North Branch Milwaukee River near Random Lake, WI	040863075	51.4	1993–95
North Branch Milwaukee River near Fillmore, WI	04086340	148	1968–81
Milwaukee River at Waubeka, WI	04086360	432	1968–81, 1994
Mud Lake Outlet near Decker Corner, WI	04086488	7.36	1983–84
Lincoln Creek at 47th Street at Milwaukee, WI	040869415	9.56	1993–95
Milwaukee River above North Ave Dam at Milwaukee, WI	04087010	702	1982–84
Menomonee River at Germantown, WI	04087018	19.0	1975–77
Jefferson Park Drainageway at Germantown, WI	04087019	1.82	1976–78
Menomonee River at Butler, WI	04087040	60.6	1975–79
Little Menomonee River near Freistadt, WI	04087050	8.0	1975–79
Noyes Creek at Milwaukee, WI	04087060	1.94	1975–80, 1990
Little Menomonee River at Milwaukee, WI	04087070	19.7	1975–77
Honey Creek at Wauwatosa, WI	04087119	10.3	1975–81
Schoonmaker Creek at Wauwatosa, WI	04087125	1.94	1975–79
Hawley Road Storm Sewer at Milwaukee, WI	04087130	1.83	1975–77
Menomonee River at Milwaukee, WI	04087138	134	1982–84
Kinnickinnic River at Milwaukee, WI	04087160	20.4	1976–83
Milwaukee River at Mouth at Milwaukee, WI	04087170	872	1994–96
ST. CROIX RIVER BASIN			
Namekagon River at Trego, WI	05332000	433	1914–27
Loon Creek near Danbury, WI	05335010	17.6	1970–71
Bashaw Brook near Shell Lake, WI	05335380	26.6	1964–66
Clam River near Webster, WI	05335500	361	1941–42
St. Croix River near Grantsburg, WI	05336000	2,980	1923–70
Wood River near Grantsburg, WI	05339000	185	1939–40
Rice Creek near Balsam Lake, WI	05341375	12.5	1988–89
Balsam Branch at Balsam Lake, WI	05341402	52.8	1988–90
Kinnickinnic River near River Falls, WI	05342000	165	1917–21
CHIPPEWA RIVER BASIN			
West Fork Chippewa River at Lessards, nr Winter, WI	05355500	474	1912–16
Couderay River near Couderay, WI	05356121	169	1981–83
Flambeau River at Flambeau Flowage (Flambeau Reservoir), WI	05357500	622	1927–61
Flambeau River near Butternut, WI	05358000	688	1914–39
Pine Creek near Oxbo, WI	05358300	38.9	1971–75
Flambeau River at Babbs Island near Winter, WI	05358500	967	1929–75
South Fork Flambeau River near Phillips, WI	05359500	609	1929–75
Price Creek near Phillips, WI	05359600*	16.9	1964–66
Flambeau River near (at) Ladysmith, WI	05360000	1,790	1903–06, 1914–61
Chippewa River near Holcombe, WI	05361000	3,720	1944–49
South Fork Jump River near Ogema, WI	05361500	327	1944–54
Chippewa River at Holcombe, WI	05362500	4,680	1943–49
Fisher River at (near) Holcombe, WI	05363000	81.5	1944–45
O'Neil Creek near Chippewa Falls, WI	05363500	78.1	1944–45
Yellow River near Hannibal, WI	05363700	86.7	1962–63
Yellow River at Cadott, WI	05364000*	364	1943–61
Duncan Creek at Bloomer, WI	05364500*	50.3	1944–52
Duncan Creek Tributary near Tilden, WI	05364850	4.17	1987–89

Station name	Station number	Drainage area (mi^2)	Period of record
CHIPPEWA RIVER BASIN--CONTINUED			
Duncan Creek at Chippewa Falls, WI	05365000	117	1943–55
Eau Claire River near Augusta, WI	05366000	509	1914–26
Bridge Creek at Augusta, WI	05366300	35.0	1980
Eau Claire River near Fall Creek, WI	05366500*	760	1943–55
Chippewa River at (near) Eau Claire, WI	05367000	6,620	1903–09, 1944–54
Red Cedar River near Cameron, WI	05367425	442	1966–70
Red Cedar River near Cameron, WI	05367426	443	1971–73
Red Cedar River near Colfax, WI	05367500	1,100	1914–80, 1990
Eau Galle River near Woodville, WI	05369900	39.4	1978–83
French Creek near Spring Valley, WI	05369955	6.03	1981–83
Lousy Creek near Spring Valley, WI	05369970	5.97	1981–83
Lohn Creek near Spring Valley, WI	05369985	2.53	1981–83
Eau Galle River at Elmwood, WI	05370500	91.6	1943–54
BUFFALO RIVER BASIN			
Buffalo River near Tell, WI	05372000	406	1933–51
TREMPEALEAU RIVER BASIN			
Bruce Valley Creek near Pleasantville, WI	05379288	10.1	1980
Elk Creek near Independence, WI	05379305	108	1980
Trempealeau River at Arcadia, WI	05379400	553	1960–77
Trempealeau River near Trempealeau, WI	05380000	719	1932–34
BLACK RIVER BASIN			
Black River at Medford, WI	05380806	48.1	1984–87
Poplar River near Owen, WI	05380900*	155	1964–66
LA CROSSE RIVER BASIN			
Little LaCrosse River near Leon, WI	05382500	76.9	1934–61, 1979–81
LaCrosse River near West Salem, WI	05383000	396	1914–70
COON CREEK BASIN			
Spring Coulee Creek near Coon Valley, WI	05386490	9.01	1979–81
Coon Creek at Coon Valley, WI	05386500	77.2	1934–40, 1978–81
Coon Creek near Stoddard, WI	05386999	120	1934–40, 1979–81
BAD AXE RIVER BASIN			
North Fork Bad Axe River near Genoa, WI	05387100*	80.8	1964–66
WISCONSIN RIVER BASIN			
Wisconsin River at Conover, WI	05390180	177	1967–71
Pelican River near Rhinelander, WI	05391226	101	1976–79
Wisconsin River at Whirlpool Rapids, nr Rhinelander, WI	05392000	1,220	1906–61
Bearskin Creek near Harshaw, WI	05392350*	31.1	1964–66
Tomahawk River near Bradley, WI	05392400	422	1915–27, 1929
Tomahawk River at Bradley, WI	05393000	544	1930–73
New Wood River near Merrill, WI	05394000	82.2	1953–61
Rib River at Rib Falls, WI	05396000	303	1925–57
Little Rib River near Wausau, WI	05396500	79.1	1914–16
East Branch Eau Claire River near Antigo, WI	05397000	81.5	1949–55
Eau Claire River near Antigo, WI	05397110	185	1975–81
Bull Junior Creek (Bull Creek Junior) nr Rothschild, WI	05398500	27.4	1944–52
Big Eau Pleine River near Colby, WI	05399000	78.1	1941–54
Hamann Creek near Stratford, WI	05399431	11.3	1977–79
Wisconsin River at Knowlton, WI	05400000	4,530	1921–42
Plover River near Stevens Point, WI	05400500	145	1914–20, 1944–52
Little Plover River near Arnott, WI	05400600	2.24	1959–75

Station name	Station number	Drainage area (mi^2)	Period of record
WISCONSIN RIVER BASIN--CONTINUED			
Little Plover River at Plover, WI	05400650	19.0	1959–87
Fourmile Creek near Kellner, WI	05400870	75.0	1964–67
Buena Vista Creek near Kellner, WI	05400853	53.1	1964–67
Tenmile Creek Ditch 5 near Bancroft, WI	05401020	9.73	1964–73
Tenmile Creek near Nekoosa, WI	05401050	73.3	1963–79, 1988–94
Fourteenmile Creek near New Rome, WI	05401100	91.1	1964–79
Wisconsin River near Necedah, WI	05401500	5,990	1903–14, 1944–50
Big Roche a Cri Creek near Hancock, WI	05401510	9.61	1964–67
Big Roche a Cri Creek near Adams, WI	05401535	52.8	1964–78
Yellow River at Sprague, WI	05402500	392	1927–40
Yellow River at Necedah, WI	05403000	491	1941–57
Lemonweir River at New Lisbon, WI	05403500	507	1944–87, 1994
Hulbert Creek near Wisconsin Dells, WI	05403630	11.2	1971–77
Dell Creek near Lake Delton, WI	05403700	44.9	1957–65, 1971–80
Narrows Creek at Loganville, WI	05404200	40.1	1964–66
Wisconsin River at Prairie du Sac, WI	05406000	9,180	1946–54
Black Earth Creek at Cross Plains, WI	05406460	12.8	1985–86, 1990–93
Black Earth Creek at Mills Street at Cross Plains, WI	05406476	25.5	1990-95
Black Earth Creek at South Valley Road nr Black Earth, WI	05406497	40.6	1990–93
Trout Creek at Confluence with Arneson Creek near Barneveld, WI	05406573	8.37	1976–78
Trout Creek at Twin Parks Dam 8 nr Barneveld, WI	05406574	9.02	1976–79
Trout Creek at County Highway T nr Barneveld, WI	05406575	12.1	1976–78
Trout Creek near Ridgeway, WI	05406577	13.5	1976–79
Knight Hollow Creek near Arena, WI	05406590	7.57	1976–78
Otter Creek near Highland, WI	05406640	16.8	1968–69, 1970–75
Kickapoo River at Ontario, WI	05407500	151	1939, 1973–77
Knapp Creek near Bloomingdale, WI	05408500	8.44	1955–69
West Fork Kickapoo River near Readstown, WI	05409000	106	1939
Kickapoo River at Soldiers Grove, WI	05409500	530	1939
North Fork Nederlo Creek near Gays Mills, WI	05409830	2.21	1968–79
Nederlo Creek near Gays Mills, WI	05409890	9.46	1968–80
Kickapoo River at Gays Mills, WI	05410000	617	1914–34, 1964–77
GRANT RIVER BASIN			
Pigeon Creek near Lancaster, WI	05413400*	6.93	1964–66
Rattlesnake Creek near Beetown, WI	05413451	45.2	1990–91
GALENA RIVER BASIN			
Little Platte River near Platteville, WI	05414213	79.7	1987–90
Sinsinawa River near Hazel Green, WI	05414800	24.9	1987–90
Pats Creek near Belmont, WI	05414894	5.42	1981–82
Madden Branch Tributary near Belmont, WI	05414915	2.83	1981–82
Madden Branch near Meekers Grove, WI	05414920	15.04	1981–82
Galena River at Buncombe, WI	05415000	125	1939–92
APPLE RIVER BASIN			
Apple River near Shullsburg, WI	05418731	9.34	1981–82
ROCK RIVER BASIN			
West Branch Rock River near Waupun, WI	05423000	40.7	1949–70, 1978–81
West Branch Rock River at County Trunk Highway D near Waupun, WI	05423100	43.9	1978–81
East Branch Rock River near Mayville, WI	05424000	179	1949–70
Rock River at Hustisford, WI	05424082	511	1978–85
Johnson Creek near Johnson Creek, WI	05425537	1.13	1978–80
Johnson Creek near Johnson Creek, WI	05425539	13.3	1978–80

Station name	Station number	Drainage area (mi^2)	Period of record
ROCK RIVER BASIN--CONTINUED			
Pratt Creek near Juneau, WI	05425928	3.54	1978–80
Rock River at Jefferson, WI	05426031	1,850	1978–94[1]
Whitewater Creek near Whitewater, WI	05426500	11.8	1926–28, 1946–54
Whitewater Creek at Millis Road near Whitewater, WI	05426900	20.6	1978–81
Whitewater Creek at Whitewater, WI	05427000	22.8	1926–28, 1946–54
Koshkonong Creek near Rockdale, WI	05427507	150	1977–82
Token Creek near Madison, WI	05427800	24.3	1964–66, 1976–81
Sixmile Creek near Waunakee, WI	05427900	41.1	1976–82
Pheasant Branch at Airport Road near Middleton, WI	05427943	9.61	1977–81
South Fork Pheasant Branch at Highway 14 near Middleton, WI	05427945	5.74	1978–81
Pheasant Branch at Century Avenue at Middleton, WI	05427950	20.8	1977–81
Pheasant Branch at mouth at Middleton, WI	05427952	24.5	1978–81
Willow Creek at Madison, WI	05427970	3.15	1974–83
Olbrich Park Storm Ditch at Madison, WI	05428665	2.57	1976–80
Manitou Way Storm Sewer at Madison, WI	05429040	0.23	1971–77
Nakoma Storm Sewer at Madison, WI	05429050	2.30	1972–77
Lake Wingra Outlet at Madison, WI	05429120	6.00	1971–77
Nine Springs Creek Storm Sewer Tributary at Madison, WI	05429268	0.18	1991–93
Door Creek near Cottage Grove, WI	05429580	15.3	1976–79
Yahara River near Edgerton, WI	05430000	430	1917–18
Oregon Branch at Oregon, WI	05430030	9.93	1979–81
Badfish Creek at County Highway A near Stoughton, WI	05430095	40.9	1956–66, 1986–88
Badfish Creek near Stoughton, WI	05430100	41.3	1956–66
Delavan Lake Trib at South Shore Drive at Delavan, WI	05431018	7.66	1985–86, 1989–91
Jackson Creek at Petrie Road near Elkhorn, WI	05431014	8.96	1984–95
Livingston Branch Pecatonica River nr Livingston, WI	05432055	16.4	1987–91
Yellowstone River near Blanchardville, WI	05433500*	28.5	1954–65, 1978–79
Pecatonica River at Dill, WI	05434000	944	1914–19
Steiner Branch near Waldwick, WI	05433510	5.9	1978–79
Skinner Creek at Skinner Hollow Road near Monroe, WI	05434235	32.6	1978–81
Skinner Creek at Klondyke Road near Monroe, WI	05434240	35.0	1978–81
West Branch Sugar River near Mount Vernon, WI	05435980	32.7	1979–80
Mount Vernon Creek near Mount Vernon, WI	05436000	16.4	1954–65, 1976–80
ILLINOIS RIVER BASIN			
White River near Burlington, WI	05545300	110	1964–66, 1973–82

[1] No winter record in water years 1993 and 1994

The following daily- or continuous-record surface-water-quality stations were discontinued prior to the 1996 water year. Discontinued stations with less than 1 year of record or where data collection frequency was less than daily are not included. Some of the stations in the list are still in operation for purposes other than collection of daily or continuous water-quality data. Information regarding these stations may be obtained from the District Office at the address given on the back of the title page of this report.

[Type of record: T (water tempeature), SC (specific conductance,), DO (dissolved-oxygen concentration), PH (pH), SED (daily sediment discharge), C (daily discharge of one or more chemical constituents)]

Station name	Station numberr	Drainage area (mi^2)	Type of record	Period of record
STREAMS TRIBUTARY TO LAKE SUPERIOR				
Little Balsam Creek at Patzau, WI	04024314	5.00	SED	1976–78
Little Balsam Creek near Patzau, WI	04024315	4.57	SED	1976–78
Little Balsam Creek Tributary near Patzau, WI	04024318	0.64	SED	1976–78
Little Balsam Creek near Foxboro, WI	04024320	6.27	SED	1977–78
Nemadji River near South Superior, WI	04024430	420	SED	1974–78
North Fish Creek near Benoit, WI	04026346	36	SED	1990–91
Pine Creek at Moquah, WI	04026347	5.90	SED	1976–78
Pine Creek Tributary at Moquah, WI	04026348	0.57	SED	1976–78
Pine Creek near Moquah, WI	04026349	21.5	SED	1976–78
North Fish Creek near Moquah, WI	040263491	65.4	SED	1990–91
North Fish Creek near Ashland, WI	04026350	74.4	SED	1990–91
Bad River near Odanah, WI	04027000	597	T,SC	1976–78
White River near Mason, WI	04027080	--	T	1970–72
Sadjak Springs Trib to White River near Mason, WI	04027086	1.00	T	1970–72
Bad River at Odanah, WI	04027595	970	T,SC	1978–81
STREAMS TRIBUTARY TO LAKE MICHIGAN				
Escanaba River at mouth at Escanaba, MI	040590345	928	SED	1988–90
Popple River near Fence, WI	04063700	139	T	1964–80
Menominee River near McAllister, WI	04067500	3,930	T,SC	1979–80
			SED	1988–90
Menominee River at mouth at Marinette, WI	04067651	4,070	SED	1988–90
Peshtigo River at Peshtigo	04069500	1,080	T	1989–90
			SED	1988–90
Peshtigo River at mouth near Peshtigo, WI	04069530	1,100	SED	1988–90
Oconto River near Oconto, WI	04071765	966	SED	1989–90
Oconto River at mouth at Oconto, WI	04071775	982	SED	1989–90
Duck Creek near Howard, WI	04072150	108	C	1992
White Creek at Forest Glen Beach near Green Lake, WI	04073462	3.05	SED,C	1982–88
Middle Branch Embarrass River near Wittenberg, WI	0407809265	76.3	T	1990–91
Fox River at Appleton, WI	04084445	5,950	T	1987–90
			SED	1986–90
Fox River at State Highway 55 at Kaukauna, WI	04084475	5,980	SED	1989–90
Fox River at Wrightstown, WI	04085000	6,050	T,SC	1975–81
Fox River at Little Rapids, WI	04085054	6,100	SED	1989–90
Fox River at De Pere, WI	04085059	6,110	SED	1989–90
Bower Creek at Sunnyview Road near De Pere, WI	04085118	4.82	SED,C	1985–86
East River at Monroe Street in Green Bay, WI	040851378	144.9	SED,C	1985–86
Fox River at mouth at Green Bay, WI	04085139	6,330	T,SC,DO,PH	1989–90
Manitowoc River at Manitowoc, WI	04085427	526	T,SC	1979–80
Cedar Lake near Kiel, WI	04085500	1.43	T	1974–77
Onion River at Hingham, WI	04085813	37.2	T,SC,SED	1979–80
			C	1980
Onion River near Sheboygan Falls, WI	04085845	94.1	T,SC,SED	1979–80
			C	1980
Milwaukee River near Cedarburg, WI	04086600	607	SED	1982–84
Lincoln Sreek at 47th Street at Milwaukee, WI	040869415	9.56	T	1993–95
			DO	1994–95
Milwaukee River at Milwaukee, WI	04087000	696	T,SC	1973–80[2]
			SED	1982–84
Milwaukee River above North Avenue Dam at Milwaukee, WI	04087010	702	SED	1982–84

Station name	Station numberr	Drainage area (mi^2)	Type of record	Period of record
STREAMS TRIBUTARY TO LAKE MICHIGAN--CONTINUED				
Menomonee River at Germantown, WI	04087018	19	SED	1975–77
Jefferson Park Drain at Germantown, WI	04087019	1.82	SED	1977–78
Menomonee River at Menomonee Falls, WI	04087030	34.7	SED	1975–77, 1982–84
Menomonee River at Butler, WI	04087040	60.64	SED	1975–77
Little Menomonee River near Freistadt, WI	04087050	8.0	SED	1975–77
Noyes Creek at Milwaukee, WI	04087060	1.94	SED	1975–77
Little Menomonee River at Milwaukee, WI	04087070	19.7	SED	1975–77
Underwood Creek at Wauwatosa, WI	04087088	18.2	SED	1975–77
Honey Creek at Wauwatosa, WI	04087119	10.3	SED	1975–77
Menomonee River at Wauwatosa, WI	04087120	123	SED	1975–77, 1982–84
Schoonmaker Creek at Wauwatosa, WI	04087125	1.94	SED	1975–77
Hawley Road Storm Sewer at Wauwatosa, WI	04087130	1.83	SED	1975–77
Menomonee River at Milwaukee, WI	04087138	134	SED	1983–84
Menomonee River at Falk Corp at Milwaukee, WI	04087140	133.82	SED	1975–77, 1982
Kinnickinnic River at South 11th Street at Milwaukee, WI	04087159	20.2	SED	1983–84
ST. CROIX RIVER BASIN				
Round Lake near Gordon, WI	461342091561002	--	T	1981–85
St. Croix River at St. Croix Falls, WI	05340500	6,240	T,SC	1975–81
			SED	1982
Rice Creek near Balsam Lake, WI	05341375	12.5	C	1988–89
Balsam Branch at Balsam Lake, WI	05341402	52.8	C	1988–89
CHIPPEWA RIVER BASIN				
Duncan Creek Tributary near Tilden, WI	05364850	4.17	T,C,SED	1987–89
			DO	1987–88[1]
Red Cedar River near Colfax, WI	05367500	1,090	C	1959, 1990
Hay River at Wheeler, WI	05368000	418	C	1959, 1990
Chippewa River at Durand, WI	05369500	9,010	T,SC	1975–81[2]
			SED	1974–79
Eau Galle River near Woodville, WI	05369900	39.4	T,SC	1978–83[2]
Eau Galle River at Low-Water Bridge at Spring Valley, WI	05369945	47.9	T	1982–83, 1987–93
			SC	1983
Eau Galle River at Spring Valley, WI	05370000	64.1	T,SC	1978–90
TREMPEALEAU RIVER BASIN				
Bruce Valley Creek near Pleasantville, WI	05379288	10.1	T,SC,SED,C	1980
Elk Creek near Independence, WI	05379305	108	T,SC,SED,C	1980
BLACK RIVER BASIN				
Black River near Galesville, WI	05382000	2,080	SED	1976–79
WISCONSIN RIVER BASIN				
Lake Clara near Tomahawk, WI	453100089343002	0.46	T	1982–86
Little Rock Lake near Woodruff, WI	455946089415704	--	T	1984–87
Buena Vista Creek near Kellner, WI	05400853	53.1	T	1965–67
Tenmile Creek Ditch 5 near Bancroft, WI	05401020	9.73	T	1965–72
Dell Creek near Lake Delton, WI	05403700	44.9	T,SED	1958–65
Black earth Creek at Cross Plains, WI	05406460	12.8	C,SED	1985–86
			T	1985–86, 1990–95
			DO	1984–86, 1989–95
Brewery Creek at Cross Plains, WI	05406470	10.5	SED[3]	1985–86
Black Earth Creek at Mills Street at Cross Plains, WI	05406476	25.5	T,DO	1990–95
Garfoot Creek near Cross Plains, WI	05406491	5.39	SED[3]	1985–86
Black Earth Creek at Black Earth, WI	05406500	45.6	T	1954–65, 1985–86
			DO	1986[1]
			SED	1956–65, 1985–86
			C	1985–86
Trout Creek Confluence Arneson Creek near Barneveld, WI	05406573	8.37	T,SC	1976–79
Trout Creek at Twin Parks Dam 8 near Barneveld, WI	05406574	9.02	SED	1976–79
Trout Creek at CTH T near Barneveld, WI	05406575	12.1	T,SED	1976–78
Trout Creek near Ridgeway, WI	05406577	13.5	T,SED	1976–79
Wisconsin River at Muscoda, WI	05407000	10,400	T,SC	1975–80[1], 1981
			SED	1975–79

Station name	Station numberr	Drainage area (mi^2)	Type of record	Period of record
WISCONSIN RIVER BASIN--CONTINUED				
Kickapoo River at Ontario, WI	05407500	150	T	1974–77
			SED	1973–77
Kickapoo River near Rockton, WI	05407920	260	T,SED	1972–77
Kickapoo River at LaFarge, WI	05408000	266	T,SC	1971–77
			SED	1972–77
North Fork Nederlo Creek at mouth near Gays Mills, WI	05409842	2.31	T	1970[1], 1974–78
South Fork Nederlo Creek near Gays Mills, WI	05409860	4.11	T	1970[1], 1974–78
Nederlo Creek at Utica Town Hall near Gays Mills, WI	05409870	6.70	T	1968–78
GALENA RIVER BASIN				
Little Platte River near Platteville, WI	05414213	79.7	T	1987–90
			DO	1987–90[1]
Sinsinawa River near Hazel Green, WI	05414800	24.9	T	1987–90
			DO	1987–90[1]
Pats Creek near Belmont, WI	05414894	5.42	T,SC,C	1981–82
			DO	1982[1]
Madden Branch Tributary near Belmont, WI	05414915	2.83	T,SC,C	1981–82
			DO	1981[1]
Madden Branch near Meekers Grove, WI	05414920	15.06	T,SC,C	1981–82
			DO	1981–82[1]
			PH	1982[1]
APPLE RIVER BASIN				
Apple River near Shullsburg, WI	05418731	9.34	T,SC,C	1981–82
			DO	1981[1]
ROCK RIVER BASIN				
Crawfish River at Milford, WI	05426000	762	SED	1980–82
Rock River at Indianford, WI	05427570	2,630	T	1975–78
			SC,DO,PH	1976–78
South Fork Pheasant Branch at Hwy 14 near Middleton, WI	05427945	5.74	SED	1978–81
Pheasant Branch at Centruy Avenue at Middleton, WI	05427950	20.8	SED	1978–81
Pheasant Branch at mouth at Middleton, WI	05427952	24.5	SED	1978–81
Willow Creek at Madison, WI	05427970	3.15	SED	1973–84
Rock River at Afton, WI	05430500	3,340	T	1955–83
Jackson Creek at Petrie Road near Elkhorn, WI	05431014	8.96	C,SED	1984–85
				1993–95
Delavan Lake Trib at South Shore Drive at Delavan, WI	05431018	9.99	SED,C	1984–85, 1990–91
Livingston Branch Pecatonica River near Livingston, WI	05432055	16.4	T	1987–91
			DO	1987–91[1]
Yellowstone River near Blanchardville, WI	05433500	28.5	T	1954–60
			SED	1958–60, 1978–79
Steiner Branch near Waldwick, WI	05433510	5.90	T,SC,SED,C	1978–79
Pecatonica River at Martintown, WI	05434500	1,034	SED	1980–82
Mount Vernon Creek near Mount Vernon, WI	05436000	16.4	T	1954–60
			SED	1956–60
Sugar River near Brodhead, WI	05436500	523	SED	1978–86
ILLINOIS RIVER BASIN				
Muskego Lake Outlet near Wind Lake, WI	425109088075000	28.3	C	1988–89
Powers Lake Tributary at Powers Lake, WI	05548163	1.83	C	1987

[1] Seasonal record, non-freezing periods
[2] Numerous periods of missing record
[3] Station currently in operation for constituents(s) not listed here

INTRODUCTION

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." Lake stage and in-lake water-quality data previously published in this series are now published annually in a report series "Water-Quality and Lake-Stage Data for Wisconsin Lakes." This Open-File Report series began in 1994; 1996 water year data for lakes are published in Open-File Report 97-123.

Water-resources data for Wisconsin for the 1996 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. These volumes contain discharge records from 143 gaging stations and peak stage and discharge from 74 crest-stage stations; stage for 6 lakes and contents for 24 reservoirs; water-quality data from 48 streams and from 3 lakes; precipitation from 25 sites; and water-level records from 59 observation wells. 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.

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 U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report WI-96-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

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)274-3535.

Water-resources data, including stage and discharge data at most streamflow-gaging stations, water levels in selected wells, and some water-quality data, are available through the World Wide Web on the Internet. Current and historical data provided in water-data reports are available. The Universal Resource Locator (URL) to the Wisconsin District's home page is: **http://wwwdwimdn.er.usgs.gov/.**

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, George E. Meyer, secretary.
Southeastern Wisconsin Regional Planning Commission, K. W. Bauer, executive director.
U.S. Army Corps of Engineers.
U.S. Environmental Protection Agency, Region 5, Water Division, Barry DeGraff, director.
U.S. Environmental Protection Agency, National Program Office, Chris Grundler, director.
Wisconsin Department of Transportation, Harold Amundson, chief bridge engineer.
The University of Wisconsin-Extension, Geological and Natural History Survey, James Robertson, state geologist and director.
Dane County Department of Public Works, Kenneth J. Koscik, director.
Dane County Regional Planning Commission, Thomas Favour, executive director.
City of Madison, Paul Soglin, mayor.
City of Middleton, Dan Ramsey, mayor.
City of Beaver Dam, Robert Sackett, utilities superintendent.
City of Thorp, Bernell Lange, mayor.
Madison Metropolitan Sewerage District, James L. Nemke, chief engineer and director.
Milwaukee Metropolitan Sewerage District, Ralph Hollman, acting executive director.
Green Bay Metropolitan Sewerage District, Paul E. Thormodsgard, general manager.
City of Hillsboro, Janice G. Boekme, mayor.

Illinois Department of Transportation, Melvin Allison, chief, bureau of planning.
City of Waupun, Dennis Westhuis, manager, public utilities.
City of Peshtigo, J. F. Dale Berman, mayor.
Rock County Public Works Department, Thomas G. Kautz, parks and conservation director.
Village of Wittenberg, Phillip Meyer, chairman, sewer and water committee.
Menominee Indian Tribe of Wisconsin, Betty Jo Wozniak, administrator.
Oneida Indian Tribe of Wisconsin, Pat Pelky, environmental department.
Town of Delavan, Wayne Polzon, town clerk.
Green Lake Sanitary District, Ron Edwards, administrator.
City of Fond du Lac, David Boede, city engineer.
City of Barron, Bard Kittleson, mayor.
Lac du Flambeau Band of Lake Superior Chippewa, Thomas Maulson, president.
Stockbridge/Munsee Indian Tribe, Virgil Murphy, tribal chairman.
City of Sparta, Milo Seubert, mayor.
City of Brookfield, Kathryn C. Bloomberg, mayor.
Fontana/Walworth Water Pollution Control Commission, Dean M. Donner, superintendent.
Bad River Band of Lake Superior Chippewa Indians, John Wilmer, tribal chairman.
Walworth County Metropolitan Sewerage District, Joseph S. Cannestra, administrator.
City of Muskego.

The following organizations aided in collecting streamflow records: Wisconsin Valley Improvement Co., Wisconsin Public Service Corp., Northern States Power Co., Dairyland Power Cooperative, Wisconsin Power and Light Co., Wisconsin Electric Power Co., Scott Paper Co., Milwaukee County Park Commission, and Niagara of Wisconsin Paper Corp. Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

The statewide average precipitation of 33.37 inches for the 1996 water year was 105 percent of the normal annual precipitation of 31.79 inches for water years 1961-90. Average precipitation values ranged from 77 percent of normal at Trempealeau Dam 6 weather station in west central Wisconsin to 151 percent of normal at Oconto 4 W weather station in northeast Wisconsin (State Climatologist Office, Geological and Natural History Survey, written commun., 1997).

Runoff was variable for rivers throughout the State ranging from 64 percent in southwest Wisconsin to 212 percent in east central Wisconsin. Runoff was lowest (64 percent of the average annual runoff from 1935–96) for the Platte River near Rockville and highest (212 percent of the average annual runoff from 1949–69, 1988–96) for the South Branch Rock River at Waupun. Departures of runoff in the 1996 water year as a percent of long-term average runoff in the State are shown in Figure 1.

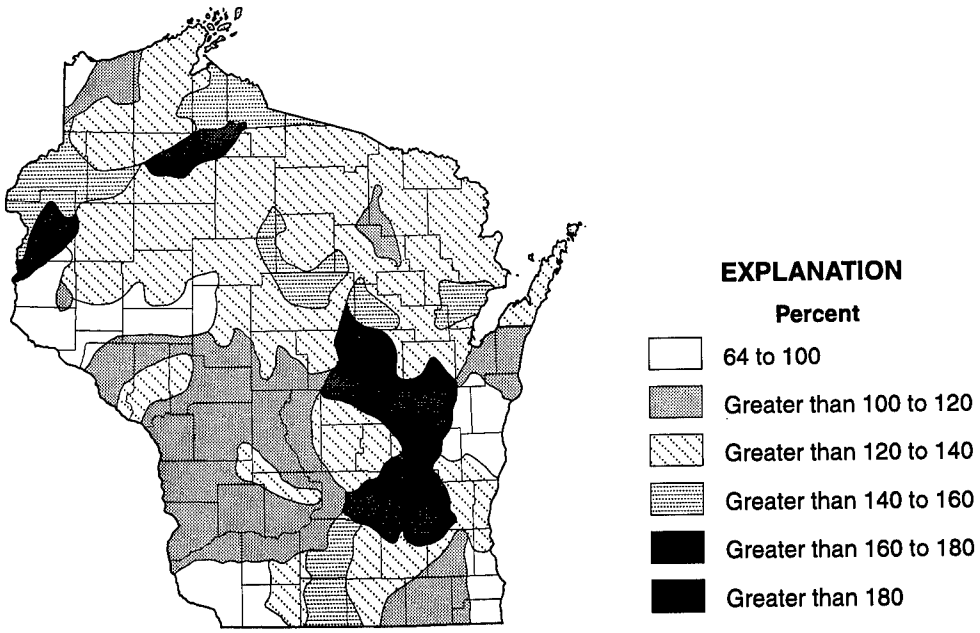


Figure 1. 1996 runoff as percent of long-term average runoff.

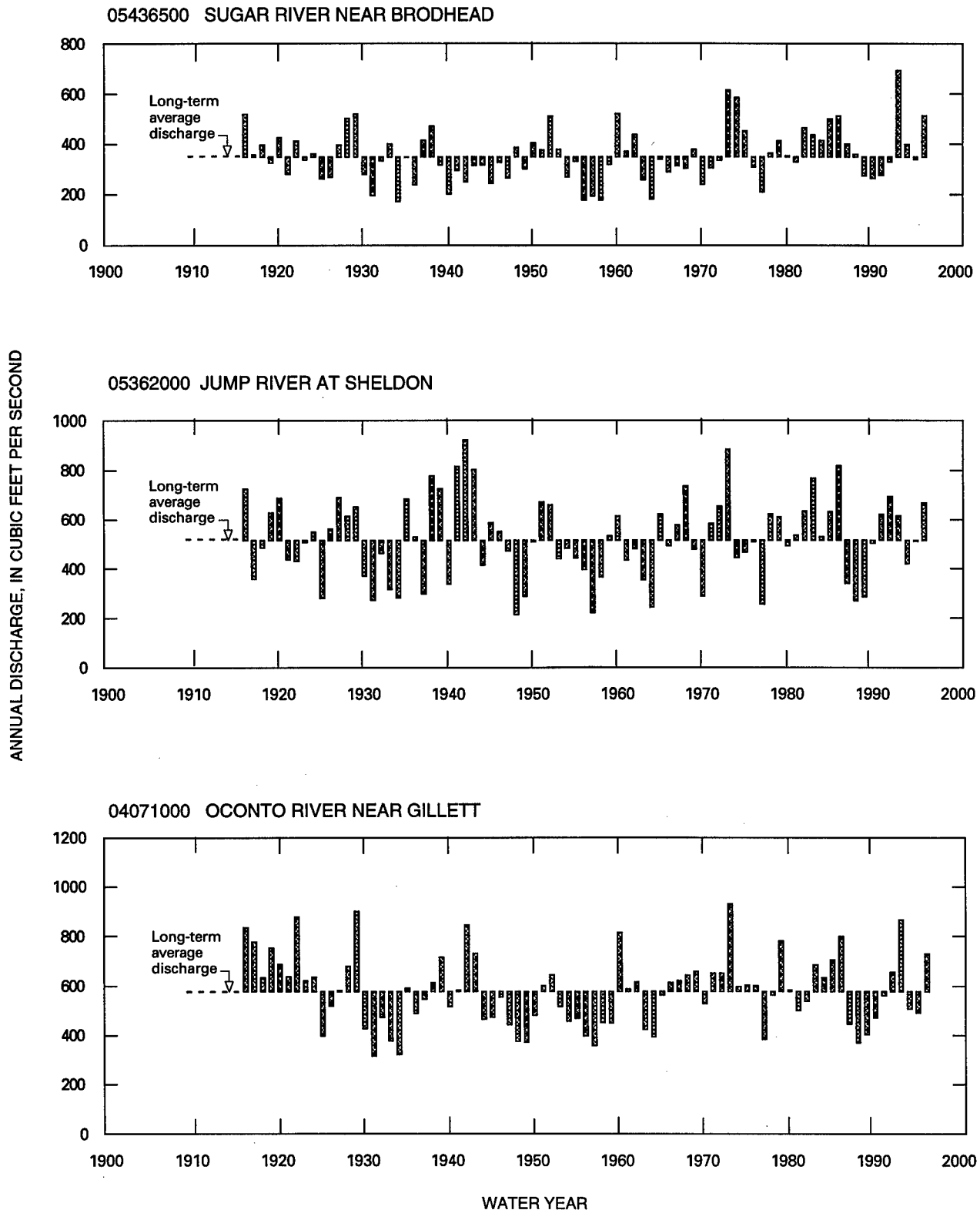


Figure 2. Comparison of annual discharge at representative gaging stations to their long-term average discharge for water years 1916 –1996.

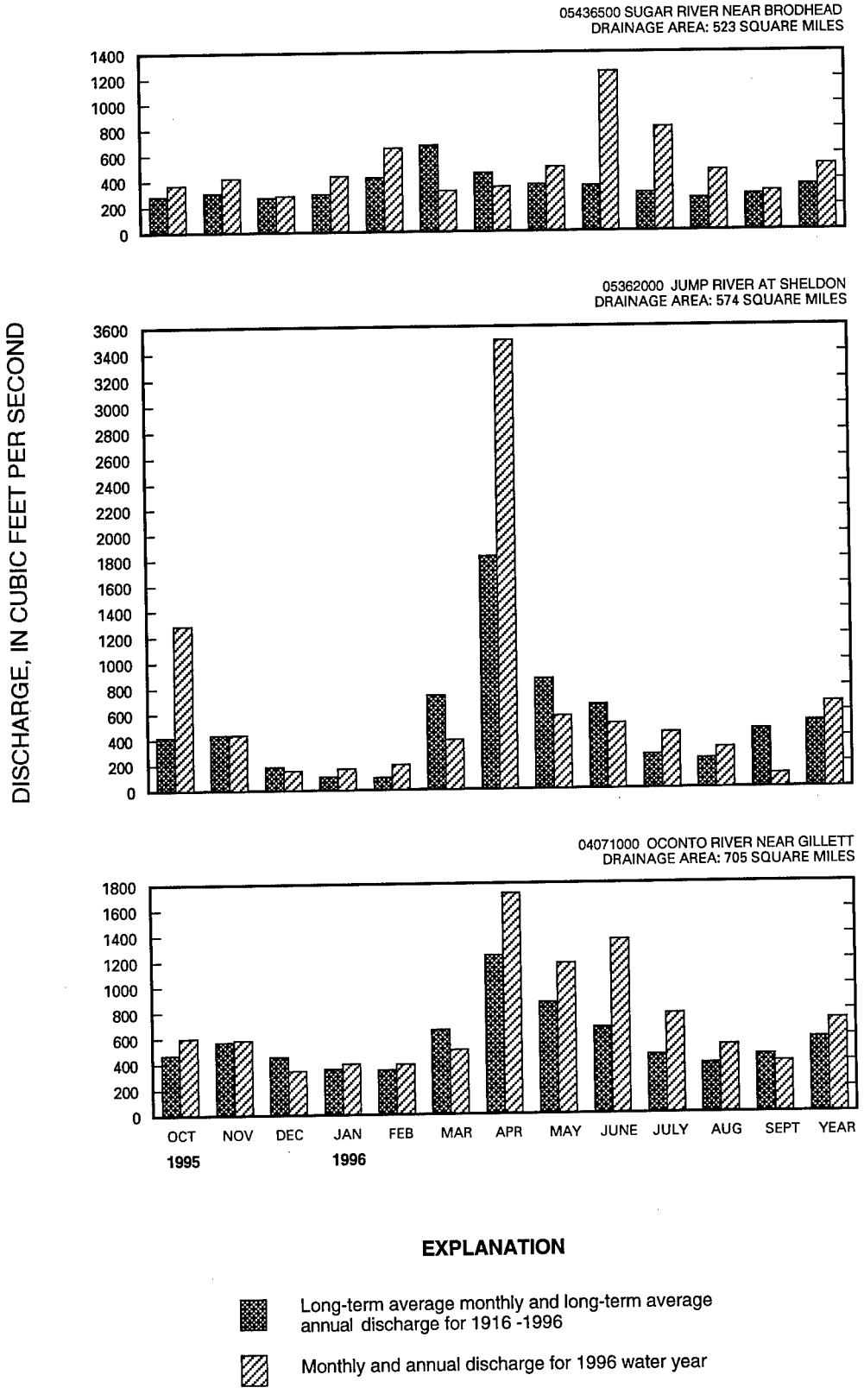


Figure 3. Comparison of discharge at representative gaging stations during 1996 water year with discharge for 1916 –1996.

Annual discharges for the individual water years (1916-96) at the Oconto River near Gillett, Jump River at Sheldon, and Sugar River near Brodhead are shown in Figure 2. The comparison of monthly and annual discharges for the 1996 water year to discharge for a 81-year base period at the same three gaging stations are shown in Figure 3.

Low flows occurred at nine gaging stations where the annual minimum 7-consecutive day average flows (Q7) had recurrence intervals of 2 or more years. The Q7 values typically occurred in late August and September, or in the winter month of January. The low-flow values which occurred in the summer were the result of below normal precipitation in August and September. Most Q7 values occurred at stations draining into Lake Michigan in southeastern Wisconsin. The Q7 values and recurrence intervals for gaging stations that equalled or exceeded 2 years are listed in the following table:

Station number	Station name	Date	Q7 (ft^3/s)	Recurrence interval (years)
04027500	White River near Ashland	Sept. 17–23	134	5
04085281	East Twin River at Mishicot	Sept. 2–9	9.6	2
04087030	Menomonee River at Menomonee Falls	Sept. 13–19	3.5	2
04087120	Menomonee River at Wauwatosa	Sept. 14–20	13	2
04087159	Kinnickinnic River at Milwaukee	Jan. 5–11	4.2	6
04087204	Oak Creek at South Milwaukee	Sept. 14–20	1.0	4
04087220	Root River near Franklin	Sept. 13–19	2.7	4
04087233	Root River Canal near Franklin	Aug. 31–Sept.6	1.7	3
04087240	Root River at Racine	Sept. 19–25	2.1	10

A late snowpack along with a late sudden warm-up and some rain caused flooding in northern Wisconsin in mid to late April (Wisconsin State Journal, April 22, 1996). Isolated storms in October and May and major thunderstorms in June and July also caused floods with discharges that equalled or exceeded those with a recurrence interval of 10 years (Krug and others, 1991). During the three-day period of June 16–18, Port Washington in Ozaukee County received 13.52 inches of rain and had a monthly June total of 18.33 inches which was 60 percent of its average yearly total for the period from 1961–90 (State Climatologist office, UW-Extension, Geological and Natural History Survey, written commun., 1996). The thunderstorms in June caused statewide damages of $67 million to public property, private property, and agricultural crops (Kapela and others, 1996). Governor Thompson asked for federal assistance to help repair flood damage in 15 counties caused by the June storms (Wisconsin State Journal, June 20, 1996). A major storm dumped 8 to 11 inches of precipitation in a 5-hour period on July 17 and 18 in Green County (Wisconsin State Journal, July 19, 1996). Public and private damages in Green County from this storm was about $60 million with as much as $50 million of this amount in crop damages (Wisconsin State Journal, July 20, 1996). Peak discharges at 26 stations which had recurrence intervals that equalled or exceed 10 years are summarized in the following table:

Station number	Station name	Date	Peak discharge (ft^3/s)	Recurrence interval (years)
04027000	Bad River near Odanah	Apr. 20	13,000	10
04027500	White River near Ashland	Apr. 19	4,930	11
04063700	Popple River near Fence	Apr. 26	1,490	48
04066003	Menominee River near Pembine	Apr. 27	22,400	12
04067760	Peshtigo River near Cavour	Apr. 21	1,600	32
04069700	North Branch Oconto River near Wabeno	Apr. 20	621	>100
04071800	Pensaukee River near Pulaski	June 18	1,810	25
04073400	Bird Creek at Wautoma	June 18	141	13
04074850	Lily River near Lily	Apr. 20	167	15
04074950	Wolf River at Langlade	Apr. 26	2,440	75
04077400	Wolf River near Shawano	Apr. 21	3,860	17
04078500	Embarrass River near Embarrass	June 19	4,830	75
04079700	Spaulding Creek near Big Falls	June 18	93	32
04084500	Fox River at Rapide Croche Dam nr Wrightstown	June 26	14,600	14
04087030	Menomonee River at Menomonee Falls	June 17	1,100	17
04087257	Pike River near Racine	May 20	1,360	10
05332500	Namekagon River near Trego	Apr. 22	2,160	15
05359600	Price Creek near Phillips	Apr. 20	328	48
05360500	Flambeau River near Bruce	Apr. 20	17,900	14
05391950	Squaw Creek near Harrison	Oct. 23	34	25

Station number	Station name	Date	Peak discharge (ft^3/s)	Recurrence interval (years)
05393500	Spirit River at Spirit Falls	Apr. 20	3,130	20
05393640	Little Pine Creek near Irma	Apr. 19	210	10
05395000	Wisconsin River at Merrill	Apr. 21	23,400	15
05425500	Rock River at Watertown	June 18	3,790	11
05429500	Yahara River at McFarland	June 19	778	90
05430175	Yahara River near Fulton	June 18	3,230	42

References cited:

Kapela, Rusty, and others, 1996, Wisconsin's Weather Can't Get Any Wilder, in The Wisconsin National Weather Service Badger Weather Report: v. 4, no. 2, p.8–9.

Krug, W. R., Conger, D. H., and Gebert, W. A., 1991, Flood-frequency Characteristics of Wisconsin Streams: U.S. Geological Survey Water-Resources Investigations Report 91-4128, 185 p.

Wisconsin State Journal, Bad River overflows, closing part of highway: Madison, Wis., April 22, 1996.

_____, Fed asked for flood money: Madison, Wis., June 20, 1996.

_____, 11 inches of rain falls in 5 hours: Madison, Wis., July 19, 1996.

_____, Green County rained out: Madison, Wis., July 20, 1996.

Water Quality

Suspended-sediment and total phosphorus yields for streams in southern Wisconsin for water year 1996 were generally lower than the long-term annual average. The suspended-sediment yield at the Grant River at Burton in southwestern Wisconsin was 80 tons/mi^2 (tons per square mile), or 33 percent of the average annual yield for 1978-96. The suspended-sediment yield for Jackson Creek Tributary near Elkhorn in southeastern Wisconsin for water year 1996 was 101 tons/mi^2, which was 139 percent of the average annual yield for the period 1984-96. The total phosphorus yield for Jackson Creek Tributary was 398 lbs/mi^2 (pounds per square mile), or 85 percent of the 1984-96 annual average. At Silver Creek near Ripon suspended sediment yield was 18.8 tons/mi^2, or 80 percent of the 1988-96 annual average, and total phosphorus yield was 306 lbs/mi^2, or 88 percent of the 1988-96 annual average.

Ground-Water Levels

Maps showing the seasonal ground-water trends for the year (fig. 4) are based on water-level data from 23 shallow-aquifer wells, each having at least 15 years of record. Water-level measurements from each well are grouped so that FALL consists of measurements from October through December 1995; WINTER consists of measurements from January through March 1996; SPRING consists of measurements from April through June 1996; and SUMMER consists of measurements from July through September 1996. Mean seasonal water levels were compared to the long-term mean seasonal water levels. The 1996 water level was considered normal if it was within one-half of the standard deviation on the long-term mean.

In general, shallow ground-water levels during the 1996 water year were normal to above normal for most of the wells in the State. Barron and Milwaukee Counties had below normal ground-water levels at the beginning of the water year, and some of those levels remained below normal for the entire water year. The large extent of normal and above-normal ground-water levels can be attributed to near normal rainfall during the 1996 water year and above normal rainfall during the previous water year.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's Largest river basins--the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be

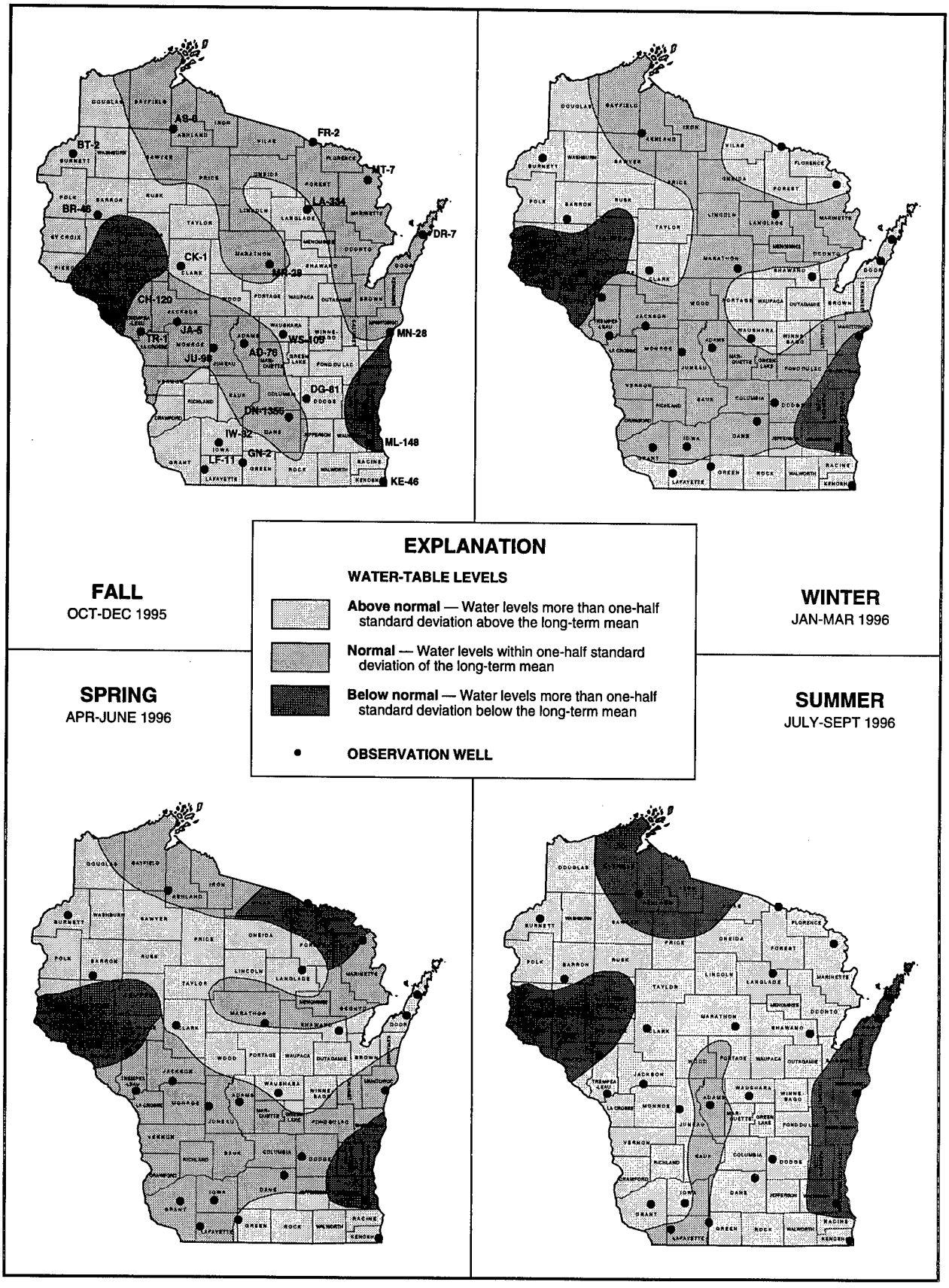


Figure 4. Relation of seasonal water-table levels to long-term means.

used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to accomplish the following objectives; (1) provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation chemistry monitoring sites, (2) provide the mechanism to evaluate the effectiveness of the significant reduction in SO2 emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred, (3) provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO2 and NOx scheduled to begin in 2000.

Data from the network, as well as information about individual sites, are available through the world wide web at:

http://nadp.nrel.colostat.edu/NADP

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

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

Additional information about the NAWQA Program is available through the world wide web at:

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

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

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are from the 1996 water year that began October 1, 1995, and ended September 30, 1996. 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; precipitation data; surface and ground water; and ground-water-level data. 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 figure 6.

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

In this report each data station, whether streamsite or well, 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 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 on streams and a unique 15-digit number is used for lakes, wells, and precipitation monitoring sites.

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 indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. 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- to ten-digit number for each station, such as 04087000, 054310157, or 0407809265, which appears just to the left of the station name, includes the two-digit Part number "04" or "05" plus the six- to eight-digit downstream-order number ("087000", "4310157", or "07809265"). 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, Lake, and Precipitation Data Sites

Wells, springs, sites on lakes, and precipitation gages 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 are commonly published for such stations, they are referred to as "daily stations." By contrast, partial records consist of 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. Each type of station is 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, from a tape punched at selected intervals on a water-stage recorder, or from electronic data logger. 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. Acoustic velocity meters have also been installed at some locations where aforementioned problems occur. 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

Streamflow data in this report are presented in a format that is considerably different from the format in data reports prior to the 1992 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or stations manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

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

Station manuscripts

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

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages were 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 sea level (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 an estimated record, this information will be presented as the first entry of the paragraph. 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 any other pertinent items.

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

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.

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.

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

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. The RATING TABLE heading has also been deleted. No changes have been made to the data presentation of lake contents.

Data table of daily mean values

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly 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 is usually also 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.

Statistics of monthly mean data

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

Summary statistics

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to the nearest whole number between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, 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 streamgaging stations, because interpretation of records of stream-water quality nearly always requires corresponding stream discharge data. The stream discharge shown with a water-quality analysis is the instantaneous value corresponding to the time of sample collection ("Streamflow, Instantaneous") whenever possible. When an instantaneous discharge value is not available, the daily mean discharge ("Discharge, in Cubic Feet per Second") is given if available. 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. More limited water-quality data are collected at gaging stations and other sites on streams. These data include measurements of water temperature and specific conductance made at gaging stations and water-quality analyses of samples collected at gaging stations and other sites on streams for reconnaissance and other special purposes. These data are presented separately 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 quality of the water at the time of sampling. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen concentration, are made on site when the samples are taken. To assure that measurements made in the laboratory also reflect the original quality of the water, 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 detailed in the TWRI Book 1, Chapter D2: Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These references are listed in the PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS section of this report. These methods are consistent with ASTM standards and generally follow ISO standards.

One sample can adequately define 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 the discharge of suspended and dissolved materials. Water quality in lakes may differ with depth and laterally at a particular depth depending on thermal stratification and other physical and biological factors.

Water-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 digital monitors, daily maximum, minimum, and mean values for each constituent or property are computed and reported herein. Records of recorded values used in the computations are on file at the U.S. Geological Survey (USGS) Wisconsin District Office.

Transport of suspended and dissolved materials

Samples used for computing discharge of suspended and dissolved materials (suspended sediment, suspended solids, phosphorus, and nitrogen) are collected using a number of sampling methods. Sample types include flow-integrated samples collected using a depth-integrating sampler at multiple locations in a stream cross section (equal-width increment or EWI samples), samples collected using depth-integrating sampler at a single location in a cross section, or point samples collected by an automated sampler from a single point in a cross section. Coefficients are used to compensate for concentration differences between flow-integrated samples and samples collected at single points or single locations.

Samples are collected more frequently during periods of rapidly-changing stream discharge than during stable periods. Discharges of suspended and dissolved materials for days of rapidly-changing stream discharge are computed by the subdivided day (time-discharge weighted average) method. Methods used in the computation of sediment records are described in the TWRI Book 3, Chapters C1 and C3 listed in PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS. These methods are consistent with ASTM standards and generally follow ISO standards. For periods when no samples were collected, discharges of suspended and dissolved material are estimated from stream discharge and constituent concentrations from adjacent time periods and periods with similar stream discharges. Suspended-sediment and suspended-solids discharges of less than 0.005 tons/day are reported as 0.00 tons/day, and phosphorus and nitrogen discharges of less than 0.005 pounds per day (lb/day) are reported as 0.00 lb/day.

In addition to the records of suspended-sediment discharge and concentration, 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 USGS Iowa District Sediment Laboratory. Chemical analyses, other than field measurements, are done by the USGS National Water Quality Laboratory unless indicated otherwise in the descriptive heading for the station. Methods used by USGS laboratories to analyze water and sediment samples and to compute sediment records are described in the TWRI Book 5, Chapter C1. Methods used by the U.S. Geological Survey laboratories are given in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

In March 1989, the USGS National Water-Quality Laboratory discovered a bias in their turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and July 1989. The magnitude of the bias differs among stations.

A problem has been identified with total phosphorus and total Kjeldahl nitrogen analyses done by the USGS National Water Quality Laboratory prior to Oct. 1, 1991. Some time after 1975, an error was introduced during a rewrite of the laboratory method for digestion of samples for total phosphorus or total Kjeldahl nitrogen analyses. The error resulted in incomplete digestion of samples causing a negative bias in the total phosphorus and total Kjeldahl nitrogen concentrations reported for many samples. The amount of bias is variable, but it generally increases with increasing concentrations of particulate phosphorus, suspended sediment, or organic carbon in the sample. In the absence of split-sample data, there is no scientifically defensible way to correct for the bias. Total phosphorus loads calculated using concentration data for samples analyzed prior to October 1991 may also have a sizeable negative bias. A new digestion procedure was implemented effective Oct. 1, 1991, that eliminated the bias.

Dissolved Trace-Element Concentrations

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

Collecting and Analyzing Agencies

All water-quality analyses stored in USGS computer files (WATSTORE) contain codes that identify the agencies that collected the sample (collecting agency) and analyzed it (analyzing agency). Codes in use for Wisconsin data are as follows:

Agency	Agency Code
U.S. Geological Survey	1028
U.S. Geological Survey, National Water- Quality Laboratory	80020
Wisconsin State Laboratory of Hygiene	85543
Wisconsin Department of Natural Resources	85545

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, laboratories (if other than USGS), cooperation, and extremes for daily discharges of suspended and dissolved materials. For each station, tables of data collected at less-than-daily frequency are presented first followed by tables of daily values.

The concentrations of some constituents are given as less than a particular value (see "Remark Codes"); that value is the detection for the analytical method used for the analysis. Occasionally these values differ, or an actual concentration is given that is less than a higher detection limit indicated for the constituent in another analysis. These differences are due to differences in analytical methods.

The five-digit numbers in parentheses in column headings in many of the water-quality tables are codes that identify the constituent or property in USGS computer files (WATSTORE).

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 constituents or properties measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for each constituent or property.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, temperature recorder, automated 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. Laboratories other than USGS laboratories are identified.

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 USGS 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 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:

PRINTED OUTPUT	REMARK
E, 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 59 wells are given in this report. The locations of these wells are shown in 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 59 wells are presented in this report, water-level data are currently being collected for a total of 160 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 nine 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), that consists of a two-letter abbreviation of the county name, the township-range-section location of the well, and a four-digit identification number that is unique within the county.

Water-level records are obtained from direct measurements with a steel tape or from a continuous water-level 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 sea level and the distance 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.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method.

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) sea level; 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.

ACCESS OF WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval system (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

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

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

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

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.)

DEFINITION OF TERMS

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°C + 0.2° on M-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° ± 1.0° on KF-streptococcus 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 foot per second (ft^3/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.

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.

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

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

Micrograms per liter (µg/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:

Classification	Size (mm)	Method of analysis
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.

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

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 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.

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.

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 µm 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 mm 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 recoverable 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.

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 Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

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-D2. *Application of seismic-refraction techniques to hydrologic studies,* by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 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.

2-E2. *Borehole geophysics applied to ground-water investigations,* by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells,* by Eugene Shuter and W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 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 measurement 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 in streams by dye tracing,* by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.

3-Al0. *Discharge ratings at gaging stations,* by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by the moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A12. *Fluorometric procedures for dye tracing*, Revised, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 34 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-A16. *Measurement of discharge using tracers,* by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.

3-A17. *Acoustic velocity meter systems,* by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

3-A18. *Determination of stream reaeration coefficients by use of tracers,* by F. A. Kilpatrick, R. E. Rathbun, Nobuhiro Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.

3-A19. *Levels at streamflow gaging stations,* by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 31 pages.

3-A20. *Simulation of soluable waste transport and buildup in surface waters using tracers,* by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.

3-A21 *Stream-gaging cableways,* by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 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.

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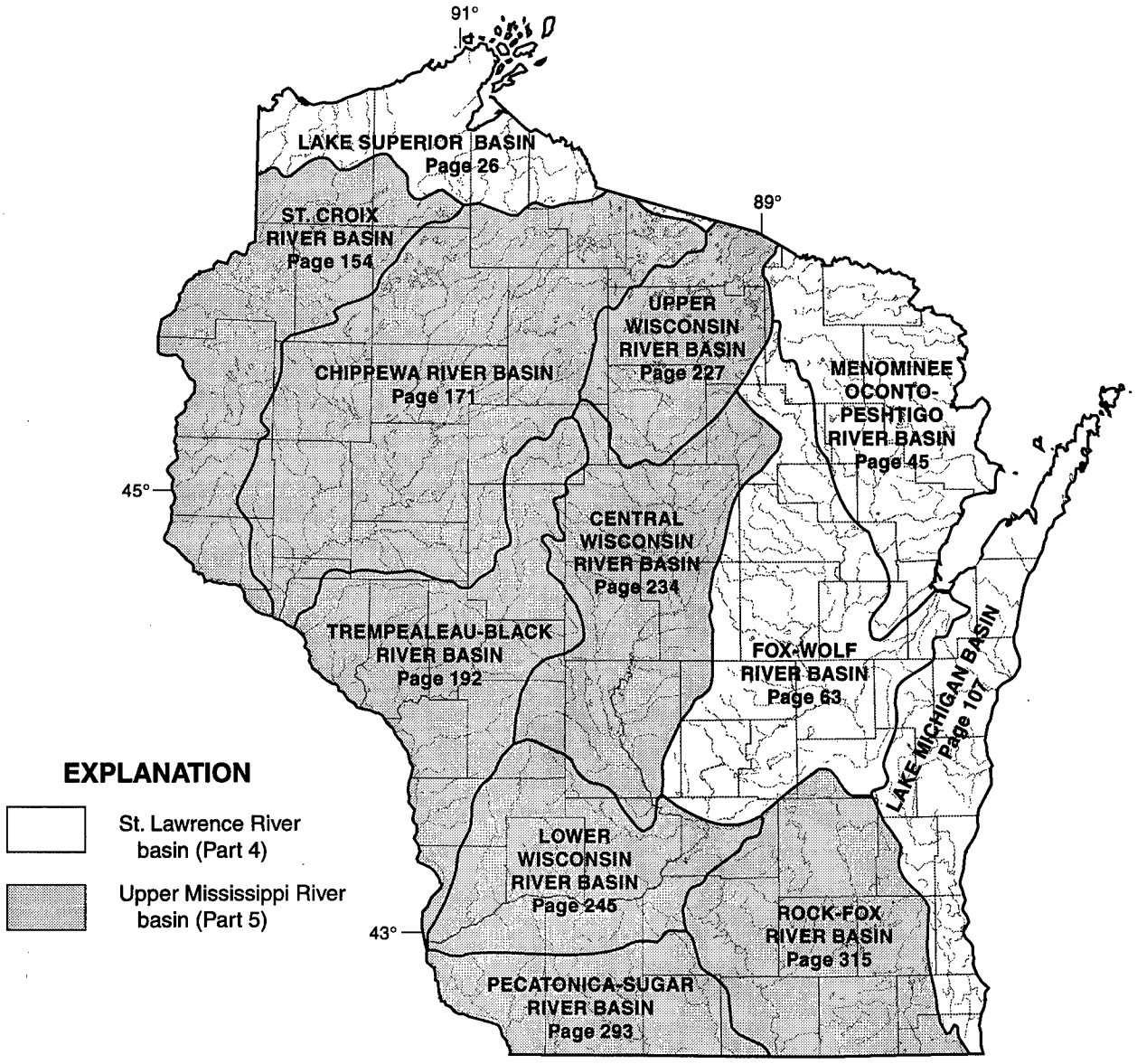
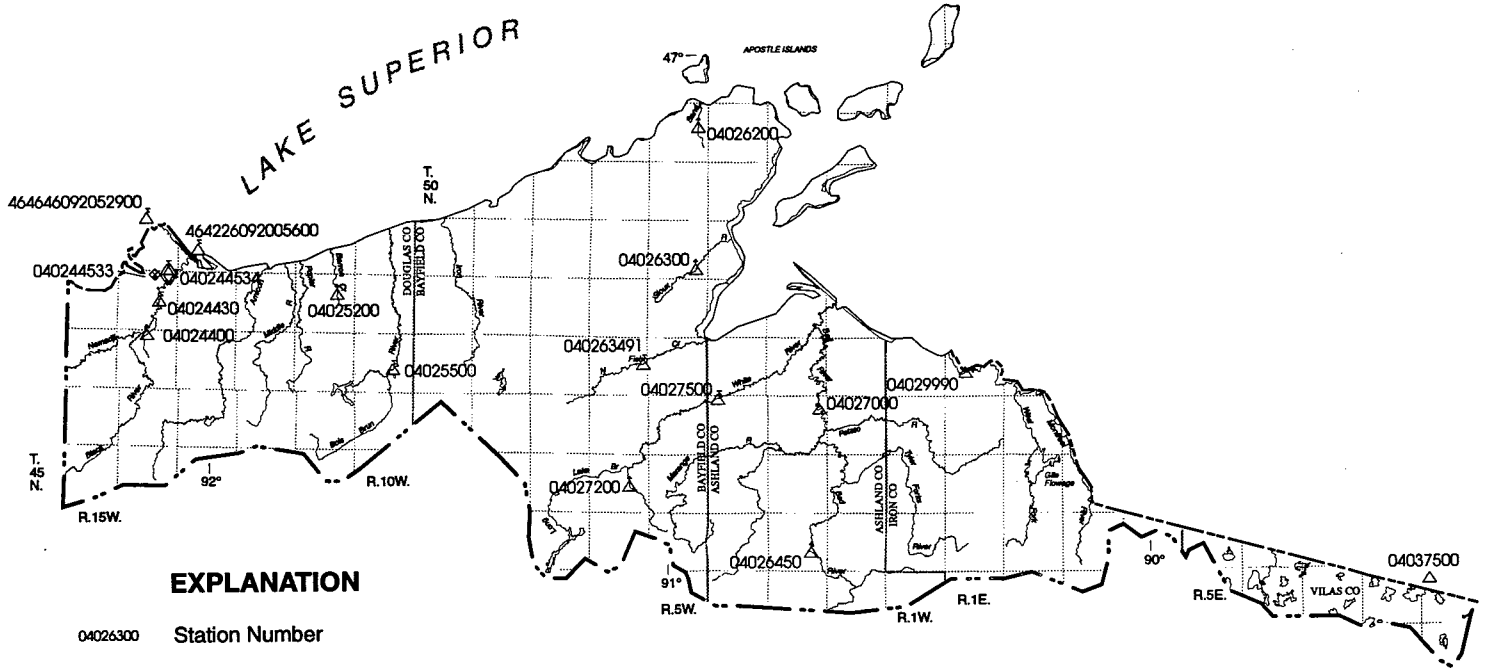


Figure 5. Major surface-water drainage basins and index of hydrologic records.

ST. LAWRENCE RIVER BASIN RECORDS



EXPLANATION

- 04026300 Station Number
- △ Stream gage
- ▽ Surface water-quality station
- ⍋ Crest-stage partial-record station
- ⍋ Stream gage equipped with telephone or data collection platform
- ◈ Precipitation gage

0 10 20 30 MILES

Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Transverse Mercator projection.

LAKE SUPERIOR BASIN

LOCATION.--Lat 46°46'46", long 92°05'29", in SE 1/4 SE 1/4 sec.27, T.50 N., R.14 W., St. Louis County, Hydrologic Unit 04020300, on left bank about 200 ft downstream from lift bridge on Lake Avenue at Canal Park marine museum in Duluth, MN.

DRAINAGE AREA.--4,200 mi^2, approximately (revised), equals total drainage area to Superior Bay.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Acoustical Velocity Meter (AVM) system. Two-path transducer installation.

REMARKS.--Estimated daily discharges: Oct. 27–28. Records good except estimated daily discharges, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-277	4130	-214	96	1120	1240	913	-420	1100	1600	1310	66
2	1730	2910	635	3080	779	1240	924	2130	337	1400	1130	-482
3	4960	-2250	887	816	1320	847	507	2920	-1940	1910	-662	1210
4	4040	2330	-913	2730	1710	1240	1470	2590	741	977	-1710	693
5	5570	2800	2880	1100	2110	668	864	1710	380	-1210	283	-1780
6	5990	1580	328	1660	2130	1410	1040	635	1420	607	476	-551
7	3000	-2330	-189	1770	1810	1300	960	1410	1230	24	2220	143
8	2840	-756	777	1780	1880	1360	1390	1590	945	2560	2310	-251
9	2730	1300	1520	2870	1360	715	1010	1270	1210	1640	2980	-218
10	1790	73	1930	1320	3340	1080	1500	819	953	2470	839	-171
11	7100	-78	1040	2110	4420	763	2810	1770	1100	1690	1280	-2110
12	2440	895	487	2900	2480	946	2600	1180	782	2780	1050	697
13	1080	1010	-1640	2780	1640	1300	3640	820	-1360	3600	-178	674
14	-1450	417	1000	3060	2200	532	3780	2390	591	3720	-757	225
15	-2610	1200	1350	2330	3980	1190	4950	893	1050	4200	1410	277
16	971	238	367	3890	963	1050	3840	253	338	3960	1230	962
17	824	826	199	1070	2100	1320	5920	1380	-137	1640	-364	743
18	-128	772	488	6460	751	1360	9080	1320	825	1830	128	-66
19	2150	787	1970	1160	1170	614	11500	768	1030	3210	-826	27
20	-1120	-721	1930	832	1330	1090	13400	1860	886	3090	564	399
21	-3010	-2200	2610	1730	1300	947	11900	1340	876	2330	276	-2.1
22	-104	1840	2430	1440	1050	925	9910	1070	-416	2830	-1940	294
23	339	-78	2490	1340	2030	787	8280	2430	1820	3430	591	293
24	3730	207	2210	1450	1210	1110	6090	1520	17	1910	1990	-1360
25	2250	716	1970	1620	1690	1570	5240	1630	928	1190	1010	143
26	1410	291	1180	1920	928	1400	3950	1900	1470	1770	-311	976
27	5000	1600	1470	2880	2090	1340	5340	1480	2230	596	153	1930
28	3000	768	528	1660	1940	989	5240	1340	3300	423	1510	-907
29	150	546	80	2670	963	538	4880	2300	2560	1840	-68	-1230
30	2500	987	-87	121	---	2020	3960	1520	6.1	1150	-199	772
31	3030	---	200	1140	---	998	---	729	---	-107	1220	---
TOTAL	59925	19810	29913	61785	51794	33889	136888	44547	24272.1	59060	16945	1395.9
MEAN	1933	660	965	1993	1786	1093	4563	1437	809	1905	547	46.5
MAX	7100	4130	2880	6460	4420	2020	13400	2920	3300	4200	2980	1930
MIN	-3010	-2330	-1640	96	751	532	507	-420	-1940	-1210	-1940	-2110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	1933	649	950	1568	1454	1337	2852	1256	809	1905	547	347
MAX	1933	660	965	1993	1786	1580	4563	1437	809	1905	547	646
(WY)	1996	1996	1996	1996	1996	1995	1996	1996	1996	1996	1996	1995
MIN	1933	638	936	1143	1110	1093	1141	1076	809	1905	547	46.5
(WY)	1996	1995	1995	1995	1995	1996	1995	1995	1996	1996	1996	1996

SUMMARY STATISTICS	FOR 1996 WATER YEAR		WATER YEARS 1995 - 1996	
ANNUAL TOTAL	540224.0			
ANNUAL MEAN	1476		1476	
HIGHEST ANNUAL MEAN			1476	1996
LOWEST ANNUAL MEAN			1476	1996
HIGHEST DAILY MEAN	13400	Apr 20	13400	Apr 20 1996
LOWEST DAILY MEAN	-3010	Oct 21	-3330	Jul 27 1995
ANNUAL SEVEN-DAY MINIMUM	-705	Sep 5	-705	Sep 5 1996
10 PERCENT EXCEEDS	3310		2880	
50 PERCENT EXCEEDS	1190		1050	
90 PERCENT EXCEEDS	-181		-365	

STREAMS TRIBUTARY TO LAKE SUPERIOR

464226092005600 SUPERIOR BAY ENTRY CHANNEL AT SUPERIOR, WI

LOCATION.--Lat 46°42'26", long 92°00'56", in SW 1/4 SW 1/4 sec.21, T.49 N., R.13 W., Douglas County, Hydrologic Unit 04010301, on right bank about 600 ft northeast of Coast Guard Station at northwest end of Wisconsin Point at Superior.

DRAINAGE AREA.--4,200 mi^2, approximately, equals total drainage area to Superior Bay.

PERIOD OF RECORD.--October 1995 to September 1996.

GAGE.--Acoustical Velocity Meter (AVM) system. Two-path transducer installation.

REMARKS.--Estimated daily discharges: June 1–2, July 4–5, Sept. 2–4, and 30. Records fair except estimated daily discharges, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7420	---	---	---	---	---	---	12400	3280	3170	1260	2350
2	2150	---	---	---	---	---	---	7700	2000	-598	1070	-3000
3	10400	---	---	---	---	---	---	6710	6000	1400	-996	2000
4	7090	---	---	---	---	---	---	6370	2360	7400	4220	5500
5	5400	---	---	---	---	---	---	6190	1750	1000	2170	3170
6	9310	---	---	---	---	---	---	4510	4370	3230	1680	3220
7	12000	---	---	---	---	---	---	4880	3030	6220	6200	2190
8	7730	---	---	---	---	---	---	4520	399	5350	8290	1640
9	7790	---	---	---	---	---	---	4640	417	7590	4370	1590
10	7230	---	---	---	---	---	---	6600	-1110	4370	6140	2510
11	5840	---	---	---	---	---	---	4960	-1890	7930	7130	2760
12	3650	---	---	---	---	---	---	4020	368	8970	1470	1810
13	5020	---	---	---	---	---	---	5740	5740	8390	1220	1200
14	9400	---	---	---	---	---	---	2270	-348	5830	6050	1430
15	7630	---	---	---	---	---	---	5480	-4490	8540	2450	420
16	-132	---	---	---	---	---	---	3800	-277	6600	-27	-520
17	6560	---	---	---	---	---	---	2990	2230	7410	-4030	1050
18	-805	---	---	---	---	---	13800	-276	2100	9930	-3590	625
19	5360	---	---	---	---	---	19500	2850	2490	6240	2390	544
20	5380	---	---	---	---	---	21200	4620	1840	5510	-957	.60
21	7080	---	---	---	---	---	18100	6810	1170	6180	2300	1580
22	3600	---	---	---	---	---	18500	7890	2740	7630	4560	1370
23	---	---	---	---	---	---	15500	6110	911	6560	1150	1650
24	---	---	---	---	---	---	12300	5190	1900	7880	-76	3130
25	---	---	---	---	---	---	15200	4850	2060	7950	-1750	-310
26	---	---	---	---	---	---	18200	5360	2940	5350	3830	44
27	---	---	---	---	---	---	12500	4390	6290	3170	1400	4810
28	---	---	---	---	---	---	10100	4890	7370	4460	480	5000
29	---	---	---	---	---	---	10100	2580	7290	3540	28	3290
30	---	---	---	---	---	---	10800	3710	7220	3990	2010	2000
31	---	---	---	---	---	---	---	1840	---	4180	-1940	---
TOTAL	135103	---	---	---	---	---	195800	154594	70150	175372	58502	53053.60
MEAN	6141	---	---	---	---	---	15060	4987	2338	5657	1887	1768
MAX	12000	---	---	---	---	---	21200	12400	7370	9930	8290	5500
MIN	-805	---	---	---	---	---	10100	-276	-4490	-598	-4030	-3000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	4987	2338	5657	1887	1768
MAX	---	---	---	---	---	---	---	4987	2338	5657	1887	1768
(WY)	---	---	---	---	---	---	---	1996	1996	1996	1996	1996
MIN	---	---	---	---	---	---	---	4987	2338	5657	1887	1768
(WY)	---	---	---	---	---	---	---	1996	1996	1996	1996	1996

SUMMARY STATISTICS FOR PERIOD OCT. 1-22 AND APR. 18 TO SEPT. 30

HIGHEST DAILY MEAN	21200	Apr 20 1996
LOWEST DAILY MEAN	-4490	Jun 15 1996
ANNUAL SEVEN-DAY MINIMUM	-287	Jun 10 1996

04024430 NEMADJI RIVER NEAR SOUTH SUPERIOR, WI

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 mi^2.

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 sea level.

REMARKS.--Estimated daily discharges: Aug. 6, 7 and ice-affected period, Nov. 5 to Apr. 19. Records good except those for estimated daily discharges, which are poor (see page 12). Gage-height telemeter at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	384	651	110	100	86	110	250	945	200	530	270	60
2	626	750	120	100	86	120	240	832	201	526	234	64
3	967	715	120	96	84	120	250	727	210	411	205	97
4	936	569	110	94	86	120	250	637	231	311	183	126
5	689	450	110	94	90	120	250	573	234	264	186	130
6	634	440	100	92	94	110	260	583	242	242	240	121
7	1450	420	100	92	96	110	270	543	309	329	400	102
8	951	350	100	90	100	110	260	503	283	348	310	89
9	743	390	100	90	98	110	360	469	242	346	218	84
10	750	450	100	94	98	120	560	541	211	285	179	84
11	600	340	98	96	98	130	1000	645	188	313	158	80
12	534	290	96	98	98	140	3900	534	177	1030	142	77
13	459	300	100	100	98	170	3500	461	166	999	128	72
14	415	290	100	98	98	200	2800	412	170	713	126	68
15	366	270	100	98	98	250	2800	389	155	699	144	66
16	336	260	110	98	96	290	3100	379	209	442	146	64
17	302	240	110	98	94	340	4000	356	307	327	127	62
18	279	230	110	96	94	360	4800	341	254	2710	112	60
19	280	210	110	96	94	350	5200	672	220	3550	104	59
20	268	200	110	94	96	330	6270	1030	199	1190	99	60
21	273	190	110	94	100	320	5500	689	183	719	94	63
22	290	170	100	98	98	310	4740	628	204	1730	90	66
23	361	170	100	96	100	310	3500	597	233	727	86	68
24	2380	160	100	94	100	320	2600	462	261	560	83	66
25	2330	150	100	92	110	310	2260	379	286	632	78	72
26	1220	140	100	90	110	290	2390	332	1160	490	75	68
27	1010	140	100	90	110	280	1950	299	3960	373	73	108
28	1580	130	100	90	110	290	1530	273	1780	355	70	149
29	1270	120	98	90	110	280	1290	249	977	378	66	140
30	953	110	98	94	---	270	1090	228	844	343	64	124
31	753	---	100	92	---	260	---	210	---	321	61	---
TOTAL	24389	9295	3220	2934	2830	6950	67170	15918	14296	22193	4551	2549
MEAN	787	310	104	94.6	97.6	224	2239	513	477	716	147	85.0
MAX	2380	750	120	100	110	360	6270	1030	3960	3550	400	149
MIN	268	110	96	90	84	110	240	210	155	242	61	59
CFSM	1.87	.74	.25	.23	.23	.53	5.33	1.22	1.13	1.70	.35	.20
IN.	2.16	.82	.29	.26	.25	.62	5.95	1.41	1.27	1.97	.40	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1996, BY WATER YEAR (WY)

MEAN	359	312	139	81.2	92.9	471	1385	645	503	364	200	377
MAX	1082	1200	418	177	336	1088	2426	1355	1357	790	978	1485
(WY)	1983	1992	1992	1984	1984	1995	1986	1979	1993	1986	1986	1986
MIN	41.0	33.9	28.2	27.3	29.8	102	244	120	82.9	46.6	40.6	34.4
(WY)	1977	1977	1977	1977	1977	1980	1987	1980	1988	1988	1976	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1974 - 1996	
ANNUAL TOTAL	150066		176295			
ANNUAL MEAN	411		482		410	
HIGHEST ANNUAL MEAN					786	1986
LOWEST ANNUAL MEAN					200	1980
HIGHEST DAILY MEAN	(a)3000	Mar 15	6270	Apr 20	7630	May 11 1979
LOWEST DAILY MEAN	(a)54	Feb 15-17	59	Sep 19	(a)19	Dec 8 1976
ANNUAL SEVEN-DAY MINIMUM	(a)56	Feb 13	62	Sep 15	(a)26	Dec 5 1976
INSTANTANEOUS PEAK FLOW			6450	Apr 20	(b)13700	Sep 6 1990
INSTANTANEOUS PEAK STAGE			21.56	Apr 20	25.97	Sep 6 1990
ANNUAL RUNOFF (CFSM)	.98		1.15		.98	
ANNUAL RUNOFF (INCHES)	13.29		15.61		13.28	
10 PERCENT EXCEEDS	1020		999		1000	
50 PERCENT EXCEEDS	184		210		150	
90 PERCENT EXCEEDS	60		90		57	

(a) Ice affected
(b) From rating curve extended above 9,000 ft^3/s

STREAMS TRIBUTARY TO LAKE SUPERIOR

040244533 UNDEVELOPED URBAN SITE AT SUPERIOR, WI

LOCATION.--Lat 46°40'45", long 92°04'24", in SW 1/4 SW 1/4 sec.36, T.49 N., R.14 W., Douglas County, Hydrologic Unit 04010301, adjacent to drainage creek behind hole No. 7 green on east/west course of Nemadji Public Golf Course.

DRAINAGE AREA.--0.119 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to September 1995, and May to September 1996 (discontinued).

GAGE.--Continuous water-stage recorder and Parshall flume. Elevation of gage is 650 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Parshall flume was overtopped on June 26, July 21, 22, and Aug. 7. Inflow stage at downstream 2-ft diameter culvert was used to calculate discharge during these periods. Missing record from May 1–12, June 28 to July 8, July 11, 12, and Sept. 23–30. Records are good except those for estimated daily discharges, which are fair (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	---	.00	.00
2	---	---	---	---	---	---	---	---	.00	---	.00	.16
3	---	---	---	---	---	---	---	---	.02	---	.00	.09
4	---	---	---	---	---	---	---	---	.05	---	.00	.34
5	---	---	---	---	---	---	---	---	.04	---	.05	.05
6	---	---	---	---	---	---	---	---	.27	---	.03	.02
7	---	---	---	---	---	---	---	---	.04	---	1.0	.01
8	---	---	---	---	---	---	---	---	.01	---	.07	.01
9	---	---	---	---	---	---	---	---	.00	.09	.01	.01
10	---	---	---	---	---	---	---	---	.00	.02	.00	.00
11	---	---	---	---	---	---	---	---	.00	---	.00	.01
12	---	---	---	---	---	---	---	---	.00	---	.00	.00
13	---	---	---	---	---	---	---	.04	.00	.21	.00	.00
14	---	---	---	---	---	---	---	.00	.00	.11	.00	.00
15	---	---	---	---	---	---	---	.00	.00	.19	.00	.00
16	---	---	---	---	---	---	---	.01	.03	.11	.00	.00
17	---	---	---	---	---	---	---	.01	.01	.02	.00	.00
18	---	---	---	---	---	---	---	.01	.01	.23	.00	.00
19	---	---	---	---	---	---	---	.67	.00	.10	.00	.00
20	---	---	---	---	---	---	---	.06	.00	.04	.00	.00
21	---	---	---	---	---	---	---	.02	.10	.23	.00	.00
22	---	---	---	---	---	---	---	.02	.07	.72	.00	.00
23	---	---	---	---	---	---	---	.01	.13	.07	.00	---
24	---	---	---	---	---	---	---	.00	.15	.10	.00	---
25	---	---	---	---	---	---	---	.00	.05	.07	.00	---
26	---	---	---	---	---	---	---	.00	1.4	.02	.00	---
27	---	---	---	---	---	---	---	.00	.28	.01	.00	---
28	---	---	---	---	---	---	---	.00	---	.02	.00	---
29	---	---	---	---	---	---	---	.00	---	.01	.00	---
30	---	---	---	---	---	---	---	.00	---	.01	.00	---
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	---	1.16	---
MEAN	---	---	---	---	---	---	---	---	---	---	.037	---
MAX	---	---	---	---	---	---	---	---	---	---	1.0	---
MIN	---	---	---	---	---	---	---	---	---	---	.00	---

040244533 UNDEVELOPED URBAN SITE AT SUPERIOR, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June to September 1995, and May to September 1996 (discontinued).

INSTRUMENTATION.--Volume-activated water-quality sampler.

REMARKS.--Chemical analysis by the Wisconsin State Laboratory of Hygiene. Samples are storm-composite samples collected by an automatic point sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BEGINNING DATE	BEGINNING TIME	ENDING DATE	ENDING TIME	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L) (00335)	OXYGEN DEMAND, CHEM DISS (LOW LEVEL) (MG/L) (99901)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	OXYGEN DEMAND, BIOCHEMICAL 5 DAY DISS (MG/L) (99900)	CALCIUM TOTAL RECOVERABLE (MG/L AS CA) (00916)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, TOTAL RECOVERABLE (MG/L) (00921)
05-15-96	2101	05-16-96	1113	--	--	--	--	--	--	--
05-19-96	0258	05-19-96	0544	--	--	--	--	--	--	--
06-03-96	1232	06-04-96	0104	--	--	--	--	--	--	--
06-06-96	0021	06-08-96	1903	45	--	<3.0	--	20	20	9.2
06-21-96	1215	06-22-96	1842	43	40	<3.0	<3.0	23	23	10
*06-21-96	1215	06-22-96	1842	46	43	<3.0	<3.0	23	23	10
06-23-96	1249	06-25-96	0918	40	55	<3.0	<3.0	22	--	9.7
*06-23-96	1249	06-25-96	0918	45	61	<3.0	<3.0	21	--	9.6
06-26-96	0320	06-26-96	1119	63	54	3.7	<3.0	15	14	7.3
06-26-96	2036	06-27-96	0209	58	56	--	--	16	16	7.5
07-11-96	0917	07-12-96	0136	--	--	--	--	--	--	--
07-12-96	1120	07-14-96	0029	--	--	--	--	--	--	--
07-18-96	0448	07-20-96	0045	--	--	--	--	--	--	--
07-21-96	2211	07-25-96	1640	--	--	--	--	--	--	--
08-05-96	0933	08-06-96	0343	--	--	--	--	--	--	--
09-02-96	1743	09-03-96	1006	42	51	3.5	2.0	--	--	--
09-03-96	2153	09-05-96	1116	--	--	--	--	--	--	--

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	ALKALINITY WAT WH TOT FET LAB MG/L AS CACO3 (00417)	SULFATE (MG/L AS SO4) (00946)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	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)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
05-15-96	--	--	--	--	<5	148	--	--	--	--	0.022
05-19-96	--	--	--	--	48	268	--	--	--	--	0.148
06-03-96	--	--	--	--	8	174	--	--	--	--	0.032
06-06-96	8.5	79	--	1.3	16	--	0.028	<0.027	--	--	0.026
06-21-96	9.8	92	8.0	1.5	15	180	<0.010	0.009	0.90	0.70	0.053
06-21-96	9.9	92	8.0	1.6	14	174	<0.010	0.010	0.90	0.70	0.057
06-23-96	--	85	9.0	1.6	12	188	<0.010	<0.027	1.0	1.2	0.056
06-23-96	--	85	9.0	1.6	10	182	<0.010	<0.027	1.0	1.1	0.053
06-26-96	6.0	55	12	2.4	49	222	<0.010	<0.027	1.4	1.4	0.119
06-26-96	6.9	62	11	1.9	12	196	<0.010	0.037	1.3	1.3	0.070
07-11-96	--	--	--	--	28	168	--	--	--	--	--
07-12-96	--	--	--	--	<5	164	--	--	--	--	--
07-18-96	--	--	--	--	9	182	--	--	--	--	0.036
07-21-96	--	--	--	--	24	156	--	--	--	--	0.068
08-05-96	--	--	--	--	7	196	--	--	--	--	0.049
09-02-96	--	45	18	2.6	--	184	0.058	<0.027	1.1	0.95	0.105
09-03-96	--	--	--	--	18	172	--	--	--	--	0.081

* Sample processing duplicate

040244533 UNDEVELOPED URBAN SITE AT SUPERIOR, WI--CONTINUED.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CADMIUM TOTAL RECOVER-ABLE (UG/L) (01113)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOVER-ABLE (UG/L) (01118)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVER-ABLE (UG/L) (01119)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, TOTAL RECOVER-ABLE (UG/L) (01114)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	ZINC, TOTAL RECOVER-ABLE (UG/L) (01094)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
05-15-96	--	--	--	--	--	--	--	--	--	--	--
05-19-96	0.008	--	--	--	--	--	--	--	--	--	--
06-03-96	0.003	--	--	--	--	--	--	--	--	--	--
06-06-96	0.005	<0.04	<0.02	3	2.0	4	4.0	2	0.40	<20	<8.0
06-21-96	0.004	--	--	--	--	3	2.8	<1	<0.40	<20	<8.0
06-21-96	0.011	--	--	--	--	3	2.9	<1	<0.40	<20	<8.0
06-23-96	0.008	--	--	--	--	4	--	<1	--	<20	--
06-23-96	0.007	--	--	--	--	4	--	1	--	<20	--
06-26-96	0.011	--	--	--	--	6	3.2	1	1.3	<20	<8.0
06-26-96	0.008	--	--	--	--	5	3.3	<1	1.0	<20	<8.0
07-11-96	0.002	--	--	--	--	--	--	--	--	--	--
07-12-96	0.004	--	--	--	--	--	--	--	--	--	--
07-18-96	0.003	--	--	--	--	--	--	--	--	--	--
07-21-96	0.001	--	--	--	--	--	--	--	--	--	--
08-05-96	0.007	--	--	--	--	--	--	--	--	--	--
09-02-96	0.019	--	--	--	--	--	--	--	--	--	--
09-03-96	0.009	--	--	--	--	--	--	--	--	--	--

040244533 UNDEVELOPED URBAN SITE AT SUPERIOR, WI--CONTINUED

PRECIPITATION QUANTITY

PERIOD OF RECORD.--July to September 1995, and May to September 1996 (discontinued).

GAGE.--Tipping-bucket rain gage with electronic datalogger.

REMARKS.--Gage established July 1995. Missing record May 6–12, June 28 to July 8, July 11, 12, and Sept. 23–30.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 1.78 in., Sept. 2, 1996.

EXTREMES FOR CURRENT PERIOD.--Maximum daily rainfall, 1.78 in., Sept. 2.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.00	.10	---	.00	.00
2	---	---	---	---	---	---	---	.00	.10	---	.00	1.78
3	---	---	---	---	---	---	---	.00	.21	---	.00	.47
4	---	---	---	---	---	---	---	.00	.00	---	.03	.00
5	---	---	---	---	---	---	---	.02	.47	---	.62	.00
6	---	---	---	---	---	---	---	---	.11	---	.00	.00
7	---	---	---	---	---	---	---	---	.00	---	.86	.06
8	---	---	---	---	---	---	---	---	.00	---	.00	.00
9	---	---	---	---	---	---	---	---	.00	.00	.00	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	.17
11	---	---	---	---	---	---	---	---	.00	---	.00	.00
12	---	---	---	---	---	---	---	---	.12	---	.00	.00
13	---	---	---	---	---	---	---	.00	.00	.05	.02	.00
14	---	---	---	---	---	---	---	.04	.00	.09	.00	.00
15	---	---	---	---	---	---	---	.11	.51	.22	.00	.00
16	---	---	---	---	---	---	---	.00	.01	.00	.00	.00
17	---	---	---	---	---	---	---	.05	.02	.00	.00	.00
18	---	---	---	---	---	---	---	.05	.00	.39	.00	.00
19	---	---	---	---	---	---	---	.60	.00	.02	.10	.00
20	---	---	---	---	---	---	---	.00	.00	.00	.00	.04
21	---	---	---	---	---	---	---	.07	.58	.73	.01	.25
22	---	---	---	---	---	---	---	.05	.00	.01	.04	.04
23	---	---	---	---	---	---	---	.00	.36	.18	.00	---
24	---	---	---	---	---	---	---	.00	.00	.16	.00	---
25	---	---	---	---	---	---	---	.00	.18	.00	.00	---
26	---	---	---	---	---	---	---	.00	.89	.00	.00	---
27	---	---	---	---	---	---	---	.00	.01	.10	.00	---
28	---	---	---	---	---	---	---	.00	---	.01	.00	---
29	---	---	---	---	---	---	---	.00	---	.03	.00	---
30	---	---	---	---	---	---	---	.00	---	.00	.00	---
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	---	1.68	---

STREAMS TRIBUTARY TO LAKE SUPERIOR

040244534 GOLF COURSE SITE AT SUPERIOR, WI

LOCATION.--Lat 46°40'41", long 92°04'21", in SW 1/4 SW 1/4 sec.36, T.49 N., R.14 W., Douglas County, Hydrologic Unit 04010301, north side of No. 2 fairway on east/west course of Nemadji Public Golf Course.

DRAINAGE AREA.--0.018 mi^2.

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--July to September 1995, and May to September 1996 (discontinued).

GAGE.--Continuous water-stage recorder and Parshall flume. Elevation of gage is 660 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Flume over-topped June 26, July 6, 11, 21, and Aug. 7. Missing record from May 1–3, 14–20, and Sept. 23–30. Records are good except those for estimated daily discharges, which are poor (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	.00	.00	.00
2	---	---	---	---	---	---	---	---	.00	.00	.00	.29
3	---	---	---	---	---	---	---	---	.00	.00	.00	.08
4	---	---	---	---	---	---	---	.00	.00	.00	.00	.09
5	---	---	---	---	---	---	---	.00	.01	.00	.05	.00
6	---	---	---	---	---	---	---	.00	.07	.34	.01	.00
7	---	---	---	---	---	---	---	.00	.00	.05	.37	.00
8	---	---	---	---	---	---	---	.00	.00	.13	.01	.00
9	---	---	---	---	---	---	---	.00	.00	.02	.00	.00
10	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	---	.00	.00	.28	.00	.00
12	---	---	---	---	---	---	---	.00	.00	.28	.00	.00
13	---	---	---	---	---	---	---	.00	.00	.03	.00	.00
14	---	---	---	---	---	---	---	---	.00	.03	.00	.00
15	---	---	---	---	---	---	---	---	.02	.11	.00	.00
16	---	---	---	---	---	---	---	---	.01	.03	.00	.00
17	---	---	---	---	---	---	---	---	.00	.00	.00	.00
18	---	---	---	---	---	---	---	---	.00	.13	.00	.00
19	---	---	---	---	---	---	---	---	.00	.02	.00	.00
20	---	---	---	---	---	---	---	---	.00	.00	.00	.00
21	---	---	---	---	---	---	---	.00	.08	.18	.00	.02
22	---	---	---	---	---	---	---	.00	.01	.14	.00	.01
23	---	---	---	---	---	---	---	.00	.06	.02	.00	---
24	---	---	---	---	---	---	---	.00	.03	.04	.00	---
25	---	---	---	---	---	---	---	.00	.00	.03	.00	---
26	---	---	---	---	---	---	---	.00	.45	.00	.00	---
27	---	---	---	---	---	---	---	.00	.03	.01	.00	---
28	---	---	---	---	---	---	---	.00	.02	.00	.00	---
29	---	---	---	---	---	---	---	.00	.20	.00	.00	---
30	---	---	---	---	---	---	---	.00	.03	.00	.00	---
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	1.02	1.87	0.44	---
MEAN	---	---	---	---	---	---	---	---	.034	.060	.014	---
MAX	---	---	---	---	---	---	---	---	.45	.34	.37	---
MIN	---	---	---	---	---	---	---	---	.00	.00	.00	---

040244534 GOLF COURSE SITE AT SUPERIOR, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July to September 1995, and May to September 1996 (discontinued).

INSTRUMENTATION.--Volume-activated water-quality sampler.

REMARKS.--Chemical analysis by the Wisconsin State Laboratory of Hygiene. Samples are storm-composite samples collected by an automatic point sampler.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BEGINNING DATE	BEGINNING TIME	ENDING DATE	ENDING TIME	OXYGEN DEMAND, CHEMICAL (LOW LEVEL) (MG/L) (00335)	OXYGEN DEMAND, CHEM DISS (LOW LEVEL (MG/L) (99901)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	OXYGEN DEMAND, BIOCHEM-ICAL 5 DAY DISS (MG/L) (99900)	CALCIUM TOTAL RECOVERABLE (MG/L AS CA) (00916)
06-05-96	2351	06-06-96	0637	64	46	12	5.4	14
06-21-96	1124	06-21-96	2203	82	63	11	4.6	20
*06-21-96	1124	06-21-96	2203	110	60	12	3.2	20
06-23-96	1342	06-24-96	0704	95	88	8.2	4.5	23
*06-23-96	1342	06-24-96	0704	96	92	8.7	4.9	24
06-26-96	0315	06-26-96	0915	83	70	10	5.6	16
06-26-96	1651	06-27-96	0934	65	61	4.7	4.0	26
07-11-96	0831	07-11-96	1549	--	--	--	--	--
07-12-96	1202	07-13-96	0057	--	--	--	--	--
07-14-96	1826	07-14-96	1827	--	--	--	--	--
07-15-96	1428	07-16-96	0739	--	--	--	--	--
07-18-96	0306	07-18-96	2220	--	--	--	--	--
07-21-96	2200	07-22-96	0020	--	--	--	--	--
07-22-96	0914	07-22-96	1321	--	--	--	--	--
07-23-96	2204	07-23-96	2205	--	--	--	--	--
07-24-96	1543	07-25-96	0702	--	--	--	--	--
08-05-96	1102	08-05-96	1803	--	--	--	--	--
09-02-96	1024	09-03-96	0855	50	35	5.3	2.5	19
09-03-96	2145	09-04-96	0952	--	--	--	--	--

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, TOTAL RECOVERABLE (MG/L) (00921)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	ALKALINITY WAT WH TOT FET LAB MG/L AS CACO3 (00417)	SULFATE (MG/L AS SO4) (00946)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
06-05-96	14	5.8	5.1	55	11	4.7	55	190	0.178	1.27
06-21-96	20	7.9	7.1	69	13	4.0	54	212	0.111	0.280
06-21-96	20	7.9	7.3	69	14	3.9	70	224	0.091	0.270
06-23-96	23	9.3	9.0	83	13	4.4	26	224	0.037	0.040
06-23-96	--	9.4	--	83	14	4.5	23	222	0.037	0.037
06-26-96	16	6.2	5.6	54	11	3.8	33	186	0.033	0.081
06-26-96	26	11	11	99	12	3.6	15	216	0.021	0.032
07-11-96	--	--	--	--	--	--	23	156	--	--
07-12-96	--	--	--	--	--	--	7	206	--	--
07-14-96	--	--	--	--	--	--	15	276	--	--
07-15-96	--	--	--	--	--	--	35	214	--	--
07-18-96	--	--	--	--	--	--	16	184	--	--
07-21-96	--	--	--	--	--	--	40	148	--	--
07-22-96	--	--	--	--	--	--	11	194	--	--
07-23-96	--	--	--	--	--	--	11	230	--	--
07-24-96	--	--	--	--	--	--	13	260	--	--
08-05-96	--	--	--	--	--	--	16	184	--	--
09-02-96	19	7.3	7.0	71	12	2.0	--	--	0.161	0.093
09-03-96	--	--	--	--	--	--	12	158	0.066	0.164

* Sample processing duplicate

STREAMS TRIBUTARY TO LAKE SUPERIOR

040244534 GOLF COURSE SITE AT SUPERIOR, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	COPPER, TOTAL RECOVERABLE (UG/L) (01119)	COPPER, DISSOLVED (UG/L AS CU) (01040)	LEAD, TOTAL RECOVERABLE (UG/L) (01114)	LEAD, DISSOLVED (UG/L AS PB) (01049)	ZINC, TOTAL RECOVERABLE (UG/L) (01094)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
06-05-96	4.9	6.9	0.584	0.570	8	4.9	2	0.60	51	29
06-21-96	3.0	2.1	0.382	0.101	7	5.8	1	<0.40	72	36
06-21-96	3.3	2.1	0.405	0.102	8	5.9	1	0.80	80	38
06-23-96	2.6	2.4	0.205	0.026	5	4.4	<1	0.80	52	35
06-23-96	3.2	2.6	0.202	0.009	6	--	<1	--	56	--
06-26-96	2.6	2.6	0.194	0.024	6	4.0	<1	<0.40	45	18
06-26-96	1.9	2.0	0.117	0.021	7	5.4	<1	0.60	62	45
07-11-96	--	--	--	0.002	--	--	--	--	--	--
07-12-96	--	--	--	0.016	--	--	--	--	--	--
07-14-96	--	--	--	0.020	--	--	--	--	--	--
07-15-96	--	--	--	0.049	--	--	--	--	--	--
07-18-96	--	--	0.209	0.058	--	--	--	--	--	--
07-21-96	--	--	0.264	0.008	--	--	--	--	--	--
07-22-96	--	--	0.109	0.004	--	--	--	--	--	--
07-23-96	--	--	--	--	--	--	--	--	--	--
07-24-96	--	--	0.189	0.024	--	--	--	--	--	--
08-05-96	--	--	0.364	0.158	--	--	--	--	--	--
09-02-96	1.7	1.2	0.183	0.071	6	3.6	2	<0.40	21	15
09-03-96	2.1	1.9	0.160	0.049	--	--	--	--	--	--

04025500 BOIS BRULE RIVER AT 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.--118 mi^2.

PERIOD OF RECORD.--October 1942 to September 1981, January 1984 to current year. Prior to January 1943, monthly discharge published in WSP 1307. January 1984 to September 1994, incorrectly published as "near Brule."

REVISED RECORDS.--WSP 1337: 1943(M), 1944, 1945-50(M). WDR WI-92-1: Drainage area.

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

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 12, 13, 22–26, 28–30, and Dec. 5 to Apr. 10. Records good except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	172	202	147	170	140	130	140	411	170	191	196	132
2	180	212	144	160	130	130	140	388	173	210	187	162
3	201	205	143	150	120	130	140	364	172	189	180	295
4	200	195	142	150	130	140	140	342	170	176	176	294
5	186	185	140	150	140	140	140	329	166	168	225	253
6	187	183	140	150	150	130	140	318	186	250	234	212
7	216	181	140	150	160	130	140	299	184	345	245	193
8	207	176	140	140	170	130	140	284	178	331	216	193
9	203	169	140	150	160	130	150	271	170	289	202	176
10	194	167	140	160	160	130	160	274	164	247	190	171
11	183	166	140	170	160	130	189	260	160	267	181	169
12	174	160	130	170	150	140	215	244	157	398	174	162
13	167	160	140	170	150	140	211	231	155	362	170	159
14	162	160	150	180	150	140	203	221	155	320	166	158
15	158	158	150	170	150	140	207	217	153	301	162	156
16	155	158	140	160	140	140	229	212	171	310	158	155
17	153	156	140	160	130	140	261	207	171	279	154	153
18	150	155	150	160	130	140	325	205	163	317	151	150
19	150	155	150	150	130	140	447	266	158	323	153	149
20	151	155	140	150	140	140	647	273	153	294	157	149
21	160	153	140	150	140	140	727	255	156	273	152	149
22	169	150	150	160	130	140	775	262	162	327	158	151
23	183	150	150	150	130	140	639	236	163	289	151	151
24	288	150	150	150	140	140	618	218	168	281	145	151
25	304	150	150	150	140	140	614	205	163	263	141	150
26	263	150	150	150	130	140	566	197	278	242	139	149
27	246	146	150	150	130	130	528	189	335	228	138	179
28	238	150	140	150	130	140	492	182	273	231	136	175
29	227	140	150	160	130	140	463	177	235	221	134	166
30	215	140	160	150	---	150	430	172	209	211	134	158
31	203	---	160	140	---	140	---	169	---	205	133	---
TOTAL	6045	4937	4496	4830	4090	4250	10216	7878	5471	8338	5238	5220
MEAN	195	165	145	156	141	137	341	254	182	269	169	174
MAX	304	212	160	180	170	150	775	411	335	398	245	295
MIN	150	140	130	140	120	130	140	169	153	168	133	132
CFSM	1.65	1.39	1.23	1.32	1.20	1.16	2.89	2.15	1.55	2.28	1.43	1.47
IN.	1.91	1.56	1.42	1.52	1.29	1.34	3.22	2.48	1.72	2.63	1.65	1.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1996, BY WATER YEAR (WY)

MEAN	159	161	143	133	133	153	278	237	195	168	148	158
MAX	259	295	205	164	187	265	399	495	416	345	252	297
(WY)	1978	1972	1972	1984	1966	1945	1976	1950	1944	1952	1986	1951
MIN	110	119	113	104	104	105	157	140	122	108	114	108
(WY)	1949	1949	1948	1948	1948	1943	1959	1958	1948	1964	1948	1948

04025500 BOIS BRULE RIVER AT BRULE, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1943 - 1996	
ANNUAL TOTAL	59419		71009			
ANNUAL MEAN	163		194		172	
HIGHEST ANNUAL MEAN					223	1972
LOWEST ANNUAL MEAN					133	1948
HIGHEST DAILY MEAN	329	May 14	775	Apr 22	1270	Jun 5 1944
LOWEST DAILY MEAN	(a)120	Feb 7-9,11-17	(a)120	Feb 3	74	Mar 23 1943
ANNUAL SEVEN-DAY MINIMUM	(a)120	Feb 11	(a)130	Feb 26	89	Mar 23 1943
INSTANTANEOUS PEAK FLOW			(b)934	Apr 21	(c)1520	Jun 5 1944
INSTANTANEOUS PEAK STAGE			(a)4.95	Jan 19	(d)5.20	Jun 5 1944
INSTANTANEOUS LOW FLOW					67	Mar 13 1943
ANNUAL RUNOFF (CFSM)	1.38		1.64		1.45	
ANNUAL RUNOFF (INCHES)	18.73		22.39		19.77	
10 PERCENT EXCEEDS	219		289		257	
50 PERCENT EXCEEDS	150		160		147	
90 PERCENT EXCEEDS	130		140		120	

(a) Ice affected
(b) Gage height, 4.48 ft
(c) From rating curve extended above 750 ft^3/s
(d) From graph based on gage readings

040263491 NORTH FISH CREEK NEAR MOQUAH, WI

LOCATION.--Lat 46°32'56", long 91°03'43", in SW 1/4 SE 1/4 sec.13, T.47 N., R.6 W., Bayfield County, Hydrologic Unit 04010301, on left bank just downstream from bridge on old U.S. Highway 2, and 1.3 mi southeast of Moquah.

DRAINAGE AREA.--65.4 mi^2.

PERIOD OF RECORD.--October 1989 to September 1991, October 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 660 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 10–14, Jan. 6–9, 19–21, and Jan. 31 to Feb. 6. Records good (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	85	53	54	54	56	65	102	67	136	62	59
2	57	111	54	54	54	54	66	98	75	303	60	63
3	60	80	54	55	52	54	65	90	71	104	60	61
4	60	70	54	54	52	54	63	83	68	75	59	62
5	57	67	53	51	54	54	62	81	66	66	63	60
6	70	73	52	52	54	53	64	79	83	465	61	59
7	84	69	53	52	56	54	64	77	78	300	60	62
8	68	63	55	54	54	53	65	76	69	152	59	63
9	64	60	52	54	54	53	72	74	65	104	59	61
10	61	58	52	53	55	53	112	97	63	76	59	61
11	59	57	52	54	54	54	241	81	62	118	58	61
12	58	56	52	54	53	55	309	73	61	1030	59	61
13	57	55	54	54	54	61	191	69	60	337	59	60
14	57	55	54	53	54	68	161	67	60	144	59	60
15	56	55	54	53	54	71	158	67	62	107	58	60
16	56	55	53	55	53	76	215	66	66	99	58	60
17	56	55	53	55	54	83	371	67	63	84	58	59
18	56	55	53	55	55	81	684	68	64	130	58	59
19	56	55	54	54	54	76	1460	165	63	126	59	59
20	56	55	54	54	54	73	684	99	62	83	59	60
21	60	55	54	54	53	71	531	78	63	73	59	62
22	61	55	54	55	53	72	380	73	62	78	62	61
23	92	54	54	53	58	73	229	69	65	76	59	61
24	238	54	54	54	58	73	231	64	67	88	58	63
25	112	54	54	55	57	69	237	63	64	70	59	60
26	82	55	54	56	58	65	186	62	739	65	58	66
27	80	54	53	55	59	63	142	62	224	64	58	99
28	77	53	53	53	57	62	126	61	111	68	58	69
29	70	53	54	53	56	64	113	60	84	65	58	64
30	66	55	54	52	---	64	102	60	73	64	58	62
31	63	---	54	54	---	65	---	60	---	67	58	---
TOTAL	2215	1831	1657	1668	1587	1977	7449	2391	2880	4817	1832	1877
MEAN	71.5	61.0	53.5	53.8	54.7	63.8	248	77.1	96.0	155	59.1	62.6
MAX	238	111	55	56	59	83	1460	165	739	1030	63	99
MIN	56	53	52	51	52	53	62	60	60	64	58	59
CFSM	1.09	.93	.82	.82	.84	.98	3.80	1.18	1.47	2.38	.90	.96
IN.	1.26	1.04	.94	.95	.90	1.12	4.24	1.36	1.64	2.74	1.04	1.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

MEAN	72.4	57.7	53.3	53.8	55.1	113	135	82.1	77.4	98.1	59.7	92.5
MAX	110	61.0	56.2	54.0	59.9	141	248	98.6	97.6	155	74.4	135
(WY)	1991	1996	1991	1990	1991	1990	1996	1995	1991	1996	1990	1990
MIN	50.7	53.1	50.8	53.5	51.9	63.8	87.8	59.6	56.8	51.2	52.1	53.9
(WY)	1995	1995	1995	1991	1995	1996	1990	1990	1990	1995	1991	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1990 - 1996	
ANNUAL TOTAL	25586		32181			
ANNUAL MEAN	70.1		87.9		79.2	
HIGHEST ANNUAL MEAN					87.9	1996
LOWEST ANNUAL MEAN					67.5	1995
HIGHEST DAILY MEAN	648	Mar 13	1460	Apr 19	1460	Apr 19 1996
LOWEST DAILY MEAN	45	Jan 2	51	Jan 5	45	Jan 2 1995
ANNUAL SEVEN-DAY MINIMUM	49	Jul 28	53	Dec 6	48	Dec 29 1994
INSTANTANEOUS PEAK FLOW			2310	Apr 19	2310	Apr 19 1996
INSTANTANEOUS PEAK STAGE			14.21	Apr 19	14.21	Apr 19 1996
INSTANTANEOUS LOW FLOW			42	(a)Jan 3	(b)35	Dec 19 1989
ANNUAL RUNOFF (CFSM)	1.07		1.34		1.21	
ANNUAL RUNOFF (INCHES)	14.55		18.30		16.45	
10 PERCENT EXCEEDS	94		111		106	
50 PERCENT EXCEEDS	54		60		58	
90 PERCENT EXCEEDS	50		54		51	

(a) Also occurred Jan. 15, 19, 23, and Feb. 18
(b) Result of freezeup

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 mi^2.

PERIOD OF RECORD.--July 1914 to December 1922 (monthly discharge 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. Datum of gage is 668.30 ft above sea level. 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: Ice-affected period, Nov. 9 to Apr. 19. Records are good except those for ice-affected period, which is poor (see page 12).

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	324	764	210	200	170	210	500	3130	382	773	967	170
2	580	814	210	190	170	210	500	2790	736	1330	737	173
3	555	887	220	180	160	210	500	2740	1150	1140	580	272
4	493	771	220	180	170	200	500	2890	1890	758	475	348
5	433	658	210	170	180	210	500	2920	1640	601	408	443
6	405	673	210	170	190	200	500	2810	1340	589	476	390
7	852	661	210	170	200	200	500	2550	1220	2920	625	321
8	1020	646	200	170	210	210	520	2380	961	2180	670	285
9	892	600	200	170	210	220	540	2190	750	1890	513	264
10	759	640	190	170	220	230	700	2030	612	1340	421	247
11	628	500	190	170	210	230	1400	1850	511	969	362	247
12	527	350	200	180	210	240	2700	1560	444	3080	324	267
13	452	330	200	190	210	290	2400	1300	431	4070	303	316
14	402	320	210	210	210	400	2100	1120	379	2380	291	293
15	393	330	200	190	210	450	2000	999	333	1720	311	265
16	382	330	200	180	200	500	1900	922	336	1260	301	246
17	348	320	210	190	200	540	2500	860	439	897	267	232
18	319	330	210	190	190	580	4500	841	420	814	245	218
19	301	320	210	190	200	560	8000	1540	391	1390	225	207
20	292	320	220	180	210	520	12000	2640	380	1440	255	197
21	386	280	220	180	220	460	9040	2260	344	1160	401	189
22	908	240	220	190	230	450	10200	1750	312	929	363	187
23	1080	230	220	190	230	450	8470	1400	290	795	345	188
24	2430	220	220	190	230	450	7760	1110	333	759	301	207
25	2950	210	210	190	240	430	8150	900	380	761	264	225
26	2300	220	200	180	230	400	8690	760	2040	707	238	223
27	1740	220	200	180	230	450	6980	662	4270	605	220	356
28	1380	210	200	180	220	470	5150	579	2430	578	206	619
29	1130	200	200	180	220	480	4360	516	1490	655	192	539
30	986	200	200	180	---	490	3670	459	1040	634	186	447
31	861	---	210	170	---	500	---	412	---	814	178	---
TOTAL	26508	12794	6430	5650	5980	11440	117230	50870	27674	39938	11650	8581
MEAN	855	426	207	182	206	369	3908	1641	922	1288	376	286
MAX	2950	887	220	210	240	580	12000	3130	4270	4070	967	619
MIN	292	200	190	170	160	200	500	412	290	578	178	170
CFSM	1.43	.71	.35	.31	.35	.62	6.55	2.75	1.55	2.16	.63	.48
IN.	1.65	.80	.40	.35	.37	.71	7.30	3.17	1.72	2.49	.73	.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	473	527	291	187	187	657	2196	1080	661	485	298	364
MAX	1861	2151	638	410	713	2494	4187	2752	2054	2311	1565	1775
(WY)	1986	1992	1992	1992	1984	1973	1960	1950	1951	1949	1972	1977
MIN	67.1	95.2	107	95.0	69.3	113	513	261	121	77.9	68.2	74.3
(WY)	1949	1949	1977	1917	1964	1917	1987	1980	1948	1964	1948	1976

04027000 BAD RIVER NEAR ODANAH, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	181243		324745			
ANNUAL MEAN	497		887		620	
HIGHEST ANNUAL MEAN					942	1983
LOWEST ANNUAL MEAN					346	1990
HIGHEST DAILY MEAN	4340	May 10	12000	Apr 20	22000	Apr 24 1960
LOWEST DAILY MEAN	89	Aug 7,8	(a)160	Feb 3	52	(b)Oct 1 1948
ANNUAL SEVEN-DAY MINIMUM	91	Aug 2	(a)170	Jan 5	54	Feb 19 1964
INSTANTANEOUS PEAK FLOW			13000	Apr 20	(c)27700	Apr 24 1960
INSTANTANEOUS PEAK STAGE			14.75	Apr 20	(d)21.70	Apr 24 1960
INSTANTANEOUS LOW FLOW			159	Sep 2	(e)34	Nov 8 1976
ANNUAL RUNOFF (CFSM)	.83		1.49		1.04	
ANNUAL RUNOFF (INCHES)	11.29		20.24		14.10	
10 PERCENT EXCEEDS	1260		2180		1450	
50 PERCENT EXCEEDS	202		382		270	
90 PERCENT EXCEEDS	126		190		117	

(a) Ice affected
(b) Also occurred Aug. 6, 7, 1964
(c) From rating curve extended above 12,000 ft^3/s and a comparison with contracted-opening measurement of peak flow 45,600 ft^3/s at Odanah, drainage area, 990 mi^2
(d) From floodmarks
(e) Result of freezeup

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 mi^2.

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

REVISED RECORDS.--WDR WI-82-1: Drainage area. WDR WI-92-1: 1952-53(M), 1960(M), 1967(M), 1972(M), and 1978(M).

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

REMARKS.--Estimated daily discharges: July 13–26 and ice-affected periods, Jan 20 to Feb. 11 and Feb. 18 to Mar. 17. Records good except for estimated daily discharges, which are fair (see page 12). Diurnal fluctuation caused by hydroelectric plant at gage. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	267	174	186	180	170	275	570	239	354	286	133
2	199	285	205	185	180	170	256	523	316	686	277	134
3	269	312	224	182	180	180	272	468	354	387	268	177
4	253	294	204	132	180	200	252	422	353	417	259	206
5	220	261	191	152	180	200	251	395	327	364	255	201
6	216	257	139	184	160	200	273	365	382	902	256	209
7	262	260	70	180	160	200	261	349	418	1060	265	183
8	259	252	129	179	160	200	260	328	411	580	265	206
9	275	184	180	181	170	190	231	305	356	678	266	184
10	263	239	254	179	170	190	333	306	309	645	263	173
11	252	213	254	183	180	190	572	318	294	581	261	164
12	222	174	228	180	179	200	940	304	291	2280	261	161
13	209	142	174	181	179	220	713	295	291	1000	260	149
14	199	204	178	178	178	240	669	262	277	1000	256	151
15	193	219	167	188	176	260	604	242	272	1200	252	149
16	191	220	174	157	176	280	588	243	273	960	248	158
17	182	196	174	149	176	300	829	232	292	1200	248	140
18	186	216	170	156	180	356	1690	242	272	640	249	139
19	189	204	194	148	190	329	3460	372	255	520	247	118
20	183	203	174	130	180	302	2900	421	246	420	238	130
21	191	199	181	120	170	297	2720	430	238	450	235	132
22	228	137	180	130	180	277	2610	383	229	450	234	134
23	246	153	181	140	190	268	2060	330	232	440	232	143
24	760	140	185	140	180	274	1930	294	235	400	229	151
25	417	142	187	170	180	226	1690	273	243	360	225	133
26	455	170	182	160	180	231	1430	239	1680	340	222	197
27	462	231	161	150	200	243	1270	244	621	325	221	301
28	427	186	170	150	210	272	994	233	629	302	171	259
29	387	159	178	160	170	262	860	218	612	283	133	268
30	317	147	155	170	---	271	680	232	503	277	133	259
31	297	---	182	180	---	255	---	204	---	288	135	---
TOTAL	8614	6266	5599	5060	5174	7453	31873	10042	11450	19789	7350	5242
MEAN	278	209	181	163	178	240	1062	324	382	638	237	175
MAX	760	312	254	188	210	356	3460	570	1680	2280	286	301
MIN	182	137	70	120	160	170	231	204	229	277	133	118
CFSM	.92	.69	.60	.54	.59	.80	3.53	1.08	1.27	2.12	.79	.58
IN.	1.06	.77	.69	.63	.64	.92	3.94	1.24	1.42	2.45	.91	.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1996, BY WATER YEAR (WY)

MEAN	238	250	203	187	192	308	578	372	290	268	228	243
MAX	445	509	285	248	318	666	1062	867	707	697	744	635
(WY)	1983	1992	1961	1952	1984	1973	1996	1950	1952	1953	1972	1960
MIN	152	160	150	146	136	178	238	197	139	142	147	146
(WY)	1949	1977	1964	1991	1968	1965	1987	1980	1948	1988	1948	1948

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1948 - 1996	
ANNUAL TOTAL	89643		123912			
ANNUAL MEAN	246		339		281	
HIGHEST ANNUAL MEAN					426	1953
LOWEST ANNUAL MEAN					217	1980
HIGHEST DAILY MEAN	1090	Mar 13	3460	Apr 19	4100	Aug 20 1972
LOWEST DAILY MEAN	70	Dec 7	70	Dec 7	61	Sep 7,8 1979
ANNUAL SEVEN-DAY MINIMUM	(a)136	Feb 4	134	Sep 17	68	Sep 4 1979
INSTANTANEOUS PEAK FLOW			4930	Apr 19	(b)8100	Jul 1 1953
INSTANTANEOUS PEAK STAGE			6.11	Apr 19	7.90	Jul 1 1953
ANNUAL RUNOFF (CFSM)	.82		1.12		.93	
ANNUAL RUNOFF (INCHES)	11.08		15.31		12.66	
10 PERCENT EXCEEDS	429		583		472	
50 PERCENT EXCEEDS	185		233		210	
90 PERCENT EXCEEDS	154		153		160	

(a) Ice affected
(b) From rating curve extended above 3,000 ft^3/s

04029990 MONTREAL RIVER AT SAXON FALLS NEAR SAXON, WI

LOCATION.--Lat 46°32'13", long 90°22'47", in SW 1/4 NW 1/4 sec.21, T.47 N., R.1 E., Iron County, Hydrologic Unit 04010302, at Saxon Falls powerhouse, 3.4 mi northeast of Saxon, and 3.8 mi upstream from mouth.

DRAINAGE AREA.--262 mi^2.

PERIOD OF RECORD.--September 1938 to September 1970, October 1986 to current year. Published as "Montreal River near Saxon" (04030000), September 1938 to September 1970.

REVISED RECORDS.--WSP 894: 1938-39. WSP 924: 1939-40. WSP 1307: 1948(M). WSP 1627: 1958.

GAGE.--Headwater and tailwater gages read by Northern States Power Company. September 1938 to September 1970, water-stage recorder at site 1.8 mi downstream at elevation of 760 ft above sea level (from Power Company data).

REMARKS.--No estimated daily discharges. Diurnal fluctuation caused by Saxon Falls powerplant. Flow regulated by Gile Reservoir on West Branch Montreal River (capacity 1,290,000,000 ft^3/s) since April 1941.

COOPERATION.--Records were provided by Northern States Power Company and reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	325	145	149	167	198	195	1710	210	225	490	235
2	160	400	150	167	178	198	204	1510	210	340	1140	235
3	105	440	150	161	180	198	195	1510	1040	300	296	240
4	100	370	160	161	180	195	183	1610	1250	300	296	240
5	85	370	143	161	178	195	183	1610	965	235	235	245
6	90	330	131	149	175	195	183	1710	810	235	385	245
7	355	365	119	149	167	188	183	1610	665	235	405	240
8	285	285	149	149	185	177	183	1930	553	600	385	240
9	290	205	145	133	178	188	183	1930	553	600	305	240
10	220	221	165	120	190	188	193	1410	270	485	265	245
11	190	195	120	200	190	188	420	1310	220	380	265	245
12	145	195	149	155	200	193	595	1310	210	535	240	245
13	148	140	161	155	190	205	595	960	205	2390	230	240
14	118	150	160	155	190	210	595	845	205	2390	230	240
15	118	150	130	167	195	188	595	745	208	1560	230	240
16	145	155	149	161	185	188	565	745	208	810	230	235
17	130	125	149	161	190	188	575	680	230	595	235	215
18	112	120	161	167	190	210	890	690	260	500	235	205
19	112	120	167	107	178	210	2090	690	235	455	265	205
20	95	125	155	143	195	195	3590	2040	220	405	300	191
21	122	131	155	143	190	183	3590	1710	215	405	290	200
22	122	120	155	185	195	230	3980	1310	220	395	305	200
23	540	120	155	185	198	208	3990	798	220	300	260	200
24	950	120	155	185	200	208	3390	659	235	275	260	210
25	1310	115	155	178	200	155	3520	595	235	275	260	280
26	980	115	161	178	205	141	5210	595	235	265	235	215
27	680	143	155	185	195	180	4120	595	500	270	235	300
28	530	143	155	185	183	208	4120	230	435	270	235	385
29	530	143	149	188	183	195	2890	231	265	385	235	385
30	420	149	149	185	---	183	1930	210	265	340	235	200
31	385	---	149	161	---	183	---	200	---	485	235	---
TOTAL	9637	6085	4651	5028	5430	5969	49135	33688	11552	17240	9447	7241
MEAN	311	203	150	162	187	193	1638	1087	385	556	305	241
MAX	1310	440	167	200	205	230	5210	2040	1250	2390	1140	385
MIN	65	115	119	107	167	141	183	200	205	225	230	191
CFSM	1.19	.77	.57	.62	.71	.73	6.25	4.15	1.47	2.12	1.16	.92
IN.	1.37	.86	.66	.71	.77	.85	6.98	4.78	1.64	2.45	1.34	1.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1996, BY WATER YEAR (WY)

MEAN	204	256	180	164	156	302	956	525	379	288	195	201
MAX	495	800	391	295	321	888	1795	1180	1172	1068	432	894
(WY)	1942	1992	1952	1969	1969	1945	1939	1954	1939	1992	1953	1941
MIN	38.2	34.2	38.1	27.8	21.0	55.4	213	127	101	74.1	36.1	33.6
(WY)	1949	1949	1949	1949	1949	1940	1987	1941	1987	1987	1987	1939

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1938 - 1996	
ANNUAL TOTAL	97357.0		165103			
ANNUAL MEAN	267		451		317	
HIGHEST ANNUAL MEAN					487	1952
LOWEST ANNUAL MEAN					162	1987
HIGHEST DAILY MEAN	1600	(a)Mar 16	5210	Apr 26	9880	Jul 3 1992
LOWEST DAILY MEAN	29	Sep 27	65	Oct 1	7.2	Oct 24 1948
ANNUAL SEVEN-DAY MINIMUM	45	Sep 25	119	Oct 14	7.7	Oct 29 1948
ANNUAL RUNOFF (CFSM)	1.02		1.72		1.21	
ANNUAL RUNOFF (INCHES)	13.82		23.44		16.45	
10 PERCENT EXCEEDS	609		961		649	
50 PERCENT EXCEEDS	185		210		191	
90 PERCENT EXCEEDS	100		143		86	

(a) Also occurred May 10

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 mi^2.

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 sea level. Prior to Oct. 1, 1968, nonrecording gage at same site and at datum 4.00 ft higher.

REMARKS.--Estimated daily discharges: Jan. 18, 19, Jan. 31 to Feb. 7, and Mar. 9–24. Records good except for estimated daily discharges, which are fair, and discharges below 3.0 ft^3/s, which are poor (see page 12). Flow regulated by Cisco Lake (station 04037400). Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

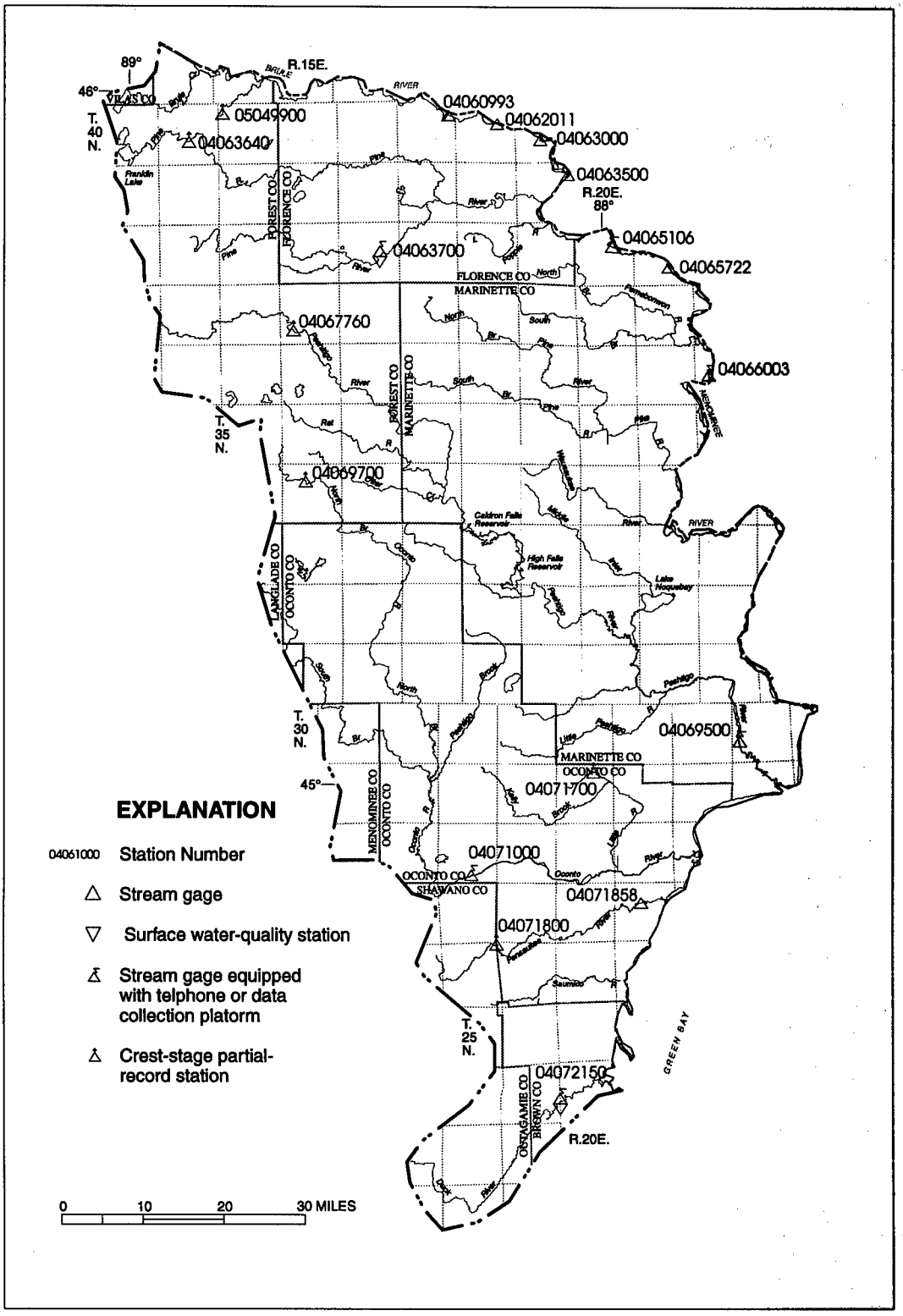
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	38	54	52	34	50	55	188	1.2	57	121	1.1
2	126	59	53	51	34	31	39	187	1.5	31	74	.77
3	174	84	52	51	34	31	23	185	23	68	73	.75
4	167	105	46	31	34	16	6.5	184	86	66	72	59
5	84	104	38	17	20	3.9	6.7	184	124	65	103	101
6	35	101	37	17	4.0	3.8	6.8	184	123	64	126	98
7	71	96	37	17	4.0	3.9	7.2	183	93	63	125	95
8	128	95	37	18	4.2	18	24	184	70	63	77	91
9	126	115	38	19	11	33	38	184	69	42	23	44
10	123	129	38	19	18	33	61	185	40	9.3	4.1	3.0
11	119	124	21	26	19	33	78	185	7.1	1.4	3.6	1.6
12	72	121	5.1	34	48	33	96	182	1.1	43	15	1.2
13	35	68	5.7	34	71	33	116	180	.84	141	48	1.0
14	34	12	31	34	69	33	118	178	.74	177	123	1.0
15	35	64	56	34	47	33	116	175	.66	173	119	.94
16	35	81	63	34	30	33	113	171	.61	167	65	.90
17	35	80	72	34	30	33	111	168	14	142	16	.90
18	34	78	70	34	31	33	110	163	35	103	16	.90
19	35	77	51	34	31	33	116	183	46	107	16	.90
20	33	54	32	59	30	33	122	194	44	107	15	.90
21	74	34	16	80	29	33	127	193	45	104	15	.92
22	115	35	4.7	79	17	33	134	189	44	66	31	1.1
23	114	34	5.0	77	3.6	33	139	185	44	22	44	31
24	119	35	5.3	76	17	33	145	180	26	3.7	44	49
25	141	35	5.6	75	31	38	160	174	14	3.3	43	49
26	158	36	6.0	74	30	58	173	169	15	3.2	42	75
27	152	45	20	75	32	78	177	164	72	3.2	41	94
28	147	54	36	74	52	76	178	85	129	5.8	34	90
29	143	54	46	74	71	74	181	3.5	125	77	21	87
30	77	54	53	52	---	72	186	2.7	120	180	14	63
31	18	---	53	34	---	72	---	1.6	---	175	1.7	---
TOTAL	2914	2101	1087.4	1419	885.8	1153.6	2963.2	4973.8	1414.75	2332.9	1565.4	1043.88
MEAN	94.0	70.0	35.1	45.8	30.5	37.2	98.8	160	47.2	75.3	50.5	34.8
MAX	174	129	72	80	71	78	186	194	129	180	126	101
MIN	18	12	4.7	17	3.6	3.8	6.5	1.6	.61	1.4	1.7	.75
CFSM	1.85	1.38	.69	.90	.60	.73	1.95	3.16	.93	1.48	1.00	.69
IN.	2.14	1.54	.80	1.04	.65	.85	2.17	3.65	1.04	1.71	1.15	.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1996, BY WATER YEAR (WY)

MEAN	69.7	67.5	48.6	38.9	34.9	43.5	60.5	47.3	46.1	32.6	26.3	38.5
MAX	151	116	84.1	62.6	81.0	92.1	111	160	123	113	99.7	104
(WY)	1986	1968	1961	1983	1945	1973	1985	1996	1953	1953	1978	1977
MIN	13.1	14.5	23.5	23.1	20.6	24.1	2.02	.17	.11	.25	.15	.23
(WY)	1958	1945	1990	1959	1950	1956	1948	1977	1977	1977	1970	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1945 - 1996	
ANNUAL TOTAL	14885.93		23854.73			
ANNUAL MEAN	40.8		65.2		46.2	
HIGHEST ANNUAL MEAN					65.9	1973
LOWEST ANNUAL MEAN					25.2	1949
HIGHEST DAILY MEAN	174	Oct 3	194	May 20	288	May 1-4 1951
LOWEST DAILY MEAN	.37	(a)Aug 6	.61	Jun 16	.08	(b)
ANNUAL SEVEN-DAY MINIMUM	.38	Sep 5	.91	Sep 15	.09	Jul 28 1988
INSTANTANEOUS PEAK FLOW			197	May 20	288	May 1-4 1951
INSTANTANEOUS PEAK STAGE			5.67	May 20	(c)6.10	May 1-4 1951
ANNUAL RUNOFF (CFSM)	.80		1.29		.91	
ANNUAL RUNOFF (INCHES)	10.92		17.50		12.38	
10 PERCENT EXCEEDS	104		167		103	
50 PERCENT EXCEEDS	34		46		37	
90 PERCENT EXCEEDS	.62		3.9		1.0	

(a) Also occurred Sept. 7-10
(b) July 21, Aug. 2, 3, 1988
(c) Present datum


89°
46°
R.15E.
T. 40 N.
05049900
04063640
04060993
04062011
04063000
04063500
R.20E.
88°
04065106
04065722
04063700
04067760
04066003
T. 35 N.
04069700
T. 30 N.
04069500
45°
04071700
04071000
04071858
04071800
T. 25 N.
04072150
R.20E.
FLORENCE CO
MARINETTE CO
FOREST CO
LANGLADE CO
OCONTO CO
MENOMINEE CO
SHAWANO CO
OCONTO CO
OCONTO CO
MARINETTE CO
OCONTO CO
OCONTO CO
OCONTO

STREAMS TRIBUTARY TO LAKE MICHIGAN

04060993 BRULE RIVER NEAR FLORENCE, WI

LOCATION.--Lat 45°57'39", long 88°18'57", in NW 1/4 SE 1/4 sec.9, T.41 N., R.32 W., Michigan Meridian, Iron County, Hydrologic Unit 04030106, on left bank 30 ft upstream from bridge on U.S. Highway 2, 4.0 mi upstream from Paint River, 4.0 mi northwest of Florence, and 8.0 mi upstream from confluence with Michigamme River.

DRAINAGE AREA.--366 mi^2, approximately.

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

REVISED RECORDS.--WSP 1387: 1914-16. WDR MI-92-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,240 ft above sea level, from topographic map. Prior to Aug. 29, 1944, nonrecording gage, and Aug. 19, 1944 to Apr. 4, 1994, water-stage recorder at site 3.0 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 17 to Apr. 12. Records good except for estimated daily discharges, which are fair (see page 12). Discharge includes some mine pumpage prior to August 1977. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	335	464	310	290	280	250	320	1540	388	393	353	254
2	371	727	310	290	280	250	320	1300	546	431	333	257
3	375	779	310	290	280	250	310	1190	665	423	309	261
4	385	668	310	290	280	250	300	1170	603	368	294	258
5	338	547	310	290	280	250	300	1160	516	341	309	289
6	378	513	310	290	270	250	300	1190	581	320	456	274
7	801	485	300	290	270	250	300	1140	690	348	496	256
8	848	441	300	290	270	250	300	1090	601	385	523	247
9	681	410	300	290	270	250	300	1080	513	389	420	254
10	535	431	300	290	270	250	330	1070	467	348	349	251
11	432	395	300	290	270	260	380	1040	474	326	335	259
12	385	402	300	290	270	270	460	928	466	425	319	260
13	346	343	300	290	260	280	449	820	476	752	320	260
14	324	352	300	290	260	300	442	749	443	546	328	255
15	315	352	300	290	260	310	453	704	390	446	335	255
16	304	340	300	290	260	310	424	681	371	411	324	254
17	290	330	300	290	260	310	427	673	376	380	320	251
18	276	320	300	290	260	300	540	660	402	441	301	249
19	279	310	300	290	260	300	928	717	417	704	291	248
20	288	300	300	290	260	300	1560	911	403	592	305	246
21	344	300	300	290	260	300	1980	838	383	466	295	247
22	401	300	300	290	260	300	2390	707	424	394	348	305
23	434	300	300	290	260	300	2700	649	402	364	393	342
24	742	300	300	290	260	300	2670	586	413	361	340	323
25	918	310	300	280	260	300	2770	546	394	362	309	301
26	831	310	290	280	250	290	3060	508	381	343	299	285
27	669	310	290	280	250	290	3000	503	502	320	290	308
28	577	310	290	280	250	300	2510	460	619	322	276	321
29	519	310	290	280	250	310	2020	426	517	380	267	306
30	480	310	290	280	---	320	1750	411	463	377	263	293
31	478	---	290	280	---	320	---	399	---	367	256	---
TOTAL	14679	11969	9300	8920	7670	8770	33993	25846	14286	12825	10356	8169
MEAN	474	399	300	288	264	283	1133	834	476	414	334	272
MAX	918	779	310	290	280	320	3060	1540	690	752	523	342
MIN	276	300	290	280	250	250	300	399	371	320	256	246
CFSM	1.29	1.09	.82	.79	.72	.77	3.10	2.28	1.30	1.13	.91	.74
IN.	1.49	1.22	.95	.91	.78	.89	3.46	2.63	1.45	1.30	1.05	.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	328	338	277	251	244	320	650	505	397	336	291	314
MAX	612	600	424	369	406	833	1235	1104	712	983	604	582
(WY)	1986	1916	1986	1986	1984	1973	1967	1965	1981	1953	1972	1959
MIN	179	202	175	156	163	178	235	251	194	185	186	182
(WY)	1949	1990	1990	1995	1995	1965	1990	1988	1988	1989	1948	1948

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	112493		166783			
ANNUAL MEAN	308		456		353	
HIGHEST ANNUAL MEAN					512	1973
LOWEST ANNUAL MEAN					221	1990
HIGHEST DAILY MEAN	918	Oct 25	3060	Apr 26	4420	Jul 2 1953
LOWEST DAILY MEAN	(a)139	Jan 4	246	Sep 20	130	Dec 2 1963
ANNUAL SEVEN-DAY MINIMUM	(a)140	Jan 2	(a)250	Feb 26	(a)140	Jan 2 1995
INSTANTANEOUS PEAK FLOW			3140	Apr 26	4700	Jul 2 1953
INSTANTANEOUS PEAK STAGE			7.45	Apr 26	(b)7.45	Apr 26 1996
INSTANTANEOUS LOW FLOW			241	Sep 8	(c)118	Dec 2 1963
ANNUAL RUNOFF (CFSM)	.84		1.25		.96	
ANNUAL RUNOFF (INCHES)	11.43		16.95		13.10	
10 PERCENT EXCEEDS	488		720		556	
50 PERCENT EXCEEDS	290		310		290	
90 PERCENT EXCEEDS	160		260		205	

(a) Estimated
(b) Present site and datum; peak stage at previous site and datum, 8.60 ft, Dec. 20, 1983, backwater from ice
(c) Discharge measurement

04062011 BRULE RIVER NEAR COMMONWEALTH, WI

LOCATION.--Lat 45°56'51" long 88°12'55", in NW 1/4 sec.14, T.40 N., R.18 E., Wisconsin Meridian, Florence County, Hydrologic Unit 04030106, on right bank 900 ft downstream from Brule Island Dam, 1.5 mi upstream from confluence with Michigamme River, and 2.8 mi north of Commonwealth, WI.

DRAINAGE AREA.--1,020 mi^2.

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

REVISED RECORD.--WDR MI-91-1: 1990(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,130 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharge: Mar. 1–7, Mar. 27 to Apr. 16, and June 5 to July 11. Records good except those for estimated daily discharges, which are fair (see page 12). Flow regulated by powerplant 900 ft upstream and by Lower Paint Dam 8.2 mi upstream. Records not adjusted for diversion to Michigamme River by Paint River Diversion Canal.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	434	534	380	381	393	340	360	4160	512	560	473	378
2	450	834	401	377	404	350	360	4080	721	560	453	380
3	490	909	409	367	379	350	360	3900	1220	550	431	392
4	471	735	410	356	360	350	360	3900	1540	520	433	377
5	395	563	385	361	349	350	360	3890	1500	450	431	394
6	476	604	328	367	353	360	380	4520	1400	440	588	391
7	914	552	266	358	354	380	380	4840	1100	460	646	388
8	990	551	314	338	354	342	380	4720	800	500	693	357
9	827	370	373	355	344	351	380	4670	700	510	571	368
10	611	478	353	359	361	342	400	4650	660	460	482	368
11	543	510	363	356	358	344	480	4400	640	470	470	376
12	495	366	367	355	356	353	690	4000	640	527	452	370
13	414	392	364	367	351	366	530	3530	620	961	452	369
14	378	404	374	376	353	404	490	2580	600	678	458	366
15	433	388	364	355	349	462	585	1840	540	988	469	365
16	394	449	378	336	341	410	540	1510	530	1020	454	363
17	401	401	392	349	337	401	553	1100	520	906	440	362
18	360	379	388	385	345	390	744	786	540	948	434	355
19	364	421	393	403	340	403	1220	1210	560	1080	427	418
20	400	416	406	405	338	392	2110	2660	550	851	437	394
21	446	421	380	384	345	369	3400	3210	540	637	422	397
22	487	357	384	393	337	390	4620	2750	540	532	460	462
23	515	330	385	415	338	383	5660	2170	540	491	517	428
24	911	330	384	383	350	406	5850	2090	540	478	479	376
25	1070	298	390	377	353	410	6800	2040	540	479	431	320
26	913	373	388	374	366	306	7750	1940	520	470	415	324
27	772	382	373	378	348	310	7730	1660	680	445	401	316
28	557	389	354	371	340	350	6260	1050	800	450	404	311
29	608	343	366	372	336	380	4720	527	700	498	396	273
30	552	346	370	379	---	380	4200	561	620	500	388	235
31	524	---	379	378	---	390	---	518	---	487	398	---
TOTAL	17595	13825	11561	11510	10232	11514	68652	85462	21913	18906	14405	10973
MEAN	568	461	373	371	353	371	2288	2757	730	610	465	366
MAX	1070	909	410	415	404	462	7750	4840	1540	1080	693	462
MIN	360	298	266	336	336	306	360	518	512	440	388	235

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

MEAN	433	398	340	316	317	408	930	921	490	428	352	361
MAX	712	571	416	371	353	506	2288	2757	730	610	465	395
(WY)	1991	1993	1992	1996	1996	1991	1996	1996	1996	1996	1996	1993
MIN	276	307	270	259	270	359	322	430	334	272	296	314
(WY)	1990	1990	1990	1991	1991	1994	1990	1990	1992	1990	1990	1991

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1990 - 1996	
ANNUAL TOTAL	158536		296548			
ANNUAL MEAN	434		810		475	
HIGHEST ANNUAL MEAN					810	1996
LOWEST ANNUAL MEAN					325	1990
HIGHEST DAILY MEAN	1480	May 17	7750	Apr 26	7750	Apr 26 1996
LOWEST DAILY MEAN	228	Jan 10	235	Sep 30	182	Feb 11 1994
ANNUAL SEVEN-DAY MINIMUM	266	Jan 1	308	Sep 24	202	Mar 26 1990
INSTANTANEOUS PEAK FLOW			8480	Apr 25	8480	Apr 25 1996
INSTANTANEOUS PEAK STAGE			13.91	Apr 25	13.91	Apr 25 1996
10 PERCENT EXCEEDS	617		1500		651	
50 PERCENT EXCEEDS	384		410		360	
90 PERCENT EXCEEDS	290		349		269	

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.--1,760 mi^2.

PERIOD OF RECORD.--January 1914 to current year. Published as "at Twin Falls near Iron Mountain, MI" January 1914 to June 1950.

REVISED RECORDS.--WSP 1707: 1953(M). WDR MI-92-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,119.23 ft above sea level (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.--Estimated daily discharges: Jan. 24 to Feb. 24, Mar. 5–6, and 8–10. Records good except for estimated daily discharges, which are fair (see page 12). 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; ratings developed by U. S. Geological Survey. Flow regulated by powerplants, by Michigamme Reservoir, capacity, 119,950 acre-ft, by Peavy Pond, capacity, 33,860 acre-ft, on Michigamme River, and by many smaller reservoirs upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	2570	1180	1530	1600	1880	1360	8060	2590	1900	1610	1190
2	1630	2140	1500	1640	1600	1920	1250	7550	2680	2070	1770	1430
3	1790	2460	1460	1640	1600	1860	1210	6510	3680	2140	1650	1260
4	1600	2330	1710	1660	1600	1870	1110	6520	5180	2120	1490	1230
5	1400	2360	1430	1680	1600	1850	1460	6510	3660	1840	1660	1320
6	1510	2570	1460	1720	1600	1800	1190	7110	4570	1790	1640	1240
7	1720	2490	1550	1630	1600	1790	1270	7450	5920	1680	2160	1540
8	2450	2470	1440	1760	1600	1800	1430	7360	5210	1730	2730	1280
9	2360	2370	2110	1670	1600	1800	1130	7310	4010	1940	2320	1160
10	2360	1870	1650	1690	1600	1850	1370	7320	3470	2070	1820	1310
11	2090	1890	1690	1690	1600	1900	1380	7040	2930	2070	2050	1330
12	1620	1730	1650	1630	1600	2100	1790	6660	2840	2100	1670	1560
13	1550	1500	1600	1630	1600	2070	1690	6140	2690	2520	1610	1120
14	1500	1820	1590	1620	1600	1930	1860	5170	2560	2870	1600	1170
15	1360	1600	1530	1710	1600	1810	2030	4330	1660	2730	1760	1290
16	1590	1690	1660	1660	1600	1800	1990	3900	1830	1760	1760	1260
17	1550	1810	1630	1630	1600	1600	2150	3490	2310	1870	1790	1570
18	1420	1660	1580	1550	1600	1740	2780	3150	2280	1780	1660	1270
19	1600	1480	1580	1800	1600	1710	3760	3520	2190	2370	1600	1410
20	1460	1740	1560	1600	1600	1710	4680	5760	2330	2570	1550	1210
21	1470	1580	1660	1490	1650	1860	6140	9510	2140	2690	1580	907
22	896	1650	1610	1650	1700	1840	7350	10400	2300	2730	1610	728
23	1330	1460	1490	1620	1700	1510	8980	8380	1960	2340	1710	745
24	2230	1480	1660	1600	1750	1220	8750	7440	2210	2310	1630	683
25	3010	1230	1630	1600	1780	1540	9960	5930	2040	2350	1710	825
26	2660	1430	1550	1600	1850	1910	11200	5140	2200	1980	1730	811
27	2490	1680	1590	1600	1820	1770	11300	4640	2130	1820	1530	844
28	2400	1600	1720	1600	1790	1530	10100	3410	1970	1820	1440	779
29	2690	1660	1600	1600	1860	1680	8340	2870	1790	1670	1440	703
30	2660	1370	1580	1600	---	1460	7730	3070	1820	2080	1420	870
31	2680	---	1640	1600	---	1400	---	2900	---	1940	1360	---
TOTAL	58116	55690	49290	50700	47900	54510	126740	184550	85150	65650	53060	34045
MEAN	1875	1856	1590	1635	1652	1758	4225	5953	2838	2118	1712	1135
MAX	3010	2570	2110	1800	1860	2100	11300	10400	5920	2870	2730	1570
MIN	896	1230	1180	1490	1600	1220	1110	2870	1660	1670	1360	683

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	1479	1606	1455	1391	1362	1584	3180	3068	2144	1597	1298	1404
MAX	3537	3465	2640	2253	2514	3544	8159	6319	5035	4253	2359	3149
(WY)	1986	1986	1984	1983	1984	1973	1916	1960	1916	1953	1972	1968
MIN	726	725	765	691	647	692	735	595	799	721	545	718
(WY)	1949	1964	1925	1924	1926	1914	1990	1987	1988	1925	1925	1925

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	583501		865401			
ANNUAL MEAN	1599		2364		1797	
HIGHEST ANNUAL MEAN					3069	1916
LOWEST ANNUAL MEAN					922	1925
HIGHEST DAILY MEAN	5100	May 17	11300	Apr 27	18800	Jul 2 1953
LOWEST DAILY MEAN	743	Apr 12	683	Sep 24	57	Sep 26 1975
ANNUAL SEVEN-DAY MINIMUM	948	Apr 11	770	Sep 23	277	Oct 18 1975
INSTANTANEOUS PEAK FLOW			11700	Apr 26	19500	Apr 26 1960
INSTANTANEOUS PEAK STAGE			10.46	Apr 26	(a)14.15	Apr 26 1960
INSTANTANEOUS LOW FLOW			261	Sep 29	(a)38	(b)Aug 21 1962
10 PERCENT EXCEEDS	2370		4590		3040	
50 PERCENT EXCEEDS	1480		1710		1470	
90 PERCENT EXCEEDS	1090		1330		843	

(a) Since July 1950
(b) Also occurred Sept. 26, 1975

04063500 MENOMINEE RIVER AT TWIN FALLS NEAR IRON MOUNTAIN, MI

LOCATION.--Lat 45°52'17", long 88°04'12" in NE 1/4 SE 1/4 sec.12, T.40 N., R.31 W., Michigan Meridian, Dickinson County, Hydrologic Unit 04030108, on left bank 150 ft downstream from Wisconsin Electric Power Company powerhouse at Twin Falls Dam, 3.6 mi north of Iron Mountain, and at mile 106.6.

DRAINAGE AREA.--1,800 mi^2.

PERIOD OF RECORD.--January 1914 to current year. Published as "near Florence, WI" October 1957 to September 1989

REVISED RECORDS.--WDR MI-91-1: 1990(M). WDR MI-92-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,062 ft above sea level (levels by Wisconsin Electric Power Co.). Prior to September 1957, headwater and tailwater gages and generation data entered hourly in daily log sheets by company employees. October 1957 to September 1989, water-stage recorder at site 10.4 mi upstream at different datum. November 1989 to July 1993, water-stage recorder at site 150 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Jan. 28 to Feb. 21 and July 17. Records good except for estimated daily discharges, which are fair (see page 12). Prior to September 1957, discharge determined from powerplant records computed on basis of load-discharge rating of hydroelectric units and rating for tailwater gage during periods of spill; ratings developed by U.S. Geological Survey. Flow regulated by powerplants, by Michigamme Reservoir, capacity, 119,950 acre-ft, by Peavy Pond, capacity, 33,860 acre-ft, on Michigamme River, and by many smaller reservoirs upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1150	2730	1330	1680	1700	1930	1450	7980	2540	2080	1960	1380
2	1620	2440	1620	1700	1700	1930	1220	7700	2850	2200	1850	1400
3	1920	2480	1540	1720	1700	1930	1230	6410	3720	2310	1790	1400
4	1790	2470	1690	1760	1700	1910	1250	6520	5260	2090	1660	1370
5	1430	2560	1640	1730	1700	1920	1360	6650	3810	1910	1700	1420
6	1610	2650	1610	1780	1700	1940	1230	7170	4500	1940	1890	1360
7	1920	2670	1470	1790	1700	1930	1270	7490	6130	1750	2480	1680
8	2490	2600	1790	1760	1700	1890	1400	7460	5470	1910	2720	1460
9	2480	2450	2070	1750	1700	1880	1250	7350	4050	2120	2540	1230
10	2520	1970	1710	1770	1700	1990	1420	7440	3670	2130	2080	1390
11	2290	2060	1790	1760	1700	2050	1420	7110	3140	2190	2170	1520
12	1740	1840	1660	1740	1700	2140	1980	6860	2960	2230	1840	1580
13	1710	1700	1820	1740	1700	2100	1850	6230	2910	2740	1680	1270
14	1590	1860	1700	1710	1700	1990	1910	5300	2540	3050	1740	1320
15	1470	1780	1610	1780	1700	1960	2110	4320	1830	2710	1900	1370
16	1650	1840	1720	1760	1700	1830	2000	3940	2070	1870	2060	1460
17	1640	1950	1770	1750	1700	1760	2270	3680	2280	2060	1810	1560
18	1590	1790	1660	1750	1700	1730	2740	3240	2400	2020	1780	1430
19	1680	1560	1630	1820	1700	1710	3820	3440	2310	2460	1740	1560
20	1670	1720	1680	1690	1700	1800	4930	5700	2420	2790	1750	1360
21	1680	1840	1670	1700	1800	1880	6210	9330	2290	2830	1760	928
22	1110	1700	1730	1730	1810	1830	7570	10400	2430	2790	1720	897
23	1350	1600	1670	1700	1810	1630	8990	8160	2080	2460	1820	880
24	2330	1600	1710	1760	1840	1280	8790	7630	2320	2530	1820	736
25	3180	1280	1690	1710	1840	1580	9570	5900	2220	2570	1820	860
26	2790	1580	1710	1710	1900	1870	9850	5200	2320	2150	1870	926
27	2600	1740	1700	1760	1870	1880	10900	4690	2160	1930	1780	1050
28	2630	1690	1750	1700	1860	1750	10200	3450	2130	1940	1620	725
29	2800	1750	1640	1700	1880	1670	8340	2980	1980	1910	1550	773
30	2730	1500	1670	1700	---	1560	7890	3150	1780	2120	1450	887
31	2810	---	1780	1700	---	1490	---	2970	---	2120	1390	---
TOTAL	61970	59400	52230	53810	50610	56740	126420	185850	88570	69910	57740	37182
MEAN	1999	1980	1685	1736	1745	1830	4214	5995	2952	2255	1863	1239
MAX	3180	2730	2070	1820	1900	2140	10900	10400	6130	3050	2720	1680
MIN	1110	1280	1330	1680	1700	1280	1220	2970	1780	1750	1390	725

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	1488	1618	1465	1401	1370	1597	3196	3080	2160	1611	1312	1416
MAX	3537	3465	2640	2253	2514	3544	8159	6319	5035	4309	2359	3149
(WY)	1986	1986	1984	1983	1984	1973	1916	1960	1916	1953	1972	1968
MIN	726	725	765	691	647	692	707	595	799	721	545	718
(WY)	1949	1964	1925	1924	1926	1914	1990	1987	1988	1925	1925	1925

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	610644		900432			
ANNUAL MEAN	1673		2460		1810	
HIGHEST ANNUAL MEAN					3069	1916
LOWEST ANNUAL MEAN					922	1925
HIGHEST DAILY MEAN	5160	May 17	10900	Apr 27	18100	Apr 26 1960
LOWEST DAILY MEAN	743	Apr 12	725	Sep 28	57	Sep 26 1975
ANNUAL SEVEN-DAY MINIMUM	1000	Apr 11	850	Sep 23	277	Oct 18 1975
INSTANTANEOUS PEAK FLOW			11600	Apr 27	19500	Apr 26 1960
INSTANTANEOUS PEAK STAGE			12.54	Apr 27	(a)12.54	Apr 27 1996
INSTANTANEOUS LOW FLOW			442	Oct 4	(a)399	Aug 30 1992
10 PERCENT EXCEEDS	2500		4560		3060	
50 PERCENT EXCEEDS	1580		1810		1480	
90 PERCENT EXCEEDS	1090		1410		852	

(a) Since October 1989

04063700 POPPLE RIVER NEAR FENCE, WI
(HYDROLOGIC BENCHMARK STATION)
(RADIOCHEMICAL PROGRAM STATION)
(NATIONAL WATER-QUALITY ASSESSMENT PROGRAM STATION)

LOCATION.--Lat 45°45'49", long 88°27'47", in NW 1/4 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 mi^2.

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 sea level. Prior to June 18, 1964, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 7–14, 28–31, Jan. 4–12, Jan. 17 to Mar. 17, Mar. 26–30, and Apr. 18–22. Records good except those for ice-affected periods, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	212	61	71	68	54	75	841	94	190	111	50
2	71	262	61	68	62	54	75	727	142	177	103	61
3	78	264	63	70	60	56	75	646	191	154	95	54
4	89	260	63	72	60	58	75	583	232	128	86	49
5	90	235	61	70	62	62	74	538	224	113	85	47
6	166	227	61	68	64	62	74	517	232	100	129	45
7	272	204	60	66	66	60	74	499	262	93	181	42
8	316	164	62	68	66	60	75	486	264	88	191	42
9	324	124	62	68	66	62	80	474	235	86	174	42
10	295	152	60	70	66	66	95	472	198	82	161	43
11	268	141	62	72	64	72	117	472	168	74	149	45
12	238	149	62	76	62	80	153	454	150	76	131	48
13	208	103	68	81	60	90	154	422	139	141	119	47
14	187	90	66	80	58	100	152	388	126	178	111	46
15	164	84	64	75	56	94	154	355	117	163	105	46
16	140	80	68	73	54	90	150	328	108	143	98	47
17	122	76	70	68	52	86	166	300	109	121	93	45
18	109	75	70	68	52	83	210	279	157	145	85	42
19	100	75	70	76	52	81	380	265	184	217	82	41
20	102	75	71	82	54	78	600	251	182	222	93	39
21	116	73	73	82	54	77	700	232	166	192	88	42
22	135	70	72	82	54	78	980	213	160	168	83	67
23	159	67	72	80	54	79	1280	189	147	143	84	76
24	239	64	72	78	56	81	1340	167	149	128	78	73
25	274	63	71	76	58	88	1440	152	136	132	72	70
26	289	63	71	74	56	86	1480	137	125	117	74	66
27	283	63	75	74	56	84	1400	130	157	104	74	72
28	275	63	68	74	54	82	1260	122	214	106	68	75
29	251	62	66	74	54	80	1110	112	225	126	65	73
30	226	62	66	72	---	78	978	105	211	125	60	71
31	204	---	68	70	---	78	---	100	---	118	54	---
TOTAL	5855	3702	2059	2278	1700	2339	14976	10956	5204	4150	3182	1606
MEAN	189	123	66.4	73.5	58.6	75.5	499	353	173	134	103	53.5
MAX	324	264	75	82	68	100	1480	841	264	222	191	76
MIN	65	62	60	66	52	54	74	100	94	74	54	39
CFSM	1.36	.89	.48	.53	.42	.54	3.59	2.54	1.25	.96	.74	.39
IN.	1.57	.99	.55	.61	.45	.63	4.01	2.93	1.39	1.11	.85	.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	122	117	67.3	49.0	47.7	86.8	310	226	145	78.2	67.5	112
MAX	265	220	116	86.6	107	356	613	617	345	235	147	356
(WY)	1972	1986	1992	1969	1984	1973	1979	1965	1993	1968	1978	1980
MIN	25.0	30.9	23.9	24.6	26.0	30.5	54.6	70.7	21.2	17.5	23.1	16.4
(WY)	1990	1977	1990	1977	1982	1964	1990	1977	1988	1988	1989	1989

04063700 POPPLE RIVER NEAR FENCE, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	37109		58007			
ANNUAL MEAN	102		158		119	
HIGHEST ANNUAL MEAN					175	1973
LOWEST ANNUAL MEAN					64.3	1988
HIGHEST DAILY MEAN	324	Oct 9	1480	Apr 26	1610	Apr 25 1979
LOWEST DAILY MEAN	28	Jul 30	39	Sep 20	10	Aug 12 1989
ANNUAL SEVEN-DAY MINIMUM	33	Mar 3	43	Sep 15	12	(a)Jul 3 1988
INSTANTANEOUS PEAK FLOW			1490	Apr 26	1640	Apr 25 1979
INSTANTANEOUS PEAK STAGE			4.70	Apr 26	4.70	Apr 26 1996
INSTANTANEOUS LOW FLOW			39	Sep 20,21	(b)5.9	Oct 28 1976
ANNUAL RUNOFF (CFSM)	.73		1.14		.86	
ANNUAL RUNOFF (INCHES)	9.93		15.52		11.63	
10 PERCENT EXCEEDS	234		274		260	
50 PERCENT EXCEEDS	70		83		72	
90 PERCENT EXCEEDS	38		56		34	

(a) Also occurred Sept. 20, 1989
(b) Result of temporary storage from beaver dam

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1964 to current year. National Water-Quality Assessment Program sampling began in April 1993.

WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

HYDROLOGIC BENCHMARK AND RADIOCHEMICAL PROGRAM DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (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)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
FEB 1996											
22...	1430	58	175	7.5	0.0	1.2	10.5	728	75	98	21
SEP											
25...	1055	68	204	7.9	10.0	1.1	9.5	736	87	100	22

DATE	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)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	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)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
FEB 1996											
22...	11	1.7	0.80	110	90	5.0	1.5	<0.10	15	122	<0.010
SEP											
25...	12	1.6	0.80	153	125	5.9	1.2	<0.10	9.0	130	<0.010

DATE	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)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)
FEB 1996											
22...	0.190	0.070	0.40	0.030	0.020	<0.010	10	9.0	<3.0	360	<4
SEP											
25...	<0.050	<0.015	<0.20	0.050	0.060	<0.010	<5.0	10	<3.0	210	<4

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)
FEB 1996											
22...	48	<10	<1.0	<1	<1.0	22	<6	<0.02	<0.01	0.28	0.0
SEP											
25...	46	<10	<1.0	<1	<1.0	26	<6	--	--	--	--

04063700 POPPLE RIVER NEAR FENCE, WI--CONTINUED

WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

NATIONAL WATER-QUALITY ASSESSMENT PROGRAM DATA

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT 1995											
24...	0945	246	106	7.4	5.5	10.6	712	56	12	6.4	1.2
DEC											
06...	1530	64	185	7.4	0.0	11.3	746	98	21	11	1.7
FEB 1996											
22...	1430	58	175	7.5	0.0	10.5	728	98	21	11	1.7
APR											
09...	1400	60	176	7.6	0.5	11.0	728	89	19	10	1.6
30...	1520	961	63	6.8	2.5	11.7	757	28	6.1	3.1	0.80

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT 1995											
24...	0.70	60	49	1.9	1.4	<0.10	9.4	98	0.090	0.010	<0.015
DEC											
06...	0.80	105	86	5.0	1.4	<0.10	13	113	0.180	<0.010	0.040
FEB 1996											
22...	0.80	110	90	5.0	1.5	<0.10	15	122	0.190	<0.010	0.070
APR											
09...	0.70	91	74	5.1	1.6	<0.10	14	116	0.170	<0.010	0.060
30...	0.90	24	20	4.1	0.60	<0.10	6.1	64	<0.050	<0.010	0.020

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	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)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995											
24...	0.70	0.60	0.020	<0.010	0.020	310	40	20	0.90	11	86
DEC											
06...	0.40	0.30	0.020	<0.010	<0.010	380	67	9.6	0.30	7	48
FEB 1996											
22...	0.40	0.30	0.030	0.020	<0.010	360	48	--	--	3	75
APR											
09...	0.40	<0.20	0.020	<0.010	0.010	380	40	9.1	0.30	5	59
30...	0.50	0.50	<0.010	0.010	<0.010	170	6.0	15	0.20	2	91

04065106 MENOMINEE RIVER AT NIAGARA, WI

LOCATION.--Lat 45°46'04", long 87°58'50", in NE 1/4 NE 1/4 sec.15, T.38 N., R.20 E., Marinette County, Hydrologic Unit 04030108, on right bank 0.7 mi downstream from Little Quinnesec Falls Dam, at Niagara.

DRAINAGE AREA.--2,470 mi^2.

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 880 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 28 to Dec. 1 and Dec. 6 to Mar. 22. Records good except those for ice-affected periods, which are fair (see page 12). Flow regulated by powerplants, by Michigamme Reservoir, capacity, 119,950 acre-ft, by Peavy Pond, capacity, 33,860 acre-ft, on Michigamme River, and by smaller reservoirs upstream of gage. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1620	3590	1700	2000	2100	2100	1750	10900	3120	2710	2450	1620
2	1890	3660	1830	2000	2100	2100	1650	10300	3460	2890	2380	1600
3	2260	3650	1890	1900	2100	2200	1610	8960	4340	2910	2180	1710
4	2350	3620	2010	1900	2200	2100	1620	8690	6730	2640	2030	1650
5	2060	3600	2060	1800	2200	2100	1670	8820	5080	2490	2060	1570
6	2230	3520	2000	1900	2200	2000	1710	9180	5050	2350	2280	1720
7	3310	3640	1800	2000	2100	2100	1680	9700	7370	2250	3030	1720
8	3700	3430	1800	2000	2100	2100	1700	9540	6840	2270	3680	1690
9	4050	2900	1900	1900	2200	1900	1700	9390	5190	2570	3370	1730
10	3710	2620	2000	1900	2200	2000	1750	9320	4710	2490	2640	1490
11	3340	2610	2000	1900	2200	2100	2010	9280	3940	2510	2640	1830
12	2570	2150	1900	2000	2100	2200	2680	8800	3690	2650	2500	1810
13	2520	2090	1900	2000	2200	2200	2720	8120	3780	3210	2080	1610
14	2250	2320	1900	1900	2200	2200	2670	6980	3340	3870	2230	1520
15	2130	2220	2000	1900	2300	2200	2910	6030	2410	3590	2320	1660
16	2060	2190	2100	2000	2200	2100	2660	5280	2620	2550	2400	1680
17	2200	2380	2000	2000	2100	2000	3250	5210	3000	2510	2240	1800
18	2100	2160	2000	2100	2100	2000	3570	4480	3030	2490	2100	1690
19	2080	1980	2000	2100	2100	2000	5780	4590	3030	3290	2120	1820
20	2100	2070	1900	2000	2200	2100	8570	6560	3220	3780	2070	1420
21	2270	2190	2000	1900	2100	2200	9640	10200	3170	3760	2100	1220
22	1950	1990	2000	1900	2200	2100	11400	11600	3030	3510	2090	1210
23	2030	1890	1900	2000	2100	2040	13300	9220	2750	3030	2090	1250
24	3290	1910	1900	2000	2100	1660	13000	8830	3020	3080	2250	1190
25	4440	1620	2000	2000	2100	2070	13900	7070	2970	3120	2130	1200
26	4080	1890	2000	2100	2100	2300	15700	6030	2950	2640	2170	1230
27	3750	2050	1900	2000	2000	2190	16000	5670	2800	2470	2190	1620
28	3800	2100	1900	2100	2000	2130	14800	4320	2940	2280	1940	1210
29	3670	1800	1900	2200	2000	2120	12300	3760	2880	2550	1880	1180
30	3710	1700	1900	2300	---	1940	11300	3750	2580	2700	1690	1170
31	3580	---	1900	2100	---	1930	---	3610	---	2590	1650	---
TOTAL	87100	75540	59990	61800	61900	64480	185000	234190	113040	87750	70980	45820
MEAN	2810	2518	1935	1994	2134	2080	6167	7555	3768	2831	2290	1527
MAX	4440	3660	2100	2300	2300	2300	16000	11600	7370	3870	3680	1830
MIN	1620	1620	1700	1800	2000	1660	1610	3610	2410	2250	1650	1170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	1961	1983	1941	1829	1875	1949	3376	4376	2994	2259	1777	1839
MAX	2810	2531	2458	2258	2134	2176	6167	7555	4184	2831	2290	2225
(WY)	1996	1993	1993	1993	1996	1995	1996	1996	1993	1996	1996	1994
MIN	1632	1283	1542	1369	1391	1764	1953	2074	1899	1718	1368	1527
(WY)	1993	1995	1995	1995	1995	1994	1994	1994	1994	1995	1993	1996

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1993 - 1996	
ANNUAL TOTAL	776920		1147590			
ANNUAL MEAN	2129		3135		2348	
HIGHEST ANNUAL MEAN					3135	1996
LOWEST ANNUAL MEAN					1894	1995
HIGHEST DAILY MEAN	6740	May 17	16000	Apr 27	16000	Apr 27 1996
LOWEST DAILY MEAN	1110	Jul 4	1170	Sep 30	1030	Nov 19 1994
ANNUAL SEVEN-DAY MINIMUM	1290	Jun 22	1250	Sep 20	1110	Aug 14 1994
INSTANTANEOUS PEAK FLOW			16100	Apr 27	16100	Apr 27 1996
INSTANTANEOUS PEAK STAGE			15.11	Apr 27	15.11	Apr 27 1996
10 PERCENT EXCEEDS	3500		5850		3670	
50 PERCENT EXCEEDS	1900		2190		1980	
90 PERCENT EXCEEDS	1360		1710		1350	

04065722 MENOMINEE RIVER NEAR VULCAN, MI

LOCATION.--Lat 45°44'12", long 87°51'48", sec.34, T.39 N., R.29 W., Michigan Meridian, Dickinson County, Hydrologic Unit 04030108, on left bank 0.35 mi downstream from Sturgeon Falls Dam, 3.0 mi south of Vulcan, and at mile 78.7.

DRAINAGE AREA.--2,900 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 820 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 7–8, 18–22, Jan. 29 to Feb. 11, Feb. 13–15, 18–20, 22, and Mar. 3–5. Records good except for estimated daily discharges, which are fair (see page 12). Flow regulated by powerplants, by Michigamme Reservoir, capacity, 119,950 acre-ft, by Peavy Pond, capacity, 33,860 acre-ft, on Michigamme River, and by smaller reservoirs upstream from station. Several measurements of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1860	4180	1910	2300	2600	2470	2200	13700	3530	3110	2970	1750
2	2070	4340	2130	2290	2500	2420	2040	12800	3970	3470	2780	1830
3	2580	4400	2190	2360	2500	2400	1990	11100	5180	3380	2550	1890
4	2650	4620	2290	2360	2500	2400	1980	10400	7590	3190	2270	1880
5	2530	4490	2380	2400	2500	2400	2060	10500	6180	3030	2410	1690
6	2610	4320	2490	2390	2500	2370	2050	10600	6000	2810	2660	1800
7	3550	4330	2060	2400	2500	2470	2010	11400	8420	2640	3310	1920
8	4600	4130	2310	2400	2500	2470	2040	11200	8290	2730	4230	1890
9	4760	3620	2560	2400	2500	2280	2080	11200	6460	2920	4010	1900
10	4590	3110	2740	2360	2500	2340	2160	10800	5640	3090	3020	1840
11	4370	3160	2910	2350	2500	2450	2510	11100	4950	2880	3070	2010
12	3230	2580	2690	2380	2510	2680	3440	10200	4480	3130	3210	2320
13	2990	2380	2570	2360	2500	2620	3620	9840	4610	3720	2590	2000
14	2780	2700	2590	2270	2500	2570	3520	8530	4500	4480	2020	1850
15	2710	2650	2420	2310	2500	2640	3940	7390	2990	4260	2610	1940
16	2410	2500	2390	2360	2470	2550	3470	6420	3180	3110	2720	1940
17	2660	2670	2380	2320	2420	2390	4280	6440	3640	2990	2600	2060
18	2470	2600	2340	2400	2400	2410	4770	5610	3620	2970	2310	1870
19	2440	2320	2330	2500	2400	2430	7410	5490	3600	3970	2350	2070
20	2480	2280	2230	2600	2400	2420	11200	7170	3810	4760	2230	1660
21	2780	2590	2320	2600	2420	2590	13100	10800	3700	4630	2400	1380
22	2920	2330	2330	2600	2400	2520	15300	12200	3680	4340	2320	1450
23	2660	2150	2320	2610	2410	2420	17900	10600	3260	3590	2290	1420
24	4030	2180	2300	2630	2380	1990	18100	9750	3640	3610	2430	1430
25	5380	1870	2310	2630	2440	2260	18400	7990	3500	3580	2420	1350
26	5160	2210	2350	2650	2410	2690	20700	6710	3560	3130	2410	1520
27	4480	2330	2340	2590	2420	2520	21500	6390	3310	2860	2360	1840
28	4570	2400	2350	2630	2410	2510	20000	5260	3410	2690	2200	1420
29	4490	2300	2380	2600	2430	2450	16700	4390	3360	2900	2070	1440
30	4420	2140	2350	2600	---	2310	14300	4170	3030	3090	1860	1380
31	4190	---	2280	2600	---	2300	---	4200	---	3060	1850	---
TOTAL	105420	89880	73540	76250	71420	75740	244770	274350	135090	104120	80530	52740
MEAN	3401	2996	2372	2460	2463	2443	8159	8850	4503	3359	2598	1758
MAX	5380	4620	2910	2650	2600	2690	21500	13700	8420	4760	4230	2320
MIN	1860	1870	1910	2270	2380	1990	1980	4170	2990	2640	1850	1350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

MEAN	2047	2459	2302	2041	1952	2414	4090	3934	2998	2161	1692	1925
MAX	3401	4412	3008	2533	2463	2849	8159	8850	4832	3359	2598	2456
(WY)	1996	1989	1989	1993	1996	1991	1996	1996	1993	1996	1996	1994
MIN	1081	1382	1555	1489	1442	2028	1356	1720	1062	1100	1256	1223
(WY)	1990	1990	1990	1995	1995	1994	1990	1988	1988	1988	1989	1989

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	893920		1383850			
ANNUAL MEAN	2449		3781		2568	
HIGHEST ANNUAL MEAN					3781	1996
LOWEST ANNUAL MEAN					1864	1990
HIGHEST DAILY MEAN	7200	May 17	21500	Apr 27	21500	Apr 27 1996
LOWEST DAILY MEAN	(a)1250	Feb 26	1350	Sep 25	846	Aug 3 1988
ANNUAL SEVEN-DAY MINIMUM	(a)1270	Feb 25	1460	Sep 20	932	Oct 1 1989
INSTANTANEOUS PEAK FLOW			22000	Apr 27	22000	Apr 27 1996
INSTANTANEOUS PEAK STAGE			17.39	Apr 27	17.39	Apr 27 1996
INSTANTANEOUS LOW FLOW			822	Mar 25	603	Aug 1 1992
10 PERCENT EXCEEDS	4090		6850		4120	
50 PERCENT EXCEEDS	2230		2590		2090	
90 PERCENT EXCEEDS	1470		2020		1320	

(a) Ice affected

04066003 MENOMINEE 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 Pemene Creek, 3.9 mi west of Nathan, MI, 10.6 mi southeast of Pembine, and at mile 64.3.

DRAINAGE AREA.--3,140 mi^2.

PERIOD OF RECORD.--October 1949 to current year. Published as "near Pembine" (04066000) prior to August 1982. Monthly discharges for some periods published in WSP 1307.

GAGE.--Water-stage recorder. Elevation of gage is 740 ft above sea level, from topographic map. October 1949 to Oct. 27, 1972, water-stage recorder at site 1.0 mi upstream at elevation 745, from river-profile map, and Oct. 28, 1972, to August 1982, water-stage recorder at site 1.5 mi upstream at elevation 770, from river-profile map.

REMARKS.--Estimated daily discharges: Apr. 19–20 and ice-affected period, Nov. 23 to Apr. 4. Records good except those for estimated daily discharges, which are fair (see page 12). 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. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1790	4330	2400	2400	2800	2600	2400	14800	3740	3030	3240	1840
2	1960	4650	2400	2400	2700	2600	2300	13900	4010	3360	2950	1900
3	2610	4770	2500	2500	2700	2600	2200	12500	5280	3550	2820	1900
4	2620	4890	2600	2500	2600	2700	2200	11200	7160	3540	2420	1990
5	2600	4820	2500	2500	2600	2600	2300	11300	6990	3180	2470	1870
6	2560	4580	2100	2600	2600	2600	2290	11400	5680	2960	2730	1850
7	3580	4490	2000	2600	2800	2500	2240	12300	8500	2840	3170	2070
8	4640	4320	2000	2600	2900	2500	2180	12100	8920	2730	4330	1980
9	4810	3850	2100	2500	2900	2500	2260	12000	7150	2990	4190	1910
10	4870	3200	2200	2500	2900	2400	2340	11600	5740	3340	3300	2010
11	4520	3300	2000	2500	2800	2500	2810	11900	5380	2920	3130	1950
12	3560	2880	2100	2500	2700	2600	3730	10900	4580	3170	3180	2410
13	2970	2530	2300	2500	2700	2600	4070	10600	4810	3720	3100	2110
14	3030	2770	2400	2400	2700	2700	3960	9310	4840	4610	1890	2000
15	2800	2840	2400	2400	2800	2800	4250	7920	3440	4760	2780	1970
16	2500	2510	2200	2400	2700	2700	3970	6850	3300	3690	2700	1970
17	2560	2740	2300	2400	2600	2600	4630	6840	3720	3200	2710	2130
18	2570	2740	2300	2500	2700	2600	5240	6140	3940	3180	2450	1890
19	2490	2380	2400	2600	2600	2600	7000	5650	4010	3730	2480	2220
20	2580	2380	2400	2800	2700	2600	12000	6810	4100	4920	2360	1840
21	2990	2690	2400	2800	2600	2800	15200	10700	4020	4850	2410	1600
22	3490	2520	2400	2700	2600	2700	17000	12300	3940	4550	2390	1630
23	2770	2300	2400	2700	2600	2600	19100	11800	3570	3780	2370	1610
24	4040	2000	2400	2800	2500	2400	19400	9900	3780	3740	2450	1610
25	5560	2200	2400	2800	2600	2600	19200	8680	3660	3800	2540	1560
26	5560	2200	2400	2800	2600	2900	21400	6870	3680	3450	2570	1570
27	4790	2100	2500	2700	2600	2700	22200	6700	3630	3130	2530	1890
28	4710	2200	2500	2700	2600	2700	21200	5520	3360	2930	2390	1830
29	4640	2300	2500	2800	2600	2600	18200	4550	3470	3090	2150	1620
30	4510	2500	2500	2800	---	2500	15500	4270	3380	3330	2010	1610
31	4330	---	2400	2800	---	2500	---	4190	---	3360	1890	---
TOTAL	109010	93980	72400	80500	77800	80900	262770	291500	141780	109430	84100	56340
MEAN	3516	3133	2335	2597	2683	2610	8759	9403	4726	3530	2713	1878
MAX	5560	4890	2600	2800	2900	2900	22200	14800	8920	4920	4330	2410
MIN	1790	2000	2000	2400	2500	2400	2180	4190	3300	2730	1890	1560

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 1996, BY WATER YEAR (WY)

MEAN	2519	2663	2325	2130	2083	2605	5601	4886	3433	2551	2113	2346
MAX	5659	5766	3939	3035	3810	7461	10000	12100	6118	6523	3505	5335
(WY)	1986	1986	1986	1986	1984	1973	1967	1960	1953	1953	1952	1968
MIN	1028	1043	1167	1080	1201	1461	1432	1341	1152	1201	1003	1009
(WY)	1977	1977	1977	1977	1964	1964	1990	1987	1988	1988	1977	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1950 - 1996	
ANNUAL TOTAL	947810		1460510			
ANNUAL MEAN	2597		3990		2938	
HIGHEST ANNUAL MEAN					4318	1960
LOWEST ANNUAL MEAN					1778	1977
HIGHEST DAILY MEAN	7560	May 17	22200	Apr 27	26700	May 8 1960
LOWEST DAILY MEAN	1300	Jun 23	1560	Sep 25	840	Aug 14 1977
ANNUAL SEVEN-DAY MINIMUM	1440	Jun 23	1630	Sep 20	914	Aug 8 1977
INSTANTANEOUS PEAK FLOW			22400	Apr 27	(a)26900	May 8 1960
INSTANTANEOUS PEAK STAGE			15.85	Apr 27	(b)18.94	Dec 17 1985
10 PERCENT EXCEEDS	4300		6990		4980	
50 PERCENT EXCEEDS	2260		2700		2310	
90 PERCENT EXCEEDS	1700		2100		1460	

(a) Gage height, 13.90 ft, site and datum then in use
(b) Ice affected

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 mi^2.

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 sea level.

REMARKS.--Estimated daily discharges: Ice-affected period, Nov. 25 to Mar. 28. Records good except those for ice-affected period, which is poor (see page 12). Diurnal fluctuation caused by two powerplants upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370	1370	520	660	740	660	1760	4130	710	2010	1350	379
2	425	1660	560	580	700	700	2120	3730	1020	2130	1290	537
3	439	2050	520	540	700	640	2070	3690	1690	1910	1170	419
4	607	2050	500	600	700	620	1870	2990	2000	1500	897	579
5	485	1980	600	640	720	600	1660	2810	2190	1210	831	392
6	677	1770	680	640	740	700	1580	2930	2050	1050	934	460
7	1240	1590	540	560	660	640	1640	2660	2070	970	907	533
8	1480	1460	600	470	600	620	1490	2600	2260	771	973	423
9	1800	1220	500	580	680	600	1550	2280	2100	924	1010	684
10	1830	1080	500	540	760	500	1620	2190	2180	889	1070	770
11	1800	983	640	640	860	540	2070	2300	2470	870	827	713
12	1460	976	600	600	800	660	2380	2380	2200	645	937	976
13	1170	746	700	620	700	700	2810	2360	1950	939	829	938
14	1130	875	680	580	720	880	2890	2030	1770	983	876	1010
15	740	623	600	560	760	1100	2650	1990	1340	887	747	653
16	520	717	700	520	680	1000	2630	1690	1070	1180	617	761
17	575	739	640	580	740	1200	2720	1610	1380	991	819	828
18	671	768	480	740	660	1000	2610	1550	2530	965	391	684
19	639	762	600	900	600	1100	2730	1590	3320	1390	322	713
20	617	762	780	900	640	1100	3280	2060	3570	1430	808	517
21	975	729	600	1000	700	1000	4120	2200	3400	1500	861	697
22	870	597	600	800	700	1000	4470	2000	3150	1490	778	768
23	1070	492	620	900	740	1100	4980	1800	2820	1320	739	721
24	1550	414	660	840	700	1000	5330	1620	2280	1140	690	845
25	1320	500	560	800	740	1100	5520	1190	2010	1030	491	868
26	1370	540	440	840	740	1300	5580	1100	1650	904	656	791
27	1620	480	540	840	800	1200	5210	1020	1550	844	738	846
28	1890	520	560	800	800	1200	4740	933	1500	820	780	814
29	1450	500	580	840	720	1290	4140	738	1560	1130	541	894
30	1310	540	600	800	---	1440	4100	870	1940	1240	387	818
31	1350	---	740	780	---	1600	---	771	---	1360	630	---
TOTAL	33450	29493	18440	21690	20800	28790	92320	63812	61730	36422	24896	21031
MEAN	1079	983	595	700	717	929	3077	2058	2058	1175	803	701
MAX	1890	2050	780	1000	860	1600	5580	4130	3570	2130	1350	1010
MIN	370	414	440	470	600	500	1490	738	710	645	322	379
CFSM	1.00	.91	.55	.65	.66	.86	2.85	1.91	1.91	1.09	.74	.65
IN.	1.15	1.02	.64	.75	.72	.99	3.18	2.20	2.13	1.25	.86	.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1996, BY WATER YEAR (WY)

MEAN	808	917	643	544	546	1079	2074	1505	1074	658	600	758
MAX	1728	2197	1128	1219	1449	3272	3813	4639	2768	1362	1242	1706
(WY)	1986	1986	1966	1960	1984	1973	1979	1960	1993	1993	1974	1959
MIN	310	328	250	268	282	424	485	538	228	300	285	264
(WY)	1990	1977	1990	1990	1990	1964	1990	1977	1988	1989	1957	1989

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1953 - 1996	
ANNUAL TOTAL	272401		452874			
ANNUAL MEAN	746		1237		934	
HIGHEST ANNUAL MEAN					1559	1973
LOWEST ANNUAL MEAN					591	1957
HIGHEST DAILY MEAN	2380	Apr 21	5580	Apr 26	9600	May 9 1960
LOWEST DAILY MEAN	222	Jul 30	322	Aug 19	84	Aug 5 1957
ANNUAL SEVEN-DAY MINIMUM	295	Jul 27	471	Sep 1	172	Aug 4 1957
INSTANTANEOUS PEAK FLOW			5660	Apr 25	(a)9790	May 9 1960
INSTANTANEOUS PEAK STAGE			9.42	Apr 25	11.59	May 9 1960
ANNUAL RUNOFF (CFSM)	.69		1.15		.86	
ANNUAL RUNOFF (INCHES)	9.38		15.60		11.75	
10 PERCENT EXCEEDS	1510		2320		1840	
50 PERCENT EXCEEDS	556		870		680	
90 PERCENT EXCEEDS	360		540		353	

(a) From rating curve extended above 5,000 ft^3/s on basis of computation of peak flow through dam gates

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 mi^2.

PERIOD OF RECORD.--June 1906 to March 1909, October 1913 to current year. Monthly discharge 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 sea level (levels by Wisconsin Department of Transportation). See WSP 1727 for history of changes prior to Aug. 25, 1938.

REMARKS.--Estimated daily discharges: Apr. 25 to May 8 and ice-affected period, Nov. 11 to Apr. 10. Records good except those for estimated daily discharges, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	320	665	380	330	430	370	900	2000	561	1110	958	401
2	337	852	390	320	420	370	960	2000	676	1050	842	387
3	371	933	370	320	410	370	1000	1900	806	938	707	378
4	403	1000	350	320	410	350	1000	1700	958	918	608	373
5	436	1040	340	310	410	350	960	1600	1080	924	596	386
6	527	1020	320	310	400	350	900	1500	1120	836	578	384
7	677	906	330	310	400	340	860	1500	1080	798	585	376
8	824	794	340	310	400	340	900	1400	1040	758	602	373
9	917	721	320	300	400	340	1000	1340	1040	704	600	377
10	950	619	310	300	390	340	1100	1290	1050	646	570	387
11	893	580	320	300	390	340	1140	1230	1030	611	535	395
12	776	520	340	310	400	360	1300	1200	1000	601	502	387
13	646	450	350	320	390	400	1510	1180	1050	624	477	401
14	576	500	350	310	390	460	1790	1130	1050	667	457	428
15	533	520	350	310	390	560	1760	1050	1010	698	421	403
16	498	540	350	320	390	580	1650	980	994	690	415	366
17	474	580	350	370	390	580	1580	927	1420	633	411	363
18	464	560	340	450	380	560	1570	885	1950	661	401	362
19	459	520	350	500	380	560	1710	969	2600	943	399	358
20	463	470	350	540	380	540	2030	1070	2860	1040	412	351
21	503	450	350	560	380	540	2550	1090	2620	1030	442	351
22	551	420	350	560	380	520	2960	1160	2270	890	493	359
23	585	360	340	540	380	540	3100	1140	1960	720	506	371
24	629	330	340	540	380	580	3040	1040	1760	631	474	394
25	670	350	340	500	380	620	2900	915	1560	577	424	425
26	697	360	340	480	380	640	2700	821	1400	565	491	451
27	730	340	340	470	380	660	2400	751	1260	548	555	433
28	704	330	330	460	380	680	2200	688	1170	584	536	480
29	704	340	330	460	380	700	2100	650	1110	752	459	529
30	679	360	320	450	---	760	2100	613	1110	889	434	488
31	622	---	330	440	---	840	---	583	---	950	415	---
TOTAL	18618	17430	10610	12320	11370	15540	51670	36302	40595	23986	16305	11917
MEAN	601	581	342	397	392	501	1722	1171	1353	774	526	397
MAX	950	1040	390	560	430	840	3100	2000	2860	1110	958	529
MIN	320	330	310	300	380	340	860	583	561	548	399	351
CFSM	.85	.82	.49	.56	.56	.71	2.44	1.66	1.92	1.10	.75	.56
IN.	.98	.92	.56	.65	.60	.82	2.73	1.92	2.14	1.27	.86	.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1906 - 1996, BY WATER YEAR (WY)

MEAN	491	572	453	361	350	654	1229	882	680	465	385	455
MAX	1216	1377	900	700	643	1867	3435	2185	1744	1022	742	1347
(WY)	1942	1986	1907	1907	1984	1973	1922	1960	1916	1922	1960	1928
MIN	199	259	216	206	204	240	379	357	197	226	158	190
(WY)	1949	1934	1990	1957	1948	1934	1931	1931	1988	1988	1934	1933

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1906 - 1996	
ANNUAL TOTAL	176944		266663			
ANNUAL MEAN	485		729		582	
HIGHEST ANNUAL MEAN					930	1973
LOWEST ANNUAL MEAN					315	1931
HIGHEST DAILY MEAN	1270	Apr 22	3100	Apr 23	6790	Apr 10 1922
LOWEST DAILY MEAN	259	Jul 31	(a)300	Jan 9-11	95	Jun 3 1907
ANNUAL SEVEN-DAY MINIMUM	(a)260	Feb 12	(a)306	Jan 5	137	Aug 9 1908
INSTANTANEOUS PEAK FLOW			3140	Apr 23	8400	Apr 10 1922
INSTANTANEOUS PEAK STAGE			5.33	Apr 23	(b)11.20	Apr 10 1922
INSTANTANEOUS LOW FLOW					(c)93	Nov 26 1941
ANNUAL RUNOFF (CFSM)	.69		1.03		.83	
ANNUAL RUNOFF (INCHES)	9.34		14.07		11.22	
10 PERCENT EXCEEDS	845		1360		1070	
50 PERCENT EXCEEDS	372		540		444	
90 PERCENT EXCEEDS	280		340		258	

(a) Ice affected
(b) From floodmarks, caused by a failure of a dam at Pulcifer 4 mi above station
(c) Flow retarded by anchor ice above station

04071858 PENSAUKEE RIVER NEAR PENSAUKEE, 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 mi^2.

PERIOD OF RECORD.--October 1972 to September 1996 (discontinued).

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 583.69 ft above sea level (Wisconsin Department of Transportation bench mark).

REMARKS.--Estimated daily discharges: June 5–13 and ice-affected period, Nov. 10 to Apr. 8. Records good except those for estimated daily discharges, which are poor (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	86	26	26	60	80	450	581	151	69	94	24
2	11	317	27	24	58	74	640	523	150	70	62	19
3	19	437	29	22	56	70	560	347	181	110	43	17
4	22	321	30	22	56	64	480	263	245	85	33	15
5	23	207	32	23	56	60	400	216	280	65	27	14
6	36	152	30	25	56	58	350	237	250	52	24	14
7	121	131	31	27	58	54	310	231	290	43	17	12
8	141	114	27	29	60	52	290	193	660	38	15	12
9	126	84	26	30	64	50	301	173	620	32	17	13
10	96	76	26	28	72	48	327	167	450	29	16	13
11	73	72	27	29	70	46	400	168	360	28	15	13
12	60	62	30	31	66	50	514	156	300	28	14	11
13	52	56	32	34	64	54	621	138	260	31	12	9.7
14	45	52	35	30	60	150	512	122	224	29	13	9.4
15	38	47	33	29	58	500	410	113	196	27	16	9.4
16	32	43	32	28	54	520	447	104	180	29	10	9.4
17	29	38	30	27	52	450	511	94	280	32	9.2	9.4
18	26	35	29	32	50	400	426	89	1830	32	8.7	8.9
19	24	36	28	37	48	350	448	135	2800	100	8.4	8.2
20	25	34	27	70	50	320	606	797	1620	67	12	7.8
21	46	33	29	130	52	290	825	773	781	43	13	8.0
22	75	30	28	120	52	280	578	474	463	31	21	26
23	83	28	27	110	52	270	364	384	320	26	46	26
24	97	27	27	96	54	280	264	294	237	22	37	19
25	115	29	26	90	64	320	236	248	181	21	27	16
26	101	28	25	82	70	360	284	222	143	21	59	13
27	95	26	25	76	80	330	252	199	126	19	97	24
28	140	25	24	70	84	300	193	181	128	19	65	27
29	141	25	24	68	86	270	158	163	109	45	44	22
30	114	26	26	66	---	290	249	156	87	204	34	19
31	92	---	28	62	---	350	---	155	---	147	31	---
TOTAL	2108	2677	876	1573	1762	6790	12406	8096	13902	1594	940.3	449.2
MEAN	68.0	89.2	28.3	50.7	60.8	219	414	261	463	51.4	30.3	15.0
MAX	141	437	35	130	86	520	825	797	2800	204	97	27
MIN	10	25	24	22	48	46	158	89	87	19	8.4	7.8
CFSM	.51	.67	.21	.38	.45	1.63	3.09	1.95	3.46	.38	.23	.11
IN.	.59	.74	.24	.44	.49	1.88	3.44	2.25	3.86	.44	.26	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1996, BY WATER YEAR (WY)

MEAN	58.0	85.2	48.1	26.1	42.5	242	266	124	84.2	49.6	27.6	50.6
MAX	176	327	206	97.6	231	618	657	577	463	334	141	179
(WY)	1987	1986	1983	1973	1984	1986	1975	1973	1996	1993	1984	1984
MIN	8.61	7.75	3.30	3.26	3.19	63.8	38.4	19.0	2.77	3.04	2.14	1.06
(WY)	1977	1977	1990	1977	1977	1975	1990	1977	1988	1988	1989	1989

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1973 - 1996	
ANNUAL TOTAL	19968.4		53173.5			
ANNUAL MEAN	54.7		145		92.0	
HIGHEST ANNUAL MEAN					162	1986
LOWEST ANNUAL MEAN					25.2	1977
HIGHEST DAILY MEAN	539	Mar 21	2800	Jun 19	3700	Mar 31 1979
LOWEST DAILY MEAN	3.0	Jul 31	7.8	Sep 20	.52	Sep 22 1989
ANNUAL SEVEN-DAY MINIMUM	3.4	Jul 25	8.7	Sep 15	.64	Sep 19 1989
INSTANTANEOUS PEAK FLOW			3110	Jun 19	4310	Mar 31 1979
INSTANTANEOUS PEAK STAGE			11.76	Jun 19	13.58	Mar 31 1979
ANNUAL RUNOFF (CFSM)	.41		1.08		.69	
ANNUAL RUNOFF (INCHES)	5.54		14.76		9.33	
10 PERCENT EXCEEDS	128		370		217	
50 PERCENT EXCEEDS	26		58		31	
90 PERCENT EXCEEDS	6.7		17		6.2	

04072150 DUCK CREEK NEAR HOWARD, WI

LOCATION.--Lat 44°32'01", long 88°07'46", in SW 1/4 sec.19, T.24 N., R.20 E., Brown County, Hydrologic Unit 04030103, at County Highway FF near Howard and about 1 mi upstream from mouth.

DRAINAGE AREA.--108 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1988 to current year.

GAGE.--Continuous water-stage recorder since April 1988. Elevation of gage is 615 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 24–30, Sept. 17, 18, and ice-affected period, Nov. 16 to Apr. 8. Records good except for estimated daily discharges and discharges less than 1.0 ft^3/s, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	82	13	13	33	130	600	351	16	17	45	.28
2	2.5	304	12	12	31	100	360	288	40	20	29	.20
3	4.6	399	13	12	30	76	200	157	67	19	19	.16
4	4.7	235	14	12	32	64	170	129	69	19	13	.14
5	7.5	122	14	11	34	56	150	105	72	15	9.3	.12
6	28	88	14	11	36	50	160	96	60	11	7.7	.11
7	120	71	14	11	39	44	170	90	71	9.3	6.4	.11
8	173	61	13	11	42	39	140	81	109	7.3	5.1	.11
9	112	53	12	12	40	36	120	80	102	5.7	4.3	.40
10	67	43	12	12	43	33	116	89	77	5.2	3.8	.56
11	47	39	13	13	42	31	131	106	74	5.4	3.8	.32
12	35	36	14	14	41	40	272	93	81	6.5	3.5	.17
13	26	36	14	15	42	110	373	77	65	7.3	2.9	.12
14	19	30	15	14	45	470	241	65	50	6.2	2.2	.11
15	15	33	15	14	45	760	172	58	36	6.7	1.7	.11
16	12	24	14	14	44	540	272	55	28	6.2	1.3	.11
17	9.9	22	13	14	43	450	360	53	125	5.2	.99	.11
18	8.1	20	13	35	41	380	248	51	953	7.2	.66	.04
19	7.2	19	14	70	46	340	321	52	862	6.6	.65	.04
20	7.8	21	13	100	54	300	615	60	521	11	.76	.04
21	17	23	13	120	50	280	1070	62	317	12	.68	.04
22	28	24	13	110	47	250	502	57	187	9.4	1.0	.05
23	38	22	12	90	46	240	241	48	115	7.0	1.4	.05
24	47	18	12	74	56	220	151	39	85	5.6	1.0	.06
25	44	15	12	64	90	350	119	33	69	5.1	.81	.06
26	36	13	11	54	190	390	119	30	56	4.3	1.0	.07
27	60	12	11	49	220	290	109	26	54	3.4	1.0	.24
28	220	12	11	45	200	250	88	24	47	3.4	.84	.31
29	210	12	11	42	170	270	76	21	34	3.9	.66	.20
30	140	12	12	39	---	330	113	19	24	33	.49	.16
31	84	---	13	35	---	450	---	17	---	67	.41	---
TOTAL	1632.7	1901	400	1142	1872	7369	7779	2512	4466	350.9	170.35	4.60
MEAN	52.7	63.4	12.9	36.8	64.6	238	259	81.0	149	11.3	5.50	.15
MAX	220	399	15	120	220	760	1070	351	953	67	45	.56
MIN	2.4	12	11	11	30	31	76	17	16	3.4	.41	.04
CFSM	.49	.59	.12	.34	.60	2.20	2.40	.75	1.38	.10	.05	.00
IN.	.56	.65	.14	.39	.64	2.54	2.68	.87	1.54	.12	.06	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

MEAN	15.2	49.0	26.3	8.49	14.9	158	187	49.4	104	41.1	7.29	9.33
MAX	52.7	207	93.5	36.8	64.6	250	318	109	370	295	28.1	36.8
(WY)	1996	1993	1993	1996	1996	1991	1994	1990	1990	1993	1994	1990
MIN	.26	1.81	.59	.11	.51	77.2	9.40	2.79	.000	.000	.000	.000
(WY)	1989	1990	1990	1990	1989	1994	1990	1988	1988	1988	1988	1989

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	10602.31		29599.55			
ANNUAL MEAN	29.0		80.9		57.9	
HIGHEST ANNUAL MEAN					123	1993
LOWEST ANNUAL MEAN					19.8	1995
HIGHEST DAILY MEAN	444	Mar 21	1070	Apr 21	3690	Jun 23 1990
LOWEST DAILY MEAN	.00	(a)Jul 1-4	.04	Sep 18-21	.00	Many days
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 8	.05	Sep 18	.00	Many periods
INSTANTANEOUS PEAK FLOW			(b)1220	Jun 18	(c)4520	Jun 23 1990
INSTANTANEOUS PEAK STAGE			(d)17.73	Mar 15	(e)21.00	Jun 23 1990
ANNUAL RUNOFF (CFSM)	.27		.75		.54	
ANNUAL RUNOFF (INCHES)	3.65		10.20		7.29	
10 PERCENT EXCEEDS	73		241		116	
50 PERCENT EXCEEDS	11		33		7.6	
90 PERCENT EXCEEDS	.00		.74		.07	

(a) Also occurred July 8 to Aug. 11
(b) Gage height, 15.92 ft
(c) Based on rating curve extended above 1,500 ft^3/s on basis of contracted-opening measurement of peak flow
(d) Backwater from ice
(e) Estimated from floodmarks

STREAMS TRIBUTARY TO LAKE MICHIGAN
04072150 DUCK CREEK NEAR HOWARD, WI--CONTINUED
(NATIONAL WATER-QUALITY ASSESSMENT PROGRAM STATION)

WATER-QUALITY RECORD

PERIOD OF RECORD.--October 1988 to December 1992, April 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT 1995												
*23...	1430	--	40	950	8.1	8.5	11.8	744	440	110	40	30
DEC												
*06...	0845	14	--	1060	7.9	0.0	13.4	746	500	120	49	36
FEB 1996												
*23...	0930	46	--	740	7.7	0.0	2.4	734	370	94	33	21
APR												
*10...	0845	--	114	580	7.8	3.0	13.3	747	270	69	24	14
MAY												
01...	0820	--	336	574	--	5.5	12.0	736	--	--	--	--

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT 1995											
23...	9.8	--	--	110	77	<0.10	5.1	620	2.20	0.020	0.030
DEC											
06...	5.9	381	312	110	80	0.20	5.0	646	2.70	<0.010	<0.015
FEB 1996											
23...	14	317	260	69	53	<0.10	10	493	0.710	0.040	4.20
APR											
10...	6.0	237	194	54	38	0.10	4.8	366	1.40	0.200	0.290
MAY											
01...	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	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)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995											
23...	1.1	1.0	0.130	0.130	0.120	57	12	14	0.10	60	68
DEC											
06...	0.80	0.60	0.070	0.050	0.040	53	29	--	--	106	67
FEB 1996											
23...	5.9	5.4	0.390	0.290	0.220	130	51	--	--	14	84
APR											
10...	1.4	1.2	0.140	0.100	0.090	84	33	12	0.50	12	87
MAY											
01...	1.3	--	0.200	--	--	--	--	--	--	58	91

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUN 1996				
07...	1225	80	26	96
07...	1230	80	24	95
10...	1155	74	13	91
10...	1156	74	134	98
10...	1258	74	17	93
*17...	1440	118	72	96
17...	1445	120	61	99
17...	2043	288	103	99
18...	1318	1130	138	96
*19...	1050	861	40	91
19...	1055	858	36	96
21...	1228	315	184	96
JUL				
02...	1100	23	26	97

* Equal-width increment (EWI) sample

STREAMS TRIBUTARY TO LAKE MICHIGAN

04072150 DUCK CREEK NEAR HOWARD, WI--CONTINUED

WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

	BEGINNING DATE	BEGINNING TIME	ENDING DATE	ENDING TIME	RUNOFF VOLUME, MILLIONS OF CUBIC FEET (99905)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)
	06-02-96	2028	06-04-96	1458	10.1	0.390	0.040	0.100	1.4	1.2
	06-07-96	1128	06-07-96	1258	0.360	--	--	--	--	--

DATE	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DISSOLVED (UG/L) (34253)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)
06-02-96	0.200	0.140	0.130	--	--	--	--	--	--	--	--
06-07-96	--	--	--	0.075	0.041	<0.002	0.420	<0.002	<0.002	<0.003	E0.039

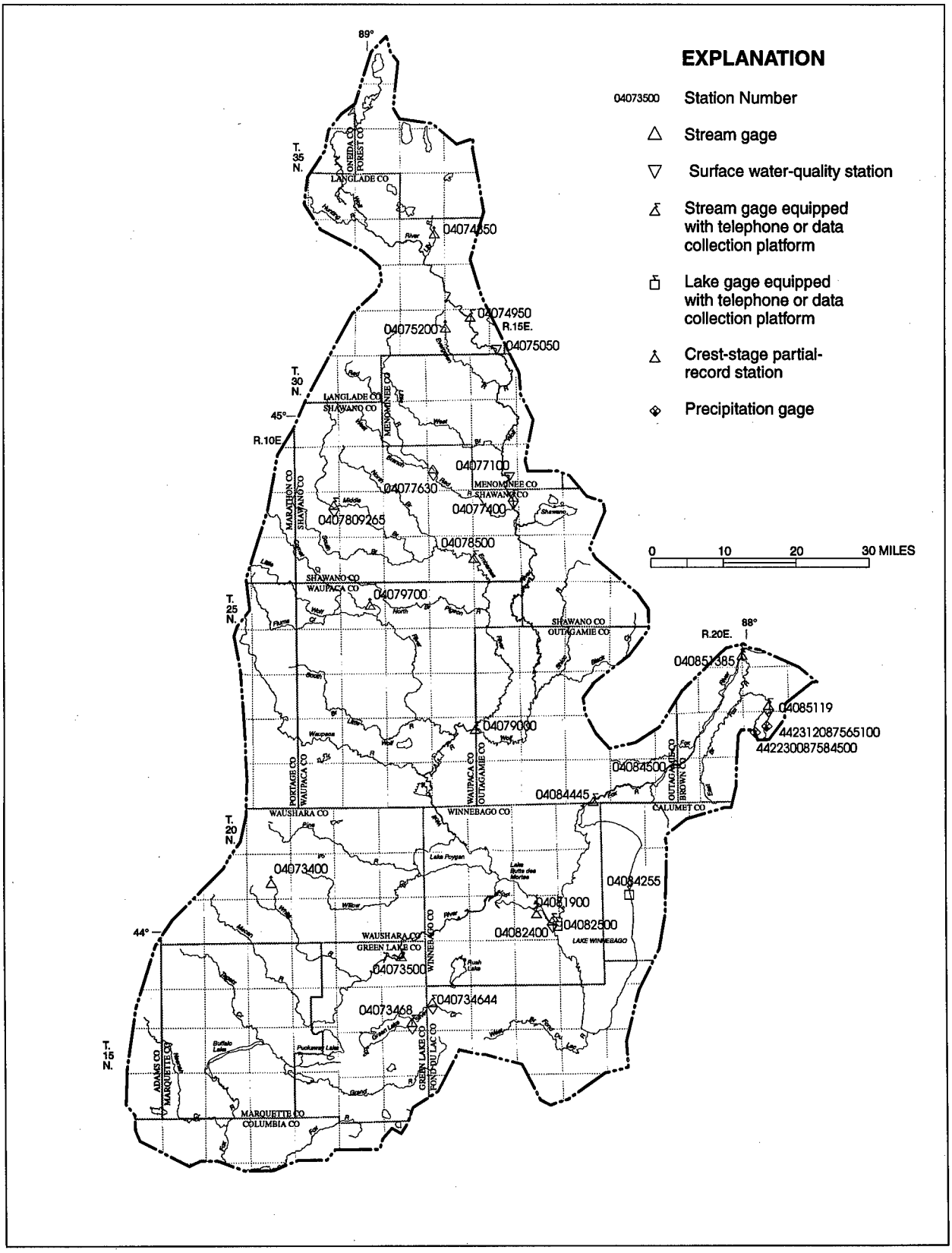
DATE	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIAZINON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	DIELDRIN DISSOLVED (UG/L) (39381)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)
06-02-96	--	--	--	--	--	--	--	--	--	--	--
06-07-96	<0.004	0.190	E0.001	E0.040	<0.002	138	<0.001	<0.017	<0.002	<0.004	<0.003

DATE	FONOFOS WATER DISS REC (UG/L) (04095)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	LINDANE DISSOLVED (UG/L) (39341)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALATHION, DISSOLVED (UG/L) (39532)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
06-02-96	--	--	--	--	--	--	--	--	--	--	--
06-07-96	<0.003	103	<0.004	<0.002	<0.005	2.30	<0.001	<0.006	0.062	<0.004	<0.003

DATE	PARATHION, DISSOLVED (UG/L) (39542)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	P,P' DDE DISSOLV (UG/L) (34653)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PROMETON, WATER, DISS, REC (UG/L) (04037)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)
06-02-96	--	--	--	--	--	--	--	--	--	--	--
06-07-96	<0.004	<0.004	<0.005	<0.004	<0.006	<0.002	E0.010	<0.003	<0.004	<0.013	<0.007

DATE	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TERBUTHYLAZINE SURROGT WAT FLT 0.7 U GF, REC PERCENT (91064)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
06-02-96	--	--	--	--	--	--	--	--	--	15	85
06-07-96	0.270	<0.010	<0.007	<0.013	144	<0.002	<0.001	<0.002	<0.003	21	98

E Estimated



Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Transverse Mercator projection.

FOX-WOLF RIVER BASIN

040734644 SILVER CREEK AT SOUTH KORO ROAD NEAR RIPON, WI

LOCATION.--Lat 43°51'30", long 88°52'17" in NW 1/4 SE 1/4 sec.18, T.16 N., R.14 E., Fond du Lac County, Hydrologic Unit 04030201, on left bank at upstream side of culvert on South Koro Road, 1.8 mi west of Ripon.

DRAINAGE AREA.--36.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1987 to September 1996 (discontinued).

REVISED RECORDS.--WDR WI-88-1: (M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 810 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 7–14, 27, 28, Jan. 2–10, Jan. 25 to Feb. 8, Feb. 12–16, 18, Mar. 3, 7, and 8. Records good, except for ice-affected periods, which are fair (see page 12). Approximately 2.2 ft^3/s of daily flow is effluent from Ripon Wastewater Treatment Plant. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	91	32	17	15	52	63	48	20	31	22	10
2	14	115	32	16	14	42	63	46	34	42	21	10
3	29	118	33	16	14	35	61	47	30	32	20	10
4	24	115	34	15	14	29	58	42	29	28	19	9.9
5	22	102	34	15	15	28	52	41	27	26	26	9.5
6	109	89	24	14	16	26	50	37	25	24	23	9.4
7	103	77	22	14	17	23	47	32	29	23	24	8.8
8	98	65	20	13	19	21	45	30	27	27	20	12
9	90	57	18	13	22	21	43	31	26	23	18	14
10	80	56	16	14	32	21	42	51	25	22	17	13
11	66	53	15	15	69	25	43	49	25	20	16	13
12	54	46	14	15	64	40	47	47	23	22	16	11
13	45	49	15	15	58	77	46	43	20	28	15	11
14	37	46	17	15	52	116	43	41	18	27	15	10
15	34	42	19	15	46	115	45	46	16	24	14	9.8
16	33	41	20	15	36	100	50	42	18	21	14	10
17	30	40	19	16	32	84	50	38	116	20	13	11
18	25	39	20	92	28	75	57	36	132	49	13	10
19	26	40	20	125	27	69	75	31	165	50	16	9.8
20	30	42	20	113	27	57	88	29	164	46	14	9.5
21	32	41	19	92	28	55	92	26	141	40	13	9.6
22	32	36	19	70	29	53	84	23	114	37	16	9.1
23	36	39	19	50	30	52	70	22	92	33	14	9.2
24	41	33	18	38	43	59	58	21	77	28	13	9.2
25	39	31	18	31	73	77	50	20	65	26	12	8.9
26	38	32	16	27	93	56	45	19	56	24	12	10
27	61	29	15	23	93	57	39	19	48	22	12	11
28	69	25	15	21	75	57	35	19	43	23	12	10
29	71	30	16	18	62	52	36	17	38	23	11	9.4
30	68	31	16	17	---	54	46	16	35	23	11	9.1
31	60	---	17	16	---	62	---	16	---	22	11	---
TOTAL	1513	1650	632	986	1143	1690	1623	1025	1678	886	493	307.2
MEAN	48.8	55.0	20.4	31.8	39.4	54.5	54.1	33.1	55.9	28.6	15.9	10.2
MAX	109	118	34	125	93	116	92	51	165	50	26	14
MIN	14	25	14	13	14	21	35	16	16	20	11	8.8
CFSM	1.35	1.52	.56	.88	1.09	1.51	1.49	.91	1.55	.79	.44	.28
IN.	1.55	1.70	.65	1.01	1.17	1.74	1.67	1.05	1.72	.91	.51	.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996, BY WATER YEAR (WY)

MEAN	17.5	23.1	17.1	12.1	16.8	53.3	49.7	29.8	35.1	27.6	18.9	16.3
MAX	48.8	55.0	36.1	31.8	39.4	73.1	148	70.8	123	144	50.3	31.0
(WY)	1996	1996	1993	1996	1996	1991	1993	1993	1993	1993	1990	1992
MIN	5.49	9.37	3.88	4.66	5.24	34.1	21.0	11.6	3.84	3.29	4.14	6.82
(WY)	1989	1990	1990	1990	1995	1995	1990	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1987 - 1996	
ANNUAL TOTAL	9401.9		13626.2			
ANNUAL MEAN	25.8		37.2		27.3	
HIGHEST ANNUAL MEAN					62.3	1993
LOWEST ANNUAL MEAN					13.4	1988
HIGHEST DAILY MEAN	118	Nov 3	165	Jun 19	478	May 31 1989
LOWEST DAILY MEAN	(a)3.8	Feb 14	8.8	Sep 7	1.8	Jul 31 1988
ANNUAL SEVEN-DAY MINIMUM	(a)4.0	Feb 11	9.3	Sep 19	2.2	Jul 27 1988
INSTANTANEOUS PEAK FLOW			181	Oct 6	545	May 31 1989
INSTANTANEOUS PEAK STAGE			7.84	Oct 6	10.83	May 31 1989
INSTANTANEOUS LOW FLOW			7.9	Sep 26		
ANNUAL RUNOFF (CFSM)	.71		1.03		.75	
ANNUAL RUNOFF (INCHES)	9.66		14.00		10.25	
10 PERCENT EXCEEDS	51		75		57	
50 PERCENT EXCEEDS	19		29		16	
90 PERCENT EXCEEDS	5.8		13		5.6	

(a) Ice affected

040734644 SILVER CREEK AT SOUTH KORO ROAD NEAR RIPON, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1987 to September 1996 (discontinued).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: February 1987 to current year.

TOTAL-PHOSPHORUS DISCHARGE: February 1987 to current year.

INSTRUMENTATION.--Automatic pumping sampler since April 1987.

REMARKS.--Records good. Phosphorus analyses by the Wisconsin State Laboratory of Hygiene. Samples are point samples unless indicated otherwise.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 3,330 mg/L, May 31, 1987; minimum observed, 1 mg/L, Aug. 29, 1988, Oct. 10, 1989, Feb. 27 and Mar. 1, 4, 1996.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 378 tons, May 30, 1989; minimum daily, 0.00 ton, Aug. 12, 1988.

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 5.28 mg/L, Sept. 3, 1988; minimum observed, 0.04 mg/L, Apr. 30, 1992.

TTOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 1,620 lb, May 30, 1989; Minimum daily, 2.3 Lb, Aug. 7, 1988.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 558 mg/L, July 18; minimum observed, 1 mg/L, Feb. 27, Mar. 1 and 4.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 49 tons, June 17; minimum daily, 0.06 ton, Mar. 7–10.

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.97 mg/L, July 13 and 18; minimum observed, 0.06 mg/L, May 2.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 242 lb, Jan. 20; minimum daily, 5.8 lb, Feb. 2–4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT 1995					
03...	0835	--	29	0.244	21
05...	1120	--	22	0.170	20
06...	0330	--	68	0.400	151
06...	0545	--	123	0.394	123
06...	0725	--	162	--	158
06...	0825	--	179	0.334	121
06...	1525	--	104	0.192	30
10...	1240	--	81	0.121	5
19...	1715	--	41	0.213	23
*20...	1020	--	30	0.100	15
23...	2010	--	40	0.183	18
23...	2105	--	74	0.393	--
24...	0235	--	44	0.131	9
27...	0235	--	37	0.063	9
27...	0845	--	83	0.204	33
27...	1505	--	67	0.097	8
31...	1400	--	59	0.090	11
NOV					
01...	0200	--	76	0.100	19
*02...	1057	--	113	0.100	13
04...	0030	--	118	0.107	5
*30...	0930	--	31	0.075	17
JAN 1996					
*03...	1105	16	--	0.315	3
18...	0635	--	52	0.570	104
18...	1105	--	84	0.510	115
*18...	1106	--	84	0.500	--
18...	1425	--	140	--	247
18...	1525	--	160	0.540	125
19...	0025	--	121	0.270	28
19...	1140	--	132	--	17
20...	1140	--	111	0.420	--
FEB					
*01...	1105	15	--	0.076	13
*12...	1122	64	--	0.224	44
12...	1128	64	--	0.223	42
13...	1135	58	--	0.169	20
14...	2335	52	--	0.115	5
*19...	1052	--	27	0.146	3
23...	1835	--	34	0.204	23
24...	1455	--	53	0.252	25
*25...	1052	--	59	0.113	2
27...	0240	--	94	0.148	1

* Equal-width increment (EWI) sample

040734644 SILVER CREEK AT SOUTH KORO ROAD NEAR RIPON, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
MAR 1996				
01...	1440	50	0.164	1
*04...	1040	31	0.127	1
11...	2250	30	0.424	24
13...	1220	68	0.132	3
13...	1915	101	0.201	29
*14...	1005	110	0.160	8
17...	1505	88	0.120	5
20...	0015	53	0.101	6
25...	1510	82	0.144	11
APR				
*01...	1115	64	0.081	5
18...	2045	67	0.174	42
18...	2215	83	0.302	79
19...	1015	73	0.088	10
20...	2215	92	0.104	14
21...	2215	92	0.099	13
26...	0055	47	0.119	13
MAY				
*02...	0835	45	0.063	13
10...	0325	47	0.172	46
10...	0350	64	0.345	132
10...	1550	49	0.116	16
11...	1550	51	0.098	21
13...	0350	43	0.077	15
28...	0845	18	0.143	16
*29...	0850	18	0.201	8
JUN				
01...	1930	29	0.320	94
01...	2130	42	0.407	119
02...	1330	30	0.150	17
03...	0530	29	0.252	21
07...	0215	41	0.312	78
JUN 1996				
16...	2315	41	0.472	207
17...	0015	86	--	436
17...	0300	104	0.456	240
17...	0630	122	--	183
17...	0745	141	0.385	176
17...	1200	123	0.264	117
18...	0400	116	0.221	97
18...	1645	145	0.246	112
19...	1645	169	0.184	82
21...	0845	144	0.205	18
23...	0845	93	0.212	22
25...	0045	70	0.194	--
25...	0845	67	--	19
JUL				
02...	0515	79	0.547	290
02...	0730	60	0.273	55
*03...	1250	33	0.212	18
13...	1915	75	0.970	525
18...	0945	84	0.662	388
18...	1230	63	--	65
18...	2000	95	0.970	558
18...	2345	59	0.266	47
AUG				
05...	2030	73	0.951	--
*16...	1010	14	0.178	25
19...	1045	29	0.470	122
22...	1100	28	0.313	83
SEP				
08...	2045	30	0.643	--
*13...	1245	12	0.139	11
27...	1400	12	0.214	19

* Equal-width increment sample

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.95	5.1	1.4	.18	.52	.14	.85	1.7	2.8	1.5	1.2	.34
2	.63	4.4	1.3	.15	.48	.11	.83	1.7	4.1	6.5	1.2	.33
3	2.1	2.2	1.3	.15	.48	.09	.81	1.7	1.6	1.7	1.1	.32
4	1.3	1.6	1.3	.14	.48	.08	.76	1.5	1.5	1.4	1.0	.30
5	1.4	1.5	1.2	.14	.51	.08	.69	1.5	1.2	1.2	7.2	.28
6	21	1.4	.82	.13	.53	.07	.66	1.3	1.1	1.1	2.1	.27
7	4.6	1.3	.73	.12	.56	.06	.63	1.1	2.0	.99	2.7	.25
8	3.0	1.1	.63	.11	.62	.06	.61	1.1	1.3	3.5	1.6	1.4
9	1.9	1.0	.54	.11	.73	.06	.57	1.1	1.1	1.3	1.4	.86
10	1.2	1.1	.46	.12	3.2	.06	.56	5.0	1.1	1.0	1.3	.61
11	.94	1.0	.41	.13	18	.70	.57	2.6	1.0	.88	1.2	.50
12	.76	.94	.37	.13	8.2	2.6	.63	2.3	.89	1.5	1.1	.38
13	.63	1.1	.37	.13	3.2	3.7	.62	1.8	.76	6.8	1.1	.32
14	.52	1.0	.40	.13	1.2	3.6	.58	1.7	.65	2.3	1.0	.30
15	.47	.98	.43	.13	.56	2.1	.61	1.9	.55	1.5	.95	.31
16	.45	1.0	.42	.12	.40	1.6	.67	1.8	2.6	1.3	.91	.34
17	.41	1.0	.40	.13	.33	1.2	.68	1.6	49	1.1	.84	.36
18	.34	1.1	.39	24	.26	1.1	2.9	1.5	37	24	.77	.35
19	.93	1.1	.38	6.5	.23	1.1	3.9	1.3	38	4.4	1.4	.36
20	1.3	1.2	.35	5.0	.23	.98	3.0	1.2	18	3.2	1.0	.37
21	1.2	1.3	.32	4.0	.24	1.0	3.4	1.1	7.6	2.5	.95	.39
22	1.1	1.2	.30	3.0	.23	1.1	3.0	1.0	6.3	2.7	1.7	.38
23	2.5	1.3	.29	2.1	1.0	1.3	2.5	.96	5.5	1.9	.73	.40
24	1.1	1.2	.27	1.6	2.6	1.6	2.0	.91	4.3	1.6	.54	.42
25	.98	1.2	.25	1.2	1.2	2.3	1.7	.86	3.4	1.4	.48	.42
26	.96	1.2	.22	1.1	.58	1.5	1.6	.85	2.7	1.3	.46	.50
27	2.2	1.2	.19	.88	.25	1.4	1.3	.84	2.2	1.1	.44	.58
28	1.6	1.0	.18	.79	.20	1.2	1.2	.72	1.9	1.6	.42	.46
29	1.7	1.3	.19	.67	.17	.98	1.3	.40	1.8	1.3	.40	.37
30	1.8	1.4	.18	.62	---	.91	1.6	.36	2.1	1.3	.39	.32
31	1.8	---	.18	.57	---	.93	---	.34	---	1.3	.35	---
TOTAL	61.77	43.42	16.17	54.28	47.19	33.71	40.73	43.74	204.05	85.17	37.93	12.79

WTR YR 1996 TOTAL 680.95

040734644 SILVER CREEK AT SOUTH KORO ROAD NEAR RIPON, WI--CONTINUED

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	61	13	14	6.3	45	28	18	28	30	23	8.4
2	9.9	72	14	13	5.8	35	27	16	44	64	22	8.4
3	42	66	14	13	5.8	26	27	16	34	38	20	8.2
4	26	66	15	12	5.8	20	25	14	24	31	18	7.9
5	23	58	15	12	6.3	19	23	14	21	28	53	7.5
6	157	50	11	11	6.8	18	22	12	19	25	31	7.3
7	96	42	10	11	7.2	15	21	10	29	23	36	6.8
8	81	36	9.6	9.7	8.1	14	20	9.7	22	35	23	16
9	67	31	8.8	9.6	9.6	14	19	10	21	25	20	16
10	53	30	8.0	10	28	14	18	47	20	22	19	13
11	41	28	7.6	11	126	34	19	27	20	20	17	11
12	32	23	7.3	11	82	66	21	22	19	24	17	9.3
13	26	25	7.9	11	53	80	20	18	17	49	16	8.2
14	20	23	9.2	11	37	105	19	18	15	34	15	7.8
15	18	21	10	10	29	90	20	21	13	27	14	7.8
16	16	20	11	10	24	72	22	20	22	24	13	8.5
17	14	19	11	11	23	55	22	19	198	22	13	8.9
18	11	19	12	219	21	46	38	18	166	142	12	8.8
19	20	19	12	212	21	39	52	17	176	62	18	8.8
20	18	19	12	242	19	32	47	16	171	53	14	8.8
21	15	19	12	182	19	33	50	15	156	45	13	9.2
22	14	16	12	120	18	34	46	14	129	45	18	8.9
23	27	17	12	75	26	36	40	14	104	36	13	9.4
24	28	14	12	49	55	43	35	14	83	30	12	9.7
25	20	14	12	34	78	59	31	14	68	26	11	9.6
26	15	14	11	26	93	40	28	14	58	24	11	11
27	38	12	11	19	75	38	21	14	49	22	10	13
28	36	10	11	15	63	35	17	15	43	27	10	11
29	36	12	12	11	53	29	17	18	38	24	9.6	10
30	34	13	12	9.3	---	28	19	16	35	24	9.5	10
31	29	---	13	7.6	---	30	---	13	---	23	8.8	---
TOTAL	1076.9	869	348.4	1411.2	1004.7	1244	814	523.7	1842	1104	539.9	289.2

WTR YR 1996 TOTAL 11067

04073468 GREEN LAKE INLET AT COUNTY TRUNK HIGHWAY A NEAR GREEN LAKE, WI

LOCATION.--Lat 43°49'18", long 88°55'36", in NE 1/4 SE 1/4 SE 1/4 sec.27, T.16 N., R.13 E., Green Lake County, Hydrologic Unit 04030201, on left bank at downstream side of County Trunk Highway A, 2.3 mi southeast of Green Lake.

DRAINAGE AREA.--53.5 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Acoustical Velocity Meter (AVM) system. Single-path, mid-depth transducer installation. Cross-path, dual-depth transducers installed on June 6, 1990. Datum of gage is 790.00 ft above sea level (from Wisconsin Department of Natural Resources benchmark).

REMARKS.--Estimated daily discharges: Oct. 1–19. Estimated discharges are based on discharges from upstream station, Silver Creek near Ripon (040734644), adjusted for drainage area. Approximately 2.2 ft^3/s of daily flow is effluent from Ripon Waste-Water Treatment Plant. Flows fluctuate due to seiche from Green Lake. Records are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	115	45	24	34	66	79	68	21	47	30	11
2	18	171	46	23	33	50	80	61	61	65	28	12
3	38	160	43	24	32	45	68	64	42	50	26	12
4	31	117	50	24	30	40	62	56	41	43	26	13
5	28	106	41	24	31	38	65	55	36	38	28	13
6	143	119	43	22	30	37	61	52	36	37	39	11
7	135	96	43	20	31	36	57	48	42	34	35	11
8	128	75	27	21	38	34	53	43	38	46	27	12
9	118	71	43	21	44	34	53	45	40	39	25	17
10	105	70	32	21	60	32	54	83	33	33	24	14
11	86	66	27	22	102	40	64	62	34	35	19	18
12	70	56	25	23	101	82	54	62	30	34	21	15
13	58	63	24	24	86	125	56	55	30	49	20	16
14	48	62	29	23	74	145	51	58	27	50	21	13
15	44	55	30	23	64	140	58	61	23	37	22	15
16	43	57	30	23	52	119	75	59	23	34	19	17
17	39	55	28	23	47	100	72	51	230	33	17	9.1
18	32	53	30	156	40	88	72	48	209	69	18	14
19	34	58	28	163	40	78	115	43	217	84	15	15
20	27	56	30	138	39	63	107	43	217	57	26	9.3
21	44	61	28	116	44	61	117	39	202	48	14	12
22	57	51	28	89	42	63	98	39	160	47	26	14
23	42	48	27	62	45	61	81	35	129	45	19	10
24	75	46	27	50	80	72	73	32	103	37	17	12
25	59	46	27	42	124	96	63	31	91	38	18	13
26	53	43	25	44	122	69	63	31	78	32	17	9.1
27	82	29	24	43	122	63	53	28	64	31	18	15
28	91	43	24	39	97	68	50	28	52	39	16	22
29	84	46	24	35	75	64	43	24	56	36	13	14
30	80	46	23	34	---	69	68	23	59	33	14	8.2
31	73	---	24	33	---	76	---	23	---	31	14	---
TOTAL	1987	2140	975	1429	1759	2154	2065	1450	2424	1331	672	396.7
MEAN	64.1	71.3	31.5	46.1	60.7	69.5	68.8	46.8	80.8	42.9	21.7	13.2
MAX	143	171	50	163	124	145	117	83	230	84	39	22
MIN	18	29	23	20	30	32	43	23	21	31	13	8.2
CFSM	1.20	1.33	.59	.86	1.13	1.30	1.29	.87	1.51	.80	.41	.25
IN.	1.38	1.49	.68	.99	1.22	1.50	1.44	1.01	1.69	.93	.47	.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996, BY WATER YEAR (WY)

MEAN	23.6	31.3	23.9	16.7	23.5	71.5	65.0	40.6	47.6	37.7	24.2	20.4
MAX	64.1	71.3	47.5	46.1	60.7	97.1	185	89.9	156	190	67.5	38.8
(WY)	1996	1996	1993	1996	1996	1989	1993	1993	1993	1993	1990	1993
MIN	7.00	13.8	5.73	6.66	6.71	45.5	31.2	16.1	4.57	3.78	5.03	9.01
(WY)	1989	1990	1990	1989	1989	1995	1990	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1987 - 1996	
ANNUAL TOTAL	12861.4		18782.7			
ANNUAL MEAN	35.2		51.3		36.5	
HIGHEST ANNUAL MEAN					79.9	1993
LOWEST ANNUAL MEAN					18.7	1988
HIGHEST DAILY MEAN	171	Nov 2	230	Jun 17	705	May 31 1989
LOWEST DAILY MEAN	2.8	Feb 14	8.2	Sep 30	-4.1	Jun 14 1994
ANNUAL SEVEN-DAY MINIMUM	5.3	Feb 10	11	Sep 20	2.1	Jul 27 1988
ANNUAL RUNOFF (CFSM)	.66		.96		.68	
ANNUAL RUNOFF (INCHES)	8.94		13.06		9.28	
10 PERCENT EXCEEDS	70		99		76	
50 PERCENT EXCEEDS	27		43		22	
90 PERCENT EXCEEDS	8.7		17		6.7	

04073468 GREEN LAKE INLET AT COUNTY TRUNK HIGHWAY A NEAR GREEN LAKE, WI--CONTINUED

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: February 1987 to current year.
TOTAL-PHOSPHORUS DISCHARGE: February 1987 to current year.

INSTRUMENTATION.--Observer takes samples during periods of low flow and more frequently during runoff periods.

REMARKS.--Records are fair. Phosphorus analyses by the Wisconsin State Laboratory of Hygiene. All samples are equal-width increment (EWI).

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 701 mg/L, May 30, 1989; minimum observed, 0 mg/L, Mar. 25, 1988.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 456 tons, May 31, 1989; minimum daily, -0.22 ton, June 14, 1994.
TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 1.45 mg/L, May 30, 1989; minimum observed, <0.02 mg/L, Oct. 10, 1991.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 3,230 lb, May 31, 1989; minimum daily, -5.5 lb, June 14, 1994.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 77 mg/L, May 23; minimum observed, 2.0 mg/L, Nov. 30 and Mar. 4.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 27 tons, June 17; minimum daily, 0.17 ton, Dec. 13.
TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.33 mg/L, Jan. 21 and Feb. 25; minimum observed, 0.04 mg/L, Nov. 15.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 244 lb, Jan. 19; minimum daily, 4.8 lb, Sept. 30.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT 1995				
06...	0815	143	0.111	19
09...	0850	118	0.134	10
10...	1310	105	0.137	9
20...	0945	27	0.087	33
NOV				
02...	1025	171	0.070	5
06...	0920	119	0.075	4
15...	1415	55	0.043	13
30...	0905	46	0.057	2
JAN 1996				
03...	1030	24	0.056	44
18...	1027	156	0.127	24
21...	1120	116	0.326	12
FEB				
01...	1030	34	0.110	--
01...	1031	34	--	4
12...	1220	101	0.259	7
19...	1030	40	0.076	3
25...	1032	124	0.328	10
MAR				
04...	1008	40	0.081	2
14...	1040	145	0.152	6
20...	1430	63	0.084	3
APR				
01...	1050	79	0.077	9
16...	1116	75	0.060	12
20...	1348	107	0.127	28
MAY				
01...	1150	--	0.120	--
01...	1155	68	--	26
02...	1155	61	0.114	30
08...	1200	43	0.129	42
13...	1400	55	0.107	--
22...	1430	39	0.225	--
22...	1435	39	--	77
29...	0815	24	0.154	31
JUN 1996				
03...	1620	42	0.169	--
03...	1625	42	--	42
07...	1040	42	--	65
07...	1045	42	0.233	--
12...	0905	30	0.156	45
14...	1015	27	0.097	25
17...	1100	230	0.193	45
18...	1330	209	0.190	40
26...	1830	78	0.158	27
JUL				
02...	1135	65	0.164	28
03...	1050	50	0.174	31
08...	1135	46	0.130	56
12...	1150	34	0.183	31
15...	1155	37	0.129	17
22...	1150	47	0.150	50
25...	0915	38	0.154	28
29...	1230	36	0.160	26
AUG				
01...	1300	30	0.175	36
05...	1140	28	0.051	16
09...	1230	25	0.172	53
13...	1150	20	0.201	--
13...	1155	20	--	73
16...	0900	19	0.188	39
23...	1030	19	0.122	--
24...	1420	14	0.144	--
SEP				
04...	1355	13	0.127	--
06...	1300	11	0.124	35
11...	1300	18	0.062	34
13...	1145	16	0.086	11
17...	0920	9.1	0.125	18
23...	1300	10	0.095	26

04073468 GREEN LAKE INLET AT COUNTY TRUNK HIGHWAY A NEAR GREEN LAKE, WI--CONTINUED

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.75	1.8	.26	.25	.35	.72	1.9	4.8	2.1	3.5	2.8	1.1
2	.67	2.3	.27	.24	.34	.46	2.0	4.8	6.5	5.0	2.3	1.1
3	1.5	2.1	.26	.26	.33	.34	1.7	5.4	4.8	4.3	1.7	1.1
4	1.2	1.4	.31	.26	.32	.26	1.6	5.0	5.1	4.1	1.4	1.2
5	1.1	1.3	.26	.26	.33	.24	1.7	5.3	5.1	4.1	1.3	1.2
6	6.8	1.4	.27	.24	.32	.23	1.7	5.3	5.7	4.5	2.3	1.0
7	5.4	1.3	.28	.22	.34	.21	1.6	5.2	7.2	4.6	2.8	.88
8	4.2	1.1	.18	.23	.46	.19	1.5	4.9	6.1	6.7	2.9	.82
9	3.2	1.2	.29	.23	.61	.19	1.5	5.4	6.0	5.1	3.5	.99
10	2.5	1.3	.22	.23	.94	.18	1.6	10	4.6	3.7	3.7	.69
11	2.0	1.4	.19	.24	1.8	.29	1.9	8.1	4.4	3.4	3.2	.76
12	1.6	1.4	.18	.25	2.0	.79	1.7	8.4	3.5	2.8	3.8	.54
13	1.4	1.7	.17	.26	1.5	1.6	1.8	7.8	2.7	3.3	3.8	.51
14	1.1	1.9	.21	.25	1.2	2.3	1.6	8.6	1.9	2.8	3.3	.45
15	1.1	1.9	.23	.25	.90	2.1	1.9	9.4	1.9	1.7	2.8	.58
16	1.0	1.8	.23	.25	.65	1.5	2.6	9.5	2.3	1.5	2.0	.74
17	.94	1.5	.22	.35	.53	1.2	3.0	8.5	27	1.5	1.8	.44
18	.86	1.3	.24	8.4	.40	.89	3.6	8.4	23	3.8	1.9	.72
19	1.7	1.3	.23	8.4	.37	.70	7.0	7.8	22	5.8	1.5	.82
20	2.2	1.1	.25	5.7	.42	.51	7.7	8.2	21	4.9	2.7	.54
21	3.3	1.0	.24	4.0	.57	.52	8.4	7.7	19	5.2	1.4	.74
22	3.7	.77	.24	2.7	.66	.59	6.7	7.9	14	6.1	2.6	.92
23	2.4	.64	.24	1.7	.85	.63	5.3	6.4	11	5.0	1.9	.70
24	3.7	.54	.24	1.2	1.8	.82	4.5	5.1	8.3	3.4	1.7	.90
25	2.5	.48	.25	.92	3.2	1.2	3.7	4.3	7.0	2.9	1.8	1.0
26	1.9	.40	.23	.86	2.7	.96	3.5	3.8	5.7	2.4	1.7	.78
27	2.6	.24	.23	.76	2.3	.96	2.8	3.0	4.6	2.3	1.8	1.4
28	2.5	.31	.23	.61	1.5	1.1	2.6	2.6	3.8	2.8	1.6	2.2
29	2.0	.29	.24	.49	.98	1.2	2.2	2.0	4.1	2.6	1.3	1.5
30	1.7	.26	.23	.43	---	1.4	4.0	2.0	4.4	2.6	1.4	.92
31	1.3	---	.24	.38	---	1.7	---	2.2	---	2.7	1.3	---
TOTAL	68.82	35.43	7.36	40.82	28.67	25.98	93.3	187.8	244.8	115.1	70.0	27.24

WTR YR 1996 TOTAL 945.32

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	44	14	7.3	20	48	33	43	18	41	27	7.8
2	12	65	14	7.0	20	31	33	38	55	58	20	8.4
3	25	62	13	7.3	20	23	27	40	38	46	13	8.3
4	20	46	15	7.3	19	18	25	36	40	38	9.9	8.9
5	17	42	13	7.3	20	16	25	36	38	32	8.4	8.8
6	87	48	13	6.8	19	15	23	35	42	29	15	7.3
7	87	36	13	6.2	20	15	21	33	52	25	18	6.5
8	88	27	8.3	6.5	29	13	20	30	44	33	19	6.1
9	85	24	13	6.5	39	13	19	34	43	30	22	7.6
10	77	22	9.8	6.6	62	12	19	66	32	28	23	5.4
11	61	20	8.3	6.9	122	18	23	45	31	32	19	6.3
12	47	16	7.6	7.3	136	46	19	40	24	33	22	5.9
13	37	17	7.3	7.6	101	86	19	33	20	43	22	7.4
14	30	15	8.9	7.3	73	115	17	36	15	39	22	6.7
15	26	13	9.2	7.4	53	104	19	41	15	26	23	8.5
16	24	13	9.2	7.4	36	80	25	43	19	23	19	11
17	21	13	8.5	8.4	27	61	28	41	234	22	16	6.1
18	16	13	9.1	118	19	49	34	42	214	47	16	9.3
19	17	15	8.5	244	17	39	65	40	218	60	13	9.8
20	13	14	9.1	233	21	29	71	44	213	42	21	6.0
21	20	16	8.5	201	30	27	77	43	194	37	10	7.2
22	26	14	8.5	142	37	28	62	46	150	38	18	7.8
23	19	13	8.2	89	50	27	50	40	118	37	13	5.2
24	33	13	8.2	65	114	32	43	35	92	31	13	6.3
25	25	13	8.2	50	209	42	36	32	80	32	14	6.9
26	22	12	7.6	47	180	30	34	30	67	27	13	4.9
27	34	8.4	7.3	42	151	27	28	26	55	26	14	8.3
28	37	13	7.3	34	101	29	25	24	45	33	12	12
29	34	14	7.3	28	65	27	21	20	49	31	9.6	8.1
30	32	14	7.0	25	---	29	38	20	52	29	10	4.8
31	29	---	7.3	22	---	32	---	20	---	28	10	---
TOTAL	1116	695.4	297.2	1461.1	1810	1161	979	1132	2307	1076	504.9	223.6

WTR YR 1996 TOTAL 12763.2

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 mi^2.

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

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

GAGE.--Water-stage recorder and crest-stage gage. 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 discharges: Ice-affected period, Nov. 22 to Apr. 8. Records good except for ice- affected period, which is poor (see page 12). Usually less than about 10 ft^3/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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	1900	1200	940	1100	1200	2300	2210	1310	2700	1140	648
2	1010	2000	1200	960	1000	1200	2300	2170	1260	2670	1130	632
3	1020	2070	1200	960	1000	1300	2300	2160	1270	2590	1100	609
4	1050	2150	1200	940	1000	1300	2300	2150	1280	2510	1080	592
5	1060	2200	1200	920	1000	1200	2300	2130	1280	2440	1050	597
6	1320	2250	1200	920	1000	1200	2300	2110	1280	2370	1050	585
7	1600	2290	1100	900	1000	1200	2300	2080	1320	2290	1040	569
8	1790	2310	1100	880	1000	1200	2300	2060	1350	2200	1020	574
9	1930	2290	1100	880	1000	1200	2290	2040	1380	2110	923	583
10	2010	2280	1000	880	1000	1200	2230	2060	1400	2020	844	567
11	2060	2260	1000	880	1100	1200	2190	2080	1400	1930	825	583
12	2100	2210	980	880	1100	1200	2160	2090	1390	1850	808	556
13	2120	2160	960	880	1100	1300	2150	2100	1380	1760	787	528
14	2100	2130	980	880	1100	1400	2110	2100	1350	1660	778	517
15	2060	2120	1000	900	1100	1600	2100	2110	1300	1550	757	531
16	2010	2090	1000	920	1100	1800	2100	2110	1250	1450	728	538
17	1960	2070	1000	960	1100	2100	2110	2100	1550	1370	734	509
18	1920	2050	980	1000	1100	2100	2140	2090	1930	1400	723	522
19	1870	2020	960	1100	1100	2100	2220	2060	2390	1510	712	567
20	1830	2000	960	1100	1100	2100	2300	2040	2770	1540	720	580
21	1790	1970	940	1100	1100	2000	2360	2010	3000	1540	724	574
22	1760	1900	940	1100	1100	2000	2400	1960	3130	1530	743	566
23	1730	1800	940	1100	1100	2000	2410	1910	3180	1500	723	559
24	1760	1800	920	1100	1100	2000	2400	1860	3190	1450	734	574
25	1790	1700	900	1100	1200	2000	2390	1790	3160	1390	750	561
26	1810	1700	900	1100	1200	2000	2370	1740	3100	1340	715	590
27	1850	1600	900	1100	1200	2000	2330	1670	3040	1290	663	604
28	1880	1400	900	1100	1200	2000	2280	1600	2960	1260	653	650
29	1880	1200	900	1100	1200	2100	2240	1530	2870	1230	663	657
30	1880	1100	900	1100	---	2100	2240	1470	2790	1190	662	623
31	1870	---	920	1100	---	2200	---	1420	---	1150	665	---
TOTAL	53830	59020	31380	30780	31500	51500	67920	61010	60260	54790	25644	17345
MEAN	1736	1967	1012	993	1086	1661	2264	1968	2009	1767	827	578
MAX	2120	2310	1200	1100	1200	2200	2410	2210	3190	2700	1140	657
MIN	1010	1100	900	880	1000	1200	2100	1420	1250	1150	653	509
CFSM	1.30	1.47	.76	.74	.81	1.24	1.69	1.47	1.50	1.32	.62	.43
IN.	1.49	1.64	.87	.85	.87	1.43	1.89	1.69	1.67	1.52	.71	.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1996, BY WATER YEAR (WY)

MEAN	991	1083	900	699	757	1768	2227	1460	1181	909	790	893
MAX	3819	2463	1871	1631	1803	4272	4225	3801	4230	4072	2540	3491
(WY)	1987	1986	1986	1939	1966	1973	1979	1973	1905	1993	1993	1938
MIN	347	380	369	311	318	495	667	600	367	384	346	364
(WY)	1959	1977	1977	1959	1959	1964	1902	1934	1988	1988	1958	1958

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1898 - 1996	
ANNUAL TOTAL	496741		544979			
ANNUAL MEAN	1361		1489		1141	
HIGHEST ANNUAL MEAN					2203	1993
LOWEST ANNUAL MEAN					559	1964
HIGHEST DAILY MEAN	2430	Jun 2	3190	Jun 24	6900	Mar 17 1946
LOWEST DAILY MEAN	(a)600	Mar 8,9	509	Sep 17	217	Jun 27 1988
ANNUAL SEVEN-DAY MINIMUM	(a)626	Mar 3	529	Sep 12	266	Jan 30 1900
INSTANTANEOUS PEAK FLOW			(b)3190	Jun 24	6900	Mar 17 1946
INSTANTANEOUS PEAK STAGE			(a)13.14	Mar 17	15.50	Mar 17 1946
INSTANTANEOUS LOW FLOW			502	Sep 17,18	210	Jun 27 1988
ANNUAL RUNOFF (CFSM)	1.02		1.11		.85	
ANNUAL RUNOFF (INCHES)	13.79		15.13		11.57	
10 PERCENT EXCEEDS	2120		2290		2170	
50 PERCENT EXCEEDS	1230		1300		865	
90 PERCENT EXCEEDS	660		714		500	

(a) Ice affected
(b) Gage height, 12.89 ft

04074950 WOLF RIVER AT LANGLADE, WI

LOCATION.--Lat 45°11'24", long 88°44'00", in SE 1/4 SW 1/4 sec.3, 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 mi^2.

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 above sea level, from topographic map. Prior to Oct. 1, 1976, nonrecording gage 50 ft downstream at same elevation.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 5, Nov. 8 to Dec. 2, and Dec. 8 to Apr. 12. Records good except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	392	600	370	410	380	330	440	1700	360	467	439	303
2	397	740	390	400	370	330	440	1610	462	491	423	298
3	431	759	355	400	360	330	440	1520	536	476	387	297
4	445	741	373	420	350	350	450	1420	700	443	368	308
5	430	720	336	420	350	370	450	1350	684	426	378	326
6	587	713	302	410	360	370	440	1310	661	406	443	319
7	871	649	341	400	360	360	430	1250	630	396	490	306
8	839	560	400	400	370	350	450	1180	603	385	528	309
9	775	450	380	400	370	360	470	1110	626	368	470	351
10	737	440	380	420	370	380	540	1100	589	361	439	361
11	708	520	380	430	370	430	640	1080	580	352	419	354
12	674	480	380	430	370	460	760	1020	548	339	403	360
13	640	470	390	460	370	480	722	961	530	355	390	356
14	569	490	400	460	360	500	672	904	517	357	378	353
15	500	480	390	450	350	520	707	862	481	345	367	343
16	468	470	400	430	340	500	721	830	470	336	360	329
17	460	460	400	430	340	490	779	791	547	317	351	317
18	492	440	410	430	340	480	950	740	693	343	332	307
19	486	440	420	450	340	470	1460	740	803	419	325	299
20	461	420	430	470	340	470	1990	705	796	406	362	298
21	459	410	430	470	350	460	2190	659	766	413	351	313
22	433	410	440	470	350	450	2280	624	784	402	329	359
23	437	410	440	470	350	450	2360	595	751	391	333	380
24	555	370	430	460	350	470	2330	576	714	426	325	367
25	614	380	430	440	360	490	2340	561	684	424	317	347
26	650	380	420	430	360	500	2420	531	614	402	347	332
27	677	370	420	420	350	500	2280	473	567	387	353	356
28	699	380	410	410	340	490	2110	454	559	418	343	375
29	688	380	390	410	340	460	1950	440	532	466	329	363
30	664	360	390	410	---	450	1820	416	502	472	321	355
31	633	---	400	410	---	450	---	380	---	465	315	---
TOTAL	17871	14892	12227	13320	10310	13500	36031	27892	18289	12454	11715	10041
MEAN	576	496	394	430	356	435	1201	900	610	402	378	335
MAX	871	759	440	470	380	520	2420	1700	803	491	528	380
MIN	392	360	302	400	340	330	430	380	360	317	315	297
CFSM	1.25	1.07	.85	.93	.77	.94	2.59	1.94	1.32	.87	.82	.72
IN.	1.44	1.20	.98	1.07	.83	1.08	2.89	2.24	1.47	1.00	.94	.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1996, BY WATER YEAR (WY)

MEAN	448	455	380	322	316	475	825	625	497	361	328	415
MAX	813	788	578	548	482	1227	1330	1312	1013	874	632	813
(WY)	1986	1986	1986	1969	1984	1973	1976	1973	1991	1968	1972	1968
MIN	196	203	226	193	213	278	263	319	173	183	188	171
(WY)	1977	1977	1977	1977	1982	1982	1990	1987	1988	1989	1989	1989

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1966 - 1996	
ANNUAL TOTAL	151115		198542			
ANNUAL MEAN	414		542		456	
HIGHEST ANNUAL MEAN					666	1973
LOWEST ANNUAL MEAN					326	1988
HIGHEST DAILY MEAN	871	Oct 7	2420	Apr 26	2420	Apr 26 1996
LOWEST DAILY MEAN	212	Jul 31	297	Sep 3	137	Jul 7 1988
ANNUAL SEVEN-DAY MINIMUM	230	Jul 25	308	Sep 1	142	Sep 28 1989
INSTANTANEOUS PEAK FLOW			2440	Apr 26	2440	Apr 26 1996
INSTANTANEOUS PEAK STAGE			10.40	Apr 26	10.40	Apr 26 1996
INSTANTANEOUS LOW FLOW			(a)278	Dec 6	119	Nov 8 1976
ANNUAL RUNOFF (CFSM)	.89		1.17		.98	
ANNUAL RUNOFF (INCHES)	12.14		15.95		13.37	
10 PERCENT EXCEEDS	649		776		774	
50 PERCENT EXCEEDS	383		430		378	
90 PERCENT EXCEEDS	251		340		240	

(a) Result of freezeup

04075050 WOLF RIVER AT HIGHWAY M NEAR LANGLADE, WI

LOCATION.--Lat 45°07'38", long 88°39'45", in SE 1/4 NE 1/4 sec.31, T.31 N., R.14 E., Langland County, Hydrologic Unit 04030202, at County Highway M bridge near State Highway 55, 5.7 mi southeast of Langlade.

DRAINAGE AREA.--489 mi^2.

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

REMARKS.--Discharge values are estimated from record at station 04074950 Wolf River at Langlade.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (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)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 1995												
26...	1015	650	152	7.8	6.0	--	11.8	727	99	--	--	--
JAN 1996												
23...	1100	470	192	7.9	0.5	--	12.4	732	89	--	24	11
MAR												
28...	1120	490	205	8.4	0.0	--	14.1	738	100	--	24	11
APR												
25...	1320	2310	73	7.3	7.0	--	11.7	710	104	--	8.2	3.7
MAY												
14...	1125	910	121	7.8	10.0	--	11.2	735	103	--	14	6.0
JUN												
27...	1015	577	165	6.5	18.5	2.5	8.8	736	98	30	--	--
27...	1110	577	165	6.5	18.5	--	8.8	735	98	--	19	8.9
JUL												
25...	0920	443	193	7.0	20.0	2.1	9.1	731	104	17	22	11
AUG												
27...	1145	370	210	8.2	18.0	--	9.6	736	105	--	23	12
SEP												
23...	1325	397	213	8.1	14.0	1.9	10.0	734	101	24	23	11

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	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)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT 1995												
26...	--	--	87	72	--	--	--	--	--	--	--	--
JAN 1996												
23...	2.4	1.0	--	--	99	2.9	5.2	0.10	13	126	11	0.350
MAR												
28...	2.7	0.90	--	--	103	3.0	5.5	0.10	14	130	6	0.350
APR												
25...	1.5	0.90	--	--	31	1.8	3.7	<0.10	6.4	62	10	0.100
MAY												
14...	1.9	0.70	--	--	57	2.0	4.2	<0.10	4.1	76	5	0.110
JUN												
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	2.1	0.60	--	--	81	2.2	4.1	0.10	7.4	100	11	0.120
JUL												
25...	2.3	0.60	--	--	93	2.4	4.4	0.10	6.4	110	6	0.070
AUG												
27...	2.5	0.80	--	--	106	2.7	5.2	0.10	8.1	116	2	0.070
SEP												
23...	2.4	0.90	--	--	105	3.0	5.5	0.20	7.6	136	7	0.130

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	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 ORTHO, DISSOLVED (MG/L AS P) (00671)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)
OCT 1995 26...	--	--	--	--	70	<10	<1	--	100	9.0	20	--
JAN 1996 23...	0.080	0.50	0.030	<0.010	--	--	--	--	--	--	--	--
MAR 28...	0.070	0.40	0.030	0.010	--	--	--	--	--	--	--	--
APR 25...	0.020	0.30	0.030	<0.010	--	--	--	--	--	--	--	--
MAY 14...	<0.015	0.40	0.010	<0.010	--	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	100	15	<1	<1	10	10	20	12
27...	0.020	0.70	0.050	<0.010	--	--	--	--	--	--	--	--
JUL 25...	<0.015	0.40	<0.010	<0.010	80	8.7	<1	1	10	10	20	24
AUG 27...	<0.015	0.40	0.010	<0.010	--	--	--	--	--	--	--	--
SEP 23...	<0.015	0.30	<0.010	<0.010	70	9.6	1	<1	10	11	<10	12

DATE	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)
OCT 1995 26...	<1	--	<1	--	<1	--	<1	--	390	--	<1
JAN 1996 23...	--	--	--	--	--	--	--	--	350	170	--
MAR 28...	--	--	--	--	--	--	--	--	460	200	--
APR 25...	--	--	--	--	--	--	--	--	340	180	--
MAY 14...	--	--	--	--	--	--	--	--	280	150	--
JUN 27...	<1	0.20	<1	<0.50	<1	<0.50	<1	<0.50	--	--	<1
27...	--	--	--	--	--	--	--	--	570	210	--
JUL 25...	<1	<0.10	<1	0.60	<1	0.60	1	<0.50	270	92	2
AUG 27...	--	--	--	--	--	--	--	--	180	55	--
SEP 23...	<1	<0.10	1	0.60	<1	<0.50	<1	<0.50	220	66	<1

DATE	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)
OCT 1995 26...	--	<10	<10	60	--	<0.10	<1	--	--	--	<1
JAN 1996 23...	--	--	--	40	7.0	--	--	--	--	--	--
MAR 28...	--	--	--	50	9.0	--	--	--	--	--	--
APR 25...	--	--	--	50	6.0	--	--	--	--	--	--
MAY 14...	--	--	--	30	9.0	--	--	--	--	--	--
JUN 27...	<0.50	<10	<4	--	--	--	<50	<1.0	<1	<1	<1
27...	--	--	--	110	16	--	--	--	--	--	--
JUL 25...	<0.50	20	<4	70	9.0	--	<50	<1.0	<1	<1	<1
AUG 27...	--	--	--	50	8.0	--	--	--	--	--	--
SEP 23...	0.60	<10	<4	40	8.0	--	<1	<1.0	<1	<1	<1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	THAL-LIUM, TOTAL (UG/L AS TL) (01059)	THAL-LIUM, DIS-SOLVED (UG/L AS TL) (01057)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS-SOLVED (MG/L AS CN) (00723)
OCT 1995											
26...	<1.0	--	<0.50	<10	--	0.26	0.0	0.80	10	--	--
JAN 1996											
23...	--	--	--	--	--	--	--	--	6.0	--	--
MAR											
28...	--	--	--	--	--	--	--	--	6.3	--	--
APR											
25...	--	--	--	--	--	--	--	--	9.4	--	--
MAY											
14...	--	--	--	--	--	--	--	--	7.8	--	--
JUN											
27...	<0.20	<1	<0.50	<10	2.3	<1.0	--	--	--	<0.010	<0.01
27...	--	--	--	--	--	--	--	--	9.0	--	--
JUL											
25...	<0.20	<1	<0.50	20	0.50	<1.0	--	--	6.3	<0.010	<0.01
AUG											
27...	--	--	--	--	--	--	--	--	5.7	--	--
SEP											
23...	<0.20	<1	<0.50	<10	1.2	<1.0	--	--	5.2	<0.010	<0.01

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)
JUN 1996											
27...	1015	577	<0.002	E0.002	<0.002	0.010	<0.002	<0.002	<0.003	<0.003	<0.004
JUL											
25...	0920	443	<0.002	<0.002	<0.002	0.008	<0.002	<0.002	<0.003	<0.003	<0.004
SEP											
23...	1325	397	<0.002	<0.002	<0.002	0.011	<0.002	<0.002	<0.003	<0.003	<0.004

DATE	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DIAZ-INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)
JUN 1996											
27...	<0.004	<0.002	E0.004	<0.002	89.0	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003
JUL											
25...	<0.004	<0.002	E0.004	<0.002	97.8	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003
SEP											
23...	<0.004	<0.002	E0.005	<0.002	74.8	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003

DATE	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
JUN 1996										
27...	84.2	<0.004	<0.002	<0.005	E0.004	<0.001	<0.006	<0.004	<0.004	<0.003
JUL										
25...	105	<0.004	<0.002	<0.005	<0.002	<0.001	<0.006	<0.004	<0.004	<0.003
SEP										
23...	87.8	<0.004	<0.002	<0.005	<0.002	<0.001	<0.006	<0.004	<0.004	<0.003

04075050 WOLF RIVER AT HIGHWAY M NEAR LANGLADE, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	P,P' DDE DISSOLV (UG/L) (34653)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)
JUN 1996 27...	<0.004	<0.004	<0.005	<0.004	<0.006	<0.002	<0.018	<0.003	<0.004	<0.013
JUL 25...	<0.004	<0.004	<0.005	<0.004	<0.006	<0.002	<0.018	<0.003	<0.004	<0.013
SEP 23...	<0.004	<0.004	<0.005	<0.004	<0.006	<0.002	<0.018	<0.003	<0.004	<0.013

DATE	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TERBUTH YLAZINE SURROGT WAT FLT 0.7 U GF, REC PERCENT (91064)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JUN 1996 27...	<0.007	<0.005	<0.010	<0.007	<0.013	89.4	<0.002	<0.001	<0.002	<0.003
JUL 25...	<0.007	<0.005	<0.010	<0.007	<0.013	131	<0.002	<0.001	<0.002	<0.003
SEP 23...	<0.007	<0.005	<0.010	<0.007	<0.013	102	<0.002	<0.001	<0.002	<0.003

04077100 WOLF RIVER AT KESHENA, WI

LOCATION.--Lat 44°53'00", long 88°38'05", in NE 1/4 NE 1/4 sec.26, T.28 N., R.15 E., Menominee County, Hydrologic Unit 04030202, at bridge on town road, at Keshena.

PERIOD OF RECORD.--May 1995 to current year.

REMARKS.--Discharge is estimated based on drainage area comparison with 04077400, Wolf River near Shawano.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
JAN 1996										
23...	1305	825	231	8.3	0.5	13.7	736	98	30	15
MAR										
28...	1330	740	232	8.0	0.0	14.6	743	103	28	13
APR										
25...	1530	2920	102	7.5	8.0	11.7	716	105	12	5.4
MAY										
14...	1325	1500	161	8.0	11.0	11.4	741	106	18	8.4
JUN										
27...	1335	940	200	6.8	20.5	8.9	741	102	23	11
JUL										
25...	1400	870	235	7.2	22.0	9.0	731	107	28	14
AUG										
27...	1415	850	249	8.2	19.5	9.6	743	107	28	14
SEP										
24...	1110	670	235	8.0	14.5	10.2	741	103	30	15

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	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)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
JAN 1996										
23...	2.9	0.90	123	3.8	7.2	0.20	12	151	7	0.430
MAR										
28...	2.5	0.90	118	3.1	6.6	0.20	13	147	8	0.420
APR										
25...	1.6	0.80	46	1.9	4.6	<0.10	6.7	77	--	0.140
MAY										
14...	2.1	0.80	79	2.5	5.4	0.10	4.9	98	4	0.130
JUN										
27...	2.3	0.80	96	2.6	4.8	0.20	8.2	126	--	0.150
JUL										
25...	2.5	0.80	116	2.9	5.2	0.20	7.7	142	6	0.120
AUG										
27...	2.4	0.90	128	2.9	5.8	0.20	9.0	156	5	0.140
SEP										
24...	2.6	1.1	132	3.4	6.5	0.20	8.2	167	6	0.170

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS 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)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
JAN 1996									
23...	0.060	0.40	0.030	<0.010	270	110	30	8.0	5.5
MAR									
28...	0.040	0.40	0.020	<0.010	400	130	40	7.0	4.6
APR									
25...	<0.015	0.40	0.020	<0.010	270	150	40	7.0	9.4
MAY									
14...	<0.015	0.40	<0.010	<0.010	240	120	30	11	7.6
JUN									
27...	0.020	0.70	0.020	<0.010	420	190	70	21	9.3
JUL									
25...	0.020	0.40	0.010	0.010	300	300	60	60	7.5
AUG									
27...	<0.015	0.30	0.030	<0.010	240	81	50	14	6.8
SEP									
24...	<0.015	0.30	<0.010	0.010	160	55	30	13	4.2

04077100 WOLF RIVER AT KESHENA, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
JUN 1996 27...	1420	940	20	6.8	20.5	1.9	8.9	28	100	10	<1	<1
JUL 25...	1400	870	23	7.2	22.0	2.0	9.0	25	70	<5.0	<1	<1
SEP 24...	1110	670	23	8.0	14.5	1.2	10.2	10	40	12	1	<1

DATE	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
JUN 1996 27...	10	11	2	14	<1	<0.10	<1	<0.50	<1	<0.50	<1	<0.50
JUL 25...	10	12	2	14	<1	<0.10	<1	0.80	<1	<0.50	1	2.8
SEP 24...	20	13	1	13	<1	0.30	<1	0.70	<1	0.60	<1	<0.50

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	THAL-LIUM, TOTAL (UG/L AS TL) (01059)
JUN 1996 27...	<1	<0.50	<1	<4	--	<50	<1.0	<1	<1	<1	<0.20	<1
JUL 25...	<1	2.4	<1	<4	60	<50	<1.0	<1	<1	<1	<0.20	<1
SEP 24...	<1	<0.50	<1	<4	30	<1	<1.0	<1	<1	<1	<0.20	<1

DATE	THAL-LIUM, DIS-SOLVED (UG/L AS TL) (01057)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS-SOLVED (MG/L AS CN) (00723)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)
JUN 1996 27...	<0.50	<10	2.4	<1.0	<0.010	<0.01	<0.002	<0.002	<0.002	0.010	<0.002	<0.002
JUL 25...	<0.50	<10	<0.5	1.0	<0.010	<0.01	<0.002	<0.002	<0.002	0.011	<0.002	<0.002
SEP 24...	<0.50	<10	0.5	1.0	<0.010	<0.01	<0.002	<0.002	<0.002	0.007	<0.002	<0.002

DATE	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DIAZ-INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
JUN 1996 27...	<0.003	<0.003	<0.004	<0.004	<0.002	E0.004	<0.002	97.8	<0.001	<0.017	<0.002
JUL 25...	<0.003	<0.003	<0.004	<0.004	<0.002	E0.007	<0.002	100	<0.001	<0.017	<0.002
SEP 24...	<0.003	<0.003	<0.004	<0.004	<0.002	E0.003	<0.002	71.6	<0.001	<0.017	<0.002

04077100 WOLF RIVER AT KESHENA, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)
JUN 1996											
27...	<0.004	<0.003	<0.003	91.9	0.008	<0.002	<0.005	E0.003	<0.001	<0.006	<0.004
JUL											
25...	<0.004	<0.003	<0.003	107	<0.004	<0.002	<0.005	<0.002	<0.001	<0.006	<0.004
SEP											
24...	<0.004	<0.003	<0.003	86.7	<0.004	<0.002	<0.005	<0.002	<0.001	<0.006	<0.004

DATE	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	P,P' DDE DISSOLV (UG/L) (34653)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)
JUN 1996											
27...	<0.004	<0.003	<0.004	<0.004	<0.005	<0.004	<0.006	<0.002	<0.018	<0.003	<0.004
JUL											
25...	<0.004	<0.003	<0.004	<0.004	<0.005	<0.004	<0.006	<0.002	<0.018	<0.003	<0.004
SEP											
24...	<0.004	<0.003	<0.004	<0.004	<0.005	<0.004	<0.006	<0.002	<0.018	<0.003	<0.004

DATE	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TERBUTH YLAZINE SURROGT WAT FLT 0.7 U GF, REC PERCENT (91064)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JUN 1996											
27...	<0.013	<0.007	<0.005	<0.010	<0.007	<0.013	93.9	<0.002	<0.001	<0.002	<0.003
JUL											
25...	<0.013	<0.007	<0.005	<0.010	<0.007	<0.013	127	<0.002	<0.001	<0.002	<0.003
SEP											
24...	<0.013	<0.007	<0.005	<0.010	<0.007	<0.013	101	<0.002	<0.001	<0.002	<0.003

04077400 WOLF RIVER NEAR SHAWANO, WI

LOCATION.--Lat 44°50'09", long 88°37'30", in SE 1/4 NW 1/4 sec.12, T.27 N., R.15 E., Shawano County, Hydrologic Unit 04030202, on left bank 350 ft downstream from dam, 3.7 mi north of Shawano, 1.5 mi upstream from Red River, and at mile 130.6.

DRAINAGE AREA.--816 mi^2.

WATER-DISCHARGE RECORDS

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. Published as "at Keshena Falls near Keshena" October 1981 to September 1985. Prior to October 1985, all records published under station number 04077000.

REVISED RECORDS.--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. Elevation of gage is 810 ft above sea level, from topographic map. Prior to Mar. 23, 1928, nonrecording gage at bridge in Keshena 4.1 mi upstream at different datum, and from Mar. 23, 1928 to Sept. 30, 1985, water-stage recorder at site 5.8 mi upstream at different datum. Gage-height telemeter at station.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 24 to Dec. 5 and Dec. 9 to Apr. 7. Records fair except those for ice-affected periods, which are poor (see page 12). Minor regulation by power dam upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	670	1010	660	660	640	620	820	2630	680	909	971	674
2	719	1360	700	660	620	620	800	2470	862	959	882	641
3	776	1440	680	660	600	620	780	2320	951	909	851	619
4	838	1390	640	660	620	620	780	2220	1110	836	794	676
5	778	1190	600	660	620	620	780	2060	1230	867	735	661
6	1030	1140	544	660	640	620	800	2050	1090	812	799	660
7	1650	1200	380	660	640	620	800	1970	1120	782	903	635
8	1910	970	568	660	660	620	812	1880	1100	851	954	623
9	1700	670	640	660	660	620	805	1770	995	855	944	669
10	1370	773	660	660	660	640	887	1790	984	783	818	735
11	1240	802	640	660	660	660	1120	1770	1080	726	901	713
12	1150	722	640	660	660	720	1660	1730	1000	724	726	662
13	1050	775	660	700	640	760	1880	1590	1060	868	713	656
14	951	715	680	700	640	800	1550	1540	935	868	740	645
15	828	714	660	700	620	800	1420	1350	852	812	654	649
16	734	765	660	680	620	800	1400	1330	838	783	703	630
17	743	731	660	680	620	780	1440	1290	1570	740	688	611
18	755	671	660	720	620	760	1520	1230	3060	835	718	591
19	767	706	680	780	620	740	2110	1300	3360	1380	678	593
20	797	720	700	820	640	740	2880	1510	2520	1360	741	575
21	822	684	700	860	640	740	3530	1400	1840	1140	678	594
22	827	555	700	840	640	760	3440	1220	1660	943	726	635
23	846	555	720	800	640	800	3190	1100	1490	907	776	687
24	886	580	700	780	660	780	3090	1000	1280	815	646	689
25	979	620	680	780	660	740	2990	932	1210	895	701	628
26	1100	640	680	760	640	720	3050	953	1050	727	1020	760
27	1090	680	660	760	640	740	3020	861	966	769	873	703
28	1050	660	660	760	620	760	2740	788	1030	964	856	725
29	993	640	620	740	620	740	2680	761	1010	1340	773	698
30	967	640	640	700	---	720	2590	711	973	1300	693	680
31	921	---	660	660	---	780	---	750	---	1100	672	---
TOTAL	30937	24718	20132	22140	18460	22060	55364	46276	38906	28559	24327	19717
MEAN	998	824	649	714	637	712	1845	1493	1297	921	785	657
MAX	1910	1440	720	860	660	800	3530	2630	3360	1380	1020	760
MIN	670	555	380	660	600	620	780	711	680	724	646	575
CFSM	1.22	1.01	.80	.88	.78	.87	2.26	1.83	1.59	1.13	.96	.81
IN.	1.41	1.13	.92	1.01	.84	1.01	2.52	2.11	1.77	1.30	1.11	.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 1996, BY WATER YEAR (WY)

MEAN	720	750	608	523	500	729	1341	1109	906	683	616	704
MAX	1573	1517	1115	937	888	1972	2526	2265	1990	1186	1277	1699
(WY)	1942	1912	1986	1986	1984	1973	1922	1960	1993	1968	1912	1941
MIN	376	383	335	323	315	385	574	510	328	366	294	330
(WY)	1949	1977	1928	1926	1936	1956	1990	1931	1988	1933	1934	1933

04077400 WOLF RIVER NEAR SHAWANO, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1907 - 1996	
ANNUAL TOTAL	265208		351596			
ANNUAL MEAN	727		961		766	
HIGHEST ANNUAL MEAN					1119	1973
LOWEST ANNUAL MEAN					510	1934
HIGHEST DAILY MEAN	2550	Aug 14	3530	Apr 21	(a)5200	Mar 15 1973
LOWEST DAILY MEAN	380	Dec 7	380	Dec 7	194	Feb 7 1936
ANNUAL SEVEN-DAY MINIMUM	(a)411	Jan 2	(a)576	Dec 4	260	Feb 3 1936
INSTANTANEOUS PEAK FLOW			3860	Apr 21		
INSTANTANEOUS PEAK STAGE			12.18	Apr 21	(b)15.59	Dec 2 1983
INSTANTANEOUS LOW FLOW					77	Nov 19 1989
ANNUAL RUNOFF (CFSM)	.89		1.18		.94	
ANNUAL RUNOFF (INCHES)	12.09		16.03		12.75	
10 PERCENT EXCEEDS	1090		1560		1300	
50 PERCENT EXCEEDS	657		760		640	
90 PERCENT EXCEEDS	452		626		414	

(a) Ice affected
(b) From high-water mark in well, at site and datum then in use, backwater from ice

04077400 WOLF RIVER NEAR SHAWANO, WI--CONTINUED

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JAN 1996										
23...	1440	800	--	216	8.0	0.0	13.8	735	98	28
MAR										
28...	1540	760	--	235	7.7	0.5	14.0	743	99	28
APR										
25...	1705	--	3130	102	7.6	8.5	11.7	716	106	12
MAY										
14...	1445	--	1760	164	7.9	10.5	11.1	741	103	19
JUN										
27...	1515	--	1070	204	6.9	32.5	8.3	741	118	24
JUL										
25...	1630	--	924	238	7.1	21.0	8.0	738	93	28
AUG										
27...	1350	--	1750	244	8.0	19.0	8.8	743	98	28
SEP										
24...	1400	--	719	263	8.0	15.0	9.3	740	95	29

DATE	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 (MG/L AS CACO3) (90410)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	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)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
JAN 1996										
23...	13	2.4	1.0	114	3.2	6.4	0.20	13	145	4
MAR										
28...	13	2.7	1.0	121	3.6	6.8	0.20	13	152	6
APR										
25...	5.4	1.6	0.90	47	2.1	4.6	<0.10	6.8	75	15
MAY										
14...	8.5	2.1	0.70	79	2.5	5.4	0.10	5.0	97	6
JUN										
27...	11	2.4	0.80	97	3.0	5.0	0.20	8.4	142	11
JUL										
25...	14	2.5	0.80	117	3.0	5.3	0.20	7.6	147	9
AUG										
27...	14	2.5	0.90	125	3.1	5.7	0.20	9.0	157	<1
SEP										
24...	14	2.6	1.0	132	3.5	6.6	0.20	7.9	159	4

DATE	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)	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)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
JAN 1996										
23...	0.470	0.050	0.40	0.010	<0.010	220	110	20	7.0	5.6
MAR										
28...	0.460	0.050	0.40	0.020	<0.010	290	130	30	9.0	5.9
APR										
25...	0.140	<0.015	0.50	0.030	<0.010	420	150	60	13	9.0
MAY										
14...	0.130	<0.015	0.40	0.020	<0.010	250	120	40	17	7.7
JUN										
27...	0.130	0.040	0.80	0.030	<0.010	470	200	80	38	9.5
JUL										
25...	0.120	0.030	0.30	<0.010	0.010	330	100	60	34	7.0
AUG										
27...	0.130	0.020	0.30	<0.010	<0.010	230	89	50	28	7.2
SEP										
24...	0.160	<0.020	0.30	0.020	<0.010	160	41	40	25	4.1

04077630 RED RIVER, AT MORGAN ROAD, NEAR MORGAN, WI

LOCATION.--Lat 44°53'53", long 88°50'39", in NW 1/4 NE 1/4 sec.19, T.28 N., R.14 E., Shawano County, Hydrologic Unit 04030202, on left bank 1.7 mi northwest of Morgan, 1.1 mi dowmstream of the confluence with the West Branch of the Red River, and 2.2 mi upstream of Smith Creek.

DRAINAGE AREA.--114 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1992 to current year.

REVISED RECORDS.--WDR WI-95-1: 1993(M).

GAGE.--Water-stage recorder. Elevation of gage is 990 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 22–24, Nov. 28–30, and Dec. 5 to Apr. 4. Records good except those for ice-affected periods, which are fair (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	146	138	110	110	120	150	314	151	210	198	138
2	135	250	131	110	110	120	160	311	193	211	176	135
3	144	275	128	110	110	120	160	307	223	205	165	133
4	158	254	126	110	110	120	170	284	225	186	160	137
5	150	211	120	110	120	120	179	266	211	175	160	139
6	224	183	120	110	120	120	182	269	196	168	176	141
7	327	166	110	110	130	120	182	261	199	205	223	123
8	322	144	110	110	130	120	190	238	213	220	238	118
9	288	121	120	110	130	120	193	229	196	202	205	125
10	249	169	120	110	130	120	226	241	177	181	175	141
11	209	155	120	110	130	130	281	262	226	177	162	133
12	194	142	120	110	130	130	364	249	231	189	156	127
13	176	141	130	120	120	140	382	221	205	202	157	125
14	145	156	130	120	120	140	345	200	185	192	148	127
15	133	146	130	110	120	140	318	194	165	178	144	126
16	128	139	130	120	120	130	296	193	178	175	142	125
17	135	145	120	120	120	130	291	191	403	184	162	129
18	136	130	120	130	120	130	323	190	952	228	155	126
19	137	131	120	130	130	130	471	220	950	375	145	124
20	147	128	120	120	130	130	663	305	744	366	161	124
21	159	138	120	120	130	130	729	294	557	312	160	126
22	158	140	120	120	130	130	640	270	463	226	162	131
23	151	140	120	120	130	140	529	228	371	180	174	134
24	171	130	120	120	130	140	449	195	310	175	156	136
25	191	127	120	120	130	130	408	180	255	169	150	129
26	197	128	120	120	130	130	395	174	230	163	209	130
27	169	124	110	120	130	130	345	168	266	160	202	153
28	156	130	110	120	130	130	319	163	257	235	180	154
29	144	130	110	120	120	140	282	157	226	326	152	143
30	137	140	120	120	---	140	296	169	222	294	144	135
31	132	---	120	110	---	140	---	171	---	247	141	---
TOTAL	5431	4659	3753	3600	3600	4010	9918	7114	9380	6716	5238	3967
MEAN	175	155	121	116	124	129	331	229	313	217	169	132
MAX	327	275	138	130	130	140	729	314	952	375	238	154
MIN	128	121	110	110	110	120	150	157	151	160	141	118
CFSM	1.54	1.36	1.06	1.02	1.09	1.13	2.90	2.01	2.74	1.90	1.48	1.16
IN.	1.77	1.52	1.22	1.17	1.17	1.31	3.24	2.32	3.06	2.19	1.71	1.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	146	156	122	109	101	128	228	190	202	150	159	130
MAX	175	221	164	126	124	131	331	254	313	217	209	160
(WY)	1996	1993	1993	1993	1996	1994	1996	1993	1996	1996	1995	1993
MIN	117	112	99.3	87.7	79.3	124	139	134	98.2	78.8	110	113
(WY)	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1994	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1993 - 1996	
ANNUAL TOTAL	46197		67386			
ANNUAL MEAN	127		184		152	
HIGHEST ANNUAL MEAN					184	1996
LOWEST ANNUAL MEAN					116	1995
HIGHEST DAILY MEAN	602	Aug 13	952	Jun 18	952	Jun 18 1996
LOWEST DAILY MEAN	64	Jul 30	(a)110	(b)Dec 7	64	Jul 30 1995
ANNUAL SEVEN-DAY MINIMUM	68	Jul 25	(a)110	Jan 1	68	Jul 25 1995
INSTANTANEOUS PEAK FLOW			1060	Jun 18	1060	Jun 18 1996
INSTANTANEOUS PEAK STAGE			8.88	Jun 18	8.88	Jun 18 1996
INSTANTANEOUS LOW FLOW			(c)79	Nov 8,9	(c)61	Apr 5 1995
ANNUAL RUNOFF (CFSM)	1.11		1.62		1.33	
ANNUAL RUNOFF (INCHES)	15.07		21.99		18.11	
10 PERCENT EXCEEDS	181		294		240	
50 PERCENT EXCEEDS	114		144		130	
90 PERCENT EXCEEDS	78		120		90	

(a) Ice affected
(b) Also occurred Dec. 8, 27-29, Jan. 1-12, Jan. 15, 31, and Feb. 1-4
(c) Result of freezeup

04077630 RED RIVER, AT MORGAN ROAD, NEAR MORGAN, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1992 to current year.

REMARKS.--Samples are point samples unless otherwise indicated.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (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)
APR 1996												
12...	1349	379	--	--	--	--	0.790	0.080	0.70	0.050	0.010	51
13...	1346	387	--	--	--	--	0.750	0.080	0.60	0.040	0.010	10
14...	1346	343	--	--	--	--	0.740	0.040	0.50	0.020	<0.010	8
15...	1346	315	--	--	--	--	0.740	0.040	0.50	0.020	<0.010	10
16...	1346	293	--	--	--	--	0.760	0.030	0.40	0.020	<0.010	6
17...	1346	290	--	--	--	--	0.760	0.020	0.50	0.020	0.010	12
18...	1346	327	--	--	--	--	0.620	0.030	0.50	0.020	<0.010	--
19...	1306	483	160	7.4	8.0	11.2	0.510	0.030	0.50	0.010	<0.010	19
20...	0933	651	--	--	--	--	0.310	0.030	0.50	0.010	<0.010	14
21...	0933	739	--	--	--	--	0.230	0.040	0.60	0.030	<0.010	8
22...	0933	655	--	--	--	--	0.170	0.030	0.50	0.010	<0.010	6
23...	0933	534	--	--	--	--	0.130	0.020	0.50	0.020	<0.010	7
24...	0933	454	--	--	--	--	0.130	0.020	0.50	0.020	<0.010	8
25...	0933	399	--	--	--	--	0.180	0.020	0.40	0.020	<0.010	14
26...	0933	402	--	--	--	--	0.200	<0.015	0.40	0.010	<0.010	6
28...	1230	322	--	--	--	--	0.330	0.020	0.40	<0.010	<0.010	12
30...	1230	297	--	--	--	--	0.460	0.020	0.50	0.020	0.010	8
MAY												
02...	1230	315	--	--	--	--	0.400	0.020	0.50	<0.010	0.010	10
04...	1230	286	--	--	--	--	0.310	0.020	0.50	<0.010	0.020	16
06...	1230	272	--	--	--	--	0.440	0.020	0.40	<0.010	0.010	9
*07...	1229	263	237	8.0	10.5	11.6	0.410	0.030	0.50	<0.010	<0.010	2
10...	1219	241	--	--	--	--	0.450	0.040	0.60	0.040	<0.010	11
13...	1219	220	--	--	--	--	0.390	0.030	0.40	0.020	<0.010	18
16...	1219	194	--	--	--	--	0.560	0.030	0.40	0.020	<0.010	17
19...	1219	197	--	--	--	--	0.440	0.030	0.40	0.030	<0.010	58
22...	1219	274	--	--	--	--	0.190	0.050	0.60	0.030	<0.010	40
25...	1219	180	--	--	--	--	0.410	0.030	0.40	0.050	<0.010	16
28...	1218	164	--	--	--	--	0.420	0.030	0.40	0.030	<0.010	11
31...	1229	167	--	--	--	--	0.320	0.030	0.40	0.040	<0.010	11
JUN												
03...	1209	226	--	--	--	--	0.310	0.040	0.60	0.060	<0.010	19
06...	1219	196	294	8.1	14.0	10.3	0.350	0.040	0.60	0.050	<0.010	15
*06...	1221	196	--	--	--	--	0.370	0.030	0.50	0.050	0.010	6
09...	1219	197	--	--	--	--	0.580	0.040	0.50	0.020	<0.010	17
12...	1220	231	--	--	--	--	0.510	0.050	0.50	0.020	0.010	23
15...	1221	165	--	--	--	--	0.600	0.030	0.40	0.020	0.010	23
17...	1637	483	--	--	--	--	0.290	0.040	0.90	0.060	0.010	39
18...	1219	939	--	--	--	--	0.160	0.050	0.70	0.040	0.010	23
19...	0042	1060	--	--	--	--	0.140	0.050	0.70	0.050	0.010	21
19...	1242	939	--	--	--	--	0.130	0.040	0.80	0.030	0.010	13
20...	1237	747	--	--	--	--	0.110	0.070	0.80	0.020	0.010	8
21...	1238	548	--	--	--	--	0.130	0.050	0.70	0.020	<0.010	8
22...	1239	463	--	--	--	--	0.190	0.040	0.70	0.030	0.010	12
23...	1240	373	--	--	--	--	0.280	0.040	0.70	0.020	0.010	11
24...	1241	312	--	--	--	--	0.370	0.040	0.70	0.030	0.010	14
27...	1242	278	--	--	--	--	0.460	0.060	0.60	0.030	0.020	17
28...	1243	258	--	--	--	--	0.540	0.090	0.60	0.030	0.020	18
30...	1409	222	--	--	--	--	0.600	0.050	0.40	0.020	0.030	20
JUL												
02...	1410	216	--	--	--	--	0.550	0.030	0.50	0.020	0.020	21
04...	1411	185	--	--	--	--	0.560	0.020	0.40	0.010	0.020	16
06...	1412	169	--	--	--	--	0.590	0.030	0.40	<0.010	0.020	15
08...	1413	213	--	--	--	--	0.460	0.020	0.60	0.010	0.020	25
17...	1615	196	--	--	--	--	0.610	0.050	0.60	<0.010	0.010	29
20...	1616	359	--	--	--	--	0.260	0.030	0.70	<0.010	0.020	17
23...	1617	180	--	--	--	--	0.600	0.030	0.50	<0.010	0.020	23
AUG												
06...	1421	178	318	8.1	21.0	9.0	0.690	0.030	0.40	0.020	0.020	14
*06...	1535	178	--	--	--	--	0.660	0.030	0.30	<0.010	0.020	4
07...	1655	256	--	--	--	--	0.420	0.030	0.50	0.030	0.020	--
19...	1658	143	--	--	--	--	0.760	<0.015	0.30	0.030	<0.010	--
25...	1659	143	--	--	--	--	0.720	<0.015	0.60	0.040	0.010	--
28...	1523	178	--	--	--	--	0.600	0.020	0.50	0.020	0.020	--

* Equal-width increment (EWI) sample

0407809265 MIDDLE BRANCH EMBARRASS RIVER NEAR WITTENBERG, WI

LOCATION.--Lat 44°49'31", long 89°07'05", in NW 1/4 NW 1/4 sec.13, T.27 N., R.11 E., Shawano County, Hydrologic Unit 04030202, on right bank 60 ft upstream from Cardinal Lane, 2.5 mi east of Wittenberg, and 2.5 mi upstream from Wilson Creek.

DRAINAGE AREA.--76.3 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,118.24 ft above sea level (levels by Wisconsin Department of Transportation).

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 11–24, Nov. 30 to Dec. 2, and Dec. 8 to Apr. 11. Records good except those for ice-affected periods, which are poor (see page 12). Flow affected by pumping for irrigation many times during summer months. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	69	44	37	46	41	78	189	56	91	97	48
2	48	149	45	37	43	41	86	197	87	88	77	46
3	55	171	46	36	41	40	94	197	134	86	67	44
4	75	178	46	36	38	42	84	186	140	78	62	37
5	79	122	44	35	41	42	92	171	110	73	59	18
6	132	92	36	35	43	40	88	161	94	68	64	24
7	207	81	31	34	44	38	86	154	98	65	103	35
8	246	71	38	35	45	38	90	142	105	71	130	37
9	256	49	35	36	45	40	98	127	88	74	107	38
10	197	59	32	36	45	42	110	129	75	70	73	40
11	132	60	33	39	45	45	200	148	137	59	66	39
12	95	62	35	43	44	47	298	158	149	55	61	37
13	77	50	39	43	43	49	332	131	124	57	57	36
14	67	60	42	44	42	52	310	109	105	59	54	36
15	60	56	38	40	42	52	259	102	82	58	53	35
16	55	45	34	38	40	52	234	100	70	59	51	36
17	52	52	34	39	40	54	226	99	163	60	49	36
18	50	42	35	50	39	56	243	99	492	95	47	36
19	49	45	36	60	40	58	381	109	697	162	45	35
20	55	43	35	58	42	62	592	152	630	227	46	35
21	73	49	35	62	43	58	670	215	393	193	47	36
22	78	49	34	58	44	56	528	199	229	92	49	37
23	81	52	35	54	44	58	399	139	193	71	50	37
24	94	45	36	54	44	68	317	106	165	64	52	37
25	110	41	35	52	44	64	267	79	124	60	52	37
26	107	42	34	56	42	70	259	58	103	59	53	38
27	93	43	35	56	41	70	247	70	95	56	67	44
28	77	41	34	54	39	74	223	67	92	87	64	50
29	70	43	35	56	40	84	166	63	85	186	56	47
30	64	43	36	54	---	80	170	60	87	297	53	44
31	60	---	37	50	---	78	---	57	---	164	50	---
TOTAL	2937	2004	1144	1417	1229	1691	7227	3973	5202	2984	1961	1135
MEAN	94.7	66.8	36.9	45.7	42.4	54.5	241	128	173	96.3	63.3	37.8
MAX	256	178	46	62	46	84	670	215	697	297	130	50
MIN	43	41	31	34	38	38	78	57	56	55	45	18
CFSM	1.24	.88	.48	.60	.56	.71	3.16	1.68	2.27	1.26	.83	.50
IN.	1.43	.98	.56	.69	.60	.82	3.52	1.94	2.54	1.45	.96	.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

MEAN	56.9	66.0	43.0	31.6	31.5	75.8	145	105	101	52.5	55.7	59.3
MAX	94.7	128	73.3	45.7	42.4	116	241	167	222	96.3	100	97.9
(WY)	1996	1993	1993	1996	1996	1990	1996	1993	1993	1996	1995	1992
MIN	23.2	27.2	13.5	18.5	18.5	54.5	40.4	59.8	31.6	21.9	32.8	37.8
(WY)	1990	1990	1990	1995	1995	1996	1990	1995	1995	1995	1992	1996

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1990 - 1996	
ANNUAL TOTAL	19272		32904			
ANNUAL MEAN	52.8		89.9		68.6	
HIGHEST ANNUAL MEAN					100	1993
LOWEST ANNUAL MEAN					46.4	1995
HIGHEST DAILY MEAN	258	Aug 15	697	Jun 19	697	Jun 19 1996
LOWEST DAILY MEAN	(a)13	Jul 26,28	(a)18	Sep 5	(b)11	Dec 22,23 1989
ANNUAL SEVEN-DAY MINIMUM	(a)15	Jul 26	(a)33	Sep 4	12	Dec 17 1989
INSTANTANEOUS PEAK FLOW			905	Jun 19	905	Jun 19 1996
INSTANTANEOUS PEAK STAGE			(c)5.09	Jun 19	5.09	Jun 19 1996
ANNUAL RUNOFF (CFSM)	.69		1.18		.90	
ANNUAL RUNOFF (INCHES)	9.40		16.04		12.22	
10 PERCENT EXCEEDS	106		187		138	
50 PERCENT EXCEEDS	40		57		45	
90 PERCENT EXCEEDS	17		36		23	

(a) Result of pumping
(b) Result of freezeup
(c) Recorded gage height, 5.09 ft, result of drawdown, outside crest-gage peak, 5.29 ft

0407809265 MIDDLE BRANCH EMBARRASS RIVER NEAR WITTENBERG, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: December 1989 to current year.

INSTRUMENTATION.--Continuous water temperature recorder since December 1989. Sensor located at midstream.

REMARKS.--Records represent water temperature at sensor within 0.5°C.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum, 30.5°C, June 18, 1994 and July 14, 1995; minimum, 0.0°C, on many days during winter.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 26.5°C, June 30; minimum, 0.0°C, Feb. 21–24, and 26.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	14.0	15.5	4.5	4.0	4.5	1.0	.5	1.0	.5	.5	.5
2	15.5	12.5	13.5	4.5	3.5	4.5	1.0	.5	1.0	.5	.5	.5
3	14.0	12.0	13.0	3.5	1.5	2.5	1.0	.5	.5	.5	.5	.5
4	14.0	11.5	12.5	1.5	1.0	1.0	.5	.5	.5	.5	.5	.5
5	12.0	11.0	11.5	2.0	.5	1.5	.5	.5	.5	.5	.5	.5
6	11.0	10.5	11.0	2.0	1.5	2.0	.5	.5	.5	.5	.5	.5
7	10.5	10.0	10.0	2.5	1.5	2.0	.5	.5	.5	.5	.5	.5
8	10.5	9.5	10.0	2.0	.5	1.0	.5	.5	.5	.5	.5	.5
9	10.5	10.0	10.0	1.5	.5	1.0	.5	.5	.5	.5	.5	.5
10	11.5	10.0	11.0	2.0	1.0	1.5	.5	.5	.5	.5	.5	.5
11	13.0	10.5	11.5	1.5	.5	.5	.5	.5	.5	.5	.5	.5
12	14.0	11.0	12.5	1.0	.5	.5	.5	.5	.5	.5	.5	.5
13	15.0	12.5	13.5	---	---	---	.5	.5	.5	.5	.5	.5
14	13.5	10.0	12.0	---	---	---	.5	.5	.5	.5	.5	.5
15	10.5	8.0	9.5	---	---	---	.5	.5	.5	.5	.5	.5
16	10.0	7.0	8.5	---	---	---	.5	.5	.5	.5	.5	.5
17	11.0	7.5	9.0	---	---	---	.5	.5	.5	.5	.5	.5
18	10.5	7.5	9.0	---	---	---	.5	.5	.5	.5	.5	.5
19	10.0	8.5	9.0	---	---	---	.5	.5	.5	.5	.5	.5
20	9.0	7.5	8.5	---	---	---	.5	.5	.5	.5	.5	.5
21	7.5	6.0	6.5	1.0	.5	.5	.5	.5	.5	.5	.5	.5
22	6.5	5.0	5.5	1.0	.5	.5	.5	.5	.5	.5	.5	.5
23	6.0	5.0	5.5	1.0	.5	.5	.5	.5	.5	.5	.5	.5
24	6.5	5.5	6.0	1.0	.5	.5	.5	.5	.5	.5	.5	.5
25	7.5	5.0	6.0	1.0	.5	.5	.5	.5	.5	.5	.5	.5
26	6.5	5.5	6.0	.5	.5	.5	.5	.5	.5	.5	.5	.5
27	6.5	6.0	6.5	.5	.5	.5	.5	.5	.5	.5	.5	.5
28	7.0	5.5	6.5	.5	.5	.5	.5	.5	.5	.5	.5	.5
29	6.5	5.0	6.0	1.0	.5	.5	.5	.5	.5	.5	.5	.5
30	5.5	4.0	5.0	1.0	.5	.5	.5	.5	.5	.5	.5	.5
31	6.0	4.0	4.5	---	---	---	.5	.5	.5	.5	.5	.5
MONTH	16.0	4.0	9.2	---	---	---	1.0	.5	.5	.5	.5	.5

0407809265 MIDDLE BRANCH EMBARRASS RIVER NEAR WITTENBERG, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.5	.5	.5	.5	.5	3.0	1.0	2.0	6.5	4.5	5.5
2	.5	.5	.5	.5	.5	.5	3.5	1.5	2.0	9.0	5.5	7.5
3	.5	.5	.5	.5	.5	.5	2.5	1.5	2.0	11.5	8.5	10.0
4	.5	.5	.5	.5	.5	.5	3.0	1.5	2.0	12.0	10.5	11.0
5	.5	.5	.5	.5	.5	.5	5.5	1.5	2.5	10.5	7.5	9.5
6	.5	.5	.5	.5	.5	.5	5.0	1.5	3.0	9.0	6.5	8.0
7	.5	.5	.5	.5	.5	.5	6.0	2.0	3.5	12.0	8.5	10.0
8	.5	.5	.5	.5	.5	.5	5.5	2.0	3.5	12.0	10.5	11.5
9	.5	.5	.5	.5	.5	.5	6.5	2.5	4.0	10.5	9.5	10.0
10	.5	.5	.5	.5	.5	.5	6.0	3.0	4.5	12.0	9.5	10.0
11	.5	.5	.5	.5	.5	.5	6.0	4.0	5.0	12.5	9.5	10.5
12	.5	.5	.5	.5	.5	.5	5.0	2.5	3.5	12.5	9.5	10.5
13	.5	.5	.5	.5	.5	.5	3.0	2.0	2.5	13.5	9.0	11.0
14	.5	.5	.5	.5	.5	.5	3.5	2.5	3.0	11.5	9.5	10.5
15	.5	.5	.5	.5	.5	.5	3.5	2.5	3.0	10.0	9.0	9.5
16	.5	.5	.5	.5	.5	.5	4.5	3.0	3.5	13.0	9.0	10.5
17	.5	.5	.5	.5	.5	.5	6.5	4.0	5.0	15.0	11.5	13.5
18	.5	.5	.5	.5	.5	.5	8.0	5.5	7.0	20.0	14.0	17.0
19	.5	.5	.5	.5	.5	.5	10.5	7.5	9.0	19.5	17.5	18.5
20	.5	.5	.5	1.0	.5	1.0	10.5	8.5	10.0	19.0	17.0	18.0
21	.5	.0	.5	1.0	1.0	1.0	10.0	7.0	8.5	18.5	16.5	17.0
22	.5	.0	.5	1.0	1.0	1.0	11.0	9.5	10.5	19.0	16.0	17.0
23	.5	.0	.5	1.0	1.0	1.0	10.5	9.0	10.0	17.0	14.5	16.0
24	.5	.0	.5	1.0	1.0	1.0	12.0	10.0	11.0	15.5	13.5	14.0
25	.5	.5	.5	1.0	1.0	1.0	12.0	10.0	11.0	14.0	12.5	13.0
26	.5	.0	.5	1.0	1.0	1.0	10.0	8.5	9.0	16.5	12.0	13.5
27	.5	.5	.5	1.0	1.0	1.0	9.5	7.5	8.5	15.0	12.0	13.5
28	.5	.5	.5	1.5	1.0	1.0	10.5	8.0	9.0	17.0	12.0	14.5
29	.5	.5	.5	1.5	1.0	1.0	10.0	6.5	8.5	19.0	13.0	15.0
30	---	---	---	1.5	1.0	1.5	6.5	4.5	5.0	20.0	13.0	16.0
31	---	---	---	2.0	1.0	1.5	---	---	---	20.5	13.5	16.5
MONTH	.5	.0	.5	2.0	.5	.7	12.0	1.0	5.7	20.5	4.5	12.5
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	15.5	17.0	24.0	21.0	22.5	20.0	15.5	17.5	22.0	18.0	19.5
2	21.0	16.0	18.0	23.5	20.5	21.5	21.0	16.5	18.5	22.0	18.0	20.0
3	19.0	16.5	17.5	23.0	19.0	20.5	22.0	17.5	19.0	22.0	19.0	20.0
4	16.5	14.5	16.0	22.5	18.5	20.0	22.5	18.5	20.0	23.0	19.0	20.5
5	16.0	13.5	14.5	24.5	19.0	21.5	22.5	20.0	21.0	24.0	18.0	21.0
6	16.5	14.0	15.0	22.5	20.0	21.5	24.0	20.5	21.5	24.0	18.0	20.5
7	15.5	14.0	15.0	24.5	20.0	22.0	24.0	21.0	22.5	23.0	19.0	21.0
8	17.0	14.0	15.0	22.5	19.0	21.0	23.5	20.5	22.0	21.5	19.0	20.0
9	18.5	14.0	16.0	21.0	18.0	19.5	22.0	19.0	20.5	21.5	18.5	19.5
10	17.5	16.0	17.0	21.5	16.5	18.5	21.0	18.0	19.0	21.5	17.5	19.0
11	18.5	16.5	17.5	18.5	17.0	17.5	21.0	18.0	19.0	20.5	17.0	18.5
12	19.5	17.0	18.0	19.0	16.5	17.5	23.5	18.0	20.5	17.5	15.0	16.5
13	22.0	17.5	19.5	20.0	16.0	18.0	22.5	19.0	20.5	17.5	13.0	15.0
14	23.0	18.5	20.5	19.5	16.5	18.0	23.5	19.5	21.0	15.5	13.5	14.5
15	22.5	18.5	20.0	22.0	16.5	19.0	20.5	18.5	20.0	15.5	13.0	14.0
16	19.5	18.0	19.0	23.0	17.0	20.0	22.0	17.0	19.0	15.0	13.0	14.0
17	18.0	16.0	17.0	22.0	18.5	20.0	22.5	17.0	19.5	16.5	12.5	14.0
18	16.0	15.5	15.5	20.5	19.0	19.5	22.5	17.5	20.0	18.0	12.0	14.5
19	15.5	15.0	15.5	20.5	19.0	19.5	21.5	19.5	20.0	17.5	12.0	14.5
20	18.5	15.5	17.0	19.0	18.0	18.5	24.5	19.5	21.5	15.0	13.0	14.0
21	18.0	17.0	17.5	19.0	17.5	18.0	23.0	19.0	20.5	16.5	14.0	15.0
22	19.5	16.5	18.0	22.0	17.5	19.5	22.0	20.0	21.0	17.0	14.0	15.0
23	17.5	16.0	17.0	22.5	18.0	20.0	23.0	18.5	20.0	17.0	13.0	15.0
24	17.5	15.5	16.0	22.5	18.5	20.0	23.0	18.0	20.0	17.0	13.0	14.5
25	19.0	15.0	16.5	21.5	18.5	20.0	23.5	19.0	20.5	16.0	12.0	13.5
26	18.0	16.0	17.0	22.0	18.0	19.5	20.5	18.5	19.5	13.5	13.0	13.0
27	21.5	16.5	18.5	22.0	17.5	19.5	20.0	17.0	18.5	14.0	12.0	13.0
28	23.0	18.5	20.5	19.0	17.5	18.0	20.5	16.5	18.0	13.5	12.0	12.5
29	26.0	20.5	23.0	---	---	---	21.0	16.0	18.5	14.0	11.5	12.0
30	26.5	22.5	24.0	---	---	---	21.5	17.0	19.0	14.0	11.5	12.5
31	---	---	---	---	---	---	22.0	18.0	19.5	---	---	---
MONTH	26.5	13.5	17.6	---	---	---	24.5	15.5	19.9	24.0	11.5	16.2

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 mi^2.

PERIOD OF RECORD.--June 1919 to September 1985, December 1993 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 sea level. 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: Apr. 6-24 and ice-affected periods, Nov. 8, 9, 12–16, 18–21, and Nov. 23 to Apr. 5. Records good except those for estimated daily discharges, which are poor (see page 12). Slight diurnal fluctuation caused by powerplants above station. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	324	190	270	320	290	520	982	295	371	990	218
2	198	576	200	270	310	280	540	1020	374	408	607	210
3	253	629	210	270	310	280	540	966	589	439	411	200
4	296	620	220	260	320	280	520	873	618	402	344	227
5	403	625	220	260	340	280	540	788	611	358	298	214
6	545	567	210	260	350	270	500	743	545	311	317	187
7	750	465	200	260	360	270	500	739	523	307	479	178
8	719	410	220	260	380	260	520	691	507	293	749	170
9	705	310	220	270	380	280	540	618	452	285	545	182
10	646	270	230	280	380	290	660	633	432	283	478	202
11	595	222	220	290	370	300	860	650	447	278	353	209
12	529	240	240	300	370	310	1100	639	496	287	308	194
13	402	260	260	300	360	320	1500	602	559	336	291	176
14	379	250	280	300	350	340	1300	532	534	397	276	175
15	334	240	270	290	350	370	1100	495	417	347	259	176
16	302	240	270	300	340	440	1000	458	381	312	227	174
17	282	226	270	310	340	410	960	465	680	308	231	171
18	281	220	280	320	330	380	1100	458	2860	403	225	170
19	248	220	280	330	340	360	1500	505	4650	685	226	165
20	283	230	270	350	350	350	2000	1040	3630	839	232	166
21	333	210	280	360	350	330	2500	1130	2390	661	241	170
22	354	199	290	350	350	320	2000	879	1600	528	246	175
23	364	200	290	340	350	310	1600	667	1130	324	257	196
24	407	210	280	330	360	300	1300	514	763	300	259	206
25	483	200	280	330	340	340	1100	471	729	284	245	171
26	491	200	270	330	320	380	1070	430	568	266	268	175
27	453	190	270	330	310	440	1020	336	505	250	277	213
28	412	180	260	320	300	430	917	349	437	297	278	268
29	370	180	260	320	290	410	790	335	428	723	264	236
30	331	180	260	320	---	450	809	319	400	1030	233	220
31	316	---	270	320	---	500	---	303	---	1110	223	---
TOTAL	12650	9093	7770	9400	9920	10570	30906	19630	28550	13422	10637	5794
MEAN	408	303	251	303	342	341	1030	633	952	433	343	193
MAX	750	629	290	360	380	500	2500	1130	4650	1110	990	268
MIN	186	180	190	260	290	260	500	303	295	250	223	165

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 1996, BY WATER YEAR (WY)

MEAN	268	291	198	151	156	395	764	445	355	217	189	242
MAX	1324	932	908	377	517	1386	1892	1324	1105	826	579	886
(WY)	1987	1986	1987	1939	1986	1973	1922	1973	1943	1978	1928	1938
MIN	86.8	89.5	67.3	52.8	57.8	98.5	151	148	111	75.5	44.5	59.5
(WY)	1949	1934	1934	1959	1959	1931	1931	1931	1977	1932	1931	1933

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1919 - 1996	
ANNUAL TOTAL	96975		168342			
ANNUAL MEAN	266		460		301	
HIGHEST ANNUAL MEAN					515	1973
LOWEST ANNUAL MEAN					126	1931
HIGHEST DAILY MEAN	1280	Aug 15	4650	Jun 19	6280	Apr 10 1922
LOWEST DAILY MEAN	51	Sep 29	165	Sep 19	24	Aug 3 1931
ANNUAL SEVEN-DAY MINIMUM	82	Jul 27	170	Sep 16	27	Aug 2 1931
INSTANTANEOUS PEAK FLOW			4830	Jun 19	7080	Apr 12 1965
INSTANTANEOUS PEAK STAGE			(a)10.81	Jun 19	(b)12.13	Apr 12 1965
10 PERCENT EXCEEDS	493		796		666	
50 PERCENT EXCEEDS	216		330		192	
90 PERCENT EXCEEDS	113		210		94	

(a) Recorded gage height, 10.81 ft, result of drawdown; outside gage, 11.02 ft
(b) Affected by failure of dam near Pella, 9.2 mi above station

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 mi^2.

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 sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 4, 1951, nonrecording gage.

REMARKS.--Estimated daily discharges: Ice-affected period, Nov. 20 to Apr. 11. Records good except those for ice-affected period, which is poor (see page 12). Gage-height telemeter and data-collection platform at station.

COOPERATION.--Values prior to October 1913 taken from House Document 276, 72nd Congress, First Session (computed by Corps of Engineers).

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	984	2530	1500	1100	1100	1200	4300	7370	2690	4610	2460	1420
2	969	2710	1500	1100	1100	1200	4500	7360	2610	4080	2500	1350
3	1080	2880	1500	1100	1100	1200	4600	7300	2520	3740	2520	1300
4	1160	3010	1500	1000	1100	1200	4700	7130	2520	3470	2550	1270
5	1270	3090	1500	1000	1100	1100	4800	6930	2510	3280	2570	1260
6	1620	3160	1500	1000	1100	1100	4900	6740	2510	3120	2530	1230
7	2300	3180	1400	1000	1100	1100	4900	6450	2530	2960	2450	1190
8	2640	3210	1400	1000	1200	1100	4900	6150	2560	2810	2320	1170
9	2890	3220	1300	980	1200	1100	4900	5860	2580	2640	2240	1240
10	3030	3220	1200	980	1200	1100	4900	5590	2600	2470	2220	1220
11	3140	3180	1200	1000	1200	1100	4900	5350	2600	2330	2190	1190
12	3240	3060	1100	1000	1200	1100	4740	5100	2600	2240	2150	1160
13	3310	2910	1100	1000	1200	1200	4710	4850	2580	2210	2000	1150
14	3350	2780	1100	1000	1200	1300	4780	4590	2560	2170	1820	1100
15	3350	2590	1100	1000	1200	1400	5120	4380	2530	2110	1680	1080
16	3300	2450	1200	1000	1200	1500	5460	4150	2500	2050	1550	1070
17	3180	2320	1200	1000	1200	1700	5710	3980	2690	2010	1480	1080
18	3010	2180	1100	1000	1200	1900	5880	3800	3200	2060	1420	1080
19	2840	2050	1200	1100	1200	2100	6130	3620	4120	2300	1380	1070
20	2710	1900	1100	1100	1200	2300	6320	3530	5460	2440	1360	1070
21	2580	1800	1100	1200	1200	2600	6630	3460	7320	2550	1310	1070
22	2480	1700	1100	1200	1200	2800	6960	3430	8930	2580	1320	1070
23	2430	1500	1100	1200	1200	3000	7440	3410	9940	2540	1390	1060
24	2400	1500	1100	1200	1200	3200	7920	3420	10000	2500	1440	1060
25	2400	1400	1100	1200	1200	3400	8220	3460	9440	2460	1430	1060
26	2420	1400	1100	1200	1200	3600	8220	3500	8680	2340	1410	1110
27	2450	1500	1000	1200	1200	3600	8000	3490	7850	2170	1400	1170
28	2500	1500	1000	1200	1200	3700	7690	3400	6980	2010	1440	1210
29	2540	1400	1000	1200	1200	3800	7380	3220	6080	1990	1480	1230
30	2540	1400	1000	1200	---	4100	7360	3040	5310	2170	1490	1230
31	2530	---	1100	1200	---	4200	---	2870	---	2350	1470	---
TOTAL	76643	70730	37400	33660	34100	65000	176970	146930	137000	80760	56970	34970
MEAN	2472	2358	1206	1086	1176	2097	5899	4740	4567	2605	1838	1166
MAX	3350	3220	1500	1200	1200	4200	8220	7370	10000	4610	2570	1420
MIN	969	1400	1000	980	1100	1100	4300	2870	2500	1990	1310	1060
CFSM	1.09	1.04	.53	.48	.52	.93	2.61	2.10	2.02	1.15	.81	.52
IN.	1.26	1.16	.62	.55	.56	1.07	2.91	2.42	2.26	1.33	.94	.58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 1996, BY WATER YEAR (WY)

MEAN	1496	1632	1234	960	923	2139	3962	2803	2159	1479	1146	1342
MAX	4761	4738	3258	2149	2003	7566	9169	7452	5764	5005	4485	4544
(WY)	1987	1986	1912	1960	1984	1973	1922	1960	1993	1993	1912	1938
MIN	533	617	429	301	388	486	1157	901	595	427	443	429
(WY)	1949	1934	1899	1911	1900	1896	1931	1931	1988	1910	1933	1933

04079000 WOLF RIVER AT NEW LONDON, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1896 - 1996	
ANNUAL TOTAL	621555		951133			
ANNUAL MEAN	1703		2599		1779	
HIGHEST ANNUAL MEAN					3200	1973
LOWEST ANNUAL MEAN					866	1931
HIGHEST DAILY MEAN	3640	Mar 24	10000	Jun 24	15500	Apr 13 1922
LOWEST DAILY MEAN	653	Aug 2	969	Oct 2	216	Aug 27 1931
ANNUAL SEVEN-DAY MINIMUM	675	Jul 30	994	Jan 4	337	Sep 3 1933
INSTANTANEOUS PEAK FLOW			10100	Jun 23		
INSTANTANEOUS PEAK STAGE			10.11	Jun 23	(a)11.83	Apr 3 1979
INSTANTANEOUS LOW FLOW			962	Oct 2		
ANNUAL RUNOFF (CFSM)	.75		1.15		.80	
ANNUAL RUNOFF (INCHES)	10.23		15.66		10.91	
10 PERCENT EXCEEDS	3140		5320		3560	
50 PERCENT EXCEEDS	1450		2130		1280	
90 PERCENT EXCEEDS	800		1100		710	

(a) Backwater from ice

04082400 FOX RIVER AT OSHKOSH, WI

LOCATION.--Lat 44°00'49", long 88°32'27" in SW 1/4 SW 1/4 sec.24, T.18 N., R.16 E., Winnebago County, Hydrologic Unit 04030201, on right bank about 400 ft downstream from U.S. Highway 45 and State Highway 26 bridge, at Oshkosh.

DRAINAGE AREA.--5,310 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Acoustical Velocity Meter (AVM) system. Single-path transducer installation.

REMARKS.--Estimated daily discharges: Jan. 31 to Feb. 4. Records fair, except for days with negative mean daily flow, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5990	6200	4290	2980	3400	4270	9030	12400	4560	11300	3960	1880
2	-1180	11400	2840	3070	3300	4560	8370	11700	8000	10800	4480	2860
3	4290	10400	4760	2730	3300	4090	8540	11500	7400	10100	3480	2580
4	3690	5740	2960	2840	3300	4140	10100	11300	4860	9340	3950	2520
5	-1620	5730	6520	2800	3440	4160	9620	11400	3950	9750	4550	833
6	10100	7270	3080	2840	3280	3980	9540	11300	4710	8640	4650	2030
7	9680	10400	2210	2770	3360	3820	9690	11900	5350	9490	6300	3370
8	5670	8160	2830	2620	3490	3690	9840	11200	5400	9120	5670	2210
9	7140	3730	2900	2820	3400	3550	10100	11700	6000	5260	2110	2770
10	7780	8100	2940	2590	3610	3440	9550	11000	5890	5610	1650	2850
11	7720	9800	2740	2690	3820	3380	9210	11100	6080	5440	5460	5430
12	7460	4150	2750	2700	3750	3510	8910	10800	6300	5480	5470	2320
13	8960	6660	2730	2680	3740	3950	10800	9940	6390	6220	2750	1690
14	12200	7030	2970	2820	3850	4840	8620	8990	5130	5120	5510	2140
15	8780	7400	3090	2660	3880	5530	11100	8480	2720	5230	3250	38
16	4700	6960	2980	2650	3820	5740	10800	9740	4690	4270	1640	844
17	5530	6390	3010	2700	3880	6260	7840	8280	5220	1570	2350	2340
18	6540	6550	3120	3640	3770	6560	9650	9650	9610	6400	639	1600
19	7860	5930	3070	3830	3710	6820	11500	7810	11200	5270	3950	547
20	9830	7810	3110	3650	3750	7000	12200	7960	11800	4610	3450	2200
21	7940	6350	2890	3720	3770	6600	11000	7840	11700	6510	1710	3400
22	4530	3070	2970	3930	3670	7330	12900	7370	13200	7650	4410	3380
23	3630	4430	2930	4020	3700	6780	11700	4300	11200	6220	2050	1030
24	9630	3430	3050	3770	3840	7000	9900	5820	14600	6210	3190	3950
25	5130	4420	3180	3660	4020	9360	13100	7530	14400	5020	2310	-2120
26	4870	4290	2840	3770	4240	6040	15100	7260	14300	3670	1980	-2310
27	7550	4700	2970	3780	4480	7780	11500	4320	14400	2360	1910	7960
28	7550	3140	2810	3520	4590	8500	10600	6620	13800	6210	4050	3270
29	7210	3080	2790	3710	4280	8510	11100	7390	13900	6150	2220	2320
30	5130	3310	2890	3800	---	8330	15800	6430	13600	5430	2260	511
31	4450	---	3010	3500	---	9520	---	4970	---	4110	3290	---
TOTAL	198740	186030	97230	99260	108440	179040	317710	278000	260360	198560	104649	64443
MEAN	6411	6201	3136	3202	3739	5775	10590	8968	8679	6405	3376	2148
MAX	12200	11400	6520	4020	4590	9520	15800	12400	14600	11300	6300	7960
MIN	-1620	3070	2210	2590	3280	3380	7840	4300	2720	1570	639	-2310
CFSM	1.21	1.17	.59	.60	.70	1.09	1.99	1.69	1.63	1.21	.64	.40
IN.	1.39	1.30	.68	.70	.76	1.25	2.23	1.95	1.82	1.39	.73	.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	4102	5029	4287	2936	2827	5385	8570	7582	6028	5890	4055	3465
MAX	6411	6201	6811	3673	3739	6348	12870	11050	11980	13440	5915	4240
(WY)	1996	1996	1993	1992	1996	1992	1993	1993	1993	1993	1993	1992
MIN	2655	2905	2806	1968	1870	4267	5517	5310	2645	1939	2294	2148
(WY)	1992	1995	1995	1995	1995	1995	1995	1995	1994	1995	1992	1996

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1992 - 1996	
ANNUAL TOTAL	1510010		2092462			
ANNUAL MEAN	4137		5717		5020	
HIGHEST ANNUAL MEAN					7221	1993
LOWEST ANNUAL MEAN					3585	1995
HIGHEST DAILY MEAN	12200	May 14	15800	Apr 30	18600	Jun 25 1993
LOWEST DAILY MEAN	-4830	Apr 5	-2310	Sep 26	-6270	Nov 1 1992
ANNUAL SEVEN-DAY MINIMUM	1270	Aug 2	1310	Sep 13	1270	Aug 2 1995
ANNUAL RUNOFF (CFSM)	.78		1.08		.95	
ANNUAL RUNOFF (INCHES)	10.58		14.66		12.85	
10 PERCENT EXCEEDS	7850		11000		9830	
50 PERCENT EXCEEDS	3140		4630		4200	
90 PERCENT EXCEEDS	1810		2560		1860	

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: April 1992 to current year.

INSTRUMENTATION.--Continuous water temperature recorder since April 1992.

REMARKS.--Records represent water temperature at sensor within 0.5°C.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum observed, 30.0°C, June 22, 23, 1995; minimum observed, 0.0°C, for many days.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum observed, 27.0°C, June 30 and July 1; minimum observed, 0.0°C, for many days November through March.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	16.0	16.0	8.0	6.5	7.0	1.0	.5	.5	.0	.0	.0
2	16.5	15.5	16.0	8.0	6.0	7.0	1.0	.5	.5	.0	.0	.0
3	15.5	15.0	15.5	6.0	3.5	4.5	1.0	.5	.5	.0	.0	.0
4	15.0	14.5	15.0	3.5	2.0	2.5	1.0	.5	.5	.0	.0	.0
5	15.0	14.5	14.5	2.0	1.5	1.5	1.0	.0	1.0	.0	.0	.0
6	15.0	13.5	14.0	2.5	1.5	2.0	.0	.0	.0	.0	.0	.0
7	13.5	12.5	13.0	2.5	2.0	2.0	.0	.0	.0	.0	.0	.0
8	12.5	12.0	12.5	2.0	.0	1.0	.5	.0	.0	.0	.0	.0
9	13.5	12.5	13.0	.5	.0	.0	.5	.5	.5	.0	.0	.0
10	13.5	13.0	13.0	.5	.5	.5	.5	.5	.5	.0	.0	.0
11	14.5	13.5	13.5	.5	.0	.5	.5	.5	.5	.0	.0	.0
12	15.5	14.0	14.5	.0	.0	.0	.5	.5	.5	.0	.0	.0
13	16.0	15.0	15.5	.5	.0	.5	.5	.5	.5	.0	.0	.0
14	16.0	13.5	15.0	.5	.0	.5	.5	.5	.5	.0	.0	.0
15	13.5	11.0	12.0	1.0	.5	.5	.5	.5	.5	.0	.0	.0
16	11.0	10.0	10.5	1.0	.5	.5	.5	.5	.5	.0	.0	.0
17	11.0	10.0	10.5	.5	.5	.5	.5	.5	.5	.0	.0	.0
18	11.5	10.5	11.0	1.0	.5	.5	.5	.5	.5	.5	.0	.0
19	12.0	11.5	11.5	1.0	.5	.5	.5	.5	.5	.5	.0	.0
20	12.0	10.5	11.0	1.0	.5	1.0	.5	.5	.5	.5	.0	.0
21	10.5	9.0	9.5	.5	.0	.5	.5	.5	.5	.5	.0	.0
22	9.0	7.5	8.0	.5	.0	.5	.5	.5	.5	.5	.0	.0
23	9.0	7.5	8.0	.5	.5	.5	.5	.5	.5	.0	.0	.0
24	9.0	8.5	8.5	.5	.5	.5	.5	.5	.5	.0	.0	.0
25	8.5	8.0	8.0	1.0	.5	1.0	.5	.0	.5	.0	.0	.0
26	9.0	8.0	8.5	1.0	.5	1.0	.5	.0	.5	.0	.0	.0
27	9.5	8.5	9.0	1.0	.0	.5	.5	.0	.0	.0	.0	.0
28	9.5	8.5	9.0	.5	.0	.5	.5	.0	.0	.0	.0	.0
29	9.0	7.5	8.5	1.0	.5	.5	.0	.0	.0	.0	.0	.0
30	8.0	7.0	7.5	.5	.5	.5	.5	.0	.0	.0	.0	.0
31	7.0	6.5	7.0	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	16.5	6.5	11.6	8.0	.0	1.3	1.0	.0	.4	.5	.0	.0

04082400 FOX RIVER AT OSHKOSH, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	.5	.0	.0	2.5	.5	1.5	7.5	6.5	7.0
2	.0	.0	.0	.5	.0	.0	3.0	1.0	2.0	9.0	7.0	8.0
3	.0	.0	.0	.5	.0	.0	2.0	1.0	1.5	10.5	8.5	9.5
4	.0	.0	.0	.5	.0	.0	1.0	.5	1.0	11.5	10.0	10.5
5	.0	.0	.0	.0	.0	.0	2.0	.5	1.0	11.0	10.0	10.5
6	.0	.0	.0	.0	.0	.0	3.0	1.0	2.0	11.0	9.5	10.5
7	.0	.0	.0	.0	.0	.0	3.5	1.5	2.5	12.0	10.0	11.0
8	.0	.0	.0	.0	.0	.0	3.0	2.0	2.5	12.0	11.5	11.5
9	.5	.0	.0	.0	.0	.0	4.5	2.5	3.5	12.0	11.0	11.5
10	.5	.0	.0	.0	.0	.0	7.0	3.5	5.0	11.5	11.0	11.5
11	.0	.0	.0	.0	.0	.0	8.0	6.0	7.0	11.0	10.0	10.5
12	.5	.0	.0	.5	.0	.5	8.0	6.0	7.0	12.0	10.0	11.0
13	.0	.0	.0	.5	.0	.5	7.0	4.0	4.5	12.5	11.0	12.0
14	.0	.0	.0	.5	.5	.5	4.0	3.0	3.5	12.5	12.0	12.0
15	.0	.0	.0	1.0	.5	.5	4.0	2.5	3.0	12.0	11.0	11.5
16	.0	.0	.0	.5	.0	.5	5.0	3.0	3.5	12.5	11.5	12.0
17	.0	.0	.0	.5	.0	.5	6.5	4.0	5.0	14.5	12.5	13.0
18	.0	.0	.0	1.0	.0	.5	9.5	6.5	7.5	17.5	14.5	15.5
19	.0	.0	.0	1.0	.0	.5	11.5	9.0	10.0	19.5	17.0	18.0
20	.0	.0	.0	.5	.0	.5	11.5	10.5	11.0	19.5	19.0	19.5
21	.0	.0	.0	1.0	.0	.5	11.0	9.0	10.0	19.5	18.5	19.0
22	.0	.0	.0	1.5	.0	.5	12.5	10.5	11.5	19.5	18.5	19.0
23	.0	.0	.0	1.5	.5	1.0	12.5	10.5	11.5	19.5	17.5	18.5
24	.5	.0	.0	1.0	.5	.5	12.5	10.5	11.5	17.5	15.5	16.5
25	.5	.0	.5	1.0	.0	.5	12.5	12.0	12.0	15.5	14.5	15.0
26	.5	.0	.5	.5	.0	.5	12.0	11.0	11.5	14.5	14.0	14.5
27	.0	.0	.0	1.0	.0	.5	11.0	9.5	10.5	14.0	13.5	14.0
28	.5	.0	.0	1.0	.5	.5	12.0	10.0	11.0	14.5	13.5	14.0
29	.5	.0	.0	1.5	.5	1.0	11.5	9.0	10.5	15.0	13.5	14.0
30	---	---	---	1.5	.5	1.0	9.0	7.0	7.5	16.0	14.0	15.0
31	---	---	---	2.0	1.0	1.5	---	---	---	16.5	15.0	16.0
MONTH	.5	.0	.0	2.0	.0	.4	12.5	.5	6.4	19.5	6.5	13.3

		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	16.5	16.5	27.0	25.0	26.0	22.0	20.5	21.0	24.0	23.0	23.5
2	19.0	17.0	18.0	26.5	25.5	26.0	23.5	22.0	22.5	24.0	23.0	23.5
3	19.0	18.5	18.5	25.5	24.5	25.0	23.5	22.5	23.0	24.0	23.5	23.5
4	18.5	18.0	18.0	25.5	24.5	25.0	23.5	22.5	23.0	24.5	23.5	24.0
5	18.5	17.5	18.0	25.5	24.5	25.0	25.0	23.0	24.0	25.5	23.5	24.5
6	18.5	18.0	18.5	26.0	25.0	25.5	26.0	24.5	25.0	25.5	23.5	24.5
7	18.5	16.5	17.5	26.0	25.5	26.0	26.5	25.5	26.0	25.0	23.5	24.5
8	17.0	16.0	16.5	25.5	24.0	25.0	26.5	25.5	26.0	25.0	24.5	25.0
9	17.0	16.5	17.0	24.0	22.5	23.0	26.0	25.0	25.5	24.5	23.5	24.0
10	17.5	17.0	17.0	23.5	22.0	22.5	25.0	24.5	25.0	24.0	23.0	23.5
11	19.0	17.0	18.0	23.0	22.0	22.5	24.5	23.5	24.0	23.5	22.0	23.0
12	21.0	18.5	19.5	22.5	21.5	22.0	25.0	23.5	24.0	22.0	19.0	21.0
13	24.0	21.0	22.5	23.5	21.5	22.5	25.0	24.5	24.5	19.5	17.5	18.0
14	24.5	24.0	24.0	23.5	22.5	23.0	25.0	24.5	25.0	17.5	15.5	16.5
15	25.5	24.5	24.5	23.5	22.5	23.0	24.5	23.0	23.5	16.5	15.5	16.0
16	24.5	23.0	23.5	24.5	23.0	23.5	23.5	22.5	23.0	16.5	15.0	16.0
17	23.0	21.0	22.0	24.5	24.0	24.0	23.5	22.5	23.0	16.5	15.0	15.5
18	21.0	19.5	20.0	24.0	23.0	23.5	24.5	23.0	23.5	16.5	15.0	15.5
19	19.5	19.0	19.5	24.0	23.5	24.0	24.0	23.0	23.0	18.0	15.5	16.5
20	21.5	19.0	20.0	23.5	22.5	23.0	24.5	23.0	23.5	18.0	16.0	16.5
21	21.5	21.0	21.0	23.0	22.0	22.5	25.5	23.5	24.5	16.5	16.0	16.0
22	22.5	21.0	21.5	23.0	22.0	22.5	25.0	24.5	24.5	16.5	16.5	16.5
23	22.0	21.0	21.5	23.0	22.5	23.0	25.5	24.0	24.5	17.0	16.5	16.5
24	21.0	20.0	20.5	23.5	23.0	23.0	25.0	24.0	24.5	17.0	16.5	16.5
25	22.0	20.0	20.5	23.0	22.5	22.5	24.5	24.0	24.5	16.5	16.0	16.5
26	22.0	20.5	21.0	23.5	22.5	23.0	24.5	23.5	24.0	16.5	15.5	16.0
27	23.5	21.0	22.5	24.0	22.5	23.0	23.5	22.5	22.5	16.0	15.0	15.5
28	25.0	23.0	24.0	22.5	22.0	22.5	23.0	22.0	22.5	15.0	14.0	14.5
29	26.5	24.0	25.0	23.0	22.0	22.5	24.0	22.5	23.0	14.5	14.0	14.0
30	27.0	25.5	26.0	22.5	21.5	22.0	24.0	23.0	23.0	15.0	14.0	14.5
31	---	---	---	21.5	20.5	21.0	23.0	22.5	23.0	---	---	---
MONTH	27.0	16.0	20.4	27.0	20.5	23.5	26.5	20.5	23.8	25.5	14.0	19.0

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 mi^2, at lake outlet at Menasha Dam. Area of Lake Winnebago, 215 mi^2.

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.--Estimated daily gage heights: May 11–19. Records good except for estimated daily gage heights, which are fair (see page 12). Lake 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. Data-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 recorded gage height, 3.67 ft, July 2; minimum recorded, 1.18 ft, Mar. 12, 13.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.05	2.67	2.06	1.75	1.78	1.34	1.90	2.78	3.09	3.28	3.05	2.93
2	3.14	2.67	2.06	1.74	1.78	1.32	1.92	2.79	3.14	3.28	3.03	2.92
3	3.13	2.66	2.05	1.73	1.78	1.31	1.93	2.81	3.17	3.25	3.01	2.91
4	3.12	2.72	2.06	1.72	1.77	1.29	1.98	2.81	3.23	3.19	2.99	2.92
5	3.16	2.66	1.94	1.71	1.76	1.29	2.01	2.80	3.21	3.13	2.98	2.92
6	3.14	2.63	2.05	1.69	1.75	1.28	2.03	2.78	3.19	3.10	3.01	2.91
7	3.19	2.58	2.05	1.68	1.74	1.26	2.05	2.73	3.30	3.04	3.02	2.91
8	3.25	2.57	2.03	1.66	1.74	1.25	2.07	2.75	3.26	2.97	3.03	2.94
9	3.25	2.60	2.03	1.65	1.72	1.23	2.09	2.74	3.23	3.00	3.05	2.98
10	3.25	2.51	2.01	1.64	1.70	1.22	2.11	2.84	3.22	2.98	3.03	2.96
11	3.23	2.46	1.99	1.63	1.69	1.20	2.13	2.80	3.19	2.94	2.99	2.93
12	3.21	2.51	1.97	1.63	1.68	1.19	2.12	2.70	3.17	2.95	2.97	2.93
13	3.12	2.46	1.96	1.61	1.66	1.19	2.14	2.70	3.14	2.98	2.98	2.90
14	3.01	2.44	1.99	1.60	1.64	1.23	2.17	2.70	3.13	3.00	2.95	2.87
15	3.03	2.38	1.97	1.58	1.61	1.27	2.20	2.70	3.11	2.98	2.95	2.86
16	3.02	2.37	1.96	1.57	1.58	1.32	2.22	2.70	3.08	2.99	2.93	2.88
17	2.90	2.37	1.94	1.56	1.56	1.36	2.28	2.80	3.32	3.01	2.93	2.87
18	2.89	2.34	1.93	1.60	1.53	1.41	2.28	2.80	3.41	3.05	2.93	2.85
19	2.83	2.31	1.92	1.65	1.50	1.44	2.33	2.90	3.40	3.19	2.92	2.85
20	2.80	2.21	1.90	1.65	1.47	1.48	2.43	2.95	3.37	3.17	2.96	2.82
21	2.76	2.19	1.89	1.66	1.44	1.50	2.52	2.97	3.35	3.12	2.96	2.82
22	2.77	2.23	1.87	1.67	1.41	1.53	2.54	2.99	3.33	3.09	2.96	2.82
23	2.74	2.19	1.86	1.68	1.38	1.57	2.61	3.05	3.34	3.10	3.00	2.84
24	2.59	2.17	1.85	1.70	1.36	1.61	2.64	3.06	3.27	3.09	2.97	2.81
25	2.63	2.12	1.83	1.71	1.35	1.68	2.58	3.00	3.28	3.09	2.96	2.83
26	2.61	2.10	1.82	1.74	1.35	1.72	2.59	3.00	3.28	3.09	2.98	2.85
27	2.63	2.12	1.81	1.78	1.37	1.73	2.68	3.02	3.28	3.07	2.96	2.75
28	2.66	2.10	1.80	1.78	1.37	1.75	2.69	3.01	3.29	3.04	2.94	2.80
29	2.62	2.09	1.79	1.79	1.36	1.78	2.77	3.02	3.25	3.07	2.95	2.82
30	2.64	2.08	1.77	1.79	---	1.81	2.68	3.04	3.27	3.07	2.94	2.83
31	2.64	---	1.76	1.79	---	1.86	---	3.06	---	3.06	2.93	---
MEAN	2.94	2.38	1.93	1.68	1.58	1.43	2.29	2.86	3.24	3.08	2.98	2.87
MAX	3.25	2.72	2.06	1.79	1.78	1.86	2.77	3.06	3.41	3.28	3.05	2.98
MIN	2.59	2.08	1.76	1.56	1.35	1.19	1.90	2.70	3.08	2.94	2.92	2.75

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 mi^2, at lake outlet at Menasha Dam. Area of Lake Winnebago, 215 mi^2.

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 (see page 12). Lake 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. Data-collection platform at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 4.13 ft, July 9, 1993; minimum observed, 0.30 ft, Mar. 1, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 3.57 ft, June 29; minimum recorded, 1.10 ft, Mar. 11.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.19	2.59	2.04	1.71	1.74	1.29	1.86	2.80	3.04	3.28	3.04	2.92
2	3.10	2.80	2.02	1.71	1.74	1.29	1.89	2.79	3.19	3.27	3.02	2.91
3	3.08	2.92	2.02	1.69	1.73	1.26	1.90	2.76	3.24	3.22	3.00	2.90
4	3.09	2.81	2.02	1.68	1.73	1.24	1.95	2.73	3.21	3.19	2.98	2.90
5	2.93	2.75	2.06	1.66	1.72	1.24	1.98	2.70	3.19	3.15	2.99	2.89
6	3.06	2.66	2.06	1.65	1.71	1.23	2.00	2.69	3.12	3.11	3.04	2.87
7	3.23	2.62	2.02	1.64	1.68	1.22	2.02	2.69	3.06	3.08	3.08	2.88
8	3.22	2.63	1.99	1.62	1.69	1.21	2.03	2.67	3.16	3.05	3.09	2.89
9	3.21	2.56	2.01	1.61	1.67	1.18	2.06	2.69	3.17	2.98	3.05	2.93
10	3.24	2.48	1.98	1.59	1.66	1.16	2.07	2.68	3.17	2.98	3.00	2.95
11	3.23	2.51	1.95	1.59	1.66	1.14	2.08	2.73	3.16	2.96	2.99	2.95
12	3.19	2.48	1.93	1.58	1.64	1.13	2.08	2.75	3.14	2.97	3.02	2.88
13	3.17	2.42	1.91	1.57	1.61	1.14	2.09	2.75	3.13	2.99	3.01	2.85
14	3.20	2.39	1.95	1.55	1.60	1.18	2.11	2.74	3.10	3.01	3.03	2.86
15	3.16	2.39	1.94	1.54	1.57	1.22	2.18	2.68	3.07	3.02	2.99	2.83
16	3.05	2.37	1.92	1.52	1.54	1.27	2.24	2.71	3.03	3.03	2.94	2.76
17	2.97	2.32	1.90	1.52	1.51	1.31	2.23	2.77	3.19	3.00	2.94	2.75
18	2.86	2.31	1.89	1.56	1.48	1.36	2.24	2.85	3.29	3.06	2.91	2.78
19	2.83	2.28	1.88	1.62	1.45	1.41	2.34	2.91	3.36	3.10	2.94	2.77
20	2.86	2.29	1.87	1.61	1.42	1.45	2.43	2.93	3.37	3.09	2.98	2.76
21	2.93	2.28	1.85	1.61	1.40	1.47	2.51	2.96	3.35	3.11	2.96	2.77
22	2.82	2.22	1.84	1.62	1.37	1.50	2.53	2.99	3.33	3.14	3.00	2.81
23	2.68	2.17	1.82	1.63	1.35	1.52	2.56	2.94	3.28	3.15	2.98	2.78
24	2.74	2.14	1.81	1.66	1.32	1.56	2.59	2.88	3.27	3.15	3.01	2.81
25	2.64	2.08	1.80	1.67	1.30	1.66	2.61	2.92	3.29	3.13	3.01	2.77
26	2.57	2.04	1.78	1.70	1.31	1.68	2.62	2.93	3.30	3.08	2.92	2.67
27	2.61	1.92	1.77	1.75	1.33	1.68	2.65	2.90	3.29	3.05	2.90	2.83
28	2.63	2.07	1.76	1.74	1.34	1.71	2.62	2.88	3.31	3.04	2.92	2.87
29	2.69	2.05	1.74	1.75	1.32	1.75	2.51	2.92	3.33	3.08	2.93	2.81
30	2.62	2.04	1.72	1.75	---	1.77	2.75	2.99	3.33	3.08	2.92	2.75
31	2.56	---	1.72	1.74	---	1.83	---	3.02	---	3.06	2.93	---
MEAN	2.95	2.39	1.90	1.64	1.54	1.39	2.26	2.82	3.22	3.08	2.98	2.84
MAX	3.24	2.92	2.06	1.75	1.74	1.83	2.75	3.02	3.37	3.28	3.09	2.95
MIN	2.56	1.92	1.72	1.52	1.30	1.13	1.86	2.67	3.03	2.96	2.90	2.67

04084445 FOX RIVER AT APPLETON, WI

LOCATION.--Lat 44°14'53", long 88°25'23" in NW 1/4 SE 1/4 sec.34, T.21 N., R.17 E., Outagamie County, Hydrologic Unit 04030204, on left bank at south end of Lutz Park, approximately 2,600 ft upstream of Memorial Drive bridge at Appleton.

DRAINAGE AREA.--5,950 mi^2.

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

GAGE.--Acoustical Velocity Meter (AVM) system. Two-path transducer installation.

REMARKS.--Estimated daily discharges: Dec. 15 to Jan. 4, Jan. 8, 19–21, and Jan. 31 to Feb. 6. Records good, except for estimated daily discharges, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2620	7670	4240	3900	3700	5690	7750	13100	3680	13400	5000	2080
2	2710	8400	4230	3800	3600	5610	8320	13500	4120	13600	5010	2100
3	4390	9010	4220	3800	3500	5540	8850	13500	5040	12700	4950	2050
4	5090	9670	4200	3700	3600	5610	9160	13400	5800	12000	4930	2020
5	5300	9880	4280	3670	3600	5140	9130	13200	6430	11400	4480	2010
6	6130	9760	3350	3670	4300	5060	9220	13100	6590	10900	3740	1980
7	6890	9120	4800	3550	4470	5020	9310	13200	5800	11300	3990	1890
8	6890	9010	4180	3600	5090	4930	9340	12800	6180	9770	3760	2080
9	6880	9320	3860	3590	5420	4900	9360	11900	6640	7440	3710	2230
10	7630	9170	4110	3720	5430	4860	9150	11400	7040	5630	3790	2300
11	8930	8540	4250	3670	5510	4500	9470	11500	7610	5410	3720	2140
12	10000	8800	4190	3670	5490	4250	9480	11700	7760	4760	3700	1860
13	11000	8910	4110	3660	5480	3980	9380	11700	7310	4660	3690	1720
14	10600	8770	4000	3660	5750	3840	9360	11300	6460	4520	3780	1780
15	10300	8650	3900	3650	6240	3830	9650	9990	6040	3960	3410	1850
16	10300	8660	4000	3630	6140	3740	9750	7500	5630	3380	2930	1840
17	10600	8610	4100	3620	6050	3640	9920	5390	8160	3610	2150	1700
18	9930	8560	4100	3950	5960	4100	9660	5740	10700	4000	2020	1740
19	9890	8560	4000	4600	5880	4770	9590	6040	12700	4690	2080	1840
20	9750	8060	3900	3300	5770	5060	9880	6080	14200	5050	2150	1910
21	9830	7190	4000	4500	5840	5600	10100	5970	14100	5170	2130	1920
22	9790	6350	4100	3730	5780	5420	9960	5960	13900	5280	2250	1870
23	9440	6460	4000	3750	5660	5490	10300	5810	14000	5170	2130	1870
24	9750	6480	4000	3770	5750	5600	11600	5490	13700	5100	2180	1820
25	8680	6690	3900	3770	5820	6260	12400	5750	13800	4870	2250	1770
26	7450	6630	3900	3900	5860	6490	12100	5870	13900	4830	2110	2040
27	7770	5800	4000	3920	5950	6840	12000	5840	13800	4940	1890	2160
28	7770	4710	4100	4020	5790	6980	12100	5170	13800	5090	2060	2230
29	7690	4210	3900	4030	5740	6980	11500	3900	13800	5230	2090	2020
30	7590	4250	3900	4060	---	7030	11800	3500	13600	5050	2020	2020
31	7510	---	3900	3700	---	7320	---	3600	---	5040	2060	---
TOTAL	249100	235900	125720	117560	153170	164080	299590	272900	282290	207950	96160	58840
MEAN	8035	7863	4055	3792	5282	5293	9986	8803	9410	6708	3102	1961
MAX	11000	9880	4800	4600	6240	7320	12400	13500	14200	13600	5010	2300
MIN	2620	4210	3350	3300	3500	3640	7750	3500	3680	3380	1890	1700
CFSM	1.35	1.32	.68	.64	.89	.89	1.68	1.48	1.58	1.13	.52	.33
IN.	1.56	1.47	.79	.73	.96	1.03	1.87	1.71	1.76	1.30	.60	.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1996, BY WATER YEAR (WY)

MEAN	4677	5267	4498	3993	3878	5021	6121	6011	5537	4139	3185	3692
MAX	13510	7863	7509	5575	5422	7702	11920	11900	13300	15110	6259	8899
(WY)	1987	1996	1993	1987	1987	1994	1993	1993	1993	1993	1993	1986
MIN	1845	2923	2541	2535	2312	3024	2688	2682	1243	944	971	1226
(WY)	1990	1990	1990	1990	1995	1995	1990	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1986 - 1996	
ANNUAL TOTAL	1653030		2263260			
ANNUAL MEAN	4529		6184		4616	
HIGHEST ANNUAL MEAN					8107	1993
LOWEST ANNUAL MEAN					2995	1988
HIGHEST DAILY MEAN	11400	Aug 22	14200	Jun 20	18000	Jul 6 1993
LOWEST DAILY MEAN	1430	Jul 27	1700	Sep 17	840	Aug 17 1988
ANNUAL SEVEN-DAY MINIMUM	1480	Jul 26	1780	Sep 13	899	Jul 9 1988
ANNUAL RUNOFF (CFSM)	.76		1.04		.78	
ANNUAL RUNOFF (INCHES)	10.33		14.15		10.54	
10 PERCENT EXCEEDS	8960		11400		8970	
50 PERCENT EXCEEDS	3900		5400		3830	
90 PERCENT EXCEEDS	1720		2150		1670	

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 mi^2.

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 gages 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 sta. 04082500 and 04084255). Daily discharges determined from records of flow through turbines, head, gate openings, and lockages through navigation canal. Usually less than about 20 ft^3/s is diverted into basin from Wisconsin River at Portage Canal throughout the year.

COOPERATION.--Figures of daily discharge furnished by Kaukauna Electric and Water Department. Records reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2820	7380	4320	4070	3820	6210	7780	13800	3720	13800	5040	2100
2	2550	9050	4380	3890	3720	5850	8070	13600	4200	14200	4990	2120
3	4940	9200	4380	3950	3650	5570	8730	13400	4760	13600	5090	2110
4	4960	9280	4300	3900	3780	6140	8410	13300	6080	13500	5080	2080
5	5400	9630	4310	3980	3770	5790	8730	13200	6470	12400	4710	2120
6	6330	9920	2480	3920	4470	4500	8890	13000	6820	11400	3730	2000
7	6790	9470	3100	3870	4540	5100	8740	13200	5680	11500	4620	1900
8	6740	9420	4730	3960	5340	5130	8890	12700	5800	10000	4270	2030
9	6770	9940	4000	3810	5670	5310	8880	12600	5990	8190	4250	2030
10	7480	9440	4020	3870	5520	5020	8980	11800	7240	7270	4130	2260
11	8080	9280	4150	3920	5460	4950	9340	11700	8110	8780	4350	2200
12	9920	9310	4360	3890	5360	4280	9260	11800	8230	5130	4220	1830
13	11000	9530	4470	3940	5260	4460	9260	11800	7100	4970	4000	1570
14	10900	9170	4450	3760	5580	4200	9180	12200	6540	4850	4230	1630
15	10500	9150	4220	3830	6010	3970	9460	11400	6070	4330	3990	1810
16	9820	9050	4100	3920	5860	4000	9430	8560	6000	3350	3190	1760
17	9710	8970	4210	3730	5820	3610	9730	6140	9590	3550	2400	1660
18	9260	8940	4190	4620	5920	4040	9630	6290	11000	3880	2190	1760
19	9660	8890	4180	4850	5800	4690	9980	6680	14400	4750	2220	1800
20	10600	8580	4090	3400	5550	4970	10100	7060	14200	5200	2300	1870
21	10600	6980	4160	4850	5110	5770	9950	6620	14200	5280	2270	1870
22	10600	6590	4280	3650	6110	5810	10800	6900	13800	5390	2390	1880
23	10100	6730	4150	3850	6200	5780	9680	6020	13900	5370	2130	1720
24	10400	6680	4140	3890	6450	5890	12000	5430	13700	5350	2170	1830
25	9040	6820	4020	3980	6570	6690	13000	5630	14300	5280	2310	1530
26	6390	6840	4010	4020	6660	6450	12800	5810	14600	4920	2120	1860
27	7430	6430	4110	3890	5790	6630	12600	5810	14500	4940	1840	2010
28	7440	4410	4290	3980	6300	6750	12800	5280	14200	5040	2010	2010
29	7210	4590	4040	3990	6540	6780	12300	4220	14200	5250	2200	1820
30	7180	4130	4040	3850	---	6840	12500	3410	13900	5050	2010	1980
31	7090	---	4040	3930	---	7020	---	3780	---	5050	2120	---
TOTAL	247710	243800	127720	122960	156630	168200	299900	283140	289300	221570	102570	57150
MEAN	7991	8127	4120	3966	5401	5426	9997	9134	9643	7147	3309	1905
MAX	11000	9940	4730	4850	6660	7020	13000	13800	14600	14200	5090	2260
MIN	2550	4130	2480	3400	3650	3610	7780	3410	3720	3350	1840	1530

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 1996, BY WATER YEAR (WY)

MEAN	3354	3995	4019	4031	4070	4933	7153	6128	5052	3457	2694	2855
MAX	14230	12740	9879	7831	7831	12440	19360	20160	13330	15600	9623	11020
(WY)	1987	1985	1983	1960	1939	1973	1929	1960	1993	1993	1924	1938
MIN	728	1242	1562	1432	1767	1596	1590	1260	1097	983	761	709
(WY)	1933	1931	1959	1977	1977	1964	1954	1931	1931	1931	1936	1933

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1896 - 1996	
ANNUAL TOTAL	1680390		2320650			
ANNUAL MEAN	4604		6341		4320	
HIGHEST ANNUAL MEAN					8427	1993
LOWEST ANNUAL MEAN					1626	1931
HIGHEST DAILY MEAN	11000	Oct 13	14600	Jun 26	24000	Apr 18 1952
LOWEST DAILY MEAN	1490	Aug 1	1530	Sep 25	138	Aug 2 1936
ANNUAL SEVEN-DAY MINIMUM	1610	Jul 28	1710	Sep 13	499	Sep 20 1933
10 PERCENT EXCEEDS	9050		11800		7850	
50 PERCENT EXCEEDS	4020		5390		3600	
90 PERCENT EXCEEDS	1840		2200		1680	

442312087565100 BOWER CREEK RAIN GAGE #2 NEAR DE PERE, WI

LOCATION.--Lat 44°23'12", long 87°56'51", in NE 1/4 SW 1/4 sec.17, T.22 N., R.21 E., Brown County, Hydrologic Unit 04030204, on CTH X, 0.3 mi south of junction with Zion Road, near De Pere.

PERIOD OF RECORD.--January 1991 to April 1995 and March to September 1996 (non-frozen precipitation).

REMARKS.--Gage established on Jan. 29, 1991. Rainfall estimated to be 0.00 for Apr. 3–5, 15, and 16 because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for the period Oct. 1, 1995 to Mar. 27, 1996.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 3.32 in., June 17, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall during period Mar. 28 to Sept. 30, 1996, 2.40 in., June 17.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.00	.82	.00	.00	.00
2	---	---	---	---	---	---	.00	.00	.26	.85	.00	.00
3	---	---	---	---	---	---	.00	.17	.34	.00	.00	.00
4	---	---	---	---	---	---	.00	.00	.06	.00	.00	.00
5	---	---	---	---	---	---	.00	.15	.03	.00	.27	.00
6	---	---	---	---	---	---	.00	.01	.03	.00	.00	.00
7	---	---	---	---	---	---	.00	.00	1.53	.00	.07	.00
8	---	---	---	---	---	---	.00	.13	.02	.19	.00	.10
9	---	---	---	---	---	---	.00	.00	.03	.05	.00	.00
10	---	---	---	---	---	---	.00	.46	.26	.00	.00	.00
11	---	---	---	---	---	---	.07	.00	.01	.01	.00	.00
12	---	---	---	---	---	---	.21	.00	.00	.67	.00	.00
13	---	---	---	---	---	---	.01	.00	.00	.00	.00	.00
14	---	---	---	---	---	---	.00	.08	.00	.00	.00	.00
15	---	---	---	---	---	---	.00	.00	.00	.01	.00	.00
16	---	---	---	---	---	---	.00	.00	.51	.00	.00	.02
17	---	---	---	---	---	---	.00	.00	2.40	.00	.00	.00
18	---	---	---	---	---	---	.22	.00	.14	.19	.00	.00
19	---	---	---	---	---	---	.14	.70	.00	.00	.51	.00
20	---	---	---	---	---	---	.52	.02	.00	.00	.00	.01
21	---	---	---	---	---	---	.00	.04	.05	.00	.00	.02
22	---	---	---	---	---	---	.00	.00	.00	.00	.46	.00
23	---	---	---	---	---	---	.00	.03	.05	.00	.00	.02
24	---	---	---	---	---	---	.00	.00	.00	.00	.00	.04
25	---	---	---	---	---	---	.18	.02	.00	.00	.01	.00
26	---	---	---	---	---	---	.00	.00	.00	.00	.12	.28
27	---	---	---	---	---	---	.00	.00	.40	.00	.00	.01
28	---	---	---	---	---	.00	.00	.00	.00	.58	.00	.00
29	---	---	---	---	---	.00	.15	.00	.22	.10	.00	.00
30	---	---	---	---	---	.03	.15	.00	.00	.01	.00	.01
31	---	---	---	---	---	.09	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	1.65	1.81	7.16	2.66	1.44	0.51

442230087584500 BOWER CREEK RAIN GAGE #1 NEAR DE PERE, WI

LOCATION.--Lat 44°22'30", long 87°58'45", in SE 1/4 SE 1/4 sec.9, T.22 N., R.21 E., Brown County, Hydrologic Unit 04030204, on CTH G, just west of the junction with Langers Corner Road, near De Pere.

PERIOD OF RECORD.--January 1991 to April 1995 and April to September 1996 (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on Jan. 29, 1991. Rainfall estimated to be 0.00 for Apr. 15–17 because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for the period Oct. 1, 1995 to Apr. 10, 1996.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 3.25 in., June 17, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall Apr. 11 to Sept. 30, 1996, 2.49 in., June 17.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.00	.85	.00	.00	.00
2	---	---	---	---	---	---	---	.00	.29	.83	.00	.00
3	---	---	---	---	---	---	---	.19	.36	.00	.00	.00
4	---	---	---	---	---	---	---	.00	.08	.00	.00	.00
5	---	---	---	---	---	---	---	.19	.03	.00	.30	.00
6	---	---	---	---	---	---	---	.00	.03	.00	.00	.00
7	---	---	---	---	---	---	---	.00	1.47	.00	.05	.00
8	---	---	---	---	---	---	---	.15	.05	.20	.00	.21
9	---	---	---	---	---	---	---	.00	.04	.07	.00	.02
10	---	---	---	---	---	---	---	.52	.24	.00	.00	.00
11	---	---	---	---	---	---	.09	.00	.00	.01	.00	.00
12	---	---	---	---	---	---	.25	.00	.01	.83	.00	.00
13	---	---	---	---	---	---	.01	.00	.01	.00	.00	.00
14	---	---	---	---	---	---	.00	.09	.00	.00	.02	.00
15	---	---	---	---	---	---	.00	.00	.00	.02	.00	.00
16	---	---	---	---	---	---	.00	.01	.55	.00	.00	.07
17	---	---	---	---	---	---	.00	.00	2.49	.00	.00	.00
18	---	---	---	---	---	---	.24	.00	.26	.15	.00	.00
19	---	---	---	---	---	---	.15	.88	.00	.00	.78	.00
20	---	---	---	---	---	---	.44	.03	.00	.00	.00	.06
21	---	---	---	---	---	---	.00	.05	.07	.00	.00	.09
22	---	---	---	---	---	---	.00	.00	.00	.00	.51	.01
23	---	---	---	---	---	---	.00	.04	.07	.00	.00	.06
24	---	---	---	---	---	---	.00	.00	.00	.00	.00	.05
25	---	---	---	---	---	---	.25	.02	.00	.00	.03	.00
26	---	---	---	---	---	---	.01	.00	.00	.00	.09	.66
27	---	---	---	---	---	---	.00	.00	.16	.00	.00	.01
28	---	---	---	---	---	---	.00	.00	.00	1.47	.00	.02
29	---	---	---	---	---	---	.21	.00	.20	.27	.00	.01
30	---	---	---	---	---	---	.24	.00	.00	.01	.00	.02
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	2.17	7.26	3.86	1.78	1.29

04085119 BOWER CREEK, AT COUNTY MM, NEAR DE PERE, WI

LOCATION.--Lat 44°25'21", long 87°56'24", in NE 1/4 SW 1/4 sec.34, T.23 N., R.21 E., Brown County, Hydrologic Unit 04030204, on right bank upstream from bridge on Highway MM, 1.1 mi east from intersection of Highways G and MM, and 6.2 mi southeast of post office in De Pere.

DRAINAGE AREA.--14.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1990 to March 1995, April to September 1996.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 790 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 1–11, May 2–7, May 30 to June 3, and June 26 to July 2. Records are fair (see page 12). Gage-height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1990, maximum discharge, 4,020 ft^3/s, gage height, 14.11 ft, estimated from floodmarks, based on step-backwater model.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	85	27	2.2	.27	1.0	.00
2	---	---	---	---	---	---	36	11	5.5	1.1	.51	.00
3	---	---	---	---	---	---	24	8.8	7.4	1.8	.22	.00
4	---	---	---	---	---	---	44	6.8	8.6	1.8	.07	.00
5	---	---	---	---	---	---	33	5.8	3.9	1.3	.00	.00
6	---	---	---	---	---	---	40	5.0	2.2	1.0	.01	.00
7	---	---	---	---	---	---	32	4.2	192	.68	.00	.00
8	---	---	---	---	---	---	24	4.0	79	.34	.01	.00
9	---	---	---	---	---	---	21	4.8	15	.36	.01	.00
10	---	---	---	---	---	---	19	31	16	.25	.00	.00
11	---	---	---	---	---	---	20	21	30	.16	.01	.00
12	---	---	---	---	---	---	60	7.6	9.3	.12	.00	.00
13	---	---	---	---	---	---	27	4.1	3.3	.51	.00	.00
14	---	---	---	---	---	---	12	2.8	1.7	.59	.00	.00
15	---	---	---	---	---	---	11	2.7	1.2	.40	.00	.00
16	---	---	---	---	---	---	85	2.5	.73	.08	.00	.00
17	---	---	---	---	---	---	54	2.0	400	.06	.00	.00
18	---	---	---	---	---	---	17	1.9	283	.01	.00	.00
19	---	---	---	---	---	---	37	6.2	47	.01	.00	.00
20	---	---	---	---	---	---	84	28	17	.00	.00	.00
21	---	---	---	---	---	---	43	8.7	7.3	.00	.00	.00
22	---	---	---	---	---	---	14	4.1	3.7	.00	.00	.00
23	---	---	---	---	---	---	8.4	2.6	2.1	.00	.00	.00
24	---	---	---	---	---	---	5.6	2.0	1.7	.00	.00	.00
25	---	---	---	---	---	---	5.5	1.5	1.2	.00	.00	.00
26	---	---	---	---	---	---	8.0	1.4	.90	.00	.00	.00
27	---	---	---	---	---	---	5.1	1.3	.74	.00	.00	.00
28	---	---	---	---	---	---	3.2	1.1	.58	4.2	.00	.00
29	---	---	---	---	---	---	2.4	.72	.45	15	.00	.00
30	---	---	---	---	---	---	36	.52	.35	17	.00	.00
31	---	---	---	---	---	---	---	.40	---	2.3	.00	---
TOTAL	---	---	---	---	---	---	896.2	211.54	1144.05	49.34	1.84	0.00
MEAN	---	---	---	---	---	---	29.9	6.82	38.1	1.59	.059	.000
MAX	---	---	---	---	---	---	85	31	400	17	1.0	.00
MIN	---	---	---	---	---	---	2.4	.40	.35	.00	.00	.00
CFSM	---	---	---	---	---	---	2.02	.46	2.58	.11	.00	.00
IN.	---	---	---	---	---	---	2.25	.53	2.88	.12	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	1.33	7.96	6.53	1.74	5.39	21.9	30.5	2.71	19.7	6.50	.20	1.68
MAX	3.16	27.4	20.4	4.31	11.5	41.1	54.3	6.82	59.2	29.4	.69	7.33
(WY)	1991	1993	1993	1992	1991	1991	1993	1996	1993	1993	1993	1992
MIN	.044	.058	.073	.000	.086	11.4	16.9	.52	.000	.000	.000	.000
(WY)	1995	1995	1995	1994	1995	1994	1991	1992	1992	1991	1991	1991

SUMMARY STATISTICS	FOR 1996 WATER YEAR (APRIL THROUGH SEPTEMBER)		WATER YEARS 1991 - 1996	
ANNUAL MEAN			9.06	
HIGHEST ANNUAL MEAN			18.5	1993
LOWEST ANNUAL MEAN			4.56	1994
HIGHEST DAILY MEAN	400	Jun 17	525	Jun 18 1993
LOWEST DAILY MEAN	.00	Many days	.00	Many days
ANNUAL SEVEN-DAY MINIMUM	.00	Many periods	.00	Many periods
INSTANTANEOUS PEAK FLOW	957	Jun 17	1540	Jul 6 1993
INSTANTANEOUS PEAK STAGE	10.66	Jun 17	10.79	Jul 6 1993
INSTANTANEOUS LOW FLOW	.00	Many days	.00	Many days
ANNUAL RUNOFF (CFSM)			.61	
ANNUAL RUNOFF (INCHES)			8.32	
10 PERCENT EXCEEDS	31.7		18	
50 PERCENT EXCEEDS	.80		.61	
90 PERCENT EXCEEDS	.00		.00	

04085119 BOWER CREEK, AT HIGHWAY MM, NEAR DE PERE, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to May 1995, April to September 1996.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1990 to May 1995, April to September 1996.

DISSOLVED OXYGEN: April to June 1991.

SUSPENDED-SOLIDS DISCHARGE: October 1990 to January 1995, April to September 1996.

TOTAL-PHOSPHORUS DISCHARGE: October 1990 to January 1995, April to September 1996.

INSTRUMENTATION.--Stage-activated water-quality sampler since October 1990. Continuous water-temperature recorder from October 1990 to May 1995 and April to September 1996. Dissolved-oxygen recorder during open-water periods from April to June 1991.

REMARKS.--Chemical analyses are by the Wisconsin State Laboratory of Hygiene. Samples are point samples unless otherwise indicated. Records represent water temperature at sensor within 0.5°C.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum observed, 30.0°C, June 19, 1991; minimum observed, 0.0°C, many days during winter periods.

SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 3,000 tons, June 18, 1993; minimum daily, 0.0 ton, many days.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 6,400 lb, June 18, 1993; minimum daily, 0.0 lb, many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum observed, 28.5°C, Aug. 7; minimum observed, 4.5°C, May 1.

SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 1,060 tons, June 17; minimum daily, 0.0 ton, many days.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 3,640 lb, June 17; minimum daily, 0.0 lb, many days.

WATER-QUALITY DATA, APRIL TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
APR 1996									
*11...	1644	20	--	3.0	<10	19	0.811	0.427	--
*12...	1028	--	82	13	900	580	1.55	1.54	--
12...	1029	--	82	13	700	384	1.50	1.75	425
*17...	1302	--	35	3.3	160	45	0.808	0.440	--
17...	1303	--	35	3.4	260	45	0.775	0.517	--
18...	0640	--	19	3.3	20	23	0.578	0.556	--
19...	0335	--	28	3.4	60	36	0.413	0.384	--
19...	0640	--	41	--	20	--	--	--	--
19...	0645	--	42	3.4	40	38	0.483	0.410	--
*19...	1142	--	49	3.8	130	39	0.529	0.463	--
19...	1143	--	49	4.5	120	41	0.535	0.448	--
19...	1550	--	45	--	--	50	0.558	0.524	--
19...	2355	--	24	--	--	28	0.468	0.447	--
20...	0925	--	29	--	--	34	0.455	0.422	--
20...	1340	--	135	--	--	432	0.584	1.17	518
20...	1520	--	163	--	--	400	0.649	1.18	522
20...	2120	--	126	--	--	272	0.590	0.978	427
21...	0030	--	91	--	--	160	0.561	0.734	--
21...	2115	--	22	4.3	--	34	0.495	0.465	--
*24...	1114	--	5.6	1.9	<10	7	0.080	0.313	--
30...	0630	--	9.2	--	--	8	0.205	0.384	--
30...	1335	--	47	3.5	700	27	0.252	0.354	--
30...	1525	--	64	4.1	310	45	0.224	0.358	--
MAY									
01...	0025	--	54	4.8	700	48	0.312	0.503	--
*01...	1102	--	25	3.6	640	14	0.392	0.419	--
01...	1103	--	25	3.7	660	15	0.393	0.433	--
*07...	1132	4.2	--	2.2	30	<5	0.028	0.198	--
10...	0710	--	11	--	--	8	0.280	0.382	--
10...	1020	--	22	--	--	18	0.151	0.270	--
10...	1145	--	34	--	--	25	0.089	0.272	--
10...	1410	--	49	--	--	32	0.083	0.335	--
10...	2310	--	42	--	--	45	0.379	0.455	--
11...	0805	--	22	--	--	18	0.192	0.393	--
12...	0205	--	9.6	--	--	7	0.058	0.310	--
19...	2200	--	13	5.4	3700	40	0.370	0.661	--
19...	2210	--	25	6.4	2600	32	0.349	0.608	--
19...	2220	--	39	4.1	950	11	0.136	0.419	--
19...	2240	--	54	6.7	700	68	0.091	0.419	--
20...	0410	--	30	11	5200	550	0.131	1.07	--
*20...	1156	--	28	9.3	7300	138	0.223	0.790	--
20...	1157	--	28	9.9	6800	124	0.214	0.804	--
*22...	1052	--	4.1	3.1	270	11	0.112	0.529	--

* Equal-width increment (EWI) sample

04085119 BOWER CREEK, AT HIGHWAY MM, NEAR DE PERE, WI--CONTINUED

WATER-QUALITY DATA, APRIL TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUN 1996										
*03...	1046	7.4	--	<3.0	2400	9	0.184	0.303	--	--
04...	1510	--	11	--	--	7	0.193	0.406	--	--
*05...	1018	--	4.4	<3.0	930	<5	0.104	0.384	--	--
07...	0555	--	8.8	--	--	17	0.103	0.388	--	--
07...	0735	--	49	--	--	54	0.343	1.09	--	--
07...	0830	--	135	--	--	268	0.347	1.08	--	--
07...	0930	--	239	--	--	660	0.330	1.36	--	--
07...	1005	--	276	12	--	660	0.397	1.26	--	--
07...	1050	--	316	--	--	600	0.587	1.17	--	--
07...	1155	--	357	8.8	--	520	0.627	1.15	--	--
07...	1320	--	399	--	--	552	0.534	1.14	739	98
07...	1645	--	335	8.0	--	324	0.411	0.948	381	95
07...	2030	--	221	--	--	228	0.653	1.01	--	--
08...	0350	--	128	--	--	129	1.05	0.924	--	--
*08...	1026	--	75	--	--	68	0.958	0.834	--	--
08...	1027	--	75	--	--	68	0.979	0.840	--	--
10...	0900	--	6.3	--	--	<5	0.491	0.702	--	--
10...	1545	--	16	3.5	1200	42	0.427	0.688	--	--
10...	1915	--	28	4.2	1500	53	0.369	0.627	--	--
11...	0415	--	40	4.7	--	65	0.325	0.591	--	--
*11...	1416	--	27	3.3	1600	21	0.183	0.539	--	--
11...	1417	--	27	3.5	1100	21	0.198	0.517	--	--
11...	1615	--	25	--	3900	--	--	--	--	--
17...	0825	--	6.3	3.5	380	25	0.163	0.519	--	--
17...	0900	--	16	--	--	29	0.247	0.484	--	--
17...	0925	--	28	--	--	34	0.205	0.438	--	--
17...	1010	--	210	--	--	208	0.268	0.886	--	--
17...	1020	--	248	12	54000	816	0.192	1.49	--	--
17...	1105	--	425	--	--	1670	0.159	2.53	--	--
17...	1245	--	751	--	--	1330	0.136	2.19	--	--
17...	1300	--	833	10	79000	1330	0.126	2.21	1760	86
17...	1330	--	926	9.5	78000	1270	0.120	2.05	1620	90
17...	1735	--	800	9.0	180000	1300	0.186	2.03	1510	97
*17...	2028	--	617	5.2	41000	330	0.093	0.865	--	--
17...	2029	--	617	5.8	86000	376	0.084	0.907	--	--
17...	2310	--	511	5.6	--	330	0.114	0.910	--	--
18...	0510	--	490	5.6	39000	284	0.103	0.844	--	--
*18...	0608	--	439	4.6	50000	164	0.156	0.830	--	--
18...	0609	--	439	5.4	39000	176	0.160	0.784	--	--
18...	1200	--	236	7.3	--	147	0.231	0.742	--	--
19...	0155	--	72	4.8	--	78	0.203	0.650	--	--
19...	1510	--	38	4.2	--	46	0.218	0.627	--	--
*19...	1525	--	38	6.0	--	46	0.221	0.628	--	--
*21...	1242	--	6.6	--	--	21	0.128	0.526	--	--
*25...	1132	--	1.2	<3.0	50	14	0.111	0.392	--	--
JUL										
*10...	1018	--	0.21	<3.0	20	<5	<0.027	0.078	--	--
28...	1905	--	6.6	5.4	1400	54	<0.027	0.540	--	--
28...	1930	--	16	6.6	50000	42	0.081	0.615	--	--
29...	0430	--	3.9	9.1	29000	280	0.751	0.972	--	--
29...	1330	--	3.6	6.6	17000	156	0.782	0.806	--	--
*29...	1515	--	3.6	5.7	19000	154	0.795	0.780	--	--
29...	2105	--	47	>20	--	368	2.83	2.74	--	--
29...	2135	--	66	>15	--	410	3.78	2.72	--	--
30...	0210	--	40	8.0	180000	412	0.988	1.19	--	--
30...	0515	--	21	6.7	32000	384	0.801	1.03	--	--
30...	1415	--	9.6	6.8	40000	240	0.743	0.771	--	--
*31...	1215	--	2.0	8.6	660	156	0.813	0.610	--	--

* Equal-width increment (EWI) sample

04085119 BOWER CREEK, AT HIGHWAY MM, NEAR DE PERE, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, APRIL TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	9.5	4.5	6.5
2	---	---	---	---	---	---	---	---	---	16.5	6.5	11.0
3	---	---	---	---	---	---	---	---	---	17.0	9.5	13.0
4	---	---	---	---	---	---	---	---	---	15.0	8.5	11.5
5	---	---	---	---	---	---	---	---	---	12.0	7.0	8.5
6	---	---	---	---	---	---	---	---	---	14.0	7.0	10.0
7	---	---	---	---	---	---	---	---	---	19.0	9.0	14.0
8	---	---	---	---	---	---	---	---	---	15.5	10.5	11.0
9	---	---	---	---	---	---	---	---	---	13.5	10.0	11.5
10	---	---	---	---	---	---	---	---	---	13.0	7.0	10.0
11	---	---	---	---	---	---	---	---	---	16.0	6.0	9.0
12	---	---	---	---	---	---	---	---	---	15.5	5.5	10.5
13	---	---	---	---	---	---	---	---	---	18.5	7.0	12.0
14	---	---	---	---	---	---	---	---	---	14.5	9.0	12.0
15	---	---	---	---	---	---	---	---	---	11.0	8.5	10.0
16	---	---	---	---	---	---	---	---	---	16.5	11.0	13.5
17	---	---	---	---	---	---	---	---	---	17.0	13.0	14.5
18	---	---	---	---	---	---	---	---	---	28.0	15.5	22.5
19	---	---	---	---	---	---	---	---	---	27.0	23.0	24.5
20	---	---	---	---	---	---	19.0	10.0	13.5	24.0	19.0	21.0
21	---	---	---	---	---	---	16.0	6.5	11.0	25.5	16.0	20.5
22	---	---	---	---	---	---	13.5	9.5	11.5	---	---	---
23	---	---	---	---	---	---	14.5	5.5	9.0	---	---	---
24	---	---	---	---	---	---	16.5	7.0	11.5	---	---	---
25	---	---	---	---	---	---	16.0	9.0	12.0	---	---	---
26	---	---	---	---	---	---	13.0	5.0	8.0	---	---	---
27	---	---	---	---	---	---	12.0	5.0	8.0	---	---	---
28	---	---	---	---	---	---	14.5	6.5	10.0	---	---	---
29	---	---	---	---	---	---	11.5	6.5	7.5	---	---	---
30	---	---	---	---	---	---	7.0	5.0	6.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	22.5	17.0	19.5	23.0	19.0	21.0
2	---	---	---	---	---	---	24.0	18.5	21.0	24.0	19.5	21.5
3	---	---	---	---	---	---	23.5	19.5	21.5	24.5	20.0	22.0
4	---	---	---	---	---	---	24.5	20.0	22.0	24.0	20.0	22.0
5	---	---	---	---	---	---	25.5	21.0	23.5	25.5	21.0	23.0
6	---	---	---	---	---	---	28.0	22.5	25.0	24.5	21.0	22.5
7	---	---	---	---	---	---	28.5	24.0	26.0	25.0	21.5	23.0
8	---	---	---	---	---	---	25.5	22.0	23.5	24.5	21.0	22.5
9	---	---	---	---	---	---	24.0	20.5	22.0	21.5	20.0	21.0
10	---	---	---	---	---	---	23.0	20.0	21.0	22.5	19.0	20.5
11	---	---	---	---	---	---	25.0	19.0	21.5	22.0	18.5	20.0
12	---	---	---	---	---	---	25.5	20.0	22.0	18.5	14.0	16.0
13	---	---	---	---	---	---	25.5	21.0	23.0	14.5	12.5	13.5
14	---	---	---	---	---	---	26.5	21.5	23.5	14.0	12.5	13.0
15	---	---	---	---	---	---	22.5	20.0	21.0	14.5	13.0	13.5
16	---	---	---	---	---	---	23.5	19.0	21.0	15.0	13.5	14.0
17	---	---	---	23.5	21.5	22.5	24.5	19.0	21.5	16.0	14.0	14.5
18	---	---	---	23.5	20.5	22.0	24.5	19.5	21.5	17.0	13.5	15.0
19	---	---	---	23.0	20.5	21.5	23.5	20.5	22.0	17.0	13.0	15.0
20	---	---	---	23.0	19.0	20.5	25.0	21.5	23.0	15.5	13.5	14.5
21	---	---	---	24.0	18.5	21.0	26.0	21.5	23.5	17.0	14.5	15.5
22	---	---	---	25.0	19.0	21.5	24.5	22.5	23.0	17.0	15.0	16.0
23	---	---	---	25.5	19.0	21.5	24.0	20.5	22.0	16.5	15.0	15.5
24	---	---	---	24.0	20.0	21.5	25.5	20.5	22.5	17.0	14.5	15.5
25	---	---	---	23.0	19.5	21.0	25.5	20.0	22.5	17.0	13.0	15.0
26	---	---	---	23.0	19.0	20.5	22.5	20.0	21.0	15.0	13.5	14.0
27	---	---	---	25.0	19.5	21.5	21.5	19.0	20.0	15.0	13.5	14.0
28	---	---	---	21.0	18.5	20.0	22.0	17.5	19.5	13.5	12.5	13.0
29	---	---	---	20.0	17.5	18.5	22.0	18.0	20.0	14.5	12.5	13.0
30	---	---	---	17.5	16.5	17.0	22.5	19.0	20.5	14.5	12.0	13.0
31	---	---	---	18.5	16.0	17.0	22.5	19.0	20.5	---	---	---
MONTH	---	---	---	---	---	---	28.5	17.0	21.9	25.5	12.0	17.1

04085119 BOWER CREEK, AT HIGHWAY MM, NEAR DE PERE, WI--CONTINUED

SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED(TONS PER DAY), APRIL TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	1.7	.03	.01	.04	.00
2	---	---	---	---	---	---	---	.22	.08	.03	.01	.00
3	---	---	---	---	---	---	---	.15	.14	.04	.00	.00
4	---	---	---	---	---	---	---	.11	.17	.04	.00	.00
5	---	---	---	---	---	---	---	.09	.06	.03	.00	.00
6	---	---	---	---	---	---	---	.07	.03	.02	.00	.00
7	---	---	---	---	---	---	---	.06	205	.01	.00	.00
8	---	---	---	---	---	---	---	.05	21	.01	.00	.00
9	---	---	---	---	---	---	---	.07	.80	.01	.00	.00
10	---	---	---	---	---	---	---	2.7	1.8	.00	.00	.00
11	---	---	---	---	---	---	1.0	1.2	3.2	.00	.00	.00
12	---	---	---	---	---	---	e19	.13	.43	.00	.00	.00
13	---	---	---	---	---	---	2.2	.05	.12	.01	.00	.00
14	---	---	---	---	---	---	.48	.04	.05	.01	.00	.00
15	---	---	---	---	---	---	.25	.04	.02	.01	.00	.00
16	---	---	---	---	---	---	e42	.03	.01	.00	.00	.00
17	---	---	---	---	---	---	e15	.03	1060	.00	.00	.00
18	---	---	---	---	---	---	1.0	.03	180	.00	.00	.00
19	---	---	---	---	---	---	3.9	.89	7.7	.00	.00	.00
20	---	---	---	---	---	---	61	17	1.6	.00	.00	.00
21	---	---	---	---	---	---	11	1.0	.44	.00	.00	.00
22	---	---	---	---	---	---	.94	.14	.19	.00	.00	.00
23	---	---	---	---	---	---	.30	.07	.10	.00	.00	.00
24	---	---	---	---	---	---	.11	.05	.07	.00	.00	.00
25	---	---	---	---	---	---	.10	.04	.05	.00	.00	.00
26	---	---	---	---	---	---	e.20	.03	.03	.00	.00	.00
27	---	---	---	---	---	---	.08	.03	.02	.00	.00	.00
28	---	---	---	---	---	---	.05	.02	.02	e.05	.00	.00
29	---	---	---	---	---	---	.04	.01	.01	14	.00	.00
30	---	---	---	---	---	---	3.8	.01	.01	16	.00	.00
31	---	---	---	---	---	---	---	.01	---	.87	.00	---
TOTAL	---	---	---	---	---	---	---	26.07	1483.18	31.15	0.05	0.00

PHOSPHORUS TOTAL, POUNDS PER DAY, APRIL TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	64	2.8	.30	1.8	.00
2	---	---	---	---	---	---	---	19	6.3	1.1	.34	.00
3	---	---	---	---	---	---	---	13	11	1.6	.09	.00
4	---	---	---	---	---	---	---	9.5	18	1.4	.03	.00
5	---	---	---	---	---	---	---	7.4	7.9	.97	.00	.00
6	---	---	---	---	---	---	---	5.8	3.0	.65	.00	.00
7	---	---	---	---	---	---	---	4.5	1100	.39	.00	.00
8	---	---	---	---	---	---	---	4.3	375	.18	.00	.00
9	---	---	---	---	---	---	---	5.2	61	.17	.00	.00
10	---	---	---	---	---	---	---	60	57	.11	.00	.00
11	---	---	---	---	---	---	46	43	90	.07	.00	.00
12	---	---	---	---	---	---	e216	11	23	.05	.00	.00
13	---	---	---	---	---	---	59	4.3	6.9	.22	.00	.00
14	---	---	---	---	---	---	23	3.0	3.0	.25	.00	.00
15	---	---	---	---	---	---	18	2.8	1.7	.17	.00	.00
16	---	---	---	---	---	---	e347	2.7	.86	.04	.00	.00
17	---	---	---	---	---	---	e187	2.1	3640	.03	.00	.00
18	---	---	---	---	---	---	42	2.0	1240	.01	.00	.00
19	---	---	---	---	---	---	91	14	163	.00	.00	.00
20	---	---	---	---	---	---	427	122	55	.00	.00	.00
21	---	---	---	---	---	---	142	31	21	.00	.00	.00
22	---	---	---	---	---	---	33	12	9.7	.00	.00	.00
23	---	---	---	---	---	---	17	6.9	5.3	.00	.00	.00
24	---	---	---	---	---	---	9.6	4.9	3.8	.00	.00	.00
25	---	---	---	---	---	---	8.4	3.4	2.5	.00	.00	.00
26	---	---	---	---	---	---	e14	2.9	1.7	.00	.00	.00
27	---	---	---	---	---	---	6.7	2.5	1.3	.00	.00	.00
28	---	---	---	---	---	---	3.8	1.8	.89	e5.8	.00	.00
29	---	---	---	---	---	---	2.9	1.2	.62	156	.00	.00
30	---	---	---	---	---	---	79	.77	.43	101	.00	.00
31	---	---	---	---	---	---	---	.54	---	7.5	.00	---
TOTAL	---	---	---	---	---	---	---	467.51	6912.70	278.01	2.26	0.00

e Estimated

04085119 BOWER CREEK, AT HIGHWAY MM, NEAR DE PERE, WI--CONTINUED

PRECIPITATION QUANTITY

PERIOD OF RECORD.--October 1990 to April 1995 and March to September 1996 (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on Oct. 1, 1990. Rainfall estimated to be 0.00 for Apr. 3–5 because recorded precipitation interpreted as collector snowmelt. Rainfall missing for the period Oct. 1, 1995 to Mar. 27, 1996.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.97 in., June 17, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall Mar. 28 to Sept. 30, 1996, 2.17 in., June 17.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.00	.74	.00	.00	.00
2	---	---	---	---	---	---	.00	.00	.24	.99	.00	.00
3	---	---	---	---	---	---	.00	.18	.35	.00	.00	.00
4	---	---	---	---	---	---	.00	.00	.09	.00	.00	.00
5	---	---	---	---	---	---	.00	.16	.01	.00	.25	.00
6	---	---	---	---	---	---	.00	.00	.01	.00	.00	.00
7	---	---	---	---	---	---	.00	.00	1.31	.00	.05	.00
8	---	---	---	---	---	---	.00	.14	.02	.35	.00	.30
9	---	---	---	---	---	---	.00	.00	.03	.02	.00	.01
10	---	---	---	---	---	---	.00	.25	.15	.00	.00	.00
11	---	---	---	---	---	---	.00	.00	.01	.00	.00	.00
12	---	---	---	---	---	---	.91	.00	.00	.65	.00	.00
13	---	---	---	---	---	---	.02	.00	.00	.06	.00	.00
14	---	---	---	---	---	---	.00	.02	.00	.03	.08	.01
15	---	---	---	---	---	---	.00	.00	.00	.02	.00	.00
16	---	---	---	---	---	---	.00	.00	.37	.00	.00	.00
17	---	---	---	---	---	---	.00	.00	2.17	.00	.00	.00
18	---	---	---	---	---	---	.17	.00	.46	.11	.00	.00
19	---	---	---	---	---	---	.02	.62	.02	.00	.59	.00
20	---	---	---	---	---	---	.50	.02	.00	.00	.00	.04
21	---	---	---	---	---	---	.00	.00	.13	.00	.00	.07
22	---	---	---	---	---	---	.00	.00	.00	.00	.22	.03
23	---	---	---	---	---	---	.00	.01	.08	.00	.00	.04
24	---	---	---	---	---	---	.00	.00	.00	.00	.00	.05
25	---	---	---	---	---	---	.18	.00	.00	.00	.03	.00
26	---	---	---	---	---	---	.00	.00	.00	.00	.06	.57
27	---	---	---	---	---	---	.00	.00	.26	.00	.00	.01
28	---	---	---	---	---	.00	.00	.00	.00	1.51	.00	.01
29	---	---	---	---	---	.00	.06	.00	.08	1.24	.00	.00
30	---	---	---	---	---	.02	.11	.00	.00	.01	.00	.01
31	---	---	---	---	---	.08	---	.00	---	.00	.05	---
TOTAL	---	---	---	---	---	---	1.97	1.40	6.53	4.99	1.33	1.15

040851385 FOX RIVER, AT OIL TANK DEPOT, AT GREEN BAY, WI

LOCATION.--Lat 44°31'43", long 88°01'12" in section 25, T.24 N., R.20 E., Brown County, Hydrologic Unit 04030204, about 0.5 mi upstream of Interstate Highway 43 bridge in Green Bay, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--6,330 mi^2.

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Acoustical Velocity Meter (AVM) system. Two-path transducer installation.

REMARKS.--No estimated daily discharges. Records good (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

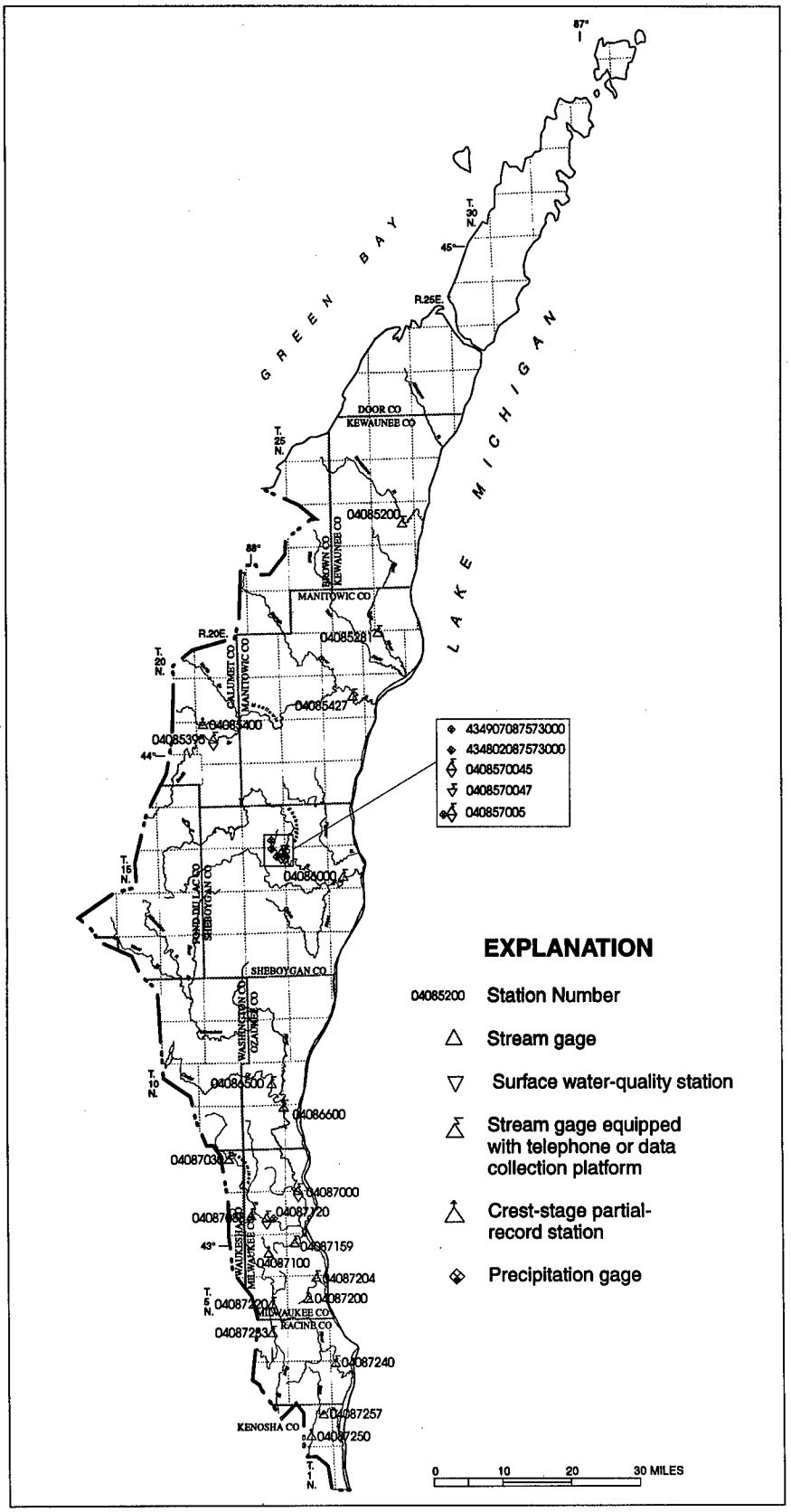
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3130	8630	4390	3780	3970	5890	8440	14100	3590	13600	5310	3990
2	2030	14100	3290	3410	4110	5980	8230	13800	4600	13600	5130	5050
3	4230	10300	4720	3830	3630	5790	8570	13200	4640	13400	5030	4470
4	5360	10900	4110	3900	3720	5790	9160	13300	6770	12400	5160	3580
5	4430	10100	4840	3580	4510	5560	9780	12300	6650	11900	4920	3470
6	7600	10200	2480	3940	3490	4590	9340	13400	6130	11100	3940	2260
7	8650	10100	3610	3690	4730	5410	9620	12900	7460	11100	5010	1780
8	7520	9440	4000	3660	5620	5320	9770	12400	8490	9810	5020	1800
9	7070	9320	3950	3340	6150	4720	9670	12300	7220	8580	4100	1820
10	7710	9130	4140	3670	6430	4970	9500	11600	7650	5930	4080	2180
11	9300	10500	3310	3630	6770	4960	9860	11700	8760	5470	3670	2650
12	9960	8000	3350	3450	6300	4340	9680	12000	9050	5220	3520	34
13	12000	9370	3640	3710	5900	5480	10100	11900	8090	4720	4260	2160
14	11800	9370	4450	3840	6390	6690	10100	11200	7460	5010	4580	1890
15	11100	9620	4560	3210	6560	5270	10100	9920	6460	4640	4110	1660
16	9760	8840	3720	4190	6530	4720	10800	8100	6010	3540	3270	743
17	11100	8790	3990	3280	6300	4350	10700	4830	11700	3330	3520	721
18	10200	9180	3920	5310	6460	4490	10100	6480	16700	3360	3470	731
19	10200	9060	3970	7290	6150	4810	11000	5890	15900	4130	4400	1130
20	11100	8460	3870	3860	6460	4880	12100	6590	16000	5010	4010	1170
21	10500	8180	3820	4300	5680	6030	13000	6710	14900	5560	5020	1640
22	10600	6710	3880	3670	6220	6090	10900	5970	14600	5130	4040	1790
23	9060	6000	3810	4080	5760	5480	10700	5120	14600	5790	3000	1480
24	10500	6560	4150	4060	6450	5400	10700	5630	13800	5470	4870	1430
25	9640	6670	3900	3900	6630	7400	12000	6050	14600	4970	4430	1750
26	6860	6140	3570	3490	6770	7970	13700	5260	14200	4600	1630	698
27	8820	6670	4140	4870	7380	6580	11500	5340	14400	4860	2260	2730
28	9450	5680	3570	3080	7560	7060	11900	5350	14100	5250	2300	1400
29	8690	4700	3910	4470	5980	7250	10500	4750	14300	5620	2470	1410
30	7940	4550	3300	4000	---	7390	13500	3650	14000	5750	2200	884
31	7300	---	4240	4050	---	7950	---	4030	---	5090	2690	---
TOTAL	263610	255270	120600	122540	168610	178610	315020	275770	312830	213940	121420	58501
MEAN	8504	8509	3890	3953	5814	5762	10500	8896	10430	6901	3917	1950
MAX	12000	14100	4840	7290	7560	7970	13700	14100	16700	13600	5310	5050
MIN	2030	4550	2480	3080	3490	4340	8230	3650	3590	3330	1630	34
CFSM	1.34	1.34	.61	.62	.92	.91	1.66	1.41	1.65	1.09	.62	.31
IN.	1.55	1.50	.71	.72	.99	1.05	1.85	1.62	1.84	1.26	.71	.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1996, BY WATER YEAR (WY)

MEAN	4101	5709	5063	4159	3816	6048	7282	7197	7379	5178	4127	3843
MAX	8504	8668	9446	6092	5814	7827	13660	13220	14780	15620	6855	6172
(WY)	1996	1993	1993	1993	1996	1994	1993	1993	1993	1993	1993	1993
MIN	1699	3069	2977	2768	2070	3320	3010	3667	2484	2140	2134	1673
(WY)	1990	1990	1990	1990	1995	1995	1990	1989	1994	1995	1989	1989

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1989 - 1996	
ANNUAL TOTAL	1743987		2406721			
ANNUAL MEAN	4778		6576		5329	
HIGHEST ANNUAL MEAN					9102	1993
LOWEST ANNUAL MEAN					3851	1989
HIGHEST DAILY MEAN	14100	Nov 2	16700	Jun 18	33800	Jun 23 1990
LOWEST DAILY MEAN	-211	Jun 26	34	Sep 12	-3260	Nov 4 1990
ANNUAL SEVEN-DAY MINIMUM	1330	Feb 20	1110	Sep 15	598	Oct 12 1989
ANNUAL RUNOFF (CFSM)	.75		1.04		.84	
ANNUAL RUNOFF (INCHES)	10.25		14.14		11.44	
10 PERCENT EXCEEDS	9400		11900		10000	
50 PERCENT EXCEEDS	3880		5620		4250	
90 PERCENT EXCEEDS	1860		3190		2080	



Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Transverse Mercator projection.

LAKE MICHIGAN BASIN

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 mi^2.

PERIOD OF RECORD.--Annual maximum, water years 1958-65, and occasional low-flow measurements, water years 1963-64. September 1964 to July 1996 (discontinued). No winter records for years 1965 and 1966.

REVISED RECORDS.--WDR WI-79-1: Drainage area. WDR WI-85-1: 1962(M), 1965(M), 1967-69(M), 1971(M), 1973-74(M), 1976(M), 1978(M), 1980-82(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 579.64 ft above sea level (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: June 11–30 (based on intermittent observer readings) and ice-affected periods, Nov. 23, 24, and Nov. 28 to Mar. 29. Records good except those for June 11–30, which are fair, and those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	93	37	30	58	300	212	429	45	---	---	---
2	29	535	36	30	56	240	206	269	120	---	---	---
3	29	689	36	29	56	200	172	188	144	---	---	---
4	42	331	35	28	54	180	119	161	239	---	---	---
5	39	182	34	27	54	160	79	135	215	---	---	---
6	58	122	37	30	54	140	85	158	149	---	---	---
7	150	94	37	32	56	130	105	150	249	---	---	---
8	111	78	34	34	62	130	121	124	693	---	---	---
9	77	65	32	31	70	120	121	120	551	---	---	---
10	53	62	34	28	84	120	178	138	284	---	---	---
11	41	63	36	28	100	120	251	206	210	---	---	---
12	35	56	38	29	90	150	455	151	170	---	---	---
13	31	54	38	29	82	220	570	113	130	---	---	---
14	28	47	37	28	76	900	351	93	98	---	---	---
15	28	47	38	26	72	960	253	85	78	---	---	---
16	23	43	35	28	68	440	320	81	86	---	---	---
17	22	42	32	28	64	300	652	78	440	---	---	---
18	20	43	31	28	62	260	429	77	2500	---	---	---
19	21	43	30	200	58	230	392	112	2800	---	---	---
20	26	48	29	280	56	220	430	156	740	---	---	---
21	128	55	29	250	54	190	786	144	390	---	---	---
22	244	51	28	190	54	170	408	113	230	---	---	---
23	193	41	28	150	66	160	244	92	170	---	---	---
24	136	34	27	110	120	150	177	80	160	---	---	---
25	96	38	27	90	200	190	162	69	140	---	---	---
26	72	37	26	80	300	190	195	63	120	---	---	---
27	98	33	27	74	370	180	171	59	110	---	---	---
28	326	34	28	68	390	160	133	56	100	---	---	---
29	275	33	29	64	400	180	112	51	84	---	---	---
30	167	34	29	62	---	199	228	48	72	---	---	---
31	104	---	28	60	---	200	---	46	---	---	---	---
TOTAL	2726	3127	1002	2201	3286	7489	8117	3845	11517	---	---	---
MEAN	87.9	104	32.3	71.0	113	242	271	124	384	---	---	---
MAX	326	689	38	280	400	960	786	429	2800	---	---	---
MIN	20	33	26	26	54	120	79	46	45	---	---	---
CFSM	.69	.82	.25	.56	.89	1.90	2.13	.98	3.02	---	---	---
IN.	.80	.92	.29	.64	.96	2.19	2.38	1.13	3.37	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	47.7	69.8	55.6	38.2	59.3	273	211	85.2	87.1	41.3	34.7	58.3
MAX	221	458	226	265	314	567	450	354	483	342	113	454
(WY)	1985	1986	1993	1973	1984	1986	1993	1973	1990	1993	1975	1986
MIN	10.1	10.9	9.10	9.83	11.9	77.5	56.4	21.2	12.3	8.29	7.90	8.98
(WY)	1967	1977	1977	1977	1977	1970	1990	1977	1988	1965	1970	1966

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR (OCTOBER-JUNE)		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	21723.8					
ANNUAL MEAN	59.5				87.8	
HIGHEST ANNUAL MEAN					178	1993
LOWEST ANNUAL MEAN					35.7	1970
HIGHEST DAILY MEAN	1010	Mar 21	2800	Jun 19	5950	Jun 23 1990
LOWEST DAILY MEAN	9.8	Jul 31	20	Oct 18	5.9	Jul 30 1965
ANNUAL SEVEN-DAY MINIMUM	11	Jul 15			6.3	Aug 22 1970
INSTANTANEOUS PEAK FLOW			5700	Jun 18	(a)8570	Jun 23 1990
INSTANTANEOUS PEAK STAGE			(b)14.30	Jun 18	(c)16.03	Mar 30 1960
INSTANTANEOUS LOW FLOW			(d)6.9	Dec 6	(d)4.0	Nov 22 1977
ANNUAL RUNOFF (CFSM)	.47				.69	
ANNUAL RUNOFF (INCHES)	6.36				9.40	
10 PERCENT EXCEEDS	115				181	
50 PERCENT EXCEEDS	29				32	
90 PERCENT EXCEEDS	14				13	

(a) Gage height, 16.00 ft, from crest-stage gage
(b) From graph based on gage readings
(c) Backwater from ice
(d) Result of freezeup

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 mi^2.

PERIOD OF RECORD.--July 1972 to September 1996 (discontinued).

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 584.72 ft above sea level.

REMARKS.--Estimated daily discharges: Oct. 27–31, July 13–22, and ice-affected periods, Nov. 27–30, Dec. 5–7, and Dec. 9 to Apr. 8. Records good except those for estimated daily discharges, which are poor (see page 12). Occasional regulation caused by recreation dam 0.3 mi upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	47	27	18	40	150	150	221	43	62	27	10
2	8.4	133	29	18	39	110	140	202	105	67	24	9.6
3	9.6	124	32	18	39	84	130	164	134	80	21	9.8
4	13	109	33	18	40	76	120	138	143	70	20	10
5	12	79	38	18	42	68	110	120	142	56	19	9.7
6	23	60	43	18	44	64	120	113	126	48	19	9.3
7	32	53	31	19	46	60	130	107	144	44	19	9.2
8	30	47	26	20	50	58	140	98	241	42	18	9.5
9	23	40	27	21	64	56	132	100	260	39	16	9.9
10	18	38	28	20	80	56	147	114	230	38	15	10
11	16	39	27	21	86	58	192	133	187	33	14	10
12	15	35	28	20	78	68	280	125	147	34	13	9.8
13	14	35	30	20	70	120	376	106	115	60	13	9.5
14	13	28	32	19	64	200	347	92	92	74	12	9.6
15	12	31	30	19	58	260	259	84	74	58	12	9.9
16	12	31	28	20	56	250	271	80	63	48	12	11
17	12	27	27	23	50	210	326	77	415	42	12	11
18	12	31	26	66	48	180	297	75	1720	48	11	11
19	12	31	24	190	45	160	343	71	1730	54	12	10
20	15	33	24	160	46	150	364	113	1100	45	14	11
21	33	37	23	120	47	150	362	167	623	33	15	12
22	52	33	22	100	48	140	291	155	344	27	15	14
23	49	31	22	80	50	120	221	108	217	25	15	15
24	38	30	21	72	100	110	169	84	163	23	14	14
25	31	28	20	66	150	150	148	72	132	21	12	12
26	27	26	20	60	180	160	156	65	108	21	11	15
27	41	26	20	56	190	130	143	60	98	21	11	25
28	100	26	20	52	200	120	123	57	93	20	11	22
29	84	27	20	48	200	100	109	52	78	21	11	17
30	56	25	19	44	---	110	166	48	67	29	10	16
31	40	---	18	42	---	130	---	44	---	30	10	---
TOTAL	861.5	1340	815	1486	2250	3858	6262	3245	9134	1313	458	361.8
MEAN	27.8	44.7	26.3	47.9	77.6	124	209	105	304	42.4	14.8	12.1
MAX	100	133	43	190	200	260	376	221	1730	80	27	25
MIN	8.4	25	18	18	39	56	109	44	43	20	10	9.2
CFSM	.25	.41	.24	.44	.71	1.13	1.90	.95	2.77	.39	.13	.11
IN.	.29	.45	.28	.50	.76	1.30	2.12	1.10	3.09	.44	.15	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996, BY WATER YEAR (WY)

MEAN	49.8	72.6	56.4	36.3	55.1	207	199	84.5	82.1	30.0	30.9	48.6
MAX	228	365	161	156	307	435	453	331	440	120	108	345
(WY)	1985	1986	1993	1973	1984	1986	1993	1973	1990	1993	1980	1986
MIN	9.80	11.9	7.72	7.70	9.39	34.5	53.3	20.2	9.19	7.77	6.75	5.63
(WY)	1977	1977	1977	1977	1977	1980	1990	1977	1988	1995	1988	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1972 - 1996	
ANNUAL TOTAL	13371.4		31384.3			
ANNUAL MEAN	36.6		85.7		79.1	
HIGHEST ANNUAL MEAN					151	1986
LOWEST ANNUAL MEAN					34.5	1977
HIGHEST DAILY MEAN	346	Mar 21	1730	Jun 19	2930	Jun 24 1990
LOWEST DAILY MEAN	5.3	Jul 26,27	8.4	Oct 2	4.5	Aug 7 1988
ANNUAL SEVEN-DAY MINIMUM	5.5	Jul 24	9.6	Sep 2	4.8	Aug 5 1988
INSTANTANEOUS PEAK FLOW			2130	Jun 18	(a)3380	Jun 24 1990
INSTANTANEOUS PEAK STAGE			11.55	Jun 18	13.75	Mar 31 1979
INSTANTANEOUS LOW FLOW					1.7	Jul 20 1979
ANNUAL RUNOFF (CFSM)	.33		.78		.72	
ANNUAL RUNOFF (INCHES)	4.52		10.61		9.77	
10 PERCENT EXCEEDS	80		172		183	
50 PERCENT EXCEEDS	21		44		33	
90 PERCENT EXCEEDS	8.8		12		11	

(a) Gage height, 13.35 ft

04085395 SOUTH BRANCH MANITOWOC RIVER AT HAYTON, WI

LOCATION.--Lat 44°01'29", long 88°07'05", in SW 1/4 SW 1/4 sec.16, T.18 N., R.20 E., Calumet County, Hydrologic Unit 04030101, on left bank 100 ft downstream from Weeks Road bridge, at Hayton.

DRAINAGE AREA.--109 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1993 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 808 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected period, Dec. 5 to Mar. 28. Records fair except those for ice-affected period, which is poor (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	54	22	8.0	6.8	60	103	119	25	98	28	12
2	4.4	105	22	8.0	6.2	56	103	112	46	107	26	12
3	6.5	86	23	7.8	6.0	50	103	103	51	114	24	11
4	8.0	75	23	7.8	6.0	45	108	94	44	106	22	11
5	7.4	68	22	7.6	7.0	40	103	85	39	92	25	10
6	21	67	21	7.6	11	38	106	80	38	81	47	10
7	23	68	19	7.0	17	36	101	76	90	72	84	10
8	19	70	18	7.0	25	33	97	74	120	68	79	11
9	16	69	17	7.2	40	31	92	74	110	65	56	16
10	15	70	16	7.4	60	32	88	86	100	60	39	13
11	13	65	16	7.6	130	35	88	93	90	53	31	13
12	12	53	16	8.2	150	45	93	86	83	50	28	12
13	12	58	17	9.0	100	90	94	77	78	48	27	11
14	12	51	19	8.6	80	150	91	71	71	43	27	10
15	11	43	16	8.0	54	130	89	67	62	39	26	10
16	12	39	15	8.6	45	110	96	64	56	33	25	9.8
17	14	35	14	12	40	100	103	61	372	29	24	9.6
18	12	34	13	40	37	90	103	57	537	45	21	9.5
19	15	32	12	120	40	86	150	53	508	82	24	9.1
20	18	32	12	45	50	80	192	49	402	84	27	8.6
21	23	31	12	32	45	76	190	49	340	67	23	8.8
22	25	29	11	17	46	74	167	46	310	52	23	9.7
23	22	28	11	15	47	74	144	43	282	43	23	10
24	22	25	11	13	50	80	130	41	254	36	20	9.2
25	19	25	10	12	60	94	122	38	227	31	18	8.4
26	18	24	9.2	11	70	86	115	36	199	28	17	10
27	32	23	9.0	10	90	84	107	34	172	26	17	15
28	41	22	8.4	9.0	80	82	98	32	146	25	16	12
29	34	22	8.2	8.0	70	77	91	27	124	31	15	10
30	30	21	8.0	7.4	---	79	107	26	110	32	14	9.5
31	29	---	8.0	7.0	---	99	---	25	---	30	13	---
TOTAL	554.8	1424	458.8	483.8	1469.0	2242	3374	1978	5086	1770	889	321.2
MEAN	17.9	47.5	14.8	15.6	50.7	72.3	112	63.8	170	57.1	28.7	10.7
MAX	41	105	23	120	150	150	192	119	537	114	84	16
MIN	4.4	21	8.0	7.0	6.0	31	88	25	25	25	13	8.4
CFSM	.16	.44	.14	.14	.46	.66	1.03	.59	1.56	.52	.26	.10
IN.	.19	.49	.16	.17	.50	.77	1.15	.68	1.74	.60	.30	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	18.1	30.7	15.9	10.4	30.7	73.2	76.4	45.3	64.8	76.9	19.1	14.7
MAX	29.3	47.5	24.0	15.6	50.7	89.2	112	63.8	170	232	30.4	35.3
(WY)	1994	1996	1994	1996	1996	1994	1996	1996	1996	1993	1993	1993
MIN	7.17	10.9	8.74	6.21	6.42	58.2	48.2	30.1	12.1	2.46	8.48	4.91
(WY)	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1995	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1993 - 1996	
ANNUAL TOTAL	7935.52		20050.6			
ANNUAL MEAN	21.7		54.8		34.4	
HIGHEST ANNUAL MEAN					54.8	1996
LOWEST ANNUAL MEAN					17.3	1995
HIGHEST DAILY MEAN	169	(a)Mar 13	537	Jun 18	640	Jul 6 1993
LOWEST DAILY MEAN	.92	Jul 31	4.4	Oct 2	.92	Jul 31 1995
ANNUAL SEVEN-DAY MINIMUM	1.5	Jul 26	6.6	Jan 30	1.5	Jul 26 1995
INSTANTANEOUS PEAK FLOW			579	Jun 18	866	Jul 5 1993
INSTANTANEOUS PEAK STAGE			6.20	Jun 18	6.76	Jul 5 1993
INSTANTANEOUS LOW FLOW			3.8	Oct 2,3	.89	(b)Jul 30 1995
ANNUAL RUNOFF (CFSM)	.20		.50		.32	
ANNUAL RUNOFF (INCHES)	2.71		6.84		4.29	
10 PERCENT EXCEEDS	56		107		90	
50 PERCENT EXCEEDS	12		34		21	
90 PERCENT EXCEEDS	3.8		9.0		6.0	

(a) Ice affected
(b) Also occurred July 31 to Aug. 1, 1995

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1993 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July 1994 to current year.
SUSPENDED-SOLIDS DISCHARGE: June 1993 to May 15, 1996.

INSTRUMENTATION.--Stage-activated water-quality sampler since June 16, 1993. Continuous water-temperature recorder since July 7, 1994.

REMARKS.--Chemical analyses by the Wisconsin State Laboratory of Hygiene and National Water-Quality Laboratory. Samples are point samples unless otherwise indicated. Records represent water temperature at sensor within 0.5°C.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum observed, 33.5°C, July 14, 1995; minimum observed, 0.0°C, on many days during 1995 water year.
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 26 tons, Mar. 12, 1995; minimum daily, 0.08 ton, on many days during 1994 and 1995 water years.
SUSPENDED-SOLIDS CONCENTRATIONS: Maximum observed, 466 mg/L, July 25, 1994; minimum observed, 3 mg/L, numerous days.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum observed, 27.5°C, June 29, 30, and Aug. 13; minimum observed, 0.0°C, on many day.
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 10 tons, Nov. 3, Jan. 19, and Apr. 26; minimum daily, 0.10 ton, Jan. 10, 11.
SUSPENDED-SOLIDS CONCENTRATIONS: Maximum observed, 124 mg/L, Jan. 29; minimum observed, <5 mg/L, on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1995				
02...	1200	--	3.8	63
05...	1200	--	7.2	43
06...	0815	--	15	49
06...	0915	--	24	48
06...	1015	--	35	52
06...	1200	--	40	46
07...	1200	--	23	48
10...	1200	--	14	30
13...	1200	--	12	54
16...	1200	--	12	39
19...	1200	--	13	36
22...	1200	--	25	13
25...	1200	--	20	23
27...	1200	--	39	28
28...	1200	--	41	29
31...	1200	--	29	5
NOV				
01...	1200	--	43	<5
01...	1800	--	55	8
01...	2000	--	74	10
01...	2115	--	96	13
01...	2230	--	117	14
03...	1200	--	85	54
05...	1200	--	70	13
07...	1200	--	68	11
10...	1200	--	70	6
15...	1200	--	42	8
20...	1200	--	32	<5
25...	1200	--	24	13
29...	1200	--	21	8
DEC				
04...	1200	--	24	6
*10...	1130	16	--	<5
10...	1131	16	--	<5
14...	1200	19	--	<5
19...	1200	12	--	<5
24...	1200	11	--	<5
29...	1200	8.2	--	16
JAN 1996				
10...	1606	7.4	--	5
*10...	1607	7.4	--	<5
14...	1200	8.6	--	<5
18...	1030	40	--	66
18...	1230	40	--	64
18...	1500	40	--	118
18...	1715	40	--	100
19...	1200	120	--	28
19...	1330	120	--	14
*19...	1331	120	--	17
24...	1200	13	--	89
29...	1200	8.0	--	124
FEB				
03...	1200	6.0	--	115
15...	1200	54	--	7
17...	1200	40	--	<5
20...	1200	50	--	5
21...	1200	45	--	8
23...	1200	47	--	<5
24...	1545	50	--	12
24...	1830	50	--	23
25...	1200	60	--	6
25...	1815	60	--	13
MAR				
01...	1200	60	--	<5
06...	1200	38	--	<5
09...	1200	31	--	<5
11...	1200	35	--	<5
12...	1630	45	--	22
13...	1415	90	--	23
13...	1800	90	--	23
*14...	1527	150	--	9
14...	1528	150	--	19
21...	1200	76	--	6
28...	1200	82	--	6
APR				
04...	1200	--	109	<5
11...	1200	--	87	9
14...	1200	--	90	<5
20...	1200	--	198	<5
26...	1200	--	115	34
29...	1200	--	88	22
MAY				
01...	1200	--	120	<5
07...	1200	--	76	8
11...	1200	--	93	15
14...	1200	--	70	32

* Equal-width increment sample

04085395 SOUTH BRANCH MANITOWOC RIVER AT HAYTON, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
JUN 1996				
07...	1915	--	112	69
17...	0330	--	116	46
17...	0500	--	181	50
17...	0615	--	254	61
17...	0715	--	343	93
17...	0800	--	397	50
17...	0900	--	446	77
17...	1045	--	501	58
18...	0900	--	551	29
18...	1005	--	564	26
*18...	1010	--	565	23
JUL				
02...	0600	--	111	45
02...	2015	--	131	22

* Equal-width increment sample

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.0	14.5	16.5	7.5	5.5	6.0	1.0	.5	.5	.0	.0	.0
2	17.5	13.0	15.0	8.0	4.5	6.5	1.0	.5	1.0	.5	.0	.0
3	15.0	13.5	14.5	4.5	1.5	3.0	1.5	.5	1.0	.5	.0	.0
4	17.0	12.5	14.5	2.0	.5	1.0	1.5	1.0	1.0	.5	.0	.0
5	15.0	14.0	14.0	2.0	.0	1.0	1.0	.5	1.0	.5	.0	.0
6	14.0	12.5	13.0	4.0	1.0	2.5	1.0	.0	.5	.5	.0	.0
7	12.5	11.5	11.5	3.5	1.5	2.5	1.0	.0	.5	.5	.0	.0
8	14.0	10.5	12.0	1.5	.0	.5	1.0	.0	.5	.5	.0	.0
9	15.5	12.0	13.5	.5	.0	.5	.0	.0	.0	.5	.0	.0
10	16.0	13.0	14.5	1.5	.5	1.0	.5	.0	.0	.5	.0	.0
11	17.0	13.5	15.0	.5	.0	.0	.5	.0	.0	.5	.0	.0
12	19.0	14.5	16.5	.5	.0	.0	.5	.0	.5	.0	.0	.0
13	18.5	15.5	17.0	1.0	.0	.5	.5	.0	.5	.5	.0	.0
14	16.5	10.5	13.5	1.0	.0	.5	.5	.0	.5	.0	.0	.0
15	10.5	8.0	9.0	1.0	.0	.5	.5	.0	.5	.5	.0	.0
16	10.0	6.5	8.5	1.0	.5	.5	.5	.0	.5	.5	.0	.0
17	12.0	8.0	10.0	1.0	.5	.5	.5	.0	.5	.5	.0	.0
18	12.0	10.0	11.5	1.0	.5	1.0	.5	.0	.5	.0	.0	.0
19	13.5	11.5	12.5	1.5	1.0	1.0	.5	.0	.5	.0	.0	.0
20	12.5	9.5	11.0	2.0	1.0	1.5	.5	.0	.5	.5	.0	.0
21	9.5	6.0	7.5	1.5	.5	1.0	.5	.0	.5	.5	.0	.0
22	8.0	5.5	6.5	1.0	.5	.5	.5	.0	.0	.5	.0	.0
23	10.5	6.5	8.5	1.5	.0	.5	.5	.0	.5	.5	.0	.0
24	10.0	7.5	8.5	2.0	.5	1.0	.5	.0	.0	.0	.0	.0
25	9.5	6.0	7.5	1.5	1.0	1.5	.5	.0	.0	.0	.0	.0
26	10.0	7.5	8.5	1.5	1.0	1.0	.5	.0	.0	.0	.0	.0
27	9.0	8.5	9.0	1.0	.5	1.0	.5	.0	.0	.0	.0	.0
28	9.0	7.5	8.5	1.0	.0	.5	.5	.0	.0	.0	.0	.0
29	7.5	6.5	7.0	1.0	.0	.5	.5	.0	.0	.0	.0	.0
30	7.0	5.5	6.5	.5	.5	.5	.5	.0	.0	.0	.0	.0
31	7.0	5.5	6.5	---	---	---	.5	.0	.0	.0	.0	.0
MONTH	19.0	5.5	11.2	8.0	.0	1.3	1.5	.0	.4	.5	.0	.0

04085395 SOUTH BRANCH MANITOWOC RIVER AT HAYTON, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	.5	.0	.0	4.0	1.0	2.5	8.0	5.0	6.5
2	.0	.0	.0	.5	.0	.0	4.5	2.0	3.0	11.0	6.0	8.5
3	.0	.0	.0	.5	.0	.0	3.5	2.0	3.0	12.0	9.5	10.5
4	.0	.0	.0	.5	.0	.0	2.5	.5	1.5	14.5	10.0	12.0
5	.0	.0	.0	.0	.0	.0	4.0	.5	2.0	12.5	9.5	10.5
6	.5	.0	.0	.0	.0	.0	5.0	2.5	3.5	13.0	8.5	10.5
7	.0	.0	.0	.0	.0	.0	5.5	2.5	4.0	15.0	10.0	12.5
8	.0	.0	.0	.0	.0	.0	5.0	3.5	4.0	14.0	11.0	12.0
9	.0	.0	.0	.5	.0	.0	6.5	3.0	4.5	11.5	10.5	10.5
10	.0	.0	.0	.5	.0	.0	8.5	3.5	6.0	11.0	9.5	10.5
11	.0	.0	.0	.0	.0	.0	12.5	5.5	8.5	11.0	8.0	9.5
12	.0	.0	.0	.5	.0	.0	10.5	6.0	7.0	12.0	8.0	10.0
13	.5	.0	.0	.5	.0	.0	6.0	4.5	5.0	14.5	8.5	11.0
14	.5	.0	.0	.5	.0	.0	6.0	3.5	4.5	12.0	9.5	11.0
15	.0	.0	.0	.5	.0	.0	6.0	3.0	4.5	11.0	10.0	10.5
16	.0	.0	.0	.0	.0	.0	8.0	3.5	5.5	12.5	10.0	11.5
17	.0	.0	.0	.5	.0	.0	10.5	5.0	7.5	16.0	11.0	13.0
18	.5	.0	.0	1.0	.0	.0	13.0	7.5	10.0	23.0	15.0	18.5
19	.0	.0	.0	.5	.0	.0	15.0	10.5	12.5	23.0	19.0	21.5
20	.0	.0	.0	1.0	.0	.5	14.0	11.0	12.5	22.5	18.0	20.0
21	.0	.0	.0	1.0	.0	.5	13.5	9.5	11.5	20.5	17.0	18.5
22	.0	.0	.0	1.0	.0	.5	13.0	11.0	11.5	20.5	16.5	19.0
23	.0	.0	.0	1.5	.0	.5	13.5	9.0	11.0	20.0	15.0	17.5
24	.5	.0	.0	.5	.0	.5	14.5	10.0	12.0	15.0	13.0	14.0
25	.5	.0	.0	.5	.0	.5	13.0	11.5	12.0	14.5	12.0	13.5
26	.0	.0	.0	1.0	.0	.0	11.5	9.0	10.5	14.0	13.0	13.5
27	.0	.0	.0	1.0	.0	.5	12.5	8.0	10.0	14.0	11.5	13.0
28	.0	.0	.0	1.5	.0	.5	13.5	9.0	11.0	15.0	12.0	13.5
29	.5	.0	.0	2.5	.0	1.0	11.0	7.0	9.0	17.0	13.0	15.0
30	---	---	---	2.5	.5	1.5	7.0	5.5	6.0	20.0	14.0	16.5
31	---	---	---	3.0	1.5	2.0	---	---	---	20.5	15.5	18.0
MONTH	.5	.0	.0	3.0	.0	.3	15.0	.5	7.2	23.0	5.0	13.3
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.0	17.5	18.5	27.0	23.0	25.0	22.0	18.5	20.0	25.5	22.0	23.5
2	23.0	16.5	19.5	25.0	22.0	23.5	25.0	20.0	22.0	26.0	21.0	23.0
3	21.0	18.0	19.0	24.5	20.5	22.0	25.5	21.0	23.0	26.5	21.5	23.5
4	18.5	16.5	17.5	24.0	20.0	21.5	25.0	22.0	23.5	27.0	22.0	24.5
5	19.5	16.0	18.0	25.0	20.0	22.0	26.5	22.5	24.0	25.0	22.5	24.0
6	20.0	17.0	18.0	25.0	21.0	23.0	27.0	23.0	25.0	25.5	23.0	24.0
7	18.5	14.0	15.5	25.5	21.5	23.5	27.5	23.5	25.5	25.5	23.0	24.0
8	16.5	13.5	15.0	24.0	21.5	23.0	26.0	23.0	24.5	25.0	22.0	23.0
9	16.5	14.5	15.5	22.0	19.5	21.0	24.0	20.5	22.5	22.5	20.5	22.0
10	16.5	15.5	16.0	23.5	18.5	20.5	23.0	20.0	21.5	23.5	19.5	21.5
11	21.0	15.5	17.5	22.0	19.0	20.5	23.0	20.0	21.0	22.5	19.5	21.0
12	23.0	17.0	20.0	22.5	19.5	21.0	25.0	20.5	22.5	19.5	15.0	17.5
13	25.5	19.5	22.5	23.5	20.0	21.5	27.5	22.5	24.5	15.5	13.0	14.5
14	26.5	22.0	24.0	23.0	20.5	21.5	25.5	23.0	24.0	14.0	12.5	13.5
15	26.0	22.0	24.0	24.0	20.5	22.0	23.5	20.5	21.5	15.0	12.5	13.5
16	23.5	20.5	22.0	25.5	21.5	23.5	24.0	19.0	21.0	15.0	13.5	14.5
17	20.5	16.5	17.5	24.5	22.0	23.5	24.5	20.0	22.0	16.0	14.0	15.0
18	16.5	16.0	16.0	24.0	21.0	22.5	24.0	21.0	22.5	18.0	13.5	15.5
19	16.5	16.0	16.0	23.0	21.0	22.0	24.0	22.0	23.0	17.0	14.5	16.0
20	20.5	16.5	18.0	23.5	18.5	20.5	25.5	22.0	23.5	17.0	14.5	16.0
21	20.5	19.0	19.5	22.5	18.0	20.0	26.5	23.5	25.0	17.5	15.0	16.0
22	21.5	19.0	20.0	22.5	19.0	20.5	24.5	23.0	24.0	17.5	15.5	16.5
23	20.0	18.0	19.0	23.5	19.5	21.5	25.5	21.5	23.5	18.0	15.0	16.5
24	18.5	17.5	18.0	24.0	20.0	22.0	25.5	22.0	23.5	18.0	15.5	16.5
25	20.5	16.5	18.5	22.5	20.5	21.5	25.0	20.5	23.0	18.5	14.5	16.0
26	21.5	18.5	19.5	23.0	19.5	21.5	23.5	21.0	22.5	15.5	14.0	14.5
27	23.5	19.0	21.0	24.0	20.0	22.0	21.5	19.5	20.5	15.0	13.5	14.5
28	25.5	21.0	23.0	22.5	21.5	22.0	24.0	19.0	21.0	13.5	12.5	13.0
29	27.5	22.5	24.5	22.0	20.0	21.0	24.5	19.5	21.5	15.0	12.5	13.5
30	27.5	24.0	25.5	21.0	19.0	19.5	26.0	21.0	22.5	16.5	13.0	14.5
31	---	---	---	19.5	18.0	18.5	26.0	21.0	23.0	---	---	---
MONTH	27.5	13.5	19.3	27.0	18.0	21.7	27.5	18.5	22.8	27.0	12.5	18.0

04085395 SOUTH BRANCH MANITOWOC RIVER AT HAYTON, WI--CONTINUED

SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED(TONS PER DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.2	.42	.26	2.2	.83	1.5	1.8	---	---	---	---
2	.75	6.6	.40	.24	1.9	.76	1.5	1.6	---	---	---	---
3	.97	10	.39	.21	1.8	.67	1.4	1.6	---	---	---	---
4	1.1	5.5	.37	.19	1.5	.61	1.5	1.6	---	---	---	---
5	.88	2.6	.35	.17	1.4	.54	1.5	1.6	---	---	---	---
6	2.7	2.2	.32	.15	1.7	.51	1.7	1.6	---	---	---	---
7	2.9	2.0	.28	.13	2.1	.49	1.8	1.7	---	---	---	---
8	2.1	1.7	.26	.12	2.4	.45	1.8	1.9	---	---	---	---
9	1.5	1.4	.24	.11	3.1	.42	1.9	2.2	---	---	---	---
10	1.2	1.2	.22	.10	3.7	.43	2.0	3.0	---	---	---	---
11	1.3	1.1	.22	.10	6.3	.57	2.1	3.8	---	---	---	---
12	1.5	.97	.22	.11	5.7	2.2	1.9	4.5	---	---	---	---
13	1.7	1.1	.23	.12	3.0	5.5	1.6	5.2	---	---	---	---
14	1.6	1.0	.26	.12	1.9	8.0	1.3	5.9	---	---	---	---
15	1.3	.90	.22	.11	1.0	5.8	1.2	6.0	---	---	---	---
16	1.2	.77	.20	.12	.72	4.1	1.3	---	---	---	---	---
17	.94	.62	.19	.16	.55	3.2	1.4	---	---	---	---	---
18	.95	.56	.18	6.6	.50	2.4	1.4	---	---	---	---	---
19	1.3	.48	.16	10	.54	2.0	2.0	---	---	---	---	---
20	1.3	.44	.16	2.9	.72	1.5	2.7	---	---	---	---	---
21	1.2	.51	.16	2.9	.89	1.3	3.5	---	---	---	---	---
22	.94	.57	.15	2.1	.79	1.2	4.3	---	---	---	---	---
23	.93	.66	.15	2.6	.73	1.2	5.1	---	---	---	---	---
24	1.1	.71	.15	3.0	1.7	1.3	6.3	---	---	---	---	---
25	1.2	.83	.17	3.1	1.7	1.5	8.1	---	---	---	---	---
26	1.3	.75	.20	3.0	2.1	1.4	10	---	---	---	---	---
27	2.4	.65	.25	2.9	2.2	1.4	8.5	---	---	---	---	---
28	3.0	.55	.29	2.8	1.6	1.3	6.7	---	---	---	---	---
29	1.5	.48	.34	2.7	1.2	1.2	5.0	---	---	---	---	---
30	.74	.44	.31	2.4	---	1.2	3.1	---	---	---	---	---
31	.43	---	.29	2.3	---	1.5	---	---	---	---	---	---
TOTAL	43.53	48.49	7.75	51.82	55.64	55.48	94.1	---	---	---	---	---

04085427 MANITOWOC RIVER AT MANITOWOC, WI

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 mi^2.

PERIOD OF RECORD.--July 1972 to September 1996 (discontinued).

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

GAGE.--Water-stage recorder. Datum of gage is 610.12 ft above sea level.

REMARKS.--Estimated daily discharges: Ice-affected period, Nov. 13 to Mar. 29. Records good except those for ice-affected period, which is poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	146	88	62	74	200	745	710	146	767	87	31
2	21	251	94	60	70	200	753	696	200	727	82	31
3	25	273	98	58	66	190	741	661	219	676	75	29
4	30	273	100	58	60	190	730	619	216	635	67	27
5	27	252	100	56	56	180	703	578	217	590	62	27
6	38	308	92	56	54	180	698	544	210	554	75	26
7	42	304	94	54	54	170	692	512	285	516	90	25
8	46	288	100	54	58	170	669	494	445	481	102	24
9	52	236	96	52	64	160	649	472	475	435	106	24
10	50	208	88	52	76	160	635	480	564	378	108	25
11	50	220	84	54	110	160	631	492	606	321	106	28
12	49	172	80	56	130	180	623	485	568	270	91	29
13	47	180	86	56	130	230	611	469	538	217	83	30
14	43	190	90	54	130	300	607	454	505	183	71	31
15	43	180	88	52	130	400	603	434	452	151	61	30
16	50	160	82	56	130	580	641	408	398	134	57	30
17	44	140	80	62	130	640	673	395	1240	117	54	28
18	36	130	76	120	120	660	639	376	1960	104	49	25
19	31	110	74	140	120	680	735	372	1840	102	51	24
20	35	120	72	150	120	660	820	343	1710	112	54	25
21	47	110	70	150	120	660	859	319	1430	122	54	27
22	64	100	68	140	120	660	849	301	1300	132	55	27
23	72	110	66	130	120	640	838	283	1200	135	53	27
24	68	100	64	120	160	620	811	256	1130	125	52	31
25	62	96	62	120	190	600	779	237	1060	109	51	31
26	70	92	62	110	190	580	767	224	1010	92	46	37
27	88	86	60	100	200	640	748	212	965	77	43	44
28	98	80	60	96	200	680	701	193	914	68	37	33
29	110	78	58	90	200	700	645	179	865	69	34	41
30	115	84	62	86	---	710	660	169	819	81	33	44
31	114	---	64	80	---	714	---	157	---	87	33	---
TOTAL	1688	5077	2458	2584	3382	13494	21255	12524	23487	8567	2022	891
MEAN	54.5	169	79.3	83.4	117	435	708	404	783	276	65.2	29.7
MAX	115	308	100	150	200	714	859	710	1960	767	108	44
MIN	21	78	58	52	54	160	603	157	146	68	33	24
CFSM	.10	.32	.15	.16	.22	.83	1.35	.77	1.49	.53	.12	.06
IN.	.12	.36	.17	.18	.24	.95	1.50	.89	1.66	.61	.14	.06
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996, BY WATER YEAR (WY)												
MEAN	209	270	201	125	197	900	1005	390	283	142	73.9	151
MAX	1465	1367	575	503	1104	1951	2672	991	1396	1071	343	1711
(WY)	1987	1986	1983	1973	1984	1985	1979	1978	1993	1993	1986	1986
MIN	18.8	23.1	16.3	20.4	20.7	226	222	53.8	18.1	13.6	13.7	14.9
(WY)	1977	1977	1977	1977	1977	1980	1990	1977	1988	1988	1988	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1972 - 1996	
ANNUAL TOTAL	42387		97429			
ANNUAL MEAN	116		266		329	
HIGHEST ANNUAL MEAN					728	1986
LOWEST ANNUAL MEAN					82.7	1977
HIGHEST DAILY MEAN	(a)800	Mar 15	1960	Jun 18	8000	Mar 31 1979
LOWEST DAILY MEAN	13	(b)Jul 26	21	Oct 1,2	7.0	Oct 3 1989
ANNUAL SEVEN-DAY MINIMUM	14	Jul 25	25	Sep 4	8.1	Sep 28 1989
INSTANTANEOUS PEAK FLOW			2160	Jun 17	(c)8280	Mar 31 1979
INSTANTANEOUS PEAK STAGE			8.76	Jun 17	(d)13.30	Mar 25 1986
INSTANTANEOUS LOW FLOW			21	Oct 1,2	6.8	(e)Jul 8 1988
ANNUAL RUNOFF (CFSM)	.22		.51		.62	
ANNUAL RUNOFF (INCHES)	3.00		6.89		8.49	
10 PERCENT EXCEEDS	291		697		886	
50 PERCENT EXCEEDS	50		120		120	
90 PERCENT EXCEEDS	20		36		30	

(a) Ice affected
(b) Also occurred July 27,30,31
(c) Gage height, 13.24 ft
(d) From floodmarks
(e) Also occurred Oct. 3-5, 1989

434907087573000 OTTER CREEK RAIN GAGE #2 NEAR PLYMOUTH, WI

LOCATION.--Lat 43°49'07", long 87°57'30", in NE 1/4 NW 1/4 sec.35, T.16 N., R.21 E., Sheboygan County, Hydrologic Unit 04030101, on Garton Road, 0.5 mi east of junction with CTH E, near Plymouth.

PERIOD OF RECORD.--January 1991 to current year (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on Jan. 9, 1991. Rainfall estimated to be 0.00 for Nov. 29, Jan. 1, 10, 13, 26, and Feb. 20, 23 because recorded precipitation interpreted as collector snowmelt.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.48 in., July 5, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 2.27 in., June 17.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	1.13	.00	.00	.00	.00	.00	.00	1.31	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.01	.21	.61	.00	.00
3	.21	.00	.00	.00	.00	.00	.23	.09	.03	.00	.00	.00
4	.01	.00	.00	.00	.00	.00	.07	.01	.01	.00	.00	.00
5	.04	.00	.05	.00	.00	.00	.09	.03	.11	.00	.89	.00
6	1.19	.00	.00	.00	.00	.00	.00	.00	.39	.00	.00	.00
7	.01	.00	.00	.00	.01	.00	.00	.00	1.22	.00	.00	.04
8	.00	.00	.00	.00	.27	.00	.00	.10	.01	.04	.00	.32
9	.03	.00	.00	.00	.00	.00	.00	.05	.01	.30	.00	.00
10	.00	.04	.00	.00	.00	.00	.00	.56	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00
13	.01	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00
14	.06	.00	.35	.00	.00	.01	.00	.10	.00	.01	.00	.00
15	.00	.00	.00	.00	.00	.00	.29	.01	.00	.32	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.40	.03	.00	.00
17	.00	.05	.00	.26	.00	.00	.00	.00	2.27	.00	.00	.00
18	.00	.10	.00	.19	.00	.00	.41	.00	.37	.54	.00	.00
19	.53	.00	.00	.00	.00	.00	.13	.00	.02	.00	.69	.00
20	.44	.00	.00	.00	.00	.00	.18	.20	.01	.00	.00	.08
21	.07	.00	.00	.00	.00	.00	.00	.03	.04	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00
23	.18	.00	.00	.00	.00	.00	.00	.17	.02	.00	.00	.02
24	.02	.00	.00	.00	.00	.39	.01	.00	.03	.00	.00	.02
25	.00	.00	.00	.00	.02	.06	.16	.04	.00	.00	.00	.00
26	.00	.05	.00	.00	.05	.00	.01	.01	.00	.00	.00	1.27
27	1.02	.01	.00	.00	.22	.00	.00	.00	.00	.00	.00	.04
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	.00	.00
29	.00	.00	.00	.00	.00	.00	.21	.00	.02	.10	.00	.00
30	.00	.00	.00	.00	---	.01	.37	.00	.00	.00	.00	.00
31	.43	---	.00	.00	---	.06	---	.00	---	.00	.00	---
TOTAL	4.26	1.38	0.40	0.45	0.57	0.53	2.16	1.43	6.48	2.56	1.58	1.79

434802087573000 OTTER CREEK RAIN GAGE #1 NEAR PLYMOUTH, WI

LOCATION.--Lat 43°48'02", long 87°57'30", in SE 1/4 NW 1/4 sec.2, T.15 N., R.21 E., Sheboygan County, Hydrologic Unit 04030101, on Green Tree Road, 0.45 mi east of junction with CTH E, near Plymouth.

PERIOD OF RECORD.--January 1991 to current year (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on Jan. 9, 1991. Rainfall estimated to be 0.00 for Nov. 28, 29, Dec. 31, Jan. 1, 12, 26, and Feb. 20, 23 because recorded precipitation interpreted as collector snowmelt.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.27 in., June 17, 1996.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 2.27 in., June 17.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	1.04	.00	.00	.00	.00	.00	.00	1.22	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.20	.59	.00	.00
3	.16	.00	.00	.00	.00	.00	.26	.10	.01	.00	.00	.00
4	.01	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00	.00
5	.05	.00	.05	.00	.00	.00	.13	.03	.11	.00	1.06	.00
6	1.19	.00	.00	.00	.00	.00	.00	.00	.43	.00	.01	.00
7	.01	.00	.00	.00	.00	.00	.00	.00	1.19	.00	.01	.00
8	.00	.00	.00	.00	.26	.00	.00	.12	.03	.04	.00	.43
9	.02	.00	.00	.00	.00	.00	.00	.19	.01	.35	.00	.00
10	.00	.08	.00	.00	.00	.00	.00	.54	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.01	.00	.00	.12	.00	.00
13	.01	.00	.00	.00	.00	.00	.01	.00	.00	.22	.00	.00
14	.06	.00	.37	.00	.00	.00	.00	.11	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.44	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.46	.19	.00	.00
17	.00	.16	.00	.28	.00	.00	.00	.00	2.27	.00	.00	.00
18	.00	.02	.00	.15	.00	.00	.42	.00	.50	.45	.00	.00
19	.54	.01	.00	.00	.00	.00	.13	.00	.02	.00	.61	.00
20	.49	.00	.00	.00	.00	.00	.14	.21	.00	.00	.00	.07
21	.05	.00	.00	.00	.00	.00	.00	.02	.02	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.04	.01	.00	.00	.00
23	.15	.00	.00	.00	.00	.00	.00	.19	.04	.00	.00	.01
24	.01	.00	.00	.00	.00	.40	.01	.00	.02	.00	.00	.02
25	.00	.00	.00	.00	.04	.06	.10	.02	.00	.00	.00	.00
26	.00	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.12
27	1.10	.01	.00	.00	.29	.00	.00	.00	.00	.00	.00	.04
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.00	.00
29	.00	.00	.00	.00	.00	.00	.28	.00	.05	.10	.00	.00
30	.00	.00	.00	.00	---	.00	.45	.00	.00	.01	.00	.00
31	.45	---	.00	.00	---	.08	---	.00	---	.00	.00	---
TOTAL	4.31	1.40	0.42	0.43	0.59	0.54	2.42	1.57	6.60	2.18	1.69	1.69

0408570045 OTTER CREEK #3A, AT COUNTY HIGHWAY J, NEAR PLYMOUTH, WI

LOCATION.--Lat 43°47'26", long 87°56'00" in NE 1/4 NW 1/4 sec.12, T.15 N., R.21 E., Sheboygan County, Hydrologic Unit 04030101, on right bank downstream of easternmost bridge on County Highway J, 0.4 mi east of intersection of Highway 57, and 3.7 mi northeast of Plymouth.

DRAINAGE AREA.--9.10 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 775 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods Nov. 11–15, 23– 24, 27–28, Dec. 5–6, 9–11, Jan. 28 to Feb. 4, and Mar. 2–3, 20–23, 26–28. Records are good except those for estimated daily discharges, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	11	3.2	2.5	2.4	6.7	6.0	15	3.2	2.6	2.2	1.6
2	1.3	15	3.2	2.4	2.2	4.1	5.9	10	17	3.4	2.1	1.5
3	1.4	8.0	3.7	2.4	2.0	3.8	6.3	8.7	9.4	3.1	2.2	1.5
4	1.5	5.5	3.6	2.3	1.9	3.3	11	7.6	6.2	2.8	2.0	1.4
5	1.4	4.3	3.4	2.3	1.8	3.0	9.9	6.6	4.6	2.6	2.2	1.5
6	2.9	3.8	3.2	2.2	1.8	2.6	9.1	6.0	6.8	2.6	2.9	1.6
7	2.4	3.5	3.0	2.2	2.1	2.6	7.3	5.2	39	2.4	2.4	1.7
8	2.1	3.2	2.6	2.2	4.8	2.6	6.3	4.5	26	2.3	2.1	1.9
9	2.0	2.9	2.5	2.2	18	2.5	5.7	5.3	15	2.4	1.8	2.0
10	1.8	3.1	2.4	2.2	32	2.4	5.5	15	11	2.5	1.8	1.8
11	1.7	2.6	2.3	2.3	20	2.9	6.2	11	8.7	2.3	1.9	1.8
12	1.6	2.4	2.3	2.4	13	6.7	6.8	7.3	6.8	2.6	1.8	1.8
13	1.6	2.4	2.3	2.4	8.7	11	6.3	5.5	5.7	2.7	1.7	1.8
14	1.6	2.7	2.4	2.4	6.2	18	5.4	4.7	4.7	2.7	1.5	1.7
15	1.6	2.7	2.5	2.3	4.7	16	6.8	4.7	4.3	2.5	1.3	1.8
16	1.4	2.7	2.4	2.3	3.8	12	12	4.5	4.1	2.5	1.3	1.8
17	1.5	2.7	2.4	2.6	3.3	8.9	11	4.4	91	2.3	1.3	1.7
18	1.4	2.9	2.4	43	3.1	8.3	10	4.0	88	2.9	1.4	1.7
19	1.6	3.1	2.5	19	3.0	8.7	19	3.6	41	2.8	1.9	1.6
20	2.0	3.9	2.6	13	3.4	7.3	18	3.7	20	2.5	2.0	1.7
21	2.8	3.9	2.6	8.2	3.8	6.1	13	3.9	12	2.4	2.0	1.9
22	2.4	3.3	2.5	5.4	3.1	5.3	9.6	3.6	8.8	2.3	2.0	1.8
23	2.2	2.4	2.4	4.0	4.6	5.2	7.5	3.9	6.9	2.3	2.0	1.9
24	2.5	2.4	2.4	3.9	17	7.6	6.4	3.7	6.3	2.3	1.9	1.9
25	2.3	2.4	2.3	3.9	18	13	6.4	3.4	5.6	1.9	1.9	1.8
26	2.2	2.5	2.3	3.3	17	7.0	6.1	3.4	4.8	1.9	1.9	2.5
27	5.0	2.0	2.3	3.3	27	5.6	5.4	3.3	4.2	1.8	1.9	3.0
28	5.0	2.4	2.2	3.2	16	4.6	5.0	3.1	3.5	1.9	1.7	2.3
29	3.6	2.6	2.3	3.0	10	4.8	5.1	2.7	3.1	2.3	1.6	2.3
30	3.0	2.6	2.3	2.8	---	5.3	15	2.6	2.8	2.3	1.6	2.2
31	2.7	---	2.4	2.6	---	6.2	---	2.5	---	2.2	1.7	---
TOTAL	67.9	114.9	80.9	158.2	254.7	204.1	254.0	173.4	470.5	76.1	58.0	55.5
MEAN	2.19	3.83	2.61	5.10	8.78	6.58	8.47	5.59	15.7	2.45	1.87	1.85
MAX	5.0	15	3.7	43	32	18	19	15	91	3.4	2.9	3.0
MIN	1.3	2.0	2.2	2.2	1.8	2.4	5.0	2.5	2.8	1.8	1.3	1.4
CFSM	.24	.42	.29	.56	.97	.72	.93	.61	1.72	.27	.21	.20
IN.	.28	.47	.33	.65	1.04	.83	1.04	.71	1.92	.31	.24	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1996, BY WATER YEAR (WY)

MEAN	2.03	3.30	2.67	3.89	5.50	6.52	7.61	4.94	6.66	2.37	2.08	1.71
MAX	2.19	3.83	2.72	5.10	8.78	6.58	8.47	5.59	15.7	2.76	2.30	1.85
(WY)	1996	1996	1995	1996	1996	1996	1996	1996	1996	1994	1994	1996
MIN	1.88	2.77	2.61	2.67	2.09	6.46	6.83	3.92	2.11	1.90	1.87	1.46
(WY)	1995	1995	1996	1995	1995	1995	1995	1995	1994	1995	1996	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1994 - 1996	
ANNUAL TOTAL	1164.1		1968.2			
ANNUAL MEAN	3.19		5.38		4.23	
HIGHEST ANNUAL MEAN					5.38	1996
LOWEST ANNUAL MEAN					3.08	1995
HIGHEST DAILY MEAN	28	Mar 11	91	Jun 17	91	Jun 17 1996
LOWEST DAILY MEAN	1.3	Sep 4	1.3	(a)Oct 2	1.3	(b)Sep 4 1995
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 12	1.5	Aug 12	1.3	Sep 12 1995
INSTANTANEOUS PEAK FLOW			176	Jun 17	176	Jun 17 1996
INSTANTANEOUS PEAK STAGE			27.66	Jun 17	27.66	Jun 17 1996
INSTANTANEOUS LOW FLOW			1.2	(c)Oct 2	1.2	Sep 13 1995
ANNUAL RUNOFF (CFSM)	.35		.59		.47	
ANNUAL RUNOFF (INCHES)	4.76		8.05		6.32	
10 PERCENT EXCEEDS	5.6		11		7.3	
50 PERCENT EXCEEDS	2.3		2.8		2.4	
90 PERCENT EXCEEDS	1.6		1.8		1.7	

(a) Also occurred July 15-17
(b) Also occurred Sept. 5,13-18, 1995
(c) Also occurred July 15,16

0408570045 OTTER CREEK #3A, AT COUNTY HIGHWAY J, NEAR PLYMOUTH, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1994 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SOLIDS DISCHARGE: April 1994 to current year.
TOTAL-PHOSPHORUS DISCHARGE: April 1994 to current year.

INSTRUMENTATION.--Stage-activated water-quality sampler since April 1994.

REMARKS.--Chemical analyses by the Wisconsin State Laboratory of Hygiene. Samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD OF RECORD.--
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 40.0 tons, June 17, 1996; minimum daily, 0.009 ton, Sept. 2-6, 1995.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 261 lb, June 17, 1996; minimum daily, 0.022 ton, Sept. 17, 18, 1994.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 40.0 tons, June 17; minimum daily, 0.01 ton, many days.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 261 lb, June 17; minimum daily, 0.13 lb, Oct. 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
OCT 1995							
*05...	1247	1.4	<1.0	500	<5	<0.027	0.019
06...	0650	2.2	--	--	26	0.052	0.172
06...	0755	3.3	--	--	48	0.073	0.228
06...	1005	4.4	--	--	28	<0.027	0.169
06...	1605	3.5	--	--	17	<0.027	0.211
*0...	1302	1.8	1.6	1500	<5	<0.027	0.024
*26...	1137	2.1	--	--	<5	<0.027	0.022
NOV							
*30...	1543	2.7	1.9	1400	<5	0.051	0.029
JAN 1996							
*10...	1124	2.1	1.3	970	<5	0.117	0.019
*24...	1302	5.4	1.7	650	10	0.148	0.075
FEB							
*12...	1058	15	4.9	470	17	0.942	0.248
APR							
18...	2045	10	--	1200	19	0.043	0.092
18...	2125	12	6.7	1700	214	0.084	0.591
18...	2205	18	--	1100	280	0.075	0.479
18...	2245	22	7.2	710	516	0.097	0.844
19...	0035	26	6.2	620	148	0.075	0.415
19...	0235	25	5.7	300	66	0.066	0.265
19...	0835	21	--	450	11	0.085	0.147
*19...	1541	17	3.7	470	7	<0.027	0.113
19...	1542	17	4.3	480	9	<0.027	0.113
*24...	1712	6.2	1.7	60	<5	<0.027	0.051
MAY							
*07...	1722	4.7	1.8	2500	<5	<0.027	0.044
*22...	1438	3.8	2.6	240	8	<0.027	0.067
JUN							
01...	1910	2.7	--	--	5	0.074	0.060
01...	2010	3.0	--	--	11	0.068	0.069
01...	2150	4.4	--	--	18	0.109	0.118
01...	2210	5.2	--	--	72	0.156	0.273
01...	2350	19	--	--	376	0.183	0.764
02...	0210	23	--	--	130	0.356	0.566
02...	0510	22	--	--	70	0.311	0.423
02...	1230	16	--	--	27	0.113	0.180
*03...	1422	8.6	<3.0	500	12	0.045	0.093
*05...	1504	4.4	<3.0	200	7	0.037	0.062
07...	0300	10	<3.0	16000	32	0.069	0.158
07...	0325	19	6.2	8600	166	0.089	0.384
07...	0415	41	8.2	7000	560	0.184	0.920
07...	0535	55	7.2	13000	362	0.148	0.640
07...	0810	66	5.2	30000	184	0.180	0.460
07...	0915	58	4.4	33000	108	0.208	0.446
*07...	1202	45	3.0	15000	52	0.140	0.362
07...	1203	45	3.6	13000	48	0.145	0.360
07...	2110	34	--	--	37	0.067	0.211
08...	0510	30	--	--	29	0.071	0.186
*08...	1406	24	<3.0	3000	20	0.050	0.146
08...	1407	24	<3.0	--	18	0.068	0.131

* Equal-width increment (EWI) sample

STREAMS TRIBUTARY TO LAKE MICHIGAN

0408570045 OTTER CREEK #3A, AT COUNTY HIGHWAY J, NEAR PLYMOUTH, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
JUN 1996							
17...	0145	5.8	<3.0	4900	16	0.060	0.103
17...	0210	6.0	<3.0	8000	17	0.062	0.104
17...	0325	6.8	<3.0	13000	21	0.065	0.114
17...	0500	9.9	3.1	37000	38	0.064	0.185
17...	0605	36	7.5	12000	450	0.089	1.32
17...	0645	72	7.9	20000	564	0.097	1.41
17...	0745	125	7.6	21000	386	0.094	1.13
17...	0825	151	7.6	36000	376	0.108	0.790
17...	1025	176	5.7	19000	214	0.142	0.630
*7...	1118	160	5.2	36000	117	0.108	0.548
17...	1119	159	5.0	50000	114	0.169	0.566
17...	1215	148	5.6	29000	105	0.175	0.550
17...	1530	104	3.9	23000	54	0.086	0.412
18...	0510	75	<3.0	15000	37	0.066	0.263
18...	0535	84	3.1	6000	336	0.067	0.500
18...	0650	122	3.2	11000	124	0.081	0.300
18...	0715	133	3.4	20000	105	0.078	0.285
*18...	0906	132	3.0	9400	79	0.164	0.353
18...	0907	132	3.0	12000	79	0.158	0.336
18...	1100	112	3.9	2900	44	0.090	0.276
18...	1820	69	3.4	840	24	0.045	0.197
19...	1203	39	3.2	590	12	0.059	0.135
*19...	1214	39	<3.0	430	13	0.055	0.137
*21...	1056	12	--	--	10	0.073	0.105
JUL							
02...	0435	3.5	6.0	10000	19	0.035	0.100
02...	0525	3.5	3.4	68000	25	0.111	0.125
02...	0615	3.5	<3.0	22000	20	0.084	0.107
02...	0900	4.0	<3.0	4500	13	0.035	0.103
02...	1130	4.0	<3.0	4700	9	0.038	0.101
02...	1400	3.6	<3.0	3400	9	0.029	0.094
*02...	1652	3.6	<3.0	4700	6	0.037	0.090
*16...	1154	2.4	<3.0	510	<5	<0.027	0.039
*31...	0900	2.2	1.4	1900	<5	0.028	0.026
AUG							
05...	2010	3.0	1.9	3500	14	<0.027	0.051
05...	2035	3.5	4.4	500000	166	0.215	0.539
05...	2125	3.5	--	45000	22	0.056	0.095
05...	2215	3.0	--	7500	13	0.047	0.054
06...	0045	3.6	2.2	12000	17	<0.027	0.070
06...	0545	3.1	--	5800	13	<0.027	0.083
06...	1145	2.7	2.4	4800	6	<0.027	0.057
06...	1500	2.8	--	1700	6	0.027	0.051
*15...	1652	1.4	0.4	890	<5	<0.027	0.027
*23...	1048	2.0	1.3	1000	12	0.041	0.050
SEP							
*05...	1702	1.5	1.0	810	6	0.032	0.037
08...	1330	2.3	2.8	100000	13	0.083	0.128
08...	1420	2.4	2.1	41000	8	0.062	0.097
08...	1510	2.3	1.6	10000	6	0.050	0.058
08...	1805	2.3	2.8	71000	9	<0.027	0.098
08...	2035	2.2	2.5	23000	10	<0.027	0.078
*09...	1628	1.9	1.2	6100	<5	0.028	0.049
*20...	1934	1.8	0.3	1700	<5	<0.027	0.025

* Equal-width increment (EWI) sample

0408570045 OTTER CREEK #3A, AT COUNTY HIGHWAY J, NEAR PLYMOUTH, WI--CONTINUED

SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED(TONS PER DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	e9.5	---	---	---	---	.18	e.63	.60	.04	.02	.03
2	.01	e6.6	---	---	---	---	.16	e.31	3.0	.09	.02	.03
3	.01	e.32	---	---	---	---	e.14	.06	.31	.04	.02	.03
4	.01	e.15	---	---	---	---	e.36	.05	.10	.03	.02	.02
5	.01	e.10	---	---	---	---	e.30	.04	.08	.03	.07	.02
6	.15	.03	---	---	---	---	.18	.04	e.16	.03	.07	.03
7	.03	.02	---	---	---	---	.13	.04	13	.03	.04	.03
8	.01	.02	---	---	---	---	.11	.03	1.5	.02	.03	.04
9	.01	.02	---	---	---	---	.09	.04	.31	.02	.02	.02
10	.01	.02	---	---	---	---	.08	e.63	.22	.02	.02	.01
11	.01	.02	---	---	---	---	.08	e.36	.17	.02	.02	.01
12	.01	.02	---	---	---	---	.08	e.18	.13	.02	.02	.01
13	.01	.02	---	---	---	---	.07	.06	.11	.02	.01	.01
14	.01	.02	---	---	---	---	.05	.05	.09	.02	.01	.01
15	.01	.02	---	---	---	---	.06	.06	.08	.02	.01	.01
16	.01	.02	---	---	---	---	e.42	.06	.09	.02	.01	.01
17	.01	.02	---	---	---	---	e.36	.06	40	.02	.01	.01
18	.01	.02	---	---	---	---	2.2	.06	14	.02	.02	.01
19	.01	.02	---	---	---	---	1.6	.06	1.6	.02	.03	.01
20	.01	.03	---	---	---	---	e.86	.07	.60	.02	.03	.01
21	.02	.03	---	---	---	---	.14	.08	.33	.02	.04	.01
22	.02	.02	---	---	---	---	.09	.08	.22	.02	.05	.01
23	.02	.02	---	---	---	---	.06	.08	.16	.02	.06	.01
24	.02	.02	---	---	---	---	.04	.08	.14	.02	.06	.01
25	.02	.02	---	---	---	---	.04	.07	.12	.01	.05	.01
26	.01	.02	---	---	---	---	.04	.07	.09	.01	.05	e.03
27	e.26	.01	---	---	---	---	.04	.07	.08	.01	.05	e.04
28	e.25	.02	---	---	---	---	.03	.07	.06	.01	.04	.02
29	e.08	.02	---	---	---	---	e.09	.06	.05	.02	.04	.02
30	.02	.02	---	---	---	---	e.63	.06	.04	.02	.04	.01
31	.02	---	---	---	---	---	---	.05	---	.02	.04	---
TOTAL	1.10	17.19	---	---	---	---	8.71	3.66	77.44	0.73	1.02	0.53

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	e45	---	---	---	---	1.6	e10	3.5	.58	.31	.36
2	.13	e47	---	---	---	---	1.5	e5.4	29	1.4	.30	.33
3	.14	e5.5	---	---	---	---	e2.7	2.2	4.9	.68	.30	.32
4	.15	e1.9	---	---	---	---	e6.3	1.9	2.0	.60	.28	.30
5	.15	e1.2	---	---	---	---	e5.3	1.6	1.5	.56	.60	.29
6	2.2	.50	---	---	---	---	1.8	1.4	e3.0	.55	.98	.31
7	.44	.46	---	---	---	---	1.4	1.2	82	.51	.61	.34
8	.27	.42	---	---	---	---	1.1	1.1	21	.50	.51	.64
9	.25	.39	---	---	---	---	.95	1.3	8.4	.51	.41	.57
10	.23	.41	---	---	---	---	.88	e10	5.7	.52	.38	.44
11	.22	.35	---	---	---	---	.94	e6.3	4.1	.49	.38	.42
12	.20	.33	---	---	---	---	1.0	e5.4	3.0	.55	.34	.40
13	.21	.33	---	---	---	---	.97	1.5	2.3	.56	.28	.37
14	.20	.37	---	---	---	---	.84	1.4	1.8	.58	.23	.34
15	.20	.38	---	---	---	---	1.1	1.4	1.5	.52	.20	.34
16	.18	.37	---	---	---	---	e7.1	1.4	1.5	.52	.20	.32
17	.18	.38	---	---	---	---	e6.3	1.4	261	.48	.22	.28
18	.17	.42	---	---	---	---	9.6	1.3	126	.57	.25	.27
19	.19	.45	---	---	---	---	17	1.2	32	.55	.38	.24
20	.25	.56	---	---	---	---	e13	1.3	13	.48	.42	.24
21	.34	.57	---	---	---	---	4.0	1.4	6.9	.44	.45	.24
22	.29	.48	---	---	---	---	2.9	1.3	4.5	.42	.51	.22
23	.27	.36	---	---	---	---	2.2	1.4	3.3	.40	.53	.21
24	.30	.36	---	---	---	---	1.8	1.4	2.7	.38	.50	.21
25	.28	.36	---	---	---	---	1.7	1.2	2.2	.32	.48	.18
26	.26	.37	---	---	---	---	1.6	1.2	1.7	.31	.48	e.66
27	e2.7	.31	---	---	---	---	1.4	1.2	1.4	.28	.47	e.87
28	e2.6	.37	---	---	---	---	1.3	1.1	1.1	.29	.42	.20
29	e.95	.41	---	---	---	---	e1.9	.99	.84	.33	.37	.18
30	.37	.41	---	---	---	---	e10	.95	.69	.33	.37	.16
31	.34	---	---	---	---	---	---	.89	---	.31	.38	---
TOTAL	14.80	110.72	---	---	---	---	110.18	71.73	632.53	15.52	12.54	10.25

e Estimated

0408570047 OTTER CREEK, AT LAACK FARM, NEAR PLYMOUTH, WI

LOCATION.--Lat 43°47'18" long 87°55'44", in NW 1/4 NE 1/4 sec.12, T.15 N., R.21 E., Sheboygan County, Hydrologic Unit 04030101, on left bank downstream from cattle bridge on Howard Laack farm, 800 ft south of County Highway J, and 3.8 mi northeast of Plymouth.

DRAINAGE AREA.--9.16 mi^2.

PERIOD OF RECORD.--April 1994 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SOLIDS DISCHARGE: April 1994 to current year.
TOTAL-PHOSPHORUS DISCHARGE: April 1994 to current year.

INSTRUMENTATION.--Stage-activated water-quality sampler since April 1994.

REMARKS.--Chemical analyses by the Wisconsin State Laboratory of Hygiene. Samples are point samples unless otherwise indicated. See station 0408570045 Otter Creek #3A at County Highway J near Plymouth for daily mean discharges. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 71.3 tons, Mar. 11, 1995; minimum daily, 0.01 ton, many days during 1996 water year.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 265 lb, June 17, 1996; minimum daily, 0.15 lb, Oct. 2, 1995.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 40.0 tons, June 17; minimum daily, 0.01 ton, many days.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 265 lb, June 17; minimum daily, 0.15 lb, Oct. 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
OCT 1995						
*05...	1231	<1.0	600	<5	<0.027	0.022
06...	0710	--	--	420	3.05	2.92
06...	0800	--	--	216	1.42	1.68
06...	1400	--	--	31	0.057	0.290
06...	1700	--	--	18	<0.027	0.212
*10...	1217	1.2	210	<5	<0.027	0.047
*26...	1041	--	--	<5	<0.027	0.134
NOV						
*30...	1458	1.9	930	10	0.050	0.039
JAN 1996						
*10...	1048	1.3	640	<5	0.089	0.021
*24...	1209	1.4	--	20	0.139	0.083
FEB						
*12...	1004	5.2	550	12	1.00	0.269
*26...	1458	3.0	1100	9	0.390	0.188
APR						
18...	2030	--	13000	316	0.081	0.654
18...	2110	5.0	3300	46	0.053	0.178
18...	2150	--	3200	368	0.095	0.637
18...	2230	8.1	1600	264	0.072	0.502
19...	0015	8.3	300	292	0.091	0.630
19...	0215	6.5	660	88	0.093	0.321
19...	0815	--	960	14	0.062	0.136
*19...	1458	4.4	100	8	0.030	0.113
19...	1459	4.3	290	8	0.029	0.115
*24...	1652	2.0	70	6	<0.027	0.043
MAY						
*07...	1702	2.3	3300	<5	<0.027	0.045
*22...	1418	2.1	370	8	<0.027	0.065
JUN						
01...	1800	--	--	78	0.248	0.405
01...	1900	--	--	8	0.068	0.102
01...	2000	--	--	8	0.114	0.121
01...	2150	--	--	28	0.130	0.176
01...	2215	--	--	492	0.272	1.02
02...	0025	--	--	354	0.173	0.780
02...	0225	--	--	144	0.335	0.588
02...	0525	--	--	82	0.278	0.480
02...	1220	--	--	26	0.120	0.214
*03...	1334	<3.0	1000	13	<0.027	0.102
*05...	1444	<3.0	440	7	0.035	0.070

* Equal-width increment (EWI) sample

0408570047 OTTER CREEK, AT LAACK FARM, NEAR PLYMOUTH, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
JUN 1996						
07...	0325	3.3	46000	60	0.072	0.248
07...	0415	12	8000	616	0.109	0.975
07...	0440	11	6000	574	0.159	0.935
07...	0555	9.5	20000	388	0.153	0.755
07...	0655	8.1	20000	468	0.198	0.790
07...	0925	5.0	25000	148	0.212	0.502
*07...	1116	3.4	26000	64	0.178	0.406
07...	1117	3.9	29000	67	0.180	0.426
07...	2145	--	--	37	0.064	0.212
08...	0545	--	--	32	0.087	0.179
*08...	1308	<3.0	2700	15	0.061	0.135
08...	1309	<3.0	--	27	0.046	0.155
17...	0400	<3.0	19000	24	0.103	0.172
17...	0450	3.9	29000	45	0.109	0.253
17...	0540	11	57000	195	0.340	0.752
17...	0605	10	52000	191	0.266	0.679
17...	0650	9.4	15000	622	0.130	1.03
17...	0805	7.4	23000	380	0.109	0.728
17...	0840	7.6	38000	358	0.285	0.843
17...	1040	--	24000	194	0.143	0.678
*17...	1202	5.1	31000	100	0.170	0.550
17...	1203	--	44000	--	--	--
17...	1240	5.0	34000	102	0.179	0.543
17...	1545	3.7	28000	54	0.094	0.409
17...	2045	3.6	10000	61	0.105	0.367
18...	0420	<3.0	13000	27	0.058	0.251
18...	0555	3.1	12000	206	0.077	0.424
18...	0630	3.2	11000	188	0.069	0.404
*18...	0832	<3.0	12000	99	0.143	0.371
18...	0833	3.2	9900	96	0.142	0.350
18...	1125	4.0	3300	41	0.093	0.276
18...	2210	3.3	1400	22	0.044	0.178
19...	1230	<3.0	670	17	0.060	0.147
*19...	1235	<3.0	640	15	0.064	0.142
*21...	1032	--	--	12	0.078	0.108
JUL						
02...	0530	4.9	53000	22	0.055	0.167
02...	0620	3.4	140000	15	0.087	0.178
02...	0735	<3.0	39000	9	0.067	0.111
02...	0905	<3.0	55000	6	0.037	0.106
02...	1135	<3.0	51000	6	<0.027	0.094
02...	1405	<3.0	31000	6	0.041	0.100
*02...	1548	<3.0	1800	5	<0.027	0.088
*16...	1138	<3.0	560	<5	<0.027	0.029
*31...	0920	1.6	660	9	<0.027	0.065
AUG						
05...	2050	6.0	75000	54	0.081	0.326
05...	2115	3.8	50000	33	0.067	0.232
05...	2140	--	320000	29	0.099	0.254
05...	2230	4.4	230000	18	0.094	0.231
06...	0010	3.5	170000	15	0.080	0.229
06...	0240	2.1	99000	15	0.069	0.108
06...	0740	--	34000	9	0.030	0.074
06...	1510	1.7	3400	9	<0.027	0.060
*15...	1622	0.5	730	<5	<0.027	0.026
*23...	1012	1.3	210	<5	0.028	0.061
SEP						
*05...	1632	3.3	11000	13	0.039	0.094
08...	1400	4.5	65000	25	0.130	0.294
08...	1450	2.9	25000	8	0.055	0.139
08...	1540	2.8	59000	8	0.062	0.148
08...	1835	1.9	26000	7	0.047	0.102
08...	2105	2.8	18000	67	0.038	0.169
*09...	1608	1.7	1900	6	0.050	0.055
*20...	1908	0.9	2800	<5	<0.027	0.033

* Equal-width increment (EWI) sample

0408570047 OTTER CREEK, AT LAACK FARM, NEAR PLYMOUTH, WI--CONTINUED

SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED(TONS PER DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	e9.5	---	---	---	---	.18	e.69	1.0	.04	.05	.03
2	.01	e6.6	---	---	---	---	.16	e.34	3.4	.06	.04	.04
3	.01	e.33	---	---	---	---	e.15	.08	.31	.04	.04	.04
4	.01	e.15	---	---	---	---	e.40	.06	.10	.03	.03	.04
5	.01	e.11	---	---	---	---	e.33	.05	.08	.03	.07	.05
6	.46	.04	---	---	---	---	.18	.04	e.17	.03	.08	.04
7	.03	.04	---	---	---	---	.13	.04	17	.03	.05	.03
8	.01	.04	---	---	---	---	.11	.03	1.8	.02	.04	.07
9	.01	.03	---	---	---	---	.09	.04	.32	.02	.03	.03
10	.01	.04	---	---	---	---	.08	e.69	.22	.02	.03	.03
11	.01	.03	---	---	---	---	.08	e.40	.17	.02	.02	.02
12	.01	.03	---	---	---	---	.08	e.19	.13	.02	.02	.02
13	.01	.03	---	---	---	---	.07	.06	.11	.02	.02	.02
14	.01	.04	---	---	---	---	.05	.05	.09	.02	.01	.02
15	.01	.04	---	---	---	---	.06	.06	.08	.02	.01	.02
16	.01	.04	---	---	---	---	e.47	.06	.09	.02	.01	.02
17	.01	.04	---	---	---	---	e.40	.06	40	.02	.01	.01
18	.01	.05	---	---	---	---	2.0	.06	14	.02	.01	.01
19	.01	.05	---	---	---	---	2.0	.06	2.0	.02	.01	.01
20	.01	.07	---	---	---	---	e.95	.07	.79	.02	.01	.01
21	.02	.07	---	---	---	---	.19	.08	.40	.03	.01	.01
22	.02	.06	---	---	---	---	.14	.08	.26	.03	.01	.01
23	.02	.05	---	---	---	---	.12	.08	.19	.03	.01	.02
24	.02	.05	---	---	---	---	.10	.08	.16	.03	.01	.02
25	.02	.05	---	---	---	---	.10	.07	.13	.03	.02	.02
26	.01	.06	---	---	---	---	.09	.07	.10	.03	.02	e.03
27	e.26	.05	---	---	---	---	.07	.07	.08	.03	.02	e.04
28	e.25	.06	---	---	---	---	.06	.07	.06	.04	.02	.03
29	e.09	.07	---	---	---	---	e.10	.06	.05	.05	.02	.03
30	.02	.07	---	---	---	---	e.69	.06	.04	.05	.03	.03
31	.02	---	---	---	---	---	---	.05	---	.05	.03	---
TOTAL	1.42	17.89	---	---	---	---	9.63	3.90	83.33	0.92	0.79	0.80

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	e45	---	---	---	---	1.6	e10	5.2	.44	.65	.72
2	.15	e47	---	---	---	---	1.5	e5.6	32	1.5	.54	.70
3	.17	e5.5	---	---	---	---	e2.8	2.1	5.3	.67	.48	.72
4	.17	e1.9	---	---	---	---	e6.5	1.8	2.1	.58	.38	.70
5	.17	e1.2	---	---	---	---	e5.5	1.6	1.7	.53	1.0	.72
6	7.5	.92	---	---	---	---	1.8	1.5	e3.2	.51	1.3	.56
7	.44	.84	---	---	---	---	1.4	1.3	96	.46	.70	.39
8	.32	.76	---	---	---	---	1.1	1.1	22	.44	.57	.93
9	.39	.68	---	---	---	---	.95	1.4	8.5	.44	.45	.63
10	.44	.72	---	---	---	---	.88	e10	5.8	.44	.41	.50
11	.43	.61	---	---	---	---	.94	e6.5	4.2	.41	.40	.48
12	.40	.56	---	---	---	---	1.0	e3.5	3.2	.44	.35	.46
13	.42	.55	---	---	---	---	.97	1.5	2.5	.45	.28	.44
14	.40	.62	---	---	---	---	.84	1.4	2.0	.45	.23	.41
15	.39	.62	---	---	---	---	1.1	1.4	1.7	.39	.19	.41
16	.36	.60	---	---	---	---	e7.4	1.4	1.8	.39	.20	.39
17	.37	.61	---	---	---	---	e6.5	1.3	265	.39	.23	.35
18	.35	.66	---	---	---	---	9.1	1.3	133	.50	.26	.34
19	.40	.70	---	---	---	---	18	1.2	34	.52	.41	.31
20	.52	.86	---	---	---	---	e14	1.2	14	.50	.47	.31
21	.70	.87	---	---	---	---	3.7	1.3	7.1	.50	.52	.35
22	.60	.72	---	---	---	---	2.6	1.3	4.5	.51	.61	.34
23	.57	.52	---	---	---	---	1.9	1.4	3.1	.52	.65	.37
24	.63	.52	---	---	---	---	1.5	1.3	2.5	.55	.65	.39
25	.59	.52	---	---	---	---	1.5	1.2	2.0	.49	.65	.38
26	.56	.53	---	---	---	---	1.4	1.2	1.5	.51	.70	e.71
27	e2.7	.43	---	---	---	---	1.3	1.2	1.2	.52	.71	e.92
28	e2.6	.51	---	---	---	---	1.2	1.1	.87	.57	.67	.55
29	e.96	.56	---	---	---	---	e2.1	.96	.67	.72	.64	.56
30	.74	.56	---	---	---	---	e10	.92	.54	.76	.68	.56
31	.68	---	---	---	---	---	---	.86	---	.75	.72	---
TOTAL	25.28	116.65	---	---	---	---	111.08	69.84	667.18	16.85	16.70	15.60

e Estimated

040857005 OTTER CREEK, AT WILLOW ROAD, NEAR PLYMOUTH, WI

LOCATION.--Lat 43°47'20", long 87°55'20", in NW 1/4 NW 1/4 sec.7, T.15 N., R.22 E., Sheboygan County, Hydrologic Unit 04030101, on left bank downstream from bridge on Willow Road, 900 ft upstream from the Sheboygan River, and 4.2 mi northeast of Plymouth.

DRAINAGE AREA.--9.5 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 760 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: May 15–16, June 5–6, 24–25, Aug. 25 to Sept. 27, and ice-affected periods, Nov. 11 to Mar. 13, Mar. 20–23, and 26–28. Records are good except those for estimated daily discharges, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	12	3.4	2.5	2.4	6.9	6.8	16	4.2	3.5	2.5	1.8
2	1.4	18	3.4	2.4	2.2	4.3	6.5	11	18	4.5	2.4	1.7
3	1.5	8.8	4.0	2.4	2.0	4.1	6.6	9.3	11	4.3	2.4	1.7
4	1.5	6.2	3.9	2.3	1.9	3.5	12	7.8	7.6	3.8	2.4	1.6
5	1.6	5.1	3.7	2.3	1.8	3.2	11	6.7	6.0	3.3	2.5	1.7
6	3.6	4.7	3.4	2.2	1.8	2.8	9.5	6.1	8.0	3.3	3.4	1.8
7	2.6	4.3	3.1	2.2	2.1	2.7	7.9	5.4	40	3.1	2.8	1.9
8	2.1	3.9	2.8	2.2	5.0	2.6	6.9	5.3	26	3.0	2.6	2.2
9	2.0	3.5	2.6	2.2	19	2.5	6.4	5.5	17	3.0	2.2	2.2
10	2.0	3.6	2.4	2.2	33	2.5	6.3	16	14	3.3	2.2	2.0
11	1.8	3.2	2.3	2.3	21	3.0	6.7	12	12	3.0	2.1	2.0
12	1.8	2.8	2.3	2.4	14	8.0	7.3	8.7	9.9	3.0	2.1	2.0
13	1.9	2.7	2.3	2.4	9.6	13	6.7	6.9	8.6	3.2	2.0	2.0
14	1.8	2.9	2.4	2.4	6.9	19	6.0	6.2	7.5	3.3	1.9	2.0
15	1.6	2.9	2.5	2.3	5.3	18	7.2	6.0	6.7	3.2	1.8	2.0
16	1.5	2.9	2.4	2.3	4.4	13	13	5.8	6.1	3.0	1.8	2.0
17	1.5	2.9	2.4	2.8	3.8	10	12	5.6	93	2.9	1.7	2.1
18	1.5	3.2	2.4	44	3.4	9.3	12	5.3	90	3.3	1.6	2.0
19	1.7	3.5	2.5	20	3.3	9.6	21	5.0	42	3.4	2.3	1.9
20	2.2	4.0	2.6	14	3.5	8.8	19	4.9	22	3.0	2.3	1.9
21	3.0	4.0	2.6	9.2	3.9	7.8	14	5.2	14	2.8	2.2	2.0
22	2.7	3.8	2.5	5.8	3.2	6.6	10	4.7	11	2.7	2.1	2.0
23	2.5	3.1	2.4	4.2	4.8	6.2	8.0	4.6	8.1	2.6	2.0	2.0
24	2.5	2.8	2.4	4.0	18	8.7	7.2	4.8	7.1	2.5	2.0	2.0
25	2.5	2.6	2.3	4.0	19	14	6.9	4.5	6.0	2.6	2.0	2.0
26	2.4	2.7	2.3	3.4	18	7.8	6.9	4.4	5.3	2.4	2.0	2.7
27	5.6	2.4	2.3	3.3	28	6.4	6.0	4.3	5.0	2.3	2.0	3.2
28	5.5	2.6	2.2	3.2	17	6.0	5.7	4.2	4.5	2.3	1.9	2.6
29	3.7	2.8	2.3	3.0	11	5.6	5.8	4.0	4.2	2.6	1.8	2.4
30	3.0	2.8	2.3	2.8	---	5.7	15	3.7	3.9	2.6	1.8	2.3
31	2.8	---	2.4	2.6	---	6.6	---	3.6	---	2.5	1.9	---
TOTAL	73.4	130.7	82.8	163.3	269.3	228.2	276.3	203.5	518.7	94.3	66.7	61.7
MEAN	2.37	4.36	2.67	5.27	9.29	7.36	9.21	6.56	17.3	3.04	2.15	2.06
MAX	5.6	18	4.0	44	33	19	21	16	93	4.5	3.4	3.2
MIN	1.4	2.4	2.2	2.2	1.8	2.5	5.7	3.6	3.9	2.3	1.6	1.6
CFSM	.25	.46	.28	.55	.98	.77	.97	.69	1.82	.32	.23	.22
IN.	.29	.51	.32	.64	1.05	.89	1.08	.80	2.03	.37	.26	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	3.35	5.72	5.83	4.35	7.09	14.8	13.9	5.34	7.10	4.48	2.42	2.71
MAX	4.82	8.67	11.5	6.76	13.9	25.4	35.6	7.15	17.3	12.9	3.01	5.59
(WY)	1992	1993	1992	1992	1994	1993	1993	1993	1996	1993	1993	1993
MIN	2.11	3.07	2.67	2.67	2.09	7.36	7.70	3.60	2.39	2.18	2.15	1.58
(WY)	1995	1995	1996	1995	1995	1996	1995	1992	1994	1995	1996	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	1282.2		2168.9			
ANNUAL MEAN	3.51		5.93		6.40	
HIGHEST ANNUAL MEAN					10.9	1993
LOWEST ANNUAL MEAN					3.41	1995
HIGHEST DAILY MEAN	29	Mar 11	93	Jun 17	130	Apr 20 1993
LOWEST DAILY MEAN	1.3	Sep 15	1.4	Oct 2	1.3	Sep 15 1995
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 11	1.6	Oct 13	1.4	Sep 11 1995
INSTANTANEOUS PEAK FLOW			176	Jun 17	223	Jun 8 1993
INSTANTANEOUS PEAK STAGE			(a)7.49	Feb 10	8.26	Mar 17 1993
INSTANTANEOUS LOW FLOW			1.3	Oct 2	1.3	(b)Sep 14 1995
ANNUAL RUNOFF (CFSM)	.37		.62		.67	
ANNUAL RUNOFF (INCHES)	5.02		8.49		9.16	
10 PERCENT EXCEEDS	6.2		12		12	
50 PERCENT EXCEEDS	2.4		3.2		3.8	
90 PERCENT EXCEEDS	1.7		2.0		2.0	

(a) Backwater due to ice
(b) Also occurred Sept. 15-18, and Oct. 2, 1995.

040857005 OTTER CREEK, AT WILLOW ROAD, NEAR PLYMOUTH, WI--CONTINUED

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1990 to current year.

DISSOLVED OXYGEN: October 1990 to current year, open-water periods.

SUSPENDED-SOLIDS DISCHARGE: October 1990 to current year.

TOTAL-PHOSPHORUS DISCHARGE: October 1990 to current year.

INSTRUMENTATION.--Stage-activated water-quality sampler since October 1990. Continuous water-temperature recorder since October 1990. Dissolved-oxygen recorder during open-water periods since October 1990.

REMARKS.--Chemical analyses are by the Wisconsin State Laboratory of Hygiene. Samples are point samples unless otherwise indicated. Dissolved-oxygen concentrations greater than 20.0 mg/L are out of calibration range of meter. Records represent water temperature at sensor within 0.5°C.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum observed, 30.5°C, June 16, 18, 1994; minimum observed, 0.0°C, many days during winter period.

DISSOLVED OXYGEN: Maximum observed, 19.1 mg/L, Nov. 2, 1990; minimum observed, 0.2 mg/L, Sept. 18, 1992.

SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 132 tons, June 8, 1993; minimum daily, 0.01 ton, many days during 1992 and 1993 water years.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 455 lb, June 8, 1993; minimum daily, 0.23 lb, Sept. 28, 1995.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum observed, 25.0°C, July 14; minimum observed, 0.0°C, many days during winter period.

DISSOLVED OXYGEN: Maximum observed, 17.4 mg/L, May 17; minimum observed, 2.6 mg/L, July 14.

SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 25 tons, Mar. 11; minimum daily, 0.02 ton, many days.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 116 lb, Mar. 12; minimum daily, 0.23 lb, Sept. 28.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995										
*05...	1113	--	1.7	1.5	740	<5	<0.027	0.033	--	--
*10...	1014	--	1.9	2.3	3100	<5	<0.027	0.048	--	--
*19...	1033	--	1.5	2.3	1800	<5	<0.027	0.039	--	--
*26...	1001	--	2.3	--	--	<5	<0.027	0.032	--	--
NOV										
01...	0730	--	7.9	5.0	--	41	0.136	0.299	--	--
01...	1920	--	14	11	69000	83	0.396	1.02	--	--
01...	2025	--	22	16	80000	648	0.375	1.37	538	98
01...	2145	--	31	16	17000	860	0.320	1.51	752	97
02...	0755	--	18	4.9	36000	81	0.149	0.420	82	92
*02...	1016	--	16	3.9	31000	44	0.129	0.320	--	--
02...	1017	--	16	4.6	36000	47	0.126	0.333	--	--
02...	1955	--	12	2.4	--	28	0.143	0.206	--	--
03...	0755	--	9.2	2.5	--	14	0.115	0.127	--	--
*30...	1421	2.8	--	1.5	470	8	0.050	0.044	--	--
JAN 1996										
*10...	1014	2.2	--	1.4	150	9	0.097	0.029	--	--
18...	1515	44	--	--	--	94	1.02	0.309	91	97
18...	1635	44	--	--	--	84	1.11	0.624	84	95
18...	2235	44	--	--	--	36	0.877	0.534	41	96
19...	1730	20	--	--	--	9	0.555	0.374	--	--
20...	1130	14	--	--	--	5	0.376	0.270	--	--
FEB										
08...	1340	5.0	--	--	--	27	0.414	0.182	--	--
08...	1820	5.0	--	--	--	40	1.12	0.340	--	--
09...	0730	19	--	--	--	26	1.05	0.322	--	--
09...	1330	19	--	--	--	19	0.791	0.304	--	--
09...	1930	19	--	--	--	13	1.11	0.367	--	--
10...	1330	33	--	--	--	39	1.53	0.550	--	--
10...	1650	33	--	--	--	39	1.64	0.536	--	--
10...	2250	33	--	--	--	26	1.21	0.498	--	--
11...	1050	21	--	6.0	--	12	1.13	0.389	--	--
12...	0450	14	--	5.5	700	10	1.18	0.358	--	--
23...	1735	4.8	--	--	--	19	0.864	0.228	--	--
23...	2225	4.8	--	--	--	17	1.11	0.311	--	--
24...	1515	18	--	--	--	58	1.03	0.461	--	--

* Equal-width increment (EWI) sample

040857005 OTTER CREEK, AT WILLOW ROAD, NEAR PLYMOUTH, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB 1996										
25...	0010	19	--	--	--	37	0.657	0.377	--	--
25...	1450	19	--	6.1	300	46	0.710	0.375	--	--
25...	1715	19	--	6.1	400	66	0.643	0.393	--	--
26...	0030	18	--	5.0	500	36	0.515	0.350	--	--
26...	2315	18	--	--	--	59	0.507	0.289	--	--
27...	0905	28	--	--	--	62	0.508	0.322	--	--
27...	1435	28	--	--	--	224	0.847	0.688	--	--
27...	1455	28	--	9.0	--	224	0.824	0.680	--	--
27...	1525	28	--	11	--	232	0.838	0.662	--	--
27...	1600	28	--	--	--	268	0.788	0.740	--	--
27...	2025	28	--	7.9	--	116	0.681	0.491	--	--
* 29...	0942	11	--	2.0	660	23	0.337	0.153	--	--
MAR										
12...	1335	8.0	--	--	--	232	0.399	0.586	245	94
12...	1520	8.0	--	--	--	240	0.378	0.554	248	95
13...	0320	13	--	--	--	120	0.441	0.470	132	94
13...	1550	13	--	5.9	300	152	0.383	0.454	--	--
*14...	1708	--	26	4.3	300	68	0.318	0.275	--	--
14...	1709	--	26	4.8	500	86	0.324	0.316	--	--
*28...	0904	6.0	--	2.2	380	15	<0.027	0.060	--	--

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
APR 1996								
*04...	1037	--	12	2.2	1000	12	0.131	0.122
*11...	0938	--	6.5	2.2	190	<5	<0.027	0.028
16...	0100	--	11	--	--	12	0.139	0.100
16...	1340	--	14	2.4	270	11	0.094	0.110
17...	0140	--	14	1.8	270	11	<0.027	0.082
*17...	1708	--	12	1.9	70	7	<0.027	0.056
18...	2145	--	15	4.9	3500	74	0.107	0.247
18...	2250	--	23	8.5	5100	236	0.148	0.628
19...	1050	--	22	3.6	1200	21	0.089	0.177
*19...	1422	--	19	3.3	330	18	0.047	0.144
19...	1423	--	19	3.6	420	16	0.045	0.141
19...	2250	--	16	--	--	18	0.029	0.097
20...	1050	--	19	--	--	13	0.040	0.103
21...	2300	--	12	--	--	9	<0.027	0.063
*24...	1608	--	7.2	1.7	<10	<5	<0.027	0.048
30...	1200	--	15	5.4	17000	18	0.226	0.221
30...	2400	--	19	3.3	330	19	0.066	0.150
MAY								
*01...	1352	--	15	2.3	250	7	<0.027	0.081
01...	1353	--	15	2.3	440	6	0.028	0.086
*07...	1548	--	5.4	1.9	10	<5	<0.027	0.046
10...	0550	--	14	--	--	72	0.371	0.407
10...	0705	--	21	--	--	168	0.259	0.596
10...	1905	--	17	--	--	18	0.044	0.144
11...	0705	--	13	--	--	12	0.028	0.096
11...	1905	--	11	--	--	7	<0.027	0.068
*15...	1022	6.0	--	3.2	890	<5	<0.027	0.038
*22...	1352	--	4.6	2.4	1100	10	<0.027	0.625
*29...	0948	--	4.1	2.7	290	<5	<0.027	0.028
JUN								
*03...	1208	--	11	<3.0	1300	42	0.051	0.139
*05...	1328	6.0	--	<3.0	840	6	0.040	0.091
07...	0330	--	14	4.3	30000	71	0.126	0.327
07...	0440	--	35	12	20000	490	0.149	0.851
07...	0620	--	57	11	130000	444	0.261	0.852
07...	0810	--	70	6.9	63000	256	0.253	0.687
*07...	1006	--	64	4.9	51000	122	0.201	0.473
07...	1007	--	64	5.0	51000	123	0.212	0.482
07...	1210	--	51	--	--	77	0.207	0.416
07...	2100	--	35	--	--	58	0.095	0.274
*08...	1246	--	25	<3.0	5000	39	0.079	0.169
08...	1247	--	25	<3.0	--	38	0.073	0.176
*11...	0952	--	12	<3.0	1200	13	0.056	0.118

* Equal-width increment (EWI) sample

040857005 OTTER CREEK, AT WILLOW ROAD, NEAR PLYMOUTH, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
JUN 1996								
17...	0515	--	12	45	550000	92	0.248	0.594
17...	0540	--	19	--	--	108	0.272	0.550
17...	0605	--	40	--	--	932	0.148	2.15
17...	0650	--	67	15	180000	472	0.276	1.30
17...	0825	--	118	--	--	396	0.171	1.02
17...	0915	--	137	8.2	90000	244	0.157	0.835
17...	1000	--	158	6.2	67000	188	0.156	0.720
*17...	1326	--	149	4.4	60000	82	0.136	0.493
17...	1327	--	149	4.8	52000	84	0.140	0.570
17...	1520	--	128	--	--	54	0.108	0.447
17...	2120	--	113	3.9	19000	46	0.105	0.362
18...	0210	--	88	--	--	36	0.081	0.302
*18...	0806	--	114	3.2	28000	75	0.087	0.368
18...	0807	--	115	3.4	39000	75	0.090	0.370
18...	0845	--	121	3.7	8600	77	0.100	0.322
18...	1405	--	98	3.3	3400	28	0.061	0.240
18...	1840	--	73	3.2	3000	28	0.057	0.210
19...	1255	--	39	<3.0	1800	22	0.069	0.163
*19...	1304	--	39	3.2	1500	22	0.068	0.162
*21...	0912	--	14	--	--	18	0.070	0.122
*25...	1644	6.0	--	<3.0	2000	13	0.031	0.090
JUL								
*02...	0944	--	5.1	<3.0	40000	6	0.040	0.134
*10...	1834	--	3.0	<3.0	440	7	<0.027	0.039
*16...	1012	--	3.0	<3.0	580	<5	<0.027	0.033
*24...	1116	--	2.5	<3.0	290	<5	<0.027	0.037
*31...	0940	--	2.5	1.1	240	10	<0.027	0.033
AUG								
*05...	1042	2.5	--	0.7	380	<5	<0.027	0.027
*15...	1352	--	1.9	0.4	380	<5	<0.027	0.022
*23...	0816	--	2.1	0.9	10	<5	0.051	0.039
*28...	1158	1.9	--	0.7	650	<5	0.032	0.030
SEP								
*05...	1212	1.7	--	1	830	<5	<0.027	0.038
*12...	0936	2.0	--	1	550	8	<0.027	0.045
*20...	1842	1.9	--	0.8	830	5	<0.027	0.037
*27...	1146	3.2	--	0.5	19000	7	0.027	0.086

* Equal-width increment (EWI) sample

040857005 OTTER CREEK, AT WILLOW ROAD, NEAR PLYMOUTH, WI--CONTINUED

PRECIPITATION QUANTITY

PERIOD OF RECORD.--October 1990 to current year (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on Oct. 1, 1990. Rainfall estimated to be 0.00 for Nov. 14, 28–30, Dec. 13, 31, Jan. 1, 11, 25, 26, and Feb. 20 because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for Aug. 5.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.39 in., June 14, 1991.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 2.02 in., June 17.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.94	.00	.00	.00	.00	.00	.00	1.28	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.11	.58	.00	.00
3	.15	.00	.00	.00	.00	.00	.32	.12	.01	.00	.00	.00
4	.01	.00	.00	.00	.00	.00	.08	.00	.02	.00	.00	.00
5	.19	.00	.04	.00	.00	.00	.00	.01	.01	.00	---	.00
6	1.22	.00	.00	.00	.00	.00	.00	.00	.27	.00	.00	.00
7	.01	.00	.00	.00	.00	.00	.00	.00	.92	.00	.00	.00
8	.00	.00	.00	.00	.18	.00	.00	.07	.02	.04	.00	.41
9	.02	.00	.00	.00	.00	.00	.00	.05	.03	.46	.00	.00
10	.00	.16	.00	.00	.00	.00	.00	.60	.02	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00
14	.08	.00	.23	.00	.00	.00	.02	.10	.00	.01	.00	.00
15	.00	.00	.00	.00	.00	.00	.57	.00	.00	.04	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.43	.17	.00	.00
17	.00	.04	.00	.23	.00	.00	.00	.00	2.02	.00	.00	.01
18	.00	.06	.00	.09	.00	.00	.58	.00	.43	.38	.00	.00
19	.43	.01	.00	.00	.00	.00	.07	.00	.03	.00	.84	.00
20	.44	.00	.00	.00	.00	.00	.15	.23	.00	.00	.00	.07
21	.05	.00	.00	.00	.00	.00	.00	.03	.06	.00	.00	.01
22	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00
23	.15	.00	.00	.00	.00	.00	.00	.16	.03	.00	.00	.00
24	.01	.00	.00	.00	.00	.32	.00	.00	.18	.00	.00	.02
25	.00	.00	.00	.00	.08	.04	.05	.04	.00	.00	.00	.00
26	.00	.09	.00	.00	.22	.00	.00	.00	.00	.00	.00	.97
27	1.03	.01	.00	.00	.07	.00	.00	.00	.00	.00	.00	.06
28	.01	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00
29	.00	.00	.00	.00	.00	.00	.23	.00	.02	.11	.00	.00
30	.00	.00	.00	.00	---	.00	.34	.00	.00	.01	.00	.00
31	.46	---	.00	.00	---	.05	---	.00	---	.00	.00	---
TOTAL	4.35	1.31	0.27	0.32	0.55	0.41	2.41	1.45	5.90	2.19	---	1.55

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 mi^2.

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

REVISED RECORDS.--WSP 1307: 1917(M), 1919(M), 1921(M), 1923(M). WSP 1727: 1951. WDR WI-79-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 584.00 ft above sea level. 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: Ice-affected periods, Nov. 13, 16, 18, 20, 21, 25, 26, 29, 30, and Dec. 1 to Mar. 10. Records good except those for ice-affected periods, which are poor (see page 12). Diurnal fluctuation caused by numerous powerplants above station. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	204	140	64	110	540	342	481	133	410	77	38
2	43	401	140	62	110	500	351	463	270	297	69	37
3	40	382	150	62	96	430	391	454	319	194	57	37
4	42	312	150	62	94	370	496	429	280	161	63	38
5	42	326	170	60	98	340	482	397	229	169	69	37
6	86	315	160	60	120	310	492	370	239	177	112	37
7	98	310	150	58	130	280	435	339	987	162	120	37
8	103	296	140	58	150	250	391	295	1240	153	107	38
9	85	247	130	56	200	240	361	283	1110	150	93	79
10	67	228	120	56	310	230	330	478	863	165	83	69
11	58	211	110	56	340	234	300	678	667	146	78	51
12	53	165	98	62	300	271	330	555	564	153	78	44
13	57	170	96	66	280	411	330	435	480	155	78	42
14	64	146	94	68	270	548	320	374	429	148	74	40
15	73	134	92	74	260	665	320	356	382	142	70	39
16	79	130	90	84	250	601	320	355	318	132	66	38
17	73	121	86	98	240	510	350	341	1740	117	64	41
18	67	140	84	210	230	454	370	321	2910	121	63	40
19	64	141	82	340	220	456	380	298	2870	195	65	39
20	75	150	80	280	210	509	400	281	2340	251	90	39
21	91	160	80	260	210	585	420	273	1710	174	69	40
22	89	141	78	240	220	442	630	239	1370	137	70	40
23	96	140	76	220	230	401	599	174	1090	121	67	41
24	94	137	74	200	240	375	624	169	936	131	59	44
25	98	150	72	180	270	494	579	182	951	107	50	40
26	105	130	70	170	450	462	547	178	867	97	46	60
27	167	108	68	160	680	455	479	171	764	87	44	84
28	195	90	66	150	620	428	413	164	663	76	43	81
29	173	150	66	140	580	387	376	150	575	82	41	67
30	152	130	64	130	---	335	442	144	498	86	40	52
31	137	---	64	120	---	344	---	132	---	80	40	---
TOTAL	2707	5865	3140	3906	7518	12857	12600	9959	27794	4776	2145	1409
MEAN	87.3	195	101	126	259	415	420	321	926	154	69.2	47.0
MAX	195	401	170	340	680	665	630	678	2910	410	120	84
MIN	40	90	64	56	94	230	300	132	133	76	40	37
CFSM	.21	.47	.24	.30	.62	.99	1.00	.77	2.22	.37	.17	.11
IN.	.24	.52	.28	.35	.67	1.14	1.12	.89	2.47	.43	.19	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1996, BY WATER YEAR (WY)

MEAN	159	210	168	113	169	689	730	301	210	109	107	140
MAX	741	1372	505	370	887	2052	1994	1027	926	607	1433	1143
(WY)	1987	1986	1983	1960	1984	1918	1993	1960	1996	1993	1924	1986
MIN	29.6	31.7	19.7	17.1	20.9	110	141	41.5	25.2	19.8	11.1	20.4
(WY)	1958	1951	1959	1959	1958	1968	1970	1958	1958	1958	1958	1958

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1916 - 1996	
ANNUAL TOTAL	53769		94676			
ANNUAL MEAN	147		259		259	
HIGHEST ANNUAL MEAN					526	1986
LOWEST ANNUAL MEAN					47.1	1958
HIGHEST DAILY MEAN	1050	Apr 19	2910	Jun 18	7000	Aug 6 1924
LOWEST DAILY MEAN	31	Sep 15	(a)37	Sep 2	1.0	Aug 27 1922
ANNUAL SEVEN-DAY MINIMUM	34	Sep 12	37	Sep 1	8.9	Aug 14 1958
INSTANTANEOUS PEAK FLOW			4350	Jun 19	7680	Mar 22 1975
INSTANTANEOUS PEAK STAGE			9.08	Jun 19	11.64	Mar 22 1975
INSTANTANEOUS LOW FLOW			(b)36	Oct 1	1.0	Aug 27 1922
ANNUAL RUNOFF (CFSM)	.35		.62		.62	
ANNUAL RUNOFF (INCHES)	4.79		8.43		8.42	
10 PERCENT EXCEEDS	373		503		610	
50 PERCENT EXCEEDS	81		151		113	
90 PERCENT EXCEEDS	39		53		37	

(a) Also occurred Sept. 3,5-7
(b) Also occurred Oct. 2 and 3

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 mi^2.

PERIOD OF RECORD.--August 1930 to September 1970, July 1973 to September 1981, August 1983 to September 1987, October 1990 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 and crest-stage gage. Datum of gage is 795.33 ft above sea level (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: Ice-affected periods, Nov. 21–25, Nov. 28 to Dec. 4, and Dec. 6 to Mar. 14. Records good except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	97	72	26	42	280	100	239	36	80	30	25
2	16	193	80	25	40	240	95	190	120	77	29	24
3	15	198	86	25	38	190	97	143	166	86	26	24
4	16	166	94	25	36	170	122	119	127	77	24	23
5	16	126	97	25	34	160	134	98	96	64	22	22
6	38	99	92	25	33	140	112	87	134	55	42	22
7	105	87	86	25	40	130	94	79	501	49	61	21
8	75	78	70	24	62	120	83	75	1060	45	41	20
9	53	75	60	24	82	120	76	98	1030	44	33	27
10	43	78	52	24	100	120	73	214	789	42	29	26
11	38	80	45	24	130	120	73	313	596	41	27	24
12	34	77	43	24	120	140	83	283	447	38	27	22
13	29	70	42	25	110	170	90	208	342	42	25	22
14	26	69	41	25	96	260	83	149	258	46	24	21
15	25	73	40	26	86	335	91	168	183	42	23	20
16	24	63	38	26	80	303	186	215	131	38	23	20
17	23	65	38	30	62	256	246	190	604	36	22	20
18	22	58	36	110	56	232	222	161	1180	42	22	20
19	22	65	35	150	52	178	208	132	1380	93	25	20
20	32	80	34	140	49	87	249	113	1030	103	117	20
21	44	84	33	120	48	79	259	133	796	85	149	20
22	47	78	33	98	50	74	213	123	610	68	95	20
23	44	70	31	88	58	70	165	92	452	55	69	19
24	48	64	30	72	68	75	133	81	361	47	53	18
25	52	60	30	64	86	139	116	69	315	39	44	19
26	45	57	29	56	110	133	114	61	266	35	39	22
27	57	57	29	52	220	107	100	57	212	32	33	55
28	109	56	28	48	250	85	88	52	162	30	32	51
29	99	58	27	45	300	77	91	47	125	32	30	38
30	80	64	27	43	---	79	205	41	97	32	28	31
31	67	---	26	42	---	89	---	37	---	31	27	---
TOTAL	1359	2545	1504	1556	2538	4758	4001	4067	13606	1626	1271	736
MEAN	43.8	84.8	48.5	50.2	87.5	153	133	131	454	52.5	41.0	24.5
MAX	109	198	97	150	300	335	259	313	1380	103	149	55
MIN	15	56	26	24	33	70	73	37	36	30	22	18
CFSM	.37	.71	.40	.42	.73	1.28	1.11	1.09	3.78	.44	.34	.20
IN.	.42	.79	.47	.48	.79	1.47	1.24	1.26	4.22	.50	.39	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1996, BY WATER YEAR (WY)

MEAN	44.8	59.1	50.8	50.1	61.9	195	162	80.8	72.2	42.1	24.8	46.5
MAX	306	376	268	273	253	575	585	291	454	298	106	485
(WY)	1955	1986	1992	1975	1984	1976	1993	1933	1996	1952	1960	1986
MIN	5.65	6.66	4.92	3.74	5.32	19.9	38.9	14.0	3.34	1.40	1.45	2.48
(WY)	1935	1938	1964	1940	1959	1940	1958	1958	1934	1936	1934	1932

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1930 - 1996	
ANNUAL TOTAL	22034.2		39567			
ANNUAL MEAN	60.4		108		74.3	
HIGHEST ANNUAL MEAN					168	1986
LOWEST ANNUAL MEAN					13.5	1934
HIGHEST DAILY MEAN	300	Apr 28	1380	Jun 19	3320	Mar 20 1952
LOWEST DAILY MEAN	8.7	Jul 14,31	15	Oct 1,3	.20	Aug 9 1936
ANNUAL SEVEN-DAY MINIMUM	9.5	Jul 10	19	Sep 19	.24	Aug 6 1936
INSTANTANEOUS PEAK FLOW			1620	Jun 19	3600	Mar 30 1960
INSTANTANEOUS PEAK STAGE			10.28	Jun 19	(a)12.25	Mar 30 1960
INSTANTANEOUS LOW FLOW			13	Oct 1	.20	Aug 9 1936
ANNUAL RUNOFF (CFSM)	.50		.90		.62	
ANNUAL RUNOFF (INCHES)	6.83		12.27		8.41	
10 PERCENT EXCEEDS	135		214		165	
50 PERCENT EXCEEDS	40		64		32	
90 PERCENT EXCEEDS	13		24		7.0	

(a) From graph based on gage readings, backwater from ice

04086600 MILWAUKEE RIVER NEAR CEDARBURG, WI

LOCATION.--Lat 43°16'49", long 87°56'34", 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 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 653.558 ft above sea level (Southeastern Wisconsin Regional Planning Commission bench mark).

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 28 to Dec. 3 and Dec. 7 to Mar. 22. Records fair except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	525	270	150	230	1100	597	700	401	536	204	124
2	77	908	280	150	220	880	622	654	602	515	201	118
3	72	1060	300	150	200	680	614	603	896	494	206	118
4	68	987	424	150	190	560	669	547	847	493	185	114
5	69	854	447	140	180	490	727	480	779	434	173	112
6	190	771	391	140	170	410	682	473	911	363	215	107
7	390	708	270	140	200	360	641	458	2190	321	335	107
8	416	629	260	130	290	330	593	452	3690	300	285	109
9	313	543	250	130	470	320	547	514	3090	276	244	145
10	256	500	240	120	620	310	503	841	2420	268	199	288
11	222	512	230	120	600	310	465	1210	1970	246	179	243
12	194	472	220	120	580	320	478	1220	1620	226	167	196
13	167	443	210	130	620	350	525	1120	1350	228	160	154
14	139	451	200	140	540	500	536	1000	1060	233	152	140
15	115	404	200	150	430	640	599	911	820	222	145	133
16	104	389	200	160	370	700	662	913	606	230	139	130
17	90	374	190	240	320	700	805	846	2400	244	130	128
18	82	336	190	340	300	680	806	772	4460	265	125	127
19	78	336	190	540	280	640	873	693	4870	797	147	127
20	84	372	180	620	270	600	1040	608	3980	995	376	125
21	120	423	180	560	270	540	1110	627	3280	974	440	124
22	142	384	180	500	280	520	1070	616	2820	904	327	124
23	152	375	170	450	290	591	922	554	2410	812	274	125
24	157	376	170	400	300	571	806	526	2130	661	235	124
25	167	355	170	350	360	696	708	497	1820	510	196	125
26	160	334	170	320	520	700	627	466	1490	403	168	173
27	231	280	160	290	880	710	555	450	1160	329	155	233
28	446	210	160	270	1200	700	501	473	938	275	160	340
29	551	230	150	260	1200	638	495	494	739	262	159	281
30	474	250	150	250	---	534	630	454	848	242	141	243
31	396	---	150	240	---	538	---	423	---	219	130	---
TOTAL	6198	14791	6952	7850	12380	17618	20408	20595	56597	13277	6352	4737
MEAN	200	493	224	253	427	568	680	664	1887	428	205	158
MAX	551	1060	447	620	1200	1100	1110	1220	4870	995	440	340
MIN	68	210	150	120	170	310	465	423	401	219	125	107
CFSM	.33	.81	.37	.42	.70	.94	1.12	1.09	3.11	.71	.34	.26
IN.	.38	.91	.43	.48	.76	1.08	1.25	1.26	3.47	.81	.39	.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996, BY WATER YEAR (WY)

MEAN	339	529	416	259	404	959	973	465	486	253	210	322
MAX	1157	1565	757	406	997	1793	2501	757	1887	767	349	1593
(WY)	1987	1986	1983	1985	1984	1986	1993	1984	1996	1993	1987	1986
MIN	133	173	120	120	115	417	453	219	89.5	69.7	69.5	108
(WY)	1995	1995	1990	1994	1995	1995	1994	1988	1988	1988	1988	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1982 - 1996	
ANNUAL TOTAL	102686		187755			
ANNUAL MEAN	281		513		466	
HIGHEST ANNUAL MEAN					720	1986
LOWEST ANNUAL MEAN					247	1995
HIGHEST DAILY MEAN	1200	Aug 29	4870	Jun 19	4870	Jun 19 1996
LOWEST DAILY MEAN	58	Jun 22,27	68	Oct 4	42	Jul 9 1988
ANNUAL SEVEN-DAY MINIMUM	59	Jun 21	96	Oct 15	49	Jul 5 1988
INSTANTANEOUS PEAK FLOW			5500	Jun 18	5500	Jun 18 1996
INSTANTANEOUS PEAK STAGE			12.88	Jun 18	12.88	Jun 18 1996
INSTANTANEOUS LOW FLOW			67	Oct 4	42	Jul 9 1988
ANNUAL RUNOFF (CFSM)	.46		.85		.77	
ANNUAL RUNOFF (INCHES)	6.29		11.51		10.42	
10 PERCENT EXCEEDS	613		912		1000	
50 PERCENT EXCEEDS	190		352		288	
90 PERCENT EXCEEDS	82		130		119	

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1993 to August 1995.

REMARKS.--Samples for chemical analysis were composite samples of water collected from three locations in the stream cross section. Water-quality analysis by Wisconsin State Laboratory of Hygiene and National Water-Quality Laboratory. The Milwaukee Metropolitan Sewerage District and Wisconsin Department of Natural Resources maintain a continuous suspended solids record from an automatic point sampler.

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

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PCB COG 5 + 8 SED SUSP REC (NG/L) (19067)	PCB COG 5 + 8 WATER DISS REC (NG/L) (19004)	PCB COG 6 SED SUSP REC (NG/L) (19066)	PCB COG 6 WATER DISS REC (NG/L) (19003)	PCB COG 7 SED SUSP REC (NG/L) (19065)	PCB COG 7 WATER DISS REC (NG/L) (19002)	PCB COG 16 + 32 SED SUSP REC (NG/L) (19072)	PCB COG 16 + 32 WATER DISS REC (NG/L) (19009)	PCB COG 17 SED SUSP REC (NG/L) (19070)	PCB COG 17 WATER DISS REC (NG/L) (19007)
AUG 1994												
11...	1050	169	<0.09	0.24	<0.08	<0.08	<0.02	<0.02	<0.03	0.09	<0.03	0.12
31...	0945	150	<0.09	0.34	<0.08	<0.08	<0.02	0.02	<0.03	0.14	<0.03	0.16
SEP												
21...	1150	112	<0.09	0.11	<0.08	<0.08	<0.02	<0.02	<0.03	0.05	<0.03	0.05

DATE	PCB COG 18 SED SUSP REC (NG/L) (19069)	PCB COG 18 WATER DISS REC (NG/L) (19006)	PCB COG 19 SED SUSP REC (NG/L) (19068)	PCB COG 19 WATER DISS REC (NG/L) (19005)	PCB COG 22 SED SUSP REC (NG/L) (19076)	PCB COG 22 WATER DISS REC (NG/L) (19013)	PCB COG 24 + 27 SED SUSP REC (NG/L) (19071)	PCB COG 24 + 27 WATER DISS REC (NG/L) (19008)	PCB COG 26 SED SUSP REC (NG/L) (19073)	PCB COG 26 WATER DISS REC (NG/L) (19010)	PCB COG 28 + 31 SED SUSP REC (NG/L) (19074)	PCB COG 28 + 31 WATER DISS REC (NG/L) (19011)
AUG 1994												
11...	<0.03	0.10	<0.02	0.05	<0.05	0.07	<0.02	<0.02	<0.03	0.04	<0.09	0.36
31...	<0.03	0.14	<0.02	0.05	<0.05	0.08	<0.02	<0.04	<0.03	0.08	<0.12	0.44
SEP												
21...	<0.03	0.05	<0.02	<0.02	<0.05	<0.05	<0.02	<0.03	<0.03	<0.03	<0.08	0.19

DATE	PCB COG 33 SED SUSP REC (NG/L) (19075)	PCB COG 33 WATER DISS REC (NG/L) (19012)	PCB COG 37 + 42 SED SUSP REC (NG/L) (19083)	PCB COG 37 + 42 WATER DISS REC (NG/L) (19020)	PCB COG 40 SED SUSP REC (NG/L) (19085)	PCB COG 40 WATER DISS REC (NG/L) (19022)	PCB COG 41 +64+71 SED SUSP REC (NG/L) (19084)	PCB COG 41 +64+71 WATER DISS REC (NG/L) (19021)	PCB COG 44 SED SUSP REC (NG/L) (19082)	PCB COG 44 WATER DISS REC (NG/L) (19019)	PCB COG 45 SED SUSP REC (NG/L) (19077)	PCB COG 45 WATER DISS REC (NG/L) (19014)
AUG 1994												
11...	<0.03	<0.07	<0.03	0.06	<0.03	<0.03	0.05	0.10	0.06	0.11	<0.02	<0.02
31...	<0.03	<0.09	0.05	0.08	<0.03	<0.03	0.07	0.11	0.07	0.14	<0.02	<0.02
SEP												
21...	<0.03	<0.04	<0.03	<0.03	<0.03	<0.03	<0.04	0.05	0.03	0.06	<0.02	<0.02

DATE	PCB COG 46 SED SUSP REC (NG/L) (19078)	PCB COG 46 WATER DISS REC (NG/L) (19015)	PCB COG 47 + 48 SED SUSP REC (NG/L) (19081)	PCB COG 47 + 48 WATER DISS REC (NG/L) (19018)	PCB COG 49 SED SUSP REC (NG/L) (19080)	PCB COG 49 WATER DISS REC (NG/L) (19017)	PCB COG 52 SED SUSP REC (NG/L) (19079)	PCB COG 52 WATER DISS REC (NG/L) (19016)	PCB COG 56 + 60 SED SUSP REC (NG/L) (19090)	PCB COG 56 + 60 WATER DISS REC (NG/L) (19027)	PCB COG 66 + 95 SED SUSP REC (NG/L) (19088)	PCB COG 66 + 95 WATER DISS REC (NG/L) (19025)
AUG 1994												
11...	<0.03	<0.03	0.16	0.54	0.10	0.15	0.10	0.17	<0.05	0.08	0.24	0.24
31...	<0.03	<0.03	0.15	0.78	0.12	0.21	0.11	0.22	0.07	0.08	0.26	0.28
SEP												
21...	<0.03	<0.03	0.05	0.18	0.04	0.07	0.04	0.08	<0.05	<0.05	0.13	0.12

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

DATE	PCB COG 70 + 76 SED SUSP REC (NG/L) (19087)	PCB COG 70 + 76 WATER DISS REC (NG/L) (19024)	PCB COG 74 SED SUSP REC (NG/L) (19086)	PCB COG 74 WATER DISS REC (NG/L) (19023)	PCB COG 77+110 SED SUSP REC (NG/L) (19098)	PCB COG 77+110 WATER DISS REC (NG/L) (19035)	PCB COG 82 SED SUSP REC (NG/L) (19099)	PCB COG 82 WATER DISS REC (NG/L) (19036)	PCB COG 84 + 92 SED SUSP REC (NG/L) (19091)	PCB COG 84 + 92 WATER DISS REC (NG/L) (19028)	PCB COG 85 SED SUSP REC (NG/L) (19096)	PCB COG 85 WATER DISS REC (NG/L) (19033)
AUG 1994												
11...	0.05	0.12	<0.03	0.04	0.14	0.12	<0.03	<0.03	<0.05	0.06	<0.03	<0.03
31...	0.09	0.13	0.04	0.04	0.17	0.14	<0.03	<0.03	<0.05	0.07	<0.03	<0.03
SEP												
21...	<0.04	0.07	<0.03	<0.03	0.08	0.06	<0.03	<0.03	<0.05	<0.05	<0.03	<0.03

DATE	PCB COG 87 SED SUSP REC (NG/L) (19095)	PCB COG 87 WATER DISS REC (NG/L) (19032)	PCB COG 91 SED SUSP REC (NG/L) (19089)	PCB COG 91 WATER DISS REC (NG/L) (19026)	PCB COG 97 SED SUSP REC (NG/L) (19094)	PCB COG 97 WATER DISS REC (NG/L) (19031)	PCB COG 99 SED SUSP REC (NG/L) (19093)	PCB COG 99 WATER DISS REC (NG/L) (19030)	PCB COG 101 SED SUSP REC (NG/L) (19092)	PCB COG 101 WATER DISS REC (NG/L) (19029)	PCB COG 118 SED SUSP REC (NG/L) (19103)
AUG 1994											
11...	<0.03	0.04	0.05	0.04	<0.03	<0.03	0.08	0.05	0.19	0.13	0.06
31...	0.04	0.04	0.06	0.05	<0.03	<0.03	0.10	0.06	0.21	0.14	0.08
SEP											
21...	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<0.02	0.10	0.06	0.03

DATE	PCB COG 118 WATER DISS REC (NG/L) (19040)	PCB COG 128 SED SUSP REC (NG/L) (99924)	PCB COG 128 WATER DISS REC (NG/L) (99922)	PCB COG 132+153 SED SUSP REC (NG/L) (19105)	PCB COG 132+153 WATER DISS REC (NG/L) (19042)	PCB COG 135+144 SED SUSP REC (NG/L) (19101)	PCB COG 135+144 WATER DISS REC (NG/L) (19038)	PCB COG 136 SED SUSP REC (NG/L) (19097)	PCB COG 136 WATER DISS REC (NG/L) (19034)	PCB COG 137+176 SED SUSP REC (NG/L) (19107)	PCB COG 137+176 WATER DISS REC (NG/L) (19044)
AUG 1994											
11...	0.04	<0.035	<0.035	0.79	0.22	0.14	0.05	<0.03	<0.03	0.03	<0.03
31...	0.04	<0.035	<0.035	0.71	0.20	0.12	0.05	<0.03	<0.03	<0.03	<0.03
SEP											
21...	<0.03	<0.035	<0.035	0.34	0.10	0.05	<0.02	<0.03	<0.03	<0.03	<0.03

DATE	PCB COG 138+163 SED SUSP REC (NG/L) (19108)	PCB COG 138+163 WATER DISS REC (NG/L) (19045)	PCB COG 141 SED SUSP REC (NG/L) (19106)	PCB COG 141 WATER DISS REC (NG/L) (19043)	PCB COG 146 SED SUSP REC (NG/L) (19104)	PCB COG 146 WATER DISS REC (NG/L) (19041)	PCB COG 149 SED SUSP REC (NG/L) (19102)	PCB COG 149 WATER DISS REC (NG/L) (19039)	PCB COG 151 SED SUSP REC (NG/L) (19100)	PCB COG 151 WATER DISS REC (NG/L) (19037)	PCB COG 167 SED SUSP REC (NG/L) (99925)
AUG 1994											
11...	0.44	0.12	0.14	0.03	0.20	0.06	0.45	0.15	0.21	0.08	<0.080
31...	0.43	0.11	0.12	0.03	0.19	0.05	0.40	0.14	0.18	0.07	<0.080
SEP											
21...	0.19	0.05	0.05	<0.02	0.09	<0.03	0.18	0.06	0.08	0.03	<0.080

DATE	PCB COG 167 WATER DISS REC (NG/L) (99923)	PCB COG 170+190 SED SUSP REC (NG/L) (19119)	PCB COG 170+190 WATER DISS REC (NG/L) (19056)	PCB COG 171+202 SED SUSP REC (NG/L) (19115)	PCB COG 171+202 WATER DISS REC (NG/L) (19052)	PCB COG 172+197 SED SUSP REC (NG/L) (19116)	PCB COG 172+197 WATER DISS REC (NG/L) (19053)	PCB COG 174 SED SUSP REC (NG/L) (19113)	PCB COG 174 WATER DISS REC (NG/L) (19050)	PCB COG 177 SED SUSP REC (NG/L) (19114)	PCB COG 177 WATER DISS REC (NG/L) (19051)
AUG 1994											
11...	<0.080	0.44	<0.08	0.11	<0.03	0.07	<0.05	0.28	0.05	0.23	0.04
31...	<0.080	0.40	<0.08	0.09	<0.03	0.07	<0.05	0.25	0.04	0.21	0.03
SEP											
21...	<0.080	0.16	<0.08	0.04	<0.03	<0.05	<0.05	0.10	<0.02	0.09	<0.03

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

DATE	PCB COG 178 SED SUSP REC (NG/L) (19109)	PCB COG 178 WATER DISS REC (NG/L) (19046)	PCB COG 180 SED SUSP REC (NG/L) (19117)	PCB COG 180 WATER DISS REC (NG/L) (19054)	PCB COG 182+187 SED SUSP REC (NG/L) (19110)	PCB COG 182+187 WATER DISS REC (NG/L) (19047)	PCB COG 183 SED SUSP REC (NG/L) (19111)	PCB COG 183 WATER DISS REC (NG/L) (19048)	PCB COG 185 SED SUSP REC (NG/L) (19112)	PCB COG 185 WATER DISS REC (NG/L) (19049)	PCB COG 194 SED SUSP REC (NG/L) (19123)
AUG 1994											
11...	0.17	<0.04	0.62	0.11	0.54	0.09	0.17	<0.03	0.04	<0.03	0.17
31...	0.15	<0.04	0.56	0.10	0.49	0.09	0.14	<0.03	0.04	<0.03	0.16
SEP											
21...	0.07	<0.04	0.23	0.06	0.22	0.07	0.06	<0.03	<0.03	<0.03	0.06

DATE	PCB COG 194 WATER DISS REC (NG/L) (19060)	PCB COG 195+208 SED SUSP REC (NG/L) (19122)	PCB COG 195+208 WATER DISS REC (NG/L) (19059)	PCB COG 196+203 SED SUSP REC (NG/L) (19121)	PCB COG 196+203 WATER DISS REC (NG/L) (19058)	PCB COG 199 SED SUSP REC (NG/L) (19118)	PCB COG 199 WATER DISS REC (NG/L) (19055)	PCB COG 201 SED SUSP REC (NG/L) (19120)	PCB COG 201 WATER DISS REC (NG/L) (19057)	PCB COG 206 SED SUSP REC (NG/L) (19124)	PCB COG 206 WATER DISS REC (NG/L) (19061)
AUG 1994											
11...	<0.03	0.22	<0.08	0.37	<0.08	0.02	<0.02	0.35	<0.04	0.08	<0.04
31...	<0.03	0.21	<0.08	0.33	<0.08	0.02	<0.02	0.32	<0.04	0.07	<0.04
SEP											
21...	<0.03	0.08	<0.08	0.13	<0.08	<0.02	<0.02	0.14	<0.04	<0.04	<0.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PCB COG 5 + 8 SED SUSP REC (NG/L) (19067)	PCB COG 5 + 8 WATER DISS REC (NG/L) (19004)	PCB COG 6 SED SUSP REC (NG/L) (19066)	PCB COG 6 WATER DISS REC (NG/L) (19003)	PCB COG 7 SED SUSP REC (NG/L) (19065)	PCB COG 7 WATER DISS REC (NG/L) (19002)	PCB COG 16 + 32 SED SUSP REC (NG/L) (19072)	PCB COG 16 + 32 WATER DISS REC (NG/L) (19009)	PCB COG 17 SED SUSP REC (NG/L) (19070)
OCT 1994												
11...	1150	--	98	<0.09	0.10	<0.08	<0.08	<0.02	<0.02	<0.03	0.04	<0.03
JAN 1995												
19...	1445	190	--	<0.09	<0.09	<0.08	<0.08	<0.02	<0.02	<0.03	<0.03	<0.03
MAR												
17...	0740	--	774	<0.09	<0.09	<0.08	<0.08	<0.02	<0.02	<0.03	<0.03	<0.03
APR												
13...	1200	--	772	<0.09	<0.09	<0.08	<0.08	<0.02	<0.02	<0.03	<0.03	<0.03

DATE	PCB COG 17 WATER DISS REC (NG/L) (19007)	PCB COG 18 SED SUSP REC (NG/L) (19069)	PCB COG 18 WATER DISS REC (NG/L) (19006)	PCB COG 19 SED SUSP REC (NG/L) (19068)	PCB COG 19 WATER DISS REC (NG/L) (19005)	PCB COG 22 SED SUSP REC (NG/L) (19076)	PCB COG 22 WATER DISS REC (NG/L) (19013)	PCB COG 24 + 27 SED SUSP REC (NG/L) (19071)	PCB COG 24 + 27 WATER DISS REC (NG/L) (19008)	PCB COG 26 SED SUSP REC (NG/L) (19073)	PCB COG 26 WATER DISS REC (NG/L) (19010)	PCB COG 28 + 31 SED SUSP REC (NG/L) (19074)
OCT 1994												
11...	0.06	<0.03	0.05	<0.02	<0.02	<0.05	<0.05	<0.02	<0.02	<0.03	<0.03	<0.08
JAN 1995												
19...	0.03	<0.03	<0.03	<0.02	<0.02	<0.05	<0.05	<0.02	<0.02	<0.03	<0.03	<0.08
MAR												
17...	0.04	<0.03	0.04	<0.02	<0.02	<0.05	<0.05	<0.02	<0.02	<0.03	<0.03	<0.08
APR												
13...	0.05	<0.03	0.04	<0.02	<0.02	<0.05	<0.05	<0.02	<0.02	<0.03	<0.03	<0.08

04086600 MILWAUKEE RIVER NEAR CEDARBURG, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PCB COG 28 + 31 WATER DISS REC (NG/L) (19011)	PCB COG 33 SED SUSP REC (NG/L) (19075)	PCB COG 33 WATER DISS REC (NG/L) (19012)	PCB COG 37 + 42 SED SUSP REC (NG/L) (19083)	PCB COG 37 + 42 WATER DISS REC (NG/L) (19020)	PCB COG 40 SED SUSP REC (NG/L) (19085)	PCB COG 40 WATER DISS REC (NG/L) (19022)	PCB COG 41 +64+71 SED SUSP REC (NG/L) (19084)	PCB COG 41 +64+71 WATER DISS REC (NG/L) (19021)	PCB COG 44 SED SUSP REC (NG/L) (19082)	PCB COG 44 WATER DISS REC (NG/L) (19019)	PCB COG 45 SED SUSP REC (NG/L) (19077)
OCT 1994												
11...	0.20	<0.03	<0.05	<0.03	<0.03	<0.03	<0.03	<0.04	0.05	<0.02	0.06	<0.02
JAN 1995												
19...	0.09	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.04	<0.04	<0.02	0.03	<0.02
MAR												
17...	0.10	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.04	<0.04	0.03	0.03	<0.02
APR												
13...	0.14	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.04	<0.04	0.03	0.04	<0.02

DATE	PCB COG 45 WATER DISS REC (NG/L) (19014)	PCB COG 46 SED SUSP REC (NG/L) (19078)	PCB COG 46 WATER DISS REC (NG/L) (19015)	PCB COG 47 + 48 SED SUSP REC (NG/L) (19081)	PCB COG 47 + 48 WATER DISS REC (NG/L) (19018)	PCB COG 49 SED SUSP REC (NG/L) (19080)	PCB COG 49 WATER DISS REC (NG/L) (19017)	PCB COG 52 SED SUSP REC (NG/L) (19079)	PCB COG 52 WATER DISS REC (NG/L) (19016)	PCB COG 56 + 60 SED SUSP REC (NG/L) (19090)	PCB COG 56 + 60 WATER DISS REC (NG/L) (19027)	PCB COG 66 + 95 SED SUSP REC (NG/L) (19088)
OCT 1994												
11...	<0.02	<0.03	<0.03	<0.03	0.10	<0.02	0.10	<0.02	0.11	<0.05	<0.05	0.05
JAN 1995												
19...	<0.02	<0.03	<0.03	<0.03	0.05	<0.02	0.05	<0.02	0.05	<0.05	<0.05	0.06
MAR												
17...	<0.02	<0.03	<0.03	0.06	0.17	0.04	0.05	0.05	0.05	<0.05	<0.05	0.15
APR												
13...	<0.02	<0.03	<0.03	0.05	0.08	0.05	0.08	0.06	0.08	<0.05	<0.05	0.17

DATE	PCB COG 66 + 95 WATER DISS REC (NG/L) (19025)	PCB COG 70 + 76 SED SUSP REC (NG/L) (19087)	PCB COG 70 + 76 WATER DISS REC (NG/L) (19024)	PCB COG 74 SED SUSP REC (NG/L) (19086)	PCB COG 74 WATER DISS REC (NG/L) (19023)	PCB COG 77+110 SED SUSP REC (NG/L) (19098)	PCB COG 77+110 WATER DISS REC (NG/L) (19035)	PCB COG 82 SED SUSP REC (NG/L) (19099)	PCB COG 82 WATER DISS REC (NG/L) (19036)	PCB COG 84 + 92 SED SUSP REC (NG/L) (19091)	PCB COG 84 + 92 WATER DISS REC (NG/L) (19028)	PCB COG 85 SED SUSP REC (NG/L) (19096)
OCT 1994												
11...	0.15	<0.04	0.07	<0.03	<0.03	<0.03	0.07	<0.03	<0.03	<0.05	<0.05	<0.03
JAN 1995												
19...	0.07	<0.04	<0.04	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.05	<0.05	<0.03
MAR												
17...	0.09	<0.04	0.04	<0.03	<0.03	0.09	0.04	<0.03	<0.03	<0.05	<0.05	<0.03
APR												
13...	0.12	<0.04	0.04	<0.03	<0.03	0.09	0.05	<0.03	<0.03	<0.05	<0.05	<0.03

DATE	PCB COG 85 WATER DISS REC (NG/L) (19033)	PCB COG 87 SED SUSP REC (NG/L) (19095)	PCB COG 87 WATER DISS REC (NG/L) (19032)	PCB COG 91 SED SUSP REC (NG/L) (19089)	PCB COG 91 WATER DISS REC (NG/L) (19026)	PCB COG 97 SED SUSP REC (NG/L) (19094)	PCB COG 97 WATER DISS REC (NG/L) (19031)	PCB COG 99 SED SUSP REC (NG/L) (19093)	PCB COG 99 WATER DISS REC (NG/L) (19030)	PCB COG 101 SED SUSP REC (NG/L) (19092)	PCB COG 101 WATER DISS REC (NG/L) (19029)	PCB COG 118 SED SUSP REC (NG/L) (19103)
OCT 1994												
11...	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.02	0.03	0.04	0.08	<0.03
JAN 1995												
19...	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.02	<0.02	0.04	0.04	<0.03
MAR												
17...	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	<0.03	0.05	<0.02	0.11	0.05	0.04
APR												
13...	<0.03	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	0.06	0.03	0.13	0.07	0.04

04086600 MILWAUKEE RIVER NEAR CEDARBURG, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PCB COG 118 WATER DISS REC (NG/L) (19040)	PCB COG 128 SED SUSP REC (NG/L) (99924)	PCB COG 128 WATER DISS REC (NG/L) (99922)	PCB COG 132+153 SED SUSP REC (NG/L) (19105)	PCB COG 132+153 WATER DISS REC (NG/L) (19042)	PCB COG 135+144 SED SUSP REC (NG/L) (19101)	PCB COG 135+144 WATER DISS REC (NG/L) (19038)	PCB COG 136 SED SUSP REC (NG/L) (19097)	PCB COG 136 WATER DISS REC (NG/L) (19034)	PCB COG 137+176 SED SUSP REC (NG/L) (19107)	PCB COG 137+176 WATER DISS REC (NG/L) (19044)
OCT 1994											
11...	<0.03	<0.035	<0.035	0.15	0.14	<0.02	0.03	<0.03	<0.03	<0.03	<0.03
JAN 1995											
19...	<0.03	<0.035	<0.035	0.17	0.06	0.03	<0.02	<0.03	<0.03	<0.03	<0.03
MAR											
17...	<0.03	<0.035	<0.035	0.42	0.07	0.07	<0.02	<0.03	<0.03	<0.03	<0.03
APR											
13...	<0.03	<0.035	<0.035	0.53	0.12	0.09	0.03	<0.03	<0.03	<0.03	<0.03

DATE	PCB COG 138+163 SED SUSP REC (NG/L) (19108)	PCB COG 138+163 WATER DISS REC (NG/L) (19045)	PCB COG 141 SED SUSP REC (NG/L) (19106)	PCB COG 141 WATER DISS REC (NG/L) (19043)	PCB COG 146 SED SUSP REC (NG/L) (19104)	PCB COG 146 WATER DISS REC (NG/L) (19041)	PCB COG 149 SED SUSP REC (NG/L) (19102)	PCB COG 149 WATER DISS REC (NG/L) (19039)	PCB COG 151 SED SUSP REC (NG/L) (19100)	PCB COG 151 WATER DISS REC (NG/L) (19037)	PCB COG 167 SED SUSP REC (NG/L) (99925)
OCT 1994											
11...	0.08	0.08	0.03	0.02	0.04	0.04	0.08	0.10	0.04	0.05	<0.080
JAN 1995											
19...	0.09	<0.03	0.03	<0.02	0.04	<0.03	0.10	0.04	0.04	<0.02	<0.080
MAR											
17...	0.25	<0.03	0.08	<0.02	0.11	<0.03	0.24	0.05	0.11	0.02	<0.080
APR											
13...	0.31	0.06	0.09	<0.02	0.14	<0.03	0.30	0.08	0.14	0.04	<0.080

DATE	PCB COG 167 WATER DISS REC (NG/L) (99923)	PCB COG 170+190 SED SUSP REC (NG/L) (19119)	PCB COG 170+190 WATER DISS REC (NG/L) (19056)	PCB COG 171+202 SED SUSP REC (NG/L) (19115)	PCB COG 171+202 WATER DISS REC (NG/L) (19052)	PCB COG 172+197 SED SUSP REC (NG/L) (19116)	PCB COG 172+197 WATER DISS REC (NG/L) (19053)	PCB COG 174 SED SUSP REC (NG/L) (19113)	PCB COG 174 WATER DISS REC (NG/L) (19050)	PCB COG 177 SED SUSP REC (NG/L) (19114)	PCB COG 177 WATER DISS REC (NG/L) (19051)
OCT 1994											
11...	<0.080	0.09	<0.08	<0.03	<0.03	<0.05	<0.05	0.06	0.03	0.05	<0.03
JAN 1995											
19...	<0.080	0.09	<0.08	<0.03	<0.03	<0.05	<0.05	0.06	<0.02	0.04	<0.03
MAR											
17...	<0.080	0.23	<0.08	0.05	<0.03	<0.05	<0.05	0.15	<0.02	0.12	<0.03
APR											
13...	<0.080	0.29	<0.08	0.06	<0.03	0.05	<0.05	0.18	<0.02	0.14	<0.03

DATE	PCB COG 178 SED SUSP REC (NG/L) (19109)	PCB COG 178 WATER DISS REC (NG/L) (19046)	PCB COG 180 SED SUSP REC (NG/L) (19117)	PCB COG 180 WATER DISS REC (NG/L) (19054)	PCB COG 182+187 SED SUSP REC (NG/L) (19110)	PCB COG 182+187 WATER DISS REC (NG/L) (19047)	PCB COG 183 SED SUSP REC (NG/L) (19111)	PCB COG 183 WATER DISS REC (NG/L) (19048)	PCB COG 185 SED SUSP REC (NG/L) (19112)	PCB COG 185 WATER DISS REC (NG/L) (19049)	PCB COG 194 SED SUSP REC (NG/L) (19123)
OCT 1994											
11...	<0.04	<0.04	0.14	0.08	0.11	0.06	<0.03	<0.03	<0.03	<0.03	0.04
JAN 1995											
19...	<0.04	<0.04	0.14	<0.04	0.10	<0.02	0.03	<0.03	<0.03	<0.03	<0.03
MAR											
17...	0.08	<0.04	0.33	<0.03	0.27	0.02	0.09	<0.03	<0.03	<0.03	0.08
APR											
13...	0.10	<0.04	0.42	0.05	0.34	0.04	0.11	<0.03	<0.03	<0.03	0.10

04086600 MILWAUKEE RIVER NEAR CEDARBURG, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DATE	PCB COG 194 WATER DISS REC (NG/L) (19060)	PCB COG 195+208 SED SUSP REC (NG/L) (19122)	PCB COG 195+208 WATER DISS REC (NG/L) (19059)	PCB COG 196+203 SED SUSP REC (NG/L) (19121)	PCB COG 196+203 WATER DISS REC (NG/L) (19058)	PCB COG 199 SED SUSP REC (NG/L) (19118)	PCB COG 199 WATER DISS REC (NG/L) (19055)	PCB COG 201 SED SUSP REC (NG/L) (19120)	PCB COG 201 WATER DISS REC (NG/L) (19057)	PCB COG 206 SED SUSP REC (NG/L) (19124)	PCB COG 206 WATER DISS REC (NG/L) (19061)
OCT 1994											
11...	<0.03	<0.08	<0.08	0.08	<0.08	<0.02	<0.02	0.08	<0.04	<0.04	<0.04
JAN 1995											
19...	<0.03	<0.08	<0.08	<0.08	<0.08	<0.02	<0.02	0.06	<0.04	<0.04	<0.04
MAR											
17...	<0.03	0.11	<0.08	0.18	<0.08	<0.02	<0.02	0.18	<0.04	0.04	<0.04
APR											
13...	<0.03	0.13	<0.08	0.22	<0.08	<0.02	<0.02	0.22	<0.04	0.05	<0.04

04087000 MILWAUKEE RIVER AT MILWAUKEE, WI
(NATIONAL WATER-QUALITY ASSESSMENT PROGRAM 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./pat/LAKEREPORT.1996/.

DRAINAGE AREA.--696 mi^2.

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.--Water-stage recorder and crest-stage gage. Datum of gage is 607.23 ft above sea level (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 upstream at different datum.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 25 to Dec. 1 and Dec. 8 to Mar. 11. Records good except those for ice-affected periods, which are poor (see page 12). Occasional regulation caused by recreation dam approximately 1,200 ft upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	774	400	160	260	1100	576	809	519	554	273	145
2	122	933	438	160	250	900	598	753	743	556	257	136
3	135	1050	502	160	240	700	608	688	770	509	239	134
4	130	993	493	160	230	580	674	631	752	506	228	129
5	138	862	537	160	210	500	681	573	678	479	233	128
6	720	761	428	160	200	420	663	532	781	420	346	122
7	428	697	316	160	240	370	624	501	1620	390	301	113
8	516	633	300	160	320	340	591	485	3460	371	335	293
9	448	562	280	160	470	330	553	556	3620	348	287	181
10	379	596	260	160	700	320	509	1210	2770	329	250	220
11	340	578	250	160	800	320	481	1290	2130	305	223	263
12	316	484	240	160	700	320	490	1260	1740	285	214	221
13	292	449	230	160	740	375	517	1120	1370	306	210	178
14	272	426	220	170	640	504	538	993	1080	293	205	152
15	240	380	220	180	580	687	840	1050	843	288	198	145
16	222	417	210	190	520	782	809	914	694	279	187	139
17	210	390	210	330	450	794	911	837	2540	278	183	135
18	202	402	210	480	380	778	894	749	3990	461	176	134
19	204	388	200	1000	350	740	874	680	5840	731	188	131
20	249	424	200	960	350	677	1070	661	4950	918	288	131
21	244	454	200	820	350	629	1110	412	3800	953	465	130
22	251	428	190	640	350	624	1060	572	3020	885	449	124
23	281	350	190	600	370	610	955	575	2670	812	327	125
24	288	344	190	520	400	622	857	544	2560	731	278	125
25	284	340	180	400	470	658	770	532	2000	589	236	123
26	294	330	180	350	600	726	705	513	1570	483	209	397
27	544	320	170	320	1000	636	640	485	1250	404	190	279
28	507	300	170	310	1400	683	575	469	987	363	177	293
29	620	350	160	300	1300	628	737	442	801	380	172	316
30	851	340	160	290	---	570	757	410	655	315	161	264
31	549	---	160	270	---	560	---	379	---	292	151	---
TOTAL	10409	15755	8094	10210	14870	18483	21667	21625	60203	14813	7636	5406
MEAN	336	525	261	329	513	596	722	698	2007	478	246	180
MAX	851	1050	537	1000	1400	1100	1110	1290	5840	953	465	397
MIN	122	300	160	160	200	320	481	379	519	278	151	113
CFSM	.48	.75	.38	.47	.74	.86	1.04	1.00	2.88	.69	.35	.26
IN.	.56	.84	.43	.55	.79	.99	1.16	1.16	3.22	.79	.41	.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	282	356	304	253	382	1056	967	498	391	221	206	269
MAX	1316	1956	981	864	2200	3545	3024	1720	2007	1200	2936	2304
(WY)	1987	1986	1929	1916	1938	1929	1993	1973	1996	1952	1924	1938
MIN	52.8	62.4	40.7	45.8	47.4	181	237	86.4	56.3	25.0	19.4	27.4
(WY)	1947	1950	1964	1959	1959	1940	1958	1958	1934	1936	1934	1932

04087000 MILWAUKEE RIVER AT MILWAUKEE, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	126731		209171			
ANNUAL MEAN	347		572		432	
HIGHEST ANNUAL MEAN					874	1986
LOWEST ANNUAL MEAN					112	1958
HIGHEST DAILY MEAN	1310	Aug 28	5840	Jun 19	14800	Mar 20 1918
LOWEST DAILY MEAN	77	Jul 22	113	Sep 7	(a).00	Sep 8 1943
ANNUAL SEVEN-DAY MINIMUM	(b)93	Jan 3	127	Sep 19	8.3	Aug 3 1936
INSTANTANEOUS PEAK FLOW			6240	Jun 19	15100	(c)Mar 20 1918
INSTANTANEOUS PEAK STAGE			6.50	Jun 19	(d)9.00	Aug 6 1924
INSTANTANEOUS LOW FLOW			(a)88	Aug 20	(a).00	Sep 8 1943
ANNUAL RUNOFF (CFSM)	.50		.82		.62	
ANNUAL RUNOFF (INCHES)	6.77		11.18		8.43	
10 PERCENT EXCEEDS	743		968		976	
50 PERCENT EXCEEDS	235		411		226	
90 PERCENT EXCEEDS	109		160		70	

(a) Result of regulation
(b) Ice affected
(c) Also occurred Aug. 6, 1924
(d) Datum then in use, from floodmark for 1918, from graph based on gage readings for 1924

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-65, 1967-69, 1971, 1973 to current year. National Stream-Quality Accounting Network data collection began in January 1973 and was discontinued September 1994. National Water-Quality Assessment Program sampling began in April 1993.

REMARKS.--Chemical analyses of some constituents for Wisconsin District program samples were done by the Wisconsin State Laboratory of Hygiene and National Water-Quality Laboratory.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
FEB 1996												
**29...	1100	1300	--	465	7.8	0.0	14.0	769	190	42	20	21
MAR												
*21...	1130	--	584	550	7.6	1.5	14.5	744	240	52	26	24

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
FEB 1996											
29...	6.3	193	157	19	40	0.10	7.7	281	1.70	0.030	0.640
MAR											
21...	2.4	--	--	26	47	0.10	7.2	338	0.860	<0.010	0.060

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	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)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB 1996											
29...	1.8	1.5	0.300	0.160	0.140	160	12	12	3.0	51	94
MAR											
21...	0.70	0.50	0.080	0.060	0.040	71	10	8.1	0.60	13	85

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUN 1996				
02...	0108	1080	45	97
03...	1330	831	14	91
03...	1338	831	25	91
03...	1446	842	43	97
04...	0814	764	13	95
06...	0821	764	22	87
07...	0634	1120	110	91
12...	1200	1740	30	98
12...	1205	1730	29	93
19...	1157	6110	132	98
19...	1442	6040	109	86
JUL				
02...	0815	781	194	97

* Equal-wdith increment (EWI) sample
** Grab sample

04087000 MILWAUKEE RIVER AT MILWAUKEE, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	BEGINNING DATE	BEGINNING TIME	ENDING DATE	ENDING TIME	RUNOFF VOLUME, MILLIONS OF CUBIC FEET (99905)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)
	06-01-96	1903	06-02-96	1948	1.39	0.330	0.020	0.040	0.90	0.70
	06-02-96	2048	06-03-96	2221	70.9	0.860	0.030	0.050	1.1	0.80
	06-03-96	2315	06-05-96	0107	69.8	0.460	0.030	0.030	0.90	0.60

DATE	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	ACETOCHLOR, WATER FLTRD REC (UG/L) (49260)	ALACHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DISSOLVED (UG/L) (34253)	ATRAZINE, WATER, DISS, REC (UG/L) (39632)	BENFLURALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYLATE, WATER, DISS, REC (UG/L) (04028)	CARBARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBOFURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)
06-01-96	0.080	0.050	0.030	--	--	--	--	--	--	--	--
06-02-96	0.090	0.040	0.030	0.061	0.013	<0.002	0.092	<0.002	<0.002	<0.003	<0.003
06-03-96	0.050	0.020	0.010	--	--	--	--	--	--	--	--

DATE	CHLORPYRIFOS DISSOLVED (UG/L) (38933)	CYANAZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRAZINE, WATER, DISS, REC (UG/L) (04040)	DIAZINON, DISSOLVED (UG/L) (39572)	DIAZINON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	DIELDRIN DISSOLVED (UG/L) (39381)	DISULFOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHALFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHOPROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)
06-01-96	--	--	--	--	--	--	--	--	--	--	--
06-02-96	<0.004	0.047	E0.001	E0.028	<0.002	149	<0.001	<0.017	<0.002	<0.004	<0.003
06-03-96	--	--	--	--	--	--	--	--	--	--	--

DATE	FONOFOS WATER DISS REC (UG/L) (04095)	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	LINDANE DISSOLVED (UG/L) (39341)	LINURON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALATHION, DISSOLVED (UG/L) (39532)	METOLACHLOR WATER DISSOLV (UG/L) (39415)	METHYL AZINPHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARATHION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METRIBUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOLINATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROPAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
06-01-96	--	--	--	--	--	--	--	--	--	--	--
06-02-96	<0.003	85.6	<0.004	<0.002	<0.005	0.130	<0.001	<0.006	<0.004	<0.004	<0.003
06-03-96	--	--	--	--	--	--	--	--	--	--	--

DATE	PARATHION, DISSOLVED (UG/L) (39542)	PEBULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PERMETHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PENDIMETHALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	P,P' DDE DISSOLV (UG/L) (34653)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PROMETON, WATER, DISS, REC (UG/L) (04037)	PRONAMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PROPARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PROPCHLOR, WATER, DISS, REC (UG/L) (04024)
06-01-96	--	--	--	--	--	--	--	--	--	--	--
06-02-96	<0.004	<0.004	<0.005	<0.004	<0.006	<0.002	0.040	<0.003	<0.004	<0.013	<0.007
06-03-96	--	--	--	--	--	--	--	--	--	--	--

DATE	SIMAZINE, WATER, DISS, REC (UG/L) (04035)	TEBUTHIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TERBACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TERBUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TERBUTHYLAZINE SURROGT WAT FLT 0.7 U GF, REC PERCENT (91064)	THIOBENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIALLATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRIFLURALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	2,6-DIETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
06-01-96	--	--	--	--	--	--	--	--	--	--	--
06-02-96	0.026	0.037	<0.007	<0.013	128	<0.002	<0.001	<0.002	<0.003	43	97
06-03-96	--	--	--	--	--	--	--	--	--	--	--

* Estimated

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)
JUN 1996 07...	1200	1240	0.085	0.016	<0.002	0.110	<0.002	<0.002	E0.017	E0.019	<0.004

DATE	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DIAZ-INON D10 SRG WAT FLT 0.7 U GF, REC PERCENT (91063)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)
JUN 1996 07...	0.340	E0.001	E0.038	<0.002	141	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003

DATE	HCH ALPHA D6 SRG WAT FLT 0.7 U GF, REC PERCENT (91065)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METHYL AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
JUN 1996 07...	104	<0.004	<0.002	<0.005	0.140	<0.001	<0.006	<0.004	<0.004	<0.003

DATE	PARA-THION, DIS-SOLVED (UG/L) (39542)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	P,P' DDE DISSOLV (UG/L) (34653)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)
JUN 1996 07...	<0.004	<0.004	<0.005	<0.004	<0.006	<0.002	0.019	<0.003	<0.004	<0.013

DATE	PROP-CHLOR, WATER, DISS, REC (UG/L) (04024)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TERBUTH YLAZINE SURROGT WAT FLT 0.7 U GF, REC PERCENT (91064)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)
JUN 1996 07...	<0.007	0.041	0.015	<0.007	<0.013	131	<0.002	<0.001	<0.002	<0.003

* Estimated

04087030 MENOMONEE RIVER AT MENOMONEE 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., Waukesha 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 mi^2.

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 and crest-stage gage. Datum of gage is 753.50 ft above sea level (University of Wisconsin benchmark).

REMARKS.--Estimated daily discharges: Aug. 20 to Sept. 30, and ice-affected period, Nov. 26 to Mar. 10. Records good except those for estimated daily discharges, which are poor (see page 12). Occasional regulation caused by dam in Menomonee Falls, about 1.0 mi upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	62	15	8.4	8.0	66	27	66	26	15	9.5	3.8
2	5.4	98	23	7.8	7.4	58	27	49	65	17	7.9	3.8
3	5.8	81	21	7.2	7.0	49	27	40	51	20	7.5	3.7
4	5.6	53	19	6.8	6.6	43	36	39	39	15	6.9	4.0
5	5.7	41	17	6.4	6.4	39	32	35	32	12	9.0	3.9
6	62	35	15	6.0	6.2	34	29	32	39	11	30	3.5
7	48	31	13	6.0	6.0	31	26	31	146	15	17	3.5
8	27	27	12	6.0	13	29	24	31	204	17	11	15
9	19	22	11	5.8	27	28	23	38	180	17	8.2	9.0
10	15	27	11	5.8	50	25	22	102	130	15	6.1	6.0
11	14	32	11	5.6	58	37	22	92	89	12	5.6	4.5
12	12	28	12	5.6	47	52	24	60	58	15	5.4	4.0
13	11	25	16	5.6	35	42	24	46	40	31	5.1	3.5
14	9.8	23	20	5.6	23	37	23	42	29	20	4.7	3.2
15	9.3	21	12	5.6	17	38	46	76	23	15	4.9	3.0
16	8.9	20	9.4	5.8	15	33	74	74	38	11	4.4	2.8
17	8.8	20	8.0	15	13	29	70	57	409	8.6	4.0	4.5
18	8.6	21	7.2	50	12	29	57	46	493	50	3.8	3.8
19	11	23	7.0	80	11	30	60	37	501	104	17	3.4
20	13	29	6.8	68	15	28	77	37	416	73	29	4.0
21	14	33	6.8	50	18	25	62	39	262	39	15	3.5
22	13	27	7.0	40	15	24	48	33	136	27	20	3.0
23	14	23	6.6	34	35	23	39	29	93	23	11	3.0
24	16	26	6.6	26	140	28	33	25	111	19	8.0	4.5
25	14	16	6.8	19	120	46	31	22	91	13	6.6	3.5
26	12	16	7.0	15	100	38	30	23	53	9.5	5.6	40
27	39	15	7.6	14	82	32	26	20	40	9.4	6.0	20
28	40	13	8.0	12	76	25	24	19	33	13	5.4	8.0
29	29	11	8.4	11	70	24	42	17	25	16	4.8	6.0
30	23	12	9.0	9.6	---	24	76	15	19	11	4.4	5.4
31	19	---	9.6	8.6	---	27	---	14	---	10	4.0	---
TOTAL	539.3	911	349.8	552.2	1039.6	1073	1161	1286	3871	683.5	287.8	189.8
MEAN	17.4	30.4	11.3	17.8	35.8	34.6	38.7	41.5	129	22.0	9.28	6.33
MAX	62	98	23	80	140	66	77	102	501	104	30	40
MIN	5.4	11	6.6	5.6	6.0	23	22	14	19	8.6	3.8	2.8
CFSM	.50	.88	.33	.51	1.03	1.00	1.12	1.20	3.72	.64	.27	.18
IN.	.58	.98	.38	.59	1.11	1.15	1.24	1.38	4.15	.73	.31	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1996, BY WATER YEAR (WY)

MEAN	21.6	31.2	25.9	16.5	28.5	61.2	62.1	26.1	23.1	17.8	14.6	20.9
MAX	94.3	137	70.4	72.8	87.4	124	193	71.4	129	86.1	34.9	151
(WY)	1982	1986	1985	1988	1984	1976	1993	1990	1996	1994	1986	1986
MIN	3.31	3.38	3.00	2.29	4.04	18.3	21.6	3.80	3.33	1.55	1.47	1.86
(WY)	1977	1977	1977	1977	1995	1980	1994	1977	1988	1988	1988	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1975 - 1996	
ANNUAL TOTAL	7250.5		11944.0			
ANNUAL MEAN	19.9		32.6		29.2	
HIGHEST ANNUAL MEAN					53.4	1986
LOWEST ANNUAL MEAN					10.9	1977
HIGHEST DAILY MEAN	150	Apr 27	501	Jun 19	674	Sep 12 1986
LOWEST DAILY MEAN	1.1	Jul 31	(a)2.8	Sep 16	.63	Aug 17 1988
ANNUAL SEVEN-DAY MINIMUM	1.6	Jul 27	(a)3.5	Sep 13	.82	Aug 11 1988
INSTANTANEOUS PEAK FLOW			1100	Jun 17	(b)1440	Sep 11 1986
INSTANTANEOUS PEAK STAGE			6.08	Jun 17	6.57	Jul 13 1981
ANNUAL RUNOFF (CFSM)	.57		.94		.84	
ANNUAL RUNOFF (INCHES)	7.77		12.80		11.43	
10 PERCENT EXCEEDS	49		65		62	
50 PERCENT EXCEEDS	11		20		14	
90 PERCENT EXCEEDS	3.5		5.6		4.2	

(a) Estimated
(b) Gage height, 6.49 ft

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 mi^2.

PERIOD OF RECORD.--December 1974 to November 1979, July 1980 to current year.

REVISED RECORDS.--WDR WI-77-1: Drainage area. WRD WI-85-1: 1984. WRD WI-94-1: 1993(M).

GAGE.--Water-stage recorder, crest-stage gage, and steel plate weir. Elevation of gage is 690 ft above sea level, from topographic map. Prior to Sept. 10, 1993, the orifice was located 10 ft downstream from Chicago, Milwaukee, St. Paul and Pacific Railroad bridge. The orifice was moved to 30 ft upstream from Chicago, Milwaukee, St. Paul and Pacific Railroad bridge on Sept. 10, 1993, and is at same elevation.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 9–15, Dec. 20 to Jan. 13, Jan. 20, 21, Jan. 24 to Feb. 21, and Mar. 2–11. Records good except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	65	19	5.8	5.6	10	6.7	24	53	9.7	5.0	3.2
2	4.4	33	13	5.2	5.4	7.4	7.2	17	74	29	4.8	2.7
3	4.8	17	17	4.5	5.2	6.8	7.3	14	46	11	4.5	2.6
4	4.4	12	13	4.0	5.2	6.2	13	12	27	8.5	4.3	2.7
5	5.1	7.9	20	3.8	5.2	5.6	8.2	11	21	7.7	9.8	2.5
6	117	8.6	13	3.6	5.4	5.2	7.0	10	53	7.0	32	2.5
7	31	8.8	10	3.5	7.0	5.0	6.3	9.6	131	6.8	8.1	2.5
8	13	7.2	8.7	3.5	12	4.9	6.4	10	108	8.7	6.1	4.6
9	9.7	7.3	8.0	3.7	50	4.8	6.0	23	56	7.6	5.1	5.3
10	7.4	30	7.2	3.9	80	6.0	5.2	129	46	6.9	4.5	3.2
11	6.3	21	6.6	4.1	50	8.2	5.6	46	32	6.2	4.6	3.0
12	6.4	12	6.6	4.5	22	9.1	6.0	26	25	6.0	4.5	2.7
13	6.3	9.2	7.8	5.0	17	7.9	5.6	19	20	5.7	4.4	2.8
14	5.0	8.5	10	6.3	13	9.3	5.4	24	17	5.3	4.6	1.9
15	3.9	7.3	13	5.0	9.0	9.3	78	55	14	7.8	4.3	1.7
16	3.9	7.2	12	5.4	7.4	7.8	45	29	22	5.1	3.9	1.8
17	4.4	7.1	10	23	7.0	6.7	28	22	465	12	3.7	1.9
18	4.2	9.1	6.2	103	6.2	6.5	25	19	253	39	3.7	2.0
19	8.3	9.3	5.1	33	5.8	6.5	32	16	112	13	35	2.0
20	13	10	5.0	15	5.6	6.6	46	37	57	6.9	14	2.3
21	9.3	9.6	4.7	10	5.4	6.4	23	25	35	5.4	8.9	2.1
22	5.2	7.7	4.5	10	5.6	6.4	17	15	26	5.1	5.7	2.1
23	7.7	7.2	4.4	8.1	13	6.0	15	14	23	5.0	5.6	2.0
24	6.7	6.3	4.2	7.6	13	9.6	13	11	28	5.7	4.1	2.1
25	5.0	5.8	3.8	7.2	12	14	13	10	20	5.5	4.1	2.0
26	4.5	5.8	3.7	8.0	39	9.7	12	9.5	16	4.9	3.8	40
27	48	7.2	3.7	7.8	65	7.9	10	9.1	13	4.7	3.8	11
28	18	13	3.6	7.2	19	6.4	9.5	8.9	11	5.8	3.5	4.8
29	8.8	7.5	3.6	6.6	15	6.8	50	7.8	9.7	14	3.3	3.0
30	7.4	8.4	3.8	6.2	---	6.2	35	7.2	9.3	5.8	3.1	2.9
31	8.6	---	5.4	5.8	---	7.2	---	7.2	---	5.5	3.0	---
TOTAL	394.8	376.0	256.6	330.3	511.0	226.4	547.4	677.3	1823.0	277.3	215.8	125.9
MEAN	12.7	12.5	8.28	10.7	17.6	7.30	18.2	21.8	60.8	8.95	6.96	4.20
MAX	117	65	20	103	80	14	78	129	465	39	35	40
MIN	3.9	5.8	3.6	3.5	5.2	4.8	5.2	7.2	9.3	4.7	3.0	1.7
CFSM	.70	.69	.45	.59	.97	.40	1.00	1.20	3.34	.49	.38	.23
IN.	.81	.77	.52	.68	1.04	.46	1.12	1.38	3.73	.57	.44	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1996, BY WATER YEAR (WY)

MEAN	8.97	12.1	11.6	8.07	12.1	25.2	27.5	15.1	13.3	11.1	12.7	12.4
MAX	26.9	42.1	27.2	39.1	26.3	73.4	73.6	46.9	60.8	23.9	29.1	56.0
(WY)	1987	1986	1983	1988	1985	1979	1993	1990	1996	1993	1987	1986
MIN	2.43	1.81	1.57	.031	1.83	6.74	6.24	2.28	4.80	3.29	3.49	3.06
(WY)	1976	1977	1977	1977	1977	1981	1977	1977	1976	1976	1976	1982

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1975 - 1996	
ANNUAL TOTAL	4106.9		5761.8			
ANNUAL MEAN	11.3		15.7		14.2	
HIGHEST ANNUAL MEAN					23.2	1993
LOWEST ANNUAL MEAN					4.21	1977
HIGHEST DAILY MEAN	117	Oct 6	465	Jun 17	465	Jun 17 1996
LOWEST DAILY MEAN	(a)3.3	Jan 6	1.7	Sep 15	.00	(b)
ANNUAL SEVEN-DAY MINIMUM	(a)3.4	Jan 4	1.9	Sep 14	.00	Jan 11 1977
INSTANTANEOUS PEAK FLOW			1850	Jun 17	(c)2100	Jul 13 1981
INSTANTANEOUS PEAK STAGE			7.80	Jun 17	7.80	Jun 17 1996
ANNUAL RUNOFF (CFSM)	.62		.86		.78	
ANNUAL RUNOFF (INCHES)	8.39		11.78		10.57	
10 PERCENT EXCEEDS	23		32		31	
50 PERCENT EXCEEDS	7.3		7.3		6.9	
90 PERCENT EXCEEDS	4.0		3.7		3.0	

(a) Ice affected
(b) No flow on all or part of many days during 1977 winter period
(c) Gage height, 5.55 ft, old orifice location

04087120 MENOMONEE 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 mi^2.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 630.86 ft above sea level. Prior to Nov. 1, 1974, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 10–15, 20–31, Jan. 2–14, Jan. 24 to Feb. 10, Feb. 15–18, and Feb. 29 to Mar. 12. Records good except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	435	163	47	52	110	62	208	232	56	32	16
2	18	407	133	40	52	80	61	157	483	141	31	14
3	19	234	172	37	50	64	63	130	261	59	26	14
4	19	166	153	34	49	54	115	110	163	51	25	16
5	24	127	196	33	48	49	83	95	126	42	86	15
6	767	111	159	32	47	45	71	88	320	37	199	14
7	290	99	112	31	80	43	64	82	707	49	53	13
8	128	85	99	31	700	42	59	88	751	59	35	98
9	88	76	68	31	900	41	54	166	483	54	29	75
10	67	204	64	31	500	40	51	735	365	48	24	23
11	54	180	60	31	344	45	51	325	248	34	21	18
12	48	119	60	31	200	60	58	195	194	32	21	16
13	43	99	64	35	161	81	59	143	153	71	21	15
14	45	89	140	41	106	98	56	151	120	52	20	13
15	34	78	92	39	76	104	446	324	94	56	20	10
16	31	74	76	38	64	90	313	216	125	39	19	9.6
17	30	74	65	128	58	72	226	172	2770	61	17	18
18	29	95	59	687	56	65	188	159	2020	211	18	13
19	48	106	58	476	54	66	219	128	1240	308	186	12
20	100	123	52	239	54	63	300	193	868	135	100	14
21	77	123	50	175	56	54	190	156	590	84	61	13
22	46	103	45	133	52	54	151	116	344	59	101	11
23	47	83	42	94	82	50	125	106	229	56	36	11
24	66	68	40	74	112	76	109	86	434	54	26	18
25	43	64	38	70	135	119	115	73	247	49	22	14
26	38	61	37	64	293	93	97	72	179	37	21	291
27	342	74	36	60	531	69	83	68	134	31	24	133
28	178	74	35	58	264	61	72	65	104	56	21	47
29	106	79	35	56	130	58	328	59	82	113	19	28
30	80	82	37	54	---	55	277	53	68	46	18	21
31	79	---	40	54	---	63	---	49	---	36	17	---
TOTAL	3015	3792	2480	2984	5306	2064	4146	4768	14134	2216	1349	1023.6
MEAN	97.3	126	80.0	96.3	183	66.6	138	154	471	71.5	43.5	34.1
MAX	767	435	196	687	900	119	446	735	2770	308	199	291
MIN	18	61	35	31	47	40	51	49	68	31	17	9.6
CFSM	.79	1.03	.65	.78	1.49	.54	1.12	1.25	3.83	.58	.35	.28
IN.	.91	1.15	.75	.90	1.60	.62	1.25	1.44	4.27	.67	.41	.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1996, BY WATER YEAR (WY)

MEAN	66.8	84.8	82.0	56.0	88.9	211	205	103	91.7	73.4	70.3	84.7
MAX	232	422	222	191	239	582	715	326	471	257	264	562
(WY)	1982	1986	1988	1974	1971	1979	1993	1990	1996	1964	1986	1986
MIN	7.15	11.9	4.65	4.45	4.18	17.5	28.7	17.1	12.6	10.6	10.5	6.50
(WY)	1964	1963	1964	1963	1963	1968	1963	1977	1962	1963	1962	1963

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1962 - 1996	
ANNUAL TOTAL	34177		47277.6			
ANNUAL MEAN	93.6		129		101	
HIGHEST ANNUAL MEAN					195	1986
LOWEST ANNUAL MEAN					24.0	1963
HIGHEST DAILY MEAN	994	Aug 28	2770	Jun 17	6380	Apr 21 1973
LOWEST DAILY MEAN	13	Jul 12-13,30	9.6	Sep 16	(a)2.8	Jan 18 1964
ANNUAL SEVEN-DAY MINIMUM	14	Jul 8	13	Sep 14	3.1	Feb 22 1963
INSTANTANEOUS PEAK FLOW			5230	Jun 17	(b)13500	Apr 21 1973
INSTANTANEOUS PEAK STAGE			9.44	Jun 17	13.92	Apr 21 1973
ANNUAL RUNOFF (CFSM)	.76		1.05		.82	
ANNUAL RUNOFF (INCHES)	10.34		14.30		11.20	
10 PERCENT EXCEEDS	198		268		231	
50 PERCENT EXCEEDS	58		65		43	
90 PERCENT EXCEEDS	21		21		13	

(a) Ice affected
(b) From rating curve extended above 6,000 ft^3/s on basis of slope-area measurement of peak flow

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 mi^2.

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 above sea level, from river-profile map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 9–15, Dec. 26 to Jan. 16, Jan. 19 to Feb. 18, Feb. 29 to Mar. 12, and Mar. 26, 27. Records good except those for ice-affected periods, which are poor, and those for discharges greater than 500 ft^3/s, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	124	51	6.0	5.0	8.0	7.6	16	119	7.9	6.0	4.8
2	5.5	34	26	4.8	4.9	6.8	8.1	12	66	41	6.0	4.7
3	7.7	13	41	4.8	4.8	6.4	10	12	16	8.6	5.7	5.3
4	5.5	10	21	4.7	4.8	5.8	34	9.8	17	7.8	5.5	5.6
5	11	8.5	42	4.5	5.0	5.6	9.3	9.0	13	7.5	101	6.5
6	359	8.6	16	4.3	5.2	5.4	7.9	8.7	90	7.3	106	6.0
7	26	8.3	11	4.2	6.0	5.2	7.4	8.3	107	7.1	8.0	5.2
8	11	7.6	9.7	4.1	15	5.2	7.7	9.7	51	15	6.8	54
9	8.8	7.7	8.6	4.1	35	5.2	7.8	42	28	14	6.5	8.4
10	7.9	115	7.8	4.1	45	6.0	7.4	201	33	10	6.2	5.5
11	7.3	44	7.2	4.2	13	7.0	7.6	23	15	7.3	5.9	5.4
12	8.0	15	7.2	6.0	9.2	8.0	8.1	14	13	8.9	6.1	5.6
13	9.9	12	8.0	7.6	8.8	9.7	7.0	12	11	6.8	6.1	5.7
14	11	11	25	6.8	8.2	9.9	8.1	30	9.7	6.9	6.3	5.4
15	5.4	9.6	12	6.2	7.6	9.4	245	60	8.4	22	5.9	4.9
16	5.7	9.4	7.9	7.0	7.4	7.7	43	17	40	7.7	6.0	5.6
17	5.3	12	6.5	77	6.8	7.0	20	14	480	25	5.7	5.3
18	5.3	24	6.8	190	6.8	6.9	22	12	158	66	6.2	5.3
19	18	21	6.5	12	8.7	7.3	38	11	44	10	45	5.8
20	56	18	6.2	9.0	9.5	7.0	56	86	21	7.2	8.1	5.7
21	20	13	5.9	7.4	8.3	7.0	15	22	16	6.7	13	5.6
22	7.0	11	5.7	7.0	8.2	6.9	13	12	12	6.9	6.3	5.8
23	10	9.3	5.3	6.6	17	6.5	12	19	11	7.1	5.8	4.9
24	12	8.0	5.0	6.4	15	29	11	10	15	20	5.2	5.7
25	6.1	8.4	4.4	6.2	13	36	13	8.9	9.9	7.8	5.1	5.4
26	5.8	8.6	4.3	6.0	55	9.0	11	8.4	9.2	6.5	5.8	167
27	121	20	4.1	5.8	48	8.6	9.3	8.1	9.3	6.3	5.9	17
28	20	38	4.0	5.6	12	7.9	8.4	8.5	9.5	7.9	5.9	6.7
29	8.3	9.5	4.0	5.4	8.6	7.9	97	8.0	8.4	14	6.5	6.6
30	7.3	14	4.5	5.2	---	7.2	33	7.6	8.3	6.5	6.3	5.6
31	17	---	5.0	5.0	---	9.4	---	7.5	---	6.1	5.4	---
TOTAL	823.8	652.5	379.6	438.0	401.8	274.9	784.7	727.5	1448.7	389.8	430.2	391.0
MEAN	26.6	21.7	12.2	14.1	13.9	8.87	26.2	23.5	48.3	12.6	13.9	13.0
MAX	359	124	51	190	55	36	245	201	480	66	106	167
MIN	5.3	7.6	4.0	4.1	4.8	5.2	7.0	7.5	8.3	6.1	5.1	4.7
CFSM	1.32	1.08	.61	.70	.69	.44	1.29	1.16	2.39	.62	.69	.65
IN.	1.52	1.20	.70	.81	.74	.51	1.45	1.34	2.67	.72	.79	.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1996, BY WATER YEAR (WY)

MEAN	21.6	28.9	20.6	13.5	18.4	26.8	34.0	23.6	24.0	26.6	35.7	24.7
MAX	60.5	67.8	48.9	43.7	41.9	44.9	104	72.9	48.3	49.9	82.3	68.4
(WY)	1992	1986	1983	1988	1994	1993	1993	1990	1996	1986	1986	1986
MIN	6.81	9.15	3.96	4.72	5.27	8.87	14.1	9.07	11.4	12.6	13.9	8.41
(WY)	1995	1987	1990	1994	1995	1996	1989	1992	1985	1996	1996	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1983 - 1996	
ANNUAL TOTAL	7585.6		7142.5			
ANNUAL MEAN	20.8		19.5		24.9	
HIGHEST ANNUAL MEAN					39.8	1986
LOWEST ANNUAL MEAN					18.9	1995
HIGHEST DAILY MEAN	366	Aug 28	480	Jun 17	1630	Aug 6 1986
LOWEST DAILY MEAN	(a)4.0	(b)Feb 11-13	(a)4.0	Dec 28,29	(a)2.9	Dec 26-28 1989
ANNUAL SEVEN-DAY MINIMUM	(a)4.1	Feb 7	(a)4.2	Jan 5	(a)3.0	Dec 23 1989
INSTANTANEOUS PEAK FLOW			3230	Jun 17	(c)10600	Aug 6 1986
INSTANTANEOUS PEAK STAGE			11.77	Jun 17	(d)14.41	Aug 6 1986
ANNUAL RUNOFF (CFSM)	1.03		.97		1.23	
ANNUAL RUNOFF (INCHES)	13.97		13.15		16.75	
10 PERCENT EXCEEDS	41		41		49	
50 PERCENT EXCEEDS	8.3		8.1		9.7	
90 PERCENT EXCEEDS	4.7		5.3		6.0	

(a) Ice affected
(b) Also occurred Dec. 28,29, ice affected
(c) From rating curve extended above 600 ft^3/s on basis of step-backwater analysis at peak gage height
(d) From inside gage, 16.01 ft, from floodmarks

04087204 OAK CREEK AT SOUTH MILWAUKEE, WI

LOCATION.--Lat 42°55'30", long 87°52'12", in SW 1/4 NW 1/4 sec.2, T.5 N., R.22 E., Milwaukee County, Hydrologic Unit 04040002, on left bank 25 ft downstream from 15th Avenue bridge in South Milwaukee and 2.8 mi upstream from mouth.

DRAINAGE AREA.--25.0 mi^2.

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 631.40 ft above sea level.

REMARKS.--Estimated daily discharges: Ice-affected periods, Jan. 20, 24–26, Feb. 1–12, 15–17, Feb. 29 to Mar. 3, Mar. 5–10, and 27. Records good except those for ice-affected periods, which are fair (see page 12). Low flows may occasionally be affected by construction and activity at gravel pit upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	75	36	7.3	4.4	10	14	44	19	6.3	2.8	1.5
2	8.1	103	49	7.5	4.1	7.0	12	31	84	19	2.6	1.6
3	5.9	37	81	6.1	3.8	6.6	14	25	44	11	2.6	1.6
4	4.2	23	64	5.8	3.6	5.4	29	20	30	6.3	2.6	1.4
5	4.9	17	58	4.7	3.4	5.2	22	17	30	5.4	5.6	1.4
6	116	16	44	4.4	3.8	4.9	16	15	140	5.3	52	1.5
7	91	16	25	4.4	5.0	3.8	14	14	102	4.9	11	1.6
8	25	12	16	4.3	40	3.5	12	14	121	5.4	5.1	1.7
9	15	10	13	4.4	90	3.5	12	32	66	5.9	3.5	1.5
10	12	77	11	4.4	80	4.3	12	217	71	5.7	3.0	1.4
11	8.7	181	9.5	4.6	45	7.1	13	102	46	4.7	2.7	1.4
12	7.9	62	9.4	5.0	20	12	16	49	33	4.7	2.5	1.2
13	6.9	37	10	5.7	18	15	14	33	25	5.2	2.5	1.0
14	6.9	28	25	6.8	13	15	12	28	20	4.7	2.4	.87
15	6.3	23	24	6.0	8.6	15	226	77	17	5.2	2.7	.87
16	4.9	20	15	5.3	6.6	14	139	55	18	9.4	2.1	1.0
17	4.0	18	13	22	5.4	11	66	40	161	8.9	1.7	1.4
18	3.6	26	12	272	5.2	9.9	46	34	446	49	1.6	1.2
19	4.4	39	11	125	5.5	9.6	51	26	319	16	6.5	.91
20	38	46	10	43	6.5	7.4	99	66	114	6.3	11	.87
21	24	33	8.7	26	7.1	7.0	55	128	56	4.7	4.1	1.1
22	16	22	7.7	19	7.1	7.6	38	52	38	3.8	2.8	1.8
23	9.9	16	7.3	17	8.8	7.3	30	35	27	3.7	1.9	1.8
24	10	13	6.9	14	17	17	23	29	23	8.0	1.5	2.0
25	7.4	12	6.8	10	23	55	22	22	19	14	1.5	1.1
26	5.9	13	6.2	10	24	22	21	18	15	5.7	1.6	33
27	60	15	5.9	9.3	50	12	17	16	13	3.9	1.8	42
28	48	14	5.9	7.1	30	14	14	14	10	3.7	2.8	7.7
29	24	14	5.6	6.7	13	14	50	13	8.4	3.9	2.0	4.4
30	17	14	5.5	5.2	---	13	85	11	6.9	4.1	1.7	3.0
31	15	---	6.1	4.8	---	14	---	10	---	3.2	1.6	---
TOTAL	621.9	1032	608.5	677.8	551.9	353.1	1194	1287	2122.3	248.0	149.8	123.82
MEAN	20.1	34.4	19.6	21.9	19.0	11.4	39.8	41.5	70.7	8.00	4.83	4.13
MAX	116	181	81	272	90	55	226	217	446	49	52	42
MIN	3.6	10	5.5	4.3	3.4	3.5	12	10	6.9	3.2	1.5	.87
CFSM	.80	1.38	.79	.87	.76	.46	1.59	1.66	2.83	.32	.19	.17
IN.	.93	1.54	.91	1.01	.82	.53	1.78	1.92	3.16	.37	.22	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	12.0	18.9	20.8	14.0	22.6	50.8	48.7	23.8	20.8	14.7	13.8	17.3
MAX	48.4	85.3	65.3	77.3	84.4	149	151	96.1	85.8	95.8	52.7	110
(WY)	1992	1986	1983	1974	1971	1979	1993	1990	1968	1969	1986	1972
MIN	1.86	1.83	.79	.021	1.91	2.24	9.14	2.15	2.15	3.34	1.89	1.78
(WY)	1976	1977	1977	1977	1964	1968	1968	1977	1988	1988	1970	1982

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	8790.2		8970.12		23.2	
ANNUAL MEAN	24.1		24.5		41.7	1974
HIGHEST ANNUAL MEAN					6.67	1977
LOWEST ANNUAL MEAN					855	Mar 5 1976
HIGHEST DAILY MEAN	324	Apr 27	446	Jun 18	.00	(b)
LOWEST DAILY MEAN	(a)2.0	Jan 5-8	.87	Sep 14,15,20	.00	Jan 7 1977
ANNUAL SEVEN-DAY MINIMUM	(a)2.1	Jan 4	1.0	Sep 14	1140	Aug 6 1986
INSTANTANEOUS PEAK FLOW			573	Jun 18	9.88	Aug 6 1986
INSTANTANEOUS PEAK STAGE			7.53	Jun 18	.00	(b)
INSTANTANEOUS LOW FLOW			.77	Sep 14,20,21	.93	
ANNUAL RUNOFF (CFSM)	.96		.98		12.59	
ANNUAL RUNOFF (INCHES)	13.08		13.35		49	
10 PERCENT EXCEEDS	59		55		7.8	
50 PERCENT EXCEEDS	12		11		1.9	
90 PERCENT EXCEEDS	3.2		2.3			

(a) Ice affected
(b) Several days during 1977

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 400 ft upstream from State Highway 100, 2.1 mi upstream from Root River Canal, 2.4 mi southeast of Franklin, 5.5 mi southeast of Hales Corners, and about 24 mi upstream from mouth.

DRAINAGE AREA.--49.2 mi^2.

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 674.5 ft above sea level.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 24, 29, Dec. 8–13, 21, Dec. 23 to Jan. 16, and Jan. 20 to Mar. 11. Records good except those for ice-affected periods and periods of flow over 400 ft^3/s, which are poor (see page 12). Flow affected by urbanization in the drainage basin. Gage-height telemeter at station.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Mar. 30, 1960, reached a stage of 9.57 ft, discharge, 5,130 ft^3/s, from rating curve extended above 2,000 ft^3/s on basis of contracted-opening measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	74	31	10	7.2	25	17	71	19	14	6.6	2.9
2	4.6	162	58	11	7.0	15	16	44	168	27	6.2	2.8
3	3.9	74	77	9.0	7.0	10	18	33	109	24	5.9	2.8
4	4.1	35	83	8.0	6.8	9.0	30	31	59	13	5.4	3.3
5	3.6	21	79	7.6	6.8	8.0	31	25	45	12	5.6	3.2
6	88	15	85	7.0	6.8	7.4	22	22	120	10	127	2.8
7	192	14	73	7.0	8.0	6.0	20	22	120	9.3	45	3.1
8	33	12	40	6.8	78	5.4	18	21	240	9.5	15	2.9
9	12	9.1	30	7.0	160	6.0	17	38	135	12	11	5.4
10	9.4	39	25	7.0	140	7.0	15	217	113	11	7.9	4.0
11	6.9	197	20	7.4	90	10	15	214	86	9.8	6.4	3.0
12	5.8	90	18	8.0	50	19	16	86	57	9.2	6.1	2.6
13	6.0	48	20	9.0	32	22	16	55	42	9.1	5.8	2.8
14	5.9	33	44	9.6	23	24	16	42	32	7.3	5.7	2.7
15	6.3	22	58	9.2	16	24	214	107	27	6.8	5.3	2.5
16	5.5	18	35	8.6	10	21	283	100	22	19	4.7	2.7
17	5.4	15	21	14	8.4	18	132	67	261	9.6	4.5	3.2
18	5.0	16	17	295	8.0	16	83	56	892	76	4.3	2.9
19	5.0	29	15	461	8.6	16	87	40	669	40	18	2.3
20	30	46	14	150	10	17	121	52	288	16	28	3.0
21	22	39	13	60	11	13	86	132	120	11	8.6	2.8
22	11	27	12	30	11	13	56	70	81	9.8	8.8	2.6
23	6.6	18	11	25	12	13	45	47	55	8.8	5.2	2.8
24	9.9	16	11	23	20	15	37	42	47	8.7	4.8	3.2
25	7.7	12	10	20	35	47	31	31	38	27	4.0	3.3
26	6.1	11	10	15	40	31	29	28	30	11	3.9	15
27	67	25	9.6	13	100	23	25	26	23	7.2	4.1	78
28	88	47	9.4	12	80	18	21	23	20	6.2	3.7	9.9
29	29	24	9.0	10	45	16	49	22	17	18	3.7	4.8
30	13	18	8.6	8.2	---	15	127	20	15	11	3.4	4.3
31	12	---	9.0	7.4	---	15	---	19	---	7.4	3.0	---
TOTAL	708.2	1206.1	955.6	1275.8	1037.6	504.8	1693	1803	3950	470.7	377.6	187.6
MEAN	22.8	40.2	30.8	41.2	35.8	16.3	56.4	58.2	132	15.2	12.2	6.25
MAX	192	197	85	461	160	47	283	217	892	76	127	78
MIN	3.5	9.1	8.6	6.8	6.8	5.4	15	19	15	6.2	3.0	2.3
CFSM	.46	.82	.63	.84	.73	.33	1.15	1.18	2.68	.31	.25	.13
IN.	.54	.91	.72	.96	.78	.38	1.28	1.36	2.99	.36	.29	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	24.2	33.1	38.8	30.0	43.9	99.1	89.6	42.9	39.4	26.2	24.3	31.1
MAX	95.5	151	118	190	161	315	316	138	137	142	72.3	214
(WY)	1992	1986	1983	1974	1971	1979	1973	1990	1969	1969	1987	1972
MIN	2.38	4.26	2.02	2.47	2.75	13.6	21.5	5.32	3.55	3.09	3.82	3.04
(WY)	1964	1964	1964	1977	1977	1968	1977	1977	1988	1988	1971	1971

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	12445.0		14170.0			
ANNUAL MEAN	34.1		38.7		43.5	
HIGHEST ANNUAL MEAN					84.0	1974
LOWEST ANNUAL MEAN					12.7	1977
HIGHEST DAILY MEAN	354	Aug 17	892	Jun 18	2390	Apr 21 1973
LOWEST DAILY MEAN	3.4	Sep 30	2.3	Sep 19	.44	Aug 9,10 1971
ANNUAL SEVEN-DAY MINIMUM	3.8	Sep 27	2.7	Sep 13	1.1	Aug 4 1971
INSTANTANEOUS PEAK FLOW			1020	Jun 18	3700	Apr 21 1973
INSTANTANEOUS PEAK STAGE			8.38	Jun 18	9.31	Apr 21 1973
INSTANTANEOUS LOW FLOW			2.3	Sep 19	.38	Aug 10 1971
ANNUAL RUNOFF (CFSM)	.69		.79		.88	
ANNUAL RUNOFF (INCHES)	9.41		10.71		12.01	
10 PERCENT EXCEEDS	83		87		92	
50 PERCENT EXCEEDS	16		16		16	
90 PERCENT EXCEEDS	5.6		4.3		4.5	

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 mi^2.

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 above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Aug. 17–24, Aug. 28 to Sept. 5, Sept. 19, 20, 25–30, and ice-affected periods, Dec. 8–12, 27–31, Jan. 4–19, Jan. 31 to Feb. 20, and Mar. 1–10. Records are good except those for periods where there was debris buildup on the riffle, Oct. 1 to Nov. 1 and Aug. 17 to Sept. 30, and ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	34	54	14	14	27	21	88	39	24	5.0	1.6
2	3.4	121	108	12	13	18	19	66	108	22	4.5	1.6
3	2.3	93	162	11	13	14	19	54	143	21	4.1	1.7
4	2.4	54	146	10	12	12	23	47	112	17	4.0	1.7
5	3.0	38	117	7.0	12	10	21	41	153	14	3.4	1.7
6	11	31	92	7.0	12	9.0	20	36	348	12	6.6	1.8
7	26	27	62	7.0	13	8.6	19	33	369	11	5.0	2.5
8	13	22	46	7.0	60	8.4	17	32	271	9.7	3.8	3.0
9	7.5	19	42	7.0	230	8.2	17	38	185	9.8	3.3	4.4
10	4.6	56	37	7.0	200	8.0	16	199	180	8.4	3.2	3.8
11	4.2	328	34	7.2	140	9.4	16	211	149	7.1	3.3	3.6
12	4.1	245	33	7.8	60	16	19	135	117	6.4	3.4	3.5
13	3.7	139	33	9.0	40	18	21	99	91	7.4	3.2	2.7
14	4.4	99	37	9.6	32	18	19	79	71	6.0	2.8	2.3
15	4.6	73	36	9.0	27	18	170	123	56	5.7	2.5	2.2
16	4.1	57	30	8.8	24	16	224	134	48	6.1	2.2	1.8
17	3.8	48	28	13	22	14	171	106	88	5.7	2.2	1.8
18	4.3	46	25	280	21	12	127	88	469	30	2.2	1.6
19	4.6	64	24	250	21	12	115	67	600	32	2.6	1.5
20	8.9	96	20	164	22	11	203	139	297	20	3.2	2.0
21	11	82	19	116	25	10	156	663	163	14	3.0	1.8
22	9.0	56	18	72	20	9.9	118	526	130	12	2.5	1.8
23	7.0	44	17	43	22	9.7	95	237	99	10	2.4	1.8
24	7.8	34	16	41	34	12	76	163	106	8.2	2.3	2.1
25	7.3	31	14	30	35	40	66	131	80	12	2.2	3.0
26	6.0	29	12	25	28	31	56	110	57	8.0	1.8	25
27	17	31	11	24	75	24	46	91	46	6.2	1.7	27
28	46	39	10	21	82	19	40	75	39	5.5	2.3	18
29	41	39	9.4	18	52	18	55	59	32	5.7	2.1	7.0
30	26	33	9.4	16	---	17	111	48	28	5.8	1.9	5.0
31	20	---	12	15	---	19	---	42	---	5.1	1.7	---
TOTAL	321.7	2108	1313.8	1268.4	1361	477.2	2096	3960	4674	367.8	94.4	139.3
MEAN	10.4	70.3	42.4	40.9	46.9	15.4	69.9	128	156	11.9	3.05	4.64
MAX	46	328	162	280	230	40	224	663	600	32	6.6	27
MIN	2.3	19	9.4	7.0	12	8.0	16	32	28	5.1	1.7	1.5
CFSM	.18	1.23	.74	.72	.82	.27	1.23	2.24	2.73	.21	.05	.08
IN.	.21	1.38	.86	.83	.89	.31	1.37	2.58	3.05	.24	.06	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1996, BY WATER YEAR (WY)

MEAN	22.8	37.6	46.7	33.0	55.7	115	107	50.5	40.8	24.8	22.5	32.3
MAX	113	154	200	219	189	352	312	211	156	141	138	212
(WY)	1973	1993	1983	1974	1971	1979	1993	1990	1996	1978	1978	1972
MIN	1.05	1.27	.86	.56	.69	6.03	10.8	2.47	2.51	2.18	2.20	1.28
(WY)	1964	1964	1964	1977	1977	1968	1977	1977	1977	1991	1985	1971

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1964 - 1996	
ANNUAL TOTAL	15918.4		18181.6			
ANNUAL MEAN	43.6		49.7		48.9	
HIGHEST ANNUAL MEAN					98.4	1974
LOWEST ANNUAL MEAN					4.57	1977
HIGHEST DAILY MEAN	703	Apr 28	663	May 21	1410	Mar 4 1974
LOWEST DAILY MEAN	2.3	Oct 3	1.5	Sep 19	(a).40	Dec 19 1963
ANNUAL SEVEN-DAY MINIMUM	2.8	Sep 28	1.7	Aug 31	.45	Feb 8 1977
INSTANTANEOUS PEAK FLOW			721	May 21	(b)1440	Mar 4 1974
INSTANTANEOUS PEAK STAGE			9.32	May 21	(c)11.26	Feb 21 1994
ANNUAL RUNOFF (CFSM)	.77		.87		.86	
ANNUAL RUNOFF (INCHES)	10.39		11.87		11.66	
10 PERCENT EXCEEDS	108		134		121	
50 PERCENT EXCEEDS	21		19		15	
90 PERCENT EXCEEDS	4.3		2.8		2.3	

(a) Result of freezeup
(b) Gage height, 9.88 ft
(c) Backwater from ice

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 mi^2, of which 1.24 mi^2 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 above sea level, from topographic map. Prior to Feb. 5, 1964, nonrecording gage on bridge 30 ft upstream.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 27–30, Dec. 8–12, Jan. 25 to Feb. 8, Feb. 29 to Mar. 3, and Mar. 7–9. Records good except those for ice-affected periods, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	69	109	33	32	110	61	345	142	73	21	5.3
2	10	219	175	34	29	90	64	255	198	68	19	5.4
3	9.6	306	308	34	26	64	63	190	369	73	17	4.5
4	8.3	221	375	32	23	50	70	161	377	75	18	2.6
5	8.0	132	365	31	20	48	88	142	288	55	16	3.1
6	13	99	314	30	19	43	86	126	465	46	18	2.9
7	111	84	205	27	18	39	71	118	646	42	119	3.3
8	185	73	140	25	90	37	65	117	787	37	70	4.2
9	81	62	100	25	256	35	60	121	750	34	30	5.2
10	41	96	94	25	439	34	55	361	675	35	23	4.5
11	32	442	90	25	565	33	53	626	544	33	19	5.2
12	24	546	86	25	394	43	55	696	431	33	16	6.0
13	21	561	79	25	247	64	60	453	308	30	14	5.2
14	19	347	77	27	143	82	61	285	232	29	12	4.4
15	18	207	83	29	106	87	241	282	189	29	11	3.9
16	17	158	94	29	83	83	558	408	162	27	10	3.5
17	17	136	80	34	74	73	692	402	195	35	9.6	3.1
18	15	123	67	322	65	63	554	316	889	52	8.4	2.3
19	14	137	63	495	55	59	364	268	1730	131	8.3	1.7
20	18	191	61	609	49	53	386	401	1750	97	12	1.7
21	39	225	55	629	51	51	456	892	1310	55	27	2.1
22	55	183	50	300	55	47	409	919	743	40	24	2.5
23	44	140	48	161	56	45	285	890	414	33	20	2.1
24	32	104	46	118	69	45	222	628	280	29	17	2.1
25	26	96	44	100	108	83	186	416	245	27	13	2.2
26	29	85	40	82	124	137	167	315	190	42	11	5.7
27	34	80	36	72	207	94	148	253	151	30	8.8	13
28	109	74	36	64	258	77	128	219	126	24	7.2	67
29	146	74	33	54	210	67	135	191	105	21	5.8	35
30	97	90	32	44	---	63	274	171	86	22	5.1	22
31	68	---	31	37	---	62	---	150	---	26	5.1	---
TOTAL	1350.9	5360	3416	3577	3871	1961	6117	11117	14777	1383	615.3	231.7
MEAN	43.6	179	110	115	133	63.3	204	359	493	44.6	19.8	7.72
MAX	185	561	375	629	565	137	692	919	1750	131	119	67
MIN	8.0	62	31	25	18	33	53	117	86	21	5.1	1.7
CFSM	.23	.95	.58	.61	.71	.34	1.08	1.90	2.61	.24	.11	.04
IN.	.27	1.06	.67	.70	.76	.39	1.21	2.19	2.91	.27	.12	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

MEAN	69.3	114	137	95.9	155	356	352	174	125	85.4	67.7	91.0
MAX	335	454	568	401	457	1149	1071	649	493	485	237	683
(WY)	1987	1986	1983	1974	1971	1979	1993	1990	1996	1969	1987	1972
MIN	2.79	8.90	3.08	2.21	3.98	30.6	61.8	8.73	7.75	5.18	6.60	2.58
(WY)	1964	1964	1964	1977	1977	1968	1977	1977	1988	1988	1971	1963

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1963 - 1996	
ANNUAL TOTAL	45763.1		53776.9			
ANNUAL MEAN	125		147		152	
HIGHEST ANNUAL MEAN					268	1993
LOWEST ANNUAL MEAN					23.3	1977
HIGHEST DAILY MEAN	1150	Apr 29	1750	Jun 20	4010	Mar 5 1974
LOWEST DAILY MEAN	7.2	Jul 15	1.7	Sep 19,20	.00	Jul 9-15 1988
ANNUAL SEVEN-DAY MINIMUM	9.4	Jul 9	2.1	Sep 19	.00	Jul 9 1988
INSTANTANEOUS PEAK FLOW			1900	Jun 19	4500	Mar 5 1974
INSTANTANEOUS PEAK STAGE			5.67	Jun 19	8.54	Mar 5 1974
INSTANTANEOUS LOW FLOW			1.5	Sep 19,20	.00	Jul 9-15 1988
ANNUAL RUNOFF (CFSM)	.66		.78		.80	
ANNUAL RUNOFF (INCHES)	9.02		10.60		10.93	
10 PERCENT EXCEEDS	342		401		399	
50 PERCENT EXCEEDS	67		64		54	
90 PERCENT EXCEEDS	14		9.6		9.1	

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.2 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 mi^2.

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 sea level (Southeastern Wisconsin Regional Planning Commission).

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 9–13, 21, 25–27, Jan. 3, 5–14, and Jan. 19 to Mar. 10. Records good except those for ice-affected periods, which are fair (see page 12). Low flows considerably affected by effluent discharge in upper portion of basin, and by occasional regulation of small recreation dam 1.1 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	43	48	10	9.2	17	15	61	39	21	10	7.3
2	8.2	109	60	10	8.6	15	15	48	90	24	9.4	6.9
3	9.2	58	57	11	8.0	14	16	41	76	20	8.4	8.0
4	8.8	35	44	11	7.6	13	17	35	61	17	9.0	8.8
5	9.3	25	38	10	7.4	12	16	33	66	16	9.1	8.5
6	56	21	31	9.4	7.4	11	15	32	149	15	34	8.9
7	29	20	25	8.6	7.4	11	15	30	281	15	14	9.1
8	14	17	22	7.8	70	10	14	30	167	15	11	23
9	12	15	21	7.4	200	10	14	39	119	15	9.6	15
10	11	117	20	7.2	130	10	14	229	142	15	9.0	11
11	10	310	21	7.0	60	12	14	149	105	15	8.8	11
12	11	126	23	7.0	33	15	16	90	79	16	9.0	10
13	11	74	26	7.2	24	15	16	65	64	15	9.1	9.7
14	13	50	35	7.6	18	15	15	53	54	19	9.0	9.0
15	10	40	22	6.7	14	14	157	83	45	21	8.3	7.9
16	10	34	18	8.8	11	13	139	70	43	15	9.0	8.5
17	12	30	15	28	9.0	12	99	63	64	20	7.7	10
18	14	30	15	245	8.6	12	71	54	309	73	6.8	9.7
19	14	38	16	100	9.0	12	62	45	212	39	9.1	10
20	64	44	15	64	11	12	111	417	125	25	9.5	11
21	33	36	13	40	12	13	74	692	95	19	8.9	10
22	20	29	11	27	12	13	59	258	82	18	8.7	11
23	16	23	10	20	13	12	50	153	58	16	11	10
24	17	20	10	19	23	16	43	125	51	19	8.0	12
25	14	19	9.6	18	35	34	39	100	45	18	6.4	11
26	13	20	9.8	17	40	22	35	81	37	14	7.4	37
27	40	26	9.8	14	120	17	29	67	33	13	8.0	35
28	38	24	9.8	12	50	16	26	57	29	12	8.3	12
29	27	22	10	11	24	15	59	50	26	13	8.5	8.6
30	21	21	11	10	---	15	93	43	23	12	8.5	8.2
31	18	---	10	9.8	---	15	---	37	---	11	6.9	---
TOTAL	593.5	1476	686.0	771.5	982.2	443	1358	3330	2769	596	300.4	358.1
MEAN	19.1	49.2	22.1	24.9	33.9	14.3	45.3	107	92.3	19.2	9.69	11.9
MAX	64	310	60	245	200	34	157	692	309	73	34	37
MIN	8.2	15	9.6	6.7	7.4	10	14	30	23	11	6.4	6.9
CFSM	.50	1.28	.57	.65	.88	.37	1.18	2.79	2.40	.50	.25	.31
IN.	.57	1.43	.66	.75	.95	.43	1.31	3.22	2.68	.58	.29	.35

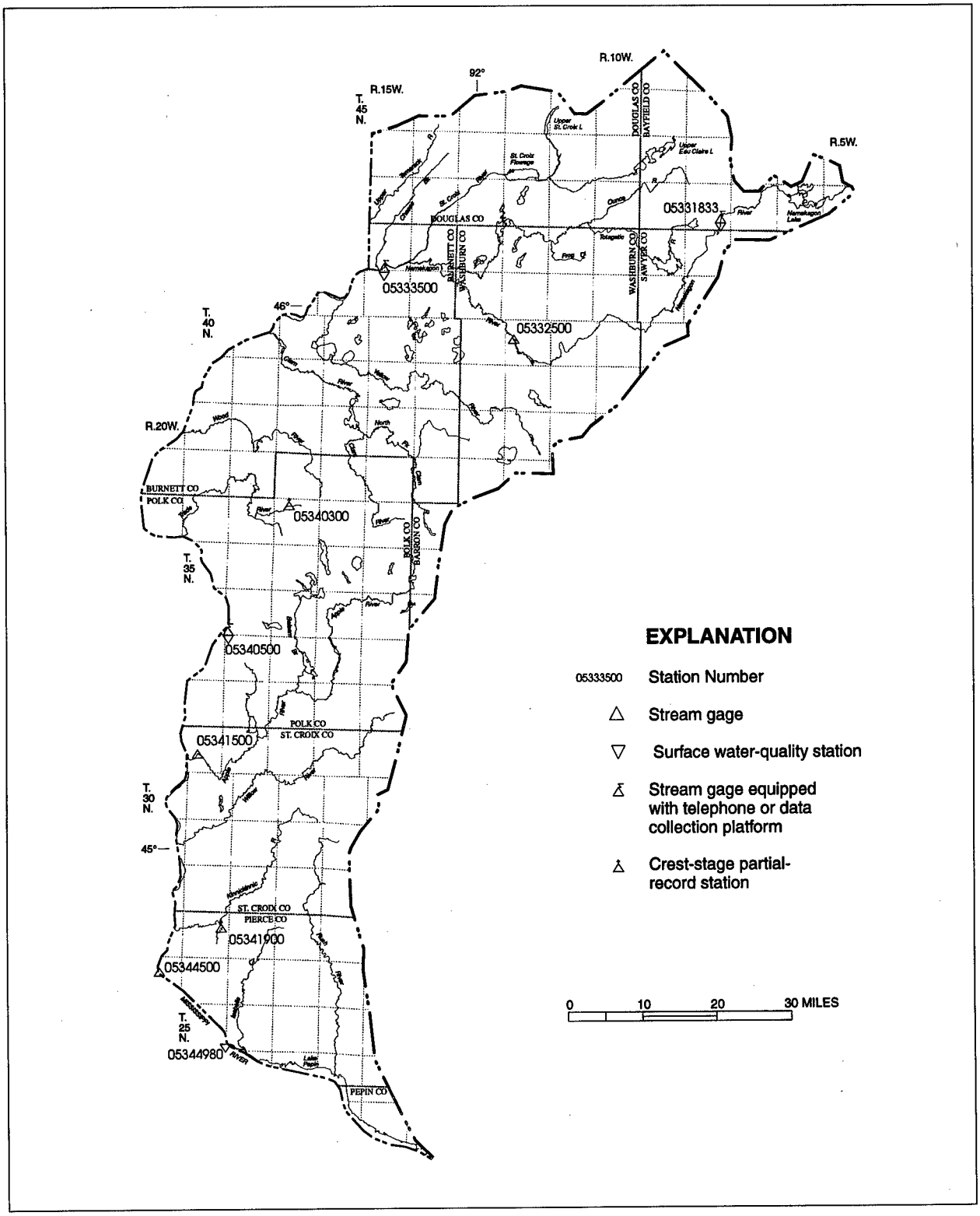
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1996, BY WATER YEAR (WY)

MEAN	18.3	32.3	36.3	24.9	33.2	75.6	73.1	42.2	32.1	21.5	21.2	26.7
MAX	61.2	126	101	97.1	69.6	258	185	146	92.3	129	92.5	131
(WY)	1987	1986	1983	1974	1981	1979	1993	1990	1996	1978	1978	1986
MIN	4.40	3.62	2.35	2.05	3.74	14.3	12.1	4.57	8.32	4.93	4.35	3.25
(WY)	1972	1972	1977	1977	1977	1996	1977	1977	1988	1976	1976	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1972 - 1996	
ANNUAL TOTAL	12188.2		13663.7			
ANNUAL MEAN	33.4		37.3		36.4	
HIGHEST ANNUAL MEAN					59.0	1993
LOWEST ANNUAL MEAN					8.10	1977
HIGHEST DAILY MEAN	667	Apr 27	692	May 21	1010	Mar 3 1974
LOWEST DAILY MEAN	6.2	Aug 6	6.4	Aug 25	.35	Sep 28 1976
ANNUAL SEVEN-DAY MINIMUM	7.9	Aug 2	(a)7.2	Jan 9	1.7	Nov 10 1971
INSTANTANEOUS PEAK FLOW			1360	May 20	1480	Mar 4 1976
INSTANTANEOUS PEAK STAGE			7.93	May 20	(b)9.14	Feb 20 1994
ANNUAL RUNOFF (CFSM)	.87		.97		.95	
ANNUAL RUNOFF (INCHES)	11.78		13.20		12.85	
10 PERCENT EXCEEDS	63		81		82	
50 PERCENT EXCEEDS	19		16		15	
90 PERCENT EXCEEDS	9.7		8.6		5.4	

(a) Ice affected
(b) Backwater from ice

UPPER MISSISSIPPI RIVER BASIN RECORDS



Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Transverse Mercator projection.

ST. CROIX RIVER BASIN

05331833 NAMEKAGON RIVER AT LEONARDS, WI
(NATIONAL WATER-QUALITY ASSESSMENT PROGRAM STATION)

LOCATION.--Lat 46°10'17", long 91°19'45", in SW 1/4 SE 1/4 sec.26, T.43 N., R.8 W., Bayfield County, Hydrologic Unit 07030002, on left bank 15 ft upstream from Squaw Bend Road, and 0.4 mi west of U.S. Highway 63 at Leonards.

DRAINAGE AREA.--126 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to September 1996.

GAGE.--Water-stage recorder. Elevation of gage is 1,275 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 1–13. Records good except those for estimated daily discharges, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	92	116	390	158	140	172	100
2	---	---	---	---	---	92	116	374	183	166	165	110
3	---	---	---	---	---	90	114	362	178	156	157	144
4	---	---	---	---	---	92	113	347	175	146	153	347
5	---	---	---	---	---	92	116	343	167	137	155	325
6	---	---	---	---	---	92	116	349	175	178	157	235
7	---	---	---	---	---	92	115	333	168	316	157	193
8	---	---	---	---	---	92	116	319	159	258	147	175
9	---	---	---	---	---	92	117	309	150	218	142	166
10	---	---	---	---	---	94	125	305	144	187	138	157
11	---	---	---	---	---	96	147	287	142	178	133	151
12	---	---	---	---	---	98	176	271	139	247	129	154
13	---	---	---	---	---	100	169	259	137	346	124	150
14	---	---	---	---	---	103	164	247	131	279	125	142
15	---	---	---	---	---	106	161	242	128	245	125	137
16	---	---	---	---	---	108	164	234	132	285	121	133
17	---	---	---	---	---	108	187	224	135	248	117	133
18	---	---	---	---	---	107	238	230	133	297	113	128
19	---	---	---	---	---	105	326	289	129	372	114	125
20	---	---	---	---	---	105	394	305	127	310	121	123
21	---	---	---	---	---	106	385	272	120	259	120	123
22	---	---	---	---	---	105	475	250	121	238	120	125
23	---	---	---	---	---	102	432	232	120	224	117	128
24	---	---	---	---	---	104	424	217	128	229	113	137
25	---	---	---	---	---	100	445	202	125	225	108	128
26	---	---	---	---	---	130	502	193	163	205	113	127
27	---	---	---	---	---	140	478	182	213	194	106	171
28	---	---	---	---	---	118	445	174	181	192	103	170
29	---	---	---	---	---	117	423	165	159	186	102	154
30	---	---	---	---	---	115	403	157	148	180	100	144
31	---	---	---	---	---	116	---	152	---	177	98	---
TOTAL	---	---	---	---	---	3209	7702	8215	4468	7018	3965	4735
MEAN	---	---	---	---	---	104	257	265	149	226	128	158
MAX	---	---	---	---	---	140	502	390	213	372	172	347
MIN	---	---	---	---	---	90	113	152	120	137	98	100
CFSM	---	---	---	---	---	.82	2.04	2.10	1.18	1.80	1.02	1.25
IN.	---	---	---	---	---	.95	2.27	2.43	1.32	2.07	1.17	1.40
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1996, BY WATER YEAR (WY)												
MEAN	---	---	---	---	---	104	257	265	149	226	128	158
MAX	---	---	---	---	---	104	257	265	149	226	128	158
(WY)	---	---	---	---	---	1996	1996	1996	1996	1996	1996	1996
MIN	---	---	---	---	---	104	257	265	149	226	128	158
(WY)	---	---	---	---	---	1996	1996	1996	1996	1996	1996	1996

05331833 NAMEKAGON RIVER AT LEONARDS, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June to September 1996.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June to September 1996.

SPECIFIC CONDUCTANCE: June to September 1996.

INSTRUMENTATION.--Water temperature and specific conductance recorder since June 1, 1996, provides hourly readings.

REMARKS.--Records represent water temperature and specific conductance at sensor located near the orifice.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum during period June to September, 26.0°C, June 28, 29; minimum, 9.0°C, Sept. 29.

SPECIFIC CONDUCTANCE: Maximum during period June to September, 137 µS/cm, Sept. 2; minimum, 66 µS/cm, July 13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
APR 1996											
23...	0845	442	61	7.2	2.5	13.0	736	27	7.2	2.2	1.6
MAY											
15...	0800	242	99	7.5	8.0	10.8	731	51	14	3.9	2.3
JUN											
11...	1500	143	125	7.5	21.0	9.5	728	58	16	4.4	2.3
JUL											
09...	1510	214	104	7.0	19.5	8.6	733	44	12	3.4	1.9
AUG											
20...	1305	125	140	8.0	19.5	10.0	758	58	16	4.5	2.4
SEP											
10...	1500	159	128	7.6	18.0	9.3	741	54	15	4.1	2.2

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
APR 1996											
23...	0.70	25	20	2.7	1.7	<0.10	8.2	58	0.170	<0.010	0.040
MAY											
15...	0.60	46	38	3.0	2.3	<0.10	11	67	0.090	<0.010	<0.015
JUN											
11...	0.60	49	40	3.7	4.1	<0.10	9.5	70	0.070	<0.010	0.030
JUL											
09...	0.40	39	32	2.1	2.0	<0.10	9.9	88	0.080	<0.010	0.020
AUG											
20...	0.60	46	38	3.6	2.4	<0.10	13	88	<0.050	<0.010	<0.015
SEP											
10...	0.70	55	45	3.1	2.5	<0.10	13	85	0.090	<0.010	<0.015

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	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)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
APR 1996											
23...	0.50	0.40	<0.010	<0.010	<0.010	240	16	9.8	0.50	7	76
MAY											
15...	0.40	0.30	0.030	0.010	<0.010	180	20	6.3	0.80	4	86
JUN											
11...	0.30	0.30	<0.010	0.010	<0.010	210	28	5.4	0.50	5	--
JUL											
09...	0.40	0.50	<0.010	<0.010	0.010	440	22	12	0.40	3	--
AUG											
20...	0.30	0.30	<0.010	<0.010	<0.010	240	15	5.6	<0.10	2	--
SEP											
10...	0.40	0.40	0.010	<0.010	<0.010	390	20	8.4	0.60	4	89

05331833 NAMEKAGON RIVER AT LEONARDS, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	15.0	15.5	22.5	18.0	20.5	21.0	15.5	18.0	19.0	15.0	17.0
2	19.0	14.0	16.5	23.0	18.0	20.5	21.5	16.0	18.5	18.0	15.5	17.0
3	16.5	13.5	14.5	23.5	17.5	20.5	21.5	16.5	19.0	20.5	17.0	18.5
4	14.5	12.5	13.5	24.0	18.5	21.0	22.0	18.0	20.0	21.0	18.0	19.0
5	15.0	11.0	13.5	25.0	18.5	21.5	21.0	19.0	20.0	21.5	18.5	20.0
6	15.5	13.0	14.5	22.0	18.5	20.0	24.5	18.0	21.0	22.0	18.5	20.0
7	17.5	12.5	14.5	22.0	18.0	20.0	23.5	20.5	22.0	21.0	18.0	19.5
8	20.0	12.0	16.0	20.5	18.0	19.0	21.0	17.5	19.5	19.5	17.0	18.5
9	21.5	13.5	17.5	20.0	16.0	18.0	20.0	16.0	18.0	19.5	15.5	17.0
10	22.0	15.0	18.5	21.5	15.0	18.0	20.0	15.0	17.5	18.5	15.5	17.0
11	22.5	17.0	19.5	19.0	16.5	17.0	21.5	16.0	18.5	17.0	14.5	15.5
12	24.5	17.0	20.5	18.0	16.0	17.0	22.5	17.5	19.5	15.0	13.0	14.0
13	24.5	18.0	21.0	17.5	16.0	16.5	21.0	17.5	19.5	14.5	10.5	12.5
14	24.0	16.5	20.0	18.5	15.5	17.0	20.0	17.0	18.0	14.0	10.5	12.5
15	21.0	17.0	19.0	18.5	16.0	17.0	21.0	15.5	18.0	13.5	11.5	12.5
16	20.0	16.5	18.5	21.0	15.5	18.5	20.0	15.0	17.5	14.5	12.0	13.0
17	18.0	15.5	16.5	23.0	18.5	21.0	21.5	15.5	18.5	15.5	12.0	13.5
18	15.5	14.5	15.0	21.5	20.0	21.0	21.5	16.0	18.5	15.5	11.0	13.0
19	16.5	14.0	15.0	20.5	18.5	19.5	20.0	18.0	19.0	15.0	10.5	12.5
20	22.5	15.0	18.5	20.5	16.0	18.5	21.5	16.5	19.0	13.5	11.5	12.0
21	19.0	15.0	16.0	20.5	17.5	19.0	21.5	16.0	18.5	13.5	11.5	12.5
22	18.0	13.0	15.5	21.0	18.0	19.5	21.0	18.0	19.5	14.5	12.0	13.0
23	16.0	13.5	14.0	19.5	17.5	18.5	20.5	15.0	18.0	14.0	12.0	13.0
24	17.0	12.5	14.5	19.0	17.0	18.0	21.0	15.5	18.0	14.5	11.5	13.0
25	20.0	13.5	17.0	21.0	17.0	19.0	18.5	16.0	17.5	12.5	10.5	11.5
26	18.5	16.0	17.0	21.0	17.0	19.0	19.0	14.5	16.5	12.0	11.0	11.5
27	24.0	17.0	20.0	19.0	17.0	18.0	19.0	13.0	16.0	11.5	10.5	11.0
28	26.0	20.0	23.0	17.5	16.0	17.0	19.0	13.0	16.0	12.0	10.0	11.0
29	26.0	22.0	24.0	16.0	15.0	15.5	20.0	14.0	17.0	11.5	9.0	10.5
30	25.0	20.0	22.5	18.0	13.5	15.5	19.5	14.0	17.0	12.5	9.5	11.0
31	---	---	---	19.0	15.5	17.0	20.0	15.0	17.5	---	---	---
MONTH	26.0	11.0	17.4	25.0	13.5	18.6	24.5	13.0	18.4	22.0	9.0	14.4

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	112	105	109	113	105	111	113	111	112	136	133	134
2	105	101	103	106	103	104	115	112	113	137	127	132
3	103	102	103	108	105	106	116	114	115	127	102	118
4	103	102	102	120	108	111	118	115	116	102	68	77
5	106	103	104	127	113	122	117	113	115	83	69	76
6	106	104	104	128	78	113	117	114	115	95	83	89
7	106	104	105	78	70	73	117	113	115	104	95	99
8	108	106	107	83	75	80	117	115	116	108	104	106
9	112	108	110	92	83	88	118	116	117	112	108	110
10	115	112	113	99	92	95	119	117	118	113	111	112
11	117	114	115	102	99	101	121	119	120	113	111	112
12	118	116	117	100	74	90	123	119	121	112	109	111
13	120	117	118	74	66	69	124	121	122	113	111	111
14	121	119	120	96	72	81	124	120	122	115	113	114
15	122	120	121	87	81	85	125	121	123	117	115	116
16	121	119	121	86	80	82	126	123	124	118	117	117
17	121	118	120	95	85	91	126	123	125	119	117	118
18	121	118	119	96	82	89	129	124	126	121	119	120
19	122	119	121	82	77	79	129	126	128	122	121	122
20	125	121	122	91	80	85	129	121	125	123	121	122
21	125	123	124	98	91	95	125	121	123	123	121	123
22	124	122	123	101	97	99	126	122	124	123	121	122
23	125	122	124	104	101	103	126	123	125	123	120	122
24	122	118	120	107	104	106	128	124	126	120	118	119
25	122	119	120	105	100	103	129	127	128	122	119	121
26	122	94	111	109	103	106	129	126	128	124	118	122
27	96	90	92	112	107	109	129	125	127	118	104	110
28	103	96	99	109	108	109	131	127	129	108	104	105
29	107	103	105	110	109	109	132	129	131	111	108	109
30	110	107	109	111	109	110	134	130	132	114	111	113
31	---	---	---	111	110	111	135	131	133	---	---	---
MONTH	125	90	113	128	66	97	135	111	122	137	68	113

05332500 NAMEKAGON RIVER NEAR TREGO, WI

LOCATION.--Lat 45°56'53", long 91°53'17", in SW 1/4 sec.17, T.40 N., R.12 W., Washburn County, Hydrologic Unit 07030002, at powerplant of Northern States Power Co., 4.0 mi downstream from Potato Creek, and 4.4 mi northwest of Trego.

DRAINAGE AREA.--488 mi^2.

PERIOD OF RECORD.--October 1927 to September 1970. October 1987 to current year.

REVISED RECORD.--WDR WI-88-1: Drainage area.

GAGE.--Headwater and tailwater read hourly.

REMARKS.--No estimated daily discharges. Diurnal fluctuation caused by Trego powerplant.

COOPERATION.--Records of daily discharge furnished by Northern States Power Company and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	385	745	435	435	385	385	481	1290	561	626	617	340
2	385	640	435	440	385	385	481	820	561	626	617	340
3	561	640	435	440	385	385	481	831	952	559	617	477
4	561	640	481	440	385	385	481	831	640	559	617	477
5	561	640	481	385	385	385	481	831	640	559	617	980
6	601	576	685	385	385	385	481	831	640	559	617	980
7	601	525	324	385	385	385	481	831	561	559	521	823
8	601	476	324	385	385	385	481	831	561	530	521	980
9	864	403	324	385	385	385	481	831	561	647	521	719
10	864	403	324	385	385	385	481	622	561	640	521	614
11	561	403	385	385	385	385	638	622	561	640	521	614
12	561	403	326	385	385	385	650	622	561	612	476	480
13	577	513	385	385	385	476	1060	622	571	612	476	480
14	517	513	517	385	385	476	859	622	521	612	472	480
15	517	525	517	385	385	559	836	831	521	1020	472	480
16	604	525	517	385	385	559	836	831	521	655	437	480
17	604	525	517	385	385	559	1040	831	514	526	437	480
18	476	525	397	385	385	399	1220	622	514	1030	437	417
19	476	525	397	385	385	585	1660	1030	514	1030	437	480
20	476	525	385	385	385	399	1970	1220	514	1030	437	480
21	476	525	385	385	385	399	1970	1680	514	1030	437	480
22	476	358	385	385	385	399	2160	1390	514	1030	437	480
23	561	358	476	385	385	399	1350	1120	514	1120	437	535
24	655	356	476	385	385	399	1650	1120	514	1030	437	535
25	770	356	476	385	385	399	1760	1120	514	826	437	472
26	770	561	435	385	385	324	1350	1120	514	826	437	472
27	770	435	435	385	385	481	1650	1120	1070	826	437	556
28	770	435	435	385	385	481	1650	1120	1160	827	437	556
29	770	362	435	385	385	589	1270	1120	1070	617	437	556
30	745	362	435	385	---	589	1290	1140	1040	617	396	556
31	745	---	435	385	---	589	---	561	---	617	396	---
TOTAL	18861	14778	13399	12150	11165	13680	31679	29013	18974	22997	15113	16799
MEAN	608	493	432	392	385	441	1056	936	632	742	488	560
MAX	864	745	685	440	385	589	2160	1680	1160	1120	617	980
MIN	385	356	324	385	385	324	481	561	514	526	396	340
CFSM	1.25	1.01	.89	.80	.79	.90	2.16	1.92	1.30	1.52	1.00	1.15
IN.	1.44	1.13	1.02	.93	.85	1.04	2.41	2.21	1.45	1.75	1.15	1.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996, BY WATER YEAR (WY)

MEAN	442	436	383	349	343	440	698	641	560	486	408	480
MAX	893	764	580	531	512	778	1084	1156	1093	1026	687	1834
(WY)	1969	1992	1992	1969	1969	1945	1969	1950	1944	1958	1953	1941
MIN	252	288	251	245	241	282	408	389	275	235	195	214
(WY)	1949	1934	1933	1933	1933	1934	1931	1934	1934	1934	1933	1933

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1928 - 1996	
ANNUAL TOTAL	171546		218608			
ANNUAL MEAN	470		597		472	
HIGHEST ANNUAL MEAN					607	1969
LOWEST ANNUAL MEAN					300	1934
HIGHEST DAILY MEAN	1100	May 29	2160	Apr 22	5200	Sep 2 1941
LOWEST DAILY MEAN	253	(a)Feb 8	324	(b)Dec 7-10	113	(c)Aug 17 1930
ANNUAL SEVEN-DAY MINIMUM	284	Jul 31	342	Dec 7	159	Dec 1 1927
ANNUAL RUNOFF (CFSM)	.96		1.22		.97	
ANNUAL RUNOFF (INCHES)	13.08		16.66		13.15	
10 PERCENT EXCEEDS	665		1030		718	
50 PERCENT EXCEEDS	435		514		413	
90 PERCENT EXCEEDS	326		385		286	

(a) Also occurred July 31 and Aug. 4-6
(b) Also occurred Mar. 26
(c) Also occurred Sept. 7, 1930

05333500 ST. CROIX RIVER NEAR DANBURY, WI
(NATIONAL WATER-QUALITY ASSESSMENT PROGRAM STATION)

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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1914 to September 1981, October 1984 to current year. Prior to October 1933, published as "at Swiss".

REVISED RECORDS.--WSP 1438: 1915(M), 1919-20, 1923-24(M), 1927(M), 1931(M), 1934, 1935-37(M). WSP 1628: 1918. WDR WI-85-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 882.21 ft above sea level. 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: Ice-affected period, Nov. 29 to Apr. 14. Records good except those for ice-affected period, which is fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1260	1930	1400	1300	1200	1100	1400	3300	1340	1800	1840	1040
2	1250	1940	1400	1300	1200	1100	1400	3040	1440	1630	1600	935
3	1280	1780	1400	1300	1200	1100	1400	2780	1480	1490	1500	1920
4	1490	1740	1500	1200	1200	1100	1400	2650	1620	1290	1400	2590
5	1430	1650	1500	1200	1200	1100	1400	2390	1550	1360	1580	2570
6	1500	1650	1200	1200	1200	1100	1300	2360	1570	1330	1700	2440
7	1810	1670	1100	1200	1200	1100	1300	2260	1670	1510	1720	2400
8	1920	1540	1100	1200	1200	1100	1300	2270	1530	1530	1640	2380
9	1950	1430	1100	1200	1200	1100	1300	2220	1330	1510	1470	2260
10	1990	1350	1100	1200	1300	1100	1300	2400	1380	1550	1220	2180
11	1910	1320	1100	1200	1300	1200	1500	2390	1310	1560	1170	2020
12	1730	1240	1200	1200	1200	1300	1900	2120	1250	1840	1280	1820
13	1610	1300	1300	1200	1200	1400	2300	2010	1310	2240	1420	1680
14	1560	1430	1400	1200	1200	1600	2500	1850	1280	2330	1450	1620
15	1540	1330	1400	1200	1200	1600	2690	1850	1240	2230	1380	1450
16	1460	1360	1400	1200	1100	1500	2910	1830	1060	2170	1400	1370
17	1380	1280	1400	1200	1100	1500	3520	1690	1190	1970	1490	1360
18	1290	1320	1300	1200	1100	1600	4480	1680	1280	2380	1540	1250
19	1260	1240	1300	1200	1100	1500	5370	2030	1300	3500	1510	1160
20	1420	1310	1300	1200	1100	1200	6530	2580	1200	4020	1420	1150
21	1340	1250	1300	1200	1100	1200	7000	2740	1150	3420	1310	1240
22	1280	1210	1300	1200	1100	1200	6400	3020	1390	3550	1240	1260
23	1190	1120	1300	1200	1100	1200	6120	3020	1310	3510	1130	1320
24	1870	999	1300	1200	1100	1200	5970	2560	1350	3200	1090	1390
25	2110	1070	1300	1200	1100	1200	5660	2120	1280	2980	1130	1260
26	2150	979	1300	1200	1100	1300	5440	1940	1480	2710	1040	1350
27	2210	1170	1300	1200	1100	1500	5000	1930	2180	2370	968	1420
28	2250	1170	1300	1200	1100	1700	4400	1870	2260	2250	989	1490
29	2210	1300	1300	1200	1100	1800	3860	1690	2180	2200	1030	1330
30	2100	1300	1300	1200	---	1700	3590	1480	1940	2000	1000	1380
31	1980	---	1300	1200	---	1500	---	1430	---	1920	922	---
TOTAL	51730	41378	40200	37500	33600	40900	100640	69500	43850	69350	41579	49035
MEAN	1669	1379	1297	1210	1159	1319	3355	2242	1462	2237	1341	1634
MAX	2250	1940	1500	1300	1300	1800	7000	3300	2260	4020	1840	2590
MIN	1190	979	1100	1200	1100	1100	1300	1430	1060	1290	922	935
CFSM	1.06	.87	.82	.77	.73	.84	2.12	1.42	.93	1.42	.85	1.03
IN.	1.22	.97	.95	.88	.79	.96	2.37	1.64	1.03	1.63	.98	1.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	1190	1202	1016	901	890	1336	2340	1851	1524	1298	1064	1222
MAX	2489	2151	1910	1439	1486	2930	4614	4023	3797	3230	2223	4759
(WY)	1969	1952	1992	1992	1992	1973	1916	1950	1944	1958	1955	1941
MIN	590	631	551	600	535	703	939	889	625	514	432	564
(WY)	1933	1926	1933	1924	1936	1934	1931	1931	1934	1934	1934	1933

05333500 ST. CROIX RIVER NEAR DANBURY, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	507472		619262			
ANNUAL MEAN	1390		1692		1318	
HIGHEST ANNUAL MEAN					1982	1986
LOWEST ANNUAL MEAN					795	1934
HIGHEST DAILY MEAN	(a)3600	(b)Mar 18	7000	Apr 21	8740	May 2 1954
LOWEST DAILY MEAN	707	Aug 1	922	Aug 31	405	(c)Aug 6 1934
ANNUAL SEVEN-DAY MINIMUM	802	Jul 31	983	Aug 27	417	Aug 12 1934
INSTANTANEOUS PEAK FLOW			7220	Apr 21	10200	May 6 1950
INSTANTANEOUS PEAK STAGE			6.30	Apr 21	8.22	May 6 1950
INSTANTANEOUS LOW FLOW			801	Nov 26	393	Aug 6 1934
ANNUAL RUNOFF (CFSM)	.88		1.07		.83	
ANNUAL RUNOFF (INCHES)	11.95		14.58		11.34	
10 PERCENT EXCEEDS	2180		2460		2210	
50 PERCENT EXCEEDS	1250		1380		1080	
90 PERCENT EXCEEDS	880		1100		725	

(a) Ice affected
(b) Also occurred May 15
(c) Also occurred Aug. 13,16,17, 1934

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT 1995												
31...	1045	--	1960	91	7.5	5.0	11.5	743	51	14	3.9	2.1
NOV												
29...	1130	1300	--	150	7.8	0.5	12.4	750	70	19	5.5	2.9
FEB 1996												
01...	1120	1200	--	--	--	0.0	--	--	--	--	--	--
MAR												
07...	1030	1100	--	145	6.2	0.0	10.2	742	69	19	5.2	2.7
11...	1110	1200	--	108	7.6	0.5	11.5	--	--	--	--	--
APR												
23...	1420	--	6100	50	7.2	6.5	11.3	736	26	7.0	2.1	1.4
MAY												
15...	1400	--	1890	84	7.3	11.0	10.7	739	47	13	3.6	2.2
JUN												
12...	1230	--	1320	121	8.0	26.0	7.3	731	58	16	4.4	2.2
JUL												
10...	1035	--	1550	125	7.4	19.5	8.7	748	58	16	4.5	2.2
24...	0915	--	3280	91	6.9	20.0	7.1	733	44	12	3.4	1.7
AUG												
21...	1115	--	1310	134	7.9	22.5	9.0	741	58	16	4.5	2.2
SEP												
11...	0945	--	1960	125	7.0	18.5	7.9	745	51	14	4.0	2.0

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT 1995											
31...	0.60	55	45	2.7	2.1	<0.10	11	85	<0.050	<0.010	<0.015
NOV											
29...	0.70	78	64	3.2	2.9	<0.10	15	96	0.190	<0.010	<0.015
FEB 1996											
01...	--	--	--	--	--	--	--	--	0.180	<0.010	0.040
MAR											
07...	0.70	--	--	4.1	2.2	<0.10	17	95	0.240	<0.010	0.050
11...	--	82	67	--	--	--	--	--	--	--	--
APR											
23...	0.80	24	20	2.4	1.3	<0.10	8.8	57	--	--	--
MAY											
15...	0.50	51	42	2.7	1.8	<0.10	9.0	61	0.060	<0.010	<0.015
JUN											
12...	0.50	51	42	3.2	1.9	<0.10	8.0	78	<0.050	<0.010	0.030
JUL											
10...	0.40	51	42	2.4	1.7	<0.10	10	88	0.100	<0.010	0.020
24...	0.40	36	30	1.7	1.3	<0.10	9.7	56	0.100	0.010	0.030
AUG											
21...	0.40	57	47	3.1	1.9	<0.10	11	85	<0.050	<0.010	<0.015
SEP											
11...	0.60	52	43	2.8	2.5	<0.10	12	81	0.100	0.010	<0.020

05333500 ST. CROIX RIVER NEAR DANBURY, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995											
31...	0.40	0.30	0.050	<0.010	<0.010	280	10	8.4	0.40	5	85
NOV											
29...	0.30	0.30	0.020	<0.010	<0.010	290	15	5.5	0.20	3	85
FEB 1996											
01...	<0.20	<0.20	<0.010	<0.010	<0.010	--	--	--	--	3	76
MAR											
07...	<0.20	<0.20	<0.010	0.020	0.010	360	12	3.1	0.20	4	79
11...	--	--	--	--	--	--	--	--	--	--	--
APR											
23...	--	--	--	--	--	360	24	9.6	--	12	43
MAY											
15...	0.40	0.30	0.030	<0.010	<0.010	270	12	6.8	0.50	5	72
JUN											
12...	0.40	0.30	0.020	<0.010	<0.010	210	12	6.1	0.60	7	--
JUL											
10...	0.30	0.30	<0.010	<0.010	0.010	330	11	6.6	0.40	2	--
24...	0.70	0.60	0.020	0.010	0.020	620	16	14	0.90	4	--
AUG											
21...	0.40	0.30	<0.010	<0.010	<0.010	330	8.0	6.6	0.50	--	--
SEP											
11...	0.60	0.40	0.020	<0.010	0.010	420	12	9.0	0.80	5	84

05340500 ST. CROIX RIVER AT ST. CROIX FALLS, WI

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 mi^2.

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 sea level. 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 good (see page 12). Diurnal fluctuation caused by St. Croix Falls Powerplant 1,500 ft upstream. Gage-height telemeter and data-collection platform at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4080	11900	3860	3340	3190	3600	6270	15300	6230	10400	5070	2180
2	5170	11500	3690	3350	3370	3300	6640	13700	5760	9320	4680	1970
3	6410	11200	4120	3510	3000	3000	7040	12300	5390	8310	4330	2420
4	7260	10500	4110	3560	3210	3320	7150	11000	5510	7440	3580	3650
5	7700	9570	3950	3590	3040	3450	7150	10100	5220	6980	3970	4610
6	7900	9180	3650	3130	3040	3250	7310	9970	5500	5940	3740	5340
7	7980	8710	3280	3040	3050	3280	7940	10300	5210	5650	4230	4710
8	8850	8460	3150	3330	2930	3470	8360	8580	5120	6230	4030	4370
9	9450	7760	2840	3090	3200	3190	9300	7380	4710	6010	4060	4330
10	9490	7420	2980	3140	2850	3100	11100	8760	4610	5470	3700	4530
11	9280	6660	3200	3040	2970	2990	13700	8640	4080	4920	3310	4110
12	8630	5520	3330	3190	3110	3400	16000	8990	3990	5110	2980	3870
13	8210	5050	3340	3280	3120	3550	19300	8070	3720	5400	3130	3800
14	7760	5310	3440	3020	3030	3700	20400	7840	3540	6980	3420	3310
15	6940	5640	3460	3150	3200	4200	20700	7910	3430	7190	3090	3020
16	6710	6150	3530	3370	3110	4420	21400	7930	3440	7180	3390	3000
17	6540	5900	3480	3100	3240	5190	22600	8100	3750	5860	2860	2920
18	5780	5560	3680	3210	3190	5760	24800	7780	3810	6390	3120	2800
19	5320	5110	3820	3450	3220	5500	28000	12000	3810	5580	3310	2620
20	5450	4890	3570	3160	3060	5890	31800	13600	3830	6560	3220	2730
21	4970	4850	3510	2830	3140	5400	34400	14100	3800	7650	2970	2540
22	4760	4090	3670	2970	3160	6150	35600	13000	3940	7890	3060	2060
23	5480	3090	3450	3180	3310	6080	34500	12800	3860	7290	3040	2680
24	6450	2690	3370	3300	3230	6230	31600	12300	4180	7130	2420	2900
25	7680	3110	3370	3260	3200	5250	28800	11800	3940	6930	2620	2970
26	9970	3560	3370	3180	3460	5690	26300	10400	4190	6170	2590	2780
27	10800	3860	3600	3170	3460	5070	24100	9620	7160	5910	2410	3080
28	11500	3200	3540	3230	3380	5660	22400	8680	13400	6000	2480	2970
29	12500	2910	3440	2990	3300	5490	20200	7920	14800	6060	2430	3290
30	13000	3040	3440	3320	---	6030	17800	7400	12600	5510	2360	3030
31	12300	---	3350	3220	---	5950	---	6520	---	5590	2220	---
TOTAL	244320	186390	108590	99700	91770	140560	572660	312790	162530	205050	101820	98590
MEAN	7881	6213	3503	3216	3164	4534	19090	10090	5418	6615	3285	3286
MAX	13000	11900	4120	3590	3460	6230	35600	15300	14800	10400	5070	5340
MIN	4080	2690	2840	2830	2850	2990	6270	6520	3430	4920	2220	1970
CFSM	1.26	1.00	.56	.52	.51	.73	3.06	1.62	.87	1.06	.53	.53
IN.	1.46	1.11	.65	.59	.55	.84	3.41	1.86	.97	1.22	.61	.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1902 - 1996, BY WATER YEAR (WY)

MEAN	3792	3447	2567	2176	2130	4236	10070	7552	5779	4151	2884	3532
MAX	14270	11910	5821	4279	6021	14420	22320	21840	19510	17260	9777	14590
(WY)	1969	1972	1984	1984	1984	1945	1952	1950	1944	1952	1955	1941
MIN	1380	1342	1287	1157	1257	1538	2212	2430	1481	1014	839	1152
(WY)	1933	1911	1911	1911	1913	1912	1902	1934	1934	1934	1934	1933

05340500 ST. CROIX RIVER AT ST. CROIX FALLS, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1902 - 1996	
ANNUAL TOTAL	2226640		2324770			
ANNUAL MEAN	6100		6352		4373	
HIGHEST ANNUAL MEAN					8569	1986
LOWEST ANNUAL MEAN					1754	1934
HIGHEST DAILY MEAN	23600	Mar 21	35600	Apr 22	53900	May 8 1950
LOWEST DAILY MEAN	1930	Feb 12	1970	Sep 2	75	Jul 17 1910
ANNUAL SEVEN-DAY MINIMUM	2050	Feb 12	2290	Aug 27	754	Jul 29 1934
INSTANTANEOUS PEAK FLOW			35900	Apr 22	54900	May 8 1950
INSTANTANEOUS PEAK STAGE			(a)16.67	Apr 22	25.19	May 8 1950
ANNUAL RUNOFF (CFSM)	.98		1.02		.70	
ANNUAL RUNOFF (INCHES)	13.27		13.86		9.52	
10 PERCENT EXCEEDS	12300		11800		9100	
50 PERCENT EXCEEDS	4760		4210		2760	
90 PERCENT EXCEEDS	2320		3000		1560	

(a) Inside gage (rated gage) reading, outside gage (crest-stage gage) read 16.94 ft

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April to September 1996.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
APR 1996											
24...	0730	32000	7	7.3	7.5	10.7	742	31	7.9	2.7	1.7
MAY											
16...	0800	7940	126	7.5	12.0	10.2	739	--	--	--	--
JUN											
13...	0715	1900	177	7.9	23.5	7.5	743	83	22	6.8	3.2
JUL											
11...	0710	3420	149	7.4	22.0	7.9	742	72	19	6.0	2.7
AUG											
22...	0715	1930	165	7.6	23.5	7.8	743	76	20	6.3	2.9
SEP											
12...	0730	4150	165	7.6	19.5	8.1	746	69	18	5.8	2.7

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
APR 1996											
24...	1.3	30	24	2.4	1.8	<0.10	8.4	67	0.100	<0.010	0.030
MAY											
16...	--	56	46	--	--	--	--	--	0.100	<0.010	0.020
JUN											
13...	1.0	74	61	3.4	3.7	<0.10	6.8	106	0.080	<0.010	0.030
JUL											
11...	0.90	59	48	2.2	2.8	0.10	11	110	0.180	<0.010	0.030
AUG											
22...	0.70	80	65	3.2	3.1	<0.10	11	104	0.100	<0.010	0.020
SEP											
12...	0.80	70	57	3.1	2.8	<0.10	12	99	0.130	0.010	<0.015

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	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)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
APR 1996											
24...	0.60	0.50	0.010	0.020	0.020	540	50	--	--	62	77
MAY											
16...	0.50	0.40	0.030	0.030	<0.010	--	--	--	--	--	--
JUN											
13...	0.60	0.40	0.040	<0.010	<0.010	260	5.0	7.7	0.60	8	--
JUL											
11...	0.60	0.40	0.020	<0.010	0.020	680	20	9.9	0.60	5	--
AUG											
22...	0.30	0.40	<0.010	<0.010	<0.010	220	7.0	7.4	0.40	4	--
SEP											
12...	0.50	0.40	0.020	<0.010	<0.010	260	20	8.5	0.90	6	77

05341500 APPLE RIVER NEAR SOMERSET, WI

LOCATION.--Lat 45°09'27", long 92°42'59", in sec.21, T.31 N., R.19 W., St. Croix County, Hydrologic Unit 07030005, at powerplant of Northern States Power Co., 3.5 mi downstream from Somerset.

DRAINAGE AREA.--579 mi^2.

PERIOD OF RECORD.--January 1901 to September 1914 (monthly discharge only), October 1914 to September 1970, October 1986 to current year.

REVISED RECORDS.--WSP 1388: 1929, 1933. WDR-87-1: Drainage area.

GAGE.--Headwater and tailwater gages read hourly.

REMARKS.--No estimated daily discharges. Records of daily discharge computed on the basis of gate openings, head, and plant efficiency. Flow regulated by many powerplants upstream, but service ponds are small and monthly flows are only slightly affected.

COOPERATION.--Records of daily discharge furnished by Northern States Power Company and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	563	742	620	415	369	431	538	754	643	790	373	294
2	675	865	375	415	396	402	501	835	766	745	408	373
3	647	807	514	331	367	361	473	753	720	499	397	358
4	774	790	394	340	362	402	632	683	776	705	377	372
5	843	811	407	347	388	382	666	586	820	497	355	341
6	808	792	244	361	383	369	748	768	778	557	350	336
7	824	700	307	354	380	330	762	909	787	558	378	344
8	777	603	360	380	385	370	815	898	793	556	387	367
9	830	727	345	415	354	390	877	809	777	538	381	356
10	781	716	275	365	392	396	830	736	604	378	374	376
11	709	709	328	401	390	391	970	896	564	395	385	336
12	687	644	382	401	380	389	1060	820	712	410	383	304
13	607	663	402	382	387	418	1260	877	568	455	398	297
14	765	490	423	372	385	471	1280	761	461	439	310	333
15	730	443	464	340	400	462	1220	640	473	505	373	367
16	727	529	409	378	384	611	1310	695	482	473	353	361
17	641	586	399	384	415	821	1670	576	475	401	321	285
18	551	511	407	465	349	877	965	997	550	354	306	270
19	478	506	462	310	384	963	1100	985	634	363	313	273
20	500	506	435	383	410	987	1490	957	702	407	320	267
21	551	480	429	444	394	769	1250	1160	787	463	294	274
22	537	485	424	482	432	718	1300	1290	801	408	368	353
23	527	434	422	452	371	676	1270	1240	784	386	378	393
24	593	248	418	408	395	512	1240	1240	690	379	377	376
25	605	356	406	415	466	498	1090	1420	616	387	363	361
26	757	443	403	420	411	491	926	1210	674	389	373	380
27	885	465	408	440	408	744	976	911	668	383	330	305
28	973	404	373	412	322	833	826	982	863	388	327	328
29	1010	352	395	376	313	592	877	916	847	403	340	390
30	877	424	384	378	---	567	922	858	853	384	307	368
31	878	---	398	370	---	586	---	769	---	373	251	---
TOTAL	22110	17231	12412	12136	11172	17209	29844	27931	20668	14368	10950	10138
MEAN	713	574	400	391	385	555	995	901	689	463	353	338
MAX	1010	865	620	482	466	987	1670	1420	863	790	408	393
MIN	478	248	244	310	313	330	473	576	461	354	251	267
CFSM	1.23	.99	.69	.68	.67	.96	1.72	1.56	1.19	.80	.61	.58
IN.	1.42	1.11	.80	.78	.72	1.11	1.92	1.79	1.33	.92	.70	.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 1996, BY WATER YEAR (WY)

MEAN	283	277	244	228	233	381	543	419	380	278	236	287
MAX	713	574	479	416	411	730	1335	1000	1030	576	704	808
(WY)	1996	1996	1992	1992	1966	1946	1965	1906	1905	1993	1995	1962
MIN	104	135	123	124	120	151	197	140	81.7	69.9	74.2	89.8
(WY)	1933	1934	1934	1938	1934	1934	1930	1934	1934	1934	1934	1933

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1901 - 1996	
ANNUAL TOTAL	185922		206169			
ANNUAL MEAN	509		563		315	
HIGHEST ANNUAL MEAN					563	1996
LOWEST ANNUAL MEAN					144	1934
HIGHEST DAILY MEAN	1410	Mar 23	1670	Apr 17	2510	Apr 13 1965
LOWEST DAILY MEAN	204	Jan 4	244	Dec 6	7.0	(a)Aug 21 1927
ANNUAL SEVEN-DAY MINIMUM	239	Feb 5	298	Sep 16	49	Aug 2 1933
ANNUAL RUNOFF (CFSM)	.88		.97		.52	
ANNUAL RUNOFF (INCHES)	11.95		13.25		7.12	
10 PERCENT EXCEEDS	834		897		520	
50 PERCENT EXCEEDS	435		448		248	
90 PERCENT EXCEEDS	276		341		144	

(a) Also occurred Sept. 30, 1929, July 19, 1932, and Aug. 2,3, 1933

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 07040001, 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 mi^2, approximately.

PERIOD OF RECORD.--June 1928 to current year.

REVISED RECORDS.--WSP 1508: 1941. WRD MN-74: 1973.

GAGE.--Water-stage recorder. Datum of gage is 649.50 ft above sea level. 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.

REMARKS.--Estimated daily discharges: Nov. 27 to Mar. 14. Records good except those for estimated daily discharges, which are fair (see page 12). Some regulation by reservoirs, navigation dams, and powerplants at low and medium stages. Discharges below a stage of 26.7 ft may be computed by routing flows from Mississippi River at St. Paul (05331000) and St. Croix River at St. Croix Falls (05340500).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12800	40800	18200	15600	12000	13300	33800	62200	39000	40900	17200	12100
2	13800	41300	20800	16000	11900	13000	34900	58700	37600	37900	16400	11400
3	16200	40700	20000	16200	12300	13500	36900	56600	36400	34500	16100	10200
4	20200	39900	20900	15700	11300	13800	38500	53500	35100	31600	16300	9770
5	24500	40200	20500	14800	11600	12900	40400	50900	34400	28900	15000	11500
6	28400	39700	19800	14500	11700	13600	41800	48700	34200	27000	14600	12600
7	30100	38400	18900	14000	11300	13600	43300	47600	34200	25700	14400	13600
8	31000	37100	15800	13100	11900	13600	45000	46300	33600	24100	14100	11800
9	33100	35900	14900	13200	11800	13000	45700	44600	32700	23400	14000	11000
10	34500	35100	15300	13300	12300	12300	46700	43000	32100	22600	13800	10800
11	35500	33900	13300	14300	11900	12700	48900	41800	31500	22300	13800	10400
12	35700	31700	12900	14600	12100	13300	51600	41400	30800	21100	13300	10500
13	36200	30400	13700	14100	12200	14400	55400	41100	30800	20900	14000	11000
14	36200	28800	15500	14000	11900	16000	59300	40000	29300	20800	15200	10400
15	35400	28100	16000	14000	12100	17800	62300	39800	28300	22300	15600	9740
16	34300	27900	15900	13900	12300	19300	64300	40300	27800	22500	14600	9120
17	34000	27900	16600	12700	12100	24000	67000	39200	27300	22100	14200	9210
18	33300	27600	16000	12800	12600	25400	68900	39500	27800	21000	13200	8820
19	32000	27300	15900	14500	12200	26600	71500	41000	27700	21200	13000	8290
20	31000	26700	16400	12800	12500	27200	74600	45000	29200	21200	12700	8260
21	29500	25600	16400	12100	12300	28000	77300	49600	30500	21700	12200	7800
22	29000	24900	16400	10800	12300	28800	80400	52500	32400	22300	11700	7710
23	29000	23800	16000	12400	12600	29600	81700	53200	34000	22000	10800	7630
24	30200	22900	15800	13100	12600	31600	81900	52400	35400	20800	11300	8260
25	30500	20800	15900	12900	12800	33200	80000	51900	37200	20500	10500	8440
26	32200	19800	16200	12800	13000	32900	75600	51000	38300	19500	9830	8270
27	34400	20600	15700	12600	13100	32000	73000	49100	38600	18100	10400	8140
28	36900	21300	15700	12200	13400	31200	70900	47400	39400	17800	11100	8240
29	38400	20000	16400	12300	13600	32300	68300	45100	41900	17400	12700	8090
30	39200	18900	15800	12100	---	32900	65700	42300	42600	17700	12900	9220
31	40000	---	15100	12400	---	33700	---	40200	---	17100	12800	---
TOTAL	957500	898000	512700	419800	355700	675500	1785600	1455900	1010100	726900	417730	292310
MEAN	30890	29930	16540	13540	12270	21790	59520	46960	33670	23450	13480	9744
MAX	40000	41300	20900	16200	13600	33700	81900	62200	42600	40900	17200	13600
MIN	12800	18900	12900	10800	11300	12300	33800	39200	27300	17100	9830	7630
AC-FT	1899000	1781000	1017000	832700	705500	1340000	3542000	2888000	2004000	1442000	828600	579800
CFSM	.69	.67	.37	.30	.27	.49	1.33	1.05	.75	.52	.30	.22
IN.	.80	.75	.43	.35	.30	.56	1.48	1.21	.84	.60	.35	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996, BY WATER YEAR (WY)

MEAN	13580	13150	9814	8196	8046	17170	40410	32050	25810	20200	13240	12880
MAX	49740	40360	21460	16060	21390	55010	117600	90100	69890	87420	48350	45950
(WY)	1987	1972	1983	1983	1966	1983	1965	1986	1993	1993	1993	1986
MIN	3526	3874	3379	3153	3519	4369	7215	6304	4185	3197	2366	3002
(WY)	1933	1977	1934	1935	1934	1934	1931	1931	1934	1934	1934	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1928 - 1996	
ANNUAL TOTAL	10184930		9507740			
ANNUAL MEAN	27900		25980		(a)17920	
HIGHEST ANNUAL MEAN					38540	1986
LOWEST ANNUAL MEAN					4367	1934
HIGHEST DAILY MEAN	64900	Apr 27	81900	Apr 24	226000	Apr 18 1965
LOWEST DAILY MEAN	7660	Feb 12	7630	Sep 23	1380	Jul 13 1940
ANNUAL SEVEN-DAY MINIMUM	8700	Feb 12	8040	Sep 21	2190	Aug 11 1936
INSTANTANEOUS PEAK FLOW			82600	Apr 23	228000	Apr 18 1965
INSTANTANEOUS PEAK STAGE			34.46	Apr 23	43.11	Apr 18 1965
ANNUAL RUNOFF (AC-FT)	20200000		18860000		12980000	
ANNUAL RUNOFF (CFSM)	.62		.58		.40	
ANNUAL RUNOFF (INCHES)	8.46		7.89		5.44	
10 PERCENT EXCEEDS	52100		46400		39200	
50 PERCENT EXCEEDS	27500		20800		11700	
90 PERCENT EXCEEDS	10100		11700		5060	

(a) Median of annual mean discharges is 18030 ft^3/s

MISSISSIPPI RIVER MAIN STEM

05344980 MISSISSIPPI RIVER AT LOCK AND DAM #3 NEAR RED WING, MN

LOCATION.--Lat 44°36'36", long 92°36'36", in SW 1/4 NW 1/4 sec.10, T.113 N., R.15 W., Goodhue County, MN, Hydrologic Unit 07040001, at Lock and Dam #3.

PERIOD OF RECORD.--April to June 1996 (discontinued).

REMARKS.--Samples for chemical analysis were composite water samples collected from three lateral locations in the stream cross section. Water-quality analysis by Wisconsin State Laboratory of Hygiene and National Water-Quality Laboratory.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996.

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	PCB COG 3 SED SUSP REC (NG/L) (99915)	PCB COG 3 WATER DISS REC (NG/L) (99901)	PCB COG 4 + 10 SED SUSP REC (NG/L) (99916)	PCB COG 4 + 10 WATER DISS REC (NG/L) (99902)	PCB COG 5 + 8 SED SUSP REC (NG/L) (19067)	PCB COG 5 + 8 WATER DISS REC (NG/L) (19004)
APR 1996 17...	1145	342	4.5	32	3.6	1.4	<0.430	<0.43	<0.050	<0.05	<0.05	0.06
MAY 29...	1000	468	16.0	54	9.4	2.6	<0.430	<0.43	<0.050	<0.05	<0.05	0.11
JUN 20...	1145	650	21.5	63	7.8	1.9	<0.430	<0.43	<0.050	<0.05	<0.05	0.06

DATE	PCB COG 6 SED SUSP REC (NG/L) (19066)	PCB COG 6 WATER DISS REC (NG/L) (19003)	PCB COG 7 + 9 SED SUSP REC (NG/L) (19065)	PCB COG 7 + 9 WATER DISS REC (NG/L) (19002)	PCB COG 16 + 32 SED SUSP REC (NG/L) (19072)	PCB COG 16 + 32 WATER DISS REC (NG/L) (19009)	PCB COG 15 + 17 SED SUSP REC (NG/L) (19070)	PCB COG 15 + 17 WATER DISS REC (NG/L) (19007)	PCB COG 18 SED SUSP REC (NG/L) (19069)	PCB COG 18 WATER DISS REC (NG/L) (19006)	PCB COG 19 SED SUSP REC (NG/L) (19068)	PCB COG 19 WATER DISS REC (NG/L) (19005)
APR 1996 17...	<0.02	<0.02	<0.01	<0.01	<0.02	0.05	<0.03	0.04	<0.01	0.03	<0.007	<0.007
MAY 29...	<0.02	<0.02	<0.01	<0.01	0.02	0.09	<0.03	0.11	0.02	0.07	<0.007	0.007
JUN 20...	<0.02	<0.02	<0.01	<0.01	0.04	0.05	<0.03	0.04	<0.01	0.03	<0.007	<0.007

DATE	PCB COG 22 SED SUSP REC (NG/L) (19076)	PCB COG 22 WATER DISS REC (NG/L) (19013)	PCB COG 24 + 27 SED SUSP REC (NG/L) (19071)	PCB COG 24 + 27 WATER DISS REC (NG/L) (19008)	PCB COG 25 SED SUSP REC (NG/L) (99917)	PCB COG 25 WATER DISS REC (NG/L) (99903)	PCB COG 26 SED SUSP REC (NG/L) (19073)	PCB COG 26 WATER DISS REC (NG/L) (19010)	PCB COG 28 + 31 SED SUSP REC (NG/L) (19074)	PCB COG 28 + 31 WATER DISS REC (NG/L) (19011)	PCB COG 33 SED SUSP REC (NG/L) (19075)	PCB COG 33 WATER DISS REC (NG/L) (19012)
APR 1996 17...	<0.02	0.04	<0.007	<0.007	<0.012	<0.01	<0.01	<0.01	0.04	0.11	<0.02	0.04
MAY 29...	0.02	0.06	<0.007	0.01	<0.012	<0.02	<0.01	<0.03	0.11	0.18	<0.02	0.06
JUN 20...	<0.02	<0.02	<0.007	<0.007	<0.012	<0.01	<0.01	<0.01	0.11	0.07	<0.02	0.02

DATE	PCB COG 37 + 42 SED SUSP REC (NG/L) (19083)	PCB COG 37 + 42 WATER DISS REC (NG/L) (19020)	PCB COG 40 SED SUSP REC (NG/L) (19085)	PCB COG 40 WATER DISS REC (NG/L) (19022)	PCB COG 41 +64+71 SED SUSP REC (NG/L) (19084)	PCB COG 41 +64+71 WATER DISS REC (NG/L) (19021)	PCB COG 44 SED SUSP REC (NG/L) (19082)	PCB COG 44 WATER DISS REC (NG/L) (19019)	PCB COG 45 SED SUSP REC (NG/L) (19077)	PCB COG 45 WATER DISS REC (NG/L) (19014)	PCB COG 46 SED SUSP REC (NG/L) (19078)
APR 1996 17...	<0.02	0.03	<0.01	0.01	0.02	0.04	0.02	0.06	<0.009	<0.009	<0.009
MAY 29...	0.06	0.05	<0.01	0.01	0.06	0.06	0.07	0.07	<0.009	0.01	<0.009
JUN 20...	0.06	0.03	<0.01	<0.01	0.07	0.03	0.08	0.04	<0.009	<0.009	0.009

DATE	PCB COG 46 WATER DISS REC (NG/L) (19015)	PCB COG 47 + 48 SED SUSP REC (NG/L) (19081)	PCB COG 47 + 48 WATER DISS REC (NG/L) (19018)	PCB COG 49 SED SUSP REC (NG/L) (19080)	PCB COG 49 WATER DISS REC (NG/L) (19017)	PCB COG 51 SED SUSP REC (NG/L) (99919)	PCB COG 51 WATER DISS REC (NG/L) (99905)	PCB COG 52 SED SUSP REC (NG/L) (19079)	PCB COG 52 WATER DISS REC (NG/L) (19016)	PCB COG 53 SED SUSP REC (NG/L) (99918)	PCB COG 53 WATER DISS REC (NG/L) (99904)
APR 1996 17...	<0.009	0.02	0.03	0.02	0.03	<0.007	0.014	0.04	0.10	<0.008	0.008
MAY 29...	<0.009	0.07	0.06	0.08	0.05	0.009	0.017	0.12	0.11	0.021	0.02
JUN 20...	<0.009	0.06	0.04	0.10	0.05	0.011	0.016	0.15	0.08	0.022	0.02

DATE	PCB COG 56 + 60 SED SUSP REC (NG/L) (19090)	PCB COG 56 + 60 WATER DISS REC (NG/L) (19027)	PCB COG 63 SED SUSP REC (NG/L) (99920)	PCB COG 63 WATER DISS REC (NG/L) (99906)	PCB COG 66 SED SUSP REC (NG/L) (99991)	PCB COG 66 WATER DISS REC (NG/L) (99907)	PCB COG 70 + 76 SED SUSP REC (NG/L) (19087)	PCB COG 70 + 76 WATER DISS REC (NG/L) (19024)	PCB COG 74 SED SUSP REC (NG/L) (19086)	PCB COG 74 WATER DISS REC (NG/L) (19023)	PCB COG 77+110 SED SUSP REC (NG/L) (19098)
APR 1996 17...	<0.02	0.03	<0.025	<0.025	0.03	0.048	<0.02	0.04	<0.01	<0.01	0.06
MAY 29...	0.05	0.04	<0.025	<0.025	0.13	0.062	0.08	0.04	0.03	0.01	0.24
JUN 20...	0.05	0.02	<0.025	<0.025	0.17	0.036	0.09	0.03	0.03	<0.01	0.30

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PCB COG 77+110 WATER DISS REC (NG/L) (19035)	PCB COG 82 SED SUSP REC (NG/L) (19099)	PCB COG 82 WATER DISS REC (NG/L) (19036)	PCB COG 83 SED SUSP REC (NG/L) (99994)	PCB COG 83 WATER DISS REC (NG/L) (99910)	PCB COG 84 + 92 SED SUSP REC (NG/L) (19091)	PCB COG 84 + 92 WATER DISS REC (NG/L) (19028)	PCB COG 85 SED SUSP REC (NG/L) (19096)	PCB COG 85 WATER DISS REC (NG/L) (19033)	PCB COG 87 SED SUSP REC (NG/L) (19095)	PCB COG 87 WATER DISS REC (NG/L) (19032)
APR 1996 17...	0.05	<0.007	<0.007	<0.009	<0.009	0.03	0.05	<0.01	<0.01	0.02	0.02
MAY 29...	0.05	0.02	<0.007	0.02	<0.009	0.11	0.04	0.04	<0.01	0.08	0.02
JUN 20...	0.05	0.02	<0.007	0.02	<0.009	0.15	0.04	0.04	<0.01	0.09	0.02

DATE	PCB COG 89 SED SUSP REC (NG/L) (99993)	PCB COG 89 WATER DISS REC (NG/L) (99909)	PCB COG 91 SED SUSP REC (NG/L) (19089)	PCB COG 91 WATER DISS REC (NG/L) (19026)	PCB COG 95 SED SUSP REC (NG/L) (99992)	PCB COG 95 WATER DISS REC (NG/L) (99908)	PCB COG 97 SED SUSP REC (NG/L) (19094)	PCB COG 97 WATER DISS REC (NG/L) (19031)	PCB COG 99 SED SUSP REC (NG/L) (19093)	PCB COG 99 WATER DISS REC (NG/L) (19030)	PCB COG 101 SED SUSP REC (NG/L) (19092)
APR 1996 17...	<0.006	<0.006	<0.01	0.01	0.04	0.068	0.01	0.01	0.02	0.01	0.05
MAY 29...	<0.006	<0.006	0.04	0.01	0.13	0.049	0.04	0.009	0.06	0.01	0.15
JUN 20...	<0.006	<0.006	0.05	0.01	0.16	0.046	0.05	0.01	0.08	0.01	0.21

DATE	PCB COG 101 WATER DISS REC (NG/L) (19029)	PCB COG 118 SED SUSP REC (NG/L) (19103)	PCB COG 118 WATER DISS REC (NG/L) (19040)	PCB COG 128 SED SUSP REC (NG/L) (99924)	PCB COG 128 WATER DISS REC (NG/L) (99922)	PCB COG+105 132+153 SED SUSP REC (NG/L) (19105)	PCB COG+105 132+153 WATER DISS REC (NG/L) (19042)	PCB COG 135+144 SED SUSP REC (NG/L) (19101)	PCB COG 135+144 WATER DISS REC (NG/L) (19038)	PCB COG 136 SED SUSP REC (NG/L) (19097)	PCB COG 136 WATER DISS REC (NG/L) (19034)
APR 1996 17...	0.05	0.04	<0.02	0.009	<0.009	0.06	0.03	<0.01	<0.01	<0.03	<0.03
MAY 29...	0.04	0.14	0.02	0.036	<0.009	0.21	0.02	0.03	<0.01	<0.03	<0.03
JUN 20...	0.04	0.19	0.02	0.049	<0.009	0.27	0.02	0.05	<0.01	0.03	<0.03

DATE	PCB COG 137+176 SED SUSP REC (NG/L) (19107)	PCB COG 137+176 WATER DISS REC (NG/L) (19044)	PCB COG 138+163 SED SUSP REC (NG/L) (19108)	PCB COG 138+163 WATER DISS REC (NG/L) (19045)	PCB COG 141 SED SUSP REC (NG/L) (19106)	PCB COG 141 WATER DISS REC (NG/L) (19043)	PCB COG 146 SED SUSP REC (NG/L) (19104)	PCB COG 146 WATER DISS REC (NG/L) (19041)	PCB COG 123+149 SED SUSP REC (NG/L) (19102)	PCB COG 123+149 WATER DISS REC (NG/L) (19039)	PCB COG 151 SED SUSP REC (NG/L) (19100)
APR 1996 17...	<0.01	<0.01	0.07	<0.02	0.009	<0.008	<0.01	<0.01	0.03	0.03	<0.01
MAY 29...	<0.01	<0.01	0.25	<0.02	0.03	<0.008	0.03	<0.01	0.10	0.02	0.03
JUN 20...	<0.01	<0.01	0.35	0.02	0.04	<0.008	0.04	<0.01	0.12	0.01	0.04

DATE	PCB COG 151 WATER DISS REC (NG/L) (19037)	PCB COG 158 SED SUSP REC (NG/L) (99995)	PCB COG 158 WATER DISS REC (NG/L) (99911)	PCB COG 167 SED SUSP REC (NG/L) (99925)	OCB COG 167 WATER DISS REC (NG/L) (99923)	PCB COG 170+190 SED SUSP REC (NG/L) (19119)	PCB COG 170+190 WATER DISS REC (NG/L) (19056)	PCB COG 171+202 SED SUSP REC (NG/L) (19115)	PCB COG 171+202 WATER DISS REC (NG/L) (19052)	PCB COG 172 SED SUSP REC (NG/L) (19116)	PCB COG 172 WATER DISS REC (NG/L) (19053)
APR 1996 17...	0.01	<0.02	<0.015	<0.012	<0.012	0.01	<0.01	<0.008	<0.008	<0.02	<0.02
MAY 29...	<0.01	0.03	<0.015	<0.012	<0.012	0.04	<0.01	0.009	<0.008	<0.02	<0.02
JUN 20...	<0.01	0.05	<0.015	0.013	<0.012	0.05	<0.01	0.01	<0.008	<0.02	<0.02

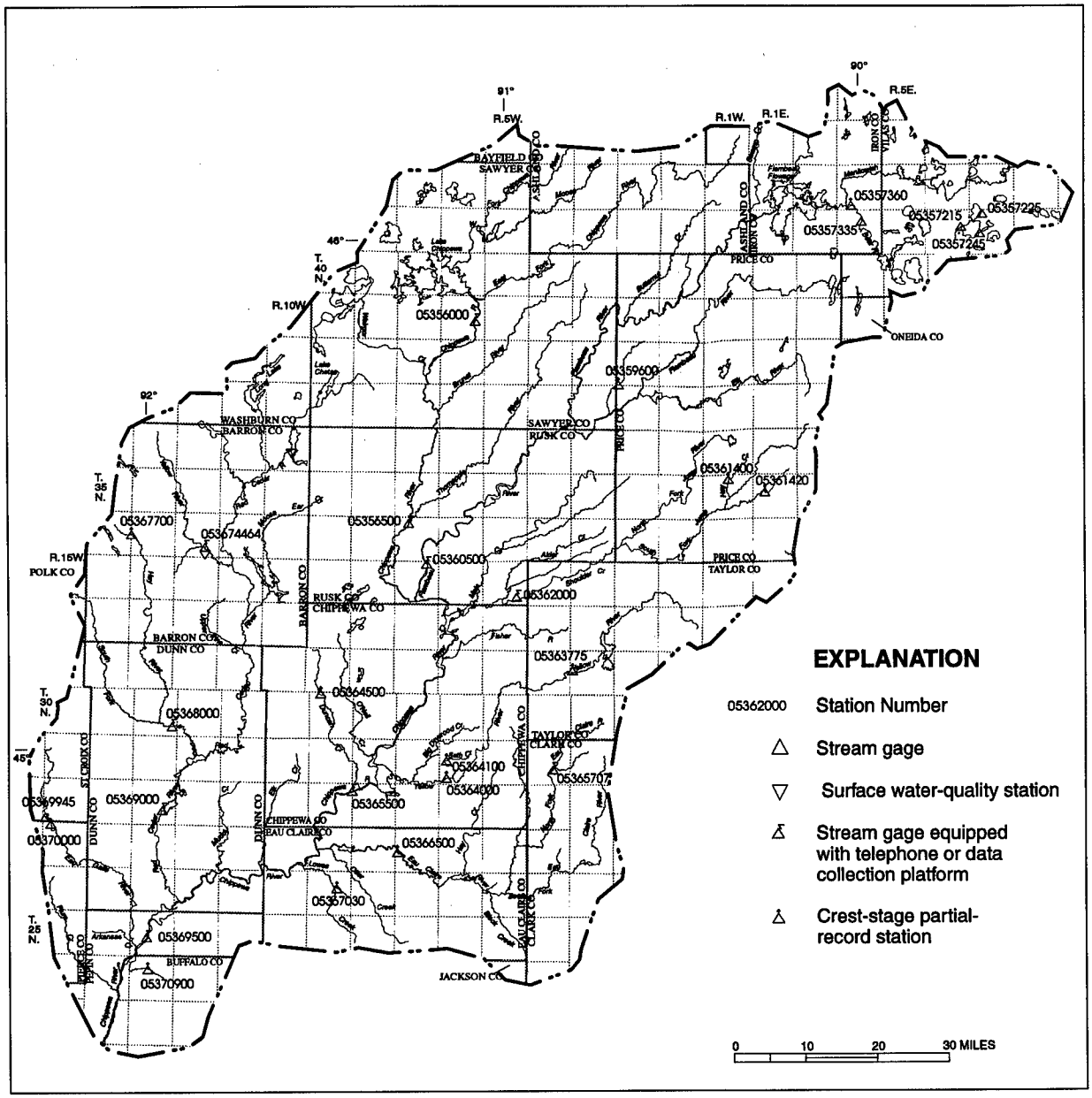
DATE	PCB COG 174 SED SUSP REC (NG/L) (19113)	PCB COG 174 WATER DISS REC (NG/L) (19050)	PCB COG 177 SED SUSP REC (NG/L) (19114)	PCB COG 177 WATER DISS REC (NG/L) (19051)	PCB COG 178 SED SUSP REC (NG/L) (19109)	PCB COG 178 WATER DISS REC (NG/L) (19046)	PCB COG 180 SED SUSP REC (NG/L) (19117)	PCB COG 180 WATER DISS REC (NG/L) (19054)	PCB COG 182+187 SED SUSP REC (NG/L) (19110)	PCB COG 182+187 WATER DISS REC (NG/L) (19047)	PCB COG 183 SED SUSP REC (NG/L) (19111)
APR 1996 17...	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
MAY 29...	0.04	<0.01	0.02	<0.01	<0.01	<0.01	0.08	<0.01	0.03	<0.01	0.02
JUN 20...	0.04	<0.01	0.03	<0.01	<0.01	<0.01	0.10	<0.01	0.03	<0.01	0.02

DATE	PCB COG 183 WATER DISS REC (NG/L) (19048)	PCB COG 185 SED SUSP REC (NG/L) (19112)	PCB COG 185 WATER DISS REC (NG/L) (19049)	PCB COG 193 SED SUSP REC (NG/L) (99996)	PCB COG 193 WATER DISS REC (NG/L) (99912)	PCB COG 194 SED SUSP REC (NG/L) (19123)	PCB COG 194 WATER DISS REC (NG/L) (19060)	PCB COG 195+208 SED SUSP REC (NG/L) (19122)	PCB COG 195+208 WATER DISS REC (NG/L) (19059)	PCB COG 196+203 SED SUSP REC (NG/L) (19121)	PCB COG 196+203 WATER DISS REC (NG/L) (19058)
APR 1996 17...	<0.01	<0.007	<0.007	<0.015	<0.015	<0.01	<0.01	<0.008	<0.008	<0.03	<0.03
MAY 29...	<0.01	<0.007	<0.007	<0.015	<0.015	0.02	<0.01	0.009	<0.008	0.04	<0.03
JUN 20...	<0.01	<0.007	<0.007	<0.015	<0.015	0.02	<0.01	0.01	<0.008	0.04	<0.03

05344980 MISSISSIPPI RIVER AT LOCK AND DAM #3 NEAR RED WING, MN--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	PCB COG 198 SED SUSP REC (NG/L) (99997)	PCB COG 198 WATER DISS REC (NG/L) (99913)	PCB COG 199 SED SUSP REC (NG/L) (19118)	PCB COG 199 WATER DISS REC (NG/L) (19055)	PCB COG 201 SED SUSP REC (NG/L) (19120)	PCB COG 201 WATER DISS REC (NG/L) (19057)	PCB COG 206 SED SUSP REC (NG/L) (19124)	PCB COG 206 WATER DISS REC (NG/L) (19061)	PCB COG 207 SED SUSP REC (NG/L) (99998)	PCB COG 207 WATER DISS REC (NG/L) (99914)	CHLORO-PHYLL A TRICHR. UNCORR. WHOLE TOTAL (UG/L) (32210)
APR 1996 17...	<0.015	<0.015	<0.009	<0.009	<0.02	<0.02	<0.007	<0.007	<0.007	<0.007	9.67
MAY 29...	<0.015	<0.015	<0.009	<0.009	0.03	<0.02	0.01	<0.007	<0.007	<0.007	46.8
JUN 20...	<0.015	<0.015	<0.009	<0.009	0.04	<0.02	0.01	<0.007	<0.007	<0.007	19.8



Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Transverse Mercator projection.

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 mi^2.

PERIOD OF RECORD.--February 1912 to current year. March, April, 1912, and 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 sea level (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 (see page 12). Flow regulated by Moose Lake and Lake Chippewa. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	615	1640	718	432	1380	785	229	5280	707	1700	1310	470
2	802	1650	427	734	1370	541	229	5270	714	1700	997	473
3	797	1360	426	753	1370	538	230	4630	812	1400	802	628
4	785	1310	676	768	1370	699	230	3540	898	1220	802	904
5	812	1670	758	764	1360	687	231	3230	805	1220	807	1080
6	1470	1080	770	771	1360	679	233	2650	740	1220	801	803
7	1730	936	712	769	1150	372	232	2300	738	1220	813	801
8	1690	1200	713	767	1400	282	233	2230	737	1220	797	801
9	1680	1270	434	767	1380	247	239	2060	736	1220	794	793
10	1670	1720	452	775	1130	248	252	1840	737	1220	794	789
11	1660	1720	435	783	1350	246	280	1760	736	1230	794	789
12	1650	1720	714	780	1340	247	302	1530	721	1420	793	788
13	1640	1710	710	773	1340	252	268	1130	670	1700	789	1110
14	1640	1710	706	777	1330	251	262	998	733	1700	747	1310
15	1630	1400	709	1600	1330	231	264	993	734	1700	682	1310
16	1630	842	427	1650	1330	223	281	983	736	2210	710	1320
17	1500	904	425	788	1320	224	328	787	722	2810	712	1330
18	1320	465	701	1030	1320	223	447	906	734	3660	711	981
19	1630	465	699	1410	1320	221	531	2790	724	4040	713	779
20	1630	850	727	1400	1300	244	423	5190	717	4010	711	1040
21	627	531	730	1250	1300	297	363	4840	728	3860	712	1300
22	567	530	724	1430	1290	223	348	4210	724	3750	759	1290
23	1580	528	432	1410	1260	225	316	3490	721	3740	770	1290
24	1670	525	431	1400	1220	259	302	3080	719	3420	771	1300
25	1650	522	432	1400	1210	285	1220	2990	689	2910	685	1270
26	1640	523	739	1400	1210	264	3010	2750	1090	2120	734	1250
27	1640	522	736	1390	1070	255	4260	2170	1740	1770	732	1260
28	1640	491	738	1390	803	232	4260	1860	1710	1790	728	1250
29	1640	389	742	1390	807	225	4700	1540	1710	1780	726	1240
30	1630	489	432	1380	---	228	5300	1050	1700	1500	721	1230
31	1630	---	432	1380	---	229	---	849	---	1320	472	---
TOTAL	43895	30672	18907	33511	36720	10162	29803	78926	26382	65780	23889	30979
MEAN	1416	1022	610	1081	1266	328	993	2546	879	2122	771	1033
MAX	1730	1720	770	1650	1400	785	5300	5280	1740	4040	1310	1330
MIN	567	389	425	432	803	221	229	787	670	1220	472	470

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1912 - 1996, BY WATER YEAR (WY)

MEAN	678	845	995	918	767	434	512	765	803	677	625	708
MAX	2896	1884	1910	1770	1550	1097	3453	2823	2950	2122	2235	3769
(WY)	1986	1992	1992	1983	1928	1920	1922	1954	1939	1996	1972	1941
MIN	43.6	143	321	201	194	117	20.0	24.2	39.8	40.3	146	140
(WY)	1925	1925	1990	1922	1918	1923	1925	1923	1925	1925	1970	1970

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1912 - 1996	
ANNUAL TOTAL	276201		429626			
ANNUAL MEAN	757		1174		726	
HIGHEST ANNUAL MEAN					1174	1996
LOWEST ANNUAL MEAN					258	1923
HIGHEST DAILY MEAN	2570	May 17	5300	Apr 30	7520	Sep 5 1941
LOWEST DAILY MEAN	264	Mar 19	221	Mar 19	14	(a)Apr 17-20 1925
ANNUAL SEVEN-DAY MINIMUM	315	Jul 7	229	Mar 29	15	Apr 30 1925
INSTANTANEOUS PEAK FLOW			5330	Apr 29	7520	Sep 4,5 1941
INSTANTANEOUS PEAK STAGE			9.31	Apr 29	11.05	Sep 4,5 1941
INSTANTANEOUS LOW FLOW			186	Aug 25	14	(a)Apr 17-20 1925
10 PERCENT EXCEEDS	1630		1800		1400	
50 PERCENT EXCEEDS	646		807		586	
90 PERCENT EXCEEDS	427		282		170	

(a) Also occurred May 1-5, 1925

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 mi^2.

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 sea level. 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-affected period, Nov. 24 to Apr. 15. Records good except those for ice-affected period, which is poor (see page 12). Flow from 48 percent of the drainage area regulated by Moose Lake and Lake Chippewa. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2360	2620	1400	1000	1800	1300	440	6250	1440	2580	1890	730
2	3000	3120	1500	1000	1800	1200	450	6190	1840	2510	1810	749
3	2500	3360	1000	1000	1800	1100	450	6150	1840	2580	1400	828
4	2080	2650	980	1100	1800	1100	450	4970	1950	1950	1230	1250
5	1870	2590	980	1100	1700	1100	460	3970	1850	1810	1240	1990
6	2630	2660	1200	1100	1700	1000	470	4100	1670	1720	1340	2360
7	5760	2100	1300	1200	1800	920	470	3170	1530	1860	1360	1890
8	5870	1870	1300	1200	1800	800	480	3080	1490	1880	1390	1780
9	4400	2030	1400	1200	1800	600	480	3030	1380	1810	1290	1480
10	3700	2190	1000	1200	1900	520	500	2840	1360	1740	1240	1290
11	3380	2380	960	1200	1900	520	600	2560	1330	1660	1190	1250
12	3140	2450	960	1300	1900	520	960	2470	1300	1940	1190	1230
13	2990	2320	1200	1300	1900	520	1300	2000	1320	2700	1170	1200
14	2720	2300	1300	1300	1900	520	1300	1770	1250	2670	1140	1590
15	2570	2260	1300	1300	1900	520	1100	1980	1240	2380	1080	1640
16	2460	1680	1300	2300	1900	500	4260	1980	1220	2270	1010	1610
17	2390	1420	1100	2300	1800	480	5380	1800	1260	2980	983	1660
18	1980	1440	940	1600	1800	470	8060	1750	1670	3530	988	1670
19	2080	975	1100	1700	1800	480	11000	3340	2230	4820	999	1030
20	2130	967	1200	1700	1800	470	13600	8880	1810	4990	1000	1080
21	1940	1330	1200	1700	1800	460	12400	8680	1580	4800	999	1420
22	1210	1060	1200	1800	1800	450	9430	7040	1670	4400	1180	1590
23	1380	847	1100	1800	1800	450	7140	5790	1550	4220	1180	1580
24	3690	880	1000	1800	1900	450	5060	4690	1580	4190	1120	1610
25	4400	900	980	1900	1900	450	4040	4020	1520	3730	1080	1590
26	3720	900	940	1900	1900	450	5020	3810	2060	3180	1040	1620
27	3300	900	1200	1900	1800	450	6710	3370	5990	2310	986	1990
28	3130	920	1300	1900	1300	450	6380	2600	5310	2770	1030	2140
29	2930	1500	1300	1900	1300	450	5900	2470	3530	2700	988	1910
30	2790	1400	1300	1900	---	450	6090	1960	2900	2550	962	1830
31	2620	---	1100	1800	---	450	---	1550	---	2030	882	---
TOTAL	91120	54019	36040	47400	52000	19600	120380	118260	58670	87260	36387	45587
MEAN	2939	1801	1163	1529	1793	632	4013	3815	1956	2815	1174	1520
MAX	5870	3360	1500	2300	1900	1300	13600	8880	5990	4990	1890	2360
MIN	1210	847	940	1000	1300	450	440	1550	1220	1660	882	730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	1284	1426	1402	1203	1043	1437	2669	1948	1755	1258	1048	1378
MAX	5666	3662	2842	2200	2100	3964	8007	5971	7483	3990	2915	7423
(WY)	1986	1992	1992	1942	1971	1973	1916	1954	1943	1968	1972	1941
MIN	296	459	442	356	338	404	590	390	411	317	364	338
(WY)	1934	1990	1990	1922	1918	1923	1987	1925	1949	1925	1964	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	580230		766723			
ANNUAL MEAN	1590		2095		1485	
HIGHEST ANNUAL MEAN					2290	1986
LOWEST ANNUAL MEAN					666	1934
HIGHEST DAILY MEAN	7390	Mar 22	13600	Apr 20	24900	Sep 1 1941
LOWEST DAILY MEAN	531	Jul 9	(a)440	Apr 1	155	Jun 10 1932
ANNUAL SEVEN-DAY MINIMUM	(a)583	Jan 21	449	Mar 26	218	Aug 3 1925
INSTANTANEOUS PEAK FLOW			14100	Apr 20	(b)29000	Sep 17 1994
INSTANTANEOUS PEAK STAGE			13.20	Apr 20	(c)20.46	Sep 1 1941
INSTANTANEOUS LOW FLOW					155	Jun 10 1932
10 PERCENT EXCEEDS	3110		4060		2720	
50 PERCENT EXCEEDS	1200		1670		1110	
90 PERCENT EXCEEDS	700		785		500	

(a) Ice affected
(b) From rating curve extended above 25,100 ft^3/s, gage height, 18.12 ft
(c) From floodmarks

05357215 ALLEQUASH CREEK (HEAD OF TROUT RIVER) AT CTH M, NEAR BOULDER JUNCTION, WI

LOCATION.--Lat 46°01'25", long 89°39'10", in NW 1/4 NW 1/4 sec.20, T.41 N., R.7 E., Vilas County, Hydrologic Unit 07050002, on right bank approximately 400 ft downstream from County Trunk Highway M, 6.1 mi south of Boulder Junction.

DRAINAGE AREA.--8.43 mi^2.

PERIOD OF RECORD.--May 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,620 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 23–29 and Dec. 4 to Apr. 8. Records good except those for ice-affected periods, which are poor (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	11	9.6	8.8	9.2	11	22	12	14	14	11
2	13	15	11	9.6	9.0	9.0	10	21	12	16	13	10
3	13	15	11	9.6	9.2	9.0	10	20	13	15	12	10
4	13	15	9.8	9.4	9.6	9.0	11	19	13	15	11	12
5	12	14	9.8	9.4	10	9.0	17	18	13	14	12	12
6	14	14	9.8	9.2	10	9.0	12	19	13	14	14	11
7	17	14	9.6	9.0	10	9.0	16	19	13	14	14	11
8	16	13	9.4	9.0	11	9.6	15	19	13	14	15	11
9	16	12	9.4	9.0	11	10	10	19	12	14	14	11
10	15	12	9.4	9.0	11	10	10	18	13	14	13	11
11	14	12	9.2	9.2	11	9.8	11	18	13	13	12	12
12	13	12	9.2	9.4	11	9.8	12	17	12	16	13	12
13	12	12	9.2	9.8	11	9.8	14	16	12	19	13	11
14	12	12	9.2	10	10	9.6	13	16	12	19	12	11
15	11	11	9.2	9.8	10	9.6	14	16	12	19	13	10
16	11	11	9.4	9.8	10	9.8	13	18	11	18	13	11
17	10	11	9.6	9.8	10	10	13	18	12	17	12	10
18	10	11	9.6	10	9.6	10	14	21	12	19	12	10
19	11	11	9.6	9.6	9.6	10	17	30	12	19	12	10
20	14	11	9.4	9.4	9.8	10	19	30	12	19	12	10
21	14	11	9.4	9.2	10	10	19	28	12	18	12	10
22	13	11	9.8	9.2	10	9.0	20	26	13	17	12	11
23	14	10	10	9.2	10	9.0	20	24	13	16	12	11
24	17	10	10	9.0	10	10	21	21	13	16	12	12
25	16	9.8	9.8	9.0	10	15	23	19	13	15	12	11
26	15	10	9.8	9.0	10	14	24	17	15	14	11	12
27	14	10	9.4	9.0	9.4	13	23	16	16	14	11	13
28	14	9.8	9.4	9.0	9.4	11	21	15	16	15	11	13
29	13	9.8	9.4	8.8	9.2	11	21	13	15	15	11	13
30	13	10	9.4	8.8	---	11	23	13	15	15	11	12
31	13	---	9.6	8.8	---	11	---	12	---	15	10	---
TOTAL	416	354.4	299.8	288.6	289.6	315.2	477	598	388	492	381	335
MEAN	13.4	11.8	9.67	9.31	9.99	10.2	15.9	19.3	12.9	15.9	12.3	11.2
MAX	17	15	11	10	11	15	24	30	16	19	15	13
MIN	10	9.8	9.2	8.8	8.8	9.0	10	12	11	13	10	10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	13.0	13.2	11.5	9.73	9.19	10.4	15.0	14.8	11.9	12.5	9.08	10.6
MAX	22.7	20.2	13.6	11.1	9.99	11.6	18.3	19.3	14.9	15.9	12.3	14.8
(WY)	1992	1992	1994	1994	1996	1995	1992	1996	1993	1996	1996	1994
MIN	7.75	10.9	9.67	9.02	8.80	9.33	11.2	12.2	8.88	9.27	6.92	7.27
(WY)	1993	1994	1996	1995	1992	1993	1995	1994	1992	1993	1992	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	3930.2		4634.6			
ANNUAL MEAN	10.8		12.7		11.7	
HIGHEST ANNUAL MEAN					13.3	1992
LOWEST ANNUAL MEAN					10.7	1995
HIGHEST DAILY MEAN	18	(a)May 17	30	May 19,20	56	Oct 5 1991
LOWEST DAILY MEAN	1.1	Aug 6	(b)8.8	Jan 29 to Feb.1	.93	Aug 8 1992
ANNUAL SEVEN-DAY MINIMUM	3.9	Aug 2	8.9	Jan 26	1.1	Aug 2 1992
INSTANTANEOUS PEAK FLOW			(c)34	May 18	79	Oct 5 1991
INSTANTANEOUS PEAK STAGE			(d)2.77	Mar 25	(d)2.77	Mar 25 1996
INSTANTANEOUS LOW FLOW					.69	Aug 7 1992
10 PERCENT EXCEEDS	14		18		17	
50 PERCENT EXCEEDS	10		12		11	
90 PERCENT EXCEEDS	8.3		9.4		7.9	

(a) Also occurred Aug. 14
(b) Ice affected
(c) Gage height, 1.81 ft
(d) Ice jam

05357225 STEVENSON CREEK, AT COUNTY HIGHWAY M, NEAR BOULDER JUNCTION, WI

LOCATION.--Lat 46°03'41", long 89°38'47", in NW 1/4 SE 1/4 sec.5, T.41 N., R.7 E., Vilas County, Hydrologic Unit 07050002, at County Highway M, 3.6 mi south of Boulder Junction.

DRAINAGE AREA.--7.96 mi^2.

PERIOD OF RECORD.--May 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,620 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected period, Nov. 23 to Apr. 10. Records fair except those for ice-affected period, which is poor (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	3.9	2.5	2.4	2.0	2.5	3.0	5.3	3.6	4.6	3.4	2.0
2	4.0	4.1	2.6	2.4	1.9	2.5	3.1	5.3	4.5	6.1	3.3	2.1
3	3.9	3.9	2.7	2.4	1.9	2.5	3.1	5.3	4.5	4.9	3.4	2.3
4	3.6	3.6	2.8	2.3	1.9	2.4	3.2	5.0	4.4	4.6	3.4	3.4
5	3.3	3.5	2.7	2.3	1.9	2.4	3.3	5.0	4.0	4.4	4.3	3.0
6	6.0	3.5	2.5	2.2	2.0	2.3	3.0	4.9	4.2	4.5	4.1	2.9
7	6.5	3.4	2.5	2.2	2.3	2.3	3.1	4.7	3.7	4.7	3.2	3.0
8	5.3	3.2	2.4	2.2	2.7	2.3	3.3	4.9	3.0	4.7	2.9	3.4
9	4.7	3.1	2.3	2.2	2.8	2.4	3.6	5.0	2.3	4.4	2.8	3.5
10	4.2	3.1	2.3	2.2	2.9	2.4	3.8	5.1	2.1	4.1	2.7	3.7
11	3.9	3.1	2.2	2.3	2.9	2.5	4.2	4.7	2.6	4.1	2.7	3.7
12	3.6	3.0	2.2	2.3	2.8	2.6	4.4	4.4	2.2	7.8	2.8	3.8
13	3.5	2.9	2.2	2.4	2.7	2.7	3.7	4.1	1.9	8.0	3.2	3.7
14	3.5	2.9	2.2	2.6	2.6	3.1	3.5	4.1	1.8	5.8	3.3	3.6
15	3.6	2.9	2.3	2.7	2.6	3.3	4.0	4.1	1.8	5.4	3.4	3.7
16	3.4	2.9	2.4	2.5	2.5	3.1	3.7	4.0	1.9	5.0	3.0	3.6
17	3.2	2.9	2.5	2.7	2.4	2.9	4.1	3.9	1.9	4.5	2.8	3.6
18	3.1	2.9	2.5	2.9	2.4	2.8	6.0	3.9	2.0	6.1	2.2	3.5
19	3.0	2.9	2.5	2.8	2.4	2.8	8.4	8.8	2.5	5.5	2.0	3.4
20	3.0	2.9	2.4	2.6	2.4	2.8	7.2	6.1	2.9	4.9	2.1	3.5
21	3.5	2.9	2.5	2.5	2.4	2.9	7.0	5.3	3.5	4.6	1.9	3.8
22	3.4	2.9	2.6	2.3	2.6	3.1	7.6	4.9	5.0	4.6	2.2	4.0
23	4.3	2.9	2.6	2.3	2.6	3.3	6.5	4.6	5.5	4.3	2.0	3.8
24	5.6	2.8	2.6	2.3	2.6	3.4	6.7	4.3	5.7	4.3	1.9	4.1
25	4.7	2.8	2.6	2.3	2.7	3.4	7.2	4.2	5.3	4.2	2.0	3.7
26	4.2	2.7	2.5	2.3	2.8	3.0	6.7	4.0	6.5	4.1	1.9	3.6
27	4.1	2.7	2.4	2.3	3.0	2.9	5.8	3.9	6.1	4.1	1.9	4.3
28	3.9	2.7	2.4	2.2	3.0	2.8	5.8	3.9	5.2	5.6	1.9	3.8
29	3.7	2.6	2.4	2.1	2.7	2.9	5.3	3.8	5.0	4.5	1.8	3.6
30	3.6	2.5	2.5	2.1	---	3.0	5.2	3.6	4.7	3.7	1.8	3.5
31	3.4	---	2.5	2.0	---	3.0	---	3.5	---	3.6	1.9	---
TOTAL	124.6	92.1	76.3	73.3	72.4	86.3	145.5	144.6	110.3	151.7	82.2	103.6
MEAN	4.02	3.07	2.46	2.36	2.50	2.78	4.85	4.66	3.68	4.89	2.65	3.45
MAX	6.5	4.1	2.8	2.9	3.0	3.4	8.4	8.8	6.5	8.0	4.3	4.3
MIN	3.0	2.5	2.2	2.0	1.9	2.3	3.0	3.5	1.8	3.6	1.8	2.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	3.48	4.23	2.89	2.72	2.81	2.91	3.02	3.44	3.48	3.26	3.19	4.17
MAX	4.02	6.28	3.35	2.93	3.44	4.34	4.85	5.75	6.73	4.89	4.58	6.85
(WY)	1996	1994	1992	1994	1994	1992	1996	1991	1991	1996	1993	1992
MIN	3.00	2.91	2.46	2.36	2.50	1.58	1.29	1.55	1.47	2.67	1.62	2.53
(WY)	1994	1995	1996	1996	1996	1995	1995	1994	1992	1993	1994	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	968.96		1262.9			
ANNUAL MEAN	2.65		3.45		3.19	
HIGHEST ANNUAL MEAN					3.60	1993
LOWEST ANNUAL MEAN					2.61	1995
HIGHEST DAILY MEAN	6.5	Oct 7	8.8	May 19	36	Jun 29 1991
LOWEST DAILY MEAN	(a).98	(b)Mar 26-28	1.8	(c)Jun 14	.54	Aug 19 1994
ANNUAL SEVEN-DAY MINIMUM	(a).99	Mar 24	1.9	Aug 24	.90	Aug 13 1994
INSTANTANEOUS PEAK FLOW			(d)12	Jul 12	(e)39	Jun 29 1991
INSTANTANEOUS PEAK STAGE			(f)9.54	Jan 10	(g)10.19	Sep 18 1995
INSTANTANEOUS LOW FLOW			1.7	(h)Jun 15	.33	Oct 19 1991
10 PERCENT EXCEEDS	3.6		5.2		4.9	
50 PERCENT EXCEEDS	2.7		3.1		2.9	
90 PERCENT EXCEEDS	1.5		2.2		1.6	

(a) Estimated
(b) Also occurred Apr. 9-11 (estimated), 16
(c) Also occurred June 15 and Aug. 29,30
(d) Gage height, 8.65 ft
(e) Gage height, 9.62 ft
(f) Ice affected
(g) Beaver dam
(h) Also occurred Aug. 30

05357245 TROUT RIVER AT TROUT LAKE NEAR BOULDER JUNCTION, WI

LOCATION.--Lat 46°02'08", long 89°42'20", in NE 1/4 NE 1/4 sec.14, T.41 N., R.6 E., Vilas County, Hydrologic Unit 07050002, on right bank 20 ft upstream from U.S. Highway 51 bridge, approximately 500 ft downstream from outlet of Trout Lake, 6.0 mi southwest of Boulder Junction.

DRAINAGE AREA.--46.2 mi^2.

PERIOD OF RECORD.--May 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,620 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 12, 13, 24, 28, 29, Dec. 6–13, 16, 29, Jan. 3–8, 10, 15, 18–26, 28–31, Feb. 1–6, 16–18, 21, 22, 28, 29, Mar. 1–4, 6–10, 22, 23, 26, 27, Apr. 1, 5, 7, 8, and Sept. 5–30. Records good except those for estimated daily discharges, which are fair (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	55	43	43	50	45	48	69	64	55	55	38
2	34	56	43	43	50	45	47	68	67	60	53	37
3	34	55	43	42	49	44	47	67	69	59	52	38
4	33	53	43	43	49	43	47	66	69	57	51	43
5	33	52	43	41	49	43	47	67	67	55	54	43
6	40	50	42	41	47	44	46	68	68	55	57	41
7	46	49	42	41	48	43	45	68	67	55	58	40
8	45	47	41	40	48	42	45	67	65	54	56	40
9	46	47	43	41	47	42	44	67	63	53	55	39
10	45	46	42	41	48	41	44	68	62	51	53	40
11	45	44	42	41	49	40	44	67	62	50	51	40
12	45	44	42	42	48	40	47	66	61	58	51	40
13	45	44	43	42	48	40	51	65	60	65	54	39
14	45	43	46	42	47	40	50	64	58	64	54	37
15	46	43	46	41	46	40	52	64	57	63	54	35
16	45	43	45	41	45	39	52	64	56	59	52	35
17	44	42	45	42	45	39	51	65	56	57	51	35
18	43	43	44	49	45	39	51	65	56	61	50	34
19	44	42	44	56	44	40	55	82	55	62	49	33
20	43	43	43	57	44	39	57	85	53	59	49	32
21	46	42	43	55	43	39	58	84	53	57	48	32
22	46	42	43	54	42	39	60	83	53	56	49	35
23	48	40	43	53	44	39	60	83	53	55	48	36
24	54	40	43	52	44	42	60	79	54	55	46	35
25	54	40	43	51	43	50	63	76	53	54	45	34
26	54	41	44	50	43	49	66	74	56	52	44	36
27	54	41	44	53	46	48	66	73	59	52	42	38
28	54	41	43	52	46	49	66	71	58	59	41	37
29	53	42	43	53	45	49	66	68	58	60	41	36
30	53	43	43	53	---	49	69	66	57	58	40	36
31	52	---	43	52	---	49	---	65	---	57	39	---
TOTAL	1402	1353	1340	1447	1342	1330	1604	2184	1789	1767	1542	1114
MEAN	45.2	45.1	43.2	46.7	46.3	42.9	53.5	70.5	59.6	57.0	49.7	37.1
MAX	54	56	46	57	50	50	69	85	69	65	58	43
MIN	33	40	41	40	42	39	44	64	53	50	39	32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	36.8	40.7	43.4	41.5	39.3	38.7	45.0	54.3	47.9	45.5	34.8	32.4
MAX	45.2	47.7	58.1	46.7	46.3	44.9	53.5	70.5	59.6	57.0	49.7	37.8
(WY)	1996	1992	1992	1996	1996	1992	1996	1996	1996	1996	1996	1994
MIN	31.1	35.0	36.1	34.3	35.5	33.0	35.4	37.6	34.9	32.9	26.4	22.6
(WY)	1994	1995	1995	1995	1994	1994	1994	1994	1994	1994	1992	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	14280		18214			
ANNUAL MEAN	39.1		49.8		41.3	
HIGHEST ANNUAL MEAN					49.8	1996
LOWEST ANNUAL MEAN					34.8	1994
HIGHEST DAILY MEAN	56	(a)May 28	85	May 20	85	May 20 1996
LOWEST DAILY MEAN	17	Sep 15	32	Sep 20	17	Sep 15 1995
ANNUAL SEVEN-DAY MINIMUM	19	Sep 9	34	Sep 15	19	Sep 9 1995
INSTANTANEOUS PEAK FLOW			89	May 19	89	May 19 1996
INSTANTANEOUS PEAK STAGE			1.99	May 19	1.99	May 19 1996
INSTANTANEOUS LOW FLOW			31	Oct 1	13	Mar 13 1992
10 PERCENT EXCEEDS	50		65		57	
50 PERCENT EXCEEDS	39		47		40	
90 PERCENT EXCEEDS	30		40		31	

(a) Also occurred Nov. 2

05357335 BEAR RIVER NEAR MANITOWISH WATERS, WI

LOCATION.--Lat 46°02'56", long 89°59'04", in SE 1/4 NW 1/4 sec.10, T.41 N., R.4 E., Iron County, Hydrologic Unit 07050002, on right bank 10 ft upstream from East River Trail bridge, 2.3 mi upstream from Little Bear Creek, 7.7 mi southwest of Manitowish Waters, and 5.3 mi upstream from mouth.

DRAINAGE AREA.--81.3 mi^2.

PERIOD OF RECORD.--May 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,580 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 20 to Feb. 4, Mar. 26 to Apr. 8, and June 26–28. Records are poor (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	88	52	50	68	104	130	254	120	105	113	58
2	57	107	51	49	66	105	130	229	148	110	108	56
3	66	104	50	48	68	104	130	208	157	106	104	56
4	68	95	49	49	70	104	130	194	156	99	100	69
5	63	101	49	49	72	105	140	188	148	94	101	72
6	81	89	43	48	72	105	150	191	143	92	101	70
7	128	81	46	48	74	105	170	185	144	95	105	69
8	129	77	46	47	75	107	190	182	137	99	108	68
9	115	73	47	48	77	107	197	178	125	99	108	66
10	111	72	48	48	80	107	202	175	114	91	108	64
11	105	70	48	48	82	109	213	173	109	84	107	69
12	97	65	49	49	82	110	226	165	107	102	105	68
13	90	64	51	50	83	115	223	156	129	133	105	63
14	84	63	57	50	83	120	221	150	118	129	104	61
15	81	61	61	49	83	119	223	143	105	119	104	58
16	77	60	67	49	83	117	227	138	98	110	104	56
17	72	58	69	51	83	116	237	145	92	102	102	54
18	68	57	70	57	84	115	257	152	93	116	100	52
19	66	56	69	60	84	114	274	222	93	132	95	51
20	64	56	65	60	85	111	239	265	88	132	81	49
21	67	52	60	60	85	106	215	261	86	125	67	48
22	69	51	57	62	87	113	252	245	88	118	68	47
23	73	52	55	64	88	114	278	225	87	110	68	47
24	105	50	53	66	91	118	323	206	90	105	67	48
25	112	51	52	70	93	123	369	190	86	102	66	48
26	105	53	51	66	94	120	384	175	110	96	65	48
27	98	53	51	68	93	110	372	163	140	92	63	63
28	94	51	51	68	94	110	343	151	130	103	63	71
29	90	50	50	66	99	120	310	144	123	111	63	69
30	89	50	50	66	---	130	275	136	112	114	63	64
31	83	---	50	66	---	130	---	129	---	116	60	---
TOTAL	2649	2010	1667	1729	2378	3493	7030	5718	3476	3341	2776	1782
MEAN	85.5	67.0	53.8	55.8	82.0	113	234	184	116	108	89.5	59.4
MAX	129	107	70	70	99	130	384	265	157	133	113	72
MIN	42	50	43	47	66	104	130	129	86	84	60	47
CFSM	1.05	.82	.66	.69	1.01	1.39	2.88	2.27	1.43	1.33	1.10	.73
IN.	1.21	.92	.76	.79	1.09	1.60	3.22	2.62	1.59	1.53	1.27	.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	75.0	79.1	68.1	62.6	68.0	94.3	139	129	88.0	77.6	58.6	65.6
MAX	130	151	117	105	110	187	234	184	129	108	89.5	159
(WY)	1995	1992	1992	1992	1992	1992	1996	1996	1993	1996	1996	1994
MIN	37.1	26.4	43.2	35.5	43.4	44.3	67.3	75.3	54.4	58.3	28.9	24.5
(WY)	1994	1994	1994	1994	1994	1994	1994	1994	1992	1994	1992	1992

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1992 - 1996	
ANNUAL TOTAL	25470		38049			
ANNUAL MEAN	69.8		104		83.8	
HIGHEST ANNUAL MEAN					104	1992
LOWEST ANNUAL MEAN					59.1	1994
HIGHEST DAILY MEAN	170	May 10	384	Apr 26	570	Sep 23 1994
LOWEST DAILY MEAN	27	Sep 29	42	Oct 1	15	Aug 29 1992
ANNUAL SEVEN-DAY MINIMUM	29	Sep 24	47	Dec 5	17	Aug 24 1992
INSTANTANEOUS PEAK FLOW			388	Apr 26	589	Sep 23 1994
INSTANTANEOUS PEAK STAGE			3.38	Apr 25,26	3.47	Sep 23 1994
INSTANTANEOUS LOW FLOW			32	Oct 1	15	(a)Aug 29 1992
ANNUAL RUNOFF (CFSM)	.86		1.28		1.03	
ANNUAL RUNOFF (INCHES)	11.65		17.41		14.00	
10 PERCENT EXCEEDS	107		186		147	
50 PERCENT EXCEEDS	60		92		67	
90 PERCENT EXCEEDS	44		50		38	

(a) Also occurred Oct. 1, 1992

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 mi^2.

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 sea level.

REMARKS.--Estimated daily discharges: Ice-affected period, Dec. 6 to Apr. 8. Records good except those for ice-affected period, which is fair (see page 12). Flow regulated by several powerplants above station and by Rest Lake and Flambeau Flowage Reservoirs. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	2350	1740	1500	1800	1700	1600	8640	1760	2280	2930	1230
2	1750	2190	1970	1400	1600	1600	1700	7480	1970	1970	2670	1110
3	1700	3050	1830	1500	1600	1600	1600	8040	2660	1590	2630	1240
4	1620	2650	1750	1500	1600	1600	1700	7420	2350	1960	2120	1750
5	1880	2800	1770	1500	1600	1600	1600	6390	2810	1640	2280	3430
6	2250	2310	1500	1500	1500	1600	1500	6380	2670	1700	2400	3280
7	3210	2640	1200	1400	1500	1600	1400	6570	2790	1390	2240	2410
8	3470	2160	1200	1400	1600	1600	1500	5300	2330	1980	2420	2090
9	3980	1910	1300	1400	1600	1400	1500	4490	2060	1930	2570	1830
10	3540	1980	1300	1400	1700	1200	1740	4820	2030	1690	2520	1780
11	3100	2060	1400	1400	1700	1200	2830	4120	1840	1810	2120	1760
12	2910	1870	1400	1400	1700	1200	4520	4580	1650	1680	1950	1690
13	2510	1720	1500	1300	1800	1300	3800	4120	2060	2000	1930	1630
14	1590	1760	1500	1300	1800	1300	4140	3860	1810	2650	1900	1480
15	1400	1670	1400	1300	1800	1400	3710	3450	1890	2690	1720	1540
16	1220	1890	1500	1300	1700	1400	4310	3040	1700	2200	1940	1530
17	1420	2020	1500	1400	1700	1400	4890	3130	1690	2060	1840	1400
18	1150	2010	1500	1500	1600	1300	6680	2950	1850	2330	1790	1450
19	1020	1870	1400	1600	1600	1300	11600	3750	2060	3650	1600	1340
20	1020	2000	1500	1700	1600	1300	17000	4840	2240	4390	1750	1370
21	869	1690	1700	1700	1600	1200	16400	5350	1870	4090	1710	1470
22	1270	1730	1600	1700	1500	1300	14200	5010	1960	3370	2160	1360
23	1270	1590	1600	1700	1500	1400	14600	4420	2090	3020	1810	1270
24	2480	1530	1600	1700	1600	1400	13600	3750	2280	2760	1840	1320
25	3040	1320	1600	1700	1600	1500	11400	3280	1780	2470	1990	1460
26	3790	1590	1500	1800	1600	1400	11300	2910	2250	2360	1640	1420
27	3090	1650	1500	1800	1700	1500	10500	3160	2680	2360	1650	1730
28	2880	1690	1500	1800	1700	1600	8510	2550	2810	2530	1470	2220
29	2120	1420	1500	1800	1700	1500	7350	2530	3120	2790	1320	2640
30	2150	1770	1400	1900	---	1500	8350	2300	2380	3930	1380	2520
31	2040	---	1400	1900	---	1500	---	2020	---	3710	1460	---
TOTAL	67539	58890	47060	48200	47600	44400	195530	140650	65440	76980	61750	52750
MEAN	2179	1963	1518	1555	1641	1432	6518	4537	2181	2483	1992	1758
MAX	3980	3050	1970	1900	1800	1700	17000	8640	3120	4390	2930	3430
MIN	869	1320	1200	1300	1500	1200	1400	2020	1650	1390	1320	1110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	1786	1666	1301	1150	1135	1704	3577	2638	2079	1646	1485	1873
MAX	5616	4404	2542	2006	2411	5490	6782	6082	6066	4339	3765	5089
(WY)	1986	1992	1992	1973	1969	1973	1967	1954	1968	1968	1972	1994
MIN	363	430	382	451	474	971	1013	758	572	596	591	491
(WY)	1977	1977	1977	1977	1977	1959	1990	1987	1988	1988	1987	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1951 - 1996	
ANNUAL TOTAL	672511		906789			
ANNUAL MEAN	1842		2478		1834	
HIGHEST ANNUAL MEAN					2900	1973
LOWEST ANNUAL MEAN					993	1988
HIGHEST DAILY MEAN	8200	Aug 29	17000	Apr 20	23200	Sep 16 1994
LOWEST DAILY MEAN	(a)700	Mar 6	869	Oct 21	205	Oct 10 1976
ANNUAL SEVEN-DAY MINIMUM	(a)771	Feb 10	1140	Oct 16	320	Nov 25 1976
INSTANTANEOUS PEAK FLOW			17900	Apr 21	24100	Sep 16 1994
INSTANTANEOUS PEAK STAGE			10.56	Apr 21	12.44	Sep 16 1994
10 PERCENT EXCEEDS	3140		4010		3410	
50 PERCENT EXCEEDS	1520		1760		1370	
90 PERCENT EXCEEDS	880		1390		780	

(a) Ice affected

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 mi^2.

PERIOD OF RECORD.--July 1915 to current year.

REVISED RECORDS.--WSP 975: 1938. 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). WDR WI-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,092.75 ft above sea level. Prior to Feb. 9, 1939, Sept. 1, 1941, to Apr. 1, 1953, and 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 discharges: Ice-affected period, Nov. 8 to Apr. 13. Records good except those for ice-affected period, which is poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	258	699	180	150	180	190	800	1170	190	390	516	97
2	646	1230	180	140	170	190	880	1080	251	320	410	89
3	823	1590	180	130	170	190	980	949	546	317	328	86
4	836	1330	180	120	170	190	1100	834	765	283	273	96
5	733	1010	180	120	170	190	1100	752	732	235	256	98
6	1310	886	170	120	180	190	1000	692	600	207	477	114
7	3970	792	160	120	190	180	980	636	544	341	1140	118
8	4020	640	160	120	200	190	940	576	524	463	1060	118
9	3020	470	160	120	200	200	1000	581	448	370	758	110
10	2310	450	150	130	200	210	1200	606	365	283	531	106
11	1750	370	140	140	200	220	2100	632	326	232	404	102
12	1310	300	150	150	190	230	4000	599	325	219	329	92
13	1000	240	160	160	190	240	4200	527	329	343	307	87
14	811	210	160	160	190	250	3950	479	363	405	240	78
15	694	190	160	150	190	260	3390	487	314	333	213	76
16	611	190	150	160	180	300	3340	516	257	276	191	75
17	510	180	140	170	180	400	3570	504	234	306	170	74
18	436	180	150	190	180	540	5860	476	320	414	150	73
19	394	180	150	190	190	560	11000	489	523	1340	134	71
20	374	190	140	180	200	540	13300	766	522	1290	121	70
21	378	180	140	190	220	520	11400	745	455	812	115	70
22	400	170	140	190	230	500	7030	616	467	524	186	70
23	514	170	140	210	240	500	4960	555	515	378	189	70
24	1950	160	140	220	240	540	3710	462	446	314	227	73
25	2820	170	130	210	230	600	2920	394	411	308	191	73
26	2280	170	130	210	220	620	2680	351	412	274	162	82
27	1720	180	130	210	210	620	2540	319	1420	231	148	103
28	1340	170	140	210	200	640	2060	288	1300	214	139	187
29	1070	160	140	200	190	640	1600	253	817	502	124	263
30	873	170	150	190	---	640	1290	225	539	851	115	258
31	737	---	150	190	---	700	---	203	---	686	103	---
TOTAL	39898	13027	4730	5150	5700	11980	104880	17762	15260	13461	9707	3079
MEAN	1287	434	153	166	197	386	3496	573	509	434	313	103
MAX	4020	1590	180	220	240	700	13300	1170	1420	1340	1140	263
MIN	258	160	130	120	170	180	800	203	190	207	103	70
CFSM	2.23	.75	.26	.29	.34	.67	6.07	.99	.88	.75	.54	.18
IN.	2.58	.84	.31	.33	.37	.77	6.77	1.15	.99	.87	.63	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1996, BY WATER YEAR (WY)

MEAN	416	434	181	102	95.1	737	1820	864	659	261	234	460
MAX	1881	2022	1092	392	620	3184	4126	2514	3442	1293	1916	4145
(WY)	1986	1992	1992	1946	1984	1973	1982	1973	1943	1968	1941	1941
MIN	27.5	35.3	34.7	25.6	21.4	61.2	360	134	54.6	17.5	21.9	25.4
(WY)	1949	1977	1934	1917	1924	1940	1946	1987	1934	1936	1933	1976

05362000 JUMP RIVER AT SHELDON, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1915 - 1996	
ANNUAL TOTAL	210426		244634			
ANNUAL MEAN	577		668		521	
HIGHEST ANNUAL MEAN					923	1942
LOWEST ANNUAL MEAN					214	1948
HIGHEST DAILY MEAN	6830	Aug 14	13300	Apr 20	40800	Aug 31 1941
LOWEST DAILY MEAN	64	Jun 24	70	Sep 20-23	11	Dec 18 1943
ANNUAL SEVEN-DAY MINIMUM	(a)77	Feb 11	71	Sep 18	14	(b)Jan 25 1924
INSTANTANEOUS PEAK FLOW			13500	Apr 20	(c)46000	Aug 31 1941
INSTANTANEOUS PEAK STAGE			12.38	Apr 20	(d)18.80	Aug 31 1941
INSTANTANEOUS LOW FLOW			70	Sep 19-23	11	Dec 18 1943
ANNUAL RUNOFF (CFSM)	1.00		1.16		.90	
ANNUAL RUNOFF (INCHES)	13.59		15.80		12.28	
10 PERCENT EXCEEDS	1520		1290		1300	
50 PERCENT EXCEEDS	235		257		153	
90 PERCENT EXCEEDS	90		121		46	

(a) Ice affected
(b) Also occurred July 11, 1936
(c) From rating curve extended above 13,000 ft^3/s on basis of contracted-opening measurement of peak flow
(d) From floodmark

05365500 CHIPPEWA RIVER AT CHIPPEWA FALLS, WI

LOCATION.--Lat 44°55'37", long 91°24'33", in Lot 1, sec.12, T.28 N., R.9 W., Chippewa County, Hydrologic Unit 07050005, on right bank at Chippewa Falls, 1.0 mi downstream from Duncan Creek.

DRAINAGE AREA.--5,650 mi^2.

PERIOD OF RECORD.--June 1888 to September 1983, October 1986 to current year. Monthly discharge for some periods published in WSP 1308.

REVISED RECORDS.--WSP 785: 1934(M). WSP 1508: 1897, 1905, 1918(M), 1924(M). WDR WI-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 798.46 ft above sea level. Prior to January 1914, nonrecording gage, and January 1914 to June 19, 1932, water-stage recorder at site 1 mi upstream at different datum. June 19, 1932, to current year, water-stage recorder at present site and datum.

REMARKS.--Estimated daily discharges: Ice-affected periods, Jan. 27 to Feb. 9, and Feb. 13, 14. Records good except those for ice-affected periods, which are fair (see page 12). Considerable regulation by Moose Lake, Lake Chippewa, Rest Lake, Flambeau Flowage, and Lake Wissota Reservoirs. Diurnal fluctuation caused by hydroelectric plant 1.1 mi upstream. Gage-height telemeter at station.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--A stage of 26.94 ft occurred Sept. 10, 1884, site and datum in use June 1932.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3990	7470	3420	2950	5600	5500	5570	16100	3590	5840	5330	2840
2	5740	9610	3420	3240	5200	2480	7190	16200	4010	7780	5020	1630
3	7420	10700	3310	3030	3700	1960	7700	16600	5830	5500	6080	2780
4	6300	11200	3420	2830	1900	5390	7790	16200	7010	4370	3230	3550
5	5290	7450	3430	3070	3600	6270	7740	16300	6650	5230	4890	4940
6	6350	9360	3100	3060	4600	5290	7740	15500	6220	4000	5200	5350
7	13000	9030	2340	2100	5400	4520	7740	13600	6130	3520	4930	5470
8	15500	5840	2910	2990	4200	5470	7770	10400	5280	4890	6280	4250
9	16200	5990	3110	3130	3500	2520	7830	9940	5130	4940	4870	4000
10	15900	6000	2170	2910	3000	1110	8070	10000	4210	3900	5070	3540
11	11900	6020	4000	3250	3890	2290	8510	10100	5120	5170	2960	3350
12	10700	5350	2630	3160	6570	3440	21700	10000	4460	3970	4540	3640
13	11300	5380	2590	3520	7000	3840	31800	8800	3120	4590	4090	2770
14	7520	5710	3340	3160	6600	4320	27200	9260	4280	5620	3140	2040
15	4350	5280	3680	3420	7030	2110	22400	8320	3490	6200	2710	3350
16	6670	4820	3170	4250	5530	3410	22300	6640	3860	6850	3700	3640
17	5040	4460	3100	4690	2630	3870	22500	7270	4530	5260	3070	3500
18	5950	4030	3290	5080	1660	6710	25300	7490	4680	5860	3050	3140
19	4050	3710	2910	5020	5930	5930	40000	7840	4710	8010	2980	3620
20	4540	4390	3590	1790	7090	6820	52900	12900	6810	11800	2790	2960
21	4510	4490	4010	5180	6690	6150	57900	13200	6440	12200	2410	3070
22	3400	2920	3100	5280	6200	4750	47900	16300	4830	8080	4040	2370
23	5540	2290	3160	5450	6160	3480	35700	16200	4470	8040	4490	2780
24	7610	1850	2560	5690	3260	4010	31600	11700	5160	8140	2680	3860
25	15100	3280	2690	6570	2180	5390	23900	8060	7400	8030	3180	3390
26	14900	3000	3450	4790	5390	6390	22900	8050	4530	6020	3780	4070
27	12500	4470	3060	3500	7110	5200	22500	8080	7100	5570	2710	4820
28	9780	3130	2940	4700	7280	6030	22400	7990	11800	6430	3180	4300
29	9830	2800	3380	5200	7280	4940	17600	6890	12000	6090	3350	5480
30	7690	3040	3100	5600	---	4290	14200	5490	9460	8150	2540	5070
31	8160	---	3360	6000	---	3540	---	5250	---	8110	1630	---
TOTAL	266730	163070	97740	124610	146180	137420	646350	336670	172310	198160	117920	109570
MEAN	8604	5436	3153	4020	5041	4433	21540	10860	5744	6392	3804	3652
MAX	16200	11200	4010	6570	7280	6820	57900	16600	12000	12200	6280	5480
MIN	3400	1850	2170	1790	1660	1110	5570	5250	3120	3520	1630	1630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1888 - 1996, BY WATER YEAR (WY)

MEAN	4251	4191	2996	2580	2594	5325	11624	8628	6924	4317	3397	4484
MAX	15570	15990	7897	5305	6569	17630	28900	22700	30570	13620	9805	23030
(WY)	1901	1992	1992	1973	1969	1973	1916	1903	1943	1968	1900	1941
MIN	798	800	950	831	800	1210	2210	1688	1162	1172	1124	929
(WY)	1977	1890	1893	1917	1895	1890	1895	1987	1988	1988	1894	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1888 - 1996	
ANNUAL TOTAL	1895157		2516730			
ANNUAL MEAN	5192		6876		5106	
HIGHEST ANNUAL MEAN					8833	1903
LOWEST ANNUAL MEAN					2453	1934
HIGHEST DAILY MEAN	25300	Aug 15	57900	Apr 21	95500	Sep 1 1941
LOWEST DAILY MEAN	877	Jul 2	1110	Mar 10	40	Feb 4 1917
ANNUAL SEVEN-DAY MINIMUM	1460	Feb 12	2550	Aug 27	308	Jan 29 1917
INSTANTANEOUS PEAK FLOW			58500	Apr 21	102000	Sep 1 1941
INSTANTANEOUS PEAK STAGE			19.53	Apr 21	24.80	Sep 1 1941
10 PERCENT EXCEEDS	11000		12600		11200	
50 PERCENT EXCEEDS	3630		5120		3550	
90 PERCENT EXCEEDS	1780		2890		1300	

05365707 NORTH FORK EAU CLAIRE RIVER NEAR THORP, WI

LOCATION.--Lat 44°58'25", long 90°50'57", in NW 1/4 NE 1/4 sec.27, T.29 N., R.4 W., Clark County, Hydrologic Unit 07050006, on left bank 15 ft downstream from town road, 0.3 mi downstream from Goggle-Eye Creek, and 2.6 mi northwest of Thorp.

DRAINAGE AREA.--51.0 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,115 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected period, Nov. 22 to Apr. 11. Records good except those for ice-affected period, which is poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	65	6.0	3.7	2.6	3.4	15	38	6.4	25	2.7	.87
2	6.7	239	5.6	3.6	2.5	3.4	16	32	20	36	2.3	.92
3	8.2	160	5.6	3.5	2.5	3.4	17	32	31	24	1.9	.89
4	9.3	89	5.2	3.5	2.6	3.4	17	36	29	17	1.7	.86
5	8.3	53	4.6	3.5	2.7	3.4	17	54	23	14	1.7	1.7
6	112	46	4.3	3.5	2.8	3.4	16	83	22	11	2.4	1.2
7	211	43	4.2	3.4	2.9	3.4	19	58	49	9.4	10	.60
8	157	33	4.1	3.4	3.0	3.5	60	47	37	7.8	6.9	.52
9	93	27	4.0	3.4	3.0	3.7	140	57	22	7.1	4.6	.78
10	77	22	4.0	3.4	3.0	5.0	320	121	15	6.0	3.2	.86
11	55	17	4.0	3.6	3.0	7.0	740	109	66	5.1	2.6	.86
12	42	16	4.1	3.7	3.0	10	1170	68	52	5.3	2.1	.76
13	31	13	4.2	3.6	3.0	13	677	46	27	5.1	1.8	.83
14	25	11	4.2	3.5	3.0	15	391	37	17	4.9	1.8	.87
15	22	10	4.1	3.3	2.9	16	286	67	11	4.8	1.7	.87
16	17	10	4.0	3.3	2.9	17	391	60	8.6	4.0	1.4	.87
17	15	10	4.1	3.3	2.9	17	396	48	503	3.9	1.3	.84
18	12	10	4.2	3.4	2.8	16	493	40	778	11	1.2	.48
19	10	11	4.2	3.2	2.9	14	1050	78	356	11	1.2	.40
20	9.5	11	4.2	3.0	3.0	13	664	78	121	9.1	1.2	.40
21	11	9.5	4.0	3.0	3.0	12	352	50	150	6.0	.89	.62
22	13	9.0	3.8	3.0	3.1	12	196	31	248	4.6	1.6	.98
23	51	8.0	3.8	3.0	3.2	12	127	23	127	3.5	1.7	.98
24	324	6.0	3.8	2.9	3.3	12	91	18	70	3.5	1.4	.97
25	249	5.8	3.8	2.8	3.5	10	79	15	44	3.4	1.4	.97
26	132	5.6	3.7	2.8	3.5	9.6	76	13	85	2.7	2.3	1.5
27	77	5.2	3.6	2.8	3.5	11	61	11	241	2.4	2.2	5.6
28	62	4.8	3.5	2.7	3.4	12	50	9.8	114	2.5	1.7	5.5
29	49	4.5	3.6	2.7	3.4	14	40	8.5	50	3.1	1.5	4.7
30	41	4.8	3.6	2.7	---	15	38	7.1	31	3.1	1.2	3.5
31	32	---	3.7	2.6	---	15	---	6.5	---	3.1	1.0	---
TOTAL	1966.0	959.2	129.8	99.8	86.9	308.6	8005	1381.9	3354.0	259.4	70.59	41.70
MEAN	63.4	32.0	4.19	3.22	3.00	9.95	267	44.6	112	8.37	2.28	1.39
MAX	324	239	6.0	3.7	3.5	17	1170	121	778	36	10	5.6
MIN	4.0	4.5	3.5	2.6	2.5	3.4	15	6.5	6.4	2.4	.89	.40
CFSM	1.24	.63	.08	.06	.06	.20	5.23	.87	2.19	.16	.04	.03
IN.	1.43	.70	.09	.07	.06	.23	5.84	1.01	2.45	.19	.05	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1996, BY WATER YEAR (WY)

MEAN	29.6	50.2	16.3	3.61	4.34	118	112	58.7	75.9	20.4	38.4	54.3
MAX	123	262	79.7	6.66	13.7	181	267	184	338	49.4	143	420
(WY)	1987	1992	1992	1992	1994	1989	1996	1993	1993	1986	1986	1986
MIN	2.17	3.57	.56	.28	.45	9.95	25.9	5.29	1.33	.31	.37	.81
(WY)	1990	1990	1990	1990	1990	1996	1987	1987	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1986 - 1996	
ANNUAL TOTAL	11492.87		16662.89			
ANNUAL MEAN	31.5		45.5		45.6	
HIGHEST ANNUAL MEAN					93.0	1993
LOWEST ANNUAL MEAN					25.5	1995
HIGHEST DAILY MEAN	(a)560	Aug 14	1170	Apr 12	3670	Sep 22 1986
LOWEST DAILY MEAN	.42	Aug 6	.40	Sep 19,20	.03	Jul 31 1988
ANNUAL SEVEN-DAY MINIMUM	1.0	Aug 1	.64	Sep 15	.07	Jul 28 1988
INSTANTANEOUS PEAK FLOW			1400	Apr 19	(b)9050	Sep 22 1986
INSTANTANEOUS PEAK STAGE			5.96	Apr 19	10.13	Sep 22 1986
INSTANTANEOUS LOW FLOW			.40	(c)Sep 5	.02	Jul 30 1988
ANNUAL RUNOFF (CFSM)	.62		.89		.89	
ANNUAL RUNOFF (INCHES)	8.38		12.15		12.14	
10 PERCENT EXCEEDS	85		90		107	
50 PERCENT EXCEEDS	5.6		5.9		8.8	
90 PERCENT EXCEEDS	1.7		1.6		1.5	

(a) Estimated daily mean
(b) From rating curve extended above 2,500 ft^3/s on basis of step-backwater measurement of peak flow
(c) Also occurred Sept. 8,12,18-21

053674464 YELLOW RIVER AT BARRON, WI

LOCATION.--Lat 45°23'43", long 91°49'48", in SE 1/4 SE 1/4 sec.27, T.34 N., R.12 W., Barron County, Hydrologic Unit 07050007, on left bank 1.0 mi southeast of intersection of U.S. Highway 8 and State Highway 25 in Barron, 0.5 mi downstream from Quaderer Creek, in Becker Park, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--153 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,090 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 29, Dec. 7–11, 13, 15, 16, 27, 30, Jan. 5–7, 9, 10, Jan. 17 to Feb. 5, Feb. 15–20, and Mar. 1–9. Records good except those for ice-affected periods, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	242	160	99	89	82	76	115	151	127	140	78	75
2	652	166	95	89	80	78	117	138	177	139	83	75
3	393	168	95	82	78	76	128	140	167	165	81	119
4	236	160	93	80	82	76	138	133	143	162	80	106
5	210	146	93	80	84	74	142	166	133	128	88	82
6	174	139	76	80	93	76	149	222	128	116	92	73
7	208	138	74	80	101	76	165	280	120	112	111	75
8	268	137	74	78	98	76	212	133	114	105	104	74
9	320	129	80	78	86	74	355	156	108	103	93	73
10	162	124	82	80	82	76	500	168	105	101	85	71
11	169	116	84	81	83	80	892	153	103	90	81	84
12	164	111	86	82	82	91	1160	138	91	86	80	76
13	150	110	84	84	81	97	793	128	96	97	71	66
14	143	109	84	85	82	109	490	130	92	95	82	69
15	133	107	84	82	78	127	241	154	95	96	84	70
16	127	105	86	81	76	178	342	158	98	95	81	71
17	121	104	86	82	76	258	417	148	104	92	80	72
18	115	103	88	90	80	311	498	147	141	101	78	57
19	109	102	90	120	80	285	523	206	145	105	78	82
20	104	100	93	110	80	244	502	535	127	99	78	71
21	100	100	90	100	80	148	394	442	123	96	77	75
22	101	95	89	90	79	161	348	280	130	87	81	76
23	122	93	87	88	83	155	306	260	123	77	85	82
24	244	90	86	86	85	149	267	202	119	88	82	87
25	328	91	85	84	84	115	175	169	114	87	79	84
26	282	96	83	84	82	131	209	161	119	86	61	92
27	240	99	82	86	81	131	193	141	219	75	72	111
28	173	91	81	86	79	124	177	129	523	101	87	110
29	185	82	80	86	104	121	168	120	228	139	76	98
30	253	92	82	86	---	120	159	113	156	110	71	89
31	102	---	88	84	---	117	---	107	---	89	74	---
TOTAL	6330	3463	2659	2673	2421	4010	10275	5708	4268	3262	2533	2445
MEAN	204	115	85.8	86.2	83.5	129	342	184	142	105	81.7	81.5
MAX	652	168	99	120	104	311	1160	535	523	165	111	119
MIN	100	82	74	78	76	74	115	107	91	75	61	57
CFSM	1.33	.75	.56	.56	.55	.85	2.24	1.20	.93	.69	.53	.53
IN.	1.54	.84	.65	.65	.59	.97	2.50	1.39	1.04	.79	.62	.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	106	107	82.4	75.3	77.8	161	212	119	122	97.2	94.5	102
MAX	204	170	101	86.2	89.7	226	342	184	222	105	170	177
(WY)	1996	1992	1992	1996	1994	1995	1996	1996	1993	1996	1995	1991
MIN	74.4	74.2	73.1	63.2	64.0	124	166	91.2	73.9	80.6	67.5	78.1
(WY)	1992	1995	1995	1995	1995	1994	1994	1995	1994	1994	1994	1992

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	45184		50047			
ANNUAL MEAN	124		137		112	
HIGHEST ANNUAL MEAN					137	1996
LOWEST ANNUAL MEAN					93.5	1994
HIGHEST DAILY MEAN	1210	Mar 14	1160	Apr 12	1210	Mar 14 1995
LOWEST DAILY MEAN	53	Jun 23	57	Sep 18	23	Sep 11,15 1993
ANNUAL SEVEN-DAY MINIMUM	57	Jan 2	69	Sep 12	55	Aug 18 1994
INSTANTANEOUS PEAK FLOW			1320	Apr 12	1320	Apr 12 1996
INSTANTANEOUS PEAK STAGE			6.19	Apr 12	6.19	Apr 12 1996
INSTANTANEOUS LOW FLOW			14	Oct 31	7.3	Sep 11 1993
ANNUAL RUNOFF (CFSM)	.81		.89		.73	
ANNUAL RUNOFF (INCHES)	10.99		12.17		9.92	
10 PERCENT EXCEEDS	220		237		169	
50 PERCENT EXCEEDS	93		99		84	
90 PERCENT EXCEEDS	64		76		66	

053674464 YELLOW RIVER AT BARRON, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: August 1991 to current year.

INSTRUMENTATION.--Continuous water temperature recorder since Aug. 30, 1991.

REMARKS.--Records represent water temperature at sensor within 0.5°C.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum temperature, 28.0°C, June 21, 1995; minimum, 0.0°C, for many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum temperature, 25.5°C, June 30; minimum, 0.0°C, many days Nov. 25 through Apr. 13.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.5	14.5	15.0	5.5	4.0	4.5	1.0	.0	.5	.5	.0	.5
2	14.5	13.5	14.0	4.0	2.5	3.5	1.0	.5	.5	.5	.0	.0
3	13.5	13.0	13.0	2.5	1.5	2.0	1.0	.0	.5	.5	.0	.0
4	13.0	12.0	12.5	1.5	1.0	1.0	.5	.0	.5	.5	.0	.0
5	12.5	11.5	12.0	2.0	1.0	1.5	.5	.0	.0	.0	.0	.0
6	12.5	11.0	11.5	2.0	1.5	2.0	.5	.0	.0	.0	.0	.0
7	11.0	10.0	10.5	2.0	1.5	1.5	.5	.0	.0	.0	.0	.0
8	10.0	9.0	9.5	1.5	1.0	1.0	.5	.0	.0	.5	.0	.0
9	10.0	9.5	9.5	1.5	1.0	1.0	.0	.0	.0	.5	.0	.0
10	11.0	9.5	10.0	1.5	1.0	1.0	.0	.0	.0	.5	.0	.0
11	12.5	10.5	11.5	1.0	.5	.5	.0	.0	.0	.5	.0	.0
12	14.0	12.0	12.5	1.5	1.0	1.0	.5	.0	.0	.5	.0	.5
13	14.5	13.5	14.0	1.5	1.0	1.0	.0	.0	.0	1.0	.0	.5
14	13.5	11.0	12.5	1.0	1.0	1.0	.5	.0	.0	.5	.0	.0
15	11.0	9.5	10.0	1.5	1.0	1.0	.5	.0	.0	.5	.0	.0
16	9.5	9.0	9.5	1.5	1.0	1.0	.5	.0	.0	.5	.0	.0
17	10.0	9.0	9.5	1.5	1.0	1.0	.5	.0	.0	.5	.0	.5
18	10.0	9.0	9.5	2.0	1.0	1.5	.5	.0	.5	.5	.0	.0
19	9.5	9.0	9.5	2.0	1.0	1.5	.5	.0	.5	.0	.0	.0
20	9.0	7.5	8.5	2.0	1.0	1.5	.5	.0	.0	.0	.0	.0
21	7.5	6.0	6.5	1.0	.5	1.0	.5	.0	.0	.0	.0	.0
22	6.0	5.5	6.0	1.5	.5	1.0	.5	.0	.0	.0	.0	.0
23	5.5	4.5	5.0	1.0	.5	.5	.5	.0	.0	.0	.0	.0
24	5.5	4.5	5.0	1.0	.5	.5	.5	.0	.0	.0	.0	.0
25	6.5	4.5	5.5	1.0	.0	.5	.5	.0	.0	.0	.0	.0
26	6.5	5.5	6.0	1.0	.5	1.0	.5	.0	.0	.0	.0	.0
27	7.0	6.0	6.5	1.0	.0	.5	.5	.0	.0	.0	.0	.0
28	7.5	6.5	7.0	.5	.0	.0	.5	.0	.0	.0	.0	.0
29	7.5	6.5	7.0	.5	.0	.0	.5	.0	.0	.0	.0	.0
30	6.5	6.0	6.5	1.0	.0	.5	.5	.0	.5	.0	.0	.0
31	7.0	5.5	6.0	---	---	---	.5	.5	.5	.0	.0	.0
MONTH	15.5	4.5	9.4	5.5	.0	1.2	1.0	.0	.1	1.0	.0	.1

053674464 YELLOW RIVER AT BARRON, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	.5	.0	.0	2.5	1.5	2.0	10.0	8.0	9.0
2	.0	.0	.0	.5	.0	.0	3.5	2.0	2.5	10.5	9.0	10.0
3	.0	.0	.0	.5	.0	.0	3.0	2.5	2.5	12.0	10.0	11.0
4	.0	.0	.0	.5	.0	.0	3.0	2.0	2.5	13.0	11.5	12.0
5	.0	.0	.0	1.0	.0	.0	3.0	2.0	2.5	12.5	10.0	11.0
6	.0	.0	.0	.5	.0	.0	3.5	2.0	3.0	10.5	9.5	10.0
7	.5	.0	.0	.5	.0	.0	4.0	2.5	3.0	11.5	8.5	10.0
8	.5	.0	.5	.5	.0	.0	4.0	2.5	3.5	12.5	11.0	12.0
9	.5	.0	.0	1.0	.0	.0	3.5	2.5	3.0	13.5	12.0	12.5
10	.5	.0	.5	1.0	.0	.5	3.0	2.0	2.5	13.5	12.0	13.0
11	.5	.0	.0	1.0	.0	.5	2.5	1.5	2.0	13.0	12.0	12.5
12	.5	.0	.0	1.5	.5	.5	2.0	.0	1.0	13.5	11.5	12.5
13	.5	.0	.5	1.5	.5	.5	1.5	.0	.5	13.5	11.5	12.5
14	.5	.0	.5	1.5	.5	.5	1.5	.5	1.0	12.5	11.0	12.0
15	.5	.0	.0	1.5	.5	.5	6.5	1.5	3.0	11.0	10.5	11.0
16	.5	.0	.0	1.0	.0	.5	5.5	3.0	4.0	13.0	11.0	12.0
17	.5	.0	.0	1.0	.0	.5	7.0	4.5	5.5	15.0	13.0	14.0
18	.5	.0	.0	.5	.0	.5	7.5	6.0	7.0	19.0	15.0	17.0
19	1.0	.0	.5	.5	.0	.5	10.0	7.0	8.5	19.0	18.0	18.5
20	1.0	.0	.5	1.0	.0	.5	10.0	8.5	9.5	19.0	17.5	18.0
21	1.0	.0	.5	1.5	.0	.5	9.0	7.5	8.0	19.0	17.5	18.0
22	1.0	.0	.5	1.0	.0	.5	8.5	7.5	8.0	19.5	17.5	18.5
23	.5	.0	.5	1.5	.5	1.0	9.0	6.5	7.5	19.0	17.5	18.0
24	1.5	.0	.5	1.0	.0	.5	11.0	7.5	9.0	17.5	15.0	16.0
25	1.0	.0	.5	1.0	.0	.5	11.5	10.0	10.5	15.0	14.0	14.5
26	.5	.0	.0	.5	.0	.0	11.0	9.0	10.0	15.5	13.5	14.5
27	.5	.0	.0	1.0	.0	.5	11.0	8.5	9.5	15.5	14.5	15.0
28	.5	.0	.0	1.5	.0	.5	11.5	9.5	10.5	17.0	14.5	15.5
29	.5	.0	.0	1.5	.0	1.0	11.0	9.5	10.0	18.0	15.5	16.5
30	---	---	---	1.0	.5	1.0	10.0	9.0	9.5	18.5	16.5	17.5
31	---	---	---	2.0	.5	1.0	---	---	---	19.0	17.0	18.0
MONTH	1.5	.0	.2	2.0	.0	.4	11.5	.0	5.4	19.5	8.0	14.0

		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	17.0	17.5	25.0	23.0	24.0	20.5	18.0	19.0	21.0	20.0	20.5
2	18.0	16.5	17.5	24.0	22.5	23.5	21.0	19.0	20.0	21.5	20.5	21.0
3	18.0	15.5	16.5	23.5	22.5	23.0	21.0	20.0	20.5	21.5	20.5	21.0
4	16.0	15.0	15.5	23.0	22.5	22.5	21.5	20.5	21.0	22.0	21.0	21.5
5	15.5	14.5	15.0	24.0	22.5	23.0	22.0	21.0	21.5	22.0	21.0	21.5
6	17.0	15.0	16.0	24.0	23.0	23.5	23.0	21.0	22.0	22.5	21.0	21.5
7	17.0	15.5	16.0	24.0	22.5	23.5	24.0	22.5	23.0	22.5	21.5	21.5
8	18.5	15.5	17.0	23.5	21.5	22.5	24.0	22.5	23.0	21.5	20.5	21.0
9	20.0	17.5	18.5	22.0	20.5	21.0	23.5	22.0	22.5	20.5	19.5	20.0
10	20.0	19.0	19.5	21.5	20.0	20.5	22.5	21.0	21.5	20.5	19.0	19.5
11	21.0	20.0	20.5	20.5	19.5	20.0	22.0	21.0	21.5	19.5	18.0	19.0
12	22.5	20.5	21.5	20.0	19.0	19.5	22.5	21.0	22.0	18.0	15.5	17.0
13	24.0	21.5	22.5	20.5	19.0	19.5	23.0	22.0	22.0	16.5	15.0	15.5
14	24.5	22.0	23.0	20.0	19.0	19.5	22.5	21.5	22.0	16.0	14.5	15.0
15	23.0	22.0	23.0	21.0	19.0	19.5	22.5	21.0	21.5	15.5	14.5	15.0
16	22.5	21.5	22.0	22.0	20.0	21.0	22.0	20.5	21.0	15.5	14.5	15.0
17	21.5	19.5	20.5	22.0	21.0	21.5	22.0	20.5	21.0	15.0	14.0	14.5
18	19.5	18.0	18.5	23.0	21.5	22.5	22.0	20.5	21.0	15.5	13.5	14.5
19	18.0	17.5	17.5	23.0	22.0	22.5	21.5	21.0	21.0	15.5	14.0	15.0
20	20.0	17.5	18.5	22.5	21.0	22.0	22.0	20.5	21.0	15.0	14.0	14.5
21	19.5	19.0	19.0	22.5	21.0	22.0	22.0	20.5	21.5	14.0	13.5	13.5
22	20.0	18.0	19.0	23.0	21.5	22.0	22.5	21.5	22.0	14.5	13.5	14.0
23	19.0	17.0	18.0	22.5	21.0	21.5	22.5	21.0	21.5	14.0	13.0	13.5
24	18.0	16.5	17.0	22.0	21.0	21.5	22.0	21.0	21.5	14.0	13.0	13.5
25	18.5	17.0	17.5	22.0	20.5	21.0	22.0	21.0	21.5	13.5	13.0	13.0
26	19.0	18.0	18.5	22.0	20.5	21.0	21.5	20.5	21.0	13.0	12.0	12.5
27	21.5	18.5	20.0	21.5	20.0	20.5	21.5	20.0	20.5	12.0	11.5	11.5
28	23.5	20.5	21.5	20.5	20.0	20.0	21.0	19.5	20.0	12.0	11.0	11.5
29	24.5	23.0	24.0	20.0	18.5	19.5	21.0	19.5	20.0	12.0	11.0	11.5
30	25.5	24.0	25.0	19.0	17.5	18.5	21.0	19.5	20.5	13.0	11.5	12.0
31	---	---	---	19.0	18.0	18.5	21.0	20.0	20.5	---	---	---
MONTH	25.5	14.5	19.2	25.0	17.5	21.3	24.0	18.0	21.2	22.5	11.0	16.3

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 mi^2.

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 sea level. Prior to Mar. 25, 1951, nonrecording gage.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 21–27, Nov. 29 to Dec. 1, and Dec. 5 to Mar. 12. Records good except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Maximum stage since 1915, 16.6 ft April 1934, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	489	461	320	290	300	250	433	451	382	340	252	201
2	772	613	329	300	280	240	440	438	609	332	240	201
3	541	618	323	280	270	240	522	491	552	327	235	209
4	429	520	313	240	280	240	578	488	499	316	232	218
5	366	468	280	240	280	250	540	476	457	306	238	213
6	444	450	250	240	280	250	531	631	442	298	262	209
7	654	449	220	240	280	250	586	586	450	298	269	205
8	537	432	220	250	280	250	698	522	418	292	272	205
9	477	400	210	250	290	260	865	502	389	299	249	206
10	496	401	210	250	300	270	1130	513	371	298	239	207
11	444	389	210	260	300	270	1500	513	361	286	234	211
12	405	370	210	270	290	290	2020	469	355	288	231	205
13	383	375	220	280	290	324	2210	443	349	281	228	204
14	366	371	230	300	280	425	1270	428	337	271	228	201
15	352	363	240	290	280	807	896	497	327	267	240	202
16	343	361	250	300	290	1060	866	520	325	266	238	202
17	339	358	260	310	290	1230	917	480	339	265	231	202
18	334	355	260	320	290	1190	908	457	413	280	220	201
19	328	352	260	300	290	946	905	558	423	281	220	199
20	326	350	270	320	290	719	906	822	383	260	231	200
21	324	340	270	340	290	592	767	737	365	262	224	205
22	323	320	270	340	290	534	698	622	448	259	226	210
23	345	320	270	320	290	525	636	516	415	248	228	209
24	729	310	270	310	290	529	590	463	381	245	223	206
25	882	310	270	300	280	462	571	433	355	246	223	206
26	638	310	270	300	270	400	565	415	354	243	215	216
27	554	310	260	310	260	439	534	403	527	239	211	254
28	599	283	250	290	250	425	499	390	478	253	208	264
29	592	300	260	310	250	427	481	376	411	255	206	243
30	510	300	270	310	---	431	464	367	366	259	204	232
31	461	---	280	310	---	430	---	363	---	266	202	---
TOTAL	14782	11559	8025	8970	8200	14955	24526	15370	12281	8626	7159	6346
MEAN	477	385	259	289	283	482	818	496	409	278	231	212
MAX	882	618	329	340	300	1230	2210	822	609	340	272	264
MIN	323	283	210	240	250	240	433	363	325	239	202	199
CFSM	1.14	.92	.62	.69	.68	1.15	1.96	1.19	.98	.67	.55	.51
IN.	1.32	1.03	.71	.80	.73	1.33	2.18	1.37	1.09	.77	.64	.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1996, BY WATER YEAR (WY)

MEAN	264	255	225	200	219	490	632	360	343	268	261	282
MAX	579	704	470	412	657	1021	2054	767	778	667	513	762
(WY)	1986	1971	1966	1981	1981	1983	1965	1954	1993	1979	1980	1986
MIN	139	138	122	97.2	85.2	155	166	153	153	135	126	141
(WY)	1959	1959	1959	1959	1959	1956	1959	1958	1959	1964	1964	1958

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1951 - 1996	
ANNUAL TOTAL	133722		140799			
ANNUAL MEAN	366		385		317	
HIGHEST ANNUAL MEAN					424	1986
LOWEST ANNUAL MEAN					152	1959
HIGHEST DAILY MEAN	3890	Mar 14	2210	Apr 13	13000	Mar 31 1967
LOWEST DAILY MEAN	(a)160	Jan 25	199	Sep 19	(a)80	Feb 20 1959
ANNUAL SEVEN-DAY MINIMUM	(a)169	Jan 20	201	Sep 14	(a)82	Feb 16 1959
INSTANTANEOUS PEAK FLOW			2400	Apr 13	(b)13600	Mar 31 1967
INSTANTANEOUS PEAK STAGE			9.60	Apr 13	15.04	Mar 31 1967
INSTANTANEOUS LOW FLOW			197	Sep 19,20	(c)55	Mar 13 1954
ANNUAL RUNOFF (CFSM)	.88		.92		.76	
ANNUAL RUNOFF (INCHES)	11.90		12.53		10.29	
10 PERCENT EXCEEDS	584		592		489	
50 PERCENT EXCEEDS	294		310		236	
90 PERCENT EXCEEDS	180		219		150	

(a) Ice affected
(b) From rating curve extended above 9,000 ft^3/s
(c) Result of freezeup

05369000 RED CEDAR RIVER AT MENOMONIE, WI

LOCATION.--Lat 44°53'02", long 91°55'57", in NW 1/4 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 mi^2.

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 sea level (Northern States Power Co. bench mark). Prior to Sept. 3, 1908, non-recording 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 (see page 12). Flow regulated by powerplants at Menomonie and Cedar Falls. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1650	2220	1540	1260	1160	1290	1930	2550	1530	2580	1130	866
2	2160	2180	1480	1330	1160	1360	1950	2250	1810	2550	1130	896
3	2430	2470	1450	1170	1150	1170	2230	2050	2780	1900	968	995
4	2780	2360	1470	1080	1160	1390	2160	2020	2340	2030	951	927
5	2300	2450	1360	1050	1130	1280	2220	1950	2220	1820	1070	969
6	2500	1990	867	1030	1090	1330	2150	2070	2090	1880	1100	1090
7	3160	2000	807	1040	1140	1180	2200	1820	2100	1490	1150	959
8	3250	2030	954	994	1180	1250	2230	1790	1820	1650	1220	905
9	3090	2090	837	1110	1190	1090	2270	1700	1640	1540	1140	898
10	2470	1980	875	1110	1150	1120	2540	1910	1670	1370	1080	950
11	2560	1690	926	1110	1130	1150	4020	2120	1670	1220	1130	901
12	2250	1270	1320	1110	1270	1240	6360	1870	1520	1340	1020	894
13	2420	1620	1240	1160	1230	1450	7630	1700	1400	1140	1020	901
14	2080	1720	1280	1140	1200	1810	7180	1730	1380	1120	1000	909
15	1700	1470	1250	1110	1240	2370	4760	1780	1330	1250	1020	840
16	1610	1490	1280	1120	1180	2400	4070	2240	1580	1210	987	887
17	1570	1400	1280	1230	1150	2420	4100	2180	1680	1160	975	877
18	1530	1500	1280	1400	1120	2710	4210	2130	1980	1350	885	843
19	1500	1410	1270	1250	1180	3630	4460	2330	2100	1240	983	882
20	1480	1440	1330	1050	1310	3110	4570	2760	1870	1110	952	978
21	1490	1530	1270	1220	1230	2740	4620	3530	1780	1170	951	858
22	1430	1210	1260	1310	1200	2440	4370	2930	1870	1280	1050	928
23	1730	1160	1270	1330	1250	2280	4140	3060	1840	1190	968	930
24	2130	1030	1320	1400	1310	2440	3900	2730	1800	1210	919	928
25	3180	1200	1190	1310	1300	1750	3910	2380	1550	1220	976	992
26	3230	1390	1260	1230	1360	1550	3510	2030	1570	1160	884	1130
27	2760	1400	1240	1290	1220	1940	3100	1990	2010	1170	919	1300
28	2810	862	1180	1210	1360	2150	3120	2040	3180	1590	1000	1310
29	2870	1040	1200	1220	1190	2180	2720	1870	3320	1210	954	1270
30	2560	1020	1190	1140	---	2100	2600	1400	2690	1480	893	1190
31	2260	---	1160	1160	---	1880	---	1280	---	1640	838	---
TOTAL	70940	48622	37636	36674	34940	58200	109230	66190	58120	45270	31263	29203
MEAN	2288	1621	1214	1183	1205	1877	3641	2135	1937	1460	1008	973
MAX	3250	2470	1540	1400	1360	3630	7630	3530	3320	2580	1220	1310
MIN	1430	862	807	994	1090	1090	1930	1280	1330	1110	838	840

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1907 - 1996, BY WATER YEAR (WY)

MEAN	1138	1146	975	892	948	1933	2298	1486	1468	1112	963	1190
MAX	2806	2521	2316	1317	2047	4142	6819	2947	3702	2926	2237	3091
(WY)	1969	1992	1966	1973	1966	1973	1965	1938	1943	1968	1995	1938
MIN	528	566	541	532	536	921	664	612	425	421	383	493
(WY)	1933	1937	1933	1959	1959	1956	1930	1934	1934	1934	1934	1933

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1907 - 1996	
ANNUAL TOTAL	578161		626288			
ANNUAL MEAN	1584		1711		1295	
HIGHEST ANNUAL MEAN					1842	1983
LOWEST ANNUAL MEAN					711	1931
HIGHEST DAILY MEAN	10200	Mar 15	7630	Apr 13	29000	Apr 4 1934
LOWEST DAILY MEAN	618	Jan 4	807	Dec 7	100	Nov 8 1907
ANNUAL SEVEN-DAY MINIMUM	744	Feb 11	877	Sep 13	310	Sep 8 1934
INSTANTANEOUS PEAK FLOW			9040	Apr 12	(a)40000	Apr 4 1934
INSTANTANEOUS PEAK STAGE			6.69	Apr 12	(b)16.00	Apr 4 1934
10 PERCENT EXCEEDS	2570		2750		2180	
50 PERCENT EXCEEDS	1310		1360		1040	
90 PERCENT EXCEEDS	858		957		633	

(a) From rating curve extended above 27,000 ft^3/s on basis of computed flow over Cedar Falls Dam, 6 mi upstream
(b) From floodmarks

05369500 CHIPPEWA RIVER AT DURAND, WI

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 mi^2.

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 sea level. Prior to Dec. 9, 1930, nonrecording gage at bridge 400 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Ice-affected period, Nov. 29 to Apr. 3. Records good except those for ice-affected period, which is fair (see page 12). Flow regulated by powerplants, Moose Lake, Lake Chippewa, Rest Lake, Flambeau Flowage, and Lake Wissota on Chippewa and Flambeau Rivers. Gage-height telemeter and data-collection platform at station.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5490	11600	5000	4800	7800	8800	10000	18700	7750	11000	9740	2980
2	7010	11800	5000	4800	7400	8000	12000	19000	6770	11300	7430	4120
3	9210	13000	5400	4800	7000	6200	13000	19400	7870	10200	7240	3700
4	10200	15400	5400	4800	6400	5600	14600	19200	9950	9000	7100	4180
5	9090	13500	5400	4700	5600	7800	14200	19100	10400	8040	6060	5140
6	9270	11900	5400	4600	6600	7600	13600	19100	10100	8090	6980	6520
7	11900	12800	5000	4500	7000	7400	12900	18400	10200	7080	7380	7390
8	17300	10500	4300	4200	6600	7000	12800	16500	9570	6570	6860	6480
9	18800	9140	4300	4500	6600	7400	13000	13900	9270	7480	7990	5740
10	18800	9210	4100	4500	5800	6000	13300	13700	8100	7250	7050	5760
11	18000	8850	4100	4400	5600	5000	14900	13500	7560	6920	6590	4950
12	13200	8520	4300	4500	6400	4800	18200	14300	7790	6770	5240	5140
13	15800	7920	4400	4700	7800	5200	33500	13700	7180	6340	5960	4850
14	12200	7770	4500	4800	8600	5600	39500	12300	6150	6520	5910	4540
15	10100	8200	4700	4800	8600	6600	34900	12600	6680	8300	4910	3600
16	7750	7600	4800	5000	8800	6000	28100	11400	5810	7500	4450	4710
17	9360	7380	4800	5600	7400	7000	27700	11200	6600	8950	4530	5280
18	7740	7150	4800	6200	6400	9000	28200	11500	7800	7500	4750	4810
19	8400	6750	4800	6200	5600	9800	32100	10900	8960	8850	4810	4750
20	6970	5750	4600	5800	7000	10000	42200	14100	11300	9850	4640	5030
21	6850	6800	5200	5200	8000	10000	53500	16400	12700	14000	4190	4140
22	6900	6700	5200	6600	8000	9600	62100	17200	11200	12200	4140	4820
23	6210	5560	5000	7200	8000	8400	57200	19300	8940	10100	5480	3930
24	9080	3960	4700	7400	7600	7600	43200	17900	9240	10200	5820	4830
25	13900	4190	4500	7800	7000	8000	35900	13400	9790	10200	4540	5220
26	18200	5070	4500	8000	6400	8400	28000	11600	9310	9200	5710	5400
27	18200	5970	5000	7400	7600	8600	26900	11100	8120	8820	4970	6600
28	14600	6460	4500	6000	8400	8600	26000	11100	12500	8380	4520	6660
29	13900	5200	4600	6400	9200	8600	25200	10900	15400	8640	4630	6970
30	13500	5000	4800	7000	---	8000	19200	8600	15200	9330	4820	7590
31	11100	---	4800	7400	---	7000	---	8190	---	10300	3930	---
TOTAL	359030	249650	147900	174600	209200	233600	805900	448190	278210	274880	178370	155830
MEAN	11580	8322	4771	5632	7214	7535	26860	14460	9274	8867	5754	5194
MAX	18800	15400	5400	8000	9200	10000	62100	19400	15400	14000	9740	7590
MIN	5490	3960	4100	4200	5600	4800	10000	8190	5810	6340	3930	2980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996, BY WATER YEAR (WY)

MEAN	6565	6823	5391	4790	5007	9686	15760	10550	9431	6301	5105	7102
MAX	20350	20190	11600	8181	11160	25120	34170	28220	37730	19070	12180	27950
(WY)	1986	1992	1966	1984	1984	1973	1967	1954	1943	1968	1995	1941
MIN	2103	2209	2335	2289	2404	3645	4718	3336	2699	2271	2026	1954
(WY)	1977	1977	1934	1934	1990	1931	1931	1931	1934	1934	1934	1948

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1928 - 1996	
ANNUAL TOTAL	2903150		3515360			
ANNUAL MEAN	7954		9605		7701	
HIGHEST ANNUAL MEAN					11550	1942
LOWEST ANNUAL MEAN					3992	1931
HIGHEST DAILY MEAN	28400	Aug 16	62100	Apr 22	117000	Apr 2 1967
LOWEST DAILY MEAN	(a)2700	Feb 14,15,17,18	2980	Sep 1	1100	Nov 24 1950
ANNUAL SEVEN-DAY MINIMUM	(a)2740	Feb 13	4050	Aug 29	1580	Oct 28 1948
INSTANTANEOUS PEAK FLOW			63600	Apr 22	123000	Apr 2 1967
INSTANTANEOUS PEAK STAGE			13.72	Apr 22	16.93	Apr 2 1967
INSTANTANEOUS LOW FLOW			2640	Sep 1	1020	Nov 24 1950
10 PERCENT EXCEEDS	14800		16400		14300	
50 PERCENT EXCEEDS	6150		7490		5600	
90 PERCENT EXCEEDS	3360		4620		2980	

(a) Ice affected

05369945 EAU GALLE RIVER AT LOW-WATER BRIDGE AT SPRING VALLEY, WI

LOCATION.--Lat 44°52'02", long 92°15'07", in SE 1/4 NW 1/4 sec.31, T.28 N., R.15 W., St. Croix County, Hydrologic Unit 07050005, on right bank 50 ft downstream from Low-Water Bridge on Boston Road, approximately 550 ft upstream from French Creek and at Spring Valley.

DRAINAGE AREA.--47.9 mi^2.

PERIOD OF RECORD.--November 1981 to September 1983, May 1986 to March 1996 (discontinued).

REVISED RECORDS.--WDR WI-93-2: 1992.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 960 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 12–18 and ice-affected periods, Nov. 27, Dec. 10–13, Jan. 7, 8, Jan. 31 to Feb. 5, and Feb. 28. Records fair except those for estimated daily discharges, which are poor (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	63	13	12	12	11	---	---	---	---	---	---
2	14	146	13	11	12	11	---	---	---	---	---	---
3	14	31	13	12	12	11	---	---	---	---	---	---
4	15	18	13	12	12	11	---	---	---	---	---	---
5	19	15	13	12	13	11	---	---	---	---	---	---
6	65	15	13	12	13	11	---	---	---	---	---	---
7	36	15	13	11	13	11	---	---	---	---	---	---
8	17	14	13	11	13	11	---	---	---	---	---	---
9	23	13	13	12	12	11	---	---	---	---	---	---
10	19	13	13	12	12	11	---	---	---	---	---	---
11	13	12	13	12	12	11	---	---	---	---	---	---
12	13	12	13	12	11	11	---	---	---	---	---	---
13	12	11	13	12	11	17	---	---	---	---	---	---
14	12	11	13	12	11	266	---	---	---	---	---	---
15	12	11	13	12	11	318	---	---	---	---	---	---
16	12	11	13	12	11	264	---	---	---	---	---	---
17	12	11	13	12	11	281	---	---	---	---	---	---
18	12	12	13	13	11	116	---	---	---	---	---	---
19	13	12	12	13	11	45	---	---	---	---	---	---
20	15	13	12	12	11	26	---	---	---	---	---	---
21	18	14	12	13	11	21	---	---	---	---	---	---
22	19	14	12	13	11	19	---	---	---	---	---	---
23	44	13	12	13	12	20	---	---	---	---	---	---
24	164	13	12	14	12	21	---	---	---	---	---	---
25	40	13	12	14	12	15	---	---	---	---	---	---
26	22	13	12	14	12	14	---	---	---	---	---	---
27	35	13	12	14	12	14	---	---	---	---	---	---
28	84	13	12	13	11	14	---	---	---	---	---	---
29	42	13	12	13	11	14	---	---	---	---	---	---
30	22	13	12	13	---	16	---	---	---	---	---	---
31	18	---	12	13	---	20	---	---	---	---	---	---
TOTAL	869	591	390	386	339	1653	---	---	---	---	---	---
MEAN	28.0	19.7	12.6	12.5	11.7	53.3	---	---	---	---	---	---
MAX	164	146	13	14	13	318	---	---	---	---	---	---
MIN	12	11	12	11	11	11	---	---	---	---	---	---
CFSM	.59	.41	.26	.26	.24	1.11	---	---	---	---	---	---
IN.	.67	.46	.30	.30	.26	1.28	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1996, BY WATER YEAR (WY)

MEAN	17.8	22.8	13.5	9.87	10.3	87.9	49.2	30.5	36.3	18.9	26.0	25.9
MAX	47.5	65.5	25.7	13.3	18.1	152	104	67.0	157	35.8	90.0	129
(WY)	1987	1992	1983	1987	1994	1990	1983	1991	1990	1992	1995	1986
MIN	7.73	7.68	6.61	6.45	6.73	20.5	11.6	10.3	8.87	8.54	8.28	9.34
(WY)	1990	1990	1990	1990	1990	1987	1987	1987	1988	1988	1988	1982

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR (OCTOBER-MARCH)		WATER YEARS 1982 - 1996	
ANNUAL TOTAL	12245.5					
ANNUAL MEAN	33.5				28.9	
HIGHEST ANNUAL MEAN					40.9	1990
LOWEST ANNUAL MEAN					14.8	1988
HIGHEST DAILY MEAN	(a)1200	Aug 14	318	Mar 15	2460	Mar 27 1989
LOWEST DAILY MEAN	8.9	Aug 4	11	Many days	6.0	(b)Dec 19-24 1989
ANNUAL SEVEN-DAY MINIMUM	9.0	Jun 19	11	Feb 12	6.0	Dec 18 1989
INSTANTANEOUS PEAK FLOW			605	Mar 14	(c)6000	Sep 21 1986
INSTANTANEOUS PEAK STAGE			5.51	Mar 14	(d)13.80	Mar 27 1989
INSTANTANEOUS LOW FLOW			(e)2.9	Jan 20	(e)2.9	Jan 20 1996
ANNUAL RUNOFF (CFSM)	.70				.60	
ANNUAL RUNOFF (INCHES)	9.51				8.20	
10 PERCENT EXCEEDS	38				33	
50 PERCENT EXCEEDS	13				12	
90 PERCENT EXCEEDS	10				7.8	

(a) Estimated
(b) Also occurred Feb. 1, 1990
(c) From rating curve extended above 172 ft^3/s on basis of indirect measurement of peak flow, gage height, 8.80 ft, but may have been exceeded on Mar. 27, 1989
(d) Backwater from reservoir
(e) Result of freezeup

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 mi^2.

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

REVISED RECORDS.--WDR WI-67-1: 1966. WDR WI-81-1: Drainage area. WDR WI-92-1: 1975-79(M), 1977, 1978.

GAGE.--Water-stage recorder, crest-stage gage, and v-notch sharp-crested weir. Datum of gage is 900.00 ft above sea level (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 sea level. Aug. 1, 1957, to June 6, 1966, nonrecording gage at downstream site at datum of 910.45 ft above sea level. June 7, 1966, to Oct. 31, 1968, nonrecording gage at downstream site at datum of 909.45 ft above sea level.

REMARKS.--No estimated daily discharges. Records good (see page 12). Low flow slightly regulated and high flow completely regulated by flood-control dam 770 ft upstream. Data-collection platform at station.

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 sea level, from floodmarks, discharge, 33,000 ft^3/s estimated by U.S. Army Corps of Engineers on basis of slope-area measurement by Geological Survey of peak discharge of 39,000 ft^3/s at Elmwood, drainage area, 91.9 mi^2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	40	20	18	20	17	43	26	25	23	22	17
2	23	161	20	18	19	18	54	26	29	21	22	18
3	24	73	20	18	19	17	106	33	32	21	19	21
4	22	41	19	18	19	17	107	41	31	22	19	20
5	21	32	19	18	19	18	71	37	30	22	22	19
6	47	29	18	17	20	18	73	55	30	23	22	18
7	67	27	19	17	20	17	107	42	50	23	23	18
8	47	26	19	17	21	17	128	34	45	21	20	17
9	43	25	19	18	21	17	152	32	35	25	19	17
10	41	24	19	18	20	17	213	52	30	23	18	17
11	31	23	19	20	20	17	355	58	28	23	19	18
12	25	23	19	19	20	18	301	40	26	24	19	17
13	23	22	20	19	19	22	128	33	23	24	18	17
14	20	21	21	18	19	153	71	30	21	23	18	17
15	18	21	20	18	19	302	53	30	21	22	18	17
16	19	21	19	18	19	267	87	33	21	22	17	17
17	19	21	19	20	19	295	80	32	23	22	17	17
18	19	21	19	27	18	173	67	31	49	21	17	17
19	19	21	19	24	19	95	75	56	77	21	18	17
20	19	20	18	23	18	55	72	81	48	20	20	18
21	18	20	18	21	18	45	52	45	47	20	19	19
22	18	20	18	20	18	40	40	32	186	23	21	19
23	23	20	18	20	19	38	40	29	67	21	20	18
24	143	20	18	21	19	46	37	27	39	21	20	47
25	72	20	18	21	19	41	35	27	32	20	20	28
26	40	21	18	22	19	32	36	26	29	20	19	3.7
27	37	22	18	22	18	29	34	25	30	21	19	6.1
28	84	21	18	21	17	29	31	25	34	62	18	13
29	77	20	18	21	17	29	29	24	29	37	18	17
30	44	20	18	20	---	30	27	24	25	27	17	17
31	32	---	18	20	---	35	---	24	---	21	17	---
TOTAL	1161	896	583	612	552	1964	2704	1110	1192	739	595	541.8
MEAN	37.5	29.9	18.8	19.7	19.0	63.4	90.1	35.8	39.7	23.8	19.2	18.1
MAX	143	161	21	27	21	302	355	81	186	62	23	47
MIN	18	20	18	17	17	17	27	24	21	20	17	3.7

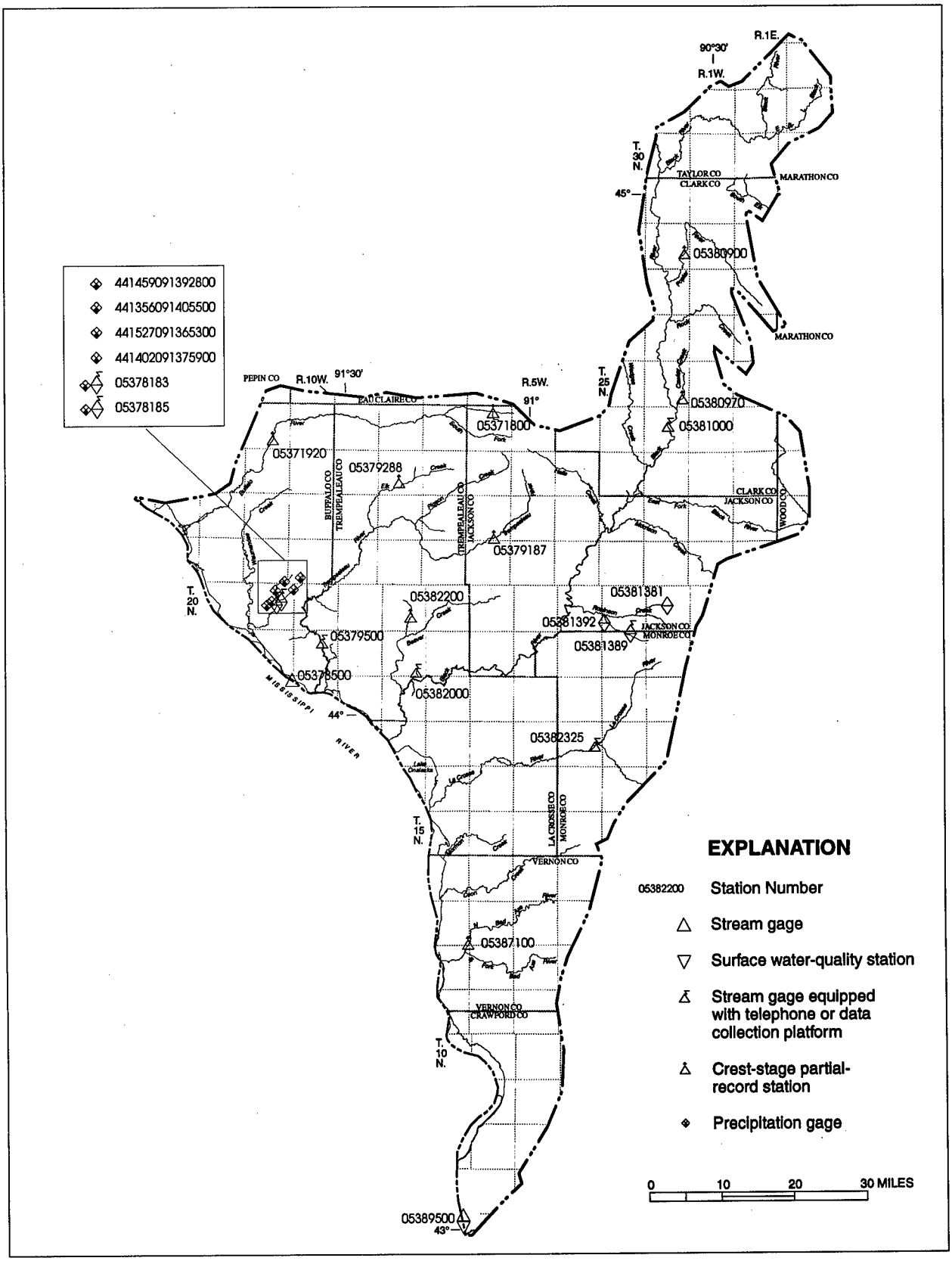
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1996, BY WATER YEAR (WY)

MEAN	26.5	26.8	18.6	15.0	20.3	75.7	66.1	37.0	40.9	26.6	29.3	31.0
MAX	81.3	86.2	39.7	19.8	71.6	164	128	94.9	148	94.1	90.1	153
(WY)	1971	1971	1978	1994	1981	1989	1969	1973	1980	1978	1995	1986
MIN	10.4	7.24	4.22	5.21	5.77	10.1	19.5	12.4	11.6	12.5	5.95	9.81
(WY)	1970	1969	1969	1969	1969	1970	1987	1977	1969	1988	1969	1969

05370000 EAU GALLE RIVER AT SPRING VALLEY, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1969 - 1996	
ANNUAL TOTAL	15078.4		12649.8			
ANNUAL MEAN	41.3		34.6		34.5	
HIGHEST ANNUAL MEAN					55.8	1980
LOWEST ANNUAL MEAN					21.2	1988
HIGHEST DAILY MEAN	1160	Aug 14	355	Apr 11	2190	Mar 28 1989
LOWEST DAILY MEAN	5.7	Jun 15	3.7	Sep 26	(a).00	Aug 12-16 1971
ANNUAL SEVEN-DAY MINIMUM	14	Feb 26	17	Sep 12	.91	Sep 15 1969
INSTANTANEOUS PEAK FLOW			444	Apr 11	(b)3030	Jun 7 1980
INSTANTANEOUS PEAK STAGE			15.46	Apr 11	(b)19.90	Jun 7 1980
INSTANTANEOUS LOW FLOW			3.7	Sep 26	(a).00	Aug 11-16 1971
10 PERCENT EXCEEDS	59		57		48	
50 PERCENT EXCEEDS	21		21		18	
90 PERCENT EXCEEDS	15		18		12	

(a) 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
(b) Peak discharge and stage prior to construction of flood-control reservoir occurred Apr. 15, 1954, and was 7,000 ft^3/s and 12.50 ft (datum then in use), respectively



Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Transverse Mercator projection.

TREMPEALEAU-BLACK RIVER BASIN

441459091392800 EAGLE CREEK RAIN GAGE E3-1006, LOSINSKI FARM, NEAR FOUNTAIN CITY, WI

LOCATION.--Lat 44°14'59", long 91°39'28", in NE 1/4 SE 1/4 sec.36, T.21 N., R.11 W., Buffalo County, Hydrologic Unit 07040003, on Eagle Valley Road, 0.3 mi west of junction with Glencoe-Waumandee Road, near Fountain City.

PERIOD OF RECORD.--October 1990 to June 1996 (non-frozen precipitation), discontinued.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on July 12, 1990. Rainfall estimated to be 0.00 for Nov. 10, 18, 26, 30, Dec. 1, 2, Jan. 31, Feb. 3, 17, 20, 25, Mar. 9, 12–14, 17–19, 22, 27, and Apr. 2, 4, 6 because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for the period Dec. 4 to Jan. 12.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 6.71 in., Aug. 13, 1995.

EXTREMES FOR PERIOD OCTOBER 1995 THROUGH JUNE 1996.--Maximum daily rainfall, 1.32 in., Mar. 24.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.61	.00	---	.00	.00	.00	.00	.70	---	---	---
2	.14	.01	.00	---	.00	.00	.00	.39	.01	---	---	---
3	.01	.00	.00	---	.00	.00	.00	.04	.03	---	---	---
4	.00	.00	---	---	.00	.00	.00	.02	.00	---	---	---
5	.79	.00	---	---	.00	.00	.00	.14	.03	---	---	---
6	.28	.00	---	---	.00	.00	.00	.00	.07	---	---	---
7	.00	.00	---	---	.00	.00	.00	.49	.16	---	---	---
8	.16	.00	---	---	.00	.00	.00	.07	.00	---	---	---
9	.03	.00	---	---	.00	.00	.00	.01	.12	---	---	---
10	.00	.00	---	---	.00	.00	.00	.10	.05	---	---	---
11	.00	.00	---	---	.00	.00	.02	.00	.01	---	---	---
12	.00	.00	---	---	.00	.00	.06	.00	.05	---	---	---
13	.00	.00	---	.00	.00	.00	.00	.01	.00	---	---	---
14	.00	.00	---	.00	.00	.00	.05	.34	.00	---	---	---
15	.00	.00	---	.00	.00	.00	.32	.02	.00	---	---	---
16	.00	.00	---	.00	.00	.00	.00	.00	.95	---	---	---
17	.00	.00	---	.15	.00	.00	.69	.00	.59	---	---	---
18	.00	.00	---	.00	.00	.00	.20	.00	.01	---	---	---
19	.02	.00	---	.00	.00	.00	.26	.32	.01	---	---	---
20	.01	.00	---	.00	.00	.00	.47	.00	.00	---	---	---
21	.03	.00	---	.00	.00	.00	.04	.00	.11	---	---	---
22	.00	.00	---	.00	.00	.00	.00	.02	.00	---	---	---
23	.96	.00	---	.00	.00	.00	.18	.19	.14	---	---	---
24	.16	.00	---	.00	.00	1.32	.01	.00	.35	---	---	---
25	.00	.00	---	.00	.00	.13	.19	.02	.07	---	---	---
26	.00	.00	---	.00	.00	.59	.01	1.21	.00	---	---	---
27	.09	.00	---	.00	.00	.00	.00	.53	.00	---	---	---
28	.21	.00	---	.00	.00	.00	.00	.00	.00	---	---	---
29	.01	.00	---	.00	.00	.00	.18	.00	.59	---	---	---
30	.00	.00	---	.00	---	.12	.00	.00	.01	---	---	---
31	.02	---	---	.00	---	.01	---	.04	---	---	---	---
TOTAL	3.01	0.62	---	---	0.00	2.17	2.68	3.96	4.06	---	---	---

441356091405500 EAGLE CREEK RAIN GAGE E2-1005, SCHAFFNER FARM, NEAR FOUNTAIN CITY, WI

LOCATION.--Lat 44°13'56", long 91°40'55", in SW 1/4 SE 1/4 sec.3, T.20 N., R.11 W., Buffalo County, Hydrologic Unit 07040003, on Schaffner Valley Road, 1.7 mi north of junction with CTH G, near Fountain City.

PERIOD OF RECORD.--October 1990 to June 1996 (non-frozen precipitation), discontinued.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on July 19, 1990. Rainfall estimated to be 0.00 for Nov. 18, 26, 30, Jan. 13, Feb. 3, 10, 17, 20, Mar. 6, 9, 12–14, 16–19, 22, 27, and Apr. 6 because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for the period Dec. 4 to Jan. 12.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 5.46 in., Aug. 13, 1995.

EXTREMES FOR PERIOD OCTOBER 1995 THROUGH JUNE 1996.--Maximum daily rainfall, 1.53 in., Mar. 24.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.67	.00	---	.00	.00	.00	.00	.87	---	---	---
2	.18	.00	.00	---	.00	.00	.00	.52	.00	---	---	---
3	.01	.00	.00	---	.00	.00	.00	.04	.05	---	---	---
4	.00	.00	---	---	.00	.00	.00	.06	.00	---	---	---
5	.93	.00	---	---	.00	.00	.00	.14	.05	---	---	---
6	.31	.00	---	---	.00	.00	.00	.00	.06	---	---	---
7	.00	.00	---	---	.00	.00	.00	.40	.09	---	---	---
8	.21	.00	---	---	.00	.00	.00	.12	.00	---	---	---
9	.03	.00	---	---	.00	.00	.03	.01	.13	---	---	---
10	.00	.00	---	---	.00	.00	.00	.06	.06	---	---	---
11	.00	.00	---	---	.00	.00	.01	.00	.01	---	---	---
12	.00	.00	---	---	.00	.00	.01	.00	.21	---	---	---
13	.00	.00	---	.00	.00	.00	.00	.03	.01	---	---	---
14	.02	.00	---	.00	.00	.00	.05	.43	.00	---	---	---
15	.00	.00	---	.00	.00	.00	.35	.01	.00	---	---	---
16	.00	.00	---	.00	.00	.00	.00	.00	1.20	---	---	---
17	.00	.00	---	.18	.00	.00	.65	.00	.44	---	---	---
18	.00	.00	---	.00	.00	.00	.25	.00	.01	---	---	---
19	.04	.00	---	.00	.00	.00	.32	.32	.00	---	---	---
20	.01	.00	---	.00	.00	.00	.44	.00	.00	---	---	---
21	.03	.00	---	.00	.00	.00	.05	.00	.15	---	---	---
22	.00	.00	---	.00	.00	.00	.00	.00	.00	---	---	---
23	1.18	.00	---	.00	.00	.00	.19	.18	.20	---	---	---
24	.19	.00	---	.00	.00	1.53	.01	.00	.79	---	---	---
25	.00	.00	---	.00	.00	.15	.24	.03	.47	---	---	---
26	.00	.00	---	.00	.00	.77	.02	.98	.00	---	---	---
27	.13	.00	---	.00	.00	.00	.00	.41	.00	---	---	---
28	.21	.00	---	.00	.00	.00	.00	.00	.00	---	---	---
29	.00	.00	---	.00	.00	.00	.20	.00	.90	---	---	---
30	.00	.00	---	.00	---	.16	.00	.00	.01	---	---	---
31	.03	---	---	.00	---	.00	---	.07	---	---	---	---
TOTAL	3.57	0.67	---	---	0.00	2.61	2.82	3.81	5.71	---	---	---

441527091365300 JOOS VALLEY CREEK RAIN GAGE J3-1003, HANSEN FARM, NEAR ARCADIA, WI

LOCATION.--Lat 44°15'27", long 91°36'53", in NE 1/4 NW 1/4 sec.32, T.21 N., R.10 W., Buffalo County, Hydrologic Unit 07040003, on Hannon Road, 0.1 mi north of the junction with Pausy Pass, near Arcadia.

PERIOD OF RECORD.--October 1990 to June 1996 (non-frozen precipitation), discontinued.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on July 12, 1990. Rainfall estimated to be 0.00 for Nov. 19, Feb. 20, Mar. 9, 12–14, 17–19, 22, 27, and Apr. 2, 6 because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for the periods Dec. 4 to Jan. 12 and June 12, 16, 17.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 7.53 in., Aug. 13, 1995.

EXTREMES FOR PERIOD OCTOBER 1995 THROUGH JUNE 1996.--Maximum daily rainfall, 1.47 in., Mar. 24.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.64	.00	---	.00	.00	.00	.00	.96	---	---	---
2	.15	.00	.00	---	.00	.00	.00	.53	.02	---	---	---
3	.01	.00	.00	---	.00	.00	.00	.08	.04	---	---	---
4	.00	.00	---	---	.00	.00	.00	.04	.00	---	---	---
5	1.02	.00	---	---	.00	.00	.00	.14	.06	---	---	---
6	.20	.00	---	---	.00	.00	.00	.00	.07	---	---	---
7	.00	.00	---	---	.00	.00	.00	.51	.08	---	---	---
8	.20	.00	---	---	.00	.00	.00	.11	.00	---	---	---
9	.03	.00	---	---	.00	.00	.00	.01	.11	---	---	---
10	.00	.00	---	---	.00	.00	.00	.10	.04	---	---	---
11	.00	.00	---	---	.00	.00	.01	.00	.00	---	---	---
12	.00	.00	---	---	.00	.00	.05	.49	---	---	---	---
13	.00	.00	---	.00	.00	.00	.01	.02	.00	---	---	---
14	.01	.00	---	.00	.00	.00	.05	.29	.00	---	---	---
15	.00	.00	---	.00	.00	.00	.33	.01	.00	---	---	---
16	.00	.00	---	.00	.00	.00	.00	.00	---	---	---	---
17	.00	.00	---	.15	.00	.00	.71	.00	---	---	---	---
18	.00	.00	---	.00	.00	.00	.24	.00	.00	---	---	---
19	.04	.00	---	.00	.00	.00	.20	.28	.00	---	---	---
20	.01	.00	---	.00	.00	.00	.45	.00	.00	---	---	---
21	.04	.00	---	.00	.00	.00	.06	.17	.16	---	---	---
22	.00	.00	---	.00	.00	.00	.00	.01	.00	---	---	---
23	1.05	.00	---	.00	.00	.00	.23	.18	.20	---	---	---
24	.16	.00	---	.00	.00	1.47	.01	.00	.14	---	---	---
25	.00	.00	---	.00	.00	.08	.20	.05	.02	---	---	---
26	.00	.00	---	.00	.00	.59	.03	.99	.14	---	---	---
27	.10	.00	---	.00	.00	.00	.00	.71	.02	---	---	---
28	.15	.00	---	.00	.00	.00	.00	.00	.00	---	---	---
29	.00	.00	---	.00	.00	.00	.13	.00	.54	---	---	---
30	.00	.00	---	.00	---	.11	.00	.00	.00	---	---	---
31	.01	---	---	.00	---	.01	---	.04	---	---	---	---
TOTAL	3.27	0.64	---	---	0.00	2.26	2.71	4.76	---	---	---	---

441402091375900 JOOS VALLEY CREEK RAIN GAGE J2-1002, SLABY FARM, NEAR FOUNTAIN CITY, WI

LOCATION.--Lat 44°14'02", long 91°37'59", in NE 1/4 SE 1/4 sec.1, T.20 N., R.11 W., Buffalo County, Hydrologic Unit 07040003, on Slaby Farm entrance road just off Joos Valley Road, and approximately 3.1 mi northeast of the junction of Joos Valley Road and CTH G, near Fountain City.

PERIOD OF RECORD.--October 1990 to June 1996 (non-frozen precipitation), discontinued.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on July 12, 1990. Rainfall estimated to be 0.00 for Nov. 10, 18, 30, Dec. 4, 5, 14, 19, 31, Jan. 12, 13, Feb. 7, 8, 27, Mar. 14, 17, 21, 27, and Apr. 4 because recorded precipitation interpreted as collector snowmelt. Prior to October 1992, precipitation data published under number 441402091395900.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 6.36 in., Aug. 13, 1995.

EXTREMES FOR PERIOD OCTOBER 1995 THROUGH JUNE 1996.--Maximum daily rainfall, 1.59 in., Mar. 24.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.75	.00	.00	.00	.00	.00	.00	.84	---	---	---
2	.20	.00	.00	.00	.00	.00	.00	.55	.01	---	---	---
3	.01	.00	.00	.00	.00	.00	.00	.06	.02	---	---	---
4	.00	.00	.00	.00	.00	.00	.00	.04	.01	---	---	---
5	1.11	.00	.00	.00	.00	.00	.00	.12	.38	---	---	---
6	.33	.00	.00	.00	.00	.00	.00	.00	.35	---	---	---
7	.00	.00	.00	.00	.00	.00	.00	.00	.27	---	---	---
8	.21	.00	.00	.00	.00	.00	.00	.08	.00	---	---	---
9	.03	.00	.00	.00	.00	.00	.00	.09	.00	---	---	---
10	.00	.00	.00	.00	.00	.00	.00	.10	.03	---	---	---
11	.00	.00	.00	.00	.00	.00	.00	.00	.02	---	---	---
12	.00	.00	.00	.00	.00	.00	.08	.00	.06	---	---	---
13	.00	.00	.00	.00	.00	.00	.00	.00	.01	---	---	---
14	.00	.00	.00	.00	.00	.00	.00	.45	.00	---	---	---
15	.00	.00	.00	.00	.00	.00	.30	.01	.00	---	---	---
16	.00	.00	.00	.02	.00	.00	.00	.00	1.27	---	---	---
17	.00	.00	.00	.43	.00	.00	.00	.00	1.00	---	---	---
18	.00	.00	.00	.23	.00	.00	.26	.00	.01	---	---	---
19	.02	.01	.00	.00	.00	.00	.04	.24	.00	---	---	---
20	.01	.00	.00	.00	.00	.00	.01	.00	.00	---	---	---
21	.02	.00	.00	.00	.00	.00	.05	.00	.19	---	---	---
22	.00	.00	.00	.00	.00	.00	.01	.00	.00	---	---	---
23	1.12	.00	.00	.00	.08	.00	.03	.16	.21	---	---	---
24	.19	.00	.00	.00	.00	1.59	.00	.00	.00	---	---	---
25	.00	.00	.00	.00	.00	.01	.23	.03	.00	---	---	---
26	.00	.00	.00	.00	.00	.00	.02	.00	.00	---	---	---
27	.08	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
28	.24	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
29	.01	.00	.00	.00	.00	.00	.23	.00	.75	---	---	---
30	.00	.00	.00	.00	---	.15	.00	.00	.00	---	---	---
31	.01	---	.00	.00	---	.00	---	.00	---	---	---	---
TOTAL	3.65	0.76	0.00	0.68	0.08	1.75	1.26	1.93	5.43	---	---	---

05378183 JOOS VALLEY CREEK NEAR FOUNTAIN CITY, WI

LOCATION.--Lat 44°12'54", long 91°39'54", in NE 1/4 NW 1/4 sec.14, T.20 N., R.11 W., Buffalo County, Hydrologic Unit 07040003, on left bank at bridge on private road, 6.3 mi northeast of Fountain City.

DRAINAGE AREA.--5.89 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1990 to July 1996 (discontinued).

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

REMARKS.--Estimated daily discharges: July 31, and ice-affected periods, Dec. 6, 7, 9, Dec. 11 to Jan. 16, and Jan. 27 to Feb. 6. Records good except those for estimated daily discharges, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	4.8	3.2	2.6	2.8	3.4	5.1	3.2	3.2	3.0	---	---
2	3.1	4.4	3.2	2.6	2.7	3.3	5.2	3.2	3.0	3.8	---	---
3	3.3	3.9	3.2	2.6	2.7	3.3	5.0	4.2	2.5	3.1	---	---
4	3.1	3.8	3.2	2.6	2.7	3.3	4.6	3.4	2.5	2.9	---	---
5	3.8	3.6	2.7	2.6	2.8	3.3	4.2	3.5	2.5	2.7	---	---
6	5.1	3.6	2.7	2.6	2.9	3.3	4.1	3.4	3.0	2.7	---	---
7	3.9	3.6	2.7	2.6	3.2	3.2	4.1	3.3	4.2	2.8	---	---
8	3.6	3.3	2.7	2.6	3.5	3.1	3.9	3.3	3.0	2.6	---	---
9	3.9	3.4	2.6	2.5	3.5	3.2	3.9	3.2	2.7	3.0	---	---
10	3.6	3.4	2.8	2.4	3.5	3.3	3.9	3.4	2.5	2.8	---	---
11	3.4	3.4	2.7	2.5	3.3	4.1	4.0	3.1	2.5	2.7	---	---
12	3.4	3.3	2.7	2.5	3.3	6.9	4.1	3.0	2.5	3.4	---	---
13	3.3	3.3	2.7	2.5	3.3	19	4.1	2.9	2.4	3.5	---	---
14	3.3	3.3	2.7	2.5	3.3	17	3.9	3.4	2.2	3.2	---	---
15	3.3	3.3	2.7	2.5	3.2	12	4.2	3.5	2.2	3.0	---	---
16	3.3	3.3	2.7	2.5	3.1	9.1	4.1	3.1	2.8	2.8	---	---
17	3.3	3.3	2.7	3.6	3.1	8.3	3.8	3.0	7.7	2.9	---	---
18	3.3	3.3	2.7	5.9	3.0	5.4	4.2	2.9	5.2	2.8	---	---
19	3.3	3.3	2.7	4.0	3.2	4.9	4.2	3.2	4.3	2.7	---	---
20	3.3	3.3	2.7	3.7	3.3	4.6	3.9	2.8	3.9	2.6	---	---
21	3.3	3.3	2.7	3.5	3.2	4.6	3.6	2.6	3.8	2.5	---	---
22	3.3	3.3	2.6	3.4	3.2	4.7	3.7	2.5	3.6	2.7	---	---
23	4.9	3.1	2.7	3.3	3.9	4.4	3.5	2.7	3.5	2.6	---	---
24	4.6	3.1	2.7	3.2	5.3	41	3.5	2.5	3.4	2.5	---	---
25	3.8	3.2	2.7	3.2	6.2	17	3.8	2.4	3.1	2.6	---	---
26	3.6	3.2	2.7	3.2	5.0	5.2	3.5	2.4	3.1	2.5	---	---
27	3.7	3.2	2.7	3.0	3.9	5.2	3.3	2.4	3.0	2.5	---	---
28	3.9	3.1	2.7	3.0	3.5	6.1	3.2	2.3	2.8	5.9	---	---
29	3.7	3.1	2.7	3.0	3.4	6.4	3.3	2.2	3.8	3.1	---	---
30	3.6	3.1	2.6	2.9	---	6.0	3.4	2.3	3.3	2.9	---	---
31	3.6	---	2.6	2.8	---	5.4	---	2.2	---	2.6	---	---
TOTAL	111.8	102.6	85.4	92.4	100.0	230.0	119.3	91.5	98.2	91.4	---	---
MEAN	3.61	3.42	2.75	2.98	3.45	7.42	3.98	2.95	3.27	2.95	---	---
MAX	5.1	4.8	3.2	5.9	6.2	41	5.2	4.2	7.7	5.9	---	---
MIN	3.1	3.1	2.6	2.4	2.7	3.1	3.2	2.2	2.2	2.5	---	---
CFSM	.61	.58	.47	.51	.59	1.26	.68	.50	.56	.50	---	---
IN.	.71	.65	.54	.58	.63	1.45	.75	.58	.62	.58	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1996, BY WATER YEAR (WY)

MEAN	3.72	4.32	3.55	3.15	3.69	5.99	5.66	4.68	4.08	3.86	5.05	4.33
MAX	5.01	6.24	4.65	4.15	6.85	8.25	10.0	7.26	7.96	7.99	7.06	5.89
(WY)	1994	1992	1994	1994	1994	1995	1993	1993	1993	1993	1993	1993
MIN	2.40	2.09	1.92	1.89	2.05	3.66	3.98	2.95	2.88	2.66	2.98	2.68
(WY)	1991	1991	1991	1991	1991	1991	1996	1996	1995	1990	1991	1991

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR (OCTOBER-JULY)		WATER YEARS 1990 - 1996	
ANNUAL TOTAL	1504.9					
ANNUAL MEAN	4.12				4.48	
HIGHEST ANNUAL MEAN					5.81	1993
LOWEST ANNUAL MEAN					3.03	1991
HIGHEST DAILY MEAN	90	Aug 14	41	Mar 24	90	Aug 14 1995
LOWEST DAILY MEAN	2.2	Aug 9,11	2.2	(a)May 29	1.5	Dec 27 1990
ANNUAL SEVEN-DAY MINIMUM	2.3	Aug 6	2.3	May 25	1.6	Dec 22 1990
INSTANTANEOUS PEAK FLOW			257	Mar 24	(b)1480	Aug 14 1995
INSTANTANEOUS PEAK STAGE			8.21	Mar 24	12.14	Aug 14 1995
INSTANTANEOUS LOW FLOW			(c).54	Dec 5	(c).54	(d)Dec 3 1990
ANNUAL RUNOFF (CFSM)	.70				.76	
ANNUAL RUNOFF (INCHES)	9.50				10.34	
10 PERCENT EXCEEDS	5.0		4.6		5.9	
50 PERCENT EXCEEDS	3.3		3.3		3.6	
90 PERCENT EXCEEDS	2.6		2.6		2.5	

(a) Also occurred May 31 and June 14 and 15
(b) From rating curve extended above 86 ft^3/s on basis of step-backwater method
(c) Result of freezeup
(d) Also occurred Dec. 5, 1995

05378183 JOOS VALLEY CREEK NEAR FOUNTAIN CITY, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1990 to June 1996 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July 1990 to June 1996.
DISSOLVED OXYGEN: July 1990 to September 1992.
SUSPENDED-SOLIDS DISCHARGE: July 1990 to June 1996.
TOTAL-PHOSPHORUS DISCHARGE: July 1990 to June 1996.

INSTRUMENTATION.--Water-quality sampler July 1990 to current year; continuous water-temperature recorder July 1990 to current year; dissolved-oxygen recorder July 1990 to September 1992.

REMARKS.--Chemical analyses by the Wisconsin State Laboratory of Hygiene. Suspended-sediment and particle-size analyses by U.S. Geological Survey Laboratory. Samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum observed, 31.0°C, June 27-28, 1991 and July 13, 1995; minimum observed, 0.0°C, on many days during 1991, 1992, 1993, 1995, and 1996 winter periods.
DISSOLVED OXYGEN: Maximum observed, 15.8 mg/L, Apr. 26, 1991; minimum observed, 4.3 mg/L, June 28, 1991.
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 4,570 tons, Aug. 14, 1995; minimum daily, 0.04 ton, Nov. 8-9, 1990, Aug. 2-12, 1995, Oct. 1–4, 13–22, 1995, and May 9, 1996.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 7,350 lb, Aug. 14, 1995; minimum daily, 0.22 lb, Nov. 9, 1990.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum observed, 28.5°C, June 28–29; minimum observed, 0.0°C, Nov. 23–24, 27 –30, Dec. 5–11, 13, Jan. 2–3, 5–7, 14–15, 17–31, Feb. 1–9, 16–18, 27–29, Mar. 1–4, 6–10, 21, and 24–27.
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 823 tons, Mar. 24; minimum daily, 0.04 ton, Oct. 1–4, 13–22, and May 9.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 1,420 lb, Mar. 24; minimum daily, 0.33 lb, May 9.

WATER-QUALITY DATA, OCTOBER 1995 TO JUNE 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995											
*10...	1307	--	3.6	8.4	1.1	90	5	<0.027	0.039	--	--
*23...	1207	--	4.6	8.3	2.0	630	29	0.042	0.076	--	--
NOV											
*06...	1148	--	3.6	8.2	<1.0	270	10	0.031	0.037	--	--
DEC											
*04...	1358	--	3.2	8.2	1.5	130	8	<0.027	0.029	--	--
JAN 1996											
*12...	1251	2.5	--	8.2	1.2	220	13	<0.027	0.029	--	--
FEB											
25...	0040	--	6.5	8.1	6.4	--	63	0.528	0.445	--	--
26...	0015	--	6.3	8.2	6.8	--	36	0.394	0.498	--	--
*27...	1032	--	4.0	--	--	900	--	--	--	--	--
MAR											
*11...	1438	--	4.4	8.2	1.6	<10	78	0.059	0.083	--	--
13...	1325	--	9.9	--	--	2000	1040	2.94	3.23	--	--
13...	1440	--	22	--	--	--	--	--	--	673	98
13...	1530	--	40	--	--	3800	2170	1.92	3.18	--	--
*13...	1555	--	45	--	--	--	--	--	--	2390	--
13...	1600	--	62	7.9	--	6900	3170	1.57	3.80	--	84
*13...	2125	--	30	--	--	--	--	--	--	1230	98
*13...	2250	--	36	--	--	2500	4090	2.08	4.30	--	78
14...	1035	--	7.9	7.9	--	1500	139	1.76	1.39	--	--
14...	1350	--	19	7.7	--	--	252	1.10	1.01	--	--
14...	1445	--	28	7.5	--	--	490	0.877	1.14	--	--
14...	2230	--	16	7.4	--	--	260	1.30	1.24	--	--
15...	1400	--	19	7.7	--	--	210	0.815	0.765	--	--
15...	1515	--	28	7.5	--	--	430	0.582	1.06	--	--
15...	1910	--	15	7.5	--	--	140	0.927	0.902	--	--
16...	1520	--	18	7.9	--	--	176	0.378	0.448	--	--
24...	1540	--	29	--	--	--	575	0.860	1.08	--	--
24...	2050	--	73	--	--	--	3160	1.51	3.56	--	--
24...	2130	--	147	--	--	--	10100	1.13	7.77	--	--
24...	2140	--	206	--	--	--	14200	1.10	10.4	--	--
24...	2150	--	241	7.6	--	--	18200	1.15	12.7	--	--
24...	2315	--	203	--	--	--	9280	1.58	8.99	--	--

* Equal-width increment (EWI) sample

05378183 JOOS VALLEY CREEK NEAR FOUNTAIN CITY, WI--CONTINUED

WATER-QUALITY DATA, OCTOBER 1995 TO JUNE 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
MAR 1996									
25...	0010	--	138	--	--	--	6040	1.61	6.52
25...	0135	--	67	--	--	--	3030	1.72	4.61
25...	0710	--	8.3	--	--	--	220	1.45	1.89
*26...	1359	--	6.2	8.2	--	<10	88	0.219	0.390
APR									
11...	1127	--	3.9	8.5	--	<10	11	<0.027	0.033
25...	1253	--	4.3	8.3	1.3	50	10	<0.027	0.025
MAY									
*23...	1306	--	2.7	8.4	--	--	11	0.069	0.029
*23...	1334	--	2.7	--	--	320	--	--	--
JUN									
*06...	1058	--	2.9	8.2	--	480	13	0.054	0.244
17...	1835	--	15	--	--	--	638	0.077	0.623
*19...	1716	--	4.1	8.3	--	1000	22	0.031	0.063
JUL									
*12...	1429	--	3.2	8.6	<3.0	450	12	<0.027	0.045

* Equal-width increment (EWI) sample

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.5	13.5	14.5	6.0	5.5	6.0	1.5	.5	1.0	2.0	1.0	1.5
2	13.5	11.5	12.5	6.0	2.0	5.0	3.0	.5	1.5	1.5	.0	1.0
3	14.5	11.5	13.0	2.5	1.5	2.0	3.5	1.5	2.5	.5	.0	.5
4	14.5	10.5	12.5	3.5	1.0	2.0	2.5	.5	1.5	.5	.5	.5
5	13.0	10.5	11.5	4.5	1.5	3.0	2.5	.0	1.0	.5	.0	.5
6	12.0	10.5	11.5	6.5	4.0	5.0	.0	.0	.0	.5	.0	.5
7	11.0	9.5	10.5	5.0	2.0	3.5	.0	.0	.0	.5	.0	.5
8	13.0	9.0	11.0	2.0	.5	1.5	.0	.0	.0	.5	.5	.5
9	12.5	11.0	12.0	3.0	.5	1.5	.0	.0	.0	.5	.5	.5
10	14.5	9.5	12.0	4.5	3.0	3.5	.0	.0	.0	.5	.5	.5
11	16.0	9.5	12.5	3.0	.5	1.5	.5	.0	.0	.5	.5	.5
12	17.5	12.0	14.5	2.0	.5	1.5	.5	.5	.5	1.0	.5	.5
13	16.5	13.0	15.0	2.5	.5	1.5	.5	.0	.5	1.0	.5	.5
14	13.0	8.5	10.5	2.5	1.0	2.0	.5	.5	.5	1.0	.0	.5
15	10.5	6.5	8.5	3.0	.5	2.0	.5	.5	.5	.5	.0	.5
16	11.0	5.5	8.5	4.5	2.5	3.5	.5	.5	.5	.5	.5	.5
17	13.5	9.0	11.0	4.0	2.5	3.5	.5	.5	.5	1.0	.5	.5
18	12.0	9.0	11.0	3.5	2.5	3.0	.5	.5	.5	.5	.0	.0
19	11.5	9.5	10.5	4.5	2.0	3.5	1.0	.5	.5	.0	.0	.0
20	9.5	7.5	8.5	3.5	2.0	2.5	.5	.5	.5	.0	.0	.0
21	7.5	6.0	6.5	2.0	.5	1.5	1.0	.5	.5	.5	.0	.5
22	8.5	5.5	7.0	2.0	.5	1.0	.5	.5	.5	.5	.0	.5
23	8.0	6.5	7.0	1.0	.0	.5	1.0	.5	1.0	.5	.0	.5
24	9.0	7.0	7.5	.5	.0	.5	1.0	.5	1.0	.5	.0	.5
25	10.0	5.5	7.5	1.5	.5	1.0	1.0	.5	.5	.5	.0	.0
26	9.5	6.5	8.5	2.0	1.0	1.5	.5	.5	.5	.5	.0	.0
27	10.0	8.5	9.5	2.0	.0	1.0	.5	.5	.5	.0	.0	.0
28	10.0	8.5	9.0	1.0	.0	.5	.5	.0	.5	.5	.0	.0
29	8.5	6.0	7.0	.5	.0	.5	.5	.5	.5	.5	.0	.0
30	6.5	4.0	5.5	1.0	.0	.5	1.0	.5	.5	.5	.0	.0
31	7.0	5.5	6.0	---	---	---	1.0	.5	1.0	.5	.0	.0
MONTH	17.5	4.0	10.1	6.5	.0	2.2	3.5	.0	.6	2.0	.0	.4

05378183 JOOS VALLEY CREEK NEAR FOUNTAIN CITY, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	1.0	.0	.5	10.0	2.5	6.0	14.0	5.0	9.5
2	.0	.0	.0	.5	.0	.0	10.5	5.0	7.5	12.0	6.0	9.0
3	.5	.0	.0	.0	.0	.0	6.0	3.5	4.5	15.0	8.0	11.5
4	.5	.0	.0	.5	.0	.0	5.5	2.5	4.0	15.0	9.5	12.0
5	.5	.0	.5	1.0	.5	.5	6.5	1.5	4.0	11.5	7.5	9.0
6	.5	.0	.5	.5	.0	.0	7.5	1.5	4.5	10.5	6.5	8.5
7	.5	.0	.5	.5	.0	.0	10.5	3.0	6.0	17.0	8.0	12.0
8	.5	.0	.5	.0	.0	.0	11.5	2.5	6.5	13.0	10.0	11.0
9	.5	.0	.5	.5	.0	.5	12.5	3.0	7.5	11.5	9.0	10.0
10	.5	.5	.5	1.0	.0	.5	13.5	4.0	8.5	13.0	10.0	11.0
11	.5	.5	.5	1.5	.5	1.0	14.5	7.5	11.0	15.0	7.5	11.0
12	1.0	.5	.5	2.5	.5	1.0	11.0	5.0	7.0	16.0	7.0	11.5
13	1.0	.5	.5	6.0	.5	2.0	8.5	4.0	6.0	17.0	7.0	12.0
14	1.0	.5	.5	5.0	.5	2.5	6.5	4.5	5.5	12.0	8.5	9.5
15	1.0	.5	.5	7.0	1.0	2.5	10.0	3.5	6.0	13.0	8.5	10.5
16	.5	.0	.5	7.5	1.0	3.0	12.5	5.0	8.0	19.0	11.0	14.5
17	1.0	.0	.5	6.5	3.0	4.5	15.0	4.5	9.5	20.5	14.0	17.0
18	.5	.0	.5	4.5	2.0	3.0	11.0	9.0	10.0	24.0	16.0	20.0
19	1.5	.5	1.0	5.0	1.5	3.0	16.5	7.5	11.5	22.0	17.5	19.5
20	2.5	1.0	1.5	6.5	.5	3.0	12.0	8.0	10.5	19.5	15.0	17.0
21	2.5	.5	1.5	6.5	.0	3.0	13.5	5.5	9.5	21.0	12.0	16.5
22	3.0	1.5	2.5	8.0	.5	4.0	12.5	7.5	10.0	22.0	12.0	17.0
23	2.5	1.5	2.0	5.5	1.5	3.5	15.0	4.5	9.5	17.5	12.5	14.5
24	4.5	1.0	2.5	4.0	.0	2.5	16.5	7.0	11.5	14.5	9.5	11.5
25	4.5	1.0	2.5	.5	.0	.0	14.0	9.5	11.5	12.0	10.0	10.5
26	3.0	1.5	2.5	.5	.0	.0	13.5	6.0	9.5	11.0	9.5	10.0
27	2.5	.0	1.5	3.0	.0	1.5	14.0	5.0	9.5	11.0	8.0	9.5
28	.5	.0	.0	8.0	1.0	4.0	14.5	6.0	10.0	17.5	8.5	12.5
29	.5	.0	.5	10.0	2.5	6.0	10.5	6.0	8.0	20.5	9.5	15.0
30	---	---	---	5.5	3.5	4.5	11.5	5.0	8.0	21.5	11.0	16.0
31	---	---	---	9.5	2.0	5.0	---	---	---	20.5	11.5	16.0
MONTH	4.5	.0	.9	10.0	.0	2.0	16.5	1.5	8.0	24.0	5.0	12.7
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	14.0	15.5	---	---	---	---	---	---	---	---	---
2	20.0	12.5	16.5	---	---	---	---	---	---	---	---	---
3	16.0	12.5	14.0	---	---	---	---	---	---	---	---	---
4	14.5	11.0	13.0	---	---	---	---	---	---	---	---	---
5	14.0	9.0	12.0	---	---	---	---	---	---	---	---	---
6	18.5	11.5	14.5	---	---	---	---	---	---	---	---	---
7	15.5	13.0	14.0	---	---	---	---	---	---	---	---	---
8	22.5	11.0	16.5	---	---	---	---	---	---	---	---	---
9	24.0	13.0	18.5	---	---	---	---	---	---	---	---	---
10	18.5	15.5	17.0	---	---	---	---	---	---	---	---	---
11	22.5	15.0	18.0	---	---	---	---	---	---	---	---	---
12	26.5	14.5	20.5	---	---	---	---	---	---	---	---	---
13	26.5	17.5	22.0	---	---	---	---	---	---	---	---	---
14	26.0	15.5	20.5	---	---	---	---	---	---	---	---	---
15	26.0	15.5	20.5	---	---	---	---	---	---	---	---	---
16	21.5	18.0	19.0	---	---	---	---	---	---	---	---	---
17	18.0	16.0	16.5	---	---	---	---	---	---	---	---	---
18	16.0	14.5	15.0	---	---	---	---	---	---	---	---	---
19	17.0	14.0	15.5	---	---	---	---	---	---	---	---	---
20	23.5	14.5	18.5	---	---	---	---	---	---	---	---	---
21	21.5	16.0	18.5	---	---	---	---	---	---	---	---	---
22	23.5	14.5	18.5	---	---	---	---	---	---	---	---	---
23	20.0	14.5	17.0	---	---	---	---	---	---	---	---	---
24	21.0	15.5	18.0	---	---	---	---	---	---	---	---	---
25	25.0	14.0	19.0	---	---	---	---	---	---	---	---	---
26	24.0	16.0	20.0	---	---	---	---	---	---	---	---	---
27	27.5	16.5	21.5	---	---	---	---	---	---	---	---	---
28	28.5	18.0	23.0	---	---	---	---	---	---	---	---	---
29	28.5	21.0	24.0	---	---	---	---	---	---	---	---	---
30	27.0	19.5	23.0	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	28.5	9.0	18.0	---	---	---	---	---	---	---	---	---

SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED(TONS PER DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.44	.07	.08	.11	.20	.56	.06	.19	---	---	---
2	.04	.27	.07	.08	.10	.20	1.2	.06	.15	---	---	---
3	.04	.12	.07	.08	.10	.21	.42	.42	.08	---	---	---
4	.04	.11	.07	.08	.10	.21	.34	.06	.09	---	---	---
5	.12	.10	.06	.08	.11	.22	.27	.06	.09	---	---	---
6	.61	.10	.06	.08	.11	.23	.23	.05	.15	---	---	---
7	.05	.10	.06	.09	.12	.23	.21	.05	.53	---	---	---
8	.05	.09	.06	.09	.13	.23	.17	.05	.11	---	---	---
9	.05	.09	.06	.08	.14	.25	.15	.04	.11	---	---	---
10	.05	.09	.07	.08	.14	.26	.13	.24	.10	---	---	---
11	.05	.09	.06	.09	.13	.56	.12	.05	.11	---	---	---
12	.05	.09	.06	.09	.13	2.4	.12	.05	.11	---	---	---
13	.04	.08	.07	.09	.13	48	.12	.05	.12	---	---	---
14	.04	.08	.07	.09	.13	13	.11	.23	.11	---	---	---
15	.04	.08	.07	.09	.13	6.3	.53	.25	.11	---	---	---
16	.04	.08	.07	.09	.12	6.2	.48	.06	.27	---	---	---
17	.04	.08	.07	.13	.12	2.6	.11	.06	7.0	---	---	---
18	.04	.08	.07	.21	.12	1.3	.53	.06	1.7	---	---	---
19	.04	.08	.07	.14	.13	.99	.53	.19	.28	---	---	---
20	.04	.08	.07	.13	.13	.81	.11	.07	.23	---	---	---
21	.04	.08	.07	.13	.13	.70	.10	.07	.22	---	---	---
22	.04	.08	.07	.12	.13	.63	.10	.07	.20	---	---	---
23	.37	.07	.07	.12	.41	.52	.10	.08	.19	---	---	---
24	.25	.07	.07	.12	1.0	823	.10	.08	.18	---	---	---
25	.19	.07	.08	.12	.81	114	.36	.07	.16	---	---	---
26	.17	.07	.08	.12	.41	1.2	.09	.07	.15	---	---	---
27	.17	.07	.08	.11	.34	1.1	.08	.07	.15	---	---	---
28	.17	.07	.08	.11	.25	1.2	.07	.07	.13	---	---	---
29	.15	.07	.08	.11	.19	1.4	.07	.07	.36	---	---	---
30	.14	.07	.08	.11	---	.85	.24	.07	.15	---	---	---
31	.13	---	.08	.10	---	.68	---	.07	---	---	---	---
TOTAL	3.33	3.05	2.17	3.24	6.10	1029.68	7.75	2.95	13.53	---	---	---

WTR YR 1996 TOTAL 1,072

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	1.4	.51	.41	1.5	4.2	4.3	.38	2.0	---	---	---
2	.67	1.2	.50	.41	1.6	3.4	3.7	.38	2.2	---	---	---
3	.71	.80	.50	.41	1.7	2.8	3.1	2.7	2.1	---	---	---
4	.67	.76	.50	.41	1.8	2.4	2.5	.39	2.4	---	---	---
5	.81	.73	.42	.41	2.0	2.0	1.9	.39	2.8	---	---	---
6	1.6	.72	.42	.41	2.2	1.7	1.6	.37	3.9	---	---	---
7	.95	.71	.42	.41	2.6	1.4	1.4	.35	5.0	---	---	---
8	.77	.64	.42	.41	3.0	1.1	1.1	.34	3.3	---	---	---
9	.82	.65	.41	.39	3.2	.98	.94	.33	2.7	---	---	---
10	.75	.65	.44	.38	3.4	.84	.80	.36	2.3	---	---	---
11	.72	.64	.42	.39	3.4	5.9	.72	.34	2.1	---	---	---
12	.71	.63	.42	.39	3.6	14	.71	.34	1.9	---	---	---
13	.69	.62	.42	.42	3.8	199	.69	.34	1.7	---	---	---
14	.69	.61	.42	.44	4.1	120	.65	3.0	1.4	---	---	---
15	.70	.60	.42	.47	4.2	56	.70	2.1	1.3	---	---	---
16	.70	.60	.42	.50	4.3	33	.67	.40	2.1	---	---	---
17	.70	.59	.42	.77	4.7	21	.60	.40	14	---	---	---
18	.70	.59	.42	1.3	4.8	12	2.7	.39	4.7	---	---	---
19	.70	.58	.42	.98	5.4	10	2.7	1.8	1.4	---	---	---
20	.70	.58	.42	.96	6.0	9.3	.59	.40	1.3	---	---	---
21	.70	.57	.42	.96	6.1	8.6	.53	.39	1.3	---	---	---
22	.71	.57	.41	1.0	6.6	8.4	.53	.38	1.2	---	---	---
23	1.9	.54	.42	1.0	8.6	7.4	.49	.42	1.1	---	---	---
24	1.0	.53	.42	1.0	12	1420	.48	.46	1.1	---	---	---
25	.82	.54	.42	1.1	16	153	2.3	.51	.97	---	---	---
26	.78	.53	.42	1.2	12	10	.46	.59	.95	---	---	---
27	.79	.54	.42	1.2	8.0	9.4	.43	.69	.91	---	---	---
28	.81	.52	.42	1.3	6.1	9.5	.41	.78	.85	---	---	---
29	.78	.50	.42	1.4	4.9	9.9	.42	.86	1.1	---	---	---
30	.75	.50	.41	1.4	---	6.8	2.0	1.0	.97	---	---	---
31	.75	---	.41	1.4	---	5.3	---	1.2	---	---	---	---
TOTAL	25.24	19.64	13.33	23.63	147.6	2149.32	40.12	22.78	71.05	---	---	---

WTR YR 1996 TOTAL 2,513

05378183 JOOS VALLEY CREEK NEAR FOUNTAIN CITY, WI--CONTINUED

PRECIPITATION QUANTITY

PERIOD OF RECORD.--October 1990 to June 1996 (non-frozen precipitation), discontinued.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on July 12, 1990. Rainfall estimated to be 0.00 for Nov. 26, Dec. 13, Jan. 11, 21, 26, 29, and Mar. 14, 16, 17 because recorded precipitation interpreted as collector snowmelt.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 4.26 in., Aug. 13, 1995.

EXTREMES FOR PERIOD OCTOBER 1995 THROUGH JUNE 1996.--Maximum daily rainfall, 1.16 in., Mar. 24.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.47	.00	.00	.00	.00	.00	.00	.79	---	---	---
2	.22	.00	.00	.00	.00	.00	.00	.45	.00	---	---	---
3	.01	.00	.00	.00	.00	.00	.00	.03	.00	---	---	---
4	.00	.00	.00	.00	.00	.00	.00	.01	.00	---	---	---
5	.91	.00	.00	.00	.00	.00	.00	.10	.32	---	---	---
6	.25	.00	.00	.00	.00	.00	.00	.00	.21	---	---	---
7	.00	.00	.00	.00	.00	.00	.00	.00	.29	---	---	---
8	.20	.00	.00	.00	.00	.00	.00	.02	.00	---	---	---
9	.02	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
10	.00	.00	.00	.00	.00	.00	.00	.11	.00	---	---	---
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
12	.00	.00	.00	.00	.00	.00	.02	.00	.15	---	---	---
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
14	.01	.00	.00	.00	.00	.00	.05	.34	.00	---	---	---
15	.00	.00	.00	.00	.00	.00	.15	.00	.00	---	---	---
16	.00	.00	.00	.00	.00	.00	.00	.00	1.12	---	---	---
17	.00	.00	.00	.12	.00	.00	.00	.00	1.06	---	---	---
18	.00	.00	.00	.12	.00	.00	.18	.00	.00	---	---	---
19	.02	.00	.00	.00	.00	.00	.02	.12	.00	---	---	---
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
21	.01	.00	.00	.00	.00	.00	.02	.00	.16	---	---	---
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
23	.96	.00	.00	.00	.01	.00	.03	.08	.11	---	---	---
24	.16	.00	.00	.00	.00	1.16	.00	.00	.00	---	---	---
25	.00	.00	.00	.00	.00	.06	.14	.01	.00	---	---	---
26	.00	.00	.00	.00	.00	.02	.00	.00	.00	---	---	---
27	.05	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
28	.12	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
29	.00	.00	.00	.00	.00	.00	.12	.00	.87	---	---	---
30	.00	.00	.00	.00	---	.10	.00	.00	.00	---	---	---
31	.00	---	.00	.00	---	.00	---	.00	---	---	---	---
TOTAL	2.98	0.47	0.00	0.24	0.01	1.34	0.73	1.27	5.08	---	---	---

05378185 EAGLE CREEK, AT COUNTY HIGHWAY G, NEAR FOUNTAIN CITY, WI

LOCATION.--Lat 44°12'34", long 91°40'42", in SW 1/4 NE 1/4 sec.15, T.20 N., R.11 W., Buffalo County, Hydrologic Unit 07040003, on right bank, at CTH "G" and 5.7 mi north of Fountain City.

DRAINAGE AREA.--14.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1990 to July 1996 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 770 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: July 30, 31, and ice-affected periods, Dec. 6, 7, 9–14, 28, Jan. 3, 7, 8, Jan. 27 to Feb. 8, Feb. 16–22, Mar. 1, 3, and 7. Records good except those for estimated daily discharges, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	11	7.0	5.7	5.8	7.4	12	8.0	9.5	8.3	---	---
2	6.9	11	7.0	5.8	5.8	7.3	13	8.2	9.4	10	---	---
3	7.1	9.3	7.0	5.6	5.6	7.0	13	10	8.3	8.4	---	---
4	6.8	8.8	7.0	5.8	5.6	7.3	12	8.6	8.1	8.1	---	---
5	8.0	8.6	6.3	5.8	6.0	7.0	11	9.1	8.1	8.0	---	---
6	12	8.4	6.0	5.7	6.0	7.0	11	8.9	9.3	8.0	---	---
7	9.1	8.1	6.0	5.6	6.0	7.0	10	8.7	11	8.0	---	---
8	8.1	7.7	6.2	5.6	7.2	7.6	10	8.7	9.0	7.6	---	---
9	8.6	7.8	5.8	5.5	7.7	6.9	10	8.8	8.3	8.3	---	---
10	7.9	7.9	5.8	5.3	7.7	7.1	10	9.5	8.2	7.9	---	---
11	7.6	7.7	5.8	5.5	7.4	8.9	11	9.0	8.3	7.7	---	---
12	7.6	7.5	5.8	5.5	7.2	14	11	8.8	8.1	9.2	---	---
13	7.4	7.2	6.0	5.5	7.2	28	10	8.7	8.0	9.5	---	---
14	7.1	7.2	6.0	5.6	7.2	25	10	9.7	7.6	8.7	---	---
15	7.0	7.2	6.2	5.6	7.0	19	10	10	7.5	8.1	---	---
16	6.8	7.2	6.0	5.7	6.8	16	10	9.5	8.3	7.9	---	---
17	6.9	7.2	6.0	5.8	6.8	16	9.8	9.3	16	8.0	---	---
18	6.8	7.2	6.0	11	6.6	13	10	9.2	13	8.0	---	---
19	6.8	7.2	6.0	17	6.8	12	11	9.8	11	7.6	---	---
20	6.8	7.1	6.1	7.7	7.0	11	9.8	9.2	10	7.6	---	---
21	6.9	7.1	6.2	7.5	7.0	11	9.3	8.8	10	7.4	---	---
22	6.8	6.8	6.0	7.0	7.0	11	9.2	8.6	9.4	7.7	---	---
23	11	6.7	6.0	6.8	8.8	11	8.7	9.0	9.4	7.1	---	---
24	11	6.7	6.0	6.8	12	62	8.6	8.6	9.2	6.7	---	---
25	9.3	6.8	6.0	6.8	13	37	9.2	8.2	8.7	6.6	---	---
26	8.8	6.8	5.8	6.7	11	14	8.6	8.3	8.5	6.5	---	---
27	8.9	7.1	5.8	6.6	8.7	13	8.1	8.2	8.2	6.5	---	---
28	9.4	6.9	5.6	6.4	7.7	14	8.1	8.1	8.1	13	---	---
29	8.7	7.1	5.7	6.2	8.0	15	8.4	8.0	9.8	7.9	---	---
30	8.3	7.0	5.7	6.2	---	14	8.5	7.9	9.4	7.2	---	---
31	8.2	---	5.7	6.0	---	13	---	7.9	---	6.8	---	---
TOTAL	249.6	230.3	188.5	204.3	216.6	449.5	301.3	273.3	277.7	248.3	---	---
MEAN	8.05	7.68	6.08	6.59	7.47	14.5	10.0	8.82	9.26	8.01	---	---
MAX	12	11	7.0	17	13	62	13	10	16	13	---	---
MIN	6.8	6.7	5.6	5.3	5.6	6.9	8.1	7.9	7.5	6.5	---	---
CFSM	.56	.54	.43	.46	.52	1.01	.70	.62	.65	.56	---	---
IN.	.65	.60	.49	.53	.56	1.17	.78	.71	.72	.65	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1996, BY WATER YEAR (WY)

MEAN	8.47	9.54	8.02	7.13	8.21	12.2	13.1	11.9	10.7	10.1	11.7	10.7
MAX	11.9	12.9	10.9	9.65	14.3	15.9	21.2	16.4	21.4	19.7	17.8	14.2
(WY)	1994	1992	1994	1994	1994	1995	1993	1991	1993	1993	1993	1993
MIN	6.44	5.58	4.90	4.70	5.09	7.98	10.0	8.82	7.48	7.35	6.97	6.31
(WY)	1991	1991	1991	1991	1991	1991	1996	1992	1995	1995	1991	1991

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR (OCTOBER-JULY)		WATER YEARS 1991 - 1996	
ANNUAL TOTAL	3364.3					
ANNUAL MEAN	9.22				10.4	
HIGHEST ANNUAL MEAN					13.5	1993
LOWEST ANNUAL MEAN					7.75	1991
HIGHEST DAILY MEAN	192	Aug 14	62	Mar 24	192	Aug 14 1995
LOWEST DAILY MEAN	(a)5.6	Dec 28	5.3	Jan 10	3.9	Dec 3 1990
ANNUAL SEVEN-DAY MINIMUM	5.8	Dec 25	5.5	Jan 7	4.4	Jan 25 1991
INSTANTANEOUS PEAK FLOW			348	Mar 24	(b)2400	Aug 14 1995
INSTANTANEOUS PEAK STAGE			7.18	Mar 24	11.61	Aug 14 1995
INSTANTANEOUS LOW FLOW			(c)4.0	Dec 5	(c)1.7	Dec 3 1990
ANNUAL RUNOFF (CFSM)	.64				.73	
ANNUAL RUNOFF (INCHES)	8.75				9.85	
10 PERCENT EXCEEDS	11		11		14	
50 PERCENT EXCEEDS	7.7		7.9		8.6	
90 PERCENT EXCEEDS	6.5		5.8		6.1	

(a) Ice affected
(b) From rating curve extended above 380 ft^3/s on basis of step-backwater method
(c) Result of freezeup

05378185 EAGLE CREEK, AT COUNTY HIGHWAY G, NEAR FOUNTAIN CITY, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1990 to June 1996 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 1990 to June 1996.

DISSOLVED OXYGEN: July 1990 to September 1992.

SUSPENDED-SOLIDS DISCHARGE: July 1990 to June 1996.

TOTAL-PHOSPHORUS DISCHARGE: July 1990 to June 1996.

INSTRUMENTATION.--Water-quality sampler July 1990 to current year; continuous water-temperature recorder July 1990 to current year; dissolved-oxygen recorder July 1990 to September 1992.

REMARKS.--Chemical analyses by the Wisconsin State Laboratory of Hygiene. Suspended-sediment and particle-size analyses by U.S. Geological Survey Laboratory. Samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum observed, 28.0°C, July 14, 1995; minimum observed, 0.0°C, on many days during 1991, 1992, 1993, 1994, 1995, and 1996 winter periods.

DISSOLVED OXYGEN: Maximum observed, 14.9 mg/L, Apr. 12; minimum observed, 4.2 mg/L, July 21, 1991.

SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 4,750 tons, Aug. 14, 1995; minimum daily, 0.10 ton, Sept. 29-30, 1990 and Oct. 24-27, 1991.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 9,370 lb, Aug. 14, 1995; minimum daily, 0.74 lb., Jan. 25, 1991.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum observed, 26.0°C, June 28–29; minimum observed, 0.0°C, Nov. 28–29, Dec. 6–13, 28–29, Jan. 2–8, 10, 15, 18–21, 23–30, Feb. 16, 28–29, Mar. 1–4, 6–10, 25–27.

SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 1,160 tons, Mar. 24; minimum daily, 0.14 ton, Dec. 9–12, Jan. 10.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 2,120 lb, Mar. 24; minimum daily, 0.84 lb, Jan. 10.

WATER-QUALITY DATA, OCTOBER 1995 TO JULY 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
OCT 1995								
*10...	1349	7.9	8.3	<1.0	280	14	0.028	0.053
*23...	1327	11	8.2	2.3	8300	51	0.051	0.114
23...	2145	15	--	--	--	246	--	--
NOV								
*06...	1329	8.4	8.1	<1.0	420	10	0.033	0.049
DEC								
*04...	1337	7.0	8.2	1.4	110	9	<0.027	0.030
JAN 1996								
*12...	1233	5.5	8.2	1.1	30	10	<0.027	0.029
FEB								
*27...	0915	8.5	8.2	3.2	440	31	0.382	0.287
MAR								
*11...	1419	9.3	8.1	38	2300	154	3.26	1.72
12...	1610	23	--	--	--	268	0.258	0.532
13...	0405	14	--	--	--	42	0.867	0.703
13...	1345	26	--	--	190	132	0.544	0.602
13...	1510	41	--	--	1000	1620	0.619	1.76
*13...	1555	45	8.1	--	600	2400	0.627	2.36
13...	2325	30	--	--	3700	380	3.16	2.73
14...	1055	15	--	--	--	48	1.69	1.14
14...	1100	15	8.1	--	1200	62	1.64	1.14
14...	1300	23	7.4	--	--	1020	2.23	2.54
14...	1420	33	7.5	--	--	1340	1.95	2.58
15...	1410	24	7.6	--	--	3720	1.35	3.56
15...	1525	33	7.6	--	--	1470	1.03	1.88
16...	1545	24	8.0	--	--	2150	0.484	1.88
24...	1605	36	--	--	--	1190	1.07	1.90
24...	2030	73	--	--	--	3170	1.63	4.24
24...	2055	132	--	--	--	4090	1.72	5.16
24...	2120	208	--	--	--	6180	1.47	6.17
24...	2205	314	7.6	--	--	12300	1.24	10.6
24...	2215	333	7.5	--	--	14100	1.23	11.1
24...	2350	293	7.5	--	--	10000	1.48	9.13
25...	0105	177	--	--	--	5000	1.56	5.84
25...	0530	28	--	--	--	2170	1.42	3.22
*26...	1254	17	7.9	--	30	302	0.277	0.371

* Equal-width increment (EWI) sample

05378185 EAGLE CREEK, AT COUNTY HIGHWAY G, NEAR FOUNTAIN CITY, WI--CONTINUED

WATER-QUALITY DATA, OCTOBER 1995 TO JULY 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
APR 1996								
*11...	1054	10	8.3	--	230	31	<0.027	0.053
*25...	1311	10	8.2	1.1	70	25	<0.027	0.741
MAY								
*09...	1156	8.8	8.2	--	110	12	<0.027	0.031
*23...	1334	9.3	8.3	--	2700	12	0.066	0.042
JUN								
01...	1935	14	8.3	--	--	161	--	--
*06...	1022	9.3	8.1	--	10000	54	0.069	0.131
17...	0005	16	--	--	--	624	0.174	1.01
17...	1810	16	--	--	--	468	0.104	0.531
17...	1935	24	--	--	--	648	0.087	0.721
18...	0735	13	--	--	--	249	0.114	0.295
*19...	1604	11	8.0	--	4200	56	0.057	0.103
JUL								
*12...	1449	8.8	8.4	<3.0	4300	31	<0.027	0.085

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SED. TOTAL, FALL DIAM. % FINER THAN .002 MM (80181)	SED. TOTAL, FALL DIAM. % FINER THAN .004 MM (80182)	SED. TOTAL, FALL DIAM. % FINER THAN .008 MM (80183)	SED. TOTAL, FALL DIAM. % FINER THAN .016 MM (80184)	SED. TOTAL, FALL DIAM. % FINER THAN .031 MM (80185)	SED. TOTAL, FALL DIAM. % FINER THAN .062 MM (80186)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR 1996										
*13...	1435	35	--	--	--	--	--	--	1650	81
*13...	1555	45	--	--	--	--	--	--	--	98
13...	1600	62	--	--	--	--	--	--	3410	--
*13...	2250	36	--	--	--	--	--	--	4470	--
24...	2205	314	16	18	20	31	59	90	13600	--
24...	2215	333	18	22	23	33	62	90	15200	--
24...	2350	293	20	23	25	33	62	89	11200	--

* Equal-width increment (EWI) sample

05378185 EAGLE CREEK, AT COUNTY HIGHWAY G, NEAR FOUNTAIN CITY, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	13.0	14.5	7.0	6.0	6.5	3.0	2.0	2.5	3.0	2.5	3.0
2	13.0	11.5	12.5	6.5	4.0	6.0	4.0	1.5	2.5	3.0	.0	2.0
3	14.0	11.5	12.5	4.0	3.0	3.5	4.5	2.5	3.5	.5	.0	.5
4	14.0	10.5	12.5	4.0	2.5	3.0	3.5	1.5	2.5	1.0	.0	.5
5	12.5	11.0	12.0	5.0	3.0	4.0	3.0	.5	2.0	.5	.0	.0
6	12.0	11.0	11.5	7.0	5.0	6.0	1.0	.0	.5	.0	.0	.0
7	11.0	10.0	10.5	6.0	3.0	4.5	1.0	.0	.5	.0	.0	.0
8	12.5	9.5	11.0	3.0	2.0	2.5	.5	.0	.5	.5	.0	.0
9	12.5	11.5	12.0	4.0	1.5	2.5	.0	.0	.0	1.5	.5	1.0
10	14.0	9.5	11.5	5.0	3.5	4.5	.0	.0	.0	1.0	.0	.5
11	15.0	10.0	12.5	3.5	1.0	2.0	.0	.0	.0	2.0	.5	1.5
12	16.5	12.0	14.5	3.0	1.5	2.5	.0	.0	.0	2.5	1.5	2.0
13	16.0	13.0	15.0	3.5	1.0	2.5	.5	.0	.5	3.0	1.0	2.0
14	13.0	9.0	10.5	3.5	2.0	3.0	1.5	.5	1.0	2.5	1.0	1.5
15	10.5	7.5	9.0	4.0	1.5	3.0	1.5	.5	1.0	1.5	.0	.5
16	10.5	6.5	8.5	5.0	3.5	4.0	1.5	.5	.5	2.0	.5	1.5
17	13.0	9.5	11.0	4.5	3.5	4.5	2.0	.5	1.5	2.5	1.5	2.0
18	12.0	9.0	11.0	4.5	3.5	4.0	2.0	1.5	2.0	2.0	.0	.5
19	11.0	10.0	10.5	5.0	3.0	4.0	2.5	2.0	2.0	.0	.0	.0
20	10.0	8.0	9.0	4.0	3.0	3.5	2.0	1.0	1.5	.5	.0	.0
21	8.0	6.5	7.0	3.0	1.5	2.5	2.0	1.0	1.5	.5	.0	.5
22	9.0	6.5	7.5	3.0	1.0	2.0	2.0	1.0	1.5	1.0	.5	.5
23	8.0	7.0	7.5	2.0	.5	1.0	2.0	1.5	2.0	.5	.0	.5
24	9.5	7.5	8.0	1.5	.5	1.0	2.0	1.5	2.0	1.0	.0	.5
25	9.5	6.0	8.0	3.0	1.5	2.0	2.0	.5	1.0	.5	.0	.5
26	10.0	7.5	8.5	3.0	2.0	2.5	1.5	.5	1.5	.5	.0	.5
27	10.0	9.0	9.5	3.0	.5	1.5	1.5	.5	1.0	.0	.0	.0
28	10.0	8.5	9.5	1.5	.0	.5	1.0	.0	.5	.5	.0	.0
29	8.5	6.5	7.5	1.0	.0	.5	1.5	.0	1.0	.5	.0	.0
30	7.0	5.0	6.0	2.5	.5	2.0	2.5	1.5	2.0	.5	.0	.5
31	7.5	6.5	7.0	---	---	---	3.0	2.0	2.5	.5	.5	.5
MONTH	16.5	5.0	10.3	7.0	.0	3.0	4.5	.0	1.3	3.0	.0	.7
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.5	.5	2.5	.0	1.0	9.5	3.0	6.0	13.5	5.5	9.5
2	.5	.5	.5	1.0	.0	.5	10.0	5.0	7.5	11.5	6.0	9.0
3	.5	.5	.5	1.0	.0	.5	6.5	4.5	5.5	14.5	8.0	11.0
4	.5	.5	.5	2.0	.0	1.0	5.5	3.5	4.5	14.0	9.5	12.0
5	.5	.5	.5	3.0	1.0	1.5	6.5	2.0	4.5	11.5	8.0	9.5
6	.5	.5	.5	1.5	.0	.5	7.5	2.5	5.0	10.5	7.0	8.5
7	1.5	.5	1.0	1.5	.0	.5	10.0	3.5	6.5	16.0	8.0	11.5
8	2.5	.5	1.5	1.0	.0	.5	10.5	3.0	6.5	13.0	10.0	11.0
9	3.0	1.0	2.0	2.5	.0	1.0	11.5	3.5	7.5	11.5	9.5	10.5
10	2.5	1.5	2.0	3.0	.0	1.5	12.5	4.5	8.5	12.5	10.0	11.0
11	2.0	1.5	1.5	3.5	1.5	2.5	13.5	7.5	10.5	14.0	7.5	10.5
12	3.0	1.0	2.0	4.5	1.5	2.5	11.0	5.5	7.5	15.5	7.5	11.0
13	3.0	1.0	2.0	4.5	1.0	2.5	8.5	4.5	6.0	16.5	7.5	12.0
14	3.5	2.0	2.5	4.5	1.0	2.5	7.0	5.0	6.0	12.0	8.5	9.5
15	2.5	1.0	1.5	6.5	2.0	3.5	9.5	4.5	6.5	12.5	8.5	10.5
16	2.0	.0	1.0	7.0	1.5	4.0	11.5	5.5	8.0	18.0	11.0	14.0
17	2.5	.5	1.5	7.0	4.0	5.0	13.5	5.0	9.0	19.5	13.5	16.5
18	1.5	.0	1.0	4.5	2.5	3.5	11.0	9.0	10.0	22.5	15.5	19.0
19	3.5	1.0	2.0	5.0	2.0	3.5	15.5	7.5	11.5	20.5	17.0	18.5
20	4.5	2.0	3.0	6.5	1.0	3.5	12.0	8.5	10.5	18.5	14.5	16.0
21	4.0	1.0	2.5	6.5	.5	3.5	13.0	6.0	9.5	20.0	12.0	16.0
22	4.5	3.0	3.5	7.5	1.0	4.5	12.0	8.0	10.0	20.5	12.0	16.5
23	3.5	2.5	3.0	6.0	2.0	4.0	14.0	5.0	9.0	17.0	12.5	14.5
24	4.5	2.0	3.0	4.5	.5	3.0	15.5	7.0	11.5	14.0	10.0	12.0
25	5.0	2.0	3.0	1.0	.0	.5	13.5	10.0	11.5	12.5	10.5	11.0
26	3.5	2.5	3.0	2.5	.0	.5	13.0	6.5	9.5	11.0	9.5	10.5
27	3.0	.5	2.5	5.0	.0	2.5	13.5	5.5	9.5	11.0	9.0	10.0
28	1.5	.0	.5	7.5	1.5	4.5	14.0	6.5	10.0	17.0	9.0	12.5
29	1.5	.0	.5	9.0	3.0	6.0	11.0	7.0	8.5	19.5	10.0	14.5
30	---	---	---	6.0	4.0	5.0	11.0	5.5	8.0	20.5	11.0	15.5
31	---	---	---	8.5	2.5	5.5	---	---	---	19.5	11.5	15.5
MONTH	5.0	.0	1.7	9.0	.0	2.6	15.5	2.0	8.1	22.5	5.5	12.6

05378185 EAGLE CREEK, AT COUNTY HIGHWAY G, NEAR FOUNTAIN CITY, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	14.0	15.0	---	---	---	---	---	---	---	---	---
2	19.0	12.5	16.0	---	---	---	---	---	---	---	---	---
3	16.0	12.5	13.5	---	---	---	---	---	---	---	---	---
4	14.0	11.0	12.5	---	---	---	---	---	---	---	---	---
5	13.5	9.5	11.5	---	---	---	---	---	---	---	---	---
6	17.0	11.5	14.0	---	---	---	---	---	---	---	---	---
7	15.0	13.0	14.0	---	---	---	---	---	---	---	---	---
8	20.5	11.5	15.5	---	---	---	---	---	---	---	---	---
9	22.0	13.0	17.5	---	---	---	---	---	---	---	---	---
10	18.5	15.0	16.5	---	---	---	---	---	---	---	---	---
11	20.0	14.5	17.0	---	---	---	---	---	---	---	---	---
12	23.5	14.5	19.0	---	---	---	---	---	---	---	---	---
13	24.5	17.0	20.5	---	---	---	---	---	---	---	---	---
14	23.5	15.5	19.5	---	---	---	---	---	---	---	---	---
15	23.5	15.5	19.5	---	---	---	---	---	---	---	---	---
16	20.5	17.5	18.5	---	---	---	---	---	---	---	---	---
17	17.5	16.0	16.5	---	---	---	---	---	---	---	---	---
18	16.0	14.5	15.0	---	---	---	---	---	---	---	---	---
19	16.5	14.0	15.0	---	---	---	---	---	---	---	---	---
20	21.5	14.5	17.5	---	---	---	---	---	---	---	---	---
21	20.0	15.5	17.5	---	---	---	---	---	---	---	---	---
22	21.0	14.5	18.0	---	---	---	---	---	---	---	---	---
23	19.0	14.5	16.5	---	---	---	---	---	---	---	---	---
24	19.5	15.5	17.0	---	---	---	---	---	---	---	---	---
25	22.5	14.0	18.0	---	---	---	---	---	---	---	---	---
26	22.0	16.0	19.0	---	---	---	---	---	---	---	---	---
27	24.5	16.5	20.5	---	---	---	---	---	---	---	---	---
28	26.0	17.5	22.0	---	---	---	---	---	---	---	---	---
29	26.0	20.5	23.0	---	---	---	---	---	---	---	---	---
30	24.5	18.5	21.5	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	26.0	9.5	17.2	---	---	---	---	---	---	---	---	---

05378185 EAGLE CREEK, AT COUNTY HIGHWAY G, NEAR FOUNTAIN CITY, WI--CONTINUED

SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED(TONS PER DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	1.3	.17	.15	.26	.91	4.3	.40	2.3	---	---	---
2	.28	1.3	.17	.15	.26	1.0	3.9	.39	3.5	---	---	---
3	.28	.29	.17	.15	.26	1.1	3.3	5.7	2.4	---	---	---
4	.27	.26	.17	.15	.27	1.3	2.7	.36	1.9	---	---	---
5	.42	.24	.15	.15	.29	1.4	2.1	.36	1.5	---	---	---
6	1.8	.23	.15	.15	.30	1.6	1.8	.34	1.5	---	---	---
7	.35	.22	.15	.15	.31	1.8	1.5	.31	2.9	---	---	---
8	.31	.21	.15	.15	.38	2.2	1.3	.30	1.3	---	---	---
9	.33	.21	.14	.15	2.5	2.2	1.1	.29	1.2	---	---	---
10	.30	.21	.14	.14	2.5	2.6	.96	.31	1.2	---	---	---
11	.29	.20	.14	.15	.42	3.9	.89	.29	1.2	---	---	---
12	.29	.20	.14	.15	.42	17	.87	.29	1.1	---	---	---
13	.28	.19	.15	.15	.43	219	.85	.28	1.1	---	---	---
14	.28	.19	.15	.16	.44	83	.80	.31	1.0	---	---	---
15	.27	.19	.15	.16	.44	63	.80	5.7	1.0	---	---	---
16	.27	.19	.15	.17	.44	64	.80	.31	2.3	---	---	---
17	.27	.19	.15	.18	.45	32	.75	.30	18	---	---	---
18	.27	.19	.15	.35	.44	20	.78	.30	6.7	---	---	---
19	.27	.18	.15	.54	.47	16	.78	.32	1.9	---	---	---
20	.27	.18	.16	.25	.49	12	.72	.30	1.5	---	---	---
21	.28	.18	.16	.25	.51	9.9	.67	.29	1.4	---	---	---
22	.28	.17	.15	.24	.52	8.3	.65	.28	1.3	---	---	---
23	3.9	.17	.15	.24	3.8	6.7	.60	.30	1.3	---	---	---
24	.66	.17	.15	.25	10	1160	.59	.32	1.2	---	---	---
25	.47	.17	.15	.25	13	358	.62	.36	1.1	---	---	---
26	.42	.17	.15	.26	7.8	17	.55	.43	1.1	---	---	---
27	.40	.18	.15	.26	.74	9.4	.49	.49	1.0	---	---	---
28	.40	.17	.15	.26	.74	17	.47	.57	.98	---	---	---
29	.36	.17	.15	.25	.86	21	.46	.66	1.9	---	---	---
30	.32	.17	.15	.26	---	6.5	.44	.77	1.6	---	---	---
31	.30	---	.15	.26	---	5.3	---	.89	---	---	---	---
TOTAL	15.17	8.09	4.71	6.53	49.74	2165.11	36.54	22.52	68.38	---	---	---

WTR YR 1996 TOTAL 2377

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	6.8	1.2	.90	2.5	12	12	8.3	8.5	---	---	---
2	1.9	6.8	1.2	.92	2.6	12	11	6.8	8.3	---	---	---
3	2.0	2.7	1.2	.88	2.6	11	9.5	9.5	4.6	---	---	---
4	1.9	2.5	1.1	.91	2.8	11	7.9	4.5	4.9	---	---	---
5	2.9	2.3	1.0	.91	3.1	11	6.5	3.8	5.3	---	---	---
6	8.6	2.2	.97	.89	3.3	11	5.6	3.0	8.1	---	---	---
7	4.1	2.1	.97	.88	3.4	11	4.9	2.3	12	---	---	---
8	2.3	2.0	1.0	.88	4.3	12	4.2	1.8	6.5	---	---	---
9	2.4	2.0	.94	.87	4.9	11	3.7	1.5	6.1	---	---	---
10	2.3	2.0	.93	.84	5.2	11	3.2	1.6	6.1	---	---	---
11	2.2	1.9	.93	.86	5.2	53	3.1	1.6	6.2	---	---	---
12	2.2	1.8	.93	.87	5.3	131	3.7	1.6	6.2	---	---	---
13	2.1	1.7	.96	.91	5.6	538	4.4	1.6	6.2	---	---	---
14	2.0	1.7	.96	.97	5.9	365	5.1	8.9	6.0	---	---	---
15	2.0	1.6	.99	1.0	6.0	175	6.2	9.5	5.9	---	---	---
16	1.9	1.6	.97	1.1	6.1	114	7.6	1.9	11	---	---	---
17	1.9	1.6	.96	1.2	6.4	68	8.7	1.9	46	---	---	---
18	1.9	1.5	.96	2.4	6.6	48	11	1.9	15	---	---	---
19	1.9	1.5	.96	3.8	7.1	41	14	2.0	6.1	---	---	---
20	1.9	1.5	.98	1.8	7.7	35	15	2.0	5.7	---	---	---
21	1.9	1.4	.99	1.8	8.1	31	17	1.9	5.5	---	---	---
22	1.9	1.4	.96	1.8	8.5	29	21	1.9	5.1	---	---	---
23	6.9	1.3	.96	1.8	11	25	24	2.0	5.1	---	---	---
24	4.3	1.3	.96	1.9	16	2120	28	2.1	4.9	---	---	---
25	3.4	1.3	.95	2.0	18	865	35	2.2	4.6	---	---	---
26	3.1	1.3	.93	2.1	16	32	28	2.4	4.5	---	---	---
27	3.1	1.3	.92	2.2	13	23	21	2.6	4.3	---	---	---
28	3.2	1.2	.89	2.2	12	24	17	2.7	4.2	---	---	---
29	2.9	1.2	.90	2.3	12	31	14	2.9	9.1	---	---	---
30	2.7	1.2	.90	2.4	---	17	11	3.2	8.3	---	---	---
31	2.6	---	.90	2.4	---	14	---	3.4	---	---	---	---
TOTAL	86.3	60.7	30.37	46.69	211.2	4892	363.3	103.3	240.3	---	---	---

WTR YR 1996 TOTAL 6,034

05378185 EAGLE CREEK, AT COUNTY HIGHWAY G, NEAR FOUNTAIN CITY, WI--CONTINUED

PRECIPITATION QUANTITY

PERIOD OF RECORD.--October 1990 to June 1996 (non-frozen precipitation), discontinued.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on July 12, 1990. Rainfall estimated to be 0.00 for Nov. 9, 26, 27, Dec. 13, Jan. 10, 11, 29, and Mar. 14, 16, 17 because recorded precipitation interpreted as collector snowmelt.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 4.85 in., Aug. 13, 1995.

EXTREMES FOR PERIOD OCTOBER 1995 THROUGH JUNE 1996.--Maximum daily rainfall, 1.31 in., Mar. 24.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.52	.00	.00	.00	.00	.00	.00	.77	---	---	---
2	.23	.00	.00	.00	.00	.00	.00	.46	.00	---	---	---
3	.01	.00	.00	.00	.00	.00	.00	.02	.00	---	---	---
4	.00	.00	.00	.00	.00	.00	.00	.01	.00	---	---	---
5	.87	.00	.00	.00	.00	.00	.00	.11	.36	---	---	---
6	.26	.00	.00	.00	.00	.00	.00	.00	.19	---	---	---
7	.00	.00	.00	.00	.00	.00	.00	.00	.21	---	---	---
8	.21	.00	.00	.00	.00	.00	.00	.03	.00	---	---	---
9	.02	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
10	.01	.00	.00	.00	.00	.00	.00	.10	.00	---	---	---
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
12	.00	.00	.00	.00	.00	.00	.02	.00	.13	---	---	---
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
14	.02	.00	.00	.00	.00	.00	.06	.40	.00	---	---	---
15	.00	.00	.00	.00	.00	.00	.16	.00	.00	---	---	---
16	.00	.00	.00	.00	.00	.00	.00	.00	1.16	---	---	---
17	.00	.00	.00	.23	.00	.00	.00	.00	.98	---	---	---
18	.00	.00	.00	.07	.00	.00	.18	.00	.00	---	---	---
19	.03	.00	.00	.00	.00	.00	.02	.13	.00	---	---	---
20	.01	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
21	.00	.00	.00	.00	.00	.00	.03	.00	.17	---	---	---
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
23	1.09	.00	.00	.00	.00	.00	.03	.07	.11	---	---	---
24	.16	.00	.00	.00	.00	1.31	.00	.00	.00	---	---	---
25	.00	.00	.00	.00	.00	.00	.14	.00	.00	---	---	---
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
27	.05	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
28	.15	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
29	.00	.00	.00	.00	.00	.00	.10	.00	.90	---	---	---
30	.00	.00	.00	.00	---	.12	.00	.00	.00	---	---	---
31	.00	---	.00	.00	---	.00	---	.00	---	---	---	---
TOTAL	3.20	0.52	0.00	0.30	0.00	1.43	0.74	1.33	4.98	---	---	---

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 mi^2, approximately.

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 sea level. June 10, 1928, to Apr. 15, 1931, non-recording 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. 12 to Mar. 12 and Mar. 20-22. Records good except those for estimated daily discharges, which are fair (see page 12). Some regulation by reservoirs, navigation dams, and powerplants at low and medium stages. Flood flow not materially affected by artificial storage. Daily discharges for some days provided by the U.S. Army Corps of Engineers.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 18, 1880, reached an elevation of 657.14 ft, discharge, 172,000 ft^3/s, from information by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17800	62900	24300	26700	26600	31900	61100	107000	64400	63900	31800	20600
2	19900	62700	29300	27600	23500	34400	61500	99600	63500	64700	31200	18700
3	21800	63700	36300	27700	24200	35100	60700	95500	61800	63800	30900	16900
4	25500	64200	41800	27600	24600	33900	60500	90200	56200	60900	29000	16700
5	30200	64400	38300	26000	24800	33000	63100	87100	53900	55000	26300	16700
6	35400	65000	29800	23700	24400	35300	65500	84300	53700	51300	29600	19100
7	39200	65200	23000	20700	24000	35500	65300	80600	54500	47500	29700	22200
8	41000	64500	24100	20300	23700	33000	65900	78700	54200	44700	27900	22700
9	45000	62200	18100	22000	23700	30900	66500	76700	53000	42600	25300	22500
10	51900	54800	19100	24200	23900	29400	67100	74600	51600	40600	23700	20600
11	56200	56800	16900	25900	24900	27600	67800	72300	50700	37900	24200	19100
12	58300	53600	19400	26100	25900	28200	69600	69100	49800	38100	24600	19800
13	59900	51300	25200	26000	26000	39100	71900	67200	48200	37400	24500	18700
14	59900	51500	29700	25700	27700	39700	76100	67300	47100	35300	24500	18000
15	60100	50600	30100	26200	28100	42200	84200	66000	46200	33400	23900	17600
16	56300	49900	30200	27000	29000	42600	94800	65200	44700	34400	21100	15800
17	51300	51700	30200	26900	28900	42000	99800	64700	45300	34500	21700	14800
18	49600	47900	29600	28700	29600	41500	101000	63600	45300	35400	21900	15600
19	49500	49100	29800	18200	27900	42900	103000	63600	46400	35700	21400	16400
20	48600	46200	29800	17400	27100	44200	105000	63400	48700	35500	21900	17100
21	46400	47100	29800	18800	28100	45000	109000	63600	49700	34400	21000	16900
22	42000	46000	29800	21500	29600	46000	119000	66000	51700	35500	19900	17200
23	39900	42000	29800	21500	31900	47800	131000	68200	51600	37500	16800	17500
24	41400	38100	29700	26300	31600	49500	141000	72600	51500	35400	16200	16400
25	40400	34800	29500	27400	32500	52700	143000	75000	53100	35000	17800	16000
26	43600	35700	29000	28400	33700	56600	140000	75600	54700	34900	21700	16400
27	48900	34600	28400	27900	34400	62900	134000	74800	56000	34100	23200	15800
28	52400	27200	27800	27700	32500	55700	125000	72500	55400	32900	22700	16200
29	59600	26300	26700	27400	29400	52000	118000	70100	55700	33000	22200	18600
30	62200	21100	26600	27300	---	53400	112000	69500	62900	32500	22300	20400
31	62900	---	26500	27200	---	59200	---	67600	---	32000	21700	---
TOTAL	1417100	1491100	868600	776000	802200	1303200	2782400	2312200	1581500	1269800	740600	541000
MEAN	45710	49700	28020	25030	27660	42040	92750	74590	52720	40960	23890	18030
MAX	62900	65200	41800	28700	34400	62900	143000	107000	64400	64700	31800	22700
MIN	17800	21100	16900	17400	23500	27600	60500	63400	44700	32000	16200	14800
AC-FT	2811000	2958000	1723000	1539000	1591000	2585000	5519000	4586000	3137000	2519000	1469000	1073000
CFSM	.77	.84	.47	.42	.47	.71	1.57	1.26	.89	.69	.40	.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 1996, BY WATER YEAR (WY)

MEAN	22610	22680	17400	15060	15240	30320	60260	48550	39290	31260	21120	22390
MAX	85950	50040	40440	30480	35900	86420	152600	111500	100200	118800	67560	69490
(WY)	1987	1972	1992	1983	1984	1983	1965	1986	1993	1993	1993	1986
MIN	6774	7367	6286	6742	7874	9023	12810	11930	8450	7063	5391	6790
(WY)	1934	1934	1934	1940	1977	1934	1931	1931	1934	1934	1934	1933

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1928 - 1996	
ANNUAL TOTAL	15195800		15885700			
ANNUAL MEAN	41630		43400		28880	
HIGHEST ANNUAL MEAN					56850	1986
LOWEST ANNUAL MEAN					9742	1934
HIGHEST DAILY MEAN	83700	Apr 27	143000	Apr 25	264000	Apr 20 1965
LOWEST DAILY MEAN	10800	Mar 9	14800	Sep 17	2250	Dec 29 1933
ANNUAL SEVEN-DAY MINIMUM	11300	Mar 5	16300	Sep 16	3210	Dec 27 1933
INSTANTANEOUS PEAK FLOW			144000	Apr 25	268000	Apr 19 1965
INSTANTANEOUS PEAK STAGE			14.97	Apr 25	(a)20.77	Apr 19 1965
INSTANTANEOUS LOW FLOW			(b)10700	Dec 1	(c)1940	Dec 12 1980
ANNUAL RUNOFF (AC-FT)	30140000		31510000		20920000	
ANNUAL RUNOFF (CFSM)	.70		.73		.49	
10 PERCENT EXCEEDS	70400		69500		60000	
50 PERCENT EXCEEDS	38500		35400		20600	
90 PERCENT EXCEEDS	14000		19900		9870	

(a) From floodmark
(b) Minimum observed
(c) Result of ice jam

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 mi^2.

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 sea level. 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: Ice-affected period, Nov. 24 to Mar. 26. Records good except those for ice-affected period, which is fair (see page 12). Gage-height telemeter and data-collection platform at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	464	545	450	430	400	430	1290	619	466	649	402	332
2	469	725	450	430	400	430	1130	613	590	660	391	328
3	490	795	450	400	400	420	1070	648	687	648	386	327
4	500	691	450	400	400	400	1010	682	618	589	381	334
5	500	611	450	400	400	410	894	662	558	535	382	327
6	632	568	450	400	400	410	820	662	562	500	393	319
7	818	555	430	400	420	380	784	634	689	488	418	318
8	793	542	420	400	430	390	758	601	901	474	429	324
9	718	525	400	400	450	410	741	590	766	476	401	380
10	682	513	420	400	470	420	719	604	654	475	380	376
11	597	505	430	400	470	450	725	657	590	464	371	346
12	556	497	420	400	450	800	777	622	623	501	373	338
13	531	486	430	400	440	1500	835	575	566	518	366	326
14	510	477	450	380	430	2000	784	555	528	522	368	319
15	491	471	470	380	420	2500	731	592	501	503	365	316
16	477	468	440	380	400	3100	746	629	486	473	361	312
17	470	470	430	380	400	2500	777	612	641	462	362	310
18	463	475	430	450	400	1400	746	579	996	457	355	305
19	462	478	430	520	400	1000	790	567	1080	447	363	298
20	460	480	430	450	420	860	873	579	1020	442	408	311
21	460	479	430	440	440	760	842	558	807	433	386	317
22	463	476	420	440	450	600	753	526	714	427	375	317
23	496	471	420	440	480	600	698	511	654	424	397	317
24	741	470	420	430	640	600	661	510	609	413	372	314
25	847	460	420	430	760	1100	646	504	589	408	355	312
26	722	460	410	400	600	2000	662	501	559	406	377	332
27	641	460	400	400	500	3660	655	498	533	405	374	441
28	594	450	380	400	470	2400	612	492	508	440	358	474
29	590	450	390	400	450	1540	580	478	504	462	352	420
30	560	450	420	400	---	1440	596	468	562	423	339	375
31	532	---	440	400	---	1430	---	459	---	408	336	---
TOTAL	17729	15503	13280	12780	13190	36340	23705	17787	19561	14932	11676	10165
MEAN	572	517	428	412	455	1172	790	574	652	482	377	339
MAX	847	795	470	520	760	3660	1290	682	1080	660	429	474
MIN	460	450	380	380	400	380	580	459	466	405	336	298
CFSM	.89	.80	.67	.64	.71	1.82	1.23	.89	1.01	.75	.59	.53
IN.	1.03	.90	.77	.74	.76	2.10	1.37	1.03	1.13	.86	.68	.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	376	387	324	279	329	825	681	483	489	410	361	409
MAX	1314	856	953	679	878	2325	2146	1320	1516	1332	1050	1239
(WY)	1955	1992	1983	1973	1981	1936	1965	1973	1993	1993	1975	1992
MIN	169	180	139	117	119	289	301	195	183	163	138	153
(WY)	1951	1950	1959	1959	1959	1968	1964	1934	1964	1964	1964	1948

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	211070		206648			
ANNUAL MEAN	578		565		447	
HIGHEST ANNUAL MEAN					813	1973
LOWEST ANNUAL MEAN					237	1964
HIGHEST DAILY MEAN	3930	Aug 16	3660	Mar 27	12900	Apr 4 1956
LOWEST DAILY MEAN	(a)310	Mar 2	298	Sep 19	98	Jan 10 1938
ANNUAL SEVEN-DAY MINIMUM	(a)333	Feb 25	310	Sep 15	106	Jan 7 1938
INSTANTANEOUS PEAK FLOW			(b)3910	Mar 27	17400	Apr 4 1956
INSTANTANEOUS PEAK STAGE			(c)10.15	Mar 16	(d)10.35	Apr 4 1956
ANNUAL RUNOFF (CFSM)	.90		.88		.70	
ANNUAL RUNOFF (INCHES)	12.21		11.96		9.45	
10 PERCENT EXCEEDS	824		784		732	
50 PERCENT EXCEEDS	460		468		337	
90 PERCENT EXCEEDS	350		370		195	

(a) Ice affected
(b) Gage height, 9.83 ft
(c) Result of ice jam
(d) Datum then in use

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 mi^2.

PERIOD OF RECORD.--April 1905 to March 1909, October 1913 to current year. Monthly discharge 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 sea level. 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: Sept. 19, 20, and ice-affected period, Nov. 9 to Apr. 9. Records good except those for ice-affected period, which is poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	417	682	160	120	240	270	2300	988	163	470	146	71
2	372	2530	200	120	230	250	2900	875	432	717	133	66
3	810	2870	190	120	220	230	3500	930	509	448	124	65
4	904	2180	170	120	210	200	2900	894	559	333	113	67
5	818	1390	170	120	200	190	2500	1020	498	272	107	70
6	2790	993	150	120	200	180	2400	1160	478	230	104	63
7	4830	769	150	120	200	170	2500	1060	665	199	112	61
8	5260	624	140	92	200	160	2500	809	963	179	211	71
9	4010	470	130	98	210	160	2900	680	786	250	286	78
10	2510	400	130	110	220	150	3900	1040	598	341	259	82
11	1720	330	130	100	220	140	5820	1630	487	262	200	87
12	1190	280	120	100	230	140	8890	1430	458	222	157	82
13	860	250	120	94	230	220	7520	980	471	191	132	83
14	646	220	130	98	220	660	5330	713	685	167	116	78
15	517	200	130	100	220	1300	3990	711	627	154	104	79
16	437	210	130	120	220	1700	4320	739	483	147	94	71
17	381	200	130	120	210	1700	4210	709	3230	145	88	64
18	345	190	140	130	210	1600	4080	629	9060	159	82	59
19	311	180	140	140	200	1500	7720	665	4250	277	81	50
20	289	170	140	160	180	1400	8570	867	2110	279	88	56
21	276	170	140	220	180	1300	6750	798	1220	465	96	63
22	266	160	130	280	190	1200	4890	618	1830	354	112	61
23	369	180	130	250	190	1200	3310	481	1710	244	193	49
24	1940	210	130	230	190	1300	2280	392	1220	191	134	58
25	2830	200	130	250	210	1700	1760	332	796	161	105	51
26	2290	180	130	290	240	1600	1540	289	555	140	106	83
27	1580	180	130	280	260	1400	1340	249	679	134	103	119
28	1210	170	120	260	280	1200	1200	221	883	159	96	133
29	853	170	110	250	270	1300	1060	197	776	183	88	110
30	648	150	120	250	---	1500	1100	179	653	185	82	126
31	548	---	120	250	---	1900	---	162	---	156	76	---
TOTAL	42227	16908	4290	5112	6280	27920	113980	22447	37834	7814	3928	2256
MEAN	1362	564	138	165	217	901	3799	724	1261	252	127	75.2
MAX	5260	2870	200	290	280	1900	8890	1630	9060	717	286	133
MIN	266	150	110	92	180	140	1060	162	163	134	76	49
CFSM	1.82	.75	.18	.22	.29	1.20	5.07	.97	1.68	.34	.17	.10
IN.	2.10	.84	.21	.25	.31	1.39	5.66	1.11	1.88	.39	.20	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1996, BY WATER YEAR (WY)

MEAN	393	456	191	109	122	1255	1959	873	831	305	246	535
MAX	2101	2345	1133	615	1348	3960	5025	3538	4689	1538	1293	4304
(WY)	1983	1992	1966	1973	1984	1973	1951	1973	1905	1978	1928	1938
MIN	20.7	27.1	35.9	10.0	5.00	56.7	270	77.4	43.0	14.9	10.5	5.77
(WY)	1934	1977	1934	1918	1918	1940	1946	1934	1964	1933	1933	1933

05381000 BLACK RIVER AT NEILLSVILLE, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1905 - 1996	
ANNUAL TOTAL	203670		290996			
ANNUAL MEAN	558		795		603	
HIGHEST ANNUAL MEAN					1213	1942
LOWEST ANNUAL MEAN					160	1931
HIGHEST DAILY MEAN	5380	Aug 16	9060	Jun 18	38200	Sep 10 1938
LOWEST DAILY MEAN	50	Jun 24	(a)49	Sep 23	.70	(b)Aug 10 1936
ANNUAL SEVEN-DAY MINIMUM	59	Jun 22	55	Sep 19	1.0	Aug 10 1936
INSTANTANEOUS PEAK FLOW			11100	Jun 18	48800	Sep 10 1938
INSTANTANEOUS PEAK STAGE			12.60	Jun 18	23.80	Sep 10 1938
INSTANTANEOUS LOW FLOW			(a)29	Sep 25	.60	Aug 15 1936
ANNUAL RUNOFF (CFSM)	.74		1.06		.80	
ANNUAL RUNOFF (INCHES)	10.12		14.45		10.94	
10 PERCENT EXCEEDS	1490		2210		1510	
50 PERCENT EXCEEDS	180		230		150	
90 PERCENT EXCEEDS	70		95		36	

(a) May have been less during period of no gage-height record, Sept. 19-20
(b) Also occurred Aug. 11,14-16, 1936

05381381 PIGEON CREEK BELOW PIGEON CREEK FLOWAGE NEAR MILLSTON, WI

LOCATION.--Lat 44°12'40", long 90°36'54", in sec.16, T.20 N., R.2 W., Jackson County, Hydrologic Unit 07040007, on dam headwall of Pigeon Creek Flowage and 3 mi northeast of Millston.

DRAINAGE AREA.--5.67 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to September 1996.

GAGE.--Water-stage recorder. Datum of gage is 950 ft, from topographic map.

REMARKS.--Records are fair (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	.00	.00
2	---	---	---	---	---	---	---	---	---	---	.00	.00
3	---	---	---	---	---	---	---	---	---	---	.00	.00
4	---	---	---	---	---	---	---	---	---	---	.00	.00
5	---	---	---	---	---	---	---	---	---	---	.00	.00
6	---	---	---	---	---	---	---	---	---	---	.00	.00
7	---	---	---	---	---	---	---	---	---	---	.00	.00
8	---	---	---	---	---	---	---	---	---	---	.00	.00
9	---	---	---	---	---	---	---	---	---	---	.00	.00
10	---	---	---	---	---	---	---	---	---	---	.00	.00
11	---	---	---	---	---	---	---	---	---	---	.00	.00
12	---	---	---	---	---	---	---	---	---	---	.00	.00
13	---	---	---	---	---	---	---	---	---	.53	.00	.00
14	---	---	---	---	---	---	---	---	---	.57	.00	.00
15	---	---	---	---	---	---	---	---	---	.50	.00	.00
16	---	---	---	---	---	---	---	---	---	.38	.00	.00
17	---	---	---	---	---	---	---	---	---	.36	.00	.00
18	---	---	---	---	---	---	---	---	---	.41	.00	.00
19	---	---	---	---	---	---	---	---	---	.32	.00	.00
20	---	---	---	---	---	---	---	---	---	.20	.00	.00
21	---	---	---	---	---	---	---	---	---	.14	.00	.00
22	---	---	---	---	---	---	---	---	---	.09	.00	.00
23	---	---	---	---	---	---	---	---	---	.00	.00	.00
24	---	---	---	---	---	---	---	---	---	.00	.00	.00
25	---	---	---	---	---	---	---	---	---	.00	.00	.00
26	---	---	---	---	---	---	---	---	---	.00	.00	.00
27	---	---	---	---	---	---	---	---	---	.00	.00	.00
28	---	---	---	---	---	---	---	---	---	.00	.00	.00
29	---	---	---	---	---	---	---	---	---	.00	.00	.00
30	---	---	---	---	---	---	---	---	---	.00	.00	.00
31	---	---	---	---	---	---	---	---	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	---	0.00	0.00
MEAN	---	---	---	---	---	---	---	---	---	---	.000	.000
MAX	---	---	---	---	---	---	---	---	---	---	.00	.00
MIN	---	---	---	---	---	---	---	---	---	---	.00	.00
CFSM	---	---	---	---	---	---	---	---	---	---	.00	.00
IN.	---	---	---	---	---	---	---	---	---	---	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1996, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	---	.000	.000
MAX	---	---	---	---	---	---	---	---	---	---	.000	.000
(WY)	---	---	---	---	---	---	---	---	---	---	1996	1996
MIN	---	---	---	---	---	---	---	---	---	---	.000	.000
(WY)	---	---	---	---	---	---	---	---	---	---	1996	1996

05381381 PIGEON CREEK BELOW PIGEON CREEK FLOWAGE NEAR MILLSTON, WI--CONTINDUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July to September 1996.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July to September 1996.

INSTRUMENTATION.--Continuous water-temperature recorder July to September 1996.

REMARKS.--Water temperatures are for the flowage upstream of the dam. Water samples are of surface of flowage unless there is discharge from the outlet. Samples collected at the outlet stream are point samples. Chemical analyses by the Wisconsin State Laboratory of Hygiene.

EXTREMES FOR PERIOD JULY THROUGH SEPTEMBER 1996.--

WATER TEMPERATURE: Maximum observed, 28.5°C, Aug. 20 and Sept. 7; minimum observed, 12.5°C, Sept. 28.

WATER-QUALITY DATA, JULY TO SEPTEMBER 1996

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	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)
AUG 1996										
01...	1430	18	5.4	24.0	8.0	<5	<0.010	<0.027	0.70	0.014
13...	1502	17	5.4	26.5	8.0	<5	<0.010	<0.027	0.60	0.015
27...	1550	17	5.5	23.0	8.6	<5	<0.010	<0.027	0.60	0.021
SEP										
10...	1004	23	6.3	11.0	10.6	<5	0.047	<0.027	<0.21	0.091
10...	1902	18	5.3	24.0	7.4	19	<0.010	<0.027	0.90	0.039
24...	1745	19	5.5	17.5	9.0	<5	0.022	<0.027	0.71	0.019

WATER TEMPERATURE, DEGREES CELSIUS, JULY TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	25.5	20.5	22.5	25.5	22.5	24.0
2	---	---	---	---	---	---	27.0	21.5	23.5	24.5	22.5	23.5
3	---	---	---	---	---	---	25.5	23.0	24.5	26.0	23.0	24.5
4	---	---	---	---	---	---	25.5	23.5	24.5	26.5	23.5	25.0
5	---	---	---	---	---	---	25.5	24.0	24.5	26.0	23.5	25.0
6	---	---	---	---	---	---	28.0	24.5	26.0	27.5	23.5	25.5
7	---	---	---	---	---	---	28.0	26.0	27.0	28.5	24.0	26.0
8	---	---	---	---	---	---	26.5	24.5	25.5	25.5	23.0	24.0
9	---	---	---	---	---	---	27.0	23.5	25.0	25.5	21.5	23.5
10	---	---	---	---	---	---	25.5	23.0	24.5	24.5	21.5	22.5
11	---	---	---	---	---	---	26.5	23.0	24.5	22.5	20.0	21.5
12	---	---	---	---	---	---	27.5	23.5	25.0	20.0	16.5	18.5
13	---	---	---	25.5	21.5	23.5	27.0	24.0	25.5	17.5	15.0	16.0
14	---	---	---	24.5	22.5	23.0	26.0	24.5	25.0	16.5	14.5	15.5
15	---	---	---	25.5	21.5	23.5	25.0	22.5	24.0	19.5	15.0	17.0
16	---	---	---	27.0	22.5	24.0	26.0	22.0	24.0	17.5	16.0	16.5
17	---	---	---	26.5	24.0	25.0	27.5	22.0	24.5	19.5	14.5	17.0
18	---	---	---	26.5	24.0	25.0	25.5	23.0	24.0	23.0	15.5	19.0
19	---	---	---	26.0	24.5	25.5	24.5	23.0	23.5	19.0	16.0	18.0
20	---	---	---	25.0	22.0	23.5	28.5	23.0	25.5	17.5	15.5	16.0
21	---	---	---	26.5	22.5	24.5	27.0	23.5	25.0	16.5	15.0	16.0
22	---	---	---	26.5	24.0	25.5	26.0	23.5	25.0	18.0	15.0	16.5
23	---	---	---	26.5	23.0	24.5	27.5	22.0	24.5	18.5	16.0	17.0
24	---	---	---	26.0	23.5	24.5	25.5	22.0	23.5	18.0	15.0	16.5
25	---	---	---	24.0	22.5	23.5	27.0	22.0	24.0	17.0	15.0	16.0
26	---	---	---	27.0	21.5	23.5	25.5	22.0	23.5	15.5	13.5	14.0
27	---	---	---	25.0	22.5	24.0	23.0	20.5	22.0	14.5	13.0	13.5
28	---	---	---	25.5	22.5	24.0	25.5	20.5	23.0	14.5	12.5	13.5
29	---	---	---	25.0	23.0	24.0	27.0	21.0	23.5	15.5	13.0	14.5
30	---	---	---	23.5	22.0	23.0	26.5	22.0	24.0	17.0	13.5	15.0
31	---	---	---	22.5	21.0	21.5	25.5	22.5	24.0	---	---	---
MONTH	---	---	---	---	---	---	28.5	20.5	24.4	28.5	12.5	19.0

05381389 CLEAR CREEK NEAR MILLSTON, WI

LOCATION.--Lat 44°09'22", long 90°42'46", in sec.2, T.19 N., R.3 W., Monroe County, Hydrologic Unit 07040007, on right bank 25 ft upstream from 14th Avenue, near Millston.

DRAINAGE AREA.--19.48 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to September 1996.

GAGE.--Water-stage recorder. Datum of gage is 870 ft, from topographic map.

REMARKS.--Estimated daily discharges: July 26, 27, July 30 to Aug. 4, and Aug. 6. Records good except for estimated daily discharges, which are poor (see page 12). Diurnal fluctuation caused by cranberry operation above station. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	16	6.8
2	---	---	---	---	---	---	---	---	---	---	13	6.2
3	---	---	---	---	---	---	---	---	---	---	11	6.3
4	---	---	---	---	---	---	---	---	---	---	15	6.9
5	---	---	---	---	---	---	---	---	---	---	22	6.2
6	---	---	---	---	---	---	---	---	---	---	8.1	5.9
7	---	---	---	---	---	---	---	---	---	---	7.5	6.1
8	---	---	---	---	---	---	---	---	---	---	5.8	5.9
9	---	---	---	---	---	---	---	---	---	---	5.7	6.0
10	---	---	---	---	---	---	---	---	---	---	6.1	5.4
11	---	---	---	---	---	---	---	---	---	---	5.8	5.3
12	---	---	---	---	---	---	---	---	---	---	5.5	7.3
13	---	---	---	---	---	---	---	---	---	---	6.1	11
14	---	---	---	---	---	---	---	---	---	---	5.6	13
15	---	---	---	---	---	---	---	---	---	---	5.7	8.3
16	---	---	---	---	---	---	---	---	---	---	6.0	7.3
17	---	---	---	---	---	---	---	---	---	---	5.7	7.2
18	---	---	---	---	---	---	---	---	---	---	5.3	9.4
19	---	---	---	---	---	---	---	---	---	---	5.4	10
20	---	---	---	---	---	---	---	---	---	---	5.4	5.4
21	---	---	---	---	---	---	---	---	---	---	5.3	5.0
22	---	---	---	---	---	---	---	---	---	---	7.1	4.5
23	---	---	---	---	---	---	---	---	---	---	6.2	4.0
24	---	---	---	---	---	---	---	---	---	---	5.8	4.0
25	---	---	---	---	---	---	---	---	---	---	6.2	2.6
26	---	---	---	---	---	---	---	---	---	19	6.4	5.1
27	---	---	---	---	---	---	---	---	---	20	6.0	9.4
28	---	---	---	---	---	---	---	---	---	21	6.2	10
29	---	---	---	---	---	---	---	---	---	15	6.5	6.2
30	---	---	---	---	---	---	---	---	---	11	6.2	3.9
31	---	---	---	---	---	---	---	---	---	10	6.8	---
TOTAL	---	---	---	---	---	---	---	---	---	---	235.4	200.6
MEAN	---	---	---	---	---	---	---	---	---	---	7.59	6.69
MAX	---	---	---	---	---	---	---	---	---	---	22	13
MIN	---	---	---	---	---	---	---	---	---	---	5.3	2.6
CFSM	---	---	---	---	---	---	---	---	---	---	.39	.34
IN.	---	---	---	---	---	---	---	---	---	---	.45	.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1996, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	---	7.59	6.69
MAX	---	---	---	---	---	---	---	---	---	---	7.59	6.69
(WY)	---	---	---	---	---	---	---	---	---	---	1996	1996
MIN	---	---	---	---	---	---	---	---	---	---	7.59	6.69
(WY)	---	---	---	---	---	---	---	---	---	---	1996	1996

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July to September 1996.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July to September 1996.
DISSOLVED OXYGEN: July to September 1996.

INSTRUMENTATION.--Water-quality sampler July to September 1996; continuous water temperature recorder July to September 1996; dissolved oxygen recorder July to September 1996.

REMARKS.--Chemical analyses by the Wisconsin State Laboratory of Hygiene. Samples are point samples unless otherwise indicated.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum observed, 23.0°C, Aug. 6; minimum observed, 10.5°C, Sept. 14 and 19.
DISSOLVED OXYGEN: Maximum observed, 10.1 mg/L, Sept. 25; minimum observed, 3.2 mg/L, Aug. 8.

WATER-QUALITY DATA, JULY TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	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)
AUG 1996											
01...	1115	8.6	42	6.7	17.5	8.9	<5	0.019	0.081	0.44	0.101
13...	1115	6.5	51	6.6	17.0	8.4	7	0.032	0.147	0.50	0.163
27...	1209	6.1	44	6.6	15.5	8.7	6	0.049	0.155	0.42	0.113
SEP											
10...	1622	5.4	16	6.5	18.5	7.9	6	0.069	0.125	0.40	0.134
19...	0630	11	--	7.1	--	--	19	0.057	<0.027	0.80	0.394
25...	1050	--	59	6.6	12.0	8.2	<5	0.069	0.068	0.30	0.129

BEGIN-NING DATE	BEGIN-NING TIME	ENDING DATE	ENDING TIME	RUNOFF MILLIONS OF CUBIC FEET (99905)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	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)
09-13-96	0645	09-13-96	1222	0.300	6.3	37	0.017	0.202	0.80	0.629
09-14-96	0445	09-14-96	1330	0.580	6.3	27	0.056	0.193	0.70	0.622

05381389 CLEAR CREEK NEAR MILLSTON, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, JULY TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	22.5	16.0	19.0	19.0	16.0	17.5
2	---	---	---	---	---	---	22.0	16.5	19.5	19.5	15.5	17.5
3	---	---	---	---	---	---	21.0	16.0	18.5	20.5	17.0	18.5
4	---	---	---	---	---	---	21.5	17.0	19.0	20.5	17.0	18.5
5	---	---	---	---	---	---	22.0	19.5	20.5	20.5	16.5	18.0
6	---	---	---	---	---	---	23.0	18.0	20.5	19.5	15.5	17.5
7	---	---	---	---	---	---	22.5	19.5	21.0	19.5	15.5	17.5
8	---	---	---	---	---	---	21.5	16.5	19.0	17.5	16.0	16.5
9	---	---	---	---	---	---	20.5	15.5	18.0	18.5	15.5	17.0
10	---	---	---	---	---	---	20.0	15.0	17.5	18.5	14.5	16.5
11	---	---	---	---	---	---	20.5	15.5	18.0	17.0	14.0	16.0
12	---	---	---	---	---	---	21.5	16.0	18.5	15.0	13.0	14.0
13	---	---	---	---	---	---	21.0	16.5	18.5	15.0	11.0	13.0
14	---	---	---	---	---	---	20.0	17.0	18.5	14.5	10.5	13.0
15	---	---	---	---	---	---	19.5	16.5	18.0	16.0	12.0	14.0
16	---	---	---	---	---	---	19.5	14.5	17.0	15.0	13.0	14.0
17	---	---	---	---	---	---	20.5	14.5	17.5	15.5	11.5	13.5
18	---	---	---	---	---	---	19.0	15.0	17.0	16.5	11.0	13.5
19	---	---	---	---	---	---	19.0	17.0	18.0	16.0	10.5	13.5
20	---	---	---	---	---	---	21.0	17.0	18.5	14.5	12.0	13.0
21	---	---	---	---	---	---	21.0	16.0	18.0	14.0	12.0	13.0
22	---	---	---	---	---	---	19.0	17.0	18.5	16.0	12.5	14.0
23	---	---	---	---	---	---	19.5	14.5	17.0	15.0	12.5	13.5
24	---	---	---	---	---	---	20.0	15.0	17.5	15.5	12.5	14.0
25	---	---	---	---	---	---	21.0	15.5	18.0	---	---	---
26	---	---	---	---	---	---	19.0	16.0	17.5	14.0	12.0	13.0
27	---	---	---	20.5	15.0	18.0	18.0	13.5	16.0	13.0	11.5	12.5
28	---	---	---	20.0	17.0	18.0	19.5	14.5	17.0	14.0	11.0	12.5
29	---	---	---	18.5	16.5	17.5	19.0	14.5	17.0	14.0	11.5	13.0
30	---	---	---	18.5	14.5	16.5	19.5	16.0	17.5	14.5	12.0	13.0
31	---	---	---	---	---	---	20.5	17.0	18.5	---	---	---
MONTH	---	---	---	---	---	---	23.0	13.5	18.2	---	---	---

OXYGEN DISSOLVED (MG/L), JULY TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	9.2	7.8	8.3	8.4	7.5	7.9
2	---	---	---	---	---	---	8.7	7.5	8.2	8.4	7.6	8.0
3	---	---	---	---	---	---	8.6	7.7	8.2	8.2	7.3	7.7
4	---	---	---	---	---	---	8.6	7.7	8.2	8.2	7.1	7.6
5	---	---	---	---	---	---	7.8	7.3	7.6	8.1	6.8	7.6
6	---	---	---	---	---	---	8.2	6.5	7.7	8.1	6.9	7.7
7	---	---	---	---	---	---	7.6	5.1	6.7	8.2	7.3	7.7
8	---	---	---	---	---	---	8.4	3.2	6.8	8.1	7.4	7.7
9	---	---	---	---	---	---	9.1	5.1	8.4	8.2	7.4	7.7
10	---	---	---	---	---	---	9.0	8.0	8.5	8.3	7.2	7.9
11	---	---	---	---	---	---	9.0	7.6	8.5	8.5	7.8	8.2
12	---	---	---	---	---	---	8.4	7.0	7.8	9.0	8.3	8.7
13	---	---	---	---	---	---	8.5	7.3	7.8	9.4	8.4	8.9
14	---	---	---	---	---	---	7.7	7.4	7.5	9.4	8.1	8.8
15	---	---	---	---	---	---	8.1	7.4	7.7	8.7	6.5	8.0
16	---	---	---	---	---	---	8.2	7.6	7.9	8.7	7.6	8.2
17	---	---	---	---	---	---	8.2	7.5	7.8	8.4	6.4	7.7
18	---	---	---	---	---	---	8.1	7.2	7.8	8.6	5.7	7.2
19	---	---	---	---	---	---	7.7	7.2	7.4	9.2	6.1	7.9
20	---	---	---	---	---	---	7.9	7.4	7.6	---	---	---
21	---	---	---	---	---	---	8.1	7.3	7.7	---	---	---
22	---	---	---	---	---	---	7.8	6.8	7.4	---	---	---
23	---	---	---	---	---	---	8.5	7.3	8.0	---	---	---
24	---	---	---	---	---	---	8.4	7.5	7.9	---	---	---
25	---	---	---	---	---	---	8.2	7.2	7.8	10.1	7.7	8.0
26	---	---	---	---	---	---	8.3	7.2	7.8	8.1	7.0	7.7
27	---	---	---	8.6	7.7	8.1	8.9	8.2	8.5	8.3	7.2	7.8
28	---	---	---	8.3	7.5	8.0	8.8	7.9	8.4	8.1	7.5	7.7
29	---	---	---	8.3	7.7	7.9	8.7	7.9	8.3	8.0	7.6	7.8
30	---	---	---	8.3	7.7	7.9	8.4	7.5	8.0	7.9	4.6	7.0
31	---	---	---	8.6	7.5	8.1	8.3	7.4	7.8	---	---	---
MONTH	---	---	---	---	---	---	9.2	3.2	7.9	---	---	---

05381392 STONY CREEK NEAR SHAMROCK, WI

LOCATION.--Lat 44°10'50", long 90°47'12", in sec.30, T.20 N., R.3 W., Jackson County, Hydrologic Unit 07040007, on right bank 25 ft upstream from County Trunk O, and 1 mi east of Shamrock.

DRAINAGE AREA.--8.59 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to September 1996.

GAGE.--Water-stage recorder. Datum of gage is 840 ft, from topographic map.

REMARKS.--Estimated daily discharges: Aug. 16 to Sept. 25, and Sept. 28–30. Records are poor (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	.67	.30
2	---	---	---	---	---	---	---	---	---	---	.44	.30
3	---	---	---	---	---	---	---	---	---	---	.44	.20
4	---	---	---	---	---	---	---	---	---	---	.44	.20
5	---	---	---	---	---	---	---	---	---	---	.74	.20
6	---	---	---	---	---	---	---	---	---	---	1.0	.19
7	---	---	---	---	---	---	---	---	---	---	1.4	.19
8	---	---	---	---	---	---	---	---	---	---	1.5	.25
9	---	---	---	---	---	---	---	---	---	---	1.5	.40
10	---	---	---	---	---	---	---	---	---	---	1.5	.35
11	---	---	---	---	---	---	---	---	---	---	1.5	.25
12	---	---	---	---	---	---	---	---	---	---	.91	.19
13	---	---	---	---	---	---	---	---	---	---	.54	.19
14	---	---	---	---	---	---	---	---	---	---	.31	.20
15	---	---	---	---	---	---	---	---	---	---	.29	.20
16	---	---	---	---	---	---	---	---	---	---	.21	.20
17	---	---	---	---	---	---	---	---	---	---	.21	.19
18	---	---	---	---	---	---	---	---	---	---	.27	.18
19	---	---	---	---	---	---	---	---	---	---	.26	.17
20	---	---	---	---	---	---	---	---	---	---	.28	.18
21	---	---	---	---	---	---	---	---	---	---	.26	.21
22	---	---	---	---	---	---	---	---	---	---	1.0	.21
23	---	---	---	---	---	---	---	---	---	---	.90	.19
24	---	---	---	---	---	---	---	---	---	---	.55	.21
25	---	---	---	---	---	---	---	---	---	1.2	.50	.20
26	---	---	---	---	---	---	---	---	---	1.2	.50	.35
27	---	---	---	---	---	---	---	---	---	1.2	.50	1.2
28	---	---	---	---	---	---	---	---	---	1.0	.48	1.1
29	---	---	---	---	---	---	---	---	---	1.0	.46	1.2
30	---	---	---	---	---	---	---	---	---	1.0	.40	1.0
31	---	---	---	---	---	---	---	---	---	.96	.40	---
TOTAL	---	---	---	---	---	---	---	---	---	---	20.36	10.40
MEAN	---	---	---	---	---	---	---	---	---	---	.66	.35
MAX	---	---	---	---	---	---	---	---	---	---	1.5	1.2
MIN	---	---	---	---	---	---	---	---	---	---	.21	.17
CFSM	---	---	---	---	---	---	---	---	---	---	.08	.04
IN.	---	---	---	---	---	---	---	---	---	---	.09	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1996, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	1.08	.66	.35
MAX	---	---	---	---	---	---	---	---	---	1.08	.66	.35
(WY)	---	---	---	---	---	---	---	---	---	1996	1996	1996
MIN	---	---	---	---	---	---	---	---	---	1.08	.66	.35
(WY)	---	---	---	---	---	---	---	---	---	1996	1996	1996

05381392 STONY CREEK NEAR SHAMROCK, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July to September 1996.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: July to September 1996.

INSTRUMENTATION.--Continuous water-temperature recorder July to September 1996.

REMARKS.--Chemical analyses by the Wisconsin State Laboratory of Hygiene. Water samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD JULY THROUGH SEPTEMBER 1996.--
WATER TEMPERATURE: Maximum observed, 27.0°C, Sept. 5; minimum observed, 8.5°C, Sept. 25.

WATER-QUALITY DATA, JULY TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	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)
AUG 1996											
01...	1315	0.67	96	7.4	17.5	10.6	<5	0.552	<0.027	0.40	0.049
13...	1315	0.44	98	7.4	19.5	10.0	5	0.153	<0.027	0.48	0.075
27...	1433	0.29	105	7.9	16.0	10.4	<5	0.226	0.031	0.34	0.044
SEP											
10...	1348	--	103	7.4	18.0	9.5	<5	0.061	<0.027	0.40	0.060
10...	1354	--	57	7.6	18.0	--	9	0.059	0.033	0.50	0.077
25...	1230	0.16	102	7.4	10.0	11.5	<5	0.522	<0.027	0.30	0.035

WATER TEMPERATURE, DEGREES CELSIUS, JULY TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	19.5	14.5	17.0	19.5	17.5	18.5
2	---	---	---	---	---	---	20.0	15.0	18.0	20.5	17.5	19.0
3	---	---	---	---	---	---	19.5	15.5	18.0	22.0	19.0	20.5
4	---	---	---	---	---	---	21.5	17.5	19.5	23.5	20.0	21.5
5	---	---	---	---	---	---	22.5	20.5	21.5	27.0	19.0	22.5
6	---	---	---	---	---	---	24.0	19.5	21.5	---	---	---
7	---	---	---	---	---	---	23.5	21.0	22.0	---	---	---
8	---	---	---	---	---	---	21.5	17.5	19.5	20.5	16.0	18.5
9	---	---	---	---	---	---	20.0	15.5	18.5	20.0	18.5	19.0
10	---	---	---	---	---	---	19.0	14.5	17.0	18.5	15.0	17.0
11	---	---	---	---	---	---	20.0	16.0	18.0	18.5	16.5	17.0
12	---	---	---	---	---	---	21.0	16.5	19.0	16.5	14.0	15.0
13	---	---	---	---	---	---	21.0	17.5	19.5	14.5	11.0	13.0
14	---	---	---	---	---	---	22.0	20.0	21.0	13.5	9.5	12.0
15	---	---	---	---	---	---	21.5	18.5	19.5	15.0	11.0	13.0
16	---	---	---	---	---	---	19.5	15.5	17.5	14.0	12.5	13.5
17	---	---	---	---	---	---	19.0	15.0	17.5	14.0	11.0	12.5
18	---	---	---	---	---	---	18.5	16.0	17.5	14.5	10.0	12.0
19	---	---	---	---	---	---	20.0	18.0	19.0	14.5	9.5	12.0
20	---	---	---	---	---	---	22.5	19.5	21.0	14.5	12.0	13.0
21	---	---	---	---	---	---	20.5	17.5	19.0	13.5	12.5	13.0
22	---	---	---	---	---	---	21.5	19.0	20.5	15.5	12.5	13.5
23	---	---	---	---	---	---	20.0	15.0	17.5	14.0	12.5	12.5
24	---	---	---	---	---	---	19.5	14.5	17.5	14.0	11.5	12.5
25	---	---	---	19.0	15.0	17.0	21.0	15.5	18.5	12.0	8.5	10.5
26	---	---	---	19.0	14.5	17.0	21.0	17.0	19.0	12.0	11.0	11.5
27	---	---	---	19.0	14.5	17.0	17.5	13.5	15.5	12.0	11.0	11.5
28	---	---	---	19.5	17.0	18.5	18.5	13.5	16.0	12.5	10.5	11.5
29	---	---	---	19.0	17.0	18.0	17.5	13.5	16.0	12.0	10.0	11.0
30	---	---	---	18.5	15.0	17.0	20.0	16.5	18.0	13.0	10.0	11.5
31	---	---	---	17.5	15.5	16.5	20.0	18.0	19.5	---	---	---
MONTH	---	---	---	---	---	---	24.0	13.5	18.7	---	---	---

05382000 BLACK RIVER NEAR GALESVILLE, WI

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 mi^2.

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 sea level. 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: Ice-affected period, Nov. 29 to Apr. 4. Records good except for those for ice-affected period, which is fair (see page 12). Flow partly regulated by Hatfield Dam Powerplant where drainage area is 1,290 mi^2 and storage capacity is 272,000,000 ft^3. Water diverted periodically from basin into Lemonweir River basin for cranberry culture. Gage-height telemeter and data-collection platform at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	949	2430	1100	700	720	1400	5400	3380	1250	2480	833	522
2	1090	2550	1000	700	720	1300	6200	3570	1360	2200	797	519
3	1450	3780	980	700	720	1200	7000	3430	1830	2350	764	507
4	1540	5070	940	700	720	1100	8000	3340	2610	2650	752	499
5	2060	5520	900	700	720	1000	8520	3510	2890	2110	726	496
6	2290	4690	860	680	720	960	7220	3440	2930	1750	728	485
7	3430	3580	840	660	740	900	5830	3410	2690	1520	774	470
8	5580	2880	800	600	780	840	5340	3340	2910	1360	754	468
9	7950	2510	760	580	820	800	5220	2990	3770	1250	693	504
10	8870	2120	700	580	840	800	5180	2700	4100	1170	693	506
11	7970	1880	680	580	820	800	5560	2720	3720	1130	722	484
12	5880	1650	660	580	800	840	6380	3480	3030	1210	780	478
13	4270	1450	660	580	780	1200	7910	3420	2490	1210	749	478
14	3320	1420	680	600	780	2000	10600	2990	2050	1170	709	481
15	2710	1280	700	640	760	3000	11500	2620	1940	1090	691	482
16	2300	1320	720	700	720	3300	9040	2520	1920	1060	640	476
17	2040	1170	720	700	720	3700	7470	2660	1790	1020	660	465
18	1740	1240	720	800	720	4500	7770	2500	2470	998	604	456
19	1660	1190	740	900	720	4800	7740	2380	5210	965	598	461
20	1550	1090	740	800	740	4500	7780	2310	8730	949	571	462
21	1530	1190	740	780	780	4300	10600	2860	8840	953	575	458
22	1460	1040	740	780	800	4100	12700	2930	5640	977	603	447
23	1470	1030	740	780	900	4000	10900	2700	3970	1090	598	449
24	1670	982	740	780	1000	4100	8580	2380	3680	1040	618	458
25	3080	1020	740	760	1100	4400	6290	2050	3020	905	740	444
26	4510	1020	740	740	1400	5000	4760	1820	2460	849	617	458
27	4960	997	740	740	1500	5200	4210	1680	1990	857	565	528
28	4450	976	700	740	1500	5200	3780	1510	1710	823	571	619
29	3680	900	660	720	1500	4700	3450	1470	1840	822	570	553
30	3220	860	700	720	---	4600	3220	1350	2010	803	630	571
31	2790	---	720	720	---	5000	---	1310	---	823	566	---
TOTAL	101469	58835	23860	21740	25540	89540	214150	82770	94850	39584	20891	14684
MEAN	3273	1961	770	701	881	2888	7138	2670	3162	1277	674	489
MAX	8870	5520	1100	900	1500	5200	12700	3570	8840	2650	833	619
MIN	949	860	660	580	720	800	3220	1310	1250	803	565	444
CFSM	1.57	.94	.37	.34	.42	1.39	3.43	1.28	1.52	.61	.32	.24
IN.	1.81	1.05	.43	.39	.46	1.60	3.83	1.48	1.70	.71	.37	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1996, BY WATER YEAR (WY)

MEAN	1298	1436	1002	740	749	3044	4649	2560	2246	1229	917	1536
MAX	5231	4401	3468	2661	3664	9521	12210	7993	11880	4361	4421	9373
(WY)	1987	1935	1992	1932	1984	1973	1967	1960	1993	1978	1995	1938
MIN	277	337	320	268	263	406	1315	591	427	322	293	306
(WY)	1959	1949	1959	1959	1959	1934	1957	1934	1988	1933	1964	1948

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1932 - 1996	
ANNUAL TOTAL	717526		787913			
ANNUAL MEAN	1966		2153		1783	
HIGHEST ANNUAL MEAN					3456	1993
LOWEST ANNUAL MEAN					699	1977
HIGHEST DAILY MEAN	15100	Aug 22	12700	Apr 22	62000	Apr 1 1967
LOWEST DAILY MEAN	486	Jul 16	444	Sep 25	180	Dec 20 1932
ANNUAL SEVEN-DAY MINIMUM	516	Jul 11	454	Sep 20	218	Aug 10 1933
INSTANTANEOUS PEAK FLOW			13000	Apr 22	(a)65500	Apr 1 1967
INSTANTANEOUS PEAK STAGE			11.34	Apr 22	16.64	Jun 21 1993
INSTANTANEOUS LOW FLOW			406	Sep 25	180	Dec 20 1931
ANNUAL RUNOFF (CFSM)	.95		1.03		.86	
ANNUAL RUNOFF (INCHES)	12.83		14.09		11.65	
10 PERCENT EXCEEDS	4610		5190		3960	
50 PERCENT EXCEEDS	1020		1090		880	
90 PERCENT EXCEEDS	580		580		381	

(a) Gage height, 14.63 ft, at location 1,000 ft downstream

05382325 LA CROSSE RIVER AT SPARTA, WI

LOCATION.--Lat 43°56'15", long 90°48'38", in SE 1/4 NE 1/4 sec.23, T17 N., R.4 W., Monroe County, Hydrologic Unit 07040006, on left bank, 800 ft dowmstream from bridge on South Water Street, in Sparta, 0.35 mi downstream from Beaver Creek.

DRAINAGE AREA.--167 mi^2.

PERIOD OF RECORD.--July 1992 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 760.73 ft above sea level.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 8–14, Jan. 3–9, Jan. 19 to Feb. 8, Feb. 17–19, and Feb. 29 to Mar. 9. Records fair (see page 12). Gage-height telemeter at station. Occasional regulation from two dams upstream from gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	212	165	147	110	130	210	195	162	185	130	111
2	154	297	162	145	110	120	200	179	223	184	126	111
3	167	250	163	120	110	110	201	184	204	164	124	108
4	162	207	162	120	110	110	190	181	187	154	124	108
5	166	192	161	110	110	120	180	174	174	150	126	108
6	273	188	155	110	120	120	177	169	178	146	134	107
7	286	186	145	110	130	110	176	168	225	145	153	107
8	233	177	140	110	140	110	174	167	241	143	138	110
9	202	174	120	120	163	130	177	170	201	146	129	116
10	189	178	120	136	173	137	177	171	177	148	122	115
11	175	175	120	140	172	166	179	167	178	144	123	111
12	170	170	120	146	159	359	186	161	171	170	123	109
13	164	169	130	145	150	518	182	157	161	177	122	109
14	163	167	140	143	147	463	177	164	154	176	119	110
15	161	165	163	139	143	296	184	187	148	157	116	110
16	159	167	151	138	138	263	202	175	157	150	115	110
17	156	169	149	141	130	233	194	168	313	158	115	109
18	155	170	151	362	120	205	203	167	304	163	114	108
19	155	170	151	180	130	190	258	165	230	152	117	107
20	164	170	148	160	141	173	233	163	201	145	120	108
21	165	169	147	160	150	175	210	159	183	141	117	111
22	163	163	146	150	154	173	192	153	172	137	159	112
23	190	161	146	140	166	177	182	155	172	135	148	109
24	235	156	147	140	239	236	177	153	175	133	126	111
25	210	159	147	140	306	543	180	150	163	133	121	128
26	187	162	145	120	280	228	173	153	148	133	120	100
27	184	167	142	120	195	198	172	154	152	135	120	141
28	203	163	133	120	165	186	165	156	146	138	118	130
29	195	153	135	120	140	198	174	149	165	137	116	119
30	179	165	154	110	---	204	206	145	227	134	113	114
31	173	---	147	110	---	224	---	142	---	131	113	---
TOTAL	5692	5371	4505	4352	4501	6605	5691	5101	5692	4644	3861	3367
MEAN	184	179	145	140	155	213	190	165	190	150	125	112
MAX	286	297	165	362	306	543	258	195	313	185	159	141
MIN	154	153	120	110	110	110	165	142	146	131	113	100
CFSM	1.10	1.07	.87	.84	.93	1.28	1.14	.99	1.14	.90	.75	.67
IN.	1.27	1.20	1.00	.97	1.00	1.47	1.27	1.14	1.27	1.03	.86	.75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	170	169	151	137	148	195	233	203	207	182	162	174
MAX	184	179	160	142	167	213	324	279	323	288	204	216
(WY)	1996	1996	1995	1995	1994	1996	1993	1993	1993	1993	1993	1994
MIN	149	155	143	133	133	182	190	165	145	136	111	112
(WY)	1993	1994	1994	1993	1993	1993	1996	1996	1995	1995	1992	1996

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1992 - 1996	
ANNUAL TOTAL	60793		59382			
ANNUAL MEAN	167		162		179	
HIGHEST ANNUAL MEAN					211	1993
LOWEST ANNUAL MEAN					162	1996
HIGHEST DAILY MEAN	604	Aug 20	543	Mar 25	901	Jun 20 1993
LOWEST DAILY MEAN	(a)120	(b)Jan 4	100	Sep 26	94	Aug 24 1992
ANNUAL SEVEN-DAY MINIMUM	(a)127	Dec 8	108	Sep 2	98	Aug 18 1992
INSTANTANEOUS PEAK FLOW			726	Mar 13	1100	Jun 20 1993
INSTANTANEOUS PEAK STAGE			5.94	Mar 13	8.78	Jun 20 1993
ANNUAL RUNOFF (CFSM)	1.00		.97		1.07	
ANNUAL RUNOFF (INCHES)	13.54		13.23		14.57	
10 PERCENT EXCEEDS	211		204		239	
50 PERCENT EXCEEDS	155		156		163	
90 PERCENT EXCEEDS	130		111		128	

(a) Ice affected
(b) Also occurred Feb. 6, 7, 11-13, Mar. 2, and Dec. 9-12

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 mi^2, 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 sea level. Prior to June 1, 1937, and since June 2, 1939, auxiliary water-stage recorder; June 1, 1937 to June 1, 1939, auxiliary nonrecording gage 14.1 mi upstream in tailwater of dam 9, at datum 5.30 ft lower.

REMARKS.--Estimated daily discharges: Nov. 30 to Dec. 2, Dec. 9 to Mar. 18, June 23–26, and July 18–24. Records good except those for estimated daily discharges, which are fair (see page 12). Minor flow regulation caused by navigation dams. U.S. Army Corps of Engineers data collection platform at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1828, that of Apr. 24, 1965.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27200	72000	30000	30500	22000	28000	73500	131000	78000	70900	35300	25800
2	29600	74900	31500	30200	21000	28500	73600	131000	77000	69800	34200	24800
3	31200	75400	33600	30000	21000	29000	74100	127000	75900	69700	34000	23900
4	32200	74100	35000	29000	22000	30000	75200	122000	73800	70300	32800	23300
5	33600	72900	39400	28500	23500	31000	75500	115000	69000	70800	29800	22100
6	37200	73900	43700	27500	24500	31000	76300	109000	67100	68600	28300	22700
7	42000	76100	38400	26500	26000	30000	77300	105000	67200	65700	30700	22600
8	46100	77400	27500	27000	28000	31000	79400	102000	66900	59100	33200	24700
9	48700	77700	25000	25500	29000	33000	80900	99300	66400	50700	32600	27700
10	51700	78500	22000	25500	28000	35000	81300	96700	65800	45400	30100	28700
11	56500	76900	21000	25000	27000	37000	81400	94000	64100	42300	26100	28500
12	63000	73100	21500	26500	27500	37000	81300	91500	63300	40000	23200	27000
13	71100	69400	23000	27000	26500	36000	82000	88500	62900	39900	24500	22900
14	73400	63700	25000	28000	29500	34500	82800	85100	60300	40100	27000	20800
15	74300	60000	28500	29000	31500	40500	86400	83000	58400	39500	28500	20300
16	74200	56900	31000	29000	31000	50000	91200	80100	57100	37400	28700	20600
17	71700	51600	33500	28500	31500	55000	97800	78700	59800	36100	26600	21500
18	65800	48300	34500	30000	31000	60000	105000	78300	61800	36000	24800	21500
19	61500	45900	35000	31500	32500	61500	110000	77300	61600	35800	24500	21200
20	58700	45700	34500	30500	33500	59900	112000	76500	61100	41500	25500	21100
21	54700	46000	33500	29500	33500	58400	113000	75600	62900	40000	26400	21600
22	52800	46000	33000	30500	33000	58800	115000	73900	68400	37000	24800	21300
23	52100	46600	32000	27500	32500	61000	118000	73100	70000	35500	25400	23400
24	51500	40800	32000	26500	34000	64200	125000	73900	75000	35700	24800	24400
25	50200	38600	33000	25000	33000	68200	133000	76500	78000	39500	20700	23800
26	50100	39400	33000	24000	35100	67800	139000	78800	76000	38900	20500	19800
27	51900	38600	32500	24000	36000	72300	142000	80700	72000	35800	24900	23100
28	55300	31300	32000	25500	33500	77800	142000	83200	71900	34200	30900	21900
29	59200	29400	31500	25000	31500	79500	140000	83900	71600	35000	30000	23000
30	64700	28000	31500	24000	---	78300	136000	82400	71500	36100	28000	23200
31	69200	---	31000	23000	---	75700	---	79700	---	36100	26100	---
TOTAL	1661400	1729100	968600	849700	848600	1539900	3000000	2832700	2034800	1433400	862900	697200
MEAN	53590	57640	31250	27410	29260	49670	100000	91380	67830	46240	27840	23240
MAX	74300	78500	43700	31500	36000	79500	142000	131000	78000	70900	35300	28700
MIN	27200	28000	21000	23000	21000	28000	73500	73100	57100	34200	20500	19800
AC-FT	3295000	3430000	1921000	1685000	1683000	3054000	5950000	5619000	4036000	2843000	1712000	1383000
CFSM	.79	.85	.46	.41	.43	.74	1.48	1.35	1.00	.69	.41	.34
IN.	.92	.95	.53	.47	.47	.85	1.65	1.56	1.12	.79	.48	.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1996, BY WATER YEAR (WY)

MEAN	28920	29090	22030	19010	19530	39230	74110	61200	49160	40220	27550	28900
MAX	114600	64840	59200	35700	48540	103800	164800	119200	112600	142200	84430	72890
(WY)	1987	1983	1992	1983	1984	1983	1965	1975	1993	1993	1993	1986
MIN	9874	10870	9506	7665	9934	13190	27780	18240	13420	11220	10330	10650
(WY)	1937	1938	1937	1940	1940	1940	1990	1977	1988	1988	1964	1940

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1936 - 1996	
ANNUAL TOTAL	18114900		18458300			
ANNUAL MEAN	49630		50430		36630	
HIGHEST ANNUAL MEAN					64720	1993
LOWEST ANNUAL MEAN					17400	1977
HIGHEST DAILY MEAN	99100	Apr 28	142000	Apr 27,28	276000	Apr 24 1965
LOWEST DAILY MEAN	15500	Feb 11	19800	Sep 26	6200	Dec 9 1936
ANNUAL SEVEN-DAY MINIMUM	17300	Feb 9	21000	Sep 14	6490	Dec 7 1936
INSTANTANEOUS PEAK FLOW			143000	Apr 28		
INSTANTANEOUS PEAK STAGE			18.50	Apr 28	25.38	Apr 24 1965
ANNUAL RUNOFF (AC-FT)	35930000		36610000		26540000	
ANNUAL RUNOFF (CFSM)	.74		.75		.54	
ANNUAL RUNOFF (INCHES)	9.98		10.17		7.37	
10 PERCENT EXCEEDS	82600		81600		75600	
50 PERCENT EXCEEDS	42400		37300		27000	
90 PERCENT EXCEEDS	22000		24000		13100	

05389500 MISSISSIPPI RIVER AT MCGREGOR, IA--CONTINUED

WATER-QUALITY RECORDS

LOCATION.--Samples collected from right bank dock 0.3 mi downstream from discharge station. Prior to April 1981, at bridge on U.S. Highway 18, 1.2 mi upstream from gage.

PERIOD OF RECORD.--July 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1975 to current year.

WATER TEMPERATURE: July 1975 to current year.

SUSPENDED-SEDIMENT DISCHARGE: July 1975 to current year.

REMARKS.--Records of specific conductance are obtained from suspended-sediment samples at times of analysis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,350 mg/L, Mar. 19, 1986; minimum daily mean, 1 mg/L, on many days in 1977-92.

SEDIMENT LOADS: Maximum daily, 363,000 tons, Mar. 19, 1986; minimum daily, 31 tons, Dec. 25, 1976.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 65 mg/L, Mar. 29; minimum daily mean, 2 mg/L, Jan. 9–13, Jan. 19 to Feb. 6, and Mar. 7–11.

SEDIMENT LOADS: Maximum daily, 14,000 tons, Mar. 29; minimum daily, 113 tons, Feb. 2–3.

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY INSTANTANOUES VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	429	---	---	---	---	---	---
2	---	---	542	---	---	---	391	---	---	486	---	---
3	---	447	---	541	---	---	355	318	---	---	401	---
4	540	---	---	---	---	---	---	---	402	---	---	366
5	---	---	---	---	---	467	380	---	396	---	---	---
6	---	---	---	---	485	---	---	314	---	---	---	---
7	376	---	507	534	---	---	---	---	433	---	---	---
8	---	430	---	---	---	465	---	---	---	524	387	---
9	380	---	---	---	473	---	386	---	---	---	---	374
10	600	---	---	528	---	---	---	316	432	---	---	380
11	---	---	546	---	---	467	---	---	---	---	---	---
12	---	---	---	---	471	---	393	---	---	526	374	388
13	386	453	---	506	---	---	---	---	511	---	---	---
14	---	---	536	---	---	---	---	352	446	---	---	---
15	---	---	---	---	465	397	---	---	---	---	---	---
16	365	---	---	480	---	---	357	---	---	504	365	391
17	---	473	---	---	---	---	---	---	468	---	---	---
18	---	---	553	---	---	401	---	350	---	---	---	---
19	402	---	---	508	478	---	363	---	---	484	---	389
20	---	486	---	---	---	---	---	---	485	---	355	---
21	---	---	---	---	---	384	---	352	---	471	---	---
22	---	---	546	495	475	---	---	---	---	---	---	---
23	415	---	---	---	---	---	368	---	510	466	362	397
24	---	---	---	---	---	---	---	---	---	---	---	---
25	427	508	---	---	---	---	---	---	---	448	---	---
26	---	533	544	490	424	392	368	---	---	---	---	---
27	---	---	---	---	---	---	---	386	448	---	379	---
28	---	---	---	---	---	---	330	---	---	---	375	---
29	---	---	---	---	448	393	319	---	---	451	376	392
30	---	518	---	---	---	---	---	396	---	---	---	402
31	---	---	531	---	---	---	---	---	---	---	---	---

05389500 MISSISSIPPI RIVER AT MCGREGOR, IA--CONTINUED

SUSPENDED-SEDIMENT WATER YER OCTOBER 1995 TO SEPTMEBER 1996

DAY	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9	696	34	6610	8	648	5	412	2	119	5	378
2	10	840	34	6880	6	510	4	326	2	113	5	385
3	11	960	34	6850	6	582	3	243	2	113	4	313
4	12	1080	32	6390	7	643	3	235	2	119	4	324
5	14	1310	30	5970	7	767	4	308	2	127	4	335
6	17	1680	29	5730	8	898	4	297	2	132	3	251
7	18	2100	27	5590	8	810	4	286	6	421	2	162
8	17	2140	26	5440	7	548	3	219	13	983	2	167
9	14	1790	26	5360	7	472	2	138	24	1880	2	178
10	8	1070	25	5320	6	356	2	138	20	1510	2	189
11	9	1320	25	5130	6	340	2	135	15	1090	2	200
12	10	1760	24	4800	5	290	2	143	11	817	3	300
13	12	2370	23	4340	4	248	2	146	7	501	5	486
14	15	2900	20	3390	4	270	3	227	4	319	8	745
15	17	3480	17	2680	5	385	5	391	3	255	12	1310
16	20	4030	14	2140	5	418	7	548	3	251	13	1750
17	22	4210	12	1700	6	543	5	385	4	340	15	2230
18	23	4160	13	1660	7	652	3	243	4	335	16	2590
19	25	4130	13	1660	8	756	2	170	4	351	17	2840
20	25	4000	14	1710	8	745	2	165	4	362	18	2920
21	26	3770	14	1680	9	814	2	159	3	271	19	2950
22	26	3670	13	1630	9	802	2	165	3	267	18	2820
23	27	3760	13	1600	8	691	2	148	5	439	17	2740
24	30	4220	12	1350	8	691	2	143	9	826	16	2720
25	34	4570	11	1130	7	624	2	135	14	1250	15	2720
26	34	4600	7	789	7	624	2	130	18	1710	16	2900
27	34	4770	8	829	7	614	2	130	12	1170	26	5140
28	34	5080	9	748	7	605	2	138	8	724	45	9450
29	34	5440	10	795	6	510	2	135	5	425	65	14000
30	34	5950	10	756	6	510	2	130	---	---	54	11400
31	34	6360	---	---	6	502	2	124	---	---	42	8540
TOTAL	---	98216	---	100657	---	17868	---	6692	---	17220	---	83433

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	32	6430	14	4970	25	5220	35	6750	20	1890	18	1240
2	26	5110	15	5150	27	5690	37	6900	18	1690	17	1150
3	25	4940	15	5170	30	6210	36	6730	15	1410	17	1060
4	25	5070	16	5280	32	6450	35	6600	15	1290	16	1010
5	24	4800	17	5300	31	5770	34	6440	15	1220	16	939
6	21	4400	18	5190	29	5320	33	6060	16	1210	16	955
7	19	4030	17	4760	28	5060	32	5630	16	1370	15	936
8	17	3740	16	4320	27	4850	30	4850	16	1450	15	1020
9	16	3450	15	3960	26	4630	28	3790	15	1330	15	1140
10	14	3150	14	3720	25	4490	25	3080	14	1160	16	1240
11	13	2860	15	3870	26	4510	23	2600	14	954	17	1270
12	12	2660	16	4070	27	4620	21	2260	13	782	17	1220
13	12	2720	18	4250	28	4770	20	2170	13	832	16	990
14	13	2800	19	4260	30	4820	19	2090	13	954	15	862
15	13	2980	17	3820	33	5270	19	1980	14	1040	15	797
16	13	3200	16	3350	38	5820	18	1860	12	949	14	776
17	13	3440	14	2990	41	6580	20	1610	12	862	13	764
18	13	3690	14	2890	37	6170	22	2140	13	869	13	728
19	13	3860	14	2920	33	5490	23	2220	14	929	12	689
20	13	4020	14	2890	30	4930	18	2020	15	1000	12	700
21	14	4130	14	2920	28	4760	15	1620	15	1100	13	729
22	14	4280	16	3140	26	4870	18	1800	17	1120	13	737
23	14	4450	17	3450	25	4720	24	2300	18	1210	13	807
24	14	4710	19	3870	26	5260	34	3280	16	1100	12	767
25	14	5050	21	4440	27	5690	43	4540	15	843	11	677
26	14	5350	24	5070	27	5540	37	3830	14	775	10	514
27	16	5990	25	5530	28	5500	33	3220	16	1110	9	542
28	16	6150	24	5290	30	5790	30	2800	32	2680	9	519
29	13	5040	22	4880	32	6100	26	2500	21	1710	12	768
30	14	4980	21	4560	33	6440	24	2300	19	1440	16	1010
31	---	---	22	4820	---	---	22	2110	18	1300	---	---
TOTAL	---	127480	---	131100	---	161340	---	108080	---	37579	---	26556
YEAR		916221										

05389500 MISSISSIPPI RIVER AT MCGREGOR, IA--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY INSTANTANEOUS VALUES

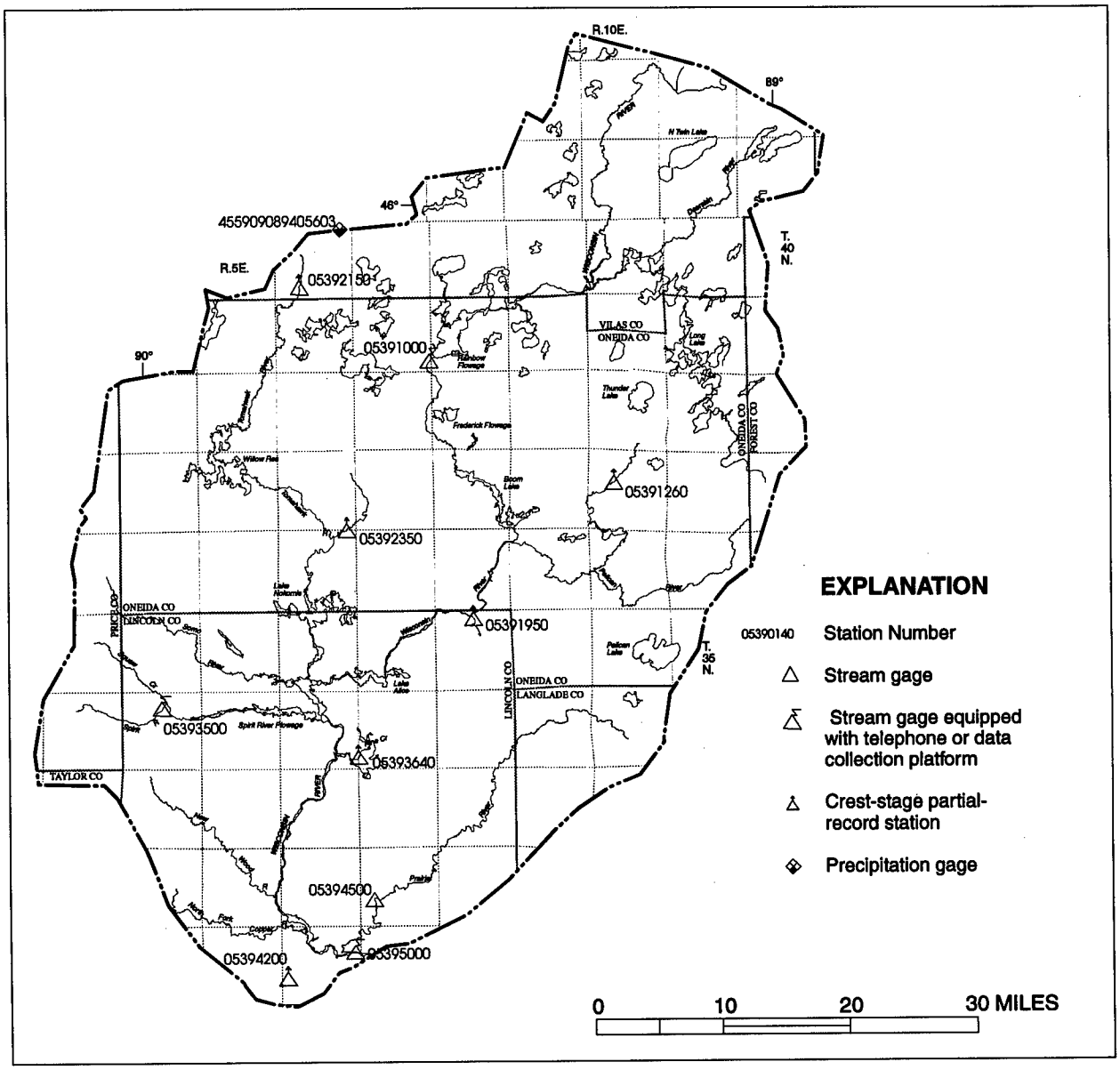
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	.0	---	---	---	---	---	---
2	---	---	.0	---	---	---	4.0	---	---	19.0	---	---
3	---	12.0	---	.0	---	---	---	15.0	---	---	19.0	---
4	17.0	---	---	---	---	---	---	---	16.0	---	---	19.0
5	---	---	---	---	---	1.0	4.0	---	---	---	---	---
6	---	---	---	---	.0	---	---	10.0	---	---	---	---
7	16.0	---	.0	.0	---	---	---	---	16.0	---	---	---
8	---	10.0	---	---	---	1.0	---	---	---	19.0	19.0	---
9	17.0	---	---	---	.0	---	4.0	---	---	---	---	24.0
10	10.0	---	---	.0	---	---	---	11.0	17.0	---	---	22.0
11	---	---	.0	---	---	.0	---	---	---	---	---	---
12	---	---	---	---	.0	---	---	---	---	19.0	17.0	23.0
13	15.0	1.0	---	.0	---	---	---	---	14.0	---	---	---
14	---	---	.0	---	---	---	---	12.0	19.0	---	---	---
15	---	---	---	---	.0	.0	---	---	---	---	---	---
16	14.0	---	---	.0	---	---	7.0	---	---	17.0	19.0	20.0
17	---	.0	---	---	---	---	---	---	17.0	---	---	---
18	---	---	.0	---	---	1.0	---	14.0	---	---	---	---
19	14.0	---	---	.0	.0	---	4.0	---	---	17.0	---	17.0
20	---	1.0	---	---	---	---	---	---	21.0	---	19.0	---
21	---	---	---	---	---	.0	---	15.0	---	19.0	---	---
22	---	---	.0	.0	.0	---	---	---	---	---	---	---
23	12.0	---	---	---	---	---	10.0	---	20.0	19.0	20.0	16.0
24	---	---	---	---	---	---	---	---	---	---	---	---
25	12.0	.0	---	---	---	---	---	---	---	---	---	---
26	---	.0	.0	.0	1.0	3.0	10.0	---	---	---	---	---
27	---	---	---	---	---	---	---	18.0	19.0	---	20.0	---
28	---	---	---	---	---	---	10.0	---	---	---	---	---
29	---	---	---	---	1.0	3.5	10.0	---	---	19.0	20.0	16.0
30	---	.0	---	---	---	---	---	14.0	---	---	---	16.0
31	---	---	.0	---	---	---	---	---	---	---	---	---

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
APR 1996						
03...	1500	5.5	72900	31	6100	94
29...	1340	9.5	153000	31	12800	92
JUN						
05...	1230	--	66500	84	15100	94
JUL						
25...	1300	--	39800	50	5370	98
AUG						
28...	1415	--	29400	79	6270	85

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT) (00063)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
APR 1996												
03...	1618	5	0	1	5	67	95	100	--	--	--	--
29...	1340	5	2	5	21	80	98	99	100	--	--	--
JUN												
05...	1230	5	0	1	1	2	22	55	74	95	100	--
JUL												
25...	1300	6	1	2	11	30	41	60	67	70	73	100
AUG												
26...	1415	3	1	4	41	81	86	90	94	98	100	--



Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Transverse Mercator projection.

UPPER 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 mi^2.

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 sea level (levels by Wisconsin Valley Improvement Co.).

REMARKS.--No estimated daily discharges. Record good (see page 12). Flow regulated by Rainbow Lake and 12 smaller reservoirs upstream from station. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	440	1210	1020	1010	923	757	664	1290	787	699	654	585
2	358	1300	1100	998	922	748	660	1660	786	735	598	610
3	322	1260	1090	999	917	743	648	1690	700	692	560	611
4	306	1200	1090	1000	908	820	641	1490	645	665	558	653
5	292	1200	1090	1000	900	915	630	1490	645	590	666	660
6	310	1130	1080	1000	893	903	622	1500	660	554	880	621
7	537	1070	1080	999	888	892	614	1510	679	569	955	603
8	686	1050	1070	992	874	877	605	1520	686	646	928	590
9	880	951	1070	989	864	872	590	1500	679	695	918	626
10	1130	926	1060	988	858	870	580	1720	679	694	1020	675
11	1190	954	1060	988	847	863	489	1760	764	695	1060	698
12	1110	953	1060	983	846	862	332	1760	812	709	955	707
13	947	958	1050	978	842	857	266	1700	812	712	886	666
14	896	950	1070	969	837	763	267	1570	728	710	888	646
15	906	944	1060	970	831	669	268	1520	673	708	888	640
16	910	944	1060	966	827	669	271	1440	661	703	824	640
17	884	944	1060	961	823	669	279	1360	650	703	767	605
18	773	944	1050	962	819	666	288	1200	650	652	744	664
19	723	944	1040	968	813	664	310	1120	650	607	740	796
20	698	944	1040	969	801	668	321	1200	645	604	762	710
21	717	944	1030	965	790	696	326	1230	591	607	809	620
22	720	943	1030	958	792	674	334	1220	560	603	821	619
23	698	937	1030	952	792	676	340	1240	565	597	817	616
24	906	942	1020	944	788	689	347	1240	569	645	816	618
25	1050	937	1030	947	781	709	364	1240	583	678	794	620
26	1020	931	1030	943	775	707	379	1160	603	678	781	620
27	1160	932	1020	935	772	706	388	910	623	652	777	625
28	1240	931	1020	934	762	689	571	785	636	641	679	632
29	1120	932	1010	934	760	681	874	785	630	643	621	627
30	1040	935	1010	933	---	674	998	789	620	640	621	624
31	1140	---	1010	931	---	667	---	787	---	643	621	---
TOTAL	25109	30140	32540	30065	24245	23315	14266	41386	19971	20369	24408	19227
MEAN	810	1005	1050	970	836	752	476	1335	666	657	787	641
MAX	1240	1300	1100	1010	923	915	998	1760	812	735	1060	796
MIN	292	926	1010	931	760	664	266	785	560	554	558	585

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1996, BY WATER YEAR (WY)

MEAN	665	697	775	830	825	653	413	718	743	676	595	605
MAX	1445	1250	1178	1108	1161	1044	1330	1798	1863	1387	1472	1282
(WY)	1952	1939	1955	1943	1952	1939	1973	1973	1939	1968	1938	1980
MIN	263	170	330	371	417	322	138	173	228	237	243	268
(WY)	1988	1949	1949	1990	1977	1990	1949	1949	1987	1988	1988	1948

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1936 - 1996	
ANNUAL TOTAL	216305		305041			
ANNUAL MEAN	593		833		683	
HIGHEST ANNUAL MEAN					1062	1939
LOWEST ANNUAL MEAN					359	1990
HIGHEST DAILY MEAN	1300	Nov 2	1760	May 11,12	2820	Sep 5 1941
LOWEST DAILY MEAN	213	Apr 3	266	Apr 13	35	Apr 6 1955
ANNUAL SEVEN-DAY MINIMUM	246	Mar 15	278	Apr 13	107	Apr 12 1965
INSTANTANEOUS PEAK FLOW			1780	May 3	3570	Sep 5 1941
INSTANTANEOUS PEAK STAGE			4.53	May 3	7.59	Sep 5 1941
10 PERCENT EXCEEDS	1030		1120		1040	
50 PERCENT EXCEEDS	530		810		658	
90 PERCENT EXCEEDS	292		590		308	

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.--Standard 8-inch collector above a 3-inch stand pipe with water-stage recorder until Nov. 4, 1993. Tipping-bucket rain gage installed June 16, 1994.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.98 in., Aug. 10, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 2.07 in., Oct. 6.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	.69	---	---	---	---	---	.11	.57	.70	.00	.00
2	.14	.11	---	---	---	---	---	.00	.31	.01	.00	.08
3	.08	---	---	---	---	---	---	.00	.33	.00	.00	.46
4	.00	---	---	---	---	---	---	.00	.01	.00	.00	.46
5	.00	---	---	---	---	---	---	.30	.07	.00	1.20	.00
6	2.07	---	---	---	---	---	.00	.00	.27	.56	.00	.00
7	.11	---	---	---	---	---	.00	.11	.01	.08	.44	.00
8	.00	---	---	---	---	---	.00	---	.00	.22	.00	.11
9	.06	---	---	---	---	---	.00	---	.00	.00	.00	.00
10	.00	---	---	---	---	---	.00	---	.06	.00	.00	.27
11	.00	---	---	---	---	---	.28	---	.00	.08	.00	.04
12	.00	---	---	---	---	---	.00	---	.07	.91	.01	.08
13	.03	---	---	---	---	---	.09	---	.00	.00	.02	.01
14	.28	---	---	---	---	---	.34	---	.00	.01	.33	.00
15	.08	---	---	---	---	---	.24	---	.03	.15	.03	.03
16	.00	---	---	---	---	---	.08	.00	.00	.00	.00	.00
17	.01	---	---	---	---	---	.00	.01	.20	.00	.00	.00
18	.00	---	---	---	---	---	.34	.00	.09	1.15	.00	.00
19	.13	---	---	---	---	---	.09	1.97	.00	.00	.46	.00
20	.02	---	---	---	---	---	.11	.00	.00	.00	.00	.03
21	.02	---	---	---	---	---	.14	.00	.35	.00	.14	.91
22	.00	---	---	---	---	---	.02	.04	.01	.10	.39	.07
23	.93	---	---	---	---	---	.03	.00	.36	.15	.00	.13
24	.19	---	---	---	---	---	.00	.00	.01	.11	.00	.11
25	.01	---	---	---	---	---	.50	.00	.00	.01	.08	.00
26	.00	---	---	---	---	---	.00	.00	1.14	.00	.00	.51
27	.10	---	---	---	---	---	.00	.00	.05	.57	.00	.13
28	.00	---	---	---	---	---	.00	.00	.00	.88	.00	.02
29	.05	---	---	---	---	---	.01	.00	.05	.01	.00	.01
30	.01	---	---	---	---	---	.27	.00	.00	.08	.00	.00
31	.00	---	---	---	---	---	---	.00	---	.02	.00	---
TOTAL	5.04	---	---	---	---	---	---	---	3.99	5.80	3.10	3.46

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 mi^2.

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. Datum of gage is 1,461.63 ft above sea level. Prior to Oct. 4, 1982, nonrecording gage 40 ft upstream at same datum.

REMARKS.--Estimated daily discharges: May 26–31, June 10–13, and ice-affected period, Nov. 4 to Apr. 19. Records good except those for estimated daily discharges, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	236	144	42	23	50	49	110	278	22	56	135	16
2	267	418	40	26	47	45	130	242	109	53	96	16
3	250	421	40	25	45	41	110	199	148	48	70	17
4	224	260	39	25	43	37	100	169	152	40	55	19
5	161	190	41	24	42	35	88	150	114	33	97	18
6	430	160	39	23	43	32	78	137	99	28	232	17
7	1040	140	38	22	47	29	84	121	134	56	378	16
8	730	130	36	22	49	27	96	118	118	50	324	15
9	444	120	35	22	52	25	110	130	78	36	147	15
10	341	130	34	23	54	25	130	148	58	30	94	14
11	263	100	33	24	54	27	210	149	78	26	72	14
12	199	100	32	25	54	28	420	119	130	31	57	13
13	160	78	30	26	52	31	780	98	150	45	47	13
14	135	64	30	27	49	36	740	84	96	39	42	11
15	122	60	32	27	47	50	660	92	61	37	38	10
16	107	56	33	28	46	60	620	88	46	130	34	10
17	93	52	32	31	46	68	640	81	193	85	30	9.4
18	83	52	31	37	46	60	1200	78	595	277	25	8.8
19	76	54	30	74	42	54	2100	96	552	530	23	8.3
20	83	54	32	82	44	52	2750	106	361	221	23	8.5
21	89	52	31	78	46	50	1550	82	207	108	20	8.8
22	139	44	30	72	48	50	1330	82	239	74	35	10
23	189	45	29	76	50	52	1050	70	168	57	58	9.2
24	581	38	27	70	52	56	776	56	151	84	41	9.9
25	611	40	28	64	54	68	721	48	115	69	32	11
26	366	42	28	58	58	80	774	43	110	53	36	11
27	244	42	27	54	60	72	599	38	220	44	32	38
28	198	41	26	54	54	66	426	33	142	468	26	51
29	164	39	26	54	52	64	326	28	92	940	22	53
30	140	40	25	54	---	82	287	26	78	418	20	37
31	121	---	24	52	---	96	---	24	---	193	18	---
TOTAL	8286	3206	1000	1302	1426	1547	18995	3213	4816	4359	2359	507.9
MEAN	267	107	32.3	42.0	49.2	49.9	633	104	161	141	76.1	16.9
MAX	1040	421	42	82	60	96	2750	278	595	940	378	53
MIN	76	38	24	22	42	25	78	24	22	26	18	8.3
CFSM	3.28	1.31	.40	.51	.60	.61	7.76	1.27	1.97	1.72	.93	.21
IN.	3.78	1.46	.46	.59	.65	.71	8.66	1.46	2.20	1.99	1.08	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1996, BY WATER YEAR (WY)

MEAN	73.7	74.7	38.9	20.6	18.8	110	323	152	97.1	46.0	35.8	79.2
MAX	306	338	293	71.8	69.8	467	697	408	397	209	359	396
(WY)	1986	1992	1976	1960	1984	1946	1951	1973	1943	1968	1995	1942
MIN	4.05	5.31	4.07	3.00	3.61	14.6	55.6	23.0	6.01	4.09	3.13	3.05
(WY)	1977	1977	1977	1977	1977	1956	1946	1987	1988	1964	1944	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1942 - 1996	
ANNUAL TOTAL	43108.7		51016.9			
ANNUAL MEAN	118		139		88.4	
HIGHEST ANNUAL MEAN					140	1973
LOWEST ANNUAL MEAN					36.3	1957
HIGHEST DAILY MEAN	1390	Aug 29	2750	Apr 20	3290	Sep 18 1942
LOWEST DAILY MEAN	9.2	Jun 24	8.3	Sep 19	1.0	Aug 11 1964
ANNUAL SEVEN-DAY MINIMUM	(a)10	Feb 25	9.0	Sep 17	1.4	Aug 5 1964
INSTANTANEOUS PEAK FLOW			3130	Apr 20	(b)4180	Sep 18 1942
INSTANTANEOUS PEAK STAGE			7.85	Apr 20	10.00	Sep 18 1942
INSTANTANEOUS LOW FLOW			7.8	Sep 19	1.0	Aug 11 1964
ANNUAL RUNOFF (CFSM)	1.45		1.71		1.08	
ANNUAL RUNOFF (INCHES)	19.65		23.26		14.71	
10 PERCENT EXCEEDS	333		325		220	
50 PERCENT EXCEEDS	51		54		28	
90 PERCENT EXCEEDS	11		23		8.0	

(a) Ice affected
(b) From rating curve extended above 2,500 ft^3/s

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 mi^2.

PERIOD OF RECORD.--January 1914 to September 1931, August 1939 to current year. Monthly discharge 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 and crest-stage gage. Datum of gage is 1,297.22 ft above sea level. Prior to Oct. 9, 1968, nonrecording gage 40 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 16–18, 20–22, 24, Oct. 29 to Nov. 3, Apr. 26, 27, and ice-affected periods, Nov. 5 to Mar. 10, Mar. 26–29, Mar. 31 to Apr. 1, and Apr. 5–11. Records good except those for ice-affected periods, which are poor (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	187	250	120	110	110	100	170	513	120	134	159	96
2	205	520	120	100	100	100	177	491	167	137	138	94
3	216	540	130	98	100	98	185	477	187	127	121	111
4	213	441	120	100	100	100	178	456	219	117	109	151
5	185	340	120	100	100	100	170	419	194	111	121	164
6	482	300	120	100	100	100	170	397	185	106	151	136
7	903	260	120	100	100	100	180	365	191	118	206	117
8	781	200	120	98	110	100	190	336	181	111	213	111
9	602	200	120	100	110	100	210	325	163	107	177	115
10	467	180	110	100	110	100	290	384	146	102	146	118
11	364	180	110	100	110	108	580	403	141	100	126	123
12	289	150	110	100	100	109	1030	357	143	106	115	113
13	243	130	110	110	110	121	772	301	141	135	108	104
14	214	130	110	110	110	134	648	265	129	118	104	101
15	195	140	110	100	100	140	601	250	123	111	104	100
16	180	140	100	100	98	139	589	238	124	116	103	99
17	160	130	110	100	98	147	631	227	225	106	98	99
18	150	130	110	110	98	138	999	219	451	288	99	97
19	152	130	110	110	100	133	1780	226	408	389	101	95
20	160	140	110	120	110	138	2420	223	311	270	118	95
21	180	130	110	140	100	149	2200	206	269	177	108	97
22	220	130	110	150	100	133	1590	193	324	140	111	99
23	276	130	110	140	110	139	1310	178	268	122	120	97
24	560	120	110	130	110	137	1080	164	227	143	111	99
25	591	120	110	120	110	165	952	154	194	162	102	100
26	500	120	110	130	110	180	1000	148	183	142	136	103
27	403	120	100	130	110	180	1000	141	227	123	134	112
28	320	120	100	120	100	150	740	134	205	195	120	117
29	280	110	110	120	100	140	565	128	172	302	108	118
30	250	120	110	110	---	154	519	123	155	243	102	113
31	220	---	110	110	---	160	---	120	---	187	98	---
TOTAL	10148	5851	3480	3466	3024	3992	22926	8561	6173	4845	3867	3294
MEAN	327	195	112	112	104	129	764	276	206	156	125	110
MAX	903	540	130	150	110	180	2420	513	451	389	213	164
MIN	150	110	100	98	98	98	170	120	120	100	98	94
CFSM	1.78	1.06	.61	.61	.57	.70	4.15	1.50	1.12	.85	.68	.60
IN.	2.05	1.18	.70	.70	.61	.81	4.64	1.73	1.25	.98	.78	.67
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)												
MEAN	168	170	113	93.0	89.5	189	434	259	213	136	133	175
MAX	527	388	199	169	158	676	899	723	598	401	494	656
(WY)	1942	1920	1992	1960	1930	1973	1916	1960	1993	1978	1926	1941
MIN	70.8	76.7	66.1	60.5	65.6	68.2	106	98.8	70.6	68.3	68.1	65.1
(WY)	1990	1951	1990	1925	1959	1956	1990	1931	1988	1989	1957	1989

05394500 PRAIRIE RIVER NEAR MERRILL, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	64319		79627			
ANNUAL MEAN	176		218		181	
HIGHEST ANNUAL MEAN					272	1942
LOWEST ANNUAL MEAN					108	1931
HIGHEST DAILY MEAN	903	Oct 7	2420	Apr 20	4200	Aug 31 1941
LOWEST DAILY MEAN	75	(a)Jun 25	94	Sep 2	35	Oct 26 1947
ANNUAL SEVEN-DAY MINIMUM	76	Jun 21	97	Sep 17	52	Dec 28 1948
INSTANTANEOUS PEAK FLOW			2540	Apr 20	(b)5800	Aug 31 1941
INSTANTANEOUS PEAK STAGE			7.54	Apr 20	(c)9.45	Aug 31 1941
INSTANTANEOUS LOW FLOW			89	Sep 3	34	Oct 26 1947
ANNUAL RUNOFF (CFSM)	.96		1.18		.98	
ANNUAL RUNOFF (INCHES)	13.00		16.10		13.36	
10 PERCENT EXCEEDS	345		426		348	
50 PERCENT EXCEEDS	123		130		117	
90 PERCENT EXCEEDS	82		100		76	

(a) Also occurred June 26-27 and July 30
(b) Based on rating curve extended above 2,200 ft^3/s
(c) From floodmarks

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 mi^2.

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 sea level. Prior to June 18, 1903, nonrecording gage at different datum. June 18, 1903, to Sept. 10, 1914, non recording gage at present datum.

REMARKS.--Estimated daily discharges: Aug. 7 and ice-affected period, Dec. 6 to Apr. 11. Records good (see page 12). Flow regulated by 20 reservoirs and 9 powerplants upstream from station. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

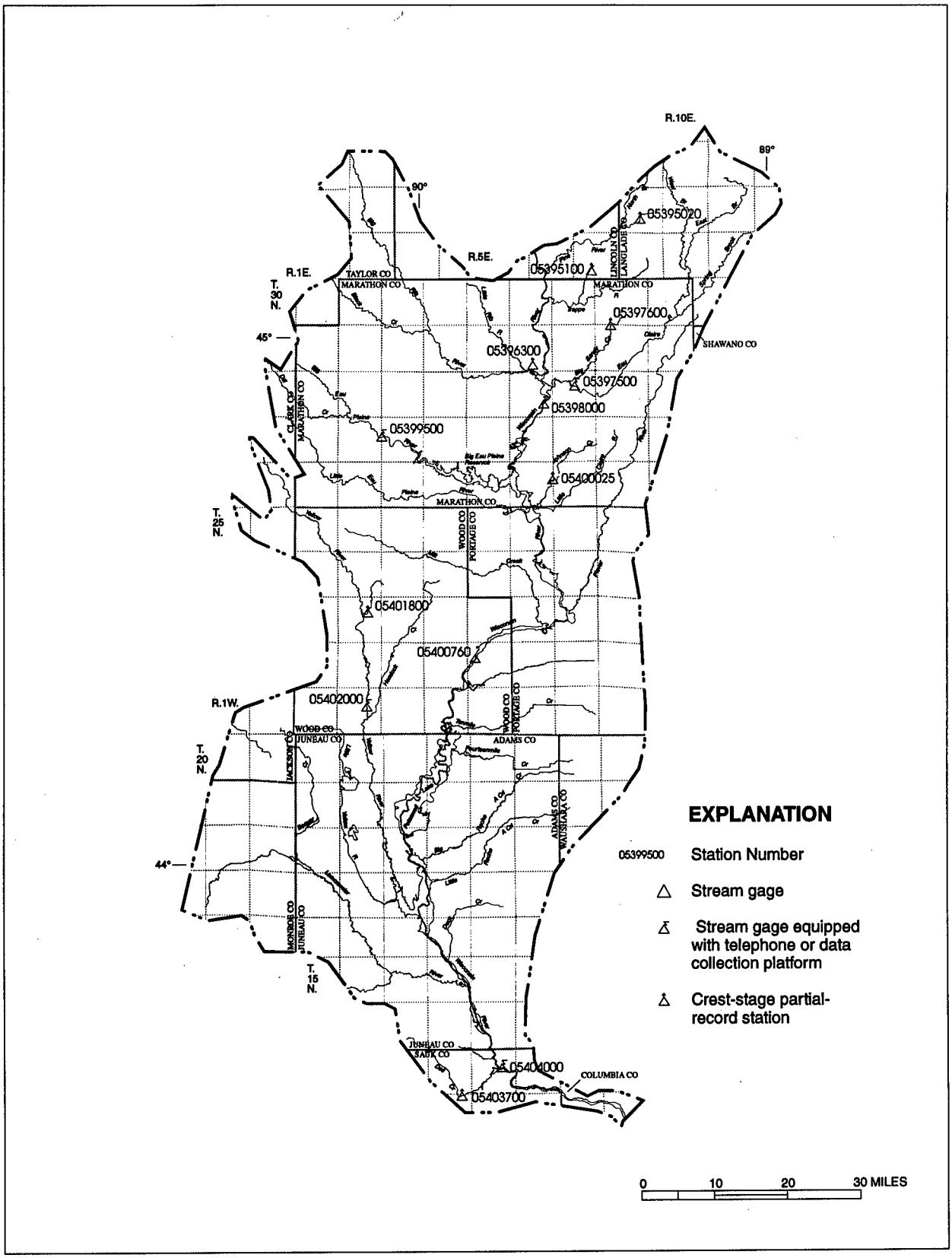
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2380	4900	2820	2800	2500	2700	3400	6400	2050	2570	3120	2180
2	2780	5620	2530	2800	2500	2500	3300	6750	2640	2530	2760	2380
3	3120	7250	2710	2700	2500	2500	3000	6350	2750	2610	2750	2100
4	3260	6290	2690	2700	2300	2400	2900	5880	2800	2510	2220	2040
5	2710	4940	2710	1900	2500	2300	2900	5390	2490	2380	2390	2270
6	4060	4880	2800	2000	2600	2500	3000	5520	2480	2060	2740	2270
7	8720	4550	2700	2200	2500	2600	2800	5000	2850	2160	5200	2040
8	8530	3570	2500	3000	2700	2600	2900	4960	2950	2430	5090	2220
9	7720	2800	2400	2400	2500	2500	2900	5140	2750	2460	4100	2370
10	5930	3490	2500	2600	2700	2400	3400	5550	2670	2040	3350	2220
11	4860	3010	2500	2400	2700	2600	5000	5970	2530	2310	2870	2110
12	4520	2960	2500	2500	2500	2600	7390	5400	2670	2430	3050	2090
13	4580	3050	2700	2500	2700	2600	6270	4920	2880	2580	2980	2240
14	3950	2850	2400	2500	2600	2600	5280	4780	3490	2550	2620	1980
15	3930	2820	2400	2500	2600	2800	4890	4550	2970	2700	2420	2140
16	3390	2870	2600	2400	2500	3000	5160	4410	2690	2410	2350	2220
17	2990	2750	2600	2500	2400	2900	5460	3990	3250	1960	2370	2000
18	2760	2850	2400	3000	2400	2800	8170	3950	5830	3710	2010	2160
19	2840	2740	2300	2600	2400	2700	15100	3740	5660	4940	2300	2080
20	2590	2450	2500	2700	2500	2600	21100	3640	5610	4290	2200	2240
21	3060	2670	2400	2600	2600	2600	21600	3520	3940	2800	2210	2180
22	3100	2590	2600	2700	2500	2400	15900	3390	4440	2710	2570	2090
23	3360	2410	2700	2800	2600	2200	12900	3480	3980	2380	2250	2200
24	6950	2620	2500	2800	2500	2700	11200	2990	3580	2450	1890	2200
25	7440	2550	2600	2700	2600	2600	9330	2490	3050	2450	2210	2010
26	6050	2540	2700	2700	2600	2600	10000	2800	3160	2290	2810	2190
27	5360	2600	2800	2800	2600	2500	9640	2950	3010	1920	2500	2300
28	4610	2550	2700	2600	2500	2500	8020	2850	3740	3240	2130	2190
29	4240	2790	2700	2700	2600	2700	6470	2390	3430	5120	1710	2310
30	4340	2680	2400	2700	---	3000	6250	2260	2910	4240	1940	2540
31	4050	---	2600	2600	---	3300	---	2240	---	3610	2170	---
TOTAL	138180	102640	79960	80400	73700	81300	225630	133650	99250	86840	83280	65560
MEAN	4457	3421	2579	2594	2541	2623	7521	4311	3308	2801	2686	2185
MAX	8720	7250	2820	3000	2700	3300	21600	6750	5830	5120	5200	2540
MIN	2380	2410	2300	1900	2300	2200	2800	2240	2050	1920	1710	1980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1996, BY WATER YEAR (WY)

MEAN	2565	2407	2086	1984	1926	2597	4740	3705	3132	2347	2096	2570
MAX	8654	4632	3887	3138	3063	6275	11500	8928	9923	5862	5451	9069
(WY)	1912	1939	1992	1939	1932	1935	1916	1904	1905	1968	1912	1903
MIN	760	775	830	820	820	980	1348	1082	810	724	719	873
(WY)	1977	1977	1911	1911	1911	1909	1990	1987	1988	1988	1934	1987

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1903 - 1996	
ANNUAL TOTAL	960840		1250390			
ANNUAL MEAN	2632		3416		2665	
HIGHEST ANNUAL MEAN					4558	1905
LOWEST ANNUAL MEAN					1348	1977
HIGHEST DAILY MEAN	9640	Aug 29	21600	Apr 21	36400	Sep 1 1941
LOWEST DAILY MEAN	1290	Jul 28	1710	Aug 29	90	Sep 26 1908
ANNUAL SEVEN-DAY MINIMUM	1540	Jul 22	2070	Aug 29	194	Sep 21 1908
INSTANTANEOUS PEAK FLOW			23400	Apr 21	(a)49400	Aug 31 1941
INSTANTANEOUS PEAK STAGE			12.95	Apr 21	18.26	Aug 31 1941
10 PERCENT EXCEEDS	4070		5420		4750	
50 PERCENT EXCEEDS	2210		2700		2100	
90 PERCENT EXCEEDS	1640		2210		1240	

(a) From rating curve extended above 20,000 ft^3/s



Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Transverse Mercator projection.

CENTRAL WISCONSIN RIVER BASIN

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 mi^2.

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 sea level. Prior to Sept. 17, 1953, nonrecording gage at site 50 ft upstream at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Ice-affected period, Nov. 8 to Apr. 12. Records good except those for ice-affected period, which is poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	309	140	110	120	130	250	700	151	265	255	123
2	207	807	140	110	120	130	290	758	266	239	215	115
3	263	805	140	100	120	120	330	652	272	225	184	109
4	268	744	130	100	120	120	310	574	281	203	163	111
5	262	509	130	110	120	120	290	506	271	177	177	127
6	814	410	120	100	120	120	280	514	242	161	352	119
7	1370	369	110	100	120	120	270	458	246	181	459	110
8	1160	320	110	96	130	120	310	406	237	182	500	106
9	1150	290	110	100	130	120	340	381	214	173	361	129
10	746	320	110	100	130	130	580	502	192	159	265	155
11	510	300	100	100	130	140	1400	536	243	145	215	148
12	409	260	110	110	130	150	2700	457	236	149	185	125
13	351	230	110	110	130	160	2730	389	700	152	166	113
14	314	210	110	120	120	190	2130	348	776	184	155	106
15	282	200	110	120	120	220	1540	334	549	169	147	104
16	253	220	110	110	120	260	1180	317	373	177	141	102
17	232	190	110	110	120	260	1110	301	983	159	134	100
18	216	200	110	150	110	240	1330	288	2760	397	125	97
19	208	190	110	160	120	230	2470	336	1710	609	121	96
20	227	200	110	180	120	220	3090	468	1090	526	139	94
21	239	180	100	190	120	210	3300	349	688	371	210	94
22	280	160	100	190	120	200	2370	297	725	271	197	97
23	308	140	100	190	120	200	1550	264	645	216	173	101
24	535	130	100	180	130	200	1100	235	487	186	154	102
25	599	130	98	180	130	210	903	205	393	180	143	99
26	602	140	96	160	130	220	887	200	332	180	188	100
27	491	130	96	150	130	230	834	189	317	165	253	108
28	407	120	96	150	130	230	743	179	297	268	215	112
29	360	130	98	140	130	230	611	169	265	398	170	112
30	323	130	100	130	---	220	602	159	272	395	145	106
31	292	---	100	120	---	210	---	152	---	314	131	---
TOTAL	13849	8473	3414	4076	3590	5660	35830	11623	16213	7576	6438	3320
MEAN	447	282	110	131	124	183	1194	375	540	244	208	111
MAX	1370	807	140	190	130	260	3300	758	2760	609	500	155
MIN	171	120	96	96	110	120	250	152	151	145	121	94
CFSM	1.19	.75	.29	.35	.33	.49	3.18	1.00	1.44	.65	.55	.30
IN.	1.37	.84	.34	.40	.36	.56	3.55	1.15	1.61	.75	.64	.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	209	238	141	91.2	86.6	354	748	368	303	159	154	212
MAX	900	784	650	217	227	1456	1672	1146	1119	691	789	1095
(WY)	1942	1920	1966	1946	1981	1973	1922	1960	1943	1978	1926	1941
MIN	46.9	68.6	48.2	31.5	41.0	51.1	149	94.4	52.8	64.6	51.9	48.5
(WY)	1949	1977	1926	1926	1957	1956	1990	1977	1988	1989	1948	1989

05397500 EAU CLAIRE RIVER AT KELLY, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	92451		120062			
ANNUAL MEAN	253		328		255	
HIGHEST ANNUAL MEAN					440	1942
LOWEST ANNUAL MEAN					131	1925
HIGHEST DAILY MEAN	(a)2000	Mar 15	3300	Apr 21	7180	Aug 21 1926
LOWEST DAILY MEAN	(a)44	Mar 2	94	Sep 20,21	25	(b)Jan 6 1926
ANNUAL SEVEN-DAY MINIMUM	(a)46	Feb 28	97	Sep 17	26	Jan 10 1926
INSTANTANEOUS PEAK FLOW			3480	Apr 20	(c)8300	Aug 21 1926
INSTANTANEOUS PEAK STAGE			6.67	Apr 20	(d)10.14	Mar 24 1991
INSTANTANEOUS LOW FLOW			94	Sep 19-22	(e)8.0	Jul 17 1944
ANNUAL RUNOFF (CFSM)	.68		.87		.68	
ANNUAL RUNOFF (INCHES)	9.17		11.91		9.22	
10 PERCENT EXCEEDS	536		663		541	
50 PERCENT EXCEEDS	143		188		130	
90 PERCENT EXCEEDS	64		109		60	

(a) Ice affected
(b) Also occurred Jan. 10-15,17,18,1926, and Oct. 3, 1948
(c) From rating curve extended above 6,000 ft^3/s, gage height, 8.4 ft, from graph based on gage readings
(d) Ice jam
(e) Probably result of temporary regulation

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 mi^2.

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 sea level. 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: Dec. 1–5, July 1–9, and ice-affected period, Dec. 10 to Mar. 15. Records good except those for estimated daily discharges, which are fair (see page 12). Flow regulated by 20 reservoirs and 12 powerplants upstream from station. Gage-height telemeter at station.

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 ft^3/s from rating curve extended above 45,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2770	6090	4400	2900	2800	2800	5990	9170	2390	3200	3700	1970
2	4150	10600	3100	3100	2700	2700	6880	9760	3430	3800	3170	2520
3	4410	11700	4700	3000	2900	2500	7500	8890	3930	4000	2960	2020
4	4510	9740	4500	2900	2900	2400	7150	8080	3750	3800	2710	2050
5	3900	7550	3200	2500	2500	2300	5950	7140	3400	3500	2250	2260
6	7030	7010	2640	2100	2700	2400	5980	7430	3220	3100	3280	2150
7	18800	6150	2530	2000	2800	2600	6270	6880	3450	3200	5460	2150
8	16900	4810	2680	2300	2800	2800	6920	6370	3990	3300	6980	2140
9	12600	4030	3130	2000	2800	2700	7460	6570	3470	3200	5020	2340
10	9630	4440	2900	2500	2800	2400	9470	7350	3300	2450	3800	2470
11	7530	3870	2700	2700	2900	2200	14000	8670	3120	2440	3370	2290
12	6380	3660	2700	2400	2700	2300	22400	7520	3300	2560	3210	2020
13	5800	3800	3000	2500	2700	2400	20900	6620	4750	2980	3110	2100
14	5370	3600	2800	2700	2800	2600	13800	6140	5060	2720	2820	2040
15	5050	3320	2900	2700	2800	3000	11200	5970	4220	3050	2410	1800
16	4460	3730	2400	2500	2900	3800	10900	5980	3620	2850	2540	2180
17	4160	2840	3300	2400	2600	4210	10800	5350	7520	2480	2670	1750
18	3460	3350	3300	3000	2800	3990	14100	5160	19200	4660	2170	1990
19	3550	3340	2800	3900	2600	3800	25900	5100	13300	9150	2190	2020
20	3390	2910	2800	3800	2400	3620	35700	5400	9890	6890	2680	2110
21	3880	3220	2700	3600	2500	3320	35100	4860	7270	4520	2530	2160
22	4160	2870	2700	3500	2700	3530	25900	4390	9060	3170	2770	2130
23	4370	2800	3100	3600	2600	3150	19100	4290	7400	2870	2590	2170
24	10400	2470	2700	3600	2500	3120	15400	3910	5880	2710	2210	2100
25	11900	3220	2800	3400	2600	4040	12900	2850	5080	2870	2080	2080
26	9080	2910	2700	3000	2600	4140	13300	3340	4460	2440	3510	1830
27	7810	2600	2900	3500	2800	4580	12700	3270	4730	2250	3090	2230
28	6600	2630	2600	3300	2700	4130	11100	3120	5550	3340	2390	2270
29	5630	2610	3000	3200	2700	3780	8850	2640	4900	6300	2010	2230
30	5550	2870	2600	2900	---	4310	8600	2670	4240	5140	1590	2400
31	5310	---	2700	2700	---	5010	---	2340	---	4360	2440	---
TOTAL	208540	134740	92980	90200	78600	100630	412220	177230	166880	113300	93710	63970
MEAN	6727	4491	2999	2910	2710	3246	13740	5717	5563	3655	3023	2132
MAX	18800	11700	4700	3900	2900	5010	35700	9760	19200	9150	6980	2520
MIN	2770	2470	2400	2000	2400	2200	5950	2340	2390	2250	1590	1750

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1996, BY WATER YEAR (WY)

MEAN	3291	3323	2747	2478	2369	4204	7474	4682	3855	2791	2469	3209
MAX	10020	7262	5484	3787	4051	13300	14640	13930	11920	7219	6973	9079
(WY)	1986	1986	1992	1973	1984	1973	1967	1960	1993	1978	1995	1980
MIN	837	863	973	1025	1023	1613	2081	1515	924	933	932	1000
(WY)	1949	1977	1977	1990	1977	1956	1990	1987	1988	1988	1988	1989

05398000 WISCONSIN RIVER AT ROTHSCHILD, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1945 - 1996	
ANNUAL TOTAL	1327780		1733000			
ANNUAL MEAN	3638		4735		3574	
HIGHEST ANNUAL MEAN					5953	1973
LOWEST ANNUAL MEAN					1686	1977
HIGHEST DAILY MEAN	22800	Aug 29	35700	Apr 20	44500	Mar 31 1967
LOWEST DAILY MEAN	1270	Jul 27	1590	Aug 30	575	Jun 16 1988
ANNUAL SEVEN-DAY MINIMUM	1420	Jul 25	1980	Sep 12	757	Nov 28 1976
INSTANTANEOUS PEAK FLOW			37100	Apr 20	49200	(a)Apr 12 1965
INSTANTANEOUS PEAK STAGE			25.92	Apr 20	(b)18.46	(a)Apr 12 1965
INSTANTANEOUS LOW FLOW					575	Jun 16 1988
10 PERCENT EXCEEDS	7010		8940		6610	
50 PERCENT EXCEEDS	2640		3210		2600	
90 PERCENT EXCEEDS	1700		2270		1500	

(a) Also occurred Mar. 31, 1967
(b) Datum then in use

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 mi^2.

PERIOD OF RECORD.--July 1914 to December 1925, April 1937 to current year. Monthly discharge 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. Datum of gage is 1,154.24 ft above sea level. 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: Oct. 1 to Nov. 7 and ice-affected period, Nov. 8 to Apr. 10. Records good except those for estimated daily discharges, which are poor, and discharges from Aug. 7 to Sept. 30, which are fair (see page 12). Gage-height telemeter at station.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of June 5, 1914, reached a stage of 20.7 ft, from floodmarks; discharge, 40,000 ft^3/s, former site and datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	500	150	32	20	43	80	820	265	21	67	10	7.6
2	700	1000	33	20	41	72	1100	173	96	67	9.3	6.5
3	540	1100	33	20	39	66	1400	168	79	54	8.2	8.9
4	370	660	33	20	37	58	1100	155	91	42	7.5	11
5	220	230	34	19	35	52	900	157	67	31	7.7	11
6	900	180	32	18	34	50	1100	321	77	25	10	9.5
7	2000	120	29	18	36	48	1400	240	152	21	15	11
8	1800	96	29	16	38	46	1800	152	103	19	26	6.8
9	700	82	27	17	39	45	2300	125	85	16	36	17
10	420	70	24	16	40	45	2900	491	78	15	28	48
11	220	60	23	16	40	46	3910	515	80	13	20	32
12	160	52	21	16	39	58	3720	268	58	14	16	21
13	130	39	21	17	38	84	1610	165	67	18	13	14
14	100	31	23	17	37	140	980	117	57	16	11	11
15	84	24	24	17	35	260	815	143	46	14	9.6	9.4
16	68	37	22	17	34	340	1250	151	45	12	8.7	8.3
17	58	36	21	18	33	450	1020	121	1840	11	8.0	7.2
18	49	34	22	21	34	470	1240	98	1750	58	10	6.2
19	48	32	23	28	38	450	3540	103	631	147	12	5.8
20	48	30	23	49	42	430	1590	156	348	62	18	6.2
21	48	34	22	82	40	410	759	122	275	33	25	6.5
22	54	32	21	78	45	380	454	83	844	23	31	6.5
23	130	33	20	72	44	350	304	58	444	18	42	6.4
24	450	33	21	66	44	370	217	45	262	16	22	7.8
25	1000	31	22	64	66	490	201	39	165	14	14	7.0
26	420	30	21	60	74	520	227	34	112	12	14	7.1
27	300	29	20	58	80	490	163	31	161	11	16	15
28	200	29	19	54	80	420	120	27	141	12	31	29
29	130	29	18	50	80	370	107	23	89	12	27	28
30	120	31	19	48	---	480	189	21	77	11	13	23
31	110	---	20	45	---	640	---	19	---	11	9.4	---
TOTAL	12077	4374	752	1077	1305	8210	37236	4586	8341	895	528.4	394.7
MEAN	390	146	24.3	34.7	45.0	265	1241	148	278	28.9	17.0	13.2
MAX	2000	1100	34	82	80	640	3910	515	1840	147	42	48
MIN	48	24	18	16	33	45	107	19	21	11	7.5	5.8
CFSM	1.74	.65	.11	.16	.20	1.18	5.54	.66	1.24	.13	.08	.06
IN.	2.01	.73	.12	.18	.22	1.36	6.18	.76	1.39	.15	.09	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	110	131	48.3	20.0	28.1	419	593	237	212	74.7	73.4	163
MAX	728	695	446	138	372	1202	1551	1016	1203	642	371	1572
(WY)	1942	1992	1966	1973	1984	1976	1951	1973	1980	1978	1978	1938
MIN	2.26	4.34	2.50	.40	.51	8.77	51.7	15.8	5.16	2.71	2.58	1.50
(WY)	1954	1954	1990	1977	1977	1956	1946	1977	1988	1988	1937	1953

05399500 BIG EAU PLEINE RIVER NEAR STRATFORD, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	51010.6		79776.1			
ANNUAL MEAN	140		218		177	
HIGHEST ANNUAL MEAN					355	1980
LOWEST ANNUAL MEAN					47.6	1977
HIGHEST DAILY MEAN	(a)2500	Mar 14	3910	Apr 11	26100	Sep 9 1938
LOWEST DAILY MEAN	(b)3.0	Aug 6	5.8	Sep 19	.00	(c)Jan 22 1961
ANNUAL SEVEN-DAY MINIMUM	(a)3.6	Feb 28	6.4	Sep 17	.00	Jan 22 1961
INSTANTANEOUS PEAK FLOW			4650	Apr 19	(d)41000	Sep 9 1938
INSTANTANEOUS PEAK STAGE			12.10	Apr 19	(e)24.50	Sep 9 1938
INSTANTANEOUS LOW FLOW					.00	(f)Aug 17 1947
ANNUAL RUNOFF (CFSM)	.62		.97		.79	
ANNUAL RUNOFF (INCHES)	8.47		13.25		10.71	
10 PERCENT EXCEEDS	358		526		374	
50 PERCENT EXCEEDS	30		44		25	
90 PERCENT EXCEEDS	5.0		11		4.5	

(a) Ice affected
(b) Estimated
(c) Also occurred Jan. 23 to Feb. 5, 1961
(d) Based on rating curve extended above 24,000 ft^3/s
(e) From floodmarks
(f) Also occurred Jan. 22 to Feb. 5, 1961

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 mi^2.

PERIOD OF RECORD.--May 1914 to March 1950 published as Wisconsin River near Nekoosa (05400980), October 1957 to current year. October 1957 to September 1981, published under station number 05400800 with same name.

REVISED RECORDS.--WSP 1308: 1915(M).

GAGE.--Water-stage recorders on headwater and tailwater. Elevation of powerplant pond is 1,010 ft and datum of powerplant gages is 0.00 ft above sea level (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 sea level. Jan. 1, 1974, changed to present datum.

REMARKS.--No estimated daily discharges. 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 22 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. Mean monthly diversions, in cubic feet per second, for water year October 1995 to September 1996 were as follows: September, 82.6.

COOPERATION.--Figures of daily discharges were provided by Consolidated Water Power Company and Wisconsin Valley Improvement Company. Records were reviewed by the Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3280	8280	3550	4480	3980	3760	9460	13200	3750	5410	4610	2530
2	3720	14500	4230	4010	3870	3770	11800	13400	4780	3700	3610	3240
3	4930	17100	3510	3700	3820	3680	13500	12900	5520	3290	3310	4080
4	4940	14400	3410	3950	3780	3790	12600	11700	5380	3850	3000	3150
5	4940	10400	2920	4110	3810	3790	10700	9620	5710	4120	2800	3040
6	13600	9290	3290	3780	3950	3280	9210	9800	5820	4760	4090	2920
7	24000	7820	3770	3280	3760	3160	9400	9630	5840	3160	6130	2560
8	28600	5930	3540	3220	3740	3490	9610	8860	5550	3820	8110	3260
9	19600	5190	3370	3230	3430	3450	11000	8440	5540	3470	5370	3330
10	13500	5290	3160	3330	3710	3470	14100	9840	5180	3250	4430	3340
11	10800	4790	3070	3460	3330	3580	20000	11200	5280	3170	4430	2740
12	9060	4650	3000	3250	3820	3230	29900	11300	5420	3790	3670	2890
13	8400	4730	3250	4010	4340	3790	36300	9800	5090	3820	3580	2550
14	7770	4390	3370	3470	4460	4500	25600	6910	7040	3400	3370	2710
15	6590	4200	3360	3430	4000	3730	20100	7440	6260	3550	2980	2340
16	5140	4040	3590	3300	3720	4850	18100	7680	4930	3480	2660	2960
17	4710	4320	3760	3680	3930	6300	17600	6780	14700	3220	2530	2620
18	5100	3180	3650	3990	3930	6300	20500	6510	30300	5020	2460	2290
19	5030	3530	3440	3690	3870	6640	29800	7460	29700	11100	4100	2370
20	4900	3750	3580	3810	3520	5950	42800	8110	18100	7880	3590	2650
21	4060	3750	3280	4290	3490	5220	46400	9440	13500	5600	3510	3200
22	3920	3660	3490	4410	3510	5120	40100	7510	11800	3730	4730	2910
23	4660	3290	3230	5020	3600	5180	28600	5670	13700	3120	2730	2770
24	13600	2850	3820	4770	3670	5500	22300	5920	9560	3600	1820	3090
25	16200	2720	3670	4920	3690	5570	18900	4800	7380	3380	2580	2870
26	14200	3560	3670	5040	3930	5360	17000	3570	6300	3100	4010	2880
27	11300	4050	3480	4900	3350	5850	16400	4030	6740	2190	4520	2720
28	8230	3550	3680	4750	3530	6490	15000	3990	5020	3870	4370	3130
29	6340	3550	4090	4680	3890	6230	13100	3060	5180	7310	2710	3060
30	7410	4100	3920	4270	---	7010	12500	2880	6230	6560	2630	3000
31	6530	---	3540	4010	---	7400	---	3420	---	4800	2210	---
TOTAL	285060	174860	108690	124240	109430	149440	602380	244870	265300	134520	114650	87200
MEAN	9195	5829	3506	4008	3773	4821	20080	7899	8843	4339	3698	2907
MAX	28600	17100	4230	5040	4460	7400	46400	13400	30300	11100	8110	4080
MIN	3280	2720	2920	3220	3330	3160	9210	2880	3750	2190	1820	2290

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	4173	4440	3340	3059	3145	6435	11050	7005	6132	3533	3157	4400
MAX	13070	10270	7928	5589	6368	19180	25940	19730	19560	10820	9199	17670
(WY)	1987	1920	1966	1973	1984	1973	1922	1960	1943	1978	1926	1938
MIN	1075	1072	1141	1272	1333	1547	2579	1669	1308	1123	1173	1227
(WY)	1977	1977	1990	1990	1977	1924	1990	1987	1988	1988	1934	1976

05400760 WISCONSIN RIVER AT WISCONSIN RAPIDS, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	1724830		2400640			
ANNUAL MEAN	4726		6559		4981	
HIGHEST ANNUAL MEAN					8499	1973
LOWEST ANNUAL MEAN					2107	1977
HIGHEST DAILY MEAN	28600	Oct 8	46400	Apr 21	63600	Jun 21 1993
LOWEST DAILY MEAN	1320	Jul 4	1820	Aug 24	165	Aug 12 1934
ANNUAL SEVEN-DAY MINIMUM	1870	Jul 24	2550	Sep 13	790	Jun 18 1988
INSTANTANEOUS PEAK FLOW			47100	Apr 21	(a)70400	Sep 12 1938
10 PERCENT EXCEEDS	9150		13500		9730	
50 PERCENT EXCEEDS	3370		4070		3380	
90 PERCENT EXCEEDS	2240		3000		1780	

(a) From rating curve extended above 58,000 ft^3/s

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 mi^2.

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 sea level. Prior to Oct. 28, 1948, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Apr. 9 to Sept. 30 and ice-affected periods, Nov. 23–25, 27–29, Dec. 4–6, and Dec. 8 to Apr. 8. Records good except those for estimated daily discharges, which are poor (see page 12). There is a large recreation dam about 5.0 mi upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	138	32	18	36	46	470	380	60	120	19	14
2	15	569	32	18	35	46	600	340	140	100	18	11
3	15	996	32	17	33	43	1000	340	310	110	16	12
4	20	889	30	17	35	41	900	370	520	80	15	12
5	73	612	27	17	30	37	840	370	450	60	15	13
6	245	344	24	17	29	35	760	370	310	50	18	13
7	1380	200	22	17	29	33	700	350	360	42	27	13
8	1460	173	22	16	29	32	700	300	500	35	35	11
9	1100	134	21	14	30	30	740	240	470	31	46	14
10	737	108	20	14	31	32	1100	260	400	34	52	21
11	447	93	20	15	31	33	2200	440	330	37	40	22
12	273	79	20	15	32	35	3000	350	230	34	32	23
13	227	70	21	15	32	43	2500	290	170	32	26	19
14	138	62	21	15	32	66	2100	220	180	29	21	17
15	120	56	21	15	31	130	1700	240	180	27	19	15
16	97	51	20	15	30	280	1200	260	300	24	17	14
17	76	48	20	17	29	330	1100	230	700	22	15	13
18	71	47	19	18	29	330	1500	210	1500	41	16	12
19	67	46	20	20	30	320	2400	200	2800	54	15	11
20	63	46	20	25	30	300	2800	240	1200	64	18	9.6
21	64	46	20	31	29	290	2100	280	520	62	20	9.6
22	63	45	20	39	30	270	1500	220	540	62	25	10
23	68	41	19	46	32	260	1000	190	560	42	31	9.6
24	173	38	19	43	34	260	740	160	490	33	34	9.2
25	720	35	19	40	36	350	540	130	380	28	26	10
26	657	34	19	42	39	350	440	120	290	24	21	10
27	531	33	19	45	43	330	370	100	220	21	21	15
28	349	33	19	42	47	290	330	90	160	20	25	21
29	256	32	18	39	47	300	280	82	180	22	24	27
30	184	33	17	38	---	340	320	74	150	22	22	26
31	139	---	18	37	---	400	---	66	---	22	18	---
TOTAL	9849	5131	671	777	960	5682	35930	7512	14600	1384	747	437.0
MEAN	318	171	21.6	25.1	33.1	183	1198	242	487	44.6	24.1	14.6
MAX	1460	996	32	46	47	400	3000	440	2800	120	52	27
MIN	15	32	17	14	29	30	280	66	60	20	15	9.2
CFSM	1.48	.80	.10	.12	.15	.85	5.57	1.13	2.26	.21	.11	.07
IN.	1.70	.89	.12	.13	.17	.98	6.22	1.30	2.53	.24	.13	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1996, BY WATER YEAR (WY)

MEAN	109	120	65.3	27.3	38.3	394	554	242	169	65.8	52.0	128
MAX	561	508	374	132	373	1353	1319	1183	1516	453	371	1169
(WY)	1987	1983	1966	1973	1966	1973	1952	1973	1993	1978	1980	1986
MIN	3.68	4.62	7.35	5.03	4.79	8.13	85.9	28.0	8.56	4.68	4.01	2.23
(WY)	1949	1977	1951	1945	1945	1956	1946	1977	1988	1988	1988	1948

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1944 - 1996	
ANNUAL TOTAL	56206.6		83680.0			
ANNUAL MEAN	154		229		164	
HIGHEST ANNUAL MEAN					376	1973
LOWEST ANNUAL MEAN					37.4	1977
HIGHEST DAILY MEAN	2170	Aug 20	(a)3000	Apr 12	10300	Apr 2 1952
LOWEST DAILY MEAN	5.1	Aug 2	(a)9.2	Sep 24	1.4	(b)Sep 14 1948
ANNUAL SEVEN-DAY MINIMUM	5.9	Jul 30	(a)9.7	Sep 20	1.4	Sep 13 1948
INSTANTANEOUS PEAK FLOW					11600	Apr 2 1952
INSTANTANEOUS PEAK STAGE					17.38	Apr 2 1952
INSTANTANEOUS LOW FLOW					.94	Aug 11 1985
ANNUAL RUNOFF (CFSM)	.72		1.06		.76	
ANNUAL RUNOFF (INCHES)	9.73		14.48		10.33	
10 PERCENT EXCEEDS	489		578		370	
50 PERCENT EXCEEDS	30		42		31	
90 PERCENT EXCEEDS	8.2		16		8.0	

(a) Estimated during bridge construction
(b) Also occurred Sept. 15-19,25,26, 1948

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 mi^2.

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 sea level (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: Ice-affected period, Dec. 6 to Mar. 12. Records fair (see page 12). Flow regulated by 24 reservoirs above station. In 1938, when the maximum of record occurred, there were 21 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 Company at Wisconsin Dells. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

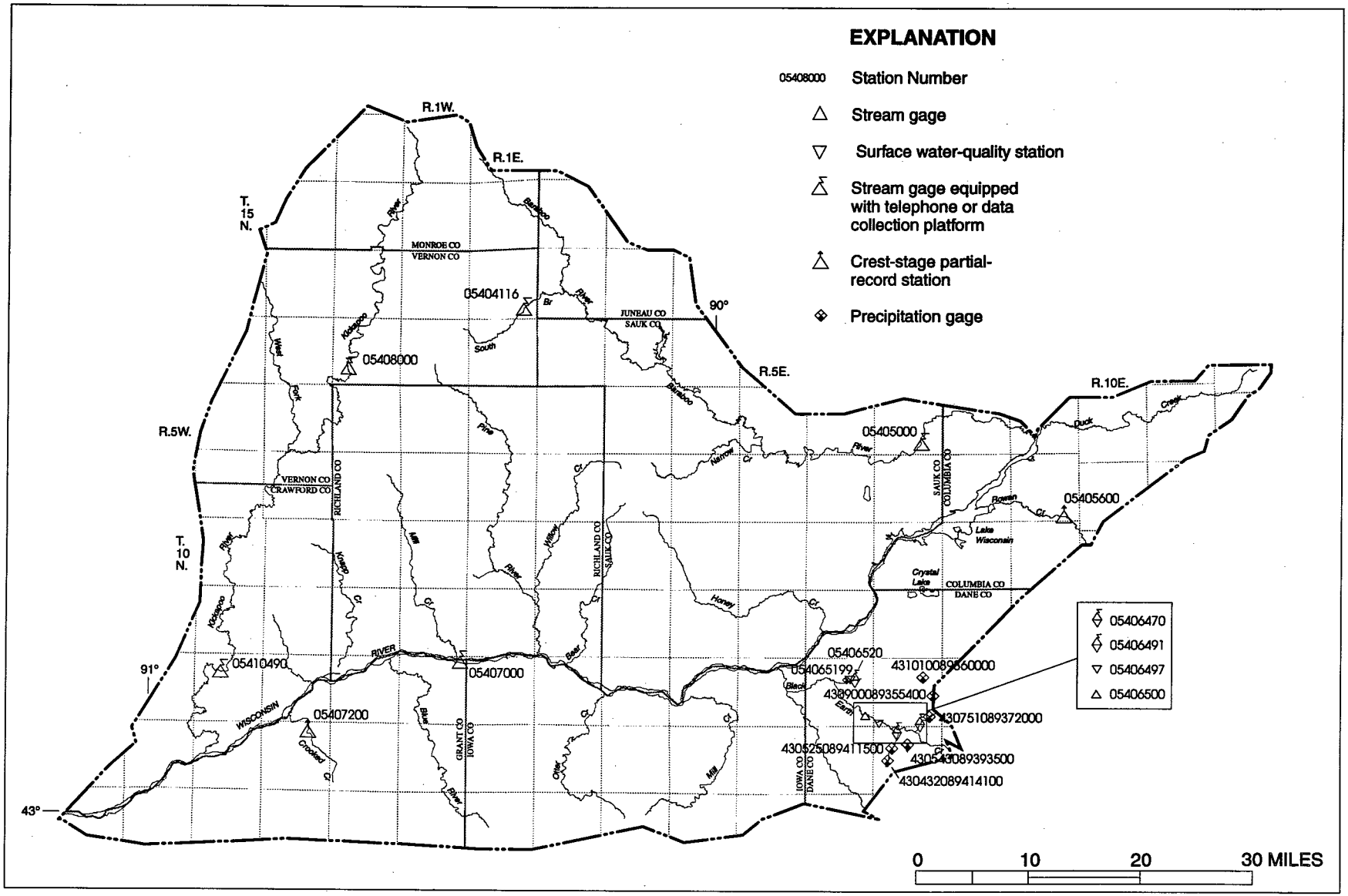
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3750	9340	5510	6000	7400	5400	10600	16500	4730	8330	6920	3180
2	3810	10100	5620	6200	7400	5600	10300	16700	5710	8900	5870	3120
3	4710	15900	5430	6400	7200	5000	11000	16600	6770	8200	5010	3330
4	6830	18100	5080	6800	7200	6000	14000	15500	7780	5020	5050	4100
5	7550	20600	4810	6600	7200	6400	15700	14700	7380	4770	4280	4070
6	8090	15000	4700	6400	7400	6200	14800	14700	7350	5300	4240	3630
7	16900	12900	4600	6600	6400	6000	13900	14600	7280	4950	5820	3520
8	23300	12300	5000	6000	5600	5400	13700	13400	8820	5130	8640	3670
9	24400	11600	4200	5600	5600	5800	12400	13100	8920	5420	8730	3710
10	24500	10100	4600	5600	5600	5000	12100	13300	9040	4800	6770	4020
11	21300	8170	5200	5600	5600	4800	14000	11700	8880	4050	4730	4520
12	14600	7330	4800	5600	5800	5200	16400	11300	9160	4210	5400	4420
13	13800	7080	5000	5400	5800	5430	21200	13600	9360	4750	4700	3940
14	11900	6460	5400	5400	5800	6410	22300	13900	9250	5400	4590	3730
15	13000	6090	5400	5600	5800	7090	16600	12200	9600	5810	4530	3180
16	11300	6060	5400	5000	6400	7580	19300	12500	9720	5630	5110	2810
17	8690	6600	5200	5400	7400	7640	24300	11700	11700	5210	4300	2890
18	7480	6900	5600	5800	7400	8010	25100	10600	19000	5060	4100	2820
19	6960	6860	5400	4200	7400	9410	23800	10300	28700	7470	3860	2890
20	7000	6420	5800	5000	7400	9850	29500	10300	32200	12400	3860	2860
21	7000	5950	5400	6000	7400	9970	39600	11200	29900	11600	4330	3440
22	7010	5620	5600	6400	6600	9950	43800	11000	19800	6680	5170	3320
23	7000	5650	5600	6200	6400	9780	41600	11400	18300	4600	5600	3570
24	7250	5960	5600	6600	6000	8860	32300	11300	19100	4690	4660	3440
25	10500	5620	5200	6400	6200	8540	27500	11200	17100	4670	3290	3720
26	17200	5010	5200	6400	7400	9100	26800	10200	15800	5750	2590	3870
27	19800	5550	5200	6400	7600	9680	22400	8980	14200	4140	3540	4190
28	13200	5730	5200	6600	7200	9510	17200	7210	6680	4180	4310	4190
29	12800	5750	6200	7400	6400	9930	17100	7390	6230	4910	4780	4200
30	11700	5540	6000	6400	---	10200	16800	5800	6210	8740	3920	4210
31	10200	---	6000	6600	---	10600	---	6020	---	9090	3980	---
TOTAL	363530	260290	163950	186600	193000	234340	626100	368900	374670	189860	152680	108560
MEAN	11730	8676	5289	6019	6655	7559	20870	11900	12490	6125	4925	3619
MAX	24500	20600	6200	7400	7600	10600	43800	16700	32200	12400	8730	4520
MIN	3750	5010	4200	4200	5600	4800	10300	5800	4730	4050	2590	2810

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1996, BY WATER YEAR (WY)

MEAN	5983	6363	5150	4772	5028	8276	12990	9594	8612	5321	4336	6015
MAX	19120	13900	10740	7831	9610	25620	25050	26990	27090	13350	10700	25900
(WY)	1987	1983	1966	1992	1984	1973	1951	1960	1993	1978	1995	1938
MIN	1683	1688	1746	2434	2432	2945	2939	3361	1826	1713	1634	1754
(WY)	1977	1977	1990	1945	1945	1940	1964	1977	1988	1988	1988	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1935 - 1996	
ANNUAL TOTAL	2427940		3222480			
ANNUAL MEAN	6652		8805		6866	
HIGHEST ANNUAL MEAN					12420	1973
LOWEST ANNUAL MEAN					2993	1977
HIGHEST DAILY MEAN	26900	Aug 31	43800	Apr 22	71200	Sep 14 1938
LOWEST DAILY MEAN	1980	Aug 1	2590	Aug 26	1060	Aug 19 1936
ANNUAL SEVEN-DAY MINIMUM	2230	Jul 28	2980	Sep 15	1210	Aug 10 1988
INSTANTANEOUS PEAK FLOW			44900	Apr 22	72200	Sep 14 1938
INSTANTANEOUS PEAK STAGE			15.65	Apr 22	(a)23.83	Sep 14 1938
10 PERCENT EXCEEDS	11600		16600		12300	
50 PERCENT EXCEEDS	5400		6410		5200	
90 PERCENT EXCEEDS	2960		4170		2870	

(a) Present datum



Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Transverse Mercator projection.

LOWER WISCONSIN RIVER BASIN

05404116 SOUTH BRANCH BARABOO RIVER AT HILLSBORO, WI

LOCATION.--Lat 43°39'10", long 90°20'09", in NE 1/4 NE 1/4 sec.35, T.14 N., R.1 E., Vernon County, Hydrologic Unit 07070004, on left bank 220 ft upstream from County Highway FF at Hillsboro, and 6.3 mi upstream from mouth.

DRAINAGE AREA.--39.1 mi^2.

PERIOD OF RECORD.--July 1988 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 927.28 ft above sea level (levels by Mid-State Associates, Baraboo, WI).

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 8–16, Jan. 4–9, Jan. 26 to Feb. 8, Feb. 15–19, and Mar. 5–9. Records good except those for ice-affected periods, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	143	18	16	12	17	29	29	16	21	15	12
2	17	81	17	15	12	16	28	22	23	25	14	12
3	25	31	18	12	12	13	29	22	19	21	14	12
4	17	25	17	14	12	14	26	21	18	19	14	12
5	21	23	17	12	12	13	23	19	17	19	15	11
6	128	23	15	11	13	12	23	19	19	18	19	11
7	25	22	14	11	15	11	23	19	40	19	18	11
8	22	19	13	12	18	11	22	21	23	22	15	12
9	22	19	12	13	31	12	21	23	19	20	13	15
10	19	21	12	14	57	13	21	29	18	18	13	13
11	18	19	11	15	62	24	23	23	19	18	13	12
12	17	17	12	15	29	72	25	20	17	22	13	11
13	16	17	12	15	21	93	24	18	16	22	12	12
14	16	17	12	15	19	63	22	20	15	19	13	11
15	15	16	13	14	16	49	25	26	14	19	12	12
16	15	17	13	14	14	41	30	22	26	18	12	12
17	15	17	14	15	14	34	25	21	1060	20	12	12
18	14	17	15	339	13	28	27	20	216	25	12	11
19	17	18	15	57	15	26	39	19	75	20	17	11
20	19	18	15	26	19	23	41	19	45	18	16	12
21	17	17	15	23	26	22	31	18	39	18	13	13
22	16	16	15	20	21	22	25	16	32	17	24	13
23	19	15	15	18	32	22	23	16	29	16	18	12
24	28	14	15	16	91	47	22	16	28	16	14	13
25	18	16	15	16	105	81	23	15	25	15	13	12
26	17	16	14	15	66	27	22	16	23	15	13	17
27	34	17	14	14	28	25	20	17	20	16	13	26
28	49	17	13	14	20	25	19	18	21	24	13	16
29	21	15	14	14	18	25	27	17	25	18	12	14
30	20	17	15	13	---	28	39	15	26	15	12	13
31	20	---	15	13	---	42	---	14	---	14	12	---
TOTAL	738	740	445	831	823	951	777	610	1983	587	439	386
MEAN	23.8	24.7	14.4	26.8	28.4	30.7	25.9	19.7	66.1	18.9	14.2	12.9
MAX	128	143	18	339	105	93	41	29	1060	25	24	26
MIN	14	14	11	11	12	11	19	14	14	14	12	11
CFSM	.61	.63	.37	.69	.73	.78	.66	.50	1.69	.48	.36	.33
IN.	.70	.70	.42	.79	.78	.90	.74	.58	1.89	.56	.42	.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)

MEAN	15.1	18.5	14.5	14.6	16.8	38.6	34.9	25.0	33.4	18.5	15.1	25.2
MAX	26.1	28.6	22.9	26.8	28.4	50.8	70.9	52.5	75.3	52.3	28.2	95.3
(WY)	1994	1993	1993	1996	1994	1989	1993	1993	1990	1993	1993	1992
MIN	6.79	8.14	4.42	8.95	6.91	25.7	8.47	13.2	8.38	5.83	6.69	6.12
(WY)	1990	1991	1990	1991	1989	1991	1990	1989	1989	1989	1988	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	8835		9310			
ANNUAL MEAN	24.2		25.4		22.8	
HIGHEST ANNUAL MEAN					35.1	1993
LOWEST ANNUAL MEAN					13.0	1989
HIGHEST DAILY MEAN	230	Mar 11	1060	Jun 17	1190	Sep 16 1992
LOWEST DAILY MEAN	(a)10	Feb 11	11	(b)Dec 11	(c)1.2	Jul 24-27 1994
ANNUAL SEVEN-DAY MINIMUM	(a)11	Feb 8	12	Sep 1	(c)1.4	Jul 22 1994
INSTANTANEOUS PEAK FLOW			1540	Jun 17	(d)4010	Jun 29 1990
INSTANTANEOUS PEAK STAGE			12.91	Jun 17	(e)15.60	Jun 29 1990
ANNUAL RUNOFF (CFSM)	.62		.65		.58	
ANNUAL RUNOFF (INCHES)	8.41		8.86		7.93	
10 PERCENT EXCEEDS	35		29		35	
50 PERCENT EXCEEDS	17		17		15	
90 PERCENT EXCEEDS	12		12		6.5	

(a) Ice affected
(b) Also occurred Jan. 6,7, Mar. 7 and 8, ice affected, and Sept. 5-7,12,14,18,19
(c) Result of closing dam gates to fill lake 0.35 mi upstream
(d) From rating curve extended above 1,100 ft^3/s, on basis of contracted-area measurement
(e) From floodmark on gage house

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 mi^2.

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, 1915(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 sea level. 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 discharges: Jan. 20–25, June 21, Aug. 9–16, and ice-affected periods, Dec. 7–13, 27, 28, Jan. 3–8, Jan. 26 to Feb. 11, and Mar. 1–8. Records good except those for estimated daily discharges, which are fair (see page 12). Apparent occasional regulation at low flow by dams upstream. Gage-height telemeter at station.

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 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	249	643	339	244	400	900	585	706	345	496	320	231
2	220	1220	333	248	380	620	625	760	501	483	294	223
3	269	1230	328	240	360	520	634	705	567	429	279	226
4	283	1100	326	240	350	420	621	601	510	399	269	224
5	289	1040	329	240	350	350	590	516	470	402	283	220
6	521	921	257	240	350	330	545	476	438	367	302	226
7	622	669	250	240	360	320	500	449	471	335	294	220
8	700	500	230	240	370	310	476	438	629	318	301	214
9	732	439	250	235	390	296	464	465	737	310	310	215
10	680	408	280	233	450	287	450	814	710	307	290	238
11	510	391	290	240	600	287	436	942	600	309	280	244
12	379	381	290	245	742	322	438	791	501	310	260	233
13	333	369	290	249	804	463	458	649	448	313	260	220
14	310	346	290	251	781	722	469	555	412	318	270	215
15	295	323	291	253	701	912	479	575	376	331	260	207
16	284	321	295	258	595	1070	484	640	352	328	250	213
17	276	311	299	258	477	1150	495	630	1140	313	247	211
18	274	311	295	503	419	1020	517	599	2690	548	243	211
19	272	316	280	972	376	870	669	536	3070	515	245	213
20	279	322	272	1300	365	671	855	502	3050	456	248	214
21	284	327	272	1200	377	547	1020	502	2860	383	278	213
22	299	322	269	1100	399	492	969	479	2630	332	331	211
23	309	311	265	1000	432	462	828	443	2280	310	277	213
24	320	237	261	900	517	482	684	425	1790	296	261	215
25	323	271	258	800	700	737	574	406	1220	287	290	213
26	350	301	262	740	913	815	516	395	736	279	281	223
27	398	278	250	640	996	807	489	386	536	275	265	230
28	452	221	250	580	1010	801	464	379	464	281	256	253
29	569	284	243	540	1040	669	464	381	424	337	238	274
30	624	325	244	500	---	568	538	380	463	353	231	282
31	583	---	244	450	---	560	---	364	---	330	232	---
TOTAL	12288	14438	8632	15379	16004	18780	17336	16889	31420	11050	8445	6745
MEAN	396	481	278	496	552	606	578	545	1047	356	272	225
MAX	732	1230	339	1300	1040	1150	1020	942	3070	548	331	282
MIN	220	221	230	233	350	287	436	364	345	275	231	207
CFSM	.65	.79	.46	.81	.91	.99	.95	.89	1.72	.59	.45	.37
IN.	.75	.88	.53	.94	.98	1.15	1.06	1.03	1.92	.67	.52	.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	282	330	244	246	328	820	706	433	419	314	255	317
MAX	842	942	519	945	1135	1759	2588	1518	1332	1495	1018	1285
(WY)	1973	1986	1993	1946	1966	1948	1993	1973	1920	1993	1980	1965
MIN	117	116	76.2	78.3	89.3	170	253	138	112	112	95.8	100
(WY)	1959	1959	1959	1959	1959	1964	1946	1958	1958	1965	1958	1958

05405000 BARABOO RIVER NEAR BARABOO, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	155209		177406			
ANNUAL MEAN	425		485		391	
HIGHEST ANNUAL MEAN					824	1993
LOWEST ANNUAL MEAN					158	1958
HIGHEST DAILY MEAN	1440	Apr 13	3070	Jun 19	7540	Mar 26 1917
LOWEST DAILY MEAN	187	Sep 18	207	Sep 15	26	Oct 6 1950
ANNUAL SEVEN-DAY MINIMUM	193	Sep 12	212	Sep 15	72	Dec 8 1958
INSTANTANEOUS PEAK FLOW			3130	Jun 19	(a)7900	Mar 26 1917
INSTANTANEOUS PEAK STAGE			17.54	Jun 19	22.78	Jul 18 1993
ANNUAL RUNOFF (CFSM)	.70		.80		.64	
ANNUAL RUNOFF (INCHES)	9.48		10.84		8.72	
10 PERCENT EXCEEDS	856		814		778	
50 PERCENT EXCEEDS	305		366		240	
90 PERCENT EXCEEDS	220		240		138	

(a) Gage height, 17.50 ft, estimated, site and datum then in use, from rating curve extended above 6,000 ft^3/s

431010089360000 BREWERY CREEK RAIN GAGE #1 NEAR CROSS PLAINS, WI

LOCATION.--Lat 43°10'10", long 89°36'00", in NE 1/4 SE 1/4 sec.13, T.8 N., R.7 E., Dane County, Hydrologic Unit 07070005, on Whip-porwill Road, 0.5 mi south of intersection with County Trunk K.

PERIOD OF RECORD.--October 1989 to current year (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established Oct. 27, 1989. Rainfall estimated to be 0.00 for Nov. 10, 27, 28, 30, Dec. 14, 21, Jan. 1, 12, 13, Feb. 8, 15, 20, 23, and Mar. 1, 14, 17, 18 because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for the periods May 14 to July 29 and Sept. 5–27.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 4.09 in., July 5, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 1.45 in., Oct. 5.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	1.06	.00	.00	.00	.00	.00	.00	---	---	.00	.00
2	.10	.00	.00	.00	.00	.00	.00	.00	---	---	.00	.00
3	.07	.00	.00	.00	.00	.00	.04	.00	---	---	.00	.00
4	.00	.00	.00	.00	.00	.00	.01	.00	---	---	.00	.00
5	1.45	.00	.01	.00	.00	.00	.08	.00	---	---	.99	---
6	.21	.00	.00	.00	.00	.00	.00	.01	---	---	.94	---
7	.00	.00	.00	.00	.00	.00	.00	.03	---	---	.02	---
8	.05	.00	.00	.00	.00	.00	.00	.07	---	---	.00	---
9	.00	.00	.00	.00	.00	.00	.00	.32	---	---	.00	---
10	.00	.00	.00	.00	.00	.00	.00	1.02	---	---	.00	---
11	.00	.00	.00	.00	.00	.00	.00	.00	---	---	.00	---
12	.00	.00	.00	.00	.00	.00	.00	.00	---	---	.00	---
13	.00	.00	.00	.00	.00	.00	.00	.00	---	---	.00	---
14	.00	.00	.00	.00	.00	.00	.00	---	---	---	.00	---
15	.00	.00	.00	.00	.00	.00	.03	---	---	---	.00	---
16	.00	.00	.00	.00	.00	.00	.01	---	---	---	.00	---
17	.00	.00	.00	.15	.00	.00	.00	---	---	---	.00	---
18	.00	.00	.00	.69	.00	.00	.29	---	---	---	.02	---
19	.41	.00	.00	.00	.00	.00	.20	---	---	---	.43	---
20	.06	.00	.00	.00	.00	.00	.02	---	---	---	.00	---
21	.05	.00	.00	.00	.00	.00	.00	---	---	---	.00	---
22	.00	.00	.00	.00	.00	.00	.00	---	---	---	.04	---
23	.22	.00	.00	.00	.00	.00	.00	---	---	---	.00	---
24	.01	.00	.00	.00	.00	.45	.00	---	---	---	.00	---
25	.00	.00	.00	.00	.00	.01	.08	---	---	---	.00	---
26	.00	.00	.00	.00	.03	.00	.01	---	---	---	.00	---
27	1.00	.00	.00	.00	.13	.00	.00	---	---	---	.00	---
28	.14	.00	.00	.00	.00	.00	.00	---	---	---	.00	.00
29	.00	.00	.00	.00	.00	.00	.32	---	---	---	.00	.00
30	.00	.00	.00	.00	---	.04	.10	---	---	.00	.00	.00
31	.31	---	.00	.00	---	.07	---	---	---	.00	.00	---
TOTAL	4.09	1.06	0.01	0.84	0.16	0.57	1.19	---	---	---	2.44	---

430900089355400 BREWERY CREEK RAIN GAGE #2 NEAR CROSS PLAINS, WI

LOCATION.--Lat 43°09'00", long 89°35'54", in SW 1/4 SW 1/4 sec.19, T.8 N., R.8 E., Dane County, Hydrologic Unit 07070005, at the intersection of County Trunk P and County Trunk K.

PERIOD OF RECORD.--October 1989 to current year (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established Oct. 28, 1989. Rainfall estimated to be 0.00 for Nov. 10, 13, 20, 27, 28, 30, Dec. 14, 15, 18, 31, Jan. 1, 13, 14, 22, Feb. 8, 20, 23, and Mar. 17, 18 because recorded precipitation interpreted as collector snowmelt. Unpublished rainfall data collected at this site during 1985-86 water years are available for inspection at the District Office.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 4.60 in., July 5, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 3.75 in., June 17.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.21	.00	.00	.00	.00	.00	.00	1.13	.00	.00	.00
2	.07	.00	.00	.00	.00	.00	.00	.01	.02	.54	.00	.00
3	.08	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.08	.00	.04	.00	.00	.00
5	1.71	.00	.01	.00	.00	.00	.01	.00	.31	.00	.94	.00
6	.28	.00	.00	.00	.00	.00	.00	.00	.94	.00	.88	.00
7	.00	.00	.00	.00	.00	.00	.00	.02	.18	.13	.01	.00
8	.07	.00	.00	.00	.00	.00	.00	.09	.01	.38	.00	.21
9	.00	.00	.00	.00	.00	.00	.00	.38	.12	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	1.82	.01	.00	.00	.01
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40	.00	.00
14	.01	.00	.00	.00	.00	.00	.00	.14	.00	.01	.00	.00
15	.00	.00	.00	.00	.00	.00	.15	.10	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.01	.13	.92	.00	.00	.00
17	.00	.00	.00	.19	.00	.00	.00	.00	3.75	.37	.00	.00
18	.00	.00	.00	.76	.00	.00	.55	.00	.00	2.22	.01	.00
19	.41	.00	.00	.00	.00	.00	.42	.00	.00	.00	.34	.00
20	.07	.00	.00	.00	.00	.00	.02	.50	.00	.00	.00	.18
21	.08	.00	.00	.00	.00	.00	.00	.01	.10	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.02	.00
23	.32	.00	.00	.00	.00	.00	.00	.09	.41	.02	.00	.08
24	.00	.00	.00	.00	.00	.40	.00	.00	.00	.04	.00	.00
25	.05	.00	.00	.00	.00	.01	.06	.21	.00	.00	.00	.00
26	.00	.00	.00	.00	.10	.00	.01	.00	.00	.00	.00	.73
27	1.10	.00	.00	.00	.59	.00	.00	.10	.00	.03	.00	.06
28	.16	.00	.00	.00	.00	.00	.00	.16	.00	.11	.00	.00
29	.00	.00	.00	.00	.00	.00	.69	.00	.43	.00	.00	.00
30	.00	.00	.00	.00	---	.03	.11	.00	.00	.00	.00	.00
31	.40	---	.00	.00	---	.06	---	.00	---	.00	.00	---
TOTAL	4.81	1.21	0.01	0.95	0.69	0.50	2.16	3.76	8.37	4.77	2.20	1.27

430751089372000 BREWERY CREEK RAIN GAGE #3 NEAR CROSS PLAINS, WI

LOCATION.--Lat 43°07'51", long 89°37'20", in NE 1/4 NE 1/4 sec.35, T.8 N., R.7 E., Dane County, Hydrologic Unit 07070005, on County Trunk P, 1.9 mi north of intersection with U.S. Highway 14.

PERIOD OF RECORD.--October 1989 to current year (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established Oct. 28, 1989. Rainfall estimated to be 0.00 for Nov. 10, 13, 27, 28, 30, Dec. 13–15, 31, Jan. 1, 3, 13, 22, 29, Feb. 8, 20, 23, and Mar. 14, 17 because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for the period Aug. 26 to Sept. 27.

EXTREMES FOR PERIOD OR RECORD.--Maximum daily rainfall, 4.41 in., July 5, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 3.07 in., June 17.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	1.18	.00	.00	.00	.00	.00	.00	1.09	.00	.00	---
2	.10	.00	.00	.00	.00	.00	.00	.00	.00	.42	.00	---
3	.07	.00	.00	.00	.00	.00	.04	.00	.02	.00	.00	---
4	.00	.00	.00	.00	.00	.00	.10	.00	.03	.00	.00	---
5	1.51	.00	.01	.00	.00	.00	.00	.00	.29	.00	1.01	---
6	.32	.00	.00	.00	.00	.00	.00	.00	.81	.00	.93	---
7	.00	.00	.00	.00	.00	.00	.00	.02	.15	.09	.01	---
8	.06	.00	.00	.00	.00	.00	.00	.09	.00	.22	.00	---
9	.00	.00	.00	.00	.00	.00	.00	.68	.12	.02	.00	---
10	.00	.00	.00	.00	.00	.00	.00	1.70	.02	.00	.00	---
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	---
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.58	.00	---
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	.00	---
14	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	---
15	.00	.00	.00	.00	.00	.00	.18	.07	.00	.00	.00	---
16	.00	.00	.00	.00	.00	.00	.01	.20	1.15	.00	.00	---
17	.00	.00	.00	.17	.00	.00	.00	.00	3.07	.48	.00	---
18	.00	.00	.00	.68	.00	.00	.51	.00	.06	2.62	.02	---
19	.35	.00	.00	.00	.00	.00	.37	.00	.00	.00	.21	---
20	.06	.00	.00	.00	.00	.00	.00	.50	.00	.00	.00	---
21	.06	.00	.00	.00	.00	.00	.00	.01	.13	.00	.00	---
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.03	---
23	.25	.00	.00	.00	.00	.00	.00	.09	.37	.01	.00	---
24	.00	.00	.00	.00	.00	.40	.00	.00	.00	.01	.00	---
25	.02	.00	.00	.00	.00	.01	.03	.17	.00	.00	.00	---
26	.00	.00	.00	.00	.01	.00	.01	.00	.00	.00	---	---
27	1.02	.00	.00	.00	.66	.00	.00	.06	.00	.03	---	---
28	.14	.00	.00	.00	.00	.00	.00	.22	.00	.09	---	.00
29	.00	.00	.00	.00	.00	.00	.78	.00	.42	.00	---	.00
30	.00	.00	.00	.00	---	.03	.11	.00	.00	.00	---	.00
31	.32	---	.00	.00	---	.06	---	.00	---	.00	---	---
TOTAL	4.29	1.18	0.01	0.85	0.67	0.50	2.14	3.95	7.73	4.85	---	---

05406470 BREWERY CREEK AT CROSS PLAINS, WI

LOCATION.--Lat 43°07'09", long 89°38'25", in SW 1/4 SW 1/4 sec.35, T.8 N., R.7 E., Dane County, Hydrologic Unit 07070005, on right bank 60 ft upstream of culvert on Brewery Road, 0.75 mi upstream from Black Earth Creek.

DRAINAGE AREA.--10.5 mi^2, of which 2.80 mi^2 is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1986, October 1989 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 900 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 15, 16, 23, 24, Nov. 27 to Jan. 10, Jan. 18 to Feb. 20, Feb. 28 to Mar. 10, Mar. 18, 21-23, 26, and 27. Records fair except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	6.4	2.0	1.5	1.5	2.1	2.0	3.4	2.1	1.7	1.5	1.5
2	1.6	8.0	2.0	1.5	1.4	1.9	2.1	3.0	3.9	2.2	1.6	1.5
3	1.6	3.1	2.1	1.5	1.4	1.8	2.3	2.9	2.1	1.8	1.6	1.5
4	1.6	2.6	2.2	1.4	1.4	1.7	2.4	2.8	2.0	1.7	1.6	1.5
5	1.6	2.3	2.3	1.4	1.4	1.6	2.0	2.7	2.0	1.7	2.2	1.5
6	5.4	2.4	2.3	1.4	1.5	1.5	1.9	2.6	3.0	1.6	7.9	1.5
7	2.5	2.1	2.1	1.5	1.6	1.5	2.1	2.6	5.7	1.6	2.8	1.4
8	1.9	2.1	1.8	1.6	3.0	1.5	2.1	2.6	2.9	1.7	2.1	1.5
9	1.9	2.1	1.7	1.7	7.0	1.5	2.0	2.8	2.4	1.6	1.9	1.7
10	1.9	2.2	1.7	1.8	20	1.5	2.0	22	2.2	1.5	1.9	1.6
11	1.9	2.2	1.6	1.7	10	1.6	2.1	4.4	2.1	1.5	1.9	1.6
12	1.9	2.1	1.6	1.6	6.0	1.9	2.3	2.9	1.9	1.7	1.9	1.4
13	1.8	2.1	1.6	1.6	3.0	2.1	2.3	2.6	1.9	1.8	1.8	1.5
14	1.9	2.1	1.7	1.6	1.7	2.0	2.2	2.3	1.9	1.8	1.8	1.6
15	2.0	2.1	1.7	1.5	1.6	1.9	2.3	2.3	1.8	1.6	1.7	1.7
16	2.1	2.1	1.7	1.6	1.5	1.8	2.5	2.2	2.0	1.5	1.7	1.7
17	2.4	2.1	1.7	1.7	1.4	1.8	2.4	2.3	55	1.6	1.7	1.8
18	2.4	2.1	1.7	19	1.4	1.7	2.9	2.2	19	29	1.7	1.8
19	2.4	2.1	1.7	5.0	1.5	1.7	3.9	2.2	4.2	4.0	1.8	1.7
20	2.3	2.1	1.6	3.5	1.6	1.8	4.8	2.5	2.9	2.2	1.9	1.8
21	2.2	2.1	1.6	2.3	1.8	1.7	3.3	2.7	2.7	1.8	1.8	1.9
22	2.1	2.1	1.6	1.8	1.6	1.7	3.0	2.5	2.4	1.7	1.9	1.8
23	2.2	2.1	1.6	1.7	2.7	1.8	2.8	2.2	2.6	1.7	1.8	1.7
24	2.6	2.1	1.6	1.7	3.0	2.1	2.8	1.9	2.5	1.7	1.7	1.8
25	2.2	2.1	1.5	1.6	2.5	3.2	2.8	2.0	2.2	1.6	1.6	1.8
26	2.2	2.1	1.5	1.6	20	2.4	2.9	1.9	1.9	1.5	1.6	2.0
27	4.2	2.1	1.4	1.6	20	2.1	2.8	1.8	1.9	1.5	1.6	2.0
28	3.8	2.3	1.4	1.6	3.5	2.0	2.8	1.8	1.8	1.6	1.6	1.7
29	2.8	2.2	1.4	1.6	2.5	2.0	3.7	1.8	1.9	1.6	1.5	1.6
30	2.5	2.1	1.5	1.5	---	2.0	4.4	1.8	2.0	1.5	1.5	1.6
31	2.4	---	1.5	1.5	---	2.1	---	1.7	---	1.5	1.5	---
TOTAL	72.0	75.7	53.4	72.6	127.5	58.0	79.9	95.4	142.9	81.5	61.1	49.7
MEAN	2.32	2.52	1.72	2.34	4.40	1.87	2.66	3.08	4.76	2.63	1.97	1.66
MAX	5.4	8.0	2.3	19	20	3.2	4.8	22	55	29	7.9	2.0
MIN	1.6	2.1	1.4	1.4	1.4	1.5	1.9	1.7	1.8	1.5	1.5	1.4
CFSM	.30	.33	.22	.30	.57	.24	.35	.40	.62	.34	.26	.22
IN.	.35	.37	.26	.35	.62	.28	.39	.46	.69	.39	.30	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1996, BY WATER YEAR (WY)

MEAN	1.97	2.27	1.62	1.57	2.62	4.14	2.43	1.96	2.60	3.91	2.23	2.31
MAX	4.10	4.73	3.82	3.22	5.42	10.5	3.66	3.33	4.76	13.4	6.83	5.15
(WY)	1994	1986	1994	1994	1985	1993	1993	1994	1996	1993	1993	1993
MIN	.25	.16	.12	.011	.15	1.08	.64	.47	.40	.22	.22	.11
(WY)	1991	1991	1991	1991	1991	1992	1990	1992	1991	1990	1990	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1985 - 1996	
ANNUAL TOTAL	873.0		969.7			
ANNUAL MEAN	2.39		2.65		2.47	
HIGHEST ANNUAL MEAN					4.30	1993
LOWEST ANNUAL MEAN					.58	1991
HIGHEST DAILY MEAN	18	Mar 11	55	Jun 17	142	Jul 25 1985
LOWEST DAILY MEAN	1.2	Sep 14,15	1.4 (a)	Dec 27	.00	(b) Jul 18 1991
ANNUAL SEVEN-DAY MINIMUM	1.3	Sep 10	1.4	Jan 30	.00	Jul 31 1991
INSTANTANEOUS PEAK FLOW			105	Jun 17	420	Jul 6 1993
INSTANTANEOUS PEAK STAGE			11.72	Jun 17	15.05	Jul 6 1993
INSTANTANEOUS LOW FLOW					.00	(c) Aug 9 1990
ANNUAL RUNOFF (CFSM)	.31		.34		.32	
ANNUAL RUNOFF (INCHES)	4.22		4.68		4.36	
10 PERCENT EXCEEDS	3.3		3.0		4.1	
50 PERCENT EXCEEDS	2.1		1.9		1.9	
90 PERCENT EXCEEDS	1.6		1.5		.25	

(a) Also occurred Dec. 28,29, Jan. 4-6, Feb. 2-5, 17,18, Sept. 7 and 12
(b) Occurred on many days July to September 1991
(c) Also occurred many days during 1991 water year

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1984 to September 1986, October 1989 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: November 1984 to September 1986, October 1989 to current year.
DISSOLVED OXYGEN: April 1990 to June 30, 1991.
SUSPENDED-SOLIDS DISCHARGE: October 1989 to September 1992.
TOTAL-NITROGEN DISCHARGE: October 1984 to September 1985.
SUSPENDED-SEDIMENT DISCHARGE: October 1984 to June 1986, October 1989 to current year.
TOTAL-PHOSPHORUS DISCHARGE: October 1984 to June 1986, October 1989 to current year.

INSTRUMENTATION.--Water-quality sampler December 1984 to June 1986, October 1989 to current year; continuous water temperature recorder November 1984 to September 1986, October 1989 to current year; dissolved oxygen recorder April 1990 to June 1991.

REMARKS.--Total-nitrogen discharge was published for the period October 1984 to June 1986. Suspended-solids discharge were published for the period October 1989 to September 1991. Chemical analyses by the Wisconsin State Laboratory of Hygiene. Suspended-sediment analyses by U.S. Geological Survey Laboratory. Samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum observed, 33.0°C, May 28 and July 22, 1991; minimum observed, 0.0°C, on many days during 1985, 1986, 1990, 1991, 1992, 1993, 1994, 1995, and 1996 winter periods.
DISSOLVED OXYGEN: Maximum observed, 21.8 mg/L, Apr. 5, 1990; minimum observed, 0.0 mg/L, Aug. 19, 1990.
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 243 tons, June 29, 1990; minimum daily, 0.00 ton, Aug. 23 to Sept. 9, 1990; Dec. 25-31, 1990, Jan. 1-31, Feb. 1-8, 10-20, May 20, 22-23, June 12-13, 28-30, July 12-20, 23-27, 30-31, Aug. 1-6, Aug. 18 to Sept. 11, Sept. 13, 21-22, and 24-30, 1991.
TOTAL-NITROGEN DISCHARGE: Maximum daily, 4,550 lb, July 25, 1985; minimum daily, 10 lb, May 24-25, 1985.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 917 tons, July 5, 1993; minimum daily, 0.0 ton Oct. 1-2, 1991, and Dec. 6, 1992.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 2,450 lb, July 5, 1993; minimum daily, 0.00 lb, July 20, 24-27, 31, Aug. 1-6, 22-29, 31, Sept. 1-2, and 4-10, 1991.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum observed, 27.0°C, June 29; minimum observed, 0.0°C, Nov. 14–15, 22–24, 27–30, Dec. 5–14, 16–17, 20, 25–29, Jan. 2–10, Jan. 18 to Feb. 18, Feb. 26 to Mar. 10, Mar. 18, 20–23, 25–27, and Apr. 5, 7–9.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 316 tons, May 10; minimum observed, 0.07 ton, Feb. 16–19, 22.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 1,080 lb, May 10; minimum daily, 0.49 lb, Aug. 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
OCT 1995							
*05...	1000	--	1.4	8.3	2.2	1100	58
06...	0425	--	5.3	7.9	20	530000	514
06...	1140	--	6.6	--	--	--	--
*06...	1145	--	6.4	8.0	7.1	170000	236
*25...	1005	--	2.2	8.2	2.0	550	79
NOV							
*01...	0200	--	2.9	--	--	--	--
01...	1615	--	6.2	--	--	--	--
*01...	1815	--	11	--	--	--	--
01...	2315	--	17	--	--	--	--
02...	0815	--	8.5	--	--	--	--
*03...	0919	--	3.1	--	--	--	--
*29...	1450	2.2	--	8.1	1.6	--	102
JAN 1996							
09...	1455	1.7	--	8.2	--	<10	--
18...	0330	19	--	--	--	--	--
18...	0400	19	--	--	--	--	--
18...	0730	19	--	--	--	--	--
18...	0930	19	--	7.2	--	--	--
18...	1915	19	--	--	--	--	--
18...	2200	19	--	--	--	--	--
20...	0330	3.5	--	--	--	--	--
*22...	1305	1.8	--	--	--	180	--

* Equal-width increment (EWI) sample

05406470 BREWERY CREEK AT CROSS PLAINS, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
FEB 1996							
10...	0245	20	--	--	--	--	--
10...	1230	20	--	--	--	--	--
10...	1345	20	--	--	--	--	--
10...	1415	20	--	--	--	--	--
10...	1545	20	--	--	--	--	--
10...	1930	20	--	--	--	--	--
10...	2230	20	--	--	--	--	--
*12...	1300	6.0	--	--	--	60	--
26...	1830	--	15	--	--	2000	--
26...	1900	--	47	--	--	4000	--
26...	1930	--	79	--	--	--	--
26...	1945	--	92	--	--	20000	--
26...	2330	--	73	--	--	--	--
27...	0130	--	44	--	--	21000	--
27...	0500	--	19	--	--	--	--
27...	0925	--	13	--	--	--	--
*27...	0935	--	13	--	--	7000	--
MAR							
*12...	1235	--	1.6	8.4	--	1200	--
*26...	1400	2.4	--	8.1	--	10	--
APR							
*16...	1920	--	2.4	8.5	--	20	--
MAY							
*02...	1615	--	3.0	8.7	--	100	--
10...	0230	--	13	--	--	93000	--
10...	0245	--	41	--	--	--	--
10...	0415	--	50	--	--	7000	--
10...	0500	--	65	--	--	410000	--
10...	0900	--	35	--	--	--	--
*10...	1035	--	22	--	--	21000	--
10...	1036	--	22	--	--	--	--
10...	1430	--	12	--	--	--	--
*11...	0840	--	4.6	--	--	--	--
*20...	1255	--	2.3	8.6	--	5100	--

DATE	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE VOLA-TILE, SUS-PENDED (MG/L) (00535)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995						
05...	--	--	0.050	0.118	109	--
06...	--	--	0.482	1.63	397	--
06...	--	--	0.208	0.846	256	--
06...	--	--	0.204	0.808	186	--
25...	500	12	0.043	0.127	116	--
NOV						
01...	--	--	0.223	0.429	--	--
01...	--	--	1.96	3.77	274	--
01...	--	--	0.331	1.63	--	--
01...	--	--	0.189	0.673	177	--
02...	--	--	0.078	0.247	173	--
03...	--	--	0.076	0.209	123	--
29...	--	--	0.061	0.132	128	--
JAN 1996						
09...	--	--	<0.027	0.071	68	--
18...	--	--	--	--	1850	--
18...	--	--	2.46	2.31	1030	--
18...	--	--	3.84	3.71	1460	--
18...	--	--	5.74	6.58	4120	--
18...	--	--	3.22	4.57	999	--
18...	--	--	2.45	1.89	4200	--
20...	--	--	0.259	0.340	--	--
22...	--	--	0.135	0.120	87	--
FEB						
10...	--	--	--	--	109	--
10...	--	--	4.87	3.66	424	--
10...	--	--	5.01	4.07	313	98
10...	--	--	4.35	3.94	495	95
10...	--	--	4.36	4.03	513	99
10...	--	--	3.67	3.29	303	85
10...	--	--	3.36	2.90	148	--
12...	--	--	0.369	0.215	19	--
26...	--	--	0.863	2.30	222	--
26...	--	--	1.15	4.40	3400	--
26...	--	--	2.67	10.2	9840	--
26...	--	--	2.90	8.25	6560	87
26...	--	--	2.25	3.26	1240	81
27...	--	--	2.37	2.54	692	--
27...	--	--	1.93	1.88	364	--
27...	--	--	1.04	4.22	2870	--
27...	--	--	1.68	1.51	149	--

* Equal-width increment (EWI) sample

05406470 BREWERY CREEK AT CROSS PLAINS, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
MAR 1996							
12...		--	--	0.274	0.207	79	--
26...		--	--	0.105	0.104	51	--
APR							
16...		--	--	0.025	0.076	48	--
MAY							
02...		--	--	<0.027	0.292	201	--
10...		--	--	0.338	2.75	1720	--
10...		--	--	0.574	44.1	24000	--
10...		--	--	0.663	8.84	8180	--
10...		--	--	1.24	15.8	5700	--
10...		--	--	0.507	6.90	12400	--
10...		--	--	0.368	1.90	659	--
10...		--	--	0.366	1.86	858	--
10...		--	--	0.281	1.04	478	--
11...		--	--	0.187	0.425	100	--
20...		--	--	<0.027	0.139	82	--

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUN 1996									
02...	0230	7.6	7.9	--	--	0.405	1.16	446	--
*04...	1225	2.0	8.5	840	18	<0.027	0.060	28	--
*06...	1333	2.8	8.7	60000	30	<0.027	0.296	32	--
07...	0115	7.3	7.6	--	--	0.907	2.26	433	100
07...	1300	5.4	7.8	--	--	0.126	0.444	--	--
*07...	1305	5.4	8.1	35000	51	0.129	0.456	52	--
16...	2315	8.2	--	--	--	0.231	0.484	370	--
17...	0215	13	--	--	--	0.514	2.90	985	--
17...	0345	31	--	--	--	0.455	2.92	1430	--
17...	0515	57	--	--	--	0.368	2.55	1310	--
17...	0700	82	--	--	--	0.348	2.64	1740	72
17...	0800	93	7.7	260000	--	0.287	2.24	1330	87
17...	1215	65	--	400000	--	0.186	1.47	743	89
17...	1320	55	--	--	--	0.166	1.30	517	93
*17...	1340	52	--	250000	--	0.176	1.23	288	98
17...	1545	37	--	240000	--	0.226	1.43	427	--
17...	1730	23	--	170000	--	0.192	0.916	215	--
17...	1845	39	--	90000	--	0.175	2.73	1820	--
17...	2030	59	--	--	--	0.305	4.26	2540	--
17...	2100	78	--	--	--	0.277	3.85	2230	86
17...	2130	95	--	450000	--	0.472	5.45	3420	96
18...	0145	58	--	--	--	0.226	2.19	817	86
18...	0300	45	--	380000	--	0.209	1.76	561	--
18...	0946	13	--	--	--	--	--	84	--
18...	1006	12	--	--	--	0.142	0.554	101	--
*18...	1020	12	--	45000	--	0.153	0.554	--	--
*18...	1025	12	--	--	--	--	--	95	--
18...	1026	12	--	--	--	--	--	95	--
*20...	1431	2.8	--	1600	--	0.062	0.133	37	--
JUL									
*03...	1121	1.8	8.4	5100	--	0.029	0.070	30	--
*16...	1032	1.5	8.4	980	--	<0.027	0.078	39	--
18...	0145	5.8	--	--	--	0.106	0.265	163	--
18...	0500	28	--	--	--	0.101	2.47	1400	--
18...	0600	52	--	380000	--	0.785	4.52	1930	--
18...	0630	66	--	420000	--	0.570	3.61	1840	98
18...	0715	77	--	300000	--	0.238	2.57	1270	97
18...	1000	62	--	210000	--	0.186	1.56	533	97
18...	1315	35	--	200000	--	0.142	1.14	252	--
18...	1530	23	--	26000	--	0.129	0.915	162	--
18...	2000	10	--	130000	--	0.730	1.04	94	--
*19...	0940	4.0	--	--	--	0.155	0.322	25	--
*30...	1124	1.5	8.5	--	--	<0.027	0.083	53	--
AUG									
05...	1900	6.4	--	23000	--	0.148	0.202	89	98
06...	0500	6.4	--	25000	--	0.085	0.265	63	99
06...	0530	14	--	32000	--	0.098	0.360	136	98
*06...	1230	14	--	320000	--	0.638	1.02	97	--
06...	1240	13	--	280000	--	0.591	0.926	--	--
06...	2145	4.1	--	200000	--	0.237	0.646	24	--
*13...	1103	1.8	--	1200	--	<0.027	0.075	84	--
*26...	1024	1.6	--	450	--	0.096	0.100	75	--
SEP									
*13...	1350	1.5	--	1000	--	0.091	0.129	67	--
*27...	1435	1.9	--	1200	--	0.058	0.111	56	--

* Equal-width increment (EWI) sample

05406470 BREWERY CREEK AT CROSS PLAINS, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.5	13.0	14.5	9.5	6.5	8.0	4.5	1.5	3.0	4.0	1.5	3.0
2	14.5	11.0	13.0	9.0	5.5	7.5	5.5	1.5	3.5	3.0	.00	1.0
3	14.5	12.5	13.0	6.0	4.0	5.0	5.5	3.0	4.0	.50	.00	.00
4	17.0	10.5	12.5	6.5	3.0	4.5	4.5	1.5	3.0	1.5	.00	.50
5	15.0	10.0	12.0	5.5	3.0	4.5	4.0	.00	2.5	.50	.00	.00
6	12.5	11.5	12.0	9.5	4.0	6.5	.50	.00	.00	.50	.00	.00
7	13.0	10.5	11.0	7.0	3.5	5.5	.50	.00	.00	.50	.00	.00
8	16.0	9.0	11.5	5.0	1.5	3.0	.50	.00	.00	.50	.00	.00
9	16.5	10.5	12.5	5.0	1.0	3.0	.00	.00	.00	.50	.00	.00
10	16.5	8.5	11.5	6.5	1.5	5.0	.00	.00	.00	.50	.00	.00
11	17.5	8.5	12.0	4.0	.50	2.0	.00	.00	.00	3.0	.50	1.5
12	18.5	10.5	13.5	4.5	.50	2.5	.00	.00	.00	3.0	1.5	2.5
13	18.5	11.5	14.0	5.5	.50	3.0	.50	.00	.00	4.0	2.0	3.0
14	12.5	8.5	10.5	5.0	.00	2.0	1.5	.00	.00	3.5	2.0	2.5
15	13.0	7.0	9.0	4.5	.00	2.0	3.0	1.0	2.0	3.0	.50	1.5
16	13.0	5.5	8.5	6.5	3.5	4.5	2.0	.00	1.0	3.0	.50	1.5
17	15.5	8.0	11.0	5.0	3.5	4.5	3.0	.00	1.5	3.5	2.0	2.5
18	14.5	8.0	11.0	6.0	4.0	4.5	3.5	1.5	2.5	2.5	.00	.50
19	15.0	9.5	11.5	7.5	3.5	5.0	3.0	.50	2.0	.50	.00	.00
20	11.0	8.0	9.5	6.0	3.0	4.5	2.0	.00	1.0	.50	.00	.00
21	8.0	6.5	7.0	5.0	1.0	3.0	2.5	.50	1.5	.50	.00	.00
22	11.0	5.5	8.0	3.0	.00	1.5	3.0	1.0	2.0	3.0	.00	1.5
23	13.5	7.0	9.5	2.5	.00	1.0	3.5	1.5	2.5	2.0	.00	.50
24	9.5	6.5	8.0	2.5	.00	1.0	2.5	1.0	2.0	.50	.00	.00
25	12.0	4.5	7.5	5.0	1.0	3.0	2.5	.00	1.5	.50	.00	.00
26	12.5	6.5	9.0	5.0	3.0	4.0	2.0	.00	1.0	.50	.00	.00
27	10.5	9.5	9.5	4.0	.00	1.5	1.5	.00	.00	.50	.00	.00
28	10.0	8.5	9.5	.50	.00	.00	.50	.00	.00	.50	.00	.00
29	10.0	6.5	8.0	.50	.00	.00	1.0	.00	.00	.50	.00	.00
30	9.5	6.0	7.5	3.0	.00	1.0	3.5	.50	2.0	.00	.00	.00
31	7.5	6.5	7.0	---	---	---	3.5	2.5	3.0	.50	.00	.00
MONTH	18.5	4.5	10.5	9.5	.00	3.4	5.5	.00	1.3	4.0	.00	.71
		FEBRUARY			MARCH			APRIL			MAY	
1	.50	.00	.00	3.0	.00	.50	14.5	.50	6.5	15.5	3.5	8.5
2	.00	.00	.00	.50	.00	.00	13.0	3.5	7.5	15.0	3.5	9.0
3	.00	.00	.00	.50	.00	.00	9.0	2.5	5.0	13.0	6.5	9.5
4	.50	.00	.00	.50	.00	.00	5.5	2.0	3.5	17.0	7.0	11.0
5	.00	.00	.00	2.5	.00	.50	14.0	.00	6.0	9.5	6.5	8.0
6	.50	.00	.00	.50	.00	.00	10.0	.50	5.0	11.5	6.0	8.0
7	.50	.00	.00	.50	.00	.00	14.0	.00	6.0	15.0	6.5	10.0
8	.50	.00	.00	.50	.00	.00	12.5	.00	5.5	10.5	7.5	9.0
9	.50	.00	.00	.50	.00	.00	16.0	.00	6.5	14.0	8.5	10.5
10	.50	.00	.00	2.5	.00	.50	17.5	1.0	8.0	11.5	8.5	10.0
11	.50	.00	.00	8.0	1.0	4.0	19.0	4.5	10.5	16.0	6.5	10.0
12	.50	.00	.00	10.5	2.5	5.5	10.5	6.0	8.0	16.5	6.5	10.5
13	.50	.00	.00	12.5	1.5	6.0	10.0	4.0	6.5	17.5	5.5	11.0
14	3.5	.00	1.5	11.5	2.0	5.0	6.5	2.5	4.5	9.5	6.5	8.0
15	3.0	.00	1.0	12.5	.50	5.5	9.0	.50	4.5	12.0	7.5	9.5
16	3.0	.00	.50	12.0	1.0	5.0	11.5	3.5	6.5	13.0	9.0	11.0
17	4.0	.00	1.0	5.0	1.5	3.0	18.0	1.5	8.5	22.0	10.0	15.0
18	1.5	.00	.50	9.5	.00	4.0	16.5	6.5	10.5	25.5	14.5	19.5
19	5.5	.50	2.5	7.5	1.5	4.0	17.0	6.0	10.0	24.0	15.0	19.0
20	4.5	1.5	2.5	10.5	.00	3.5	11.0	7.0	8.5	18.0	12.0	14.0
21	3.0	1.0	2.0	10.5	.00	3.5	18.0	4.5	10.0	21.5	9.5	15.0
22	5.0	1.5	3.0	12.0	.00	4.5	17.5	6.5	10.5	20.5	9.0	14.5
23	3.5	1.5	3.0	12.5	.00	5.0	18.5	4.0	10.0	15.0	11.0	13.0
24	7.0	1.0	3.0	7.5	3.0	5.0	20.0	5.5	11.5	15.0	8.5	11.5
25	8.5	1.0	4.0	7.0	.00	3.5	15.0	8.5	11.0	13.0	9.0	10.5
26	3.5	.00	2.0	4.0	.00	.50	15.0	5.5	9.0	14.5	9.0	11.0
27	2.0	.00	1.0	10.5	.00	3.0	18.0	3.0	10.0	12.5	8.5	10.0
28	.50	.00	.00	10.0	.50	4.5	16.0	5.5	9.5	13.0	8.5	10.0
29	.50	.00	.00	14.5	1.5	6.5	8.0	4.0	5.5	22.5	7.5	14.0
30	---	---	---	11.5	3.0	6.5	10.0	3.5	6.0	22.5	7.0	14.0
31	---	---	---	12.0	2.5	6.5	---	---	---	22.5	8.0	15.0
MONTH	8.5	.00	.95	14.5	.00	3.1	20.0	.00	7.7	25.5	3.5	11.6

05406470 BREWERY CREEK AT CROSS PLAINS, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.5	11.0	14.0	24.0	17.5	20.5	20.0	14.0	16.5	19.5	13.0	16.0
2	21.5	11.5	15.5	22.5	18.5	20.0	21.5	14.5	17.5	19.5	13.0	16.0
3	15.0	11.5	13.0	22.5	16.5	19.5	21.5	15.0	18.0	19.5	13.0	16.0
4	16.0	10.5	12.5	22.5	16.5	19.0	21.0	16.0	18.5	19.0	13.0	15.5
5	18.5	9.0	13.5	23.0	16.5	19.5	23.5	17.5	20.0	20.5	13.0	16.0
6	19.5	11.5	14.5	21.5	17.0	19.0	23.0	18.5	20.5	19.5	13.0	16.0
7	13.5	11.5	12.5	23.5	18.0	20.0	23.0	18.5	21.0	19.0	13.0	15.5
8	13.0	10.5	12.0	21.0	17.0	18.5	21.5	16.0	18.5	15.0	13.0	14.5
9	15.0	10.5	13.0	18.5	15.5	16.5	20.0	14.5	17.0	18.5	13.5	15.5
10	15.5	12.0	13.5	20.5	13.0	16.5	19.0	14.0	16.5	19.0	12.5	15.0
11	20.5	11.5	15.5	20.0	14.5	17.0	18.5	14.5	16.0	17.5	13.0	15.0
12	24.0	11.5	17.5	19.5	16.5	17.5	21.0	14.0	17.0	13.0	10.5	12.0
13	25.0	13.0	19.0	19.5	15.5	17.5	19.0	15.0	16.5	15.0	9.0	12.0
14	25.5	13.0	19.0	18.0	15.0	16.5	21.0	15.5	18.0	13.0	9.0	11.0
15	25.0	13.0	19.0	21.0	14.0	17.0	17.5	15.5	16.5	15.5	10.5	13.0
16	20.0	14.5	16.5	21.5	15.5	18.0	18.5	13.0	16.0	13.5	11.0	12.5
17	21.0	15.5	18.5	19.0	17.0	17.5	20.0	13.5	16.5	14.0	11.0	12.5
18	20.5	15.5	17.0	22.0	18.0	20.5	19.0	14.0	16.5	16.0	8.5	11.5
19	16.5	14.0	15.0	20.5	16.0	18.0	18.5	16.0	17.0	16.0	8.0	12.0
20	20.5	13.5	17.0	19.5	14.0	16.5	20.5	15.5	17.5	14.5	11.0	12.0
21	20.5	14.0	17.0	19.0	14.5	16.5	21.0	15.0	17.5	15.5	11.0	13.0
22	21.5	15.0	18.0	18.0	15.5	16.5	18.0	16.0	17.0	16.5	11.5	13.0
23	18.0	13.5	16.0	20.0	14.0	17.0	20.0	14.0	16.5	13.0	10.0	11.5
24	18.0	14.5	16.0	20.0	15.0	17.5	20.0	13.0	16.0	16.0	11.0	12.5
25	22.0	12.5	17.0	18.0	15.0	16.0	20.5	13.0	16.5	13.5	9.0	11.0
26	21.5	14.0	18.0	18.0	14.0	16.0	19.0	14.0	16.5	12.0	11.0	11.5
27	24.0	14.5	19.5	19.0	14.5	16.5	18.0	14.0	15.5	13.0	11.0	12.0
28	25.0	16.0	20.5	18.0	15.5	16.5	19.0	13.5	16.0	14.0	10.0	11.5
29	27.0	19.0	23.0	19.5	15.0	17.0	19.0	12.0	15.0	15.0	10.0	12.0
30	26.0	20.0	23.0	19.5	15.0	17.0	19.5	12.5	15.5	17.0	9.5	12.5
31	---	---	---	16.5	14.5	15.5	19.0	12.5	15.5	---	---	---
MONTH	27.0	9.0	16.5	24.0	13.0	17.6	23.5	12.0	17.1	20.5	8.0	13.3

05406470 BREWERY CREEK AT CROSS PLAINS, WI--CONTINUED

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	2.8	.66	.27	.25	.47	.28	1.6	.58	.15	.20	.30
2	.22	3.1	.65	.27	.23	.42	.28	1.6	2.2	.18	.20	.29
3	.29	.90	.67	.26	.23	.40	.31	1.5	.23	.15	.19	.28
4	.36	.59	.69	.24	.23	.38	.32	1.4	.15	.14	.19	.29
5	.49	.54	.71	.23	.23	.35	.26	1.2	.14	.14	.32	.29
6	3.2	.57	.69	.23	.24	.33	.26	1.1	.70	.14	1.6	.28
7	.87	.51	.62	.24	.26	.33	.28	1.0	2.1	.14	.17	.27
8	.53	.51	.52	.25	.48	.33	.28	.98	.23	.15	.15	.29
9	.51	.52	.48	.26	1.2	.32	.27	1.2	.16	.15	.18	.32
10	.53	.55	.47	.28	13	.32	.26	316	.15	.15	.22	.30
11	.53	.56	.44	.26	2.2	.33	.28	1.2	.13	.14	.27	.29
12	.54	.56	.43	.24	.42	.40	.30	.28	.12	.17	.35	.26
13	.52	.57	.42	.25	.15	.42	.30	.28	.12	.18	.40	.27
14	.54	.58	.44	.25	.09	.40	.28	.27	.11	.18	.40	.28
15	.57	.58	.43	.24	.08	.38	.47	.30	.10	.17	.38	.30
16	.62	.59	.42	.25	.07	.34	.59	.32	.34	.16	.38	.30
17	.70	.59	.41	.27	.07	.32	.33	.38	178	.16	.38	.31
18	.71	.60	.40	95	.07	.30	.43	.39	23	47	.37	.30
19	.70	.61	.40	6.7	.07	.30	2.1	.43	.55	.34	.39	.29
20	.68	.64	.37	2.9	.08	.31	3.8	.54	.28	.13	.41	.30
21	.68	.65	.36	1.1	.09	.28	.65	.57	.26	.12	.39	.31
22	.64	.64	.35	.44	.07	.27	.66	.53	.23	.12	.39	.29
23	.68	.66	.34	.31	.13	.27	.67	.45	.24	.13	.37	.27
24	.82	.67	.34	.30	.14	.31	.73	.37	.24	.14	.34	.29
25	.73	.69	.31	.28	.11	.46	.80	.39	.20	.14	.33	.29
26	.90	.68	.30	.28	143	.33	.90	.35	.18	.15	.33	.32
27	2.2	.70	.28	.28	22	.29	.97	.32	.17	.16	.32	.30
28	1.6	.78	.27	.28	.79	.28	1.0	.32	.15	.18	.31	.25
29	.80	.75	.27	.28	.56	.27	1.8	.31	.16	.21	.30	.23
30	.67	.71	.28	.26	---	.27	2.9	.30	.17	.22	.30	.23
31	.66	---	.28	.26	---	.28	---	.28	---	.21	.30	---
TOTAL	23.67	23.40	13.70	112.96	186.54	10.46	22.76	336.16	211.39	51.90	10.83	8.59

WTR YR 1996 TOTAL 1012.36

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	40	1.4	.65	.82	2.3	1.0	6.0	3.2	.73	.65	.90
2	1.2	15	1.4	.64	.76	2.1	1.1	4.7	12	.88	.65	.89
3	1.2	3.5	1.4	.63	.76	2.0	1.2	4.4	.96	.69	.64	.90
4	1.0	2.8	1.5	.58	.76	1.9	1.2	4.1	.67	.66	.64	.92
5	1.8	2.4	1.5	.57	.76	1.8	.95	3.7	.69	.64	1.5	.95
6	37	2.5	1.5	.56	.82	1.7	.91	3.4	4.5	.61	29	.92
7	3.3	2.2	1.3	.59	.87	1.7	.97	3.2	29	.63	4.4	.92
8	1.1	2.1	1.1	.62	1.6	1.7	.98	3.1	3.1	.65	.94	1.0
9	1.0	2.1	1.0	.66	7.4	1.7	.93	3.8	1.9	.64	.82	1.1
10	1.1	2.1	1.0	.72	300	1.7	.90	1080	1.7	.62	.79	1.1
11	1.1	2.1	.95	.69	78	1.7	.94	9.5	1.5	.59	.78	1.1
12	1.1	2.0	.94	.68	7.8	2.1	1.0	3.1	1.3	.69	.78	.99
13	1.1	2.0	.92	.71	3.5	2.2	.98	2.7	1.2	.75	.72	1.1
14	1.1	1.9	.97	.75	2.0	2.0	.93	2.2	1.1	.73	.65	1.1
15	1.2	1.9	.95	.76	1.8	1.9	.98	2.1	1.0	.67	.54	1.2
16	1.3	1.9	.94	.83	1.7	1.7	2.7	2.0	1.9	.63	.49	1.2
17	1.5	1.8	.92	.90	1.6	1.5	1.0	2.0	788	.66	.51	1.2
18	1.5	1.8	.91	399	1.6	1.4	1.4	1.8	162	285	.54	1.2
19	1.5	1.8	.90	23	1.7	1.4	8.5	1.7	6.0	8.0	.61	1.1
20	1.5	1.8	.83	3.3	1.8	1.4	15	1.9	2.2	.90	.69	1.2
21	1.5	1.7	.82	1.5	2.1	1.2	5.5	3.3	1.8	.72	.71	1.2
22	1.4	1.7	.81	1.1	1.7	1.2	2.0	2.7	1.6	.68	.76	1.1
23	1.5	1.7	.79	.93	3.0	1.2	2.1	1.7	1.6	.70	.78	1.1
24	4.3	1.6	.78	.93	3.8	1.3	2.2	1.4	1.5	.68	.79	1.1
25	1.9	1.6	.72	.87	2.7	1.9	2.4	1.6	1.2	.65	.82	1.1
26	4.9	1.6	.71	.87	548	1.4	2.7	1.4	1.0	.64	.87	1.2
27	27	1.5	.65	.87	177	1.2	2.9	1.4	.95	.64	.88	1.2
28	14	1.7	.64	.87	3.8	1.1	3.1	1.4	.85	.67	.87	.99
29	3.7	1.6	.64	.87	2.7	1.1	7.4	1.4	.86	.71	.86	.92
30	3.6	1.5	.67	.82	---	1.0	12	1.4	.86	.69	.88	.91
31	4.8	---	.66	.82	---	1.1	---	1.4	---	.66	.90	---
TOTAL	131.5	109.9	30.22	447.29	1160.85	49.6	85.87	1164.5	1036.14	312.81	55.46	31.81

WTR YR 1996 TOTAL 4615.95

430432089414100 GARFOOT CREEK RAIN GAGE #1 NEAR CROSS PLAINS, WI

LOCATION.--Lat 43°04'32", long 89°41'41", in SW 1/4 SE 1/4 sec.17, T.7 N., R.7 E., Dane County, Hydrologic Unit 07070005, on Garfoot Road, 2.8 mi south of intersection with County Trunk KP.

PERIOD OF RECORD.--October 1989 to current year (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established Oct. 13, 1989. Rainfall estimated to be 0.00 for Nov. 10, 11, 13–16, 27–30, Dec. 1, 15, 18, Jan. 1, 12, 13, 21, 22, 24, Feb. 7, 8, 15, 16, 20, 23, and Mar. 7, 9, 17 because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for the period June 16, 17.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.48 in., Aug. 10, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 1.68 in., July 18.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.38	.00	.00	.00	.00	.00	.00	1.26	.00	.00	.00
2	.10	.01	.00	.00	.00	.00	.00	.01	.03	.35	.00	.00
3	.07	.00	.00	.00	.00	.00	.03	.01	.01	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.16	.00	.01	.00	.00	.00
5	1.67	.00	.01	.00	.00	.00	.00	.00	.26	.00	1.28	.00
6	.73	.00	.00	.00	.00	.00	.00	.00	1.19	.00	1.39	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.40	.00	.01	.00
8	.08	.00	.00	.00	.00	.00	.00	.06	.04	.16	.00	.21
9	.00	.00	.00	.00	.00	.00	.00	.71	.07	.07	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	1.15	.02	.00	.00	.01
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.26	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00
14	.00	.00	.00	.00	.00	.00	.01	.08	.00	.01	.00	.00
15	.00	.00	.00	.00	.00	.00	.40	.11	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.03	.01	---	.00	.00	.00
17	.00	.00	.00	.18	.00	.00	.00	.00	---	.19	.00	.00
18	.00	.00	.00	.70	.00	.00	.52	.00	.00	1.68	.03	.00
19	.40	.00	.00	.00	.00	.00	.37	.01	.00	.00	.25	.00
20	.07	.00	.00	.00	.00	.00	.00	.51	.00	.00	.01	.18
21	.05	.00	.00	.00	.00	.00	.00	.00	.02	.00	.01	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.51	.03	.00
23	.23	.00	.00	.00	.00	.00	.00	.11	.35	.19	.00	.10
24	.00	.00	.00	.00	.00	.44	.00	.00	.00	.08	.00	.00
25	.00	.00	.00	.00	.01	.01	.05	.14	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.68
27	.98	.00	.00	.00	.24	.01	.00	.07	.00	.05	.00	.07
28	.16	.00	.00	.00	.00	.00	.00	.54	.00	.01	.00	.00
29	.00	.00	.00	.00	.00	.00	.79	.00	.43	.00	.00	.00
30	.00	.00	.00	.00	---	.02	.53	.00	.01	.00	.00	.00
31	.41	---	.00	.00	---	.07	---	.00	---	.00	.00	---
TOTAL	4.95	1.39	0.01	0.88	0.25	0.55	2.90	3.53	---	3.64	3.01	1.25

430525089411500 GARFOOT CREEK RAIN GAGE #2 NEAR CROSS PLAINS, WI

LOCATION.--Lat 43°05'25", long 89°41'15", in SW 1/4 SW 1/4 sec.8, T.7 N., R.7 E., Dane County, Hydrologic Unit 07070005, on Garfoot Road, 1.6 mi south of intersection with County Trunk KP.

PERIOD OF RECORD.--October 1989 to current year (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established Oct. 12, 1989. Rainfall estimated to be 0.00 for Nov. 10, 13, 14, 27–30, Dec. 14–16, 18, 30, Jan. 1, 12, 13, 22, 27, Feb. 7, 8, 16, 20, 23, and Mar. 7, 17 because recorded precipitation interpreted as collector snowmelt. Unpublished rainfall data collected at this site during 1985-86 water years are available for inspection at the District office.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 3.89 in., July 5, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 2.56 in., June 17.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.24	.00	.00	.00	.00	.00	.00	1.33	.00	.00	.00
2	.08	.00	.00	.00	.00	.00	.00	.01	.01	.20	.00	.00
3	.06	.00	.00	.00	.00	.00	.02	.00	.02	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.13	.00	.01	.00	.00	.00
5	1.63	.00	.01	.00	.00	.00	.00	.00	.27	.00	.74	.00
6	.58	.00	.00	.00	.00	.00	.00	.00	1.07	.00	1.49	.00
7	.01	.00	.00	.00	.00	.00	.00	.01	.39	.00	.01	.00
8	.06	.00	.00	.00	.00	.00	.00	.07	.02	.16	.00	.21
9	.00	.01	.00	.00	.00	.00	.00	.66	.06	.02	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	1.61	.02	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.33	.00	.01
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
14	.00	.00	.00	.00	.00	.00	.01	.10	.00	.01	.00	.00
15	.00	.00	.00	.00	.00	.00	.34	.11	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.02	.12	1.06	.00	.00	.00
17	.00	.00	.00	.18	.00	.00	.00	.00	2.56	.35	.00	.00
18	.00	.00	.00	.70	.00	.00	.60	.00	.07	1.75	.01	.00
19	.44	.00	.00	.00	.00	.00	.38	.00	.00	.00	.31	.00
20	.08	.00	.00	.00	.00	.00	.00	.57	.00	.00	.00	.14
21	.05	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.03	.00
23	.23	.00	.00	.00	.00	.00	.00	.09	.33	.07	.00	.09
24	.00	.00	.00	.00	.00	.43	.00	.00	.00	.05	.00	.00
25	.00	.00	.00	.00	.00	.02	.06	.20	.00	.00	.00	.00
26	.00	.00	.00	.00	.78	.00	.01	.00	.00	.00	.00	.65
27	.98	.00	.00	.00	.22	.00	.00	.08	.00	.04	.00	.07
28	.14	.00	.00	.00	.00	.00	.00	.40	.00	.01	.00	.00
29	.00	.00	.00	.00	.00	.00	.92	.00	.55	.00	.00	.00
30	.00	.00	.00	.00	---	.03	.30	.00	.01	.00	.00	.00
31	.40	---	.00	.00	---	.08	---	.00	---	.00	.00	---
TOTAL	4.74	1.25	0.01	0.88	1.00	0.56	2.79	4.03	7.91	3.03	2.59	1.17

430543089393500 GARFOOT CREEK RAIN GAGE #3 NEAR CROSS PLAINS, WI

LOCATION.--Lat 43°05'43", long 89°39'35", in NW 1/4 SW 1/4 sec.10, T.7 N., R.7 E., Dane County, Hydrologic Unit 07070005, on Stage Coach Road, 0.5 mi west of intersection with County Trunk P.

PERIOD OF RECORD.--October 1989 to current year (non-frozen precipitation).

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established Oct. 27, 1989. Rainfall estimated to be 0.00 for Nov. 10, 14, 27, 30, Dec. 15, Jan. 1, 3, 12, 13, 22, Feb. 7, 15, 20, 23, and Mar. 17 because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for the period May 20 to July 29.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 3.60 in., July 5, 1993.

EXTREMES FOR CURRENT YEAR.--Maximum daily rainfall, 1.40 in., Nov. 1.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	1.40	.00	.00	.00	.00	.00	.00	---	---	.00	.00
2	.01	.00	.00	.00	.00	.00	.00	.02	---	---	.00	.00
3	.04	.00	.00	.00	.00	.00	.01	.00	---	---	.00	.00
4	.00	.00	.00	.00	.00	.00	.14	.00	---	---	.00	.00
5	1.25	.00	.01	.00	.00	.00	.00	.00	---	---	1.22	.00
6	.96	.00	.00	.00	.00	.00	.00	.00	---	---	1.06	.00
7	.07	.00	.00	.00	.00	.00	.00	.00	---	---	.01	.00
8	.06	.00	.00	.00	.00	.00	.00	.11	---	---	.00	.21
9	.01	.00	.00	.00	.00	.00	.00	.66	---	---	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	1.16	---	---	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	---	---	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	---	---	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	---	---	.00	.00
14	.00	.00	.00	.00	.00	.00	.01	.11	---	---	.00	.00
15	.00	.01	.00	.00	.00	.00	.36	.11	---	---	.00	.00
16	.00	.00	.00	.00	.00	.00	.01	.15	---	---	.00	.00
17	.00	.00	.00	.20	.00	.00	.00	.00	---	---	.00	.00
18	.00	.00	.00	.74	.00	.00	.46	.00	---	---	.03	.00
19	.37	.00	.00	.00	.00	.00	.40	.00	---	---	.28	.00
20	.03	.00	.00	.00	.00	.00	.00	---	---	---	.00	.21
21	.04	.00	.00	.00	.00	.00	.00	---	---	---	.00	.01
22	.00	.00	.00	.00	.00	.00	.00	---	---	---	.01	.00
23	.05	.00	.00	.00	.00	.00	.00	---	---	---	.00	.10
24	.02	.00	.00	.00	.00	.34	.00	---	---	---	.00	.00
25	.00	.00	.00	.00	.00	.07	.05	---	---	---	.00	.00
26	.00	.00	.00	.00	.02	.00	.01	---	---	---	.00	.70
27	.95	.00	.00	.00	.46	.00	.00	---	---	---	.00	.05
28	.14	.00	.00	.00	.00	.00	.00	---	---	---	.00	.00
29	.00	.00	.00	.00	.00	.00	.82	---	---	---	.00	.00
30	.00	.00	.00	.00	---	.01	.33	---	---	.07	.00	.00
31	.36	---	.00	.00	---	.07	---	---	---	.00	.00	---
TOTAL	4.44	1.41	0.01	0.94	0.48	0.49	2.60	---	---	---	2.61	1.28

05406491 GARFOOT CREEK NEAR CROSS PLAINS, WI

LOCATION.--Lat 43°06'37", long 89°40'46", in NW 1/4 SW 1/4 sec.4, T.7 N., R.7 E., Dane County, Hydrologic Unit 07070005, on left bank at bridge on Garfoot Road, 0.5 mi upstream from Black Earth Creek.

DRAINAGE AREA.--5.39 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1986, October 1989 to May 1994, August 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 860 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 9, Jan. 5, 6, 29–31, Feb. 2–4, and Mar. 6–9. Records are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	15	4.0	3.4	4.0	4.0	3.4	6.0	5.7	7.1	4.5	4.1
2	4.0	13	4.1	3.4	4.0	3.7	3.5	5.2	12	7.4	4.4	4.3
3	4.2	7.1	4.3	3.4	4.0	3.2	4.1	4.9	6.9	7.0	4.4	4.4
4	4.0	6.2	4.5	3.4	4.0	2.9	4.8	4.7	6.1	6.3	4.6	4.4
5	4.2	5.8	4.8	3.4	4.0	2.7	4.5	4.5	5.3	6.2	6.6	4.6
6	16	5.8	4.9	3.4	3.9	2.4	4.4	4.5	8.5	6.3	15	4.7
7	7.5	5.7	4.7	3.5	4.1	2.3	4.3	4.5	14	6.4	5.9	4.7
8	5.7	5.3	4.4	3.5	4.8	2.2	4.3	4.6	7.9	6.4	5.2	5.0
9	5.2	5.1	4.2	3.7	6.9	2.2	4.3	5.0	6.8	6.0	4.9	5.1
10	4.9	5.2	3.9	3.8	18	2.1	4.3	36	6.3	6.0	4.7	5.0
11	4.6	5.3	3.8	3.8	7.9	2.0	4.4	9.1	6.1	6.1	4.6	4.9
12	4.6	5.1	3.8	3.8	5.1	2.5	4.5	7.1	5.8	6.6	4.5	4.8
13	4.6	5.0	3.8	3.9	4.7	2.6	4.7	6.5	5.5	6.5	4.5	4.7
14	4.4	4.9	4.0	3.9	4.5	2.5	4.6	6.3	5.4	6.2	4.6	4.7
15	4.3	4.7	3.8	3.9	4.5	2.3	5.0	6.7	5.3	6.0	4.7	4.7
16	4.3	4.7	3.8	4.0	4.3	3.2	5.5	6.6	5.5	5.7	4.4	4.5
17	4.3	4.7	3.8	4.1	4.2	4.2	5.1	6.4	64	5.6	4.5	4.5
18	4.2	4.7	3.8	25	4.0	3.9	5.6	5.8	18	15	4.7	4.5
19	4.1	4.8	3.8	8.2	4.1	3.9	6.8	5.6	11	6.9	4.8	4.4
20	4.3	4.7	3.8	5.8	5.2	3.8	7.1	6.1	9.9	6.2	5.0	4.3
21	4.3	4.7	3.8	5.2	5.0	3.7	5.2	6.1	9.5	5.7	5.1	4.4
22	4.3	4.5	3.8	4.8	4.1	3.8	4.7	5.5	9.3	5.5	4.9	4.4
23	4.2	4.4	3.8	4.5	5.8	3.7	4.4	5.4	10	5.5	4.9	4.2
24	4.6	4.3	3.7	4.4	6.6	4.3	4.2	5.2	10	5.4	4.9	4.1
25	4.3	4.3	3.6	4.3	5.7	6.5	4.2	5.1	8.2	5.4	4.7	4.1
26	4.3	4.3	3.6	4.4	18	4.0	4.2	5.1	7.8	5.2	4.7	4.8
27	8.5	4.5	3.6	4.5	22	3.8	4.1	5.1	7.5	5.1	4.7	4.9
28	7.5	4.6	3.4	4.3	5.8	3.5	4.1	5.8	7.6	4.9	4.6	4.7
29	6.2	4.1	3.4	4.3	4.6	3.4	5.9	6.0	7.2	4.9	4.2	4.6
30	5.5	4.0	3.4	4.2	---	3.3	7.9	5.5	8.0	4.6	4.1	4.4
31	5.2	---	3.4	4.1	---	3.4	---	5.2	---	4.5	4.1	---
TOTAL	162.3	166.5	121.5	150.3	183.8	102.0	144.1	206.1	301.1	192.6	157.4	136.9
MEAN	5.24	5.55	3.92	4.85	6.34	3.29	4.80	6.65	10.0	6.21	5.08	4.56
MAX	16	15	4.9	25	22	6.5	7.9	36	64	15	15	5.1
MIN	4.0	4.0	3.4	3.4	3.9	2.0	3.4	4.5	5.3	4.5	4.1	4.1
CFSM	.97	1.03	.73	.90	1.18	.61	.89	1.23	1.86	1.15	.94	.85
IN.	1.12	1.15	.84	1.04	1.27	.70	.99	1.42	2.08	1.33	1.09	.94

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1996, BY WATER YEAR (WY)

MEAN	4.73	5.16	4.20	3.87	4.86	6.84	6.25	5.47	5.55	5.91	4.74	4.58
MAX	6.53	8.76	5.55	5.01	7.61	12.8	11.6	7.77	10.0	15.0	8.64	7.22
(WY)	1994	1986	1994	1986	1994	1993	1993	1995	1996	1993	1993	1993
MIN	2.19	2.59	2.10	2.10	2.72	3.29	2.74	3.38	3.33	2.44	2.56	2.06
(WY)	1991	1991	1990	1991	1991	1996	1990	1990	1992	1990	1990	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1985 - 1996	
ANNUAL TOTAL	1980.8		2024.6			
ANNUAL MEAN	5.43		5.53		5.09	
HIGHEST ANNUAL MEAN					7.69	1993
LOWEST ANNUAL MEAN					3.18	1990
HIGHEST DAILY MEAN	24	May 28	64	Jun 17	81	Jul 25 1985
LOWEST DAILY MEAN	3.4	(a)Jan 12	2.0	Mar 11	1.7	(b)Dec 24,25 1989
ANNUAL SEVEN-DAY MINIMUM	3.4	Feb 3	2.2	Mar 6	1.8	Sep 26 1990
INSTANTANEOUS PEAK FLOW			110	Jun 17	(c)128	Jul 25 1985
INSTANTANEOUS PEAK STAGE			5.90	Jun 17	7.57	Jul 5 1993
INSTANTANEOUS LOW FLOW					1.6	(d)Dec 21 1989
ANNUAL RUNOFF (CFSM)	1.01		1.03		.94	
ANNUAL RUNOFF (INCHES)	13.67		13.97		12.84	
10 PERCENT EXCEEDS	7.9		7.1		7.3	
50 PERCENT EXCEEDS	4.8		4.6		4.6	
90 PERCENT EXCEEDS	3.5		3.7		2.6	

(a) Also occurred Jan. 25-29, Feb. 1,3-17, Sept. 14,15,28,29
(b) Also occurred Aug. 9,10, Sept. 30, Oct. 1,2, 1990
(c) Gage height, 5.84 ft
(d) Also occurred Oct. 17, 1990

05406491 GARFOOT CREEK NEAR CROSS PLAINS, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1984 to September 1986, October 1989 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: November 1984 to September 1986, October 1989 to current year.
DISSOLVED OXYGEN: April 1984 to September 1985, April 1990 to current year.
SUSPENDED-SOLIDS DISCHARGE: October 1989 to September 1991.
TOTAL-NITROGEN DISCHARGE: October 1984 to September 1985.
SUSPENDED-SEDIMENT DISCHARGE: October 1984 to June 1986, October 1991 to current year.
TOTAL-PHOSPHORUS DISCHARGE: October 1984 to June 1986, October 1989 to current year.

INSTRUMENTATION.--Water-quality sampler December 1984 to June 1986, October 1989 to current year; continuous water temperature recorder November 1984 to September 1986, October 1989 to current year; dissolved oxygen recorder April 1984 to September 1985, April 1990 to current year.

REMARKS.--Total-nitrogen discharge were published for the period October 1984 to June 1986. Suspended-solids discharge were published for the period October 1989 to September 1991. Chemical analyses by the Wisconsin State Laboratory of Hygiene. Suspended-sediment analyses by U.S. Geological Survey Laboratory. Samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum observed, 24.5°C, July 25, 1985 and July 25, 1993; minimum observed, 0.0°C, on several days during 1985, 1986, 1990, 1991, 1993, 1994, 1995, and 1996.
DISSOLVED OXYGEN: Maximum observed, 17.4 mg/L, Apr. 11, 1990; minimum observed, 1.5 mg/L, Aug. 17, 1990.
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 77 tons, June 29, 1990; minimum daily, 0.04 ton, Feb. 26-27, and Aug. 7, 9-10, 1990.
TOTAL-NITROGEN DISCHARGE: Maximum daily, 2,980 lb, July 25, 1985; minimum daily, 49 lb, Jan. 26 to Feb. 3, 1985.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 141 tons, Feb. 10, 1996; minimum, 0.05 ton, Mar. 11, 1996.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 747 lb, July 25, 1985; minimum daily, 0.47 lb, Dec. 24, 1989.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum observed, 21.5°C, June 17; minimum observed, 0.0°C, Mar. 2, 3, 7, 8.
DISSOLVED OXYGEN: Maximum observed, 15.2 mg/L, May 6; minimum observed, 4.5 mg/L, June 17.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 141 tons, Feb. 10; minimum daily, 0.05 ton, Mar. 11.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 545 lb, May 10; minimum daily, 0.83 lb, Mar. 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995											
*05...	0818	3.6	8.2	1.5	1900	27	--	<0.027	0.068	32	--
06...	0030	14	7.9	8.1	--	576	--	0.058	1.02	640	--
06...	0130	20	7.8	14	530000	978	--	0.083	1.88	1050	--
06...	0230	28	7.7	17	230000	1150	--	0.181	2.48	1230	--
06...	0715	18	8.1	--	--	307	--	0.086	1.11	293	--
06...	1106	12	--	--	--	--	--	0.064	0.633	80	--
06...	1115	11	8.0	4.7	60000	71	--	0.067	0.655	87	--
*25...	1020	4.3	8.1	2.0	6600	13	356	<0.027	0.061	18	--
NOV											
01...	1730	14	--	--	--	--	--	0.112	0.902	1090	--
01...	1815	20	--	--	--	--	--	0.132	1.23	659	--
01...	1845	25	--	--	--	--	--	0.182	1.66	1050	--
01...	1930	33	--	--	--	--	--	0.205	2.16	1390	--
02...	0100	23	--	--	--	--	--	0.254	1.27	635	--
02...	0530	15	--	--	--	--	--	0.080	0.667	313	--
*03...	0845	7.2	--	--	--	--	--	0.041	0.117	48	--
*29...	1355	4.0	8.2	1.7	--	9	--	0.029	0.043	15	--
JAN 1996											
*09...	1350	3.8	8.3	--	9200	--	--	<0.027	0.049	30	--
18...	0415	12	--	--	--	--	--	1.04	4.59	2280	--
18...	0815	25	--	--	--	--	--	1.35	1.89	2700	--
18...	0945	32	--	--	--	--	--	1.56	3.32	1550	--
18...	1145	38	7.4	--	--	--	--	1.62	4.34	1530	--
18...	1845	28	--	--	--	--	--	1.18	1.86	1980	--
19...	0400	10	--	--	--	--	--	0.757	3.56	515	--
*22...	1235	4.8	--	--	1000	--	--	0.053	0.083	24	--
FEB 1996											
10...	1245	12	--	--	--	--	--	1.53	6.38	1230	--
10...	1330	20	--	--	--	--	--	1.52	2.28	2880	--
10...	1430	32	--	--	--	--	--	1.66	3.28	1960	69
10...	1515	39	--	--	--	--	--	1.96	3.04	4930	71
10...	2200	18	--	--	--	--	--	0.997	2.37	3920	64

* Equal-width increment (EWI) sample

05406491 GARFOOT CREEK NEAR CROSS PLAINS, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB 1996									
11...	0315	11	--	--	--	0.725	1.86	4720	--
*12...	1330	4.9	--	850	--	0.118	0.136	18	--
26...	1830	18	--	--	--	0.763	1.52	802	--
26...	1845	29	--	11000	--	0.625	1.21	581	--
26...	1930	43	7.6	9000	--	1.09	1.83	1380	97
26...	2000	54	--	38000	--	1.92	3.90	2600	98
27...	0200	50	--	10000	--	0.988	1.14	286	--
27...	0851	19	--	--	--	0.987	0.980	174	--
*27...	0900	19	--	8600	--	0.981	0.915	--	--
27...	0905	19	--	--	--	--	--	140	--
MAR									
*12...	1312	2.1	8.7	1600	--	0.052	0.070	8	--
*26...	1345	4.0	8.1	60	--	0.037	0.083	23	--
APR									
*16...	1905	5.4	8.2	2000	--	0.086	0.093	30	--
20...	0600	7.9	--	--	--	--	--	127	--
30...	1545	7.9	--	--	--	--	--	24	--
MAY									
*02...	1555	5.1	8.4	150	--	<0.027	0.043	17	--
10...	0215	12	--	140000	--	0.167	0.845	411	--
10...	0300	33	--	170000	--	0.304	3.44	1710	--
10...	0330	44	--	190000	--	0.300	3.02	1810	--
10...	0430	64	7.7	120000	--	0.475	8.51	4970	--
10...	0530	75	--	--	--	0.414	6.06	1910	--
10...	1017	55	--	--	--	0.207	1.65	486	--
*10...	1023	55	--	--	--	0.230	1.53	471	--
*10...	1106	49	--	--	--	0.228	1.52	460	--
10...	1110	49	--	45000	--	0.196	1.48	431	--
10...	1330	33	--	--	--	0.193	1.58	336	--
10...	2345	13	--	--	--	0.101	0.588	153	--
*11...	0820	9.6	--	--	--	0.062	0.252	51	--
*20...	0955	5.4	8.3	910	--	<0.027	0.052	23	--
JUN 1996									
01...	2345	13	--	--	--	0.511	1.01	418	--
02...	0045	19	7.8	--	--	0.667	1.50	766	99
02...	1100	9.8	--	--	--	0.277	0.436	61	--
*04...	1015	6.3	8.2	3800	27	0.064	0.088	--	--
*06...	1315	8.1	7.9	57000	136	0.136	0.475	109	--
06...	2330	13	7.8	--	--	0.415	0.828	367	--
07...	0030	19	7.6	--	--	1.31	2.21	711	98
*07...	1225	16	7.7	57000	146	0.358	0.714	149	--
07...	1237	16	7.6	--	--	0.317	0.820	--	--
07...	2130	10	--	--	--	0.139	0.375	98	--
17...	0045	14	--	--	--	0.097	0.970	769	--
17...	0230	32	--	--	--	0.324	1.88	1070	--
17...	0330	47	--	480000	--	0.300	2.15	1210	--
17...	0530	68	--	420000	--	0.243	1.59	562	92
17...	0930	97	7.6	150000	--	0.439	1.44	359	93
17...	1232	105	--	--	--	0.258	1.12	171	95
*17...	1255	101	--	58000	--	0.230	1.03	130	--
17...	1500	76	--	74000	--	0.173	0.911	143	--
17...	1815	46	--	44000	--	0.128	0.710	164	--
18...	0430	24	--	30000	--	0.109	0.528	137	--
*18...	0920	15	--	26000	--	0.111	0.376	--	--
*18...	0930	15	--	--	--	0.101	0.386	146	--
18...	0945	15	--	--	--	--	--	208	--
*20...	1220	10	--	48000	--	0.077	0.234	84	--
*25...	1202	7.6	--	10	--	--	--	--	--
JUL									
*03...	0933	7.6	8.2	6900	--	0.032	0.083	67	--
16...	0846	5.9	8.2	2200	--	<0.027	0.064	--	--
*16...	0853	5.9	--	--	--	--	--	29	--
18...	0330	14	--	--	--	0.248	2.39	751	--
18...	0400	20	--	180000	--	0.131	1.65	1080	--
18...	0430	29	--	280000	--	0.134	1.84	1170	98
18...	0515	36	--	270000	--	0.264	1.86	1070	98
18...	0815	26	--	370000	--	0.282	1.25	360	97
18...	1030	16	--	260000	--	0.186	0.787	188	--
*19...	0915	6.9	--	32000	--	0.042	0.136	45	--
*30...	0922	4.7	8.3	3200	--	0.029	0.063	34	--
AUG									
06...	0615	15	--	13000000	--	0.293	1.37	346	--
06...	0645	21	--	740000	--	0.160	1.35	870	--
06...	0730	31	--	150000	--	0.134	1.61	977	95
06...	0815	38	--	420000	--	0.200	1.57	696	97
06...	1100	26	--	420000	--	0.096	0.941	238	96
*06...	1256	17	--	420000	--	0.115	0.803	187	--
06...	1300	16	--	530000	--	0.112	0.781	191	--
06...	1310	16	--	220000	--	0.099	0.718	--	--
*13...	0912	4.5	--	8100	--	<0.027	0.057	50	--
*26...	0847	4.7	--	5000	--	0.043	0.051	11	--
SEP									
*13...	1135	4.7	--	2300	--	<0.027	0.040	12	--
*27...	1255	4.9	--	12000	--	<0.027	0.065	27	--

* Equal-width increment (EWI) sample

05406491 GARFOOT CREEK NEAR CROSS PLAINS, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SED. TOTAL, FALL DIAM. % FINER THAN .002 MM (80181)	SED. TOTAL, FALL DIAM. % FINER THAN .004 MM (80182)	SED. TOTAL, FALL DIAM. % FINER THAN .008 MM (80183)	SED. TOTAL, FALL DIAM. % FINER THAN .016 MM (80184)	SED. TOTAL, FALL DIAM. % FINER THAN .031 MM (80185)	SED. TOTAL, FALL DIAM. % FINER THAN .062 MM (80186)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
MAY 1996									
10...	0300	33	27	36	46	63	86	97	1710
10...	0330	44	28	35	43	61	86	98	1810
10...	0430	64	38	52	57	77	96	100	4970
10...	0530	75	46	56	64	80	94	99	1910

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.0	10.0	12.0	9.0	7.0	8.0	6.5	4.0	5.5	6.0	4.5	5.5
2	12.5	8.5	10.5	8.5	5.5	7.0	7.0	4.0	5.5	4.5	2.0	3.5
3	12.5	9.5	11.0	6.5	5.0	6.0	7.0	5.5	6.0	3.5	1.0	2.0
4	13.0	8.0	10.0	6.5	5.0	5.5	6.0	4.5	5.5	4.0	1.0	2.5
5	12.5	9.0	10.5	6.5	5.0	5.5	5.5	3.5	5.0	2.5	.5	1.5
6	12.0	10.5	11.5	8.5	5.5	7.0	4.5	3.0	3.5	2.5	.5	1.5
7	11.0	10.0	10.5	7.5	5.5	6.5	4.0	2.5	3.0	2.5	.5	1.5
8	12.5	8.5	10.5	5.5	4.5	5.0	4.0	1.5	3.0	3.5	1.0	2.0
9	13.0	9.5	11.0	6.0	4.0	5.0	1.5	1.0	1.0	4.5	3.0	3.5
10	13.0	8.0	10.0	7.0	5.0	6.5	1.5	.5	1.0	4.0	1.5	2.5
11	14.0	8.0	10.5	5.0	4.0	4.5	2.0	.5	1.0	4.5	3.0	4.0
12	14.5	9.5	11.5	5.5	3.5	4.5	3.0	1.5	2.0	5.5	4.5	5.0
13	14.5	10.5	12.0	6.0	4.5	5.0	4.0	2.0	3.0	6.5	4.0	5.0
14	11.0	8.0	9.5	6.0	4.0	5.0	5.5	4.0	5.0	5.0	4.0	4.5
15	10.5	7.0	8.5	6.0	3.5	4.5	5.0	3.0	4.0	4.5	3.0	3.5
16	11.0	6.0	8.0	7.0	5.5	6.0	4.0	2.0	3.0	5.5	3.0	4.0
17	13.0	7.5	10.0	6.5	5.5	6.0	5.0	2.5	4.0	6.0	4.5	5.0
18	12.0	8.0	9.5	6.5	6.0	6.0	5.5	4.0	4.5	6.0	1.0	3.0
19	12.0	9.0	10.0	7.5	5.5	6.5	4.5	2.5	4.0	2.5	.5	1.5
20	9.5	8.0	9.0	6.5	5.5	6.0	4.0	2.5	3.0	3.5	1.5	2.5
21	8.0	7.0	7.5	6.0	4.5	5.0	4.5	3.0	3.5	4.5	2.5	3.5
22	10.0	6.5	8.0	5.0	4.0	4.5	4.5	3.5	4.0	5.0	4.0	4.5
23	11.5	7.0	9.0	5.0	4.0	4.5	5.0	4.0	4.5	4.5	3.0	3.5
24	9.0	7.0	8.0	5.0	3.0	4.0	4.5	3.5	4.0	3.5	2.0	3.0
25	10.5	5.5	8.0	6.5	4.5	5.5	4.0	2.5	3.5	3.0	1.0	2.0
26	11.0	7.0	8.5	6.5	5.5	6.0	4.5	2.5	3.5	2.5	1.0	2.0
27	10.0	9.0	9.5	6.0	2.0	4.0	3.5	1.5	2.5	3.5	1.5	2.5
28	9.5	8.0	9.0	4.5	2.5	3.5	3.5	1.0	2.0	3.0	1.0	2.0
29	9.5	7.0	8.0	4.0	1.5	3.0	4.0	2.0	3.0	3.0	1.0	2.0
30	9.0	7.0	8.0	5.5	3.0	4.5	5.5	3.5	4.5	1.5	.5	1.0
31	7.5	7.0	7.0	---	---	---	5.5	4.5	5.0	1.0	.5	.5
MONTH	14.5	5.5	9.6	9.0	1.5	5.3	7.0	.5	3.6	6.5	.5	2.9

05406491 GARFOOT CREEK NEAR CROSS PLAINS, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.0	.5	1.0	6.0	1.5	3.5	11.0	3.0	6.5	12.5	4.5	7.5
2	1.0	.5	1.0	4.0	.0	2.5	11.0	5.0	7.5	12.0	5.0	8.0
3	1.0	.5	.5	5.5	.0	2.0	8.0	4.5	6.0	13.5	7.0	1.0
4	1.5	.5	1.0	5.5	1.5	3.5	5.5	4.0	5.0	14.5	10.0	11.5
5	3.5	1.0	2.0	5.0	2.5	4.0	11.0	3.0	6.0	13.5	10.0	11.0
6	3.5	1.0	2.5	3.5	.5	2.0	9.0	3.5	6.0	10.5	6.5	8.5
7	5.5	3.5	4.5	5.0	.0	1.5	11.0	3.5	6.5	12.0	7.0	9.0
8	6.5	4.5	5.0	5.0	.0	2.0	10.0	3.0	6.0	9.5	7.5	8.5
9	5.5	3.5	4.5	7.5	.5	3.5	12.0	3.0	7.0	11.5	8.0	9.5
10	4.5	2.0	3.0	8.0	2.0	4.5	13.5	3.5	8.0	10.5	8.5	9.5
11	4.0	2.0	3.0	9.5	4.0	6.0	15.0	6.0	9.5	12.5	6.5	9.0
12	4.5	3.0	4.0	10.5	5.0	6.5	9.5	7.0	8.0	12.5	6.5	9.0
13	5.0	3.5	4.5	11.5	4.5	7.0	9.0	5.5	7.0	13.0	6.0	9.0
14	5.5	4.5	5.0	10.0	4.5	6.5	6.5	4.5	5.5	8.5	6.5	7.5
15	5.0	4.0	4.5	10.5	4.0	6.5	8.0	3.5	5.5	10.0	7.5	8.5
16	5.0	3.0	4.0	10.0	4.0	6.5	8.5	4.5	6.0	10.5	8.5	9.5
17	5.0	3.5	4.0	6.0	4.0	5.0	13.5	3.5	8.0	17.5	9.0	12.5
18	5.0	2.5	3.5	9.0	3.0	5.5	13.0	7.0	9.5	19.0	12.0	14.5
19	6.5	4.0	5.0	7.5	4.0	5.5	12.5	6.0	8.5	18.0	12.0	14.5
20	6.5	5.5	6.0	8.5	3.0	5.0	9.5	7.0	8.0	13.0	10.0	11.5
21	5.5	4.5	5.0	9.0	2.0	5.0	13.5	5.0	9.0	16.0	8.5	12.0
22	6.0	5.0	5.5	9.5	3.0	5.5	13.5	7.0	9.5	15.5	8.5	12.0
23	5.5	3.0	4.5	10.5	3.0	6.0	14.0	5.5	9.0	12.5	9.5	11.0
24	8.5	3.0	4.5	8.0	5.0	6.5	15.5	6.5	10.0	12.0	8.0	10.0
25	8.5	3.0	5.0	7.0	1.0	4.0	12.0	8.0	10.0	11.0	8.5	9.5
26	4.5	.5	3.5	6.0	.5	2.5	12.0	6.0	8.0	12.0	8.5	10.0
27	3.0	.5	2.0	9.0	1.5	4.5	14.0	4.5	8.5	11.0	8.5	9.5
28	3.5	.5	2.0	9.0	3.5	6.0	13.0	6.5	9.0	10.5	8.5	9.5
29	5.5	1.0	2.5	11.5	4.0	7.0	7.5	4.5	5.5	16.0	8.0	11.5
30	---	---	---	10.0	5.0	7.0	8.0	4.0	5.5	16.0	7.5	11.5
31	---	---	---	9.5	4.5	6.5	---	---	---	17.0	8.0	12.0
MONTH	8.5	.5	3.6	11.5	.0	4.8	15.5	3.0	7.5	19.0	4.5	9.9
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	10.5	12.0	17.5	12.0	14.0	16.0	11.0	13.0	15.5	11.5	13.0
2	17.0	11.5	14.0	17.0	12.5	14.5	16.0	11.0	13.0	16.0	11.0	13.0
3	13.0	11.0	12.0	17.0	11.5	13.5	16.5	11.5	13.5	15.5	11.0	13.0
4	13.5	10.5	11.5	16.0	11.0	13.0	16.5	12.0	14.0	15.5	11.5	13.0
5	14.5	9.5	11.5	17.0	11.0	13.5	18.5	13.5	15.5	16.0	11.5	13.0
6	15.5	11.5	13.0	16.0	11.0	13.0	20.5	15.0	18.0	15.5	11.5	13.0
7	14.0	12.0	13.0	17.5	12.0	14.0	18.5	14.0	16.5	15.5	11.5	13.0
8	12.0	11.0	11.5	16.5	11.5	13.5	17.0	12.5	14.5	13.0	11.5	12.0
9	13.0	10.5	12.0	14.5	11.0	12.0	16.5	11.5	13.5	15.0	12.0	13.0
10	13.0	11.5	12.0	15.5	10.0	12.5	15.5	11.5	13.0	15.5	11.0	12.5
11	15.0	11.0	12.5	15.5	10.5	12.5	14.5	12.0	13.0	15.0	11.0	12.5
12	17.0	10.5	13.5	16.0	11.5	13.0	16.5	11.0	13.5	12.0	9.5	11.0
13	18.0	11.5	14.0	15.0	11.0	12.5	15.0	11.5	13.0	13.0	9.0	10.5
14	18.0	11.5	14.0	14.5	11.0	12.0	16.5	12.5	14.0	12.0	8.5	10.5
15	18.0	11.0	14.0	16.5	10.5	13.0	14.5	12.0	13.0	13.0	10.0	11.5
16	14.5	12.0	13.0	16.5	11.0	13.0	15.0	11.0	12.5	12.0	10.0	11.0
17	21.5	13.5	18.5	15.0	11.5	13.0	16.0	11.0	13.0	12.0	10.0	11.0
18	18.5	14.0	15.5	18.5	13.0	17.0	15.5	11.0	13.0	13.5	8.5	10.5
19	14.0	13.0	13.5	15.0	12.5	14.0	15.0	13.0	13.5	13.5	8.0	10.5
20	16.0	12.5	14.0	16.0	11.5	13.0	16.0	12.5	14.0	12.5	10.0	11.0
21	16.0	12.5	14.0	16.0	11.0	13.0	16.5	12.0	14.0	13.0	10.5	11.5
22	16.0	12.5	14.0	14.0	11.5	13.0	14.5	12.5	13.5	14.0	9.5	11.5
23	14.0	11.5	13.0	16.5	11.5	13.5	16.0	11.5	13.5	11.5	9.5	10.5
24	14.0	12.0	13.0	16.0	11.5	13.5	16.0	10.5	13.0	13.0	9.5	11.0
25	16.0	10.5	13.0	14.5	11.0	12.5	16.0	11.0	13.0	12.0	8.5	10.0
26	16.5	11.5	13.5	15.0	10.5	12.5	15.5	11.5	13.5	11.0	10.0	10.5
27	17.5	11.5	14.0	15.0	11.5	13.0	14.5	11.5	12.5	11.5	10.0	11.0
28	18.5	11.5	14.5	14.0	12.0	13.0	15.0	11.5	12.5	12.0	9.5	10.5
29	19.5	13.0	16.0	15.5	12.0	13.0	15.5	10.5	12.5	12.5	9.0	10.5
30	18.5	13.5	15.5	15.5	11.5	13.0	15.5	11.0	12.5	14.0	8.5	11.0
31	---	---	---	13.0	11.0	12.0	15.0	11.0	12.5	---	---	---
MONTH	21.5	9.5	13.5	18.5	10.0	13.2	20.5	10.5	13.5	16.0	8.0	11.5

05406491 GARFOOT CREEK NEAR CROSS PLAINS, WI--CONTINUED

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	13.8	7.8	10.2
5	---	---	---	---	---	---	---	---	---	9.3	7.2	8.1
6	---	---	---	---	---	---	---	---	---	15.2	7.2	11.4
7	---	---	---	---	---	---	---	---	---	14.7	9.9	11.9
8	---	---	---	---	---	---	---	---	---	12.7	10.0	10.9
9	---	---	---	---	---	---	---	---	---	14.0	9.0	11.0
10	---	---	---	---	---	---	---	---	---	9.5	7.9	8.6
11	---	---	---	---	---	---	---	---	---	10.7	9.0	9.9
12	---	---	---	---	---	---	---	---	---	11.4	9.7	10.4
13	---	---	---	---	---	---	---	---	---	11.7	9.6	10.7
14	---	---	---	---	---	---	---	---	---	11.5	10.0	10.6
15	---	---	---	---	---	---	---	---	---	11.5	9.5	10.3
16	---	---	---	---	---	---	---	---	---	11.5	9.2	9.9
17	---	---	---	---	---	---	---	---	---	11.8	7.7	9.6
18	---	---	---	---	---	---	---	---	---	11.0	7.8	9.1
19	---	---	---	---	---	---	---	---	---	10.6	7.8	8.9
20	---	---	---	---	---	---	---	---	---	9.8	8.1	8.8
21	---	---	---	---	---	---	---	---	---	11.2	8.3	9.5
22	---	---	---	---	---	---	---	---	---	11.0	8.7	9.6
23	---	---	---	---	---	---	---	---	---	11.2	8.9	9.7
24	---	---	---	---	---	---	---	---	---	11.6	9.4	10.5
25	---	---	---	---	---	---	---	---	---	11.8	9.9	10.6
26	---	---	---	---	---	---	---	---	---	12.0	9.9	10.6
27	---	---	---	---	---	---	---	---	---	12.0	10.1	10.8
28	---	---	---	---	---	---	---	---	---	11.4	10.2	10.7
29	---	---	---	---	---	---	---	---	---	11.9	9.8	10.8
30	---	---	---	---	---	---	---	---	---	12.2	10.0	11.1
31	---	---	---	---	---	---	---	---	---	11.8	8.9	10.6
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.8	8.1	10.3	---	---	---	10.1	9.2	9.6	10.3	9.1	9.6
2	9.6	6.9	8.4	---	---	---	10.0	9.1	9.6	10.4	8.9	9.6
3	10.0	8.7	9.3	---	---	---	10.1	9.0	9.6	10.4	9.0	9.7
4	11.4	9.5	9.9	10.5	9.5	10.0	10.0	9.1	9.5	10.5	9.2	9.7
5	10.5	9.3	9.9	10.6	9.5	10.1	9.6	8.1	9.1	10.6	9.0	9.7
6	9.4	7.4	8.8	10.6	9.8	10.2	8.8	6.2	7.5	10.7	9.0	9.7
7	8.7	5.8	7.3	10.5	9.4	10.1	9.3	8.2	8.8	10.7	9.2	9.8
8	9.6	7.6	9.3	10.4	8.9	9.9	9.9	9.2	9.6	10.2	9.2	9.6
9	10.0	9.2	9.6	11.3	9.7	10.4	10.3	9.4	9.9	10.5	9.2	9.7
10	9.8	9.2	9.5	11.9	10.1	11.0	10.4	9.6	10.0	10.5	9.2	9.8
11	10.0	9.0	9.5	11.9	10.1	11.2	10.6	9.8	10.1	10.6	9.3	9.8
12	10.0	8.7	9.5	11.3	9.0	10.5	10.5	9.3	10.0	10.7	9.8	10.2
13	9.9	8.5	9.3	11.7	8.4	9.9	10.5	9.4	10.0	11.0	9.7	10.3
14	10.1	8.7	9.4	11.3	8.7	10.1	10.0	9.3	9.7	10.8	9.5	10.1
15	10.2	8.5	9.4	10.4	6.8	9.4	10.4	9.6	9.9	10.4	9.5	9.9
16	9.7	7.1	9.2	10.7	9.2	9.6	10.5	9.5	10.0	10.5	9.6	9.9
17	8.7	4.5	5.8	9.9	8.9	9.6	10.5	9.4	9.9	10.4	9.6	9.9
18	8.3	5.1	7.2	9.1	6.4	7.6	10.6	9.4	10.0	10.7	9.5	10.1
19	8.9	8.2	8.6	9.4	8.5	9.1	10.2	9.0	9.5	10.9	9.5	10.2
20	9.3	8.4	9.0	9.9	9.1	9.5	10.4	9.1	9.7	10.3	9.6	9.9
21	10.5	9.3	10.0	10.0	9.0	9.6	10.3	9.2	9.7	10.4	9.5	9.8
22	---	---	---	9.8	9.2	9.5	9.9	9.3	9.5	10.4	9.5	10.0
23	---	---	---	9.9	9.1	9.5	10.4	9.2	9.8	10.7	9.8	10.2
24	---	---	---	9.9	8.9	9.4	10.6	9.0	9.9	10.7	9.8	10.3
25	---	---	---	10.0	9.3	9.7	10.4	9.1	9.8	11.1	10.0	10.5
26	---	---	---	10.2	9.2	9.7	10.4	8.9	9.7	10.3	9.7	10.0
27	---	---	---	10.2	9.3	9.7	10.2	9.3	9.7	10.8	9.0	10.1
28	---	---	---	10.1	9.3	9.7	10.3	9.3	9.7	10.8	10.0	10.3
29	---	---	---	10.1	9.1	9.6	10.4	9.1	9.8	10.8	10.0	10.4
30	---	---	---	10.2	9.2	9.6	10.4	9.1	9.7	10.7	9.4	10.2
31	---	---	---	9.9	9.5	9.7	10.5	9.1	9.7	---	---	---
MONTH	---	---	---	---	---	---	10.6	6.2	9.6	11.1	8.9	10.0

05406491 GARFOOT CREEK NEAR CROSS PLAINS, WI--CONTINUED

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	24	.17	.24	.28	.58	.23	.33	1.2	1.3	.38	.12
2	.25	9.7	.18	.25	.28	.45	.24	.25	6.8	1.4	.37	.12
3	.29	.85	.19	.25	.29	.33	.28	.23	.40	1.2	.35	.13
4	.31	.46	.20	.26	.29	.25	.33	.22	.31	1.1	.36	.13
5	.62	.42	.22	.26	.29	.19	.32	.22	.27	.97	.69	.13
6	18	.41	.23	.26	.29	.14	.31	.22	3.6	.94	13	.14
7	1.6	.39	.22	.27	.30	.12	.31	.22	10	.89	2.0	.14
8	.62	.35	.21	.28	.36	.09	.31	.23	1.3	.83	1.3	.15
9	.54	.34	.21	.30	1.3	.08	.32	.26	.85	.74	1.0	.15
10	.48	.33	.19	.30	141	.06	.32	96	.79	.69	.87	.15
11	.44	.34	.19	.29	43	.05	.33	1.6	.77	.65	.75	.15
12	.41	.32	.20	.28	.65	.20	.34	.77	.72	.66	.63	.15
13	.39	.30	.20	.28	.23	.22	.36	.65	.69	.62	.56	.15
14	.35	.29	.21	.27	.22	.20	.36	.58	.68	.55	.50	.15
15	.33	.27	.21	.26	.21	.06	.39	.57	.67	.50	.45	.16
16	.31	.26	.21	.26	.21	.09	.45	.52	.75	.45	.38	.16
17	.30	.26	.21	.39	.20	.13	.56	.47	53	.43	.35	.17
18	.28	.25	.22	108	.20	.13	.92	.39	6.5	16	.32	.18
19	.26	.25	.22	9.3	.20	.14	1.6	.35	2.7	.87	.29	.19
20	.26	.24	.23	2.3	.25	.15	2.1	.42	2.3	.62	.27	.20
21	.25	.24	.23	.85	.25	.16	1.4	.42	2.1	.57	.25	.21
22	.24	.22	.23	.35	.20	.17	1.0	.31	2.0	.54	.21	.22
23	.22	.21	.24	.29	.29	.18	.82	.30	2.1	.54	.19	.22
24	.23	.20	.23	.29	.33	.69	.68	.29	2.1	.51	.17	.23
25	.28	.20	.23	.28	.29	1.8	.57	.28	1.7	.51	.14	.25
26	1.1	.19	.24	.29	47	.58	.49	.28	1.6	.49	.13	.30
27	7.5	.20	.24	.30	13	.24	.40	.27	1.5	.48	.13	.33
28	1.6	.20	.23	.29	1.3	.22	.34	.36	1.5	.46	.13	.30
29	.72	.17	.23	.29	.80	.22	.38	.40	1.4	.45	.12	.28
30	.48	.17	.24	.29	---	.22	.91	.28	1.5	.42	.12	.25
31	.35	---	.24	.28	---	.23	---	.26	---	.40	.12	---
TOTAL	39.23	42.03	6.70	128.10	253.51	8.37	17.37	107.95	111.80	36.78	26.53	5.61

WTR YR 1996 TOTAL 784

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	83	.95	.88	1.9	3.6	1.6	2.4	6.2	3.7	1.5	1.0
2	3.6	42	.96	.89	1.8	3.1	1.6	1.2	41	3.6	1.4	1.1
3	2.8	4.7	1.0	.89	1.8	2.5	1.9	1.1	4.4	3.1	1.4	1.1
4	1.9	3.1	1.1	.89	1.8	2.1	2.2	1.1	2.9	2.8	1.5	1.1
5	2.4	2.8	1.1	.89	1.9	1.8	2.1	1.1	2.3	2.7	3.5	1.1
6	101	2.7	1.2	.89	1.8	1.5	2.1	1.1	15	2.7	68	1.1
7	12	2.6	1.1	.92	1.9	1.3	2.1	1.1	80	2.6	6.5	1.1
8	5.6	2.3	1.0	.92	2.2	1.1	2.1	1.2	6.6	2.6	1.9	1.2
9	4.8	2.2	1.0	.96	6.9	1.1	2.1	1.3	2.7	2.4	1.7	1.2
10	4.2	2.2	.93	.99	244	.94	2.1	545	2.4	2.3	1.6	1.1
11	3.8	2.2	.93	.96	51	.83	2.1	12	2.2	2.3	1.5	1.1
12	3.5	2.0	.93	.93	5.9	.94	2.2	3.5	1.9	2.5	1.4	1.1
13	3.3	1.9	.93	.91	3.5	1.0	2.3	3.0	1.7	2.4	1.4	1.0
14	2.9	1.8	.97	.89	3.4	.97	2.3	2.7	1.6	2.2	1.4	1.1
15	2.7	1.7	.94	.87	3.3	.90	2.5	2.7	1.5	2.1	1.4	1.1
16	2.5	1.6	.94	.86	3.2	1.3	2.7	2.5	1.6	2.0	1.3	1.1
17	2.3	1.6	.94	1.3	3.2	1.7	2.5	2.2	393	2.0	1.3	1.1
18	2.2	1.5	.95	364	3.0	1.6	2.6	1.9	39	82	1.4	1.2
19	2.0	1.5	.95	79	3.1	1.6	3.5	1.7	12	5.1	1.4	1.2
20	2.0	1.4	.95	5.6	4.7	1.6	3.9	2.5	12	3.1	1.5	1.2
21	1.8	1.4	.96	3.4	4.2	1.6	2.1	2.5	11	2.7	1.5	1.2
22	1.7	1.3	.96	2.3	3.1	1.6	1.8	1.5	10	2.5	1.4	1.3
23	1.6	1.2	.96	2.0	6.8	1.6	1.6	1.5	9.9	2.5	1.4	1.3
24	1.6	1.2	.94	2.0	10	2.6	1.5	1.4	9.2	2.3	1.4	1.3
25	1.4	1.1	.92	1.9	6.4	7.7	1.4	1.4	6.9	2.2	1.3	1.3
26	1.4	1.1	.92	2.0	185	2.2	1.3	1.4	6.1	2.1	1.3	1.6
27	20	1.1	.92	2.1	116	1.7	1.2	1.4	5.4	1.9	1.3	1.7
28	9.6	1.1	.88	1.9	8.5	1.6	1.2	2.1	5.1	1.8	1.2	1.7
29	5.5	.96	.88	2.0	4.4	1.6	2.2	2.4	4.4	1.7	1.1	1.7
30	4.0	.94	.88	1.9	---	1.5	5.5	1.4	4.5	1.6	1.1	1.7
31	3.2	---	.88	1.9	---	1.6	---	1.4	---	1.5	1.1	---
TOTAL	222.3	176.20	29.87	487.84	694.7	56.78	66.3	609.7	702.5	157.0	117.1	37.1

WTR YR 1996 TOTAL 3357.39

05406497 BLACK EARTH CREEK AT SOUTH VALLEY ROAD NEAR BLACK EARTH, WI

LOCATION.--Lat 43°07'30", long 89°42'35", in NE 1/4 SW 1/4 sec.31, T.8 N., R.7 E., Dane County, Hydrologic Unit 07070005, on right bank, at bridge on South Valley Road, 2.1 mi southeast of Black Earth.

DRAINAGE AREA.--40.6 mi^2, of which 2.8 mi^2 probably is noncontributing.

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 1989 to current year.

DISSOLVED OXYGEN: April 1990 to current year.

INSTRUMENTATION.--Continuous water temperature recorder since November 1989 and continuous dissolved oxygen recorder since April 1990.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum observed, 24.0°C, June 27, 1991; minimum observed, 0.0°C, many days during the 1990, 1991, 1992, 1993, 1994, 1995, and 1996 water years.

DISSOLVED OXYGEN: Maximum observed, 18.3 mg/L, Apr. 28, 1991 and May 8, 1992; minimum observed, 3.9 mg/L, July 2, 1991.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum observed, 21.5°C, July 18; minimum observed, 0.0°C, Dec. 9–11, Jan. 5–6, 19, Jan. 29 to Feb. 4, and Mar. 3, 8.

DISSOLVED OXYGEN: Maximum observed, 17.1 mg/L, May 4; minimum observed, 6.5 mg/L, June 30.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.0	13.0	14.0	9.5	7.5	8.0	6.0	5.0	5.5	6.0	5.0	5.5
2	13.0	10.5	12.0	9.0	6.5	8.0	7.0	4.0	5.5	5.0	2.0	3.5
3	13.0	11.5	12.5	6.5	5.0	5.5	7.0	5.5	6.0	2.5	.5	2.0
4	13.0	9.5	11.5	6.5	4.5	5.5	6.0	4.5	5.5	3.5	1.5	2.5
5	---	---	---	6.5	5.0	6.0	5.5	3.0	5.0	1.5	.0	1.0
6	---	---	---	9.0	6.0	7.5	3.5	1.5	2.5	2.0	.0	1.0
7	---	---	---	9.0	5.5	7.0	3.0	1.5	2.5	2.0	.5	1.5
8	---	---	---	5.5	4.0	5.0	3.5	1.0	2.5	3.5	.5	2.0
9	---	---	---	6.0	4.0	5.0	1.0	.0	.0	4.0	3.0	3.5
10	---	---	---	7.5	5.0	7.0	.0	.0	.0	3.5	1.0	2.5
11	---	---	---	5.0	3.5	4.0	.5	.0	.5	4.5	2.5	3.5
12	---	---	---	5.5	3.5	4.5	2.5	.5	1.5	5.5	4.0	5.0
13	---	---	---	6.0	4.5	5.5	4.0	2.0	3.0	6.5	3.5	5.0
14	---	---	---	6.0	4.0	5.0	5.5	4.0	5.0	5.5	4.0	5.0
15	---	---	---	6.0	3.0	4.5	5.0	3.5	4.0	5.0	3.0	4.0
16	---	---	---	7.0	5.5	6.0	4.0	2.0	3.0	5.5	3.0	4.0
17	---	---	---	6.5	5.5	6.0	5.0	2.5	4.0	6.5	4.5	5.5
18	---	---	---	7.0	6.0	6.5	5.5	4.5	5.0	6.5	.5	3.5
19	---	---	---	7.5	5.5	6.5	5.0	3.0	4.5	1.0	.0	.5
20	---	---	---	7.0	5.5	6.5	3.5	2.5	3.0	3.0	1.0	2.0
21	---	---	---	6.0	4.5	5.0	4.5	3.0	3.5	4.5	2.5	3.5
22	9.5	7.0	8.5	5.0	3.5	4.0	4.5	3.5	4.0	5.5	3.5	4.5
23	11.5	8.0	9.5	4.5	3.5	4.0	5.0	4.0	4.5	5.0	2.5	3.5
24	10.5	7.5	9.0	4.5	2.5	4.0	4.5	3.5	4.0	3.0	1.5	2.5
25	9.5	6.5	8.0	6.5	4.5	5.5	4.0	2.5	3.5	2.5	.5	1.5
26	10.5	8.0	9.5	6.5	5.5	6.0	4.0	2.5	3.0	2.5	.5	2.0
27	10.5	9.5	10.0	6.5	1.5	4.0	3.5	1.5	2.5	2.5	1.0	1.5
28	10.0	9.0	9.5	4.0	2.0	3.0	3.0	.5	2.0	3.0	.5	1.5
29	9.0	7.5	8.5	4.0	1.0	2.5	3.5	1.5	2.5	3.0	.0	1.5
30	9.0	7.5	8.5	6.0	3.0	4.5	5.5	3.5	4.5	.5	.0	.5
31	8.5	7.5	8.0	---	---	---	6.0	5.0	5.5	.5	.0	.0
MONTH	---	---	---	9.5	1.0	5.4	7.0	.0	3.5	6.5	.0	2.8

05406497 BLACK EARTH CREEK AT SOUTH VALLEY ROAD NEAR BLACK EARTH, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.0	.5	6.0	2.0	4.0	10.5	4.5	7.5	12.5	5.5	9.0
2	.5	.0	.0	4.5	.5	3.0	11.0	6.5	9.0	12.0	6.5	9.5
3	.5	.0	.5	4.0	.0	2.0	9.0	6.0	7.0	11.0	8.5	10.0
4	.5	.0	.0	5.0	2.0	3.5	7.0	5.0	6.0	14.0	8.5	11.0
5	2.0	.5	1.0	5.5	4.5	5.0	10.5	4.0	7.0	10.5	8.0	9.0
6	4.0	.5	2.0	4.5	2.0	3.0	8.5	5.0	7.0	9.5	7.5	8.5
7	6.5	3.5	5.0	4.0	.5	2.5	10.0	4.5	7.5	12.0	8.0	10.0
8	7.5	5.5	6.5	4.0	.0	2.0	9.0	4.0	7.0	10.5	9.0	9.5
9	7.0	4.0	5.5	6.5	1.0	4.0	11.0	4.5	7.5	12.0	9.0	10.5
10	4.5	.5	3.0	7.0	2.5	5.0	12.5	5.0	9.0	11.5	9.5	10.5
11	4.0	1.0	3.0	9.0	5.0	7.0	14.0	7.5	11.0	12.5	8.0	10.0
12	4.5	3.0	3.5	10.0	5.5	7.5	12.0	8.5	9.5	13.0	8.0	10.5
13	5.5	3.5	4.5	10.5	5.5	8.0	9.0	6.5	8.0	14.0	7.5	10.5
14	6.0	4.5	5.0	9.5	6.0	7.5	8.0	5.5	6.5	11.0	8.5	9.0
15	5.5	3.0	4.0	10.0	5.0	7.5	8.0	4.5	6.0	10.5	8.5	9.5
16	5.0	2.0	3.5	9.0	5.0	7.5	9.5	6.0	7.5	11.5	9.5	10.5
17	5.5	3.5	4.0	7.5	5.0	6.0	13.0	5.0	9.0	17.0	10.5	13.5
18	5.0	1.5	3.5	8.0	4.0	6.0	13.0	8.5	11.0	19.5	14.0	16.5
19	7.5	3.5	5.5	7.5	5.0	6.5	13.0	8.0	10.5	18.5	14.0	16.5
20	8.0	5.5	6.5	8.0	4.0	6.0	10.5	9.0	9.5	16.5	12.0	13.0
21	6.5	4.5	5.0	8.0	3.0	5.5	14.0	7.0	10.5	16.5	10.0	13.5
22	6.5	5.0	6.0	9.0	4.0	6.5	13.5	8.5	11.0	16.0	10.5	13.5
23	6.5	5.0	6.0	9.5	4.0	7.0	13.5	7.0	10.0	14.0	11.5	12.0
24	8.5	4.0	6.0	8.5	6.0	7.5	14.5	7.5	11.5	12.0	9.5	11.0
25	8.5	4.5	6.5	8.5	2.5	6.0	12.5	10.0	11.0	11.5	9.5	10.5
26	7.0	1.0	5.0	5.5	.5	3.0	11.5	7.0	9.5	11.5	9.5	10.5
27	4.0	1.0	2.5	8.5	1.5	5.0	13.5	6.0	9.5	11.0	9.5	10.0
28	3.5	1.0	2.5	8.5	4.0	6.5	12.0	8.0	10.0	11.0	9.5	10.0
29	5.0	1.0	3.0	11.0	5.0	8.0	10.0	5.0	7.0	16.0	9.0	12.5
30	---	---	---	10.0	6.0	8.5	8.5	5.0	6.5	16.0	9.0	13.0
31	---	---	---	10.0	6.5	8.0	---	---	---	16.5	10.0	13.5
MONTH	8.5	.0	3.8	11.0	.0	5.6	14.5	4.0	8.6	19.5	5.5	11.2

		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.5	11.5	13.0	18.0	13.5	16.0	16.5	12.0	14.0	16.0	13.0	14.5
2	18.0	12.5	15.0	18.5	14.0	16.0	17.0	12.5	15.0	16.5	13.0	14.5
3	15.0	12.0	13.0	17.5	13.0	15.5	17.0	13.0	15.0	16.0	13.0	14.5
4	---	---	---	17.0	12.5	15.0	17.0	13.5	15.5	16.0	13.0	14.5
5	---	---	---	18.0	12.5	15.5	19.0	15.0	17.0	16.5	13.0	15.0
6	---	---	---	16.5	13.0	15.0	21.0	16.5	19.0	16.0	13.5	15.0
7	---	---	---	18.5	13.5	16.0	20.0	17.5	18.5	16.0	13.0	14.5
8	---	---	---	17.0	13.0	15.0	18.0	15.0	16.5	14.5	13.0	13.5
9	---	---	---	15.5	12.5	14.0	17.5	13.5	15.5	15.5	13.0	14.0
10	---	---	---	17.0	11.5	14.0	16.5	13.0	15.0	15.5	12.5	14.0
11	---	---	---	16.5	12.5	14.5	16.0	13.5	14.5	15.5	13.0	14.0
12	---	---	---	17.0	13.5	15.0	17.5	13.0	15.5	13.5	11.5	12.0
13	---	---	---	17.0	13.5	15.0	16.5	14.0	15.0	13.5	10.0	11.5
14	---	---	---	16.0	13.0	14.5	17.5	14.5	16.0	12.0	10.0	11.2
15	---	---	---	18.0	13.0	15.5	16.0	14.0	15.0	13.0	11.0	12.5
16	---	---	---	18.0	13.5	16.0	16.0	13.0	14.5	12.5	11.5	12.0
17	---	---	---	16.5	14.0	15.5	17.0	13.0	15.0	13.0	11.5	12.0
18	---	---	---	21.5	16.0	19.5	16.0	13.5	15.0	13.5	10.0	11.5
19	---	---	---	19.5	15.5	17.0	16.0	14.5	15.5	13.0	10.0	12.0
20	---	---	---	17.0	13.5	15.5	17.0	14.5	15.5	12.5	11.5	12.0
21	---	---	---	17.0	13.0	15.0	17.5	14.0	16.0	13.5	11.5	12.5
22	17.0	14.0	15.5	15.5	13.5	14.5	16.0	15.0	15.5	14.5	11.5	13.0
23	15.5	12.5	14.0	17.0	12.5	15.0	17.0	13.5	15.0	12.5	11.0	11.5
24	15.0	13.5	14.0	17.0	13.5	15.0	16.5	13.0	15.0	13.5	11.0	12.0
25	17.5	12.0	14.5	15.5	13.0	14.0	17.0	13.0	15.0	12.0	10.0	11.5
26	17.5	12.5	15.0	16.0	12.5	14.0	16.5	13.5	15.0	11.5	11.0	11.5
27	18.5	12.5	15.5	15.5	12.5	14.5	15.5	13.5	14.5	---	---	---
28	19.0	13.0	16.0	14.5	13.0	14.0	16.5	13.0	14.5	---	---	---
29	20.5	14.5	17.5	16.5	12.5	14.5	16.0	12.5	14.0	---	---	---
30	19.5	15.5	17.5	16.0	13.0	14.5	16.0	12.5	14.0	---	---	---
31	---	---	---	14.5	12.0	13.0	15.5	12.5	14.0	---	---	---
MONTH	---	---	---	21.5	11.5	15.1	21.0	12.0	15.3	---	---	---

05406497 BLACK EARTH CREEK AT SOUTH VALLEY ROAD NEAR BLACK EARTH, WI--CONTINUED

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	17.1	9.1	12.4
										14.3	9.0	11.2
6	---	---	---	---	---	---	---	---	---	16.3	9.8	12.3
7	---	---	---	---	---	---	---	---	---	16.5	9.2	12.3
8	---	---	---	---	---	---	---	---	---	13.0	9.0	10.6
9	---	---	---	---	---	---	---	---	---	14.5	8.9	11.0
10	---	---	---	---	---	---	---	---	---	9.5	7.9	8.7
11	---	---	---	---	---	---	---	---	---	11.5	9.1	10.2
12	---	---	---	---	---	---	---	---	---	12.6	9.2	10.7
13	---	---	---	---	---	---	---	---	---	12.9	9.0	11.0
14	---	---	---	---	---	---	---	---	---	12.4	9.0	10.7
15	---	---	---	---	---	---	---	---	---	13.1	9.2	10.8
16	---	---	---	---	---	---	---	---	---	12.5	8.8	10.4
17	---	---	---	---	---	---	---	---	---	13.5	7.4	10.3
18	---	---	---	---	---	---	---	---	---	12.4	7.1	9.3
19	---	---	---	---	---	---	---	---	---	11.2	7.1	8.8
20	---	---	---	---	---	---	---	---	---	10.0	7.2	8.5
21	---	---	---	---	---	---	---	---	---	12.2	7.7	9.6
22	---	---	---	---	---	---	---	---	---	11.7	7.8	9.4
23	---	---	---	---	---	---	---	---	---	11.6	7.8	9.5
24	---	---	---	---	---	---	---	---	---	12.2	8.5	10.1
25	---	---	---	---	---	---	---	---	---	11.8	8.4	9.7
26	---	---	---	---	---	---	---	---	---	11.3	7.9	9.1
27	---	---	---	---	---	---	---	---	---	10.4	7.4	8.5
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	11.6	7.8	9.4	11.7	7.9	9.5	12.8	7.7	9.7
2	---	---	---	11.0	7.9	9.0	12.0	7.9	9.7	13.1	7.6	9.7
3	---	---	---	12.1	8.0	9.7	12.2	8.3	9.8	12.9	7.6	9.6
4	---	---	---	12.2	8.1	9.9	12.0	8.3	9.8	12.7	7.5	9.5
5	---	---	---	12.6	8.4	10.1	12.0	7.7	9.4	12.7	7.4	9.4
6	---	---	---	12.5	8.4	10.1	8.0	6.9	7.3	12.5	7.3	9.3
7	---	---	---	13.1	8.5	10.4	11.2	7.3	9.0	12.6	7.4	9.2
8	---	---	---	13.0	8.6	10.4	11.8	8.3	9.8	9.9	7.3	8.5
9	---	---	---	13.2	9.1	11.0	11.7	8.7	9.9	11.8	7.1	8.9
10	---	---	---	14.0	9.5	11.5	11.9	8.8	10.1	11.7	7.3	9.1
11	---	---	---	14.4	9.5	11.6	12.1	8.8	10.2	11.5	7.2	8.9
12	---	---	---	13.9	9.6	11.0	12.5	8.9	10.3	10.9	7.6	8.9
13	---	---	---	14.0	9.5	11.4	11.3	8.3	9.8	11.6	6.9	9.2
14	---	---	---	14.8	9.8	11.8	11.3	8.1	9.3	10.9	7.6	8.9
15	---	---	---	15.2	9.9	12.2	11.5	8.0	9.4	10.9	7.6	8.8
16	---	---	---	15.1	9.8	12.1	12.2	8.5	10.0	10.4	7.6	8.7
17	---	---	---	14.2	9.7	11.3	12.2	8.4	9.9	10.7	7.8	8.9
18	---	---	---	10.1	7.0	8.0	12.3	8.4	9.7	11.5	8.0	9.3
19	---	---	---	11.1	8.2	9.7	11.1	8.1	9.2	11.5	8.0	9.3
20	---	---	---	13.2	9.7	11.1	12.1	8.0	9.6	10.9	8.0	8.9
21	---	---	---	13.1	9.5	11.0	12.2	8.3	9.7	11.2	7.9	9.1
22	---	---	---	11.9	9.5	10.4	11.1	8.2	9.3	11.5	8.0	9.3
23	---	---	---	12.8	9.2	10.8	12.7	8.6	10.2	10.9	8.1	9.2
24	---	---	---	12.3	9.0	10.4	13.0	8.7	10.3	11.9	8.5	9.6
25	---	---	---	12.3	9.0	10.3	13.0	8.5	10.3	12.2	8.5	9.9
26	---	---	---	12.4	9.0	10.4	12.3	7.9	9.8	9.4	8.3	8.8
27	11.3	7.9	9.4	12.4	8.8	10.1	12.0	7.8	9.5	---	---	---
28	11.6	7.8	9.3	11.3	8.6	9.6	12.5	8.0	9.6	---	---	---
29	11.5	7.3	9.2	12.0	8.3	9.6	12.8	7.9	9.8	---	---	---
30	11.4	6.5	8.8	11.6	8.0	9.4	12.7	7.9	9.7	---	---	---
31	---	---	---	10.8	8.0	9.2	13.1	7.7	9.8	---	---	---
MONTH	---	---	---	15.2	7.0	10.4	13.1	6.9	9.7	---	---	---

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 mi^2, of which 2.8 mi^2 probably is noncontributing.

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 sea level.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 27–30, Dec. 9–13, Jan. 5, 6, 25, Jan. 29 to Feb. 6, Mar. 3–9, and 26. Records fair (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	73	38	31	32	38	35	46	40	52	41	35
2	30	104	38	30	31	37	34	41	71	54	41	35
3	31	69	38	31	30	33	36	39	51	51	40	35
4	31	57	39	31	30	32	39	38	46	49	40	34
5	32	51	39	30	31	31	37	37	44	47	41	34
6	84	49	38	30	32	30	36	36	63	47	82	34
7	57	45	37	30	32	29	37	35	99	47	54	35
8	47	42	35	30	34	28	40	36	75	47	46	36
9	42	40	34	30	47	28	38	37	64	45	44	37
10	38	40	33	30	139	29	38	175	60	44	42	36
11	36	41	32	30	85	30	38	82	55	43	42	35
12	35	39	32	30	49	33	38	63	52	45	42	35
13	36	38	32	30	42	35	38	56	48	46	40	36
14	33	38	32	30	39	35	37	52	47	44	40	35
15	33	37	33	30	36	33	37	52	46	44	40	35
16	31	37	32	30	34	31	40	51	45	41	40	34
17	32	37	32	31	33	31	38	50	352	41	39	35
18	32	37	32	143	32	31	39	48	260	163	39	35
19	33	37	32	78	32	31	50	45	116	74	40	35
20	36	38	32	54	37	30	53	48	90	59	42	35
21	35	38	32	47	39	30	44	49	81	54	40	36
22	35	37	31	44	34	30	41	45	76	50	39	36
23	35	36	31	42	42	30	38	43	76	48	39	36
24	36	35	32	39	49	32	37	42	75	46	39	37
25	34	35	32	36	46	45	36	41	66	44	38	36
26	34	35	31	38	70	36	36	42	61	44	38	39
27	50	35	31	37	161	35	35	41	58	43	38	44
28	56	35	30	36	54	35	34	43	55	43	38	42
29	49	35	30	34	41	34	42	43	54	43	36	40
30	45	36	31	34	---	34	53	41	57	42	35	39
31	42	---	31	33	---	35	---	39	---	41	35	---
TOTAL	1210	1306	1032	1209	1393	1011	1174	1536	2383	1581	1290	1086
MEAN	39.0	43.5	33.3	39.0	48.0	32.6	39.1	49.5	79.4	51.0	41.6	36.2
MAX	84	104	39	143	161	45	53	175	352	163	82	44
MIN	30	35	30	30	30	28	34	35	40	41	35	34
CFSM	.91	1.02	.78	.91	1.12	.76	.91	1.16	1.86	1.19	.97	.85
IN.	1.05	1.14	.90	1.05	1.21	.88	1.02	1.34	2.07	1.37	1.12	.94
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1996, BY WATER YEAR (WY)												
MEAN	30.7	32.2	29.6	28.6	32.4	48.2	41.5	37.0	36.1	35.3	30.6	31.9
MAX	50.8	70.2	48.0	51.6	64.9	85.3	86.5	91.2	79.4	140	73.2	66.0
(WY)	1994	1986	1988	1974	1994	1961	1993	1973	1996	1993	1993	1980
MIN	15.9	16.1	14.8	15.1	16.0	16.9	22.5	18.7	14.4	14.0	15.5	15.3
(WY)	1967	1967	1965	1959	1959	1968	1957	1965	1965	1965	1958	1958

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1954 - 1996	
ANNUAL TOTAL	14225		16211			
ANNUAL MEAN	39.0		44.3		34.6	
HIGHEST ANNUAL MEAN					61.0	1993
LOWEST ANNUAL MEAN					19.8	1964
HIGHEST DAILY MEAN	144	May 28	352	Jun 17	733	Jul 6 1993
LOWEST DAILY MEAN	28	(a)Mar 4	(b)28	Mar 8,9	12	(c)Feb 16-18 1958
ANNUAL SEVEN-DAY MINIMUM	29	Mar 3	(b)29	Mar 5	13	Jul 24 1965
INSTANTANEOUS PEAK FLOW			503	Jun 17	1750	Jul 3 1954
INSTANTANEOUS PEAK STAGE			4.51	Jun 17	6.58	Jul 3 1954
INSTANTANEOUS LOW FLOW			(e)25	(d)Jan 5	(e)4.8	Nov 29 1958
ANNUAL RUNOFF (CFSM)	.91		1.03		.81	
ANNUAL RUNOFF (INCHES)	12.36		14.09		10.97	
10 PERCENT EXCEEDS	51		57		50	
50 PERCENT EXCEEDS	36		38		29	
90 PERCENT EXCEEDS	30		31		19	

(a) Also occurred Mar. 8,9, and Sept. 28
(b) Ice affected
(c) Also occurred July 26,29, 1965
(d) Also occurred Jan. 6 and Mar. 8
(e) Result of freezeup

054065199 HALFWAY PRAIRIE CREEK AT FARM NEAR MAZOMANIE, WI

LOCATION.--Lat 43°10'57", long 89°45'26", in NW 1/4 SW 1/4 sec.10, T.8 N., R.6 E., Dane County, Hydrologic Unit 07070005, on right bank 400 ft upstream from bridge on State Highways 19 and 78, 1.8 mi east of Mazomanie.

DRAINAGE AREA.--16.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1995 to September 1996 (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 810 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 1–6, 1995 and June 20–24, 1996. Records are good except those for estimated daily discharges, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	5.6	5.9	7.0	4.7	5.3	4.4
2	---	---	---	---	---	---	5.4	5.7	6.8	4.6	4.8	4.4
3	---	---	---	---	---	---	5.2	5.5	6.6	4.7	4.7	4.5
4	---	---	---	---	---	---	5.0	5.3	6.4	4.9	4.6	4.5
5	---	---	---	---	---	---	4.8	5.3	6.1	6.2	4.6	4.4
6	---	---	---	---	---	---	4.9	5.3	6.3	5.5	4.5	4.5
7	---	---	---	---	---	---	5.3	5.4	6.4	4.9	6.1	4.6
8	---	---	---	---	---	---	6.0	5.8	6.9	4.9	4.7	4.4
9	---	---	---	---	---	---	6.3	6.4	6.1	4.8	4.9	4.4
10	---	---	---	---	---	---	6.0	7.8	5.8	4.7	4.6	4.4
11	---	---	---	---	---	---	7.3	7.1	5.6	4.7	4.5	4.4
12	---	---	---	---	---	---	8.4	6.3	5.4	4.7	4.4	4.5
13	---	---	---	---	---	---	7.0	6.3	5.5	4.6	4.3	4.4
14	---	---	---	---	---	---	6.3	6.4	5.6	4.5	4.5	4.4
15	---	---	---	---	---	---	6.0	6.0	5.4	4.5	4.2	4.2
16	---	---	---	---	---	---	5.8	5.9	5.3	4.9	4.5	4.3
17	---	---	---	---	---	---	6.1	5.9	5.3	4.2	5.7	4.3
18	---	---	---	---	---	---	8.0	5.8	5.3	4.2	4.6	4.2
19	---	---	---	---	---	---	7.8	5.7	5.3	4.3	10	4.5
20	---	---	---	---	---	---	6.8	5.8	5.3	4.6	6.6	4.4
21	---	---	---	---	---	---	7.5	5.6	5.2	4.9	5.3	4.2
22	---	---	---	---	---	---	6.8	5.5	5.0	5.7	5.1	4.2
23	---	---	---	---	---	---	6.3	5.7	5.0	6.8	4.9	4.1
24	---	---	---	---	---	---	6.0	5.4	5.0	5.4	4.8	4.1
25	---	---	---	---	---	---	5.9	5.2	4.9	5.1	4.8	4.0
26	---	---	---	---	---	---	6.0	5.0	5.1	5.3	4.6	4.1
27	---	---	---	---	---	---	7.8	6.5	5.0	5.1	4.6	4.0
28	---	---	---	---	---	---	7.2	19	4.9	4.9	4.6	4.0
29	---	---	---	---	---	---	6.4	10	5.0	4.9	4.7	4.0
30	---	---	---	---	---	---	6.1	8.1	4.9	4.8	4.6	3.9
31	---	---	---	---	---	---	---	7.4	---	5.2	4.5	---
TOTAL	---	---	---	---	---	---	190.0	203.0	168.4	153.2	154.6	128.7
MEAN	---	---	---	---	---	---	6.33	6.55	5.61	4.94	4.99	4.29
MAX	---	---	---	---	---	---	8.4	19	7.0	6.8	10	4.6
MIN	---	---	---	---	---	---	4.8	5.0	4.9	4.2	4.2	3.9
CFSM	---	---	---	---	---	---	.39	.41	.35	.31	.31	.27
IN.	---	---	---	---	---	---	.44	.47	.39	.35	.36	.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1995, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	6.33	6.55	5.61	4.94	4.99	4.29
MAX	---	---	---	---	---	---	6.33	6.55	5.61	4.94	4.99	4.29
(WY)	---	---	---	---	---	---	1995	1995	1995	1995	1995	1995
MIN	---	---	---	---	---	---	6.33	6.55	5.61	4.94	4.99	4.29
(WY)	---	---	---	---	---	---	1995	1995	1995	1995	1995	1995

SUMMARY STATISTICS	FOR 1995 WATER YEAR (APRIL-SEPTEMBER)	
HIGHEST DAILY MEAN	19	May 28
LOWEST DAILY MEAN	3.9	Sep 30
ANNUAL SEVEN-DAY MINIMUM	4.0	Sep 24
INSTANTANEOUS PEAK FLOW	27	May 28
INSTANTANEOUS PEAK STAGE	4.33	May 28

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	6.5	---	---	---	---	4.4	5.7	4.8	6.8	4.9	4.7
2	3.9	8.8	---	---	---	---	4.3	5.4	7.8	7.1	5.0	4.5
3	4.0	6.4	---	---	---	---	4.4	5.5	6.0	6.6	4.8	4.6
4	3.9	6.1	---	---	---	---	4.7	5.1	5.5	6.5	4.8	4.6
5	4.0	5.7	---	---	---	---	4.4	5.0	5.3	6.4	5.0	4.7
6	6.1	5.5	---	---	---	---	4.2	5.0	6.1	6.4	5.1	4.7
7	4.5	5.5	---	---	---	---	4.4	4.9	9.6	6.2	4.8	4.5
8	4.2	5.5	---	---	---	---	4.4	5.0	7.5	6.3	4.7	4.5
9	4.0	5.5	---	---	---	---	4.4	5.0	6.5	6.2	4.7	4.6
10	4.0	5.5	---	---	---	---	4.4	8.1	6.3	6.0	4.7	4.5
11	4.0	5.5	---	---	---	---	4.4	7.3	6.0	6.0	4.8	4.6
12	4.0	5.5	---	---	---	---	4.6	6.1	5.7	6.3	4.8	4.4
13	4.0	5.4	---	---	---	---	4.5	5.7	5.5	6.1	4.8	4.5
14	3.9	5.5	---	---	---	---	4.5	5.4	5.4	6.2	4.9	4.4
15	3.9	6.3	---	---	---	---	4.7	5.5	5.3	5.7	4.9	4.3
16	4.0	5.8	---	---	---	---	4.7	5.8	5.6	5.6	4.9	4.3
17	4.1	5.9	---	---	---	---	4.6	5.6	35	5.8	4.8	4.3
18	4.2	5.8	---	---	---	---	4.7	5.3	43	11	4.9	4.4
19	4.3	5.8	---	---	---	---	6.0	5.2	17	8.9	5.5	3.8
20	4.1	5.6	---	---	---	---	6.8	5.2	15	7.4	5.4	4.5
21	4.0	5.5	---	---	---	---	6.3	5.4	13	7.1	4.9	4.4
22	4.2	5.4	---	---	---	---	5.9	5.2	12	6.9	4.7	4.2
23	4.4	5.3	---	---	---	---	5.7	5.3	11	6.3	4.6	4.1
24	4.5	6.2	---	---	---	---	5.4	5.2	10	6.1	4.7	4.7
25	4.5	5.3	---	---	---	---	5.1	5.1	9.2	5.9	4.8	4.4
26	4.5	5.3	---	---	---	---	4.9	5.1	8.7	5.5	4.7	4.9
27	5.2	10	---	---	---	---	4.7	4.8	8.3	5.4	4.6	5.0
28	5.6	14	---	---	---	---	4.7	5.1	7.8	5.3	4.6	5.0
29	5.3	7.9	---	---	---	---	5.5	4.9	7.3	5.2	4.6	5.1
30	5.1	7.0	---	---	---	---	6.2	4.5	7.2	4.9	4.7	4.7
31	5.0	---	---	---	---	---	---	4.3	---	5.0	4.7	---
TOTAL	135.3	190.0	---	---	---	---	147.9	166.7	303.4	197.1	149.8	135.9
MEAN	4.36	6.33	---	---	---	---	4.93	5.38	10.1	6.36	4.83	4.53
MAX	6.1	14	---	---	---	---	6.8	8.1	43	11	5.5	5.1
MIN	3.9	5.3	---	---	---	---	4.2	4.3	4.8	4.9	4.6	3.8
CFSM	.27	.39	---	---	---	---	.31	.33	.63	.39	.30	.28
IN.	.31	.44	---	---	---	---	.34	.39	.70	.46	.35	.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1996, BY WATER YEAR (WY)

MEAN	4.36	6.33	---	---	---	---	5.63	5.96	7.86	5.65	4.91	4.41
MAX	4.36	6.33	---	---	---	---	6.33	6.55	10.1	6.36	4.99	4.53
(WY)	1996	1996	---	---	---	---	1995	1995	1996	1996	1995	1996
MIN	4.36	6.33	---	---	---	---	4.93	5.38	5.61	4.94	4.83	4.29
(WY)	1996	1996	---	---	---	---	1996	1996	1995	1995	1996	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR (APRIL-NOVEMBER)		FOR 1996 WATER YEAR (OCTOBER-NOVEMBER AND APRIL-SEPTEMBER)		WATER YEARS 1995 - 1996	
HIGHEST DAILY MEAN	19	May 28	43	Jun 18	43	Jun 18 1996
LOWEST DAILY MEAN	3.9	(a)Sep 30	3.8	Sep 19	3.8	Sep 19 1996
ANNUAL SEVEN-DAY MINIMUM	3.9	Sep 28	4.0	Oct 9	3.9	Sep 28 1995
INSTANTANEOUS PEAK FLOW	27	May 28	62	Jun 17	62	Jun 17 1996
INSTANTANEOUS PEAK STAGE	4.33	May 28	5.52	Jun 17	5.52	Jun 17 1996
10 PERCENT EXCEEDS					7.0	
50 PERCENT EXCEEDS					5.1	
90 PERCENT EXCEEDS					4.3	

(a) Also occurred Oct. 1,2,4,14,15

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April to July 1995 and April to August 1996.

PERIOD OF DAILY RECORD.--

SUSPENDED-SOLIDS DISCHARGE: April to July 1995 and April to August 1996.

TOTAL-PHOSPHORUS DISCHARGE: April to July, 1995 and April to August 1996.

INSTRUMENTATION.--Stage-activated water-quality sampler and rain gage since April 1995.

REMARKS.--Chemical analyses by Wisconsin State Laboratory of Hygiene. Samples are point samples unless otherwise indicated.

EXTREMES FOR CURRENT PERIOD.--

SUSPENDED-SOLIDS DISCHARGE:

APRIL TO JULY 1995: Maximum daily, 21.6 tons, May 28; minimum daily, 0.31 tons, May 7.

APRIL TO AUGUST 1996: Maximum daily, 67.8 tons, June 17; minimum daily, 0.14 tons, May 7, 8.

TOTAL-PHOSPHORUS DISCHARGE:

APRIL TO JULY 1995: Maximum daily, 102 tons, May 28; minimum daily, 1.14 tons, May 6.

APRIL TO AUGUST 1996: Maximum daily, 340 lbs, June 17; minimum daily, 1.25 lbs, Aug. 23.

WATER-QUALITY DATA, APRIL THROUGH JULY 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
APR 1995							
*06...	1723	E5.0	1.3	100	46	<0.027	0.070
07...	1645	5.3	2.2	220	31	<0.027	0.100
07...	1805	5.5	2.4	100	48	<0.027	0.100
07...	1950	6.0	2.9	140	70	0.041	0.180
07...	2135	6.1	2.0	300	89	0.035	0.160
07...	2355	6.3	3.5	1100	98	0.104	0.250
08...	0400	6.3	2.0	600	92	0.053	0.200
08...	2150	5.8	1.3	200	63	<0.027	0.200
08...	2220	6.0	1.3	250	66	<0.027	0.120
08...	2250	5.8	1.2	210	67	<0.027	0.130
08...	2320	5.8	1.0	250	75	<0.027	0.140
08...	2350	5.8	<1.0	400	74	<0.027	0.140
09...	0020	6.0	1.1	150	69	<0.027	0.140
10...	2125	6.0	2.4	40	69	<0.027	0.120
10...	2225	6.0	2.5	240	67	<0.027	0.120
10...	2325	6.1	2.3	360	62	<0.027	0.120
11...	0025	6.1	2.9	590	73	<0.027	0.140
11...	0225	6.8	2.8	500	81	0.051	0.160
11...	1025	7.5	3.6	4900	59	0.102	0.200
11...	2005	7.4	3.0	600	69	<0.027	0.170
11...	2105	7.5	3.3	600	76	0.034	0.180
11...	2235	7.7	3.1	1200	96	0.041	0.210
12...	0040	8.7	4.3	1900	128	0.072	0.340
12...	0335	9.5	4.4	2500	144	0.090	0.300
12...	0935	8.6	3.9	2700	56	0.113	0.320
12...	1235	7.9	3.3	610	41	0.040	0.230
12...	1835	7.9	3.4	330	38	<0.027	0.170
18...	0600	5.8	--	--	73	<0.027	0.100
18...	0730	6.3	--	--	57	<0.027	0.100
18...	0900	6.5	--	--	42	<0.027	0.070
18...	1425	8.9	--	--	45	<0.027	0.110
18...	1750	9.9	--	--	144	0.029	0.280
18...	2150	9.9	--	--	172	0.094	0.460
19...	0350	8.4	--	--	105	0.055	0.250
*20...	1013	6.8	2.2	510	22	<0.027	0.080
MAY							
*04...	0945	5.3	1.4	60	25	<0.027	0.040
08...	0840	6.0	3.1	1100	67	<0.027	0.102
08...	0910	6.0	2.1	--	--	<0.027	0.100
08...	0940	6.0	--	1300	50	<0.027	0.100
08...	1310	6.0	--	--	--	<0.027	0.090
09...	0005	5.8	--	--	--	<0.027	0.110
09...	0135	6.0	2.9	40000	62	<0.027	0.120
09...	0935	6.5	--	12000	42	<0.027	0.090
09...	1735	6.5	--	--	--	<0.027	0.103
09...	2245	6.7	--	--	74	<0.027	0.136
10...	0615	7.7	--	--	--	0.032	0.138
10...	1815	8.0	--	--	52	0.037	0.195
*18...	0950	5.8	1.8	100	56	0.036	0.101
23...	0625	5.8	5.0	1500	138	0.062	0.205

* Equal-width increment (EWI) sample
E Estimated

054065199 HALFWAY PRAIRIE CREEK AT FARM NEAR MAZOMANIE, WI--CONTINUED

WATER-QUALITY DATA, APRIL THROUGH JULY 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
MAY 1995							
27...	1455	5.2	--	--	91	<0.027	0.124
27...	1625	5.6	--	--	118	<0.027	0.187
27...	1755	6.3	--	--	120	<0.027	0.183
27...	2235	12	--	--	372	0.105	0.589
28...	0130	25	--	--	868	0.422	1.15
28...	0330	27	--	--	852	3.33	1.60
28...	0530	27	--	--	600	2.86	1.46
28...	0930	21	--	--	332	1.08	1.05
28...	1330	16	7.9	--	230	0.786	0.818
JUN							
06...	1525	5.5	11	16000	654	0.097	0.780
06...	1610	6.3	5.0	8000	187	0.068	0.270
06...	1740	5.6	5.4	5400	139	0.086	0.224
07...	1840	5.5	5.4	3800	264	0.088	0.359
07...	1925	5.8	5.3	5700	204	0.066	0.321
07...	2055	5.8	4.3	4700	139	0.067	0.236
08...	0340	7.9	3.8	430	144	0.036	0.223
*14...	1030	6.3	1.7	900	98	<0.027	0.146
26...	1325	6.0	5.0	25000	162	0.069	0.226
26...	1405	6.0	3.6	20000	250	0.111	0.356
26...	1445	6.0	4.0	17000	154	0.100	0.276
26...	1505	6.0	2.8	17000	132	0.100	0.241
26...	1555	5.6	3.9	12000	120	0.094	0.233
*26...	1556	5.6	3.4	18000	120	0.249	0.525
27...	0305	4.8	2.2	3300	102	0.052	0.167
JUL							
*03...	1155	5.2	<1.0	15000	104	<0.027	0.134
04...	2325	4.4	--	--	432	0.053	0.526
04...	2355	6.8	6.1	550000	314	0.117	0.822
05...	0055	6.0	5.1	230000	170	0.063	0.313
05...	0155	6.1	4.5	50000	163	0.056	0.269
05...	0755	6.8	--	--	236	0.061	0.309
*17...	1000	4.5	2.1	2200	132	0.031	0.182
*31...	0950	5.1	4.3	24000	362	0.076	0.524

WATER-QUALITY DATA, APRIL THROUGH AUGUST 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
APR 1996							
18...	1930	5.0	3.9	600	97	0.069	0.152
18...	2010	5.5	3.6	600	94	0.065	0.159
18...	2050	5.5	4.5	600	74	0.061	0.118
18...	2310	5.5	3.6	200	76	0.056	0.121
19...	0310	6.0	3.1	600	88	<0.027	0.132
19...	0710	5.8	3.5	2400	68	0.046	0.202
*24...	0940	5.5	2.3	1500	25	<0.027	0.056
MAY							
*08...	1240	5.1	2.3	20	10	0.039	0.051
*21...	1040	5.5	3.5	3500	66	0.028	0.148
JUN							
01...	1930	5.2	5.4	2200	120	<0.027	0.174
01...	1955	5.5	--	--	151	0.050	0.272
01...	2110	5.5	4.4	4500	91	<0.027	0.146
01...	2200	6.0	--	--	114	0.041	0.186
02...	0055	7.2	5.6	9300	155	0.060	0.283
02...	0345	9.9	--	--	243	0.051	0.319
02...	0615	9.9	9.8	150000	198	0.320	0.441
02...	1115	8.2	--	--	144	0.386	0.571
02...	1615	7.2	12	260000	114	0.480	0.673
*05...	1430	5.4	<3.0	980	58	<0.027	0.129
06...	2055	6.3	3.8	17000	133	0.082	0.308
06...	2145	6.8	4.0	17000	142	0.133	0.308
06...	2235	6.8	3.8	9400	119	0.090	0.248

* Equal-width increment (EWI) sample

054065199 HALFWAY PRAIRIE CREEK AT FARM NEAR MAZOMANIE, WI--CONTINUED

WATER-QUALITY DATA, APRIL THROUGH AUGUST 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
JUN 1996							
07...	0200	8.6	4.4	32000	176	0.100	0.455
07...	0645	11	5.4	63000	234	0.389	0.556
*07...	1015	10	4.4	52000	180	0.346	0.606
07...	1016	10	5.3	52000	176	0.365	0.576
07...	1635	9.3	4.9	43000	111	0.435	0.622
08...	0035	8.4	--	--	115	0.248	0.423
08...	1235	7.3	--	--	64	0.151	0.254
16...	1530	5.6	4.0	2900	76	0.040	0.124
16...	1555	5.6	3.2	1800	66	0.029	0.108
17...	0055	6.5	4.4	200000	154	0.068	0.264
17...	0205	7.7	4.5	64000	170	0.075	0.275
17...	0530	14	7.6	68000	408	0.145	0.729
17...	0700	26	12	160000	1030	0.239	1.29
17...	0720	29	9.5	150000	1090	0.239	1.35
17...	1015	38	12	870000	888	0.407	1.78
17...	1151	40	12	470000	760	0.380	1.64
*17...	1156	40	12	690000	362	0.386	1.72
17...	1215	41	11	340000	712	0.369	1.93
17...	1715	42	10	400000	532	0.404	1.83
17...	1735	46	10	410000	636	0.395	2.07
17...	1755	58	9.3	370000	672	0.335	1.84
17...	1805	62	8.4	320000	764	0.312	1.95
17...	1925	58	7.0	120000	552	0.266	1.84
17...	1955	55	11	330000	520	0.336	2.09
17...	2255	54	7.2	120000	996	0.259	2.20
18...	0455	58	5.1	64000	484	0.210	1.60
18...	0755	58	5.2	50000	332	0.213	1.42
18...	1055	52	4.2	43000	278	0.202	1.05
*18...	1103	50	4.3	43000	226	0.197	1.16
18...	1108	50	4.4	35000	248	0.193	1.09
18...	1355	39	4.7	13000	240	0.187	0.780
18...	2225	22	4.1	9600	177	0.165	0.517
19...	1230	16	3.5	3500	108	--	--
*19...	1233	16	3.0	4300	114	0.120	0.320
*26...	1303	8.7	<3.0	830	57	<0.027	0.106
JUL							
02...	0430	8.4	3.0	13000	109	<0.027	0.148
02...	0455	8.6	3.0	68000	98	<0.027	0.160
02...	0545	8.4	<3.0	5700	81	<0.027	0.129
02...	0635	8.4	<3.0	7000	67	<0.027	0.103
02...	0840	8.4	<3.0	7600	60	<0.027	0.113
02...	1110	8.0	4.2	9700	45	<0.027	0.071
02...	1410	7.0	<3.0	840	32	<0.027	0.051
12...	0440	7.0	--	--	73	<0.027	0.103
12...	0530	7.0	--	--	88	<0.027	0.121
12...	0620	7.0	--	--	58	<0.027	0.087
12...	0915	7.3	--	--	56	<0.027	0.084
12...	1145	7.0	--	--	31	<0.027	0.055
12...	1415	6.7	--	--	44	<0.027	0.075
18...	0005	5.6	3.5	2500	54	0.030	0.102
18...	0050	5.6	3.4	25000	65	0.036	0.120
18...	0205	6.0	3.8	66000	76	0.042	0.142
18...	0730	9.7	5.5	70000	143	0.085	0.552
18...	1140	15	4.8	82000	183	0.074	0.349
18...	1640	14	10	120000	376	0.429	1.55
18...	2140	12	5.4	110000	128	0.205	0.635
19...	0615	10	7.5	73000	92	0.201	0.399
*23...	1405	7.0	<3.0	9900	32	<0.027	0.119
AUG							
19...	1325	6.0	2.1	2400	29	<0.027	0.088
19...	1350	6.3	2.8	2700000	46	0.051	0.268
19...	1440	6.3	2.1	69000	22	<0.027	0.099
19...	1530	6.3	1.8	10000	16	0.051	0.076
19...	2030	5.6	1.7	5000	21	<0.027	0.094
SEP							
*04...	1020	4.7	1.0	1600	15	<0.027	0.046

* Equal-width increment (EWI) sample

054065199 HALFWAY PRAIRIE CREEK AT FARM NEAR MAZOMANIE, WI--CONTINUED

SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED(TONS PER DAY), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.38	.76	.97	---	---
2	---	---	---	---	---	---	---	.38	.74	1.12	---	---
3	---	---	---	---	---	---	---	.37	.71	1.20	---	---
4	---	---	---	---	---	---	---	.35	.69	.91	---	---
5	---	---	---	---	---	---	---	.34	.66	2.23	---	---
6	---	---	---	---	---	---	---	.32	1.42	---	---	---
7	---	---	---	---	---	---	.78	.31	1.34	---	---	---
8	---	---	---	---	---	---	1.09	.49	1.57	---	---	---
9	---	---	---	---	---	---	.95	.80	.96	---	---	---
10	---	---	---	---	---	---	.84	1.20	.90	---	---	---
11	---	---	---	---	---	---	1.33	.80	.85	---	---	---
12	---	---	---	---	---	---	1.59	.72	.80	---	---	---
13	---	---	---	---	---	---	.63	.75	.79	---	---	---
14	---	---	---	---	---	---	.54	.80	.79	---	---	---
15	---	---	---	---	---	---	.48	.79	.75	---	---	---
16	---	---	---	---	---	---	.44	.81	.72	---	---	---
17	---	---	---	---	---	---	.43	.86	.70	---	---	---
18	---	---	---	---	---	---	1.89	.87	.68	---	---	---
19	---	---	---	---	---	---	1.37	.83	.67	---	---	---
20	---	---	---	---	---	---	.44	.81	.65	---	---	---
21	---	---	---	---	---	---	.45	.75	.63	---	---	---
22	---	---	---	---	---	---	.41	.71	.59	---	---	---
23	---	---	---	---	---	---	.38	.71	.57	---	---	---
24	---	---	---	---	---	---	.37	.65	.56	---	---	---
25	---	---	---	---	---	---	.37	.61	.55	---	---	---
26	---	---	---	---	---	---	.37	.56	1.12	---	---	---
27	---	---	---	---	---	---	.50	2.84	.73	---	---	---
28	---	---	---	---	---	---	.46	21.6	.64	---	---	---
29	---	---	---	---	---	---	.41	1.46	.76	---	---	---
30	---	---	---	---	---	---	.40	.88	.87	---	---	---
31	---	---	---	---	---	---	---	.80	---	---	---	---
TOTAL	---	---	---	---	---	---	---	44.55	24.17	---	---	---

SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED(TONS PER DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.24	.63	.51	.43	---
2	---	---	---	---	---	---	---	.21	3.18	.79	.43	---
3	---	---	---	---	---	---	---	.20	.57	.44	.42	---
4	---	---	---	---	---	---	---	.18	.56	.44	.41	---
5	---	---	---	---	---	---	---	.16	.74	.43	.43	---
6	---	---	---	---	---	---	---	.15	.80	.43	.44	---
7	---	---	---	---	---	---	---	.14	4.13	.42	.41	---
8	---	---	---	---	---	---	---	.14	1.49	.42	.41	---
9	---	---	---	---	---	---	---	.16	.63	.42	.41	---
10	---	---	---	---	---	---	---	.29	.43	.40	.41	---
11	---	---	---	---	---	---	---	.31	.40	.41	.41	---
12	---	---	---	---	---	---	---	.30	.39	.67	.41	---
13	---	---	---	---	---	---	---	.32	.37	.41	.42	---
14	---	---	---	---	---	---	---	.35	.36	.42	.42	---
15	---	---	---	---	---	---	---	.41	.36	.38	.42	---
16	---	---	---	---	---	---	---	.50	.77	.38	.43	---
17	---	---	---	---	---	---	---	.56	67.8	.39	.42	---
18	---	---	---	---	---	---	.50	.61	44.3	5.90	.42	---
19	---	---	---	---	---	---	1.25	.69	5.09	1.98	.40	---
20	---	---	---	---	---	---	.46	.80	1.37	.53	.35	---
21	---	---	---	---	---	---	.43	.94	1.24	.53	.30	---
22	---	---	---	---	---	---	.40	.85	1.43	.55	.26	---
23	---	---	---	---	---	---	.38	.80	1.66	.54	.25	---
24	---	---	---	---	---	---	.36	.72	1.59	.53	---	---
25	---	---	---	---	---	---	.32	.64	1.23	.51	---	---
26	---	---	---	---	---	---	.29	.59	1.30	.48	---	---
27	---	---	---	---	---	---	.26	.51	1.11	.46	---	---
28	---	---	---	---	---	---	.25	.50	.90	.46	---	---
29	---	---	---	---	---	---	.26	.44	.74	.45	---	---
30	---	---	---	---	---	---	.28	.37	.62	.42	---	---
31	---	---	---	---	---	---	---	.33	---	.43	---	---
TOTAL	---	---	---	---	---	---	---	13.41	146.19	21.53	---	---

054065199 HALFWAY PRAIRIE CREEK AT FARM NEAR MAZOMANIE, WI--CONTINUED

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	1.46	3.79	3.09	---	---
2	---	---	---	---	---	---	---	1.34	3.68	3.20	---	---
3	---	---	---	---	---	---	---	1.23	3.56	3.29	---	---
4	---	---	---	---	---	---	---	1.15	3.45	3.52	---	---
5	---	---	---	---	---	---	---	1.15	3.32	7.36	---	---
6	---	---	---	---	---	---	---	1.14	5.24	---	---	---
7	---	---	---	---	---	---	2.91	1.17	5.20	---	---	---
8	---	---	---	---	---	---	4.04	2.49	5.11	---	---	---
9	---	---	---	---	---	---	3.93	3.58	3.29	---	---	---
10	---	---	---	---	---	---	3.32	6.69	3.14	---	---	---
11	---	---	---	---	---	---	6.74	4.21	3.03	---	---	---
12	---	---	---	---	---	---	11.3	3.40	2.93	---	---	---
13	---	---	---	---	---	---	5.17	3.41	2.96	---	---	---
14	---	---	---	---	---	---	4.06	3.45	3.02	---	---	---
15	---	---	---	---	---	---	3.35	3.25	2.94	---	---	---
16	---	---	---	---	---	---	2.80	3.20	2.89	---	---	---
17	---	---	---	---	---	---	2.56	3.23	2.88	---	---	---
18	---	---	---	---	---	---	8.61	3.18	2.86	---	---	---
19	---	---	---	---	---	---	6.89	3.11	2.85	---	---	---
20	---	---	---	---	---	---	3.00	3.14	2.86	---	---	---
21	---	---	---	---	---	---	3.05	3.03	2.80	---	---	---
22	---	---	---	---	---	---	2.66	2.97	2.70	---	---	---
23	---	---	---	---	---	---	2.32	3.08	2.68	---	---	---
24	---	---	---	---	---	---	2.13	2.90	2.68	---	---	---
25	---	---	---	---	---	---	1.99	2.83	2.67	---	---	---
26	---	---	---	---	---	---	1.91	2.69	4.37	---	---	---
27	---	---	---	---	---	---	2.38	9.35	3.14	---	---	---
28	---	---	---	---	---	---	2.07	102	2.83	---	---	---
29	---	---	---	---	---	---	1.77	9.57	3.00	---	---	---
30	---	---	---	---	---	---	1.61	4.38	3.09	---	---	---
31	---	---	---	---	---	---	---	4.01	---	---	---	---
TOTAL	---	---	---	---	---	---	---	201.79	98.96	---	---	---

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	1.64	2.41	2.22	3.12	---
2	---	---	---	---	---	---	---	1.54	20.7	2.79	3.11	---
3	---	---	---	---	---	---	---	1.56	5.07	1.79	3.02	---
4	---	---	---	---	---	---	---	1.44	3.37	1.80	2.98	---
5	---	---	---	---	---	---	---	1.40	3.44	1.79	3.14	---
6	---	---	---	---	---	---	---	1.38	3.54	1.81	3.20	---
7	---	---	---	---	---	---	---	1.37	28.0	1.76	2.98	---
8	---	---	---	---	---	---	---	1.38	11.2	1.81	2.93	---
9	---	---	---	---	---	---	---	1.49	3.57	1.83	2.92	---
10	---	---	---	---	---	---	---	2.64	1.91	1.77	2.92	---
11	---	---	---	---	---	---	---	2.58	1.80	1.80	2.94	---
12	---	---	---	---	---	---	---	2.34	1.73	2.35	2.92	---
13	---	---	---	---	---	---	---	2.36	1.67	1.86	2.97	---
14	---	---	---	---	---	---	---	2.44	1.62	1.86	2.97	---
15	---	---	---	---	---	---	---	2.68	1.61	1.71	2.97	---
16	---	---	---	---	---	---	---	3.09	2.87	1.70	3.00	---
17	---	---	---	---	---	---	---	3.25	340	1.75	2.93	---
18	---	---	---	---	---	---	1.91	3.29	288	40.6	2.97	---
19	---	---	---	---	---	---	4.99	3.51	30.2	16.4	3.03	---
20	---	---	---	---	---	---	2.07	3.82	10.3	2.53	1.66	---
21	---	---	---	---	---	---	1.90	4.23	8.77	2.88	1.40	---
22	---	---	---	---	---	---	1.78	3.81	8.85	3.49	1.29	---
23	---	---	---	---	---	---	1.72	3.57	9.05	3.89	1.25	---
24	---	---	---	---	---	---	1.62	3.22	7.70	3.94	---	---
25	---	---	---	---	---	---	1.53	2.87	5.22	3.76	---	---
26	---	---	---	---	---	---	1.47	2.63	4.93	3.54	---	---
27	---	---	---	---	---	---	1.40	2.30	4.27	3.41	---	---
28	---	---	---	---	---	---	1.40	2.25	3.57	3.38	---	---
29	---	---	---	---	---	---	1.59	1.95	3.01	3.27	---	---
30	---	---	---	---	---	---	1.80	1.66	2.63	3.09	---	---
31	---	---	---	---	---	---	---	1.47	---	3.15	---	---
TOTAL	---	---	---	---	---	---	---	75.16	821.01	129.73	---	---

0054065199 HALFWAY PRAIRIE CREEK AT FARM NEAR MAZOMANIE, WI--CONTINUED

PRECIPITATION QUANTITY

PERIOD OF RECORD.--April 7, 1995 to current year

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established Apr. 7, 1995. Rainfall estimated to be 0.00 for Nov. 27–30, Feb. 26–27, and Mar. 7, 1996, because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for the period Dec. 8, 1995 to Feb. 3, 1996.

EXTREMES FOR CURRENT PERIOD.--

APRIL THROUGH SEPTEMBER 1995: Maximum daily rainfall, 2.03 in., Aug. 7.

1996 WATER YEAR: Maximum daily rainfall, 3.48 in., June 17

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.00	.00	.00	.03	.00
2	---	---	---	---	---	---	---	.00	.00	.00	.02	.00
3	---	---	---	---	---	---	---	.00	.00	.00	.01	.00
4	---	---	---	---	---	---	---	.01	.00	.74	.31	.00
5	---	---	---	---	---	---	---	.00	.00	.19	.00	.00
6	---	---	---	---	---	---	---	.00	.58	.01	.00	.04
7	---	---	---	---	---	---	.80	.00	.34	.00	2.03	.16
8	---	---	---	---	---	---	.22	.52	.00	.00	.41	.00
9	---	---	---	---	---	---	.07	.49	.00	.04	.00	.00
10	---	---	---	---	---	---	.28	.31	.00	.01	.01	.00
11	---	---	---	---	---	---	.45	.00	.00	.00	.00	.00
12	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
13	---	---	---	---	---	---	.00	.17	.00	.00	.00	.00
14	---	---	---	---	---	---	.00	.00	.00	.00	.21	.00
15	---	---	---	---	---	---	.00	.00	.00	.26	.00	.00
16	---	---	---	---	---	---	.30	.00	.00	.01	.45	.06
17	---	---	---	---	---	---	.02	.00	.00	.00	.00	.01
18	---	---	---	---	---	---	.57	.00	.00	.00	.00	.00
19	---	---	---	---	---	---	.00	.00	.00	.38	.97	.77
20	---	---	---	---	---	---	.00	.00	.00	.01	.00	.17
21	---	---	---	---	---	---	.44	.00	.00	.00	.00	.00
22	---	---	---	---	---	---	.00	.00	.00	1.19	.00	.01
23	---	---	---	---	---	---	.00	.40	.00	.01	.00	.00
24	---	---	---	---	---	---	.04	.00	.00	.23	.00	.00
25	---	---	---	---	---	---	.01	.00	.00	.28	.00	.00
26	---	---	---	---	---	---	.48	.00	.50	.00	.00	.00
27	---	---	---	---	---	---	.31	1.54	.00	.13	.00	.00
28	---	---	---	---	---	---	.00	.33	.00	.00	.33	.00
29	---	---	---	---	---	---	.00	.00	.01	.00	.06	.00
30	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.69	.00	---
TOTAL	---	---	---	---	---	---	---	3.77	1.43	4.18	4.84	1.22

054065199 HALFWAY PRAIRIE CREEK AT FARM NEAR MAZOMANIE, WI--CONTINUED

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.72	.00	---	---	.00	.00	.00	.97	.00	.00	.00
2	.17	.00	.00	---	---	.00	.00	.01	.07	.32	.00	.00
3	.07	.00	.00	---	---	.00	.06	.00	.00	.00	.00	.00
4	.00	.00	.00	---	.00	.00	.12	.00	.01	.00	.00	.00
5	1.08	.00	.00	---	.00	.00	.00	.45	.27	.00	1.16	.00
6	.44	.00	.00	---	.00	.00	.00	.00	.57	.00	.10	.00
7	.00	.00	.00	---	.00	.00	.00	.00	.39	.02	.03	.00
8	.00	.00	---	---	.00	.00	.00	.07	.00	.04	.00	.24
9	.00	.00	---	---	.00	.00	.00	.51	.07	.00	.00	.00
10	.00	.00	---	---	.00	.00	.00	.46	.01	.00	.00	.00
11	.00	.00	---	---	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	---	---	.00	.00	.00	.00	.00	.34	.00	.00
13	.00	.00	---	---	.00	.00	.00	.00	.00	.13	.00	.00
14	.00	.00	---	---	.00	.00	.01	.09	.00	.01	.00	.00
15	.00	.00	---	---	.00	.00	.21	.07	.00	.00	.00	.00
16	.00	.00	---	---	.00	.00	.01	.45	.53	.00	.00	.00
17	.00	.00	---	---	.00	.11	.00	.00	3.48	.24	.00	.00
18	.00	.00	---	---	.00	.00	.44	.00	.03	.84	.02	.00
19	.32	.00	---	---	.00	.00	.26	.00	.00	.00	.52	.00
20	.01	.00	---	---	.00	.00	.01	.35	.00	.00	.01	.09
21	.05	.00	---	---	.00	.00	.00	.00	.19	.00	.00	.00
22	.00	.00	---	---	.00	.00	.00	.00	.00	.00	.00	.00
23	.17	.00	---	---	.00	.00	.00	.09	.25	.03	.00	.04
24	.00	.00	---	---	.00	.38	.00	.00	.00	.00	.00	.00
25	.00	.00	---	---	.00	.02	.00	.16	.00	.00	.00	.00
26	.00	.00	---	---	.00	.00	.00	.00	.00	.00	.00	.41
27	.79	.00	---	---	.00	.00	.00	.09	.00	.00	.00	.05
28	.13	.00	---	---	.00	.00	.00	.16	.00	.02	.00	.00
29	.00	.00	---	---	.00	.00	.76	.00	.18	.00	.00	.00
30	.00	.00	---	---	---	.07	.06	.00	.00	.00	.00	.00
31	.29	---	---	---	---	.08	---	.00	---	.00	.00	---
TOTAL	3.52	0.72	---	---	---	0.66	1.94	2.96	7.02	1.99	1.84	0.83

05406520 HALFWAY PRAIRIE CREEK NEAR MAZOMANIE, WI

LOCATION.--Lat 43°10'57", long 89°45'32", in NE 1/4 SE 1/4 sec.10, T.8 N., R.6 E., Dane County, Hydrologic Unit 07070005, on right bank 50 ft upstream from bridge on State Highways 19 and 78 and 1.8 mi east of Mazomanie.

DRAINAGE AREA.--16.1 mi^2.

PERIOD OF RECORD.--April to July 1995 and April to August 1996.

PERIOD OF DAILY RECORD.--

SUSPENDED-SOLIDS DISCHARGE: April to July 1995 and April to August 1996.

TOTAL-PHOSPHORUS DISCHARGE: April to July 1995 and April to August 1996.

INSTRUMENTATION.--Stage-activated water-quality sampler since April 1995.

REMARKS.--Chemical analyses by the Wisconsin State Laboratory of Hygiene. Samples are point samples unless otherwise indicated. See station 054065199 Halfway Prairie Creek at Farm near Mazomanie for daily mean discharges.

EXTREMES FOR CURRENT PERIOD.--

SUSPENDED-SOLIDS DISCHARGE:

APRIL TO JULY 1995: Maximum daily, 19.7 tons, May 28; minimum daily, 0.28 tons, May 6.

APRIL TO AUGUST 1996: Maximum daily, 66.7 tons, June 17; minimum daily, 0.17 tons, May 7, 8.

TOTAL-PHOSPHORUS DISCHARGE:

APRIL TO JULY 1995: Maximum daily, 113 tons, May 28; minimum daily, 1.42 tons, May 6.

APRIL TO AUGUST 1996: Maximum daily, 324 tons, June 17; minimum daily, 1.09 tons, May 8.

WATER-QUALITY DATA, APRIL THROUGH JULY 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
APR 1995							
*06...	1739	E5.0	1.4	<10	50	<0.027	0.070
07...	1645	5.3	61	23000	80	0.400	0.580
07...	1805	5.5	53	150000	68	1.43	0.820
07...	1950	6.0	51	150000	124	1.51	1.32
07...	2135	6.1	13	30000	96	0.449	0.670
07...	2355	6.3	15	24000	104	0.444	0.540
08...	0400	6.3	3.1	2900	89	0.091	0.220
08...	2150	5.8	5.4	4400	77	0.181	0.370
08...	2220	6.0	24	33000	109	1.22	1.36
08...	2250	5.8	21	39000	100	1.16	1.20
08...	2320	5.8	15	24000	88	0.737	0.780
08...	2350	5.8	12	30000	85	0.681	0.680
09...	0020	6.0	10	20000	80	0.597	0.580
10...	2125	6.0	5.1	4500	60	0.151	0.270
10...	2225	6.0	17	48000	72	0.634	0.820
10...	2325	6.1	10	22000	64	0.330	0.470
11...	0025	6.1	11	26000	72	0.383	0.520
11...	0225	6.8	14	24000	108	0.576	0.940
11...	1025	7.5	4.1	5000	56	0.144	0.230
11...	2005	7.4	18	55000	112	0.735	0.550
11...	2105	7.5	16	73000	112	0.617	0.980
11...	2235	7.7	6.6	12000	100	0.216	0.440
12...	0040	8.7	5.3	8700	132	0.140	0.440
12...	0335	9.5	4.6	3700	72	0.103	0.330
12...	0935	8.6	4.2	4200	148	0.162	0.380
12...	1235	7.9	4.8	2800	49	0.125	0.330
12...	1835	7.9	3.1	300	42	<0.027	0.180
18...	0600	5.8	--	--	87	<0.027	0.145
18...	0730	6.3	--	--	99	0.911	0.890
18...	0900	6.5	--	--	64	0.498	0.520
18...	1425	8.9	--	--	61	0.114	0.190
18...	1750	11	--	--	168	0.189	0.470
18...	2150	9.9	--	--	176	0.146	0.530
19...	0350	8.4	--	--	116	0.057	0.280
*20...	0959	6.8	2.2	510	33	<0.027	0.104
MAY							
*04...	0935	5.3	1.7	10	20	<0.027	0.050
08...	0840	6.0	50	57000	150	0.956	0.810
08...	0910	6.0	29	55000	88	1.02	0.740
08...	0940	6.0	--	110000	66	0.799	0.560
08...	1310	6.0	--	53000	32	0.999	0.440
09...	0005	5.8	--	44000	58	0.044	0.140
09...	0135	6.0	--	150000	88	1.19	0.900
09...	0935	6.5	--	9900	35	0.042	0.100
09...	1735	6.5	--	--	32	<0.027	0.116
09...	2245	6.7	--	--	110	1.93	1.54

* Equal-width increment (EWI) sample
E Estimated

05406520 HALFWAY PRAIRIE CREEK NEAR MAZOMANIE, WI--CONTINUED

WATER-QUALITY DATA, APRIL THROUGH JULY 1995

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
MAY 1995							
10...	0615	7.7	--	--	82	0.367	0.361
10...	1815	8.0	--	--	55	0.163	0.229
*18...	0940	5.8	2.0	150	63	0.027	0.109
23...	0625	5.8	13	26000	162	0.347	0.368
27...	1455	5.2	--	--	92	0.031	0.153
27...	1625	5.6	--	--	400	1.00	1.96
27...	1755	6.3	--	--	218	0.761	2.25
27...	2235	12	--	--	462	0.271	1.26
28...	0130	25	--	--	844	0.350	1.19
28...	0330	27	--	--	436	3.12	1.71
28...	0530	27	--	--	628	2.96	1.69
28...	0930	21	--	--	348	1.09	1.12
28...	1330	16	8.6	--	246	0.793	0.923
*31...	1030	7.7	2.1	4200	134	0.067	0.213
JUN							
06...	1525	5.5	11	26000	390	0.083	0.700
06...	1610	6.3	46	890000	292	0.593	2.08
06...	1740	5.6	12	340000	139	0.137	0.430
07...	1840	5.5	6.5	10000	312	0.076	0.435
07...	1925	5.8	39	1800000	322	0.802	2.43
07...	2055	5.8	6.6	56000	135	0.129	0.356
08...	0340	7.9	4.8	5600	168	0.041	0.252
*14...	1000	6.3	1.8	500	104	0.052	0.199
26...	1325	6.0	3.1	13000	226	0.069	0.396
26...	1405	6.0	23	230000	270	0.186	1.24
26...	1445	6.0	29	340000	208	0.382	1.42
26...	1505	6.0	26	390000	164	0.412	1.24
26...	1610	5.5	21	260000	122	0.478	0.924
*26...	1611	5.5	10	110000	118	0.091	0.252
27...	0305	4.9	2.3	8800	100	0.038	0.190
JUL							
*03...	1135	5.2	<1.0	51000	103	<0.027	0.144
04...	2325	4.4	--	--	166	0.052	0.271
04...	2355	6.8	110	4800000	1100	3.80	9.28
05...	0055	6.0	47	2100000	196	1.29	3.32
05...	0155	6.1	17	660000	158	0.519	1.13
05...	0755	6.8	--	--	159	0.086	0.325
*17...	0940	4.5	2.0	2400	114	0.034	0.167
*31...	0930	4.9	2.1	14000	115	0.043	0.162

WATER-QUALITY DATA, APRIL THROUGH AUGUST 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
APR 1996							
18...	1930	5.0	15	7000	206	0.155	0.473
18...	2010	5.5	17	6100	144	0.206	0.599
18...	2050	5.5	4.8	4200	94	0.123	0.262
18...	2310	5.5	3.7	300	92	0.062	0.149
19...	0310	6.0	3.4	500	92	0.030	0.163
19...	0710	5.8	3.1	1000	116	0.047	0.230
*24...	0920	5.6	1.9	50	35	<0.027	0.068
MAY							
*08...	1230	5.0	1.9	190	12	0.041	0.040
*21...	1030	5.5	2.5	3200	73	0.065	0.160
JUN							
01...	1930	5.2	22	29000	247	0.077	0.682
01...	1955	5.5	--	--	308	0.179	1.07
01...	2110	5.5	5.4	15000	101	0.069	0.248
01...	2200	6.0	--	--	171	0.162	0.613
02...	0055	7.2	6.1	11000	176	0.070	0.326
02...	0345	9.9	--	--	279	0.057	0.363
02...	0615	9.9	10	160000	237	0.309	0.474
02...	1115	8.2	--	--	167	0.400	0.609
02...	1615	7.2	13	280000	129	0.447	0.688
*05...	1415	5.4	<3.0	2300	61	<0.027	0.124

* Equal-width increment (EWI) sample

05406520 HALFWAY PRAIRIE CREEK NEAR MAZOMANIE, WI--CONTINUED

WATER-QUALITY DATA, APRIL THROUGH AUGUST 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
JUNE 1996							
06...	2055	6.3	15	79000	264	0.247	0.914
06...	2145	6.8	7.3	100000	270	0.229	0.840
06...	2235	6.8	4.6	53000	156	0.133	0.447
07...	0200	8.6	5.4	33000	208	0.169	0.550
07...	0645	11	7.2	51000	260	0.348	0.616
*07...	0955	11	4.8	83000	190	0.378	0.653
07...	0956	11	5.9	64000	196	0.343	0.660
07...	1635	9.3	6.2	59000	131	0.475	0.683
08...	0035	8.4	--	--	124	0.265	0.450
08...	1235	7.4	--	--	73	0.154	0.266
16...	1530	5.6	4.1	8600	73	0.041	0.292
16...	1555	5.6	3.2	8800	65	0.035	0.122
17...	0055	6.5	12	220000	202	0.232	0.731
17...	0205	7.7	8.0	440000	248	0.212	0.763
17...	0530	14	7.5	110000	408	0.156	0.755
17...	0700	26	11	200000	936	0.237	1.25
17...	0720	29	12	170000	1090	0.279	1.53
17...	1015	38	12	700000	856	0.400	1.75
17...	1201	41	10	560000	720	0.376	1.73
*17...	1206	41	9.4	520000	644	0.391	1.98
17...	1215	41	9.6	540000	748	0.374	1.70
17...	1715	42	10	470000	484	0.406	1.73
17...	1735	47	12	660000	652	0.444	2.25
17...	1755	58	10	440000	668	0.367	1.90
17...	1805	62	8.9	380000	732	0.345	1.64
17...	1925	58	6.7	280000	600	0.268	1.68
17...	1955	55	10	450000	512	0.344	1.93
17...	2255	54	6.4	170000	956	0.272	2.00
18...	0455	58	5.5	44000	452	0.225	1.36
18...	0755	58	5.0	68000	334	0.233	1.25
18...	1055	52	4.0	44000	258	0.218	1.01
18...	1130	48	3.4	25000	226	0.188	0.936
*18...	1135	48	3.7	41000	230	0.203	0.952
18...	1355	39	5.0	13000	232	0.186	0.766
18...	2225	22	4.1	12000	192	0.164	0.536
19...	1215	16	3.4	4200	116	--	--
*19...	1217	16	3.2	4200	116	0.117	0.341
*26...	1238	8.8	<3.0	960	53	<0.027	0.118
JUL							
02...	0430	8.4	7.0	44000	110	0.044	0.229
02...	0455	8.6	6.9	69000	148	0.068	0.380
02...	0545	8.4	3.2	15000	83	<0.027	0.169
02...	0635	8.4	<3.0	9200	43	<0.027	0.085
02...	0840	8.4	<3.0	5400	58	<0.027	0.107
02...	1110	8.0	<3.0	6300	41	<0.027	0.077
02...	1410	7.0	<3.0	7500	26	<0.027	0.057
12...	0440	7.0	--	--	76	<0.027	0.118
12...	0530	7.0	--	--	67	<0.027	0.103
12...	0620	7.0	--	--	58	<0.027	0.092
12...	0915	7.4	--	--	55	<0.027	0.092
12...	1145	7.0	--	--	35	<0.027	0.067
12...	1415	6.7	--	--	38	<0.027	0.070
18...	0005	5.6	6.7	55000	141	0.064	0.424
18...	0050	5.6	3.8	71000	77	0.050	0.160
18...	0205	6.0	4.0	130000	80	0.051	0.200
18...	0730	9.7	5.6	49000	136	0.083	0.509
18...	1140	15	3.9	110000	154	0.071	0.340
18...	1640	14	11	320000	376	0.416	1.53
18...	2140	12	5.6	120000	130	0.215	0.661
19...	0240	11	5.4	140000	124	0.193	0.536
*23...	1345	6.9	<3.0	6600	38	<0.027	0.112
AUG							
19...	1325	6.0	2.7	33000	29	<0.027	0.106
19...	1350	6.3	6.6	900000	68	0.123	0.536
19...	1440	6.3	2.2	650000	20	<0.027	0.155
19...	1530	6.3	2.0	30000	15	<0.027	0.098
19...	2030	5.6	2.3	15000	19	<0.027	0.111
SEP							
*04...	1005	4.7	0.9	3400	16	<0.027	0.049

* Equal-width increment (EWI) sample

05406520 HALFWAY PRAIRIE CREEK NEAR MAZOMANIE, WI--CONTINUED

SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED(TONS PER DAY), WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.35	.76	.96	---	---
2	---	---	---	---	---	---	---	.33	.74	1.11	---	---
3	---	---	---	---	---	---	---	.30	.71	1.18	---	---
4	---	---	---	---	---	---	---	.29	.69	.97	---	---
5	---	---	---	---	---	---	---	.29	.66	1.99	---	---
6	---	---	---	---	---	---	---	.28	1.43	---	---	---
7	---	---	---	---	---	---	.95	.29	1.63	---	---	---
8	---	---	---	---	---	---	1.12	.64	1.39	---	---	---
9	---	---	---	---	---	---	1.03	.81	.66	---	---	---
10	---	---	---	---	---	---	.84	1.46	.63	---	---	---
11	---	---	---	---	---	---	1.48	.81	.61	---	---	---
12	---	---	---	---	---	---	1.71	.73	.59	---	---	---
13	---	---	---	---	---	---	.73	.78	.59	---	---	---
14	---	---	---	---	---	---	.62	.84	.60	---	---	---
15	---	---	---	---	---	---	.56	.84	.59	---	---	---
16	---	---	---	---	---	---	.52	.89	.58	---	---	---
17	---	---	---	---	---	---	.51	.95	.58	---	---	---
18	---	---	---	---	---	---	2.23	.98	.57	---	---	---
19	---	---	---	---	---	---	1.48	.92	.57	---	---	---
20	---	---	---	---	---	---	.62	.88	.57	---	---	---
21	---	---	---	---	---	---	.64	.81	.56	---	---	---
22	---	---	---	---	---	---	.56	.76	.54	---	---	---
23	---	---	---	---	---	---	.50	.75	.54	---	---	---
24	---	---	---	---	---	---	.46	.67	.54	---	---	---
25	---	---	---	---	---	---	.44	.63	.53	---	---	---
26	---	---	---	---	---	---	.43	.57	1.18	---	---	---
27	---	---	---	---	---	---	.54	3.78	.72	---	---	---
28	---	---	---	---	---	---	.48	19.7	.64	---	---	---
29	---	---	---	---	---	---	.41	1.62	.76	---	---	---
30	---	---	---	---	---	---	.38	.88	.87	---	---	---
31	---	---	---	---	---	---	---	.80	---	---	---	---
TOTAL	---	---	---	---	---	---	---	44.63	22.03	---	---	---

SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED(TONS PER DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.31	.81	.50	.48	---
2	---	---	---	---	---	---	---	.27	3.66	.75	.48	---
3	---	---	---	---	---	---	---	.26	.57	.44	.46	---
4	---	---	---	---	---	---	---	.22	.58	.44	.45	---
5	---	---	---	---	---	---	---	.20	.77	.43	.47	---
6	---	---	---	---	---	---	---	.19	.99	.43	.48	---
7	---	---	---	---	---	---	---	.17	4.68	.42	.45	---
8	---	---	---	---	---	---	---	.17	1.65	.42	.44	---
9	---	---	---	---	---	---	---	.19	.66	.42	.43	---
10	---	---	---	---	---	---	---	.35	.43	.40	.43	---
11	---	---	---	---	---	---	---	.36	.40	.41	.43	---
12	---	---	---	---	---	---	---	.35	.39	.65	.43	---
13	---	---	---	---	---	---	---	.37	.37	.41	.43	---
14	---	---	---	---	---	---	---	.41	.36	.42	.43	---
15	---	---	---	---	---	---	---	.47	.36	.38	.43	---
16	---	---	---	---	---	---	---	.58	.85	.38	.43	---
17	---	---	---	---	---	---	---	.64	66.7	.40	.42	---
18	---	---	---	---	---	---	.61	.69	42.7	5.67	.43	---
19	---	---	---	---	---	---	1.49	.78	5.23	1.99	.39	---
20	---	---	---	---	---	---	.65	.90	1.37	.54	.35	---
21	---	---	---	---	---	---	.60	1.04	1.23	.56	.30	---
22	---	---	---	---	---	---	.56	.93	1.39	.62	.26	---
23	---	---	---	---	---	---	.54	.86	1.60	.63	.25	---
24	---	---	---	---	---	---	.50	.77	1.52	.63	---	---
25	---	---	---	---	---	---	.44	.68	1.16	.60	---	---
26	---	---	---	---	---	---	.40	.62	1.21	.56	---	---
27	---	---	---	---	---	---	.35	.54	1.05	.54	---	---
28	---	---	---	---	---	---	.33	.52	.86	.53	---	---
29	---	---	---	---	---	---	.35	.45	.71	.51	---	---
30	---	---	---	---	---	---	.37	.38	.61	.48	---	---
31	---	---	---	---	---	---	---	.33	---	.49	---	---
TOTAL	---	---	---	---	---	---	---	15.00	144.87	22.05	---	---

05406520 HALFWAY PRAIRIE CREEK NEAR MAZOMANIE, WI--CONTINUED

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1994 TO SEPTEMBER 1995

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	1.84	3.79	3.25	---	---
2	---	---	---	---	---	---	---	1.69	3.68	3.40	---	---
3	---	---	---	---	---	---	---	1.54	3.56	3.51	---	---
4	---	---	---	---	---	---	---	1.44	3.45	6.02	---	---
5	---	---	---	---	---	---	---	1.43	3.32	19.3	---	---
6	---	---	---	---	---	---	---	1.42	9.29	---	---	---
7	---	---	---	---	---	---	9.37	1.46	10.5	---	---	---
8	---	---	---	---	---	---	7.11	8.13	5.56	---	---	---
9	---	---	---	---	---	---	8.87	7.39	3.29	---	---	---
10	---	---	---	---	---	---	5.79	15.3	3.14	---	---	---
11	---	---	---	---	---	---	16.1	4.32	3.03	---	---	---
12	---	---	---	---	---	---	13.3	3.45	2.93	---	---	---
13	---	---	---	---	---	---	5.17	3.49	2.96	---	---	---
14	---	---	---	---	---	---	4.06	3.57	3.02	---	---	---
15	---	---	---	---	---	---	3.35	3.40	2.94	---	---	---
16	---	---	---	---	---	---	2.80	3.39	2.89	---	---	---
17	---	---	---	---	---	---	2.56	3.45	2.88	---	---	---
18	---	---	---	---	---	---	15.3	3.43	2.86	---	---	---
19	---	---	---	---	---	---	7.51	3.32	2.85	---	---	---
20	---	---	---	---	---	---	3.79	3.33	2.86	---	---	---
21	---	---	---	---	---	---	3.95	3.19	2.80	---	---	---
22	---	---	---	---	---	---	3.43	3.10	2.70	---	---	---
23	---	---	---	---	---	---	2.99	3.18	2.68	---	---	---
24	---	---	---	---	---	---	2.73	2.97	2.68	---	---	---
25	---	---	---	---	---	---	2.55	2.88	2.67	---	---	---
26	---	---	---	---	---	---	2.44	2.71	9.14	---	---	---
27	---	---	---	---	---	---	3.03	28.9	3.32	---	---	---
28	---	---	---	---	---	---	2.63	113	2.87	---	---	---
29	---	---	---	---	---	---	2.24	10.3	3.08	---	---	---
30	---	---	---	---	---	---	2.04	4.38	3.20	---	---	---
31	---	---	---	---	---	---	---	4.01	---	---	---	---
TOTAL	---	---	---	---	---	---	---	255.41	113.94	---	---	---

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	1.60	4.42	2.25	2.99	---
2	---	---	---	---	---	---	---	1.46	22.0	3.11	2.99	---
3	---	---	---	---	---	---	---	1.43	5.09	1.79	2.91	---
4	---	---	---	---	---	---	---	1.28	3.30	1.80	2.88	---
5	---	---	---	---	---	---	---	1.21	3.32	1.79	3.04	---
6	---	---	---	---	---	---	---	1.16	5.17	1.81	3.10	---
7	---	---	---	---	---	---	---	1.11	31.6	1.76	2.90	---
8	---	---	---	---	---	---	---	1.09	11.8	1.81	2.86	---
9	---	---	---	---	---	---	---	1.20	3.64	1.83	2.85	---
10	---	---	---	---	---	---	---	2.17	1.91	1.77	2.86	---
11	---	---	---	---	---	---	---	2.18	1.80	1.80	2.89	---
12	---	---	---	---	---	---	---	2.03	1.73	2.43	2.88	---
13	---	---	---	---	---	---	---	2.09	1.67	1.86	2.93	---
14	---	---	---	---	---	---	---	2.23	1.62	1.86	2.94	---
15	---	---	---	---	---	---	---	2.50	1.61	1.71	2.94	---
16	---	---	---	---	---	---	---	2.96	4.37	1.70	2.98	---
17	---	---	---	---	---	---	---	3.19	324	1.80	2.92	---
18	---	---	---	---	---	---	2.91	3.31	260	40.9	2.97	---
19	---	---	---	---	---	---	5.71	3.62	30.6	16.9	3.52	---
20	---	---	---	---	---	---	2.51	4.04	10.3	2.52	1.67	---
21	---	---	---	---	---	---	2.31	4.55	8.93	2.81	1.40	---
22	---	---	---	---	---	---	2.16	4.09	9.17	3.35	1.29	---
23	---	---	---	---	---	---	2.09	3.80	9.55	3.68	1.25	---
24	---	---	---	---	---	---	1.95	3.41	8.26	3.72	---	---
25	---	---	---	---	---	---	1.79	3.02	5.71	3.56	---	---
26	---	---	---	---	---	---	1.67	2.75	5.46	3.35	---	---
27	---	---	---	---	---	---	1.55	2.39	4.66	3.24	---	---
28	---	---	---	---	---	---	1.49	2.31	3.83	3.22	---	---
29	---	---	---	---	---	---	1.65	2.00	3.17	3.12	---	---
30	---	---	---	---	---	---	1.81	1.68	2.72	2.96	---	---
31	---	---	---	---	---	---	---	1.48	---	3.02	---	---
TOTAL	---	---	---	---	---	---	---	73.34	791.41	129.23	---	---

05407000 WISCONSIN RIVER AT MUSCODA, WI

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 Eagle Mill Creek and 1.0 mi north of Muscoda.

DRAINAGE AREA.--10,400 mi^2.

PERIOD OF RECORD.--December 1902 to December 1903, gage height and discharge measurements only, October 1913 to current year. Monthly discharge 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 sea level. 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: Ice-affected period, Dec. 8 to Mar. 16. Records good except those for ice-affected period, which is fair (see page 12). Flow regulated by 24 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 flows less than 20 ft^3/s were diverted out of the basin through Portage Canal to the Fox River throughout the year. Gage-height telemeter and data-collection platform at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5460	14200	7330	8200	10000	7000	12100	20100	9050	9830	9830	5530
2	5450	13400	7430	8200	11000	7000	12200	19600	8240	9440	9900	5060
3	5480	12700	7750	9600	12000	7000	12500	18700	8520	11600	8360	4520
4	5780	15200	8420	9200	11000	6800	12500	19000	8200	11300	7340	5000
5	6550	18300	8400	9200	11000	6400	12600	18900	9120	9430	6570	4560
6	9190	19800	7080	9200	10000	7000	15200	17600	11000	7190	6960	5310
7	10700	21000	6690	9200	10000	7000	17400	16700	9840	7490	6900	5490
8	10800	17400	5200	9000	10000	7000	16800	16600	10400	7570	6180	5100
9	15300	15700	5400	9000	9600	7000	15800	16100	10100	6910	7860	4740
10	20900	14000	5600	8800	8000	7000	14900	17000	11400	8200	9710	4980
11	23600	13400	5400	8600	6400	6800	15100	17000	11500	6930	9840	4670
12	24700	11300	5200	8400	7000	6400	14500	16700	11300	7140	7250	5130
13	23800	10100	7000	8400	7400	7000	15700	15000	10800	6500	6650	5530
14	17600	9480	8000	8400	7000	7200	17800	13700	11000	6910	7250	5520
15	15300	9230	7600	7400	7000	8400	21000	15500	11100	6950	5860	5050
16	13800	8370	8000	7400	6600	11000	22500	16500	10900	7940	5930	4810
17	13800	8160	8000	7800	7000	11600	20200	15000	12600	7460	5610	4300
18	13200	8280	8000	7800	7000	11100	20500	14700	18100	7990	7020	4090
19	10300	8560	8000	8000	7000	10600	24000	14000	22700	8870	5830	4180
20	9320	8920	8000	8200	7000	10900	26100	13400	25000	8250	5730	4140
21	9110	8620	8000	7000	7000	11800	27800	12900	29200	10700	5770	4060
22	8970	8400	7600	7800	7000	12300	27900	12600	34400	12200	5700	4030
23	9000	8130	8000	9600	7000	11600	33100	13000	36400	11900	5770	4410
24	8950	7500	8000	9800	7000	11700	41000	12800	33100	8460	7030	4410
25	8900	7060	8000	9800	7000	12000	44200	13000	23900	6650	6830	4650
26	10200	7390	7600	9400	7000	11400	40200	12400	23100	6170	5670	4180
27	12600	7840	7600	9400	7000	11600	33500	12800	21400	7010	5170	5550
28	17400	7760	7000	9400	7200	11800	29600	12200	19900	7340	4850	4450
29	19300	7520	7000	9400	7000	12000	26600	10200	16700	6610	5050	5990
30	14800	7340	7400	9400	---	12000	21600	9330	11200	6410	5810	5150
31	14600	---	8200	9400	---	12100	---	8160	---	7480	5800	---
TOTAL	394860	335060	226900	270400	235200	290500	664900	461190	490170	254830	210030	144590
MEAN	12740	11170	7319	8723	8110	9371	22160	14880	16340	8220	6775	4820
MAX	24700	21000	8420	9800	12000	12300	44200	20100	36400	12200	9900	5990
MIN	5450	7060	5200	7000	6400	6400	12100	8160	8200	6170	4850	4030

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	7449	7822	6575	6059	6592	10870	16840	11960	10530	7276	5904	7257
MAX	25460	17130	13100	11400	12020	30400	37650	32270	28840	17780	11610	31280
(WY)	1987	1986	1966	1973	1966	1973	1922	1960	1993	1978	1924	1938
MIN	2638	2662	2616	3209	3113	3501	4788	4621	3091	2754	2567	2651
(WY)	1977	1977	1977	1924	1924	1934	1964	1977	1988	1988	1988	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	3143460		3978630			
ANNUAL MEAN	8612		10870		8757	
HIGHEST ANNUAL MEAN					16030	1973
LOWEST ANNUAL MEAN					4145	1977
HIGHEST DAILY MEAN	24700	Oct 12	44200	Apr 25	79500	Sep 16 1938
LOWEST DAILY MEAN	3250	Aug 4	4030	Sep 22	1460	Jul 3 1988
ANNUAL SEVEN-DAY MINIMUM	3680	Jul 29	4170	Sep 17	1900	Aug 13 1988
INSTANTANEOUS PEAK FLOW			44800	Apr 25	80800	Sep 16 1938
INSTANTANEOUS PEAK STAGE			8.72	Apr 25	11.48	Sep 16 1938
10 PERCENT EXCEEDS	13600		18900		15400	
50 PERCENT EXCEEDS	7600		8830		6930	
90 PERCENT EXCEEDS	4590		5530		3900	

05408000 KICKAPOO RIVER AT LA FARGE, WI

LOCATION.--Lat 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 mi^2.

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 sea level. Prior to Dec. 4, 1939, nonrecording gage on highway bridge at same datum.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 23–29, Dec. 2 to Mar. 16, and Mar. 27, 28. Records good except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	230	237	120	120	190	260	228	144	185	137	121
2	152	574	190	120	120	170	237	199	186	219	137	121
3	167	265	170	120	120	160	249	195	180	240	133	119
4	163	206	160	120	120	150	232	192	170	176	131	117
5	154	186	140	120	130	150	212	185	165	168	131	117
6	414	182	140	120	140	140	204	182	168	161	139	116
7	285	177	140	120	150	140	200	179	335	161	143	117
8	187	167	140	120	170	140	196	178	343	156	149	122
9	169	162	130	120	220	140	191	183	227	154	132	148
10	162	170	130	120	290	150	189	189	200	157	129	139
11	153	166	130	120	330	160	193	188	194	151	128	127
12	150	155	130	130	270	180	207	174	191	165	128	124
13	148	159	140	130	210	250	206	167	172	179	126	123
14	146	155	140	130	190	450	194	166	161	161	125	124
15	144	163	140	130	160	400	196	206	154	156	124	124
16	142	159	140	130	150	350	232	192	170	149	122	125
17	141	156	130	140	140	331	222	183	1850	154	121	125
18	140	157	130	200	140	265	215	178	2050	190	120	123
19	139	156	130	450	140	237	341	171	612	161	128	122
20	146	152	130	350	150	215	310	172	424	152	144	123
21	147	150	130	200	170	201	313	169	340	146	129	128
22	148	138	130	160	180	203	244	156	296	145	141	130
23	147	140	130	150	200	200	218	154	264	143	194	126
24	246	130	130	140	230	268	208	152	255	140	137	127
25	181	140	130	140	400	770	204	148	230	137	131	126
26	163	150	120	130	440	298	206	151	211	135	130	133
27	163	140	120	130	320	240	190	152	199	136	129	175
28	237	130	120	130	250	230	181	161	189	161	127	158
29	202	220	120	130	220	228	184	156	182	160	124	142
30	169	267	120	120	---	234	254	146	207	142	122	135
31	162	---	120	120	---	298	---	143	---	137	122	---
TOTAL	5426	5502	4287	4660	5870	7538	6688	5395	10469	4977	4113	3857
MEAN	175	183	138	150	202	243	223	174	349	161	133	129
MAX	414	574	237	450	440	770	341	228	2050	240	194	175
MIN	139	130	120	120	120	140	181	143	144	135	120	116
CFSM	.66	.69	.52	.57	.76	.91	.84	.65	1.31	.60	.50	.48
IN.	.76	.77	.60	.65	.82	1.05	.94	.75	1.46	.70	.58	.54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

MEAN	146	154	133	128	159	309	278	194	191	161	142	161
MAX	317	337	336	421	499	761	723	580	445	838	446	539
(WY)	1960	1983	1985	1946	1966	1961	1965	1973	1947	1978	1980	1965
MIN	73.4	78.5	62.0	61.3	62.2	114	126	80.4	80.9	77.8	60.4	72.7
(WY)	1959	1940	1959	1959	1959	1957	1942	1958	1958	1958	1958	1940

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1939 - 1996	
ANNUAL TOTAL	66806		68782			
ANNUAL MEAN	183		188		180	
HIGHEST ANNUAL MEAN					282	1993
LOWEST ANNUAL MEAN					97.1	1958
HIGHEST DAILY MEAN	1390	Mar 12	2050	Jun 18	7730	Feb 9 1966
LOWEST DAILY MEAN	(a)110	Feb 11-13	116	Sep 6	36	Nov 3 1939
ANNUAL SEVEN-DAY MINIMUM	(a)116	Feb 7	118	Sep 1	(a)49	Jan 3 1968
INSTANTANEOUS PEAK FLOW			2410	Jun 18	14300	Jul 1 1978
INSTANTANEOUS PEAK STAGE			11.51	Jun 18	14.92	Jul 1 1978
ANNUAL RUNOFF (CFSM)	.69		.71		.68	
ANNUAL RUNOFF (INCHES)	9.34		9.62		9.17	
10 PERCENT EXCEEDS	259		254		262	
50 PERCENT EXCEEDS	152		156		132	
90 PERCENT EXCEEDS	127		122		86	

(a) Ice affected

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 mi^2.

PERIOD OF RECORD.--May 1933 to current year. Prior to October 1982, all records published under station number 05410500.

REVISED RECORDS.--WSP 855: Drainage area. WSP 1438: 1933-38. WDR WI-79-1: 1978(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 657.00 ft above sea level. 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: Ice-affected periods, Nov. 29 and Dec. 7 to Mar. 12. Records good except those for ice-affected periods, which are poor (see page 12). Data-collection platform and gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	421	536	517	340	400	560	664	606	473	618	447	386
2	434	673	522	340	390	540	673	616	488	610	441	380
3	454	852	492	340	380	520	623	573	520	580	438	378
4	453	802	472	340	380	480	621	548	542	627	433	377
5	463	617	465	340	380	450	605	538	516	579	426	373
6	494	560	449	340	380	440	572	522	524	545	440	371
7	570	537	430	340	410	430	553	513	560	533	444	369
8	703	524	420	340	460	430	543	515	660	525	443	370
9	572	508	410	340	600	430	534	519	784	517	437	377
10	508	497	400	340	800	430	525	556	675	508	424	397
11	491	495	390	340	860	450	521	556	604	501	413	409
12	478	491	390	350	760	480	526	550	570	506	410	389
13	463	480	380	350	580	687	537	525	559	511	408	380
14	455	469	380	360	520	982	542	507	528	532	405	379
15	451	466	380	360	480	1160	535	507	499	518	401	381
16	446	455	370	360	460	1090	539	531	486	499	398	381
17	443	462	370	380	440	902	565	552	826	487	395	381
18	439	466	370	420	430	792	585	530	1330	491	392	378
19	439	463	360	780	430	693	599	520	1520	516	407	376
20	441	462	360	960	430	624	714	513	2610	506	419	374
21	446	462	360	900	430	584	790	506	3240	479	428	376
22	451	458	360	700	430	556	774	499	2620	469	424	382
23	450	454	360	600	450	542	674	492	1830	463	428	381
24	460	415	360	540	540	551	617	481	1040	459	463	379
25	500	421	350	520	740	671	589	480	830	451	449	374
26	546	455	350	480	880	946	580	488	744	445	412	384
27	494	482	350	460	900	958	571	483	690	440	410	415
28	487	467	350	440	720	665	548	497	654	463	409	438
29	501	410	350	430	600	642	535	502	630	477	397	442
30	543	472	350	420	---	609	561	500	658	485	389	412
31	496	---	350	410	---	619	---	484	---	462	388	---
TOTAL	14992	15311	12217	13960	15660	19913	17815	16209	28210	15802	13018	11589
MEAN	484	510	394	450	540	642	594	523	940	510	420	386
MAX	703	852	522	960	900	1160	790	616	3240	627	463	442
MIN	421	410	350	340	380	430	521	480	473	440	388	369
CFSM	.70	.74	.57	.66	.79	.94	.86	.76	1.37	.74	.61	.56
IN.	.81	.83	.66	.76	.85	1.08	.96	.88	1.53	.86	.70	.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1996, BY WATER YEAR (WY)

MEAN	417	435	380	359	423	785	705	521	504	478	421	451
MAX	798	858	781	846	1276	1856	1748	1415	981	1901	1180	1331
(WY)	1973	1983	1985	1946	1966	1946	1959	1973	1947	1978	1935	1938
MIN	206	222	172	172	184	252	351	228	223	189	188	199
(WY)	1959	1938	1959	1959	1959	1934	1942	1934	1934	1936	1936	1937

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1933 - 1996	
ANNUAL TOTAL	187871		194696			
ANNUAL MEAN	515		532		491	
HIGHEST ANNUAL MEAN					792	1993
LOWEST ANNUAL MEAN					273	1958
HIGHEST DAILY MEAN	1470	Mar 15	3240	Jun 21	12600	Jul 3 1978
LOWEST DAILY MEAN	(a)310	Feb 12	(a)340	Jan 1-11	165	(b)Dec 10-20 1958
ANNUAL SEVEN-DAY MINIMUM	(a)321	Feb 9	(a)340	Jan 1	165	Dec 10 1958
INSTANTANEOUS PEAK FLOW			3400	Jun 21	16500	Jul 3 1978
INSTANTANEOUS PEAK STAGE			13.33	Jun 21	(c)14.81	Jul 3 1978
INSTANTANEOUS LOW FLOW					(c)161	Aug 9 1936
ANNUAL RUNOFF (CFSM)	.75		.77		.71	
ANNUAL RUNOFF (INCHES)	10.17		10.54		9.71	
10 PERCENT EXCEEDS	727		691		750	
50 PERCENT EXCEEDS	460		480		400	
90 PERCENT EXCEEDS	360		374		258	

(a) Ice affected
(b) Also occurred Jan. 4-9, Feb. 5-7, 1959
(c) Site and datum then in use

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 ft^3. Drainage area, 34.4 mi^2.

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, 5.0 mi southwest of Phelps, used as a reservoir since 1908, has a usable capacity of 313,000,000 ft^3. Drainage area, 26 mi^2.

05390200 Buckatabon Lakes on Buckatabon 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 ft^3. Drainage area, 16.9 mi^2.

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 ft^3. Drainage area, 12.1 mi^2.

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 ft^3. Drainage area, 28.8 mi^2.

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 Eagle6 River, used as a reservoir since 1908, has a usable capacity of 779,000,000 ft^3. This reservoir includes 18 lakes controlled by the same dam. Drainage area, 142 mi^2.

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 ft^3. Drainage area, 22.9 mi^2.

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.ll 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 ft^3. Drainage area, 2.47 mi^2.

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 ft^3. Drainage area, 48.4 mi^2.

05390700 Little St. Germain Lake on Little St. Germain Creek, lat 45°53'55", long 89°27'10", 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 ft^3. Drainage area, 19 mi^2.

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 ft^3. Drainage area, 73.1 mi^2.

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 ft^3. Drainage area, 86.2 mi^2.

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 ft^3. Drainage area, 744 mi^2.

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 ft^3. Drainage area, 19.8 mi^2.

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^3. Drainage area, 95 mi^2.

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 ft^3. Drainage area, 72.5 mi^2.

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 ft^3. Drainage area, 15.2 mi^2.

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 ft^3. Drainage area, 310 mi^2.

RESERVOIRS IN WISCONSIN RIVER BASIN--CONTINUED

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 ft^3. Drainage area, 544 mi^2.

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 ft^3. Drainage area, 158 mi^2.

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 ft^3. Drainage area, 363 mi^2.

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 ft^3. Drainage area, 4,900 mi^2.

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 ft^3. Drainage area, 5,970 mi^2.

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 ft^3. Drainage area, 7,056 mi^2.

MONTH-END CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

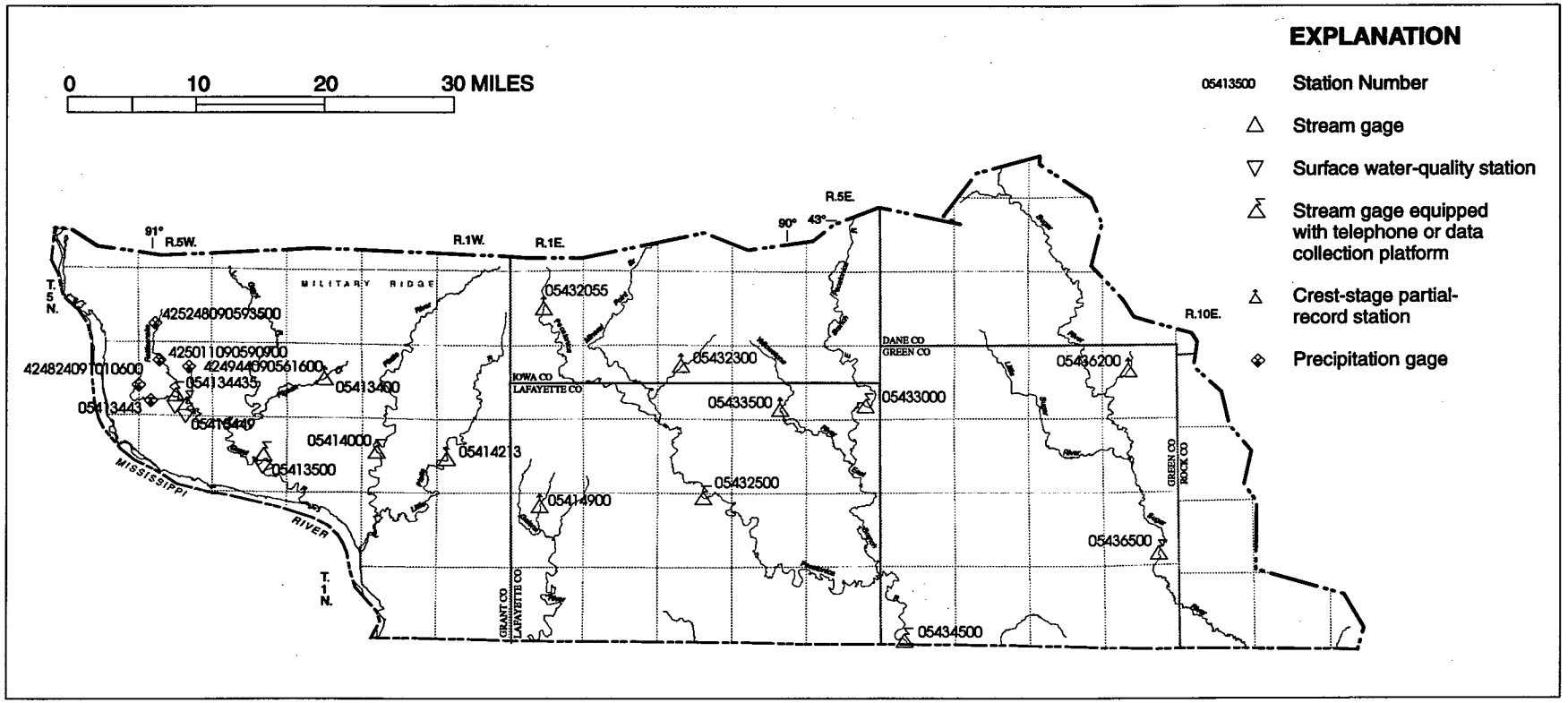
	LAC VIEUX DESERT	TWIN LAKES	BUCKATABON LAKE	SEVENMILE LAKE	LOWER NINEMILE LAKE	BURNT ROLLWAYS RESERVOIR	LONG LAKE	DEERSKIN LAKE
Sept. 30	211	242	115	55	99	581	155	15
Oct. 31	305	277	117	66	103	565	203	18
Nov. 30	236	226	90	36	86	435	188	16
Dec. 31	143	150	52	0	41	162	157	14
Jan. 31	115	56	41	0	26	58	135	14
Feb. 29	73	5	31	0	38	0	78	13
Mar. 31	54	26	38	1	20	0	104	14
Apr. 30	319	172	102	52	97	530	207	17
May 31	408	267	114	56	100	555	283	13
June 30	431	292	114	64	96	536	255	16
July 31	408	270	115	67	99	571	264	18
Aug.31	388	277	114	59	99	555	245	15
Sept. 30	352	261	115	55	99	568	218	16

	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	408	72	167	274	1,711	274	137	511
Oct. 31	425	72	173	271	2,157	305	132	505
Nov. 30	363	67	112	249	2,060	243	71	400
Dec. 31	206	29	58	219	1,699	197	37	237
Jan. 31	37	9	57	215	1,256	188	44	85
Feb. 29	25	15	42	208	787	166	32	0
Mar. 31	157	27	28	199	589	116	42	112
Apr. 30	455	78	105	254	1,922	305	204	337
May 31	410	70	156	267	2,049	271	132	477
June 30	405	72	161	270	2,117	305	137	491
July 31	411	73	163	268	2,136	256	136	493
Aug. 31	406	71	158	266	1,967	162	134	493
Sept. 30	410	72	163	270	1,455	170	133	499

RESERVOIRS IN WISCONSIN RIVER BASIN--CONTINUED

MONTH-END CONTENTS, IN MILLIONS OF CUBIC FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	SQUIRREL LAKE	WILLOW RESERVOIR	LAKE NOKOMIS	SPIRIT RIVER FLOWAGE	BIG EAU PLEINE RESERVOIR	LAKE DUBAY	PETENWELL FLOWAGE	CASTLE ROCK FLOWAGE
Sept. 30	167	2,589	1,440	626	3,770	4,066	17,668	5,831
Oct. 31	167	3,172	1,758	700	4,298	4,144	17,624	5,812
Nov. 30	126	2,948	1,477	603	4,358	4,128	17,668	5,671
Dec. 31	58	2,440	1,360	445	3,699	3,780	17,210	5,722
Jan. 31	20	2,060	1,066	378	2,908	3,165	15,377	5,581
Feb. 29	23	1,507	768	188	1,694	2,855	13,986	3,488
Mar. 31	35	612	233	148	2,085	3,519	14,626	3,681
Apr. 30	112	2,683	1,661	681	4,400	4,278	17,958	6,107
May 31	167	3,111	1,665	662	4,310	4,271	17,571	5,684
June 30	168	3,238	1,739	704	4,394	4,217	17,650	5,850
July 31	168	3,256	1,758	718	4,256	4,119	17,562	5,863
Aug. 31	166	3,074	1,598	696	4,004	4,138	17,562	5,876
Sept. 30	169	2,262	1,259	534	3,156	4,156	17,738	5,857



Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Transverse Mercator projection.

PECATONICA-SUGAR BASIN

425248090593500 RATTLESNAKE CREEK RAIN GAGE #1, ON HOLLY ROAD, NEAR BLOOMINGTON, WI

LOCATION.--Lat 42°52'48", long 90°59'35", in NE 1/4 SW 1/4 sec.29, T.5 N., R.5 W., Grant County, Hydrologic Unit 07060003, on Holly Road, 0.6 mi north of intersection with Maine Road, near Bloomington.

PERIOD OF RECORD.--October 1990 to June 1996 (non-frozen precipitation), discontinued.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on Oct. 16, 1990. Rainfall estimated to be 0.00 for Nov. 10, 28, 29, Dec. 14, 31, Jan. 1, 11, 12, 22, 24, Feb. 8, Mar. 17, and Apr. 7, 15 because recorded precipitation interpreted as collector snowmelt.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 4.06 in., June 14, 1991.

EXTREMES FOR PERIOD OCTOBER 1995 THROUGH JUNE 1996.--Maximum daily rainfall, 1.57 in., Nov. 1.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	1.57	.00	.00	.00	.00	.00	.00	.75	---	---	---
2	.05	.00	.00	.00	.00	.00	.00	.00	.13	---	---	---
3	.03	.00	.00	.00	.00	.00	.08	.02	.00	---	---	---
4	.00	.00	.00	.00	.00	.00	.00	.00	.01	---	---	---
5	.85	.00	.00	.00	.00	.00	.00	.04	.36	---	---	---
6	.17	.00	.00	.00	.00	.00	.00	.00	1.15	---	---	---
7	.00	.00	.00	.00	.00	.00	.00	.00	.06	---	---	---
8	.04	.00	.00	.00	.00	.00	.00	.01	.00	---	---	---
9	.00	.00	.00	.00	.00	.00	.00	1.02	.06	---	---	---
10	.00	.00	.00	.00	.00	.00	.00	.59	.06	---	---	---
11	.00	.00	.00	.00	.00	.00	.00	.00	.04	---	---	---
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
13	.00	.00	.00	.00	.00	.00	.00	.00	.01	---	---	---
14	.00	.00	.00	.00	.00	.00	.00	.13	.00	---	---	---
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
16	.00	.00	.00	.00	.00	.00	.00	.08	.85	---	---	---
17	.00	.00	.00	.36	.00	.00	.00	.00	1.03	---	---	---
18	.00	.00	.00	.17	.00	.00	.46	.00	.08	---	---	---
19	.19	.00	.00	.00	.00	.00	.13	.02	.02	---	---	---
20	.05	.00	.00	.00	.00	.00	.17	.30	.00	---	---	---
21	.02	.00	.00	.00	.00	.00	.00	.00	.06	---	---	---
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
23	.31	.00	.00	.00	.00	.08	.00	.22	.27	---	---	---
24	.01	.00	.00	.00	.00	.24	.00	.06	.00	---	---	---
25	.00	.00	.00	.00	.00	.04	.06	.29	.00	---	---	---
26	.00	.00	.00	.00	.02	.00	.00	.02	.00	---	---	---
27	.02	.08	.00	.00	.13	.00	.00	.24	.00	---	---	---
28	.14	.00	.00	.00	.00	.00	.01	.77	.00	---	---	---
29	.03	.00	.00	.00	.00	.00	.29	.00	1.41	---	---	---
30	.00	.00	.00	.00	---	.17	.00	.00	.00	---	---	---
31	.43	---	.00	.00	---	.02	---	.00	---	---	---	---
TOTAL	2.35	1.65	0.00	0.53	0.15	0.55	1.20	3.81	6.35	---	---	---

425011090590900 RATTLESNAKE CREEK RAIN GAGE #2, ON DODGE ROAD, NEAR NORTH ANDOVER, WI

LOCATION.--Lat 42°50'11", long 90°59'09", in NW 1/4 SE 1/4 sec.8, T.4 N., R.5 W., Grant County, Hydrologic Unit 07060003, on Dodge Road, 0.3 mi west of intersection with Maine Road, near North Andover.

PERIOD OF RECORD.--October 1990 to June 1996 (non-frozen precipitation), discontinued.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on Oct. 16, 1990. Rainfall estimated to be 0.00 for Nov. 9, 10, 28, 30, Dec. 14, 31, Jan. 1, 11, 12, 14, 21, 22, 29, Feb. 8, Mar. 17, and Apr. 15 because recorded precipitation interpreted as collector snowmelt.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 3.62 in., June 23, 1994.

EXTREMES FOR PERIOD OCTOBER 1995 THROUGH JUNE 1996.--Maximum daily rainfall, 1.68 in., Nov. 1.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	1.68	.00	.00	.00	.00	.00	.00	.74	---	---	---
2	.13	.01	.00	.00	.00	.00	.00	.00	.15	---	---	---
3	.04	.00	.00	.00	.00	.00	.13	.04	.00	---	---	---
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
5	.87	.00	.00	.00	.00	.00	.00	.07	.33	---	---	---
6	.44	.00	.00	.00	.00	.00	.00	.00	1.95	---	---	---
7	.00	.00	.00	.00	.00	.00	.00	.01	.05	---	---	---
8	.02	.00	.00	.00	.00	.00	.00	.02	.00	---	---	---
9	.00	.00	.00	.00	.00	.00	.00	1.24	.10	---	---	---
10	.00	.00	.00	.00	.00	.00	.00	.69	.02	---	---	---
11	.00	.00	.00	.00	.00	.00	.00	.00	.08	---	---	---
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
13	.00	.00	.00	.00	.00	.00	.00	.00	.01	---	---	---
14	.01	.00	.00	.00	.00	.00	.00	.23	.02	---	---	---
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
16	.00	.00	.00	.00	.00	.00	.00	.07	.68	---	---	---
17	.00	.00	.00	.37	.00	.00	.00	.00	1.02	---	---	---
18	.00	.00	.00	.18	.00	.00	.31	.00	.05	---	---	---
19	.26	.00	.00	.00	.00	.00	.15	.05	.00	---	---	---
20	.08	.00	.00	.00	.00	.00	.15	.39	.00	---	---	---
21	.01	.00	.00	.00	.00	.00	.00	.00	.06	---	---	---
22	.01	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
23	.32	.00	.00	.00	.00	.10	.00	.27	.45	---	---	---
24	.01	.00	.00	.00	.00	.21	.00	.08	.00	---	---	---
25	.00	.00	.00	.00	.00	.03	.07	.40	.00	---	---	---
26	.00	.00	.00	.00	.00	.00	.00	.07	.00	---	---	---
27	.04	.11	.00	.00	.00	.00	.00	.20	.00	---	---	---
28	.18	.00	.00	.00	.00	.00	.01	.97	.00	---	---	---
29	.05	.00	.00	.00	.00	.00	.49	.00	1.05	---	---	---
30	.00	.00	.00	.00	---	.16	.00	.00	.00	---	---	---
31	.41	---	.00	.00	---	.04	---	.00	---	---	---	---
TOTAL	2.92	1.80	0.00	0.55	0.00	0.54	1.31	4.80	6.76	---	---	---

424944090561600 RATTLESNAKE CREEK RAIN GAGE #3, ON HUDSON ROAD, NEAR NORTH ANDOVER, WI

LOCATION.--Lat 42°49'44", long 90°56'16", in SW 1/4 SW 1/4 sec.11, T.4 N., R.5 W., Grant County, Hydrologic Unit 07060003, on Hudson Road, 0.6 mi east of intersection with Wisconsin Highway 133, near North Andover.

PERIOD OF RECORD.--October 1990 to June 1996 (non-frozen precipitation), discontinued.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on Oct. 16, 1990. Rainfall estimated to be 0.00 for Nov. 10, 28, Dec. 5, 14, 31, Jan. 1, 11, 21, 22, Feb. 7, 8, 23, Mar. 17, and Apr. 14, 15 because recorded precipitation interpreted as collector snowmelt.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 3.65 in., June 23, 1994.

EXTREMES FOR PERIOD OCTOBER 1995 THROUGH JUNE 1996.--Maximum daily rainfall, 1.72 in., Nov. 1.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	1.72	.00	.00	.00	.00	.00	.00	.66	---	---	---
2	.20	.00	.00	.00	.00	.00	.00	.00	.26	---	---	---
3	.05	.00	.00	.00	.00	.00	.13	.03	.00	---	---	---
4	.00	.00	.00	.00	.00	.00	.00	.01	.01	---	---	---
5	1.01	.00	.00	.00	.00	.00	.00	.05	.24	---	---	---
6	.31	.00	.00	.00	.00	.00	.00	.00	1.19	---	---	---
7	.00	.00	.00	.00	.00	.00	.00	.01	.07	---	---	---
8	.02	.00	.00	.00	.00	.00	.00	.01	.00	---	---	---
9	.00	.00	.00	.00	.00	.00	.00	.93	.11	---	---	---
10	.01	.00	.00	.00	.00	.00	.00	.60	.01	---	---	---
11	.00	.00	.00	.00	.00	.00	.00	.00	.06	---	---	---
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
14	.00	.00	.00	.00	.00	.00	.00	.16	.00	---	---	---
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
16	.00	.00	.00	.00	.00	.00	.00	.11	.54	---	---	---
17	.00	.00	.00	.33	.00	.00	.00	.00	1.24	---	---	---
18	.00	.00	.00	.11	.00	.00	.52	.00	.05	---	---	---
19	.29	.00	.00	.00	.00	.00	.14	.07	.00	---	---	---
20	.03	.00	.00	.00	.00	.00	.15	.44	.00	---	---	---
21	.03	.00	.00	.00	.00	.00	.00	.00	.03	---	---	---
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
23	.32	.00	.00	.00	.01	.10	.00	.27	.36	---	---	---
24	.01	.00	.00	.00	.00	.19	.00	.06	.00	---	---	---
25	.00	.00	.00	.00	.00	.01	.06	.46	.00	---	---	---
26	.00	.00	.00	.00	.04	.00	.01	.07	.00	---	---	---
27	.03	.13	.00	.00	.13	.00	.00	.33	.00	---	---	---
28	.17	.00	.00	.00	.00	.00	.00	1.02	.00	---	---	---
29	.06	.00	.00	.00	.00	.00	.33	.00	1.14	---	---	---
30	.00	.00	.00	.00	---	.16	.01	.00	.00	---	---	---
31	.40	---	.00	.00	---	.04	---	.00	---	---	---	---
TOTAL	2.97	1.85	0.00	0.44	0.18	0.50	1.35	4.63	5.97	---	---	---

424824091010600 RATTLESNAKE CREEK RAIN GAGE #4, ON PRIDE ROAD, NEAR NORTH ANDOVER, WI

LOCATION.--Lat 42°48'24", long 91°01'06", in NE 1/4 SE 1/4 sec.24, T.4 N., R.6 W., Grant County, Hydrologic Unit 07060003, on Pride Road, 0.1 mi south of intersection with Fairview Road, near North Andover.

PERIOD OF RECORD.--October 1990 to June 1996 (non-frozen precipitation), discontinued.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on Oct. 16, 1990. Rainfall estimated to be 0.00 for Nov. 10, 28, 29, Dec. 14, 31, Jan. 1, 11, 12, 21, Feb. 8, Mar. 17, 18, and Apr. 14–16 because rcorded precipitation interpreted as collector snowmelt.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.89 in., June 14, 1991.

EXTREMES FOR PERIOD OCTOBER 1995 THROUGH JUNE 1996.--Maximum daily rainfall, 1.69 in., Nov. 1.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	1.69	.00	.00	.00	.00	.00	.00	1.02	---	---	---
2	.11	.00	.00	.00	.00	.00	.00	.01	.10	---	---	---
3	.03	.00	.00	.00	.00	.00	.12	.04	.01	---	---	---
4	.00	.00	.00	.00	.00	.00	.00	.01	.00	---	---	---
5	.64	.00	.00	.00	.00	.00	.00	.05	.25	---	---	---
6	.49	.00	.00	.00	.00	.00	.00	.00	1.30	---	---	---
7	.00	.00	.00	.00	.00	.00	.00	.02	.05	---	---	---
8	.02	.00	.00	.00	.00	.00	.00	.02	.01	---	---	---
9	.00	.00	.00	.00	.00	.00	.00	.98	.11	---	---	---
10	.01	.00	.00	.00	.00	.00	.00	.64	.03	---	---	---
11	.00	.00	.00	.00	.00	.00	.00	.00	.08	---	---	---
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
13	.00	.00	.00	.00	.00	.00	.00	.00	.02	---	---	---
14	.02	.00	.00	.00	.00	.00	.00	.25	.00	---	---	---
15	.00	.00	.00	.00	.00	.00	.00	.01	.00	---	---	---
16	.00	.00	.00	.00	.00	.00	.00	.14	.52	---	---	---
17	.00	.00	.00	.38	.00	.00	.00	.00	1.04	---	---	---
18	.00	.00	.00	.14	.00	.00	.23	.00	.02	---	---	---
19	.21	.00	.00	.00	.00	.00	.17	.07	.00	---	---	---
20	.06	.00	.00	.00	.00	.00	.15	.43	.00	---	---	---
21	.00	.00	.00	.00	.00	.00	.00	.00	.04	---	---	---
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
23	.26	.00	.00	.00	.01	.11	.00	.25	.42	---	---	---
24	.00	.00	.00	.00	.00	.23	.00	.10	.00	---	---	---
25	.00	.00	.00	.00	.00	.03	.02	.60	.00	---	---	---
26	.00	.00	.00	.00	.04	.00	.00	.10	.00	---	---	---
27	.02	.12	.00	.00	.14	.00	.00	.23	.00	---	---	---
28	.23	.00	.00	.00	.00	.00	.00	1.13	.00	---	---	---
29	.06	.00	.00	.00	.00	.00	.43	.00	1.22	---	---	---
30	.00	.00	.00	.00	---	.17	.00	.00	.00	---	---	---
31	.44	---	.00	.00	---	.04	---	.00	---	---	---	---
TOTAL	2.64	1.81	0.00	0.52	0.19	0.58	1.12	5.08	6.24	---	---	---

05413443 KUENSTER CREEK ON TEXAS ROAD, NEAR NORTH ANDOVER, WI

LOCATION .--Lat 42°47'31", long 90°59'53", in NW 1/4 SW 1/4 sec.29, T.4 N., R.5 W., Grant County, Hydrologic Unit 07060003, on Texas Road, 0.7 mi north of junction with Ramsey Road, near North Andover.

PERIOD OF RECORD.--November 1991 to June 1996 (non-frozen precipitation), discontinued.

GAGE.--Tipping bucket rain gage with electronic datalogger.

REMARKS.--Gage established on Nov. 15, 1991. Rainfall estimated to be 0.00 for Nov. 9, 10, 29, Dec. 14, 31, Jan. 1, 11–13, 21, Mar. 17, and Apr. 15 because recorded precipitation interpreted as collector snowmelt. Rainfall data missing for the periods June 6–16 and June 29, 30.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily rainfall, 2.41 in., Aug. 6, 1995.

EXTREMES FOR PERIOD OCTOBER 1995 THROUGH JUNE 1996.--Maximum daily rainfall, 1.77 in., Nov. 1.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	1.77	.00	.00	.00	.00	.00	.00	.73	---	---	---
2	.04	.00	.00	.00	.00	.00	.00	.01	.06	---	---	---
3	.04	.00	.00	.00	.00	.00	.09	.05	.00	---	---	---
4	.00	.00	.00	.00	.00	.00	.00	.01	.00	---	---	---
5	.69	.00	.00	.00	.00	.00	.00	.07	.19	---	---	---
6	.37	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
7	.00	.00	.00	.00	.00	.00	.00	.01	---	---	---	---
8	.02	.00	.00	.00	.00	.00	.00	.01	---	---	---	---
9	.00	.00	.00	.00	.00	.00	.00	1.05	---	---	---	---
10	.00	.00	.00	.00	.00	.00	.00	.69	---	---	---	---
11	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
12	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
13	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
14	.02	.00	.00	.00	.00	.00	.00	.21	---	---	---	---
15	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---	---
16	.00	.00	.00	.00	.00	.00	.00	.11	---	---	---	---
17	.00	.00	.00	.08	.00	.00	.00	.00	1.20	---	---	---
18	.00	.00	.00	.39	.00	.00	.26	.00	.05	---	---	---
19	.29	.00	.00	.00	.00	.00	.14	.06	.00	---	---	---
20	.04	.00	.00	.00	.00	.00	.14	.41	.00	---	---	---
21	.01	.00	.00	.00	.00	.00	.00	.00	.03	---	---	---
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
23	.30	.00	.00	.00	.00	.09	.00	.23	.41	---	---	---
24	.01	.00	.00	.00	.00	.21	.00	.08	.01	---	---	---
25	.00	.00	.00	.00	.00	.03	.03	.38	.00	---	---	---
26	.00	.00	.00	.00	.00	.00	.00	.07	.00	---	---	---
27	.01	.11	.00	.00	.13	.00	.00	.17	.00	---	---	---
28	.22	.00	.00	.00	.00	.00	.00	.99	.00	---	---	---
29	.05	.00	.00	.00	.00	.00	.59	.00	---	---	---	---
30	.00	.00	.00	.00	---	.15	.00	.00	---	---	---	---
31	.34	---	.00	.00	---	.03	---	.00	---	---	---	---
TOTAL	2.47	1.88	0.00	0.47	0.13	0.51	1.25	4.61	---	---	---	---

054134435 KUENSTER CREEK AT MUSKELLUNGE ROAD NEAR NORTH ANDOVER, WI

LOCATION.--Lat 42°47'27", long 90°57'26", in NW 1/4 SW 1/4 sec.27, T.4 N., R.5 W., Grant County, Hydrologic Unit 07060003, on right bank 50 ft upstream from Muskellunge Road, 1.75 mi southeast of North Andover.

DRAINAGE AREA.--9.59 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to June 1996 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 820 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 15 and Nov. 21 to Mar. 14. Records good except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	13	2.8	2.0	2.7	6.0	3.2	2.7	5.7	---	---	---
2	3.7	12	2.8	1.9	2.6	5.4	3.1	2.4	8.9	---	---	---
3	3.8	5.2	2.7	1.8	2.6	4.7	3.1	2.5	5.6	---	---	---
4	3.8	4.1	2.7	1.8	2.6	4.1	3.3	2.5	4.9	---	---	---
5	4.5	3.6	2.7	1.8	2.6	3.7	3.1	2.5	4.6	---	---	---
6	7.7	3.6	2.7	1.8	2.6	3.5	3.0	2.5	12	---	---	---
7	6.7	3.5	2.7	1.8	2.7	3.4	2.8	2.6	19	---	---	---
8	4.8	3.5	2.6	1.8	2.9	3.3	2.7	2.9	7.8	---	---	---
9	4.4	4.0	2.4	1.8	3.5	3.3	2.6	3.5	5.9	---	---	---
10	4.0	3.8	2.2	1.8	40	3.3	2.7	13	4.9	---	---	---
11	3.8	4.2	2.2	1.8	30	3.7	2.9	5.5	4.8	---	---	---
12	3.5	5.8	2.1	1.9	20	4.2	3.1	4.6	4.2	---	---	---
13	3.1	3.8	2.1	2.0	14	4.5	3.1	4.6	3.8	---	---	---
14	3.1	3.4	2.3	2.0	10	5.0	2.8	4.2	3.6	---	---	---
15	3.1	3.4	2.3	2.0	8.0	5.3	3.3	4.5	4.7	---	---	---
16	3.1	3.3	2.2	2.0	6.4	5.3	3.2	4.6	4.9	---	---	---
17	3.2	3.3	2.1	3.0	5.6	5.1	2.7	4.7	18	---	---	---
18	3.2	3.3	2.1	25	5.0	5.0	3.2	4.4	6.8	---	---	---
19	3.5	3.3	2.1	6.6	4.8	4.4	3.8	4.1	5.2	---	---	---
20	4.0	3.3	2.1	4.0	4.8	4.5	4.1	4.1	4.6	---	---	---
21	3.8	3.3	2.1	3.4	8.0	4.1	3.6	4.1	4.3	---	---	---
22	3.6	3.2	2.1	3.0	7.0	4.1	3.2	3.9	4.1	---	---	---
23	3.8	3.2	1.9	2.8	8.0	4.0	2.9	3.3	4.3	---	---	---
24	4.1	3.0	1.8	2.7	12	4.4	2.7	3.7	5.0	---	---	---
25	3.5	3.0	1.8	2.7	10	5.3	2.8	3.8	3.8	---	---	---
26	3.3	3.0	1.8	2.8	9.0	7.2	2.8	4.4	3.3	---	---	---
27	3.3	3.4	1.8	2.9	8.4	6.5	2.5	4.0	3.2	---	---	---
28	3.6	3.6	1.8	2.9	7.6	3.3	2.5	12	2.9	---	---	---
29	3.4	3.2	1.8	2.9	7.0	3.2	3.3	8.1	3.6	---	---	---
30	3.1	2.9	1.9	2.9	---	3.1	3.5	5.8	8.1	---	---	---
31	3.2	---	2.1	2.8	---	3.7	---	5.1	---	---	---	---
TOTAL	119.8	125.2	68.8	100.4	250.4	136.6	91.6	140.6	182.5	---	---	---
MEAN	3.86	4.17	2.22	3.24	8.63	4.41	3.05	4.54	6.08	---	---	---
MAX	7.7	13	2.8	25	40	7.2	4.1	13	19	---	---	---
MIN	3.1	2.9	1.8	1.8	2.6	3.1	2.5	2.4	2.9	---	---	---
CFSM	.40	.44	.23	.34	.90	.46	.32	.47	.63	---	---	---
IN.	.46	.49	.27	.39	.97	.53	.36	.55	.71	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	4.17	4.78	4.24	4.17	7.27	11.0	6.29	6.44	6.87	12.1	6.47	5.12
MAX	7.98	6.67	5.97	6.66	11.0	32.2	11.8	14.0	14.3	32.2	14.3	9.91
(WY)	1994	1994	1994	1992	1992	1993	1993	1993	1993	1993	1993	1993
MIN	2.40	3.59	2.22	2.99	2.77	3.82	3.05	3.04	3.08	3.95	2.18	3.04
(WY)	1993	1995	1996	1995	1993	1995	1996	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR (OCTOBER-JUNE)		WATER YEARS 1992 - 1996	
ANNUAL TOTAL	1542.7					
ANNUAL MEAN	4.23				6.89	
HIGHEST ANNUAL MEAN					12.2	1993
LOWEST ANNUAL MEAN					4.23	1995
HIGHEST DAILY MEAN	33	Aug 7	(a)40	Feb 10	201	Jul 9 1993
LOWEST DAILY MEAN	(a)1.8	Dec 24-29	(a)1.8	(b)Dec 24	1.7	(c)Aug 22 1992
ANNUAL SEVEN-DAY MINIMUM	(a)1.8	Dec 23	(a)1.8	Jan 3	(a)1.8	Jan 3 1996
INSTANTANEOUS PEAK FLOW			(d)43	Jun 17	(e)834	Jul 10 1993
INSTANTANEOUS PEAK STAGE			(f)6.71	Feb 10	8.74	Jul 10 1993
INSTANTANEOUS LOW FLOW			(g)1.1	Dec 5	.84	Apr 4 1995
ANNUAL RUNOFF (CFSM)	.44				.72	
ANNUAL RUNOFF (INCHES)	5.98				9.76	
10 PERCENT EXCEEDS	6.2		7.1		11	
50 PERCENT EXCEEDS	3.5		3.4		4.1	
90 PERCENT EXCEEDS	2.7		2.1		2.6	

(a) Ice affected
(b) Also occurred Dec. 25-29 and Jan. 3-11
(c) Also occurred Aug. 31 and Sept. 1, 1992
(d) Gage height, 3.80 ft
(e) From rating curve extended above 200 ft^3/s
(f) Backwater from ice
(g) Result of freezeup

054134435 KUENSTER CREEK AT MUSKELLUNGE ROAD NEAR NORTH ANDOVER, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1991 to June 1996 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1991 to June 1996.
DISSOLVED OXYGEN: October 1991 to June 1996.
SUSPENDED-SOLIDS DISCHARGE: October 1992 to June 1996.
TOTAL-PHOSPHORUS DISCHARGE: October 1992 to June 1996.

INSTRUMENTATION.--Continuous water temperature recorder and dissolved oxygen recorder since Oct. 5, 1991. Automatic pump sampler since Oct. 5, 1991.

REMARKS.--Water-quality analyses by the Wisconsin State Laboratory of Hygiene. Samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURE: Maximum observed, 33.5°C, July 13-14, 1995; minimum observed, 0.0°C, on many days.
DISSOLVED OXYGEN: Maximum observed, 19.9 mg/L, Oct. 23, 1991; minimum observed, 0.5 mg/L, June 7, 1993.
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 2,390 tons, Mar. 30, 1993; minimum observed, 0.03 ton, Apr. 4-5, 1995, and May 2, 1996.
TOTAL-PHORPHORUS DISCHARGE: Maximum daily, 4,950 lbs, Mar. 30, 1993; minimum observed, 0.66 lbs, Apr. 11, 1994.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum observed, 31.0°C, June 29; minimum observed, 0.0°C, Nov. 3–5, 7–15, 21–25, Nov. 27 to Feb. 23, Feb. 27 to Mar. 2, and Mar. 21–22, 25–27.
DISSOLVED OXYGEN: Maximum observed, 15.3 mg/L, May 7; minimum observed, 3.5 mg/L, June 30.
SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 65 tons, Jan. 18; minimum observed, 0.03 ton, May 2.
TOTAL-PHORPHORUS DISCHARGE: Maximum daily, 438 lbs, Feb. 10; minimum observed, 0.78 lbs, Apr. 27–28.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
OCT 1995									
*11...	1125	--	4.0	8.3	1.4	430	23	<0.027	0.110
*19...	1035	--	3.1	8.4	1.4	2800	9	<0.027	0.093
NOV									
01...	1315	--	11	--	--	--	260	0.229	0.608
01...	1400	--	19	--	--	--	884	0.277	1.46
01...	1430	--	25	--	--	--	1460	0.291	2.20
02...	0715	--	15	--	--	--	296	0.480	1.22
*03...	1420	--	4.9	--	--	--	19	0.341	0.343
*29...	0930	3.2	--	8.3	1.9	190	18	0.042	0.082
JAN 1996									
*10...	1215	1.8	--	7.9	--	70	392	0.031	0.223
17...	2315	3.0	--	--	--	--	176	0.298	0.551
17...	2400	3.0	--	--	--	--	500	0.422	1.02
18...	0045	25	--	--	--	--	900	0.613	1.80
18...	0115	25	--	--	--	--	1120	1.04	2.42
18...	0500	25	--	7.4	--	--	2550	5.71	6.41
18...	1115	25	--	--	--	--	648	2.46	2.64
22...	0950	3.0	--	8.0	--	--	33	0.243	0.140
FEB									
09...	0700	3.5	--	--	--	--	50	1.16	0.908
09...	1230	3.5	--	--	--	--	62	1.84	1.09
10...	0730	40	--	--	--	--	50	2.95	1.78
10...	1115	40	--	--	--	--	190	3.36	2.01
10...	1130	40	--	--	--	--	276	3.37	2.10
10...	1345	40	--	7.4	--	--	356	2.92	1.99
10...	1600	40	--	--	--	--	400	3.28	2.39
11...	0200	30	--	--	--	--	96	2.76	1.88
11...	1345	30	--	--	--	--	136	2.67	1.76
*12...	0935	20	--	8.1	--	4300	30	2.54	2.58
21...	0530	8.0	--	--	--	--	164	2.46	1.72
22...	2200	7.0	--	--	--	--	200	1.44	0.965
23...	0530	8.0	--	--	--	--	264	1.77	1.36
23...	1036	8.0	--	--	--	--	444	1.85	1.66
*23...	1037	8.0	--	--	--	--	512	2.02	1.80

* Equal-width increment (EWI) sample

054134435 KUENSTER CREEK AT MUSKELLUNGE ROAD NEAR NORTH ANDOVER, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
MAR 1996									
*12...	0940	4.2	--	8.3	--	540	63	0.968	0.575
*26...	1002	--	15	8.1	--	40	77	0.245	0.241
APR									
*16...	1202	--	3.3	8.6	--	10	10	0.029	0.051
MAY									
*02...	1115	--	2.3	8.7	--	70	<5	<0.027	0.058
10...	0200	--	11	--	--	35000	268	0.106	0.541
10...	0230	--	20	--	--	230000	2410	0.858	7.54
10...	0345	--	28	8.0	--	270000	2380	0.898	4.66
10...	0715	--	16	--	--	270000	2300	0.690	5.04
*10...	1042	--	14	--	--	1700000	1880	5.02	16.1
10...	1043	--	14	--	--	1700000	1900	5.21	14.7
*21...	1220	--	4.2	8.5	--	46000	20	0.263	0.336
28...	0800	--	10	--	--	140000	202	0.157	1.05
28...	0945	--	17	8.2	--	380000	418	0.661	1.71
28...	1031	--	17	--	--	570000	502	0.652	1.99
*28...	1032	--	17	--	--	--	490	0.706	1.96
29...	0530	--	9.2	--	--	92000	114	0.441	0.830
29...	1030	--	7.9	--	--	--	30	0.222	0.478

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
JUN 1996							
01...	2230	9.8	8.3	--	90	0.087	0.346
*03...	1250	5.3	8.6	--	18	0.030	0.222
06...	0545	9.8	--	9900	136	0.068	0.291
06...	0930	15	--	70000	446	0.120	0.795
*06...	0956	17	--	320000	950	0.578	2.86
06...	1006	17	7.9	--	1520	1.28	5.80
07...	0030	23	7.7	--	848	1.22	3.28
07...	0130	31	7.8	--	1040	0.607	2.29
*07...	1005	20	8.0	75000	378	--	1.29
07...	1010	20	7.7	--	368	0.330	1.26
08...	1845	7.3	--	--	59	0.105	0.305
*09...	1325	6.1	--	--	22	0.034	0.197
16...	2045	5.6	--	--	29	0.032	0.156
17...	0230	7.9	--	4600	116	0.064	0.294
17...	0400	16	--	73000	334	0.211	0.861
17...	0600	36	--	1100000	1200	0.815	2.86
17...	0630	43	8.0	570000	1420	0.424	2.71
17...	1000	19	--	--	880	1.18	4.00
*17...	1001	19	--	1500000	860	1.26	4.12
*19...	1325	5.3	--	2100	--	--	--
29...	2200	7.9	--	--	175	0.088	0.486
29...	2345	14	--	--	307	0.198	0.904
30...	1845	5.3	--	--	109	0.081	0.440
JUL							
*02...	1106	3.6	--	18000	10	<0.027	0.223

* Equal-width increment (EWI) sample

054134435 KUENSTER CREEK AT MUSKELLUNGE ROAD NEAR NORTH ANDOVER, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.5	13.5	15.5	7.5	4.0	5.5	.5	.0	.0	.0	.0	.0
2	15.5	10.5	13.0	6.5	1.0	4.5	.5	.0	.0	.0	.0	.0
3	17.0	12.5	14.5	1.5	.0	.5	1.0	.0	.5	.0	.0	.0
4	16.0	9.0	12.5	2.0	.0	.5	2.0	.0	1.0	.0	.0	.0
5	13.5	10.5	11.5	2.5	.0	1.0	2.0	.0	1.0	.0	.0	.0
6	11.5	10.0	11.0	6.5	1.5	4.0	.0	.0	.0	.0	.0	.0
7	10.5	8.0	9.5	5.0	.0	2.5	.0	.0	.0	.0	.0	.0
8	12.5	6.0	9.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
9	12.0	8.5	10.5	2.5	.0	.5	.0	.0	.0	.0	.0	.0
10	13.5	6.5	10.0	3.5	.0	3.0	.0	.0	.0	.0	.0	.0
11	15.5	7.0	11.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	17.5	10.5	14.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13	16.5	11.5	14.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
14	11.5	5.5	8.5	3.0	.0	1.0	.0	.0	.0	.0	.0	.0
15	9.5	3.5	6.0	1.5	.0	.5	.0	.0	.0	.0	.0	.0
16	10.0	3.0	6.5	4.0	1.5	2.5	.0	.0	.0	.0	.0	.0
17	13.5	6.5	9.5	4.0	2.5	3.5	.0	.0	.0	.0	.0	.0
18	12.0	7.0	10.0	4.0	2.0	3.0	.0	.0	.0	.0	.0	.0
19	11.5	9.0	10.0	5.5	1.0	3.0	.0	.0	.0	.0	.0	.0
20	9.0	5.0	6.5	4.0	1.0	2.5	.0	.0	.0	.0	.0	.0
21	5.0	3.5	4.5	1.5	.0	.5	.0	.0	.0	.0	.0	.0
22	8.0	2.5	5.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23	10.0	5.5	7.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
24	7.5	4.5	6.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
25	9.0	2.0	5.5	.5	.0	.0	.0	.0	.0	.0	.0	.0
26	9.0	4.5	7.0	3.0	.5	1.5	.0	.0	.0	.0	.0	.0
27	9.0	7.5	8.0	2.5	.0	.5	.0	.0	.0	.5	.0	.0
28	8.0	6.0	7.5	.0	.0	.0	.0	.0	.0	.5	.0	.5
29	7.0	3.5	5.5	.0	.0	.0	.0	.0	.0	.5	.0	.5
30	7.5	4.5	6.0	.0	.0	.0	.0	.0	.0	.5	.0	.5
31	5.5	4.0	4.5	---	---	---	.0	.0	.0	.5	.0	.5
MONTH	17.5	2.0	9.0	7.5	.0	1.3	2.0	.0	.1	.5	.0	.1

		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.0	.5	.5	.0	.5	11.5	2.0	7.0	16.5	6.0	11.0
2	.5	.0	.5	.5	.0	.5	13.5	5.5	9.5	12.0	7.0	10.0
3	.5	.0	.5	.5	.5	.5	11.5	6.0	8.5	13.5	8.5	10.5
4	.5	.0	.5	.5	.5	.5	7.0	3.5	5.0	18.5	10.0	13.5
5	.5	.0	.5	.5	.5	.5	10.5	1.5	6.0	14.0	10.0	11.5
6	.5	.0	.5	.5	.5	.5	10.5	3.5	7.0	11.0	8.5	9.5
7	.5	.0	.5	.5	.5	.5	12.5	4.0	8.0	14.0	8.5	10.5
8	.5	.0	.5	.5	.5	.5	12.5	2.5	7.5	15.0	10.0	12.0
9	.5	.0	.5	.5	.5	.5	13.5	3.0	8.0	16.0	12.0	13.5
10	.5	.0	.5	.5	.5	.5	15.5	4.5	9.5	15.0	11.0	12.5
11	.5	.0	.5	.5	.5	.5	17.5	8.0	13.0	16.5	9.0	12.0
12	.5	.0	.5	2.5	.5	.5	17.0	11.0	13.5	17.0	8.0	12.5
13	.5	.0	.5	9.0	2.0	5.0	14.0	7.0	10.0	18.5	8.5	13.5
14	.5	.0	.5	8.0	4.0	5.5	9.0	3.0	6.0	14.0	10.0	11.0
15	.5	.0	.5	9.5	2.0	5.5	10.5	3.0	6.0	13.5	9.5	11.5
16	.5	.0	.5	9.0	2.0	5.5	13.5	4.0	8.5	14.5	12.0	13.0
17	.5	.0	.5	9.5	2.5	5.5	17.0	5.5	11.0	25.0	13.0	18.5
18	.5	.0	.5	7.5	2.0	4.5	13.5	10.5	12.0	28.0	18.0	23.0
19	.5	.0	.5	6.5	1.0	3.5	14.5	8.0	11.5	25.5	20.0	22.5
20	.5	.0	.5	7.5	.5	3.5	12.0	8.0	10.5	21.0	16.0	18.0
21	.5	.0	.5	7.0	.0	3.0	16.5	5.5	10.5	22.5	13.0	17.5
22	.5	.0	.5	8.5	.0	4.0	17.0	10.0	12.5	19.0	13.5	16.5
23	.5	.0	.5	8.5	1.0	5.0	17.5	6.5	12.0	17.5	14.5	16.0
24	1.0	.5	.5	8.0	4.5	6.0	19.0	9.0	14.0	14.5	10.5	12.0
25	1.0	.5	.5	8.0	.0	3.5	15.5	11.5	13.5	---	---	---
26	2.0	1.0	1.5	.5	.0	.0	14.0	6.5	10.0	---	---	---
27	3.0	.0	2.0	3.5	.0	1.0	17.0	5.5	11.0	---	---	---
28	.5	.0	.5	7.5	.5	4.0	16.5	9.5	12.5	---	---	---
29	.5	.0	.5	11.5	2.0	6.5	11.0	5.0	7.0	---	---	---
30	---	---	---	7.0	5.0	6.0	14.0	4.0	8.5	---	---	---
31	---	---	---	11.0	3.5	6.5	---	---	---	---	---	---
MONTH	3.0	.0	.6	11.5	.0	2.9	19.0	1.5	9.6	---	---	---

054134435 KUENSTER CREEK AT MUSKELLUNGE ROAD NEAR NORTH ANDOVER, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	28.0	18.0	23.0	---	---	---	---	---	---	---	---	---
14	28.0	18.0	23.0	---	---	---	---	---	---	---	---	---
15	27.5	18.0	23.0	---	---	---	---	---	---	---	---	---
16	23.5	20.5	21.5	---	---	---	---	---	---	---	---	---
17	22.0	19.0	20.5	---	---	---	---	---	---	---	---	---
18	20.5	18.0	19.0	---	---	---	---	---	---	---	---	---
19	20.5	17.0	18.5	---	---	---	---	---	---	---	---	---
20	23.0	16.5	19.5	---	---	---	---	---	---	---	---	---
21	25.5	18.5	21.5	---	---	---	---	---	---	---	---	---
22	24.5	19.0	21.5	---	---	---	---	---	---	---	---	---
23	21.5	17.0	19.5	---	---	---	---	---	---	---	---	---
24	24.0	17.5	20.5	---	---	---	---	---	---	---	---	---
25	26.5	16.5	21.5	---	---	---	---	---	---	---	---	---
26	27.5	18.0	22.5	---	---	---	---	---	---	---	---	---
27	28.5	19.0	23.5	---	---	---	---	---	---	---	---	---
28	29.5	20.0	24.5	---	---	---	---	---	---	---	---	---
29	31.0	22.0	26.0	---	---	---	---	---	---	---	---	---
30	29.5	22.0	25.5	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

054134435 KUENSTER CREEK AT MUSKELLUNGE ROAD NEAR NORTH ANDOVER, WI--CONTINUED

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	14.3	9.0	10.9
4	---	---	---	---	---	---	---	---	---	14.7	8.0	11.0
5	---	---	---	---	---	---	---	---	---	14.3	8.0	10.7
6	---	---	---	---	---	---	---	---	---	14.1	9.2	11.5
7	---	---	---	---	---	---	---	---	---	15.3	9.0	11.8
8	---	---	---	---	---	---	---	---	---	14.9	8.4	10.9
9	---	---	---	---	---	---	---	---	---	14.2	8.0	10.4
10	---	---	---	---	---	---	---	---	---	9.7	4.6	8.5
11	---	---	---	---	---	---	---	---	---	12.5	8.8	10.4
12	---	---	---	---	---	---	---	---	---	12.6	8.6	10.5
13	---	---	---	---	---	---	---	---	---	13.1	8.1	10.5
14	---	---	---	---	---	---	---	---	---	12.3	8.4	10.6
15	---	---	---	---	---	---	---	---	---	12.5	9.0	10.6
16	---	---	---	---	---	---	---	---	---	11.8	8.9	10.0
17	---	---	---	---	---	---	---	---	---	12.0	5.7	9.0
18	---	---	---	---	---	---	---	---	---	9.9	4.5	7.3
19	---	---	---	---	---	---	---	---	---	8.4	5.3	6.5
20	---	---	---	---	---	---	---	---	---	9.7	6.0	8.0
21	---	---	---	---	---	---	---	---	---	11.0	6.7	8.8
22	---	---	---	---	---	---	---	---	---	10.5	6.8	8.5
23	---	---	---	---	---	---	---	---	---	10.1	7.2	8.5
24	---	---	---	---	---	---	---	---	---	11.3	8.1	9.6
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	14.5	6.8	10.4	---	---	---	---	---	---	---	---	---
14	14.3	6.4	10.1	---	---	---	---	---	---	---	---	---
15	14.2	5.8	9.6	---	---	---	---	---	---	---	---	---
16	11.9	5.8	8.4	---	---	---	---	---	---	---	---	---
17	7.0	5.5	6.3	---	---	---	---	---	---	---	---	---
18	8.6	6.4	7.4	---	---	---	---	---	---	---	---	---
19	9.6	6.4	7.6	---	---	---	---	---	---	---	---	---
20	10.1	5.9	7.8	---	---	---	---	---	---	---	---	---
21	10.4	5.5	7.5	---	---	---	---	---	---	---	---	---
22	11.1	5.6	8.1	---	---	---	---	---	---	---	---	---
23	11.3	6.2	8.1	---	---	---	---	---	---	---	---	---
24	11.5	6.2	8.5	---	---	---	---	---	---	---	---	---
25	11.6	5.6	8.5	---	---	---	---	---	---	---	---	---
26	11.8	5.4	8.4	---	---	---	---	---	---	---	---	---
27	11.5	5.2	8.1	---	---	---	---	---	---	---	---	---
28	11.4	4.9	7.8	---	---	---	---	---	---	---	---	---
29	10.6	4.4	7.2	---	---	---	---	---	---	---	---	---
30	8.6	3.5	6.1	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

054134435 KUENSTER CREEK AT MUSKELLUNGE ROAD NEAR NORTH ANDOVER, WI--CONTINUED

SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED(TONS PER DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	29	.16	1.1	.23	1.5	.38	.04	.81	---	---	---
2	.21	9.7	.18	1.2	.22	1.3	.34	.03	4.2	---	---	---
3	.22	.40	.18	1.2	.22	1.1	.31	.04	.36	---	---	---
4	.22	.21	.20	1.3	.22	.92	.30	.04	.26	---	---	---
5	.30	.18	.21	1.4	.22	.81	.25	.05	.25	---	---	---
6	2.4	.18	.23	1.5	.22	.74	.22	.05	32	---	---	---
7	1.4	.18	.24	1.6	.24	.70	.19	.06	29	---	---	---
8	.29	.18	.25	1.7	.33	.65	.17	.07	1.5	---	---	---
9	.27	.23	.25	1.8	.53	.63	.14	.62	.46	---	---	---
10	.25	.19	.25	1.9	21	.61	.13	54	.31	---	---	---
11	.23	.27	.27	1.5	9.0	.67	.13	.56	.30	---	---	---
12	.19	.91	.27	1.2	2.0	.74	.13	.37	.27	---	---	---
13	.15	.19	.30	.93	2.7	.80	.12	.35	.25	---	---	---
14	.14	.17	.35	.70	1.7	.90	.09	.31	.24	---	---	---
15	.12	.17	.37	.52	1.2	.97	.14	.32	.32	---	---	---
16	.11	.17	.39	.39	.87	.99	.12	.31	.38	---	---	---
17	.10	.17	.40	.68	.31	.97	.07	.31	35	---	---	---
18	.09	.17	.43	65	.28	.96	.12	.28	1.4	---	---	---
19	.09	.17	.46	6.4	.54	.86	.24	.25	.43	---	---	---
20	.10	.17	.49	3.0	1.6	.89	.33	.24	.38	---	---	---
21	.10	.17	.53	.35	3.5	.82	.20	.23	.36	---	---	---
22	.09	.16	.57	.28	3.2	.82	.07	.22	.34	---	---	---
23	.10	.16	.56	.26	8.5	.81	.06	.19	.36	---	---	---
24	.11	.15	.57	.24	11	.91	.05	.20	.42	---	---	---
25	.09	.15	.61	.24	5.4	1.1	.05	.21	.32	---	---	---
26	.09	.15	.65	.25	3.0	3.1	.05	.24	.28	---	---	---
27	.09	.17	.70	.26	2.3	2.1	.04	.22	.27	---	---	---
28	.10	.18	.76	.26	2.0	.58	.04	9.1	.24	---	---	---
29	.09	.16	.82	.26	1.8	.51	.14	1.5	.87	---	---	---
30	.09	.16	.93	.25	---	.45	.18	.32	4.1	---	---	---
31	.09	---	1.1	.24	---	.49	---	.28	---	---	---	---
TOTAL	8.15	44.62	13.68	97.91	84.33	29.40	4.80	71.01	115.68	---	---	---

WTR YR 1996 TOTAL 470

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	113	1.4	2.0	2.2	20	2.8	.86	5.7	---	---	---
2	2.1	77	1.4	2.0	2.1	18	2.5	.79	20	---	---	---
3	2.2	11	1.4	1.9	2.2	16	2.3	.81	6.8	---	---	---
4	2.2	7.2	1.4	2.0	2.2	14	2.3	.82	5.9	---	---	---
5	5.5	6.0	1.4	2.0	2.2	12	2.0	.82	5.3	---	---	---
6	26	5.6	1.5	2.0	2.2	11	1.8	.82	240	---	---	---
7	17	5.3	1.5	2.1	2.9	11	1.6	.88	167	---	---	---
8	2.8	5.0	1.5	2.1	7.9	11	1.4	.96	15	---	---	---
9	2.6	5.4	1.4	2.2	21	11	1.3	3.8	7.1	---	---	---
10	2.4	4.8	1.3	2.2	438	11	1.2	406	5.0	---	---	---
11	2.2	5.0	1.4	2.2	318	12	1.2	4.1	4.4	---	---	---
12	2.1	6.7	1.3	2.3	263	13	1.2	3.0	3.5	---	---	---
13	1.8	4.1	1.4	2.4	140	14	1.1	3.4	2.9	---	---	---
14	1.8	3.5	1.5	2.4	70	14	1.1	3.5	2.5	---	---	---
15	1.7	3.3	1.6	2.3	40	14	1.9	4.2	3.0	---	---	---
16	1.7	3.1	1.5	2.3	26	13	.93	4.8	3.3	---	---	---
17	1.7	2.9	1.5	4.6	19	12	.79	5.5	253	---	---	---
18	1.7	2.8	1.5	384	14	11	1.7	5.9	22	---	---	---
19	1.9	2.6	1.6	26	15	9.2	3.1	6.1	8.5	---	---	---
20	2.1	2.5	1.6	9.8	32	8.8	4.0	6.9	7.2	---	---	---
21	3.4	2.3	1.6	7.1	69	7.6	2.5	7.4	6.5	---	---	---
22	4.2	2.1	1.7	2.4	45	7.0	.97	6.1	6.0	---	---	---
23	2.0	2.0	1.6	2.2	68	6.4	.87	4.4	6.0	---	---	---
24	2.1	1.8	1.5	2.1	87	6.6	.82	4.0	6.8	---	---	---
25	1.8	1.7	1.5	2.2	53	15	.86	3.5	5.0	---	---	---
26	1.7	1.6	1.6	2.2	34	27	.86	5.1	4.3	---	---	---
27	1.7	1.7	1.6	2.3	28	22	.78	3.6	3.9	---	---	---
28	1.8	1.7	1.7	2.3	25	3.8	.78	86	3.4	---	---	---
29	1.8	1.5	1.7	2.4	23	3.4	1.9	24	6.8	---	---	---
30	1.6	1.4	1.8	2.4	---	3.2	2.3	3.2	29	---	---	---
31	1.6	---	2.1	2.3	---	3.5	---	2.9	---	---	---	---
TOTAL	107.5	294.6	47.5	488.7	1851.9	361.5	48.86	614.16	865.8	---	---	---

WTR YR 1996 TOTAL 4,681

05413449 RATTLESNAKE CREEK NEAR NORTH ANDOVER, WI

LOCATION.--Lat 42°46'49", long 90°56'32", in SE 1/4 NE 1/4 sec.34, T.4 N., R.5 W., Grant County, Hydrologic Unit 07060003, on right bank 100 ft upstream of Atkinson Road, 2.7 mi southeast of North Andover.

DRAINAGE AREA.--42.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 5, 1987 to June 1996 (discontinued).

REVISED RECORD.--WDR WI-89-1: 1987-88.

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

REMARKS.--Estimated daily discharges: Mar. 12–29 and ice-affected periods, Nov. 22–24, Nov. 27 to Dec. 1, Dec. 6–21, Dec. 25 to Jan. 15, and Jan. 18 to Mar. 11. Records good except those for estimated daily discharges, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	64	20	17	18	30	19	17	24	---	---	---
2	17	45	20	16	18	25	19	16	33	---	---	---
3	17	26	20	15	18	22	21	17	26	---	---	---
4	18	23	20	15	18	21	20	17	24	---	---	---
5	18	20	20	15	18	20	17	16	24	---	---	---
6	33	23	20	15	18	19	17	16	68	---	---	---
7	24	22	20	15	19	19	17	16	69	---	---	---
8	20	20	19	15	20	18	17	16	39	---	---	---
9	20	19	18	15	35	18	15	18	34	---	---	---
10	19	25	18	16	300	18	15	60	32	---	---	---
11	18	25	17	16	250	19	16	27	30	---	---	---
12	18	27	17	16	100	21	18	22	27	---	---	---
13	18	20	17	17	60	22	18	20	26	---	---	---
14	18	20	18	17	41	23	17	19	26	---	---	---
15	18	19	18	17	34	22	19	20	25	---	---	---
16	17	20	17	17	30	21	19	20	28	---	---	---
17	17	20	17	18	28	20	18	20	84	---	---	---
18	18	20	17	150	27	20	20	18	49	---	---	---
19	19	20	17	40	25	19	25	17	38	---	---	---
20	20	20	17	27	27	19	25	19	34	---	---	---
21	20	20	17	24	50	19	23	19	32	---	---	---
22	20	20	17	22	40	18	21	15	32	---	---	---
23	20	20	16	21	54	18	20	16	38	---	---	---
24	21	20	16	20	70	18	20	17	39	---	---	---
25	20	20	16	19	58	21	20	15	32	---	---	---
26	20	20	15	20	50	18	20	18	31	---	---	---
27	20	20	15	20	45	17	20	17	24	---	---	---
28	21	22	15	20	39	17	18	43	27	---	---	---
29	20	21	15	20	34	17	19	31	31	---	---	---
30	19	20	16	19	---	19	20	23	60	---	---	---
31	19	---	17	18	---	20	---	19	---	---	---	---
TOTAL	607	701	542	712	1544	618	573	644	1086	---	---	---
MEAN	19.6	23.4	17.5	23.0	53.2	19.9	19.1	20.8	36.2	---	---	---
MAX	33	64	20	150	300	30	25	60	84	---	---	---
MIN	17	19	15	15	18	17	15	15	24	---	---	---
CFSM	.46	.55	.41	.54	1.26	.47	.45	.49	.85	---	---	---
IN.	.53	.62	.48	.62	1.35	.54	.50	.57	.95	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1996, BY WATER YEAR (WY)

MEAN	16.9	19.3	17.7	19.9	29.2	39.9	23.9	21.7	28.7	29.5	23.1	19.9
MAX	41.6	35.9	31.5	27.8	53.2	130	49.2	52.3	59.5	131	72.2	53.6
(WY)	1994	1994	1994	1992	1994	1993	1993	1993	1991	1993	1993	1993
MIN	8.14	7.96	6.06	6.91	8.35	19.9	9.60	10.7	11.1	7.18	9.23	8.86
(WY)	1991	1991	1990	1991	1991	1996	1990	1989	1989	1989	1989	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR (OCTOBER-JUNE)		WATER YEARS 1987 - 1996	
ANNUAL TOTAL	8165					
ANNUAL MEAN	22.4				24.1	
HIGHEST ANNUAL MEAN					53.5	1993
LOWEST ANNUAL MEAN					11.9	1990
HIGHEST DAILY MEAN	102	Aug 7	(a)300	Feb 10	1030	Jun 15 1991
LOWEST DAILY MEAN	(a)13	Feb 11-17	(a)15	(b)Dec 26-29	5.0	Aug 15,16 1990
ANNUAL SEVEN-DAY MINIMUM	(a)13	Feb 11	(a)15	Jan 3	5.4	Aug 10 1990
INSTANTANEOUS PEAK FLOW					(c)7000	Jun 15 1991
INSTANTANEOUS PEAK STAGE			(d)8.39	Feb 10	11.20	Jun 15 1991
ANNUAL RUNOFF (CFSM)	.53				.57	
ANNUAL RUNOFF (INCHES)	7.16				7.72	
10 PERCENT EXCEEDS	31		38		39	
50 PERCENT EXCEEDS	20		20		18	
90 PERCENT EXCEEDS	16		16		8.2	

(a) Ice affected
(b) Also occurred Jan. 3-9 (ice affected), Apr. 9,10, and May 22 and 25
(c) On basis of contracted-opening measurement
(d) Ice jam

05413449 RATTLESNAKE CREEK NEAR NORTH ANDOVER, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1987 to June 1996 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 1987 to June 1996.

DISSOLVED OXYGEN: July 1987 to June 1996.

SUSPENDED-SOLIDS DISCHARGE: October 1991 to September 1994.

TOTAL-PHOSPHORUS DISCHARGE: October 1991 to September 1994.

INSTRUMENTATION.--Continuous water temperature and dissolved oxygen recorder since July 17, 1987. Automatic pump sampler since July 17, 1987.

REMARKS.--Water-quality analyses by the Wisconsin State Laboratory of Hygiene. Samples are point samples unless otherwise indicated. Water-quality sampling discontinued on Feb. 1, 1995.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE: Maximum observed, 32.0°C, July 10, 1989; minimum observed, 0.0°C, on many days.

DISSOLVED OXYGEN: Maximum observed, 18.3 mg/L, Apr. 29, 1988, May 7, 1989; minimum observed, 0.0 mg/L, Sept. 17, 1987, and June 30, 1991.

SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 8,700 tons, July 9, 1993; minimum daily observed, 0.08 ton, May 14, 1992.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 24,700 lb, July 9, 1993; minimum daily observed, 1.9 lb, May 13, 1992.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum observed, 23.0°C, June 30; minimum observed, 0.0°C, Nov. 11–13, 15, 22–25, Nov. 27 to Dec. 2, Dec. 5–29, Jan. 2 to Feb. 21, Feb. 23–24, Feb. 28 to Mar. 8, and Mar. 26–27.

DISSOLVED OXYGEN: Maximum observed, 17.5 mg/L, May 4; minimum observed, 2.5 mg/L, June 30.

WATER-QUALITY DATA, OCTOBER 1995 TO JUNE 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 1995				
01...	1445	90	566	100
01...	1530	122	1280	100
02...	0045	79	434	100

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.5	15.0	16.5	6.0	6.0	7.0	.00	.00	.50	.50	.50	.50
2	13.0	13.0	14.5	4.5	4.5	6.5	.00	.00	.50	.00	.00	.00
3	14.0	14.0	15.0	2.0	2.0	3.0	.50	.50	1.0	.00	.00	.00
4	12.0	12.0	13.5	1.5	1.5	2.0	1.0	1.0	2.0	.00	.00	.00
5	12.5	12.5	13.5	1.5	1.5	2.5	.00	.00	1.5	.00	.00	.00
6	12.0	12.0	13.0	3.0	3.0	4.5	.00	.00	.00	.00	.00	.00
7	10.5	10.5	11.5	2.5	2.5	4.5	.00	.00	.00	.00	.00	.00
8	9.0	9.0	10.5	.50	.50	1.5	.00	.00	.00	.00	.00	.00
9	11.5	11.5	12.0	.50	.50	1.5	.00	.00	.00	.00	.00	.00
10	10.0	10.0	11.5	2.5	2.5	4.0	.00	.00	.00	.00	.00	.00
11	10.5	10.5	12.5	.00	.00	1.0	.00	.00	.00	.00	.00	.00
12	13.0	13.0	14.5	.00	.00	.50	.00	.00	.00	.00	.00	.50
13	14.5	14.5	15.5	.00	.00	1.0	.00	.00	.00	.00	.00	.50
14	9.5	9.5	12.0	1.0	1.0	1.5	.00	.00	.00	.00	.00	.50
15	7.5	7.5	8.5	.00	.00	1.5	.00	.00	.00	.00	.00	.50
16	6.5	6.5	8.0	2.0	2.0	3.0	.00	.00	.00	.00	.00	.50
17	8.5	8.5	10.5	3.5	3.5	4.5	.00	.00	.00	.00	.00	.50
18	10.0	10.0	11.5	3.5	3.5	4.0	.00	.00	.50	.00	.00	.00
19	11.0	11.0	11.5	2.5	2.5	3.5	.00	.00	.50	.00	.00	.00
20	8.0	8.0	9.5	3.0	3.0	3.5	.00	.00	.00	.00	.00	.00
21	6.0	6.0	7.0	.50	.50	2.0	.00	.00	.50	.00	.00	.00
22	5.5	5.5	6.5	.00	.00	.50	.00	.00	.50	.00	.00	.00
23	7.5	7.5	9.0	.00	.00	.50	.00	.00	.50	.00	.00	.00
24	7.0	7.0	8.5	.00	.00	.50	.00	.00	.50	.00	.00	.00
25	5.5	5.5	7.0	.00	.00	1.0	.00	.00	.00	.00	.00	.00
26	6.5	6.5	8.0	1.0	1.0	2.0	.00	.00	.50	.00	.00	.00
27	9.0	9.0	9.5	.00	.00	1.5	.00	.00	.00	.00	.00	.00
28	8.0	8.0	9.0	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	6.5	6.5	7.5	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	7.0	7.0	7.5	.00	.00	.50	.50	.50	.50	.00	.00	.00
31	6.0	6.0	6.5	---	---	---	.50	.50	.50	.00	.00	.00
MONTH	17.5	5.5	10.7	6.0	.00	2.3	1.0	.00	.32	.50	.00	.11

05413449 RATTLESNAKE CREEK NEAR NORTH ANDOVER, WI--CONTINUED

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.00	.00	.00	.00	.00	.50	4.0	4.0	6.5	7.5	7.5	10.5
2	.00	.00	.00	.00	.00	.50	6.5	6.5	9.0	8.5	8.5	10.5
3	.00	.00	.00	.00	.00	.50	7.5	7.5	9.0	9.5	9.5	10.5
4	.00	.00	.00	.00	.00	.50	4.5	4.5	6.0	10.0	10.0	12.5
5	.00	.00	.00	.00	.00	.50	2.5	2.5	5.5	11.0	11.0	12.0
6	.00	.00	.00	.00	.00	.50	5.0	5.0	7.0	9.5	9.5	10.0
7	.00	.00	.00	.00	.00	.50	5.5	5.5	7.5	9.0	9.0	10.0
8	.00	.00	.00	.00	.00	.50	4.5	4.5	7.0	10.5	10.5	11.5
9	.00	.00	.00	.50	.50	.50	4.5	4.5	7.5	12.0	12.0	13.0
10	.00	.00	.00	.50	.50	.50	5.5	5.5	9.0	11.5	11.5	13.0
11	.00	.00	.00	.50	.50	.50	9.0	9.0	12.0	10.0	10.0	12.0
12	.00	.00	.50	.50	.50	1.0	12.0	12.0	13.5	10.0	10.0	12.0
13	.00	.00	.50	.50	.50	4.0	9.0	9.0	10.5	10.0	10.0	13.0
14	.00	.00	.50	5.0	5.0	6.0	5.0	5.0	7.5	10.5	10.5	11.5
15	.00	.00	.50	3.5	3.5	5.5	4.0	4.0	6.0	10.0	10.0	11.0
16	.00	.00	.50	4.0	4.0	5.5	5.5	5.5	8.0	12.0	12.0	12.5
17	.00	.00	.50	4.0	4.0	5.5	6.5	6.5	10.0	13.0	13.0	17.0
18	.00	.00	.50	3.5	3.5	5.0	11.0	11.0	12.0	19.0	19.0	22.0
19	.00	.00	.50	3.0	3.0	4.0	9.5	9.5	11.0	21.0	21.0	22.5
20	.00	.00	.50	2.0	2.0	3.5	10.0	10.0	11.0	16.5	16.5	18.5
21	.00	.00	.50	1.0	1.0	3.0	7.5	7.5	10.5	14.5	14.5	17.5
22	.50	.50	.50	1.5	1.5	4.0	11.0	11.0	12.5	15.0	15.0	17.0
23	.00	.00	.50	2.5	2.5	5.0	8.5	8.5	11.5	15.5	15.5	16.5
24	.00	.00	1.0	5.5	5.5	6.5	10.0	10.0	13.0	12.5	12.5	13.5
25	.50	.50	2.0	1.0	1.0	5.0	12.5	12.5	14.0	11.5	11.5	12.5
26	2.5	2.5	2.5	.00	.00	1.0	9.0	9.0	11.0	11.0	11.0	12.0
27	1.0	1.0	2.5	.00	.00	1.5	7.0	7.0	10.5	11.0	11.0	11.5
28	.00	.00	.50	1.0	1.0	3.5	10.0	10.0	12.0	10.0	10.0	11.0
29	.00	.00	.50	4.0	4.0	6.5	6.0	6.0	8.5	10.0	10.0	13.5
30	---	---	---	6.5	6.5	7.0	5.0	5.0	8.0	13.0	13.0	16.0
31	---	---	---	5.0	5.0	6.5	---	---	---	13.5	13.5	16.0
MONTH	2.5	.00	.52	6.5	.00	3.1	12.5	2.5	9.6	21.0	7.5	13.6
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.5	15.5	16.0	---	---	---	---	---	---	---	---	---
2	14.0	14.0	17.0	---	---	---	---	---	---	---	---	---
3	14.5	14.5	16.0	---	---	---	---	---	---	---	---	---
4	13.0	13.0	14.5	---	---	---	---	---	---	---	---	---
5	12.5	12.5	14.5	---	---	---	---	---	---	---	---	---
6	13.5	13.5	15.0	---	---	---	---	---	---	---	---	---
7	14.0	14.0	14.5	---	---	---	---	---	---	---	---	---
8	13.0	13.0	14.0	---	---	---	---	---	---	---	---	---
9	13.5	13.5	15.0	---	---	---	---	---	---	---	---	---
10	15.0	15.0	15.5	---	---	---	---	---	---	---	---	---
11	15.0	15.0	17.0	---	---	---	---	---	---	---	---	---
12	16.5	16.5	19.5	---	---	---	---	---	---	---	---	---
13	19.5	19.5	22.0	---	---	---	---	---	---	---	---	---
14	19.5	19.5	22.0	---	---	---	---	---	---	---	---	---
15	19.5	19.5	22.0	---	---	---	---	---	---	---	---	---
16	20.5	20.5	21.5	---	---	---	---	---	---	---	---	---
17	19.0	19.0	20.5	---	---	---	---	---	---	---	---	---
18	18.5	18.5	19.5	---	---	---	---	---	---	---	---	---
19	17.5	17.5	18.5	---	---	---	---	---	---	---	---	---
20	17.0	17.0	19.0	---	---	---	---	---	---	---	---	---
21	19.0	19.0	20.5	---	---	---	---	---	---	---	---	---
22	20.0	20.0	21.5	---	---	---	---	---	---	---	---	---
23	18.0	18.0	19.0	---	---	---	---	---	---	---	---	---
24	18.0	18.0	20.0	---	---	---	---	---	---	---	---	---
25	17.5	17.5	20.5	---	---	---	---	---	---	---	---	---
26	19.0	19.0	21.5	---	---	---	---	---	---	---	---	---
27	20.0	20.0	22.5	---	---	---	---	---	---	---	---	---
28	20.5	20.5	23.5	---	---	---	---	---	---	---	---	---
29	22.5	22.5	25.5	---	---	---	---	---	---	---	---	---
30	23.0	23.0	25.0	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	23.0	12.5	19.1	---	---	---	---	---	---	---	---	---

05413449 RATTLESNAKE CREEK NEAR NORTH ANDOVER, WI--CONTINUED

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	17.3	8.9	11.7
4	---	---	---	---	---	---	---	---	---	17.5	8.3	12.2
5	---	---	---	---	---	---	---	---	---	16.4	7.9	11.0
6	---	---	---	---	---	---	---	---	---	15.7	9.1	11.8
7	---	---	---	---	---	---	---	---	---	16.8	9.6	12.4
8	---	---	---	---	---	---	---	---	---	16.6	8.9	11.3
9	---	---	---	---	---	---	---	---	---	14.8	8.4	10.7
10	---	---	---	---	---	---	---	---	---	8.9	5.9	7.8
11	---	---	---	---	---	---	---	---	---	11.9	8.8	10.0
12	---	---	---	---	---	---	---	---	---	12.7	8.9	10.4
13	---	---	---	---	---	---	---	---	---	12.7	8.7	10.4
14	---	---	---	---	---	---	---	---	---	11.8	8.6	10.2
15	---	---	---	---	---	---	---	---	---	12.6	9.4	10.6
16	---	---	---	---	---	---	---	---	---	11.7	9.0	10.0
17	---	---	---	---	---	---	---	---	---	11.9	6.5	9.5
18	---	---	---	---	---	---	---	---	---	9.9	5.4	7.6
19	---	---	---	---	---	---	---	---	---	8.2	5.4	6.5
20	---	---	---	---	---	---	---	---	---	8.8	5.9	7.3
21	---	---	---	---	---	---	---	---	---	10.0	6.7	8.3
22	---	---	---	---	---	---	---	---	---	9.5	6.7	8.1
23	---	---	---	---	---	---	---	---	---	9.4	7.4	8.2
24	---	---	---	---	---	---	---	---	---	10.6	7.9	9.2
25	---	---	---	---	---	---	---	---	---	11.0	9.0	9.6
26	---	---	---	---	---	---	---	---	---	10.4	8.7	9.4
27	---	---	---	---	---	---	---	---	---	10.8	8.6	9.6
28	---	---	---	---	---	---	---	---	---	9.6	8.1	8.9
29	---	---	---	---	---	---	---	---	---	10.3	7.8	9.1
30	---	---	---	---	---	---	---	---	---	10.7	7.7	9.1
31	---	---	---	---	---	---	---	---	---	11.1	7.6	9.2
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.9	7.1	8.5	---	---	---	---	---	---	---	---	---
2	9.5	6.6	8.0	---	---	---	---	---	---	---	---	---
3	9.8	6.6	8.3	---	---	---	---	---	---	---	---	---
4	11.0	7.9	9.3	---	---	---	---	---	---	---	---	---
5	10.9	7.9	9.0	---	---	---	---	---	---	---	---	---
6	8.3	5.0	7.3	---	---	---	---	---	---	---	---	---
7	7.9	5.0	7.4	---	---	---	---	---	---	---	---	---
8	9.2	6.4	8.4	---	---	---	---	---	---	---	---	---
9	9.5	7.9	8.6	---	---	---	---	---	---	---	---	---
10	9.1	7.7	8.3	---	---	---	---	---	---	---	---	---
11	9.6	7.0	8.3	---	---	---	---	---	---	---	---	---
12	9.9	6.4	8.0	---	---	---	---	---	---	---	---	---
13	9.8	6.0	7.7	---	---	---	---	---	---	---	---	---
14	10.1	6.0	7.7	---	---	---	---	---	---	---	---	---
15	10.2	5.8	7.7	---	---	---	---	---	---	---	---	---
16	9.3	5.7	7.1	---	---	---	---	---	---	---	---	---
17	6.5	5.0	5.6	---	---	---	---	---	---	---	---	---
18	6.5	5.4	6.1	---	---	---	---	---	---	---	---	---
19	8.2	6.0	6.9	---	---	---	---	---	---	---	---	---
20	8.6	6.3	7.4	---	---	---	---	---	---	---	---	---
21	9.2	6.1	7.2	---	---	---	---	---	---	---	---	---
22	9.7	6.1	7.6	---	---	---	---	---	---	---	---	---
23	9.7	6.4	7.5	---	---	---	---	---	---	---	---	---
24	10.3	6.4	8.0	---	---	---	---	---	---	---	---	---
25	11.0	6.5	8.4	---	---	---	---	---	---	---	---	---
26	11.2	6.3	8.4	---	---	---	---	---	---	---	---	---
27	11.5	6.3	8.6	---	---	---	---	---	---	---	---	---
28	11.8	6.2	8.6	---	---	---	---	---	---	---	---	---
29	11.7	5.9	8.2	---	---	---	---	---	---	---	---	---
30	6.0	2.5	3.4	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	11.8	2.5	7.7	---	---	---	---	---	---	---	---	---

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 mi^2.

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 published in WSP 1308.

REVISED RECORDS.--WSP 825: 1935-36. WSP 1308: 1935-37(M), 1941(M), 1945-46(M), 1949(M). WSP 1728: 1942(M). WDR WI-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 606.43 ft above sea level. Oct. 17, 1934, to Sept. 30, 1947, non- recording 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: Ice-affected periods, Nov. 24 to Dec. 4 and Dec. 6 to Mar. 15. Records good except those for ice-affected periods, which are poor (see page 12). Data-collection platform and gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	230	110	90	130	190	120	124	158	172	116	100
2	119	440	120	90	130	170	117	115	197	152	113	100
3	116	183	120	90	120	160	120	115	168	146	113	99
4	117	153	120	90	120	150	123	115	158	141	112	99
5	116	142	124	90	120	140	119	113	154	138	113	98
6	173	139	100	90	120	130	115	112	215	136	129	97
7	174	137	100	90	130	120	115	110	399	137	134	96
8	133	129	100	88	140	110	114	112	266	133	115	98
9	126	126	90	88	200	110	113	117	227	131	109	100
10	123	129	110	88	300	110	112	246	212	129	107	97
11	120	130	100	88	640	120	112	196	201	127	107	95
12	118	120	100	88	350	120	114	160	186	138	108	93
13	118	123	100	90	260	120	114	149	174	137	107	94
14	117	121	100	94	200	130	112	143	164	129	106	94
15	116	118	100	96	180	140	117	145	156	127	104	94
16	116	120	100	98	160	135	117	142	152	125	102	93
17	116	120	100	100	150	133	111	139	254	126	102	92
18	116	119	100	450	140	138	113	135	273	130	103	92
19	118	118	100	350	140	127	134	128	220	126	154	92
20	125	117	100	290	150	122	132	130	195	123	174	93
21	122	116	96	260	300	117	138	140	184	121	120	95
22	121	111	96	230	280	116	124	126	177	121	121	94
23	121	110	96	200	300	116	117	126	172	121	126	92
24	134	120	98	180	400	120	115	128	178	120	112	93
25	123	120	98	170	340	142	116	127	162	119	107	92
26	119	110	96	150	290	122	116	136	154	116	106	104
27	120	110	96	150	250	116	110	133	149	118	105	133
28	123	100	94	140	210	123	109	186	146	135	102	110
29	122	100	92	140	200	118	117	233	144	136	102	98
30	118	100	92	130	---	116	142	177	245	125	101	94
31	116	---	92	130	---	122	---	162	---	120	100	---
TOTAL	3839	4111	3140	4518	6450	4003	3548	4420	5840	4055	3530	2921
MEAN	124	137	101	146	222	129	118	143	195	131	114	97.4
MAX	174	440	124	450	640	190	142	246	399	172	174	133
MIN	116	100	90	88	120	110	109	110	144	116	100	92
CFSM	.46	.51	.38	.54	.83	.48	.44	.53	.72	.49	.42	.36
IN.	.53	.57	.43	.62	.89	.55	.49	.61	.81	.56	.49	.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1996, BY WATER YEAR (WY)

MEAN	118	129	110	133	202	329	181	164	202	174	148	131
MAX	276	626	350	467	668	1057	505	489	920	808	502	330
(WY)	1994	1962	1973	1974	1948	1959	1973	1973	1947	1993	1943	1993
MIN	45.8	41.3	37.7	33.4	36.1	55.3	66.0	46.8	50.6	35.8	41.6	42.2
(WY)	1935	1938	1959	1959	1959	1958	1957	1958	1936	1936	1937	1958

05413500 GRANT RIVER AT BURTON, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1935 - 1996	
ANNUAL TOTAL	52827		50375			
ANNUAL MEAN	145		138		168	
HIGHEST ANNUAL MEAN					351	1993
LOWEST ANNUAL MEAN					59.3	1958
HIGHEST DAILY MEAN	508	Mar 12	(a)640	Feb 11	10700	Jun 13 1947
LOWEST DAILY MEAN	(b)90	Dec 9	(a)88	Jan 8-12	30	(c)Aug 5 1936
ANNUAL SEVEN-DAY MINIMUM	(a)94	Dec 25	(a)89	Jan 6	31	(d)Aug 3 1936
INSTANTANEOUS PEAK FLOW			(e)		(f)25000	Jul 16 1950
INSTANTANEOUS PEAK STAGE			(g)13.69	Feb 11	24.82	Jul 16 1950
INSTANTANEOUS LOW FLOW			(b)82	Nov 24	(b)21	Mar 4 1954
ANNUAL RUNOFF (CFSM)	.54		.51		.63	
ANNUAL RUNOFF (INCHES)	7.31		6.97		8.50	
10 PERCENT EXCEEDS	211		196		254	
50 PERCENT EXCEEDS	126		120		113	
90 PERCENT EXCEEDS	100		96		59	

(a) Ice affected
(b) Result of freezeup
(c) Also occurred Aug. 8,9, 1936, Sept. 22, 1937, and Feb. 19,20, 1959 (ce affected)
(d) Also occurred Jan. 4, 1959 (ice affected)
(e) Unknown
(f) From rating curve extended above 18,000 ft^3/s on basis of slope-area measurement of peak flow
(g) Backwater from ice jam

05413500 GRANT RIVER AT BURTON, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-67, 1978 to current year. National Stream-Quality Accounting Network data collection began in October 1986.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: Water years 1978 to current year, April-September monthly totals only published for 1983 water year, but daily load estimates are available for the entire year.

REMARKS.--Sediment records for periods of no ice cover are fair. Records for high-flow periods during ice cover are poor. Monthly and annual load values are fair. Most sediment samples were taken in a single vertical. Concentrations identified by an asterisk are from samples collected by the equal-width increment method.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 13,600 mg/L, July 13, 1979; minimum observed, 7 mg/L, Mar. 2, 1978, Nov. 30, 1994, and May 7, 1996.

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 observed, 1,680 mg/L, June 7; minimum observed, 7 mg/L, May 7.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 3,070 tons, Feb. 11; minimum daily, 2.2 tons, Jan. 8–13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT 1995				
05...	0940	--	114	27
09...	0955	--	126	27
23...	0905	--	119	29
*24...	1306	--	142	30
24...	1320	--	142	42
26...	0915	--	119	36
29...	1020	--	124	25
30...	1025	--	118	28
NOV				
02...	0820	--	528	598
10...	1005	--	131	41
DEC				
*05...	1340	124	--	43
05...	1355	124	--	31
JAN 1996				
*08...	1140	88	--	9
FEB				
*20...	1110	150	--	32
20...	1115	150	--	24
APR				
01...	0800	--	121	45
05...	0740	--	120	29
08...	1020	--	113	23
11...	1005	--	112	22
16...	0815	--	119	41
18...	0915	--	111	38
22...	0920	--	124	51
25...	0815	--	115	34
30...	0800	--	147	99
MAY				
03...	0850	--	114	66
07...	1035	--	110	16
*07...	1410	--	110	7
10...	0900	--	229	1020
13...	0905	--	151	113
16...	0930	--	142	92
21...	0855	--	148	163
24...	1330	--	128	108
27...	0950	--	134	115
30...	0850	--	178	251
JUN				
02...	1005	--	216	411
JUN 1996				
04...	0930	--	157	156
*04...	1318	--	158	146
04...	1330	--	158	153
07...	0850	--	458	1680
10...	0850	--	212	215
13...	1203	--	174	222
19...	1010	--	219	345
21...	0930	--	184	294
24...	0820	--	182	236
27...	0815	--	149	161
JUL				
01...	0800	--	172	306
04...	0735	--	141	168
08...	0800	--	132	113
11...	0820	--	126	110
15...	0820	--	128	90
18...	0905	--	131	108
22...	0855	--	120	75
25...	0815	--	118	92
29...	0815	--	141	116
*29...	1428	--	136	75
29...	1440	--	136	74
AUG				
01...	0905	--	116	128
05...	0935	--	112	262
08...	0805	--	116	167
12...	0820	--	108	81
15...	0750	--	104	110
19...	0745	--	118	120
22...	1300	--	126	74
26...	0720	--	106	66
29...	0750	--	102	86
SEP				
02...	0750	--	100	58
05...	0800	--	98	61
10...	0800	--	96	33
13...	0915	--	93	59
16...	0735	--	93	45
18...	0805	--	92	62
23...	1035	--	92	36
27...	0830	--	131	86
30...	0945	--	94	29

* Equal-width increment (EWI) sample

05413500 GRANT RIVER AT BURTON, WI--CONTINUED

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	131	13	2.8	7.0	25	14	26	72	142	41	17
2	9.1	655	14	2.7	7.0	23	12	22	172	79	48	16
3	8.7	40	14	2.6	6.5	21	11	19	91	70	57	16
4	8.6	22	14	2.6	6.5	20	11	14	65	63	68	16
5	8.4	19	13	2.5	6.5	19	9.2	9.6	49	56	79	16
6	32	18	8.1	2.4	6.5	17	8.3	6.7	202	50	115	14
7	28	17	7.8	2.3	e11	16	7.8	3.7	1540	45	117	12
8	13	15	7.6	2.2	e15	14	7.2	2.6	371	41	53	11
9	9.4	14	6.6	2.2	e50	14	6.9	8.0	187	39	40	9.9
10	9.0	14	7.7	2.2	e210	14	6.7	611	126	38	33	9.0
11	8.8	14	6.8	2.2	e3070	16	6.8	254	118	37	27	11
12	8.7	13	6.5	2.2	e370	16	7.7	90	110	38	24	13
13	8.8	14	6.3	2.2	e130	15	8.7	47	102	37	26	14
14	8.8	14	6.1	2.3	e50	17	9.7	40	87	33	29	13
15	8.7	13	5.9	2.3	18	18	12	38	74	31	30	12
16	8.8	14	5.7	2.4	16	17	13	35	65	33	29	12
17	8.8	14	5.5	2.4	14	17	12	33	371	35	28	13
18	8.8	13	5.3	e890	13	18	12	30	383	37	28	15
19	9.0	13	5.1	e370	12	16	26	27	225	33	80	13
20	9.6	13	4.9	e190	11	15	22	30	167	30	113	12
21	9.5	13	4.5	e130	e210	15	31	57	145	27	23	11
22	9.4	13	4.4	e80	e170	15	17	48	130	25	23	10
23	9.3	13	4.2	e50	e200	14	14	42	117	27	31	8.8
24	13	14	4.1	e35	e590	15	12	38	111	28	22	8.4
25	13	14	4.0	e30	e330	18	11	38	89	29	20	7.8
26	11	13	3.8	e20	e190	15	10	41	75	27	19	13
27	10	13	3.6	8.1	e110	14	9.5	41	65	27	21	28
28	9.3	11	3.4	7.6	e60	15	9.1	132	61	48	22	17
29	8.6	12	3.2	7.6	27	14	15	241	59	36	23	11
30	8.6	12	3.1	7.0	---	14	36	119	356	36	21	7.5
31	8.1	---	3.0	7.0	---	15	---	86	---	43	19	---
TOTAL	334.3	1208	205.2	1872.8	5917.0	512	388.6	2229.6	5785	1320	1309	387.4

WTR YR 1996 TOTAL 21468.9

e Estimated

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 mi^2.

PERIOD OF RECORD.--October 1934 to current year. Monthly discharge for October and November 1934 published in WSP 1308.

REVISED RECORDS.--WSP 1438: 1935-36, 1937(M), 1939(M), 1941-43(M), 1946(M). WDR WI-76-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 642.50 ft above sea level. 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 discharges: Ice-affected periods, Nov. 23 to Dec. 2, Dec. 12 to Feb. 24, and Mar. 8–15. Records good except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

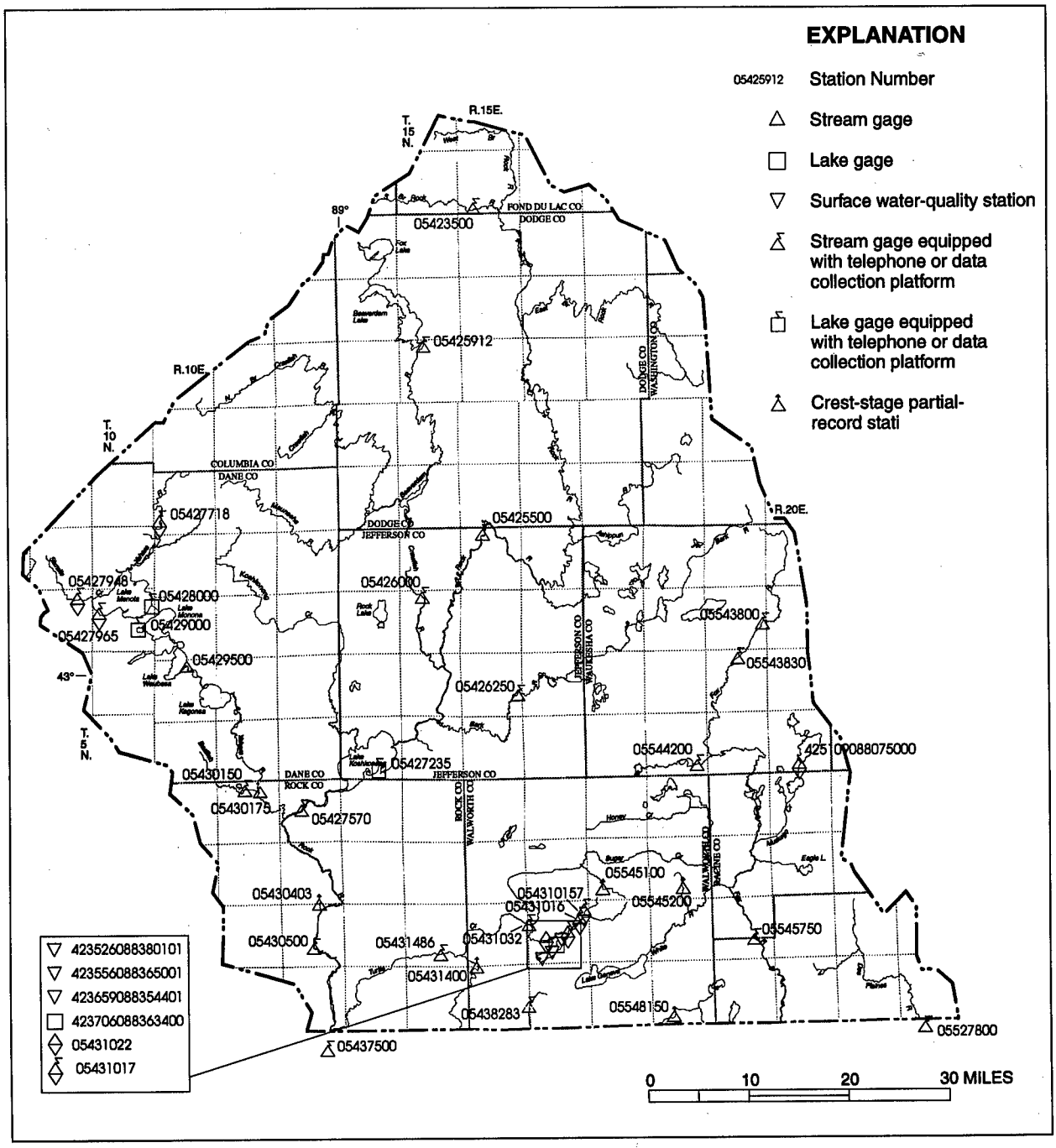
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	115	50	40	54	83	56	62	82	80	50	45
2	53	177	52	40	54	71	60	57	101	73	50	45
3	52	86	57	40	52	68	58	56	86	69	49	45
4	51	72	55	40	52	72	60	55	80	67	49	45
5	54	67	55	40	52	69	57	54	77	64	50	45
6	91	65	46	40	52	59	55	53	110	63	116	44
7	82	63	48	40	56	54	55	53	126	62	70	44
8	61	59	47	40	70	50	54	53	127	60	55	46
9	57	58	35	40	90	48	52	59	120	59	50	46
10	54	61	54	39	160	48	52	134	114	58	49	45
11	53	60	49	39	220	50	52	111	106	56	49	44
12	52	55	45	39	150	52	53	93	97	65	49	43
13	52	56	45	39	110	54	53	83	91	62	48	44
14	51	56	45	40	90	56	52	77	84	58	47	43
15	51	54	45	41	80	60	57	76	79	56	46	43
16	51	56	45	43	70	63	56	73	79	54	46	43
17	51	55	45	44	66	64	53	70	107	55	46	43
18	51	55	45	200	64	64	54	66	111	58	46	43
19	53	55	45	150	66	59	67	61	95	57	51	43
20	56	54	45	110	88	56	73	64	89	54	54	44
21	54	53	44	100	150	54	73	68	85	53	52	44
22	53	51	43	90	130	54	66	60	81	54	55	44
23	54	49	43	76	170	53	61	61	89	55	55	44
24	57	48	43	70	200	66	59	59	91	53	49	45
25	54	47	43	66	169	80	59	59	79	52	47	44
26	53	47	43	64	126	64	58	62	74	51	46	52
27	55	50	43	62	124	57	54	61	71	52	48	58
28	58	45	42	60	98	61	52	97	68	59	46	50
29	54	45	42	58	82	57	61	111	68	56	46	45
30	52	45	42	56	---	56	71	91	116	54	46	44
31	53	---	41	56	---	59	---	83	---	50	45	---
TOTAL	1728	1859	1422	1902	2945	1861	1743	2222	2783	1819	1605	1353
MEAN	55.7	62.0	45.9	61.4	102	60.0	58.1	71.7	92.8	58.7	51.8	45.1
MAX	91	177	57	200	220	83	73	134	127	80	116	58
MIN	51	45	35	39	52	48	52	53	68	50	45	43
CFSM	.39	.44	.32	.43	.72	.42	.41	.50	.65	.41	.36	.32
IN.	.45	.49	.37	.50	.77	.49	.46	.58	.73	.48	.42	.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1996, BY WATER YEAR (WY)

MEAN	70.2	77.3	64.1	77.6	106	180	112	104	129	106	88.8	78.4
MAX	146	372	155	315	379	483	291	328	586	660	348	202
(WY)	1962	1962	1973	1946	1938	1959	1993	1960	1947	1993	1943	1942
MIN	25.3	29.2	23.7	22.1	24.3	33.4	42.0	36.1	34.3	24.0	30.3	33.7
(WY)	1951	1938	1959	1959	1959	1957	1990	1958	1936	1936	1937	1989

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1935 - 1996	
ANNUAL TOTAL	25533		23242			
ANNUAL MEAN	70.0		63.5		99.5	
HIGHEST ANNUAL MEAN					234	1993
LOWEST ANNUAL MEAN					40.8	1958
HIGHEST DAILY MEAN	231	Mar 11	(a)220	Feb 11	7830	Jul 16 1950
LOWEST DAILY MEAN	(b)35	Dec 9	(b)35	Dec 9	7.0	Dec 22 1939
ANNUAL SEVEN-DAY MINIMUM	(a)39	Feb 7	(a)39	Jan 7	18	Nov 1 1950
INSTANTANEOUS PEAK FLOW			(c)		(d)43500	Jul 16 1950
INSTANTANEOUS PEAK STAGE			(e)6.99	Feb 11	17.26	Jul 16 1950
INSTANTANEOUS LOW FLOW			(b)23	Jan 3	.00	Nov 24 1950
ANNUAL RUNOFF (CFSM)	.49		.45		.70	
ANNUAL RUNOFF (INCHES)	6.69		6.09		9.52	
10 PERCENT EXCEEDS	114		92		156	
50 PERCENT EXCEEDS	57		55		67	
90 PERCENT EXCEEDS	44		44		35	

(a) Ice affected
(b) Result of freezeup
(c) Unknown
(d) From rating curve extended above 7,000 ft^3/s on basis of slope-area measurement of peak flow
(e) Ice Jam



Base from U.S. Geological Survey 1:100,000 digital data; modified by Wisconsin Department of Natural Resources. Wisconsin Transverse Mercator projection.

ROCK-FOX RIVER BASIN

05423500 SOUTH BRANCH ROCK RIVER AT WAUPUN, WI

LOCATION (REVISED).--Lat 43°38'30", long 88°43'14", in SW 1/4 NW 1/4 sec.33, T.14 N., R.15 E., Fond du Lac County, Hydrologic Unit 07090001, on left bank 260 ft upstream from U.S. Business Route 151 at Waupun, and 2.8 mi upstream from mouth.

DRAINAGE AREA.--63.6 mi^2.

PERIOD OF RECORD.--October 1948 to September 1969. March 1987 to current year. Monthly discharge for October 1948 published in WSP 1308.

REVISED RECORDS.--WDR WI-88-1: Drainage area.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 863.46 ft above sea level. October 1948 to September 1969, recording gage at site 150 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 6–21, Jan. 6–9, Jan. 29 to Feb. 9, and Mar. 2–11. Records good except those for ice-affected periods, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	158	51	27	34	66	69	74	31	56	21	6.5
2	34	328	49	26	32	50	68	67	54	66	19	6.4
3	36	245	51	28	31	40	69	60	59	59	18	6.4
4	37	182	52	27	30	36	81	55	50	53	16	6.2
5	37	139	51	24	29	33	71	52	43	48	28	6.1
6	247	117	45	23	36	30	69	51	45	44	27	6.1
7	292	108	43	23	47	28	64	48	61	41	22	5.8
8	236	95	39	24	58	26	59	47	56	37	20	6.2
9	181	84	35	24	66	23	58	49	48	36	18	8.4
10	137	82	34	25	133	22	53	97	45	35	16	7.7
11	107	79	32	25	178	25	55	98	41	32	15	7.7
12	91	72	31	24	115	46	60	79	36	32	15	6.5
13	81	74	30	24	113	78	59	66	32	34	14	5.9
14	71	68	31	25	95	121	55	60	28	35	14	5.2
15	64	64	32	21	72	132	57	68	24	33	13	5.0
16	59	65	32	21	59	124	80	66	24	31	12	5.2
17	54	65	31	25	51	101	90	62	274	30	11	5.3
18	50	64	31	205	45	83	87	57	464	46	11	5.3
19	52	65	31	344	43	77	174	51	514	51	13	5.4
20	61	69	30	204	43	62	179	49	439	46	13	5.4
21	60	69	30	178	48	59	169	49	361	40	12	5.7
22	59	60	30	128	46	64	117	44	287	37	11	5.4
23	60	58	30	94	47	62	91	44	219	37	11	5.1
24	66	49	30	74	69	70	80	42	174	32	9.6	5.2
25	65	50	29	69	108	92	75	38	140	29	9.0	5.0
26	61	49	27	68	159	57	69	38	108	27	8.6	7.6
27	88	42	27	53	133	70	62	37	90	25	8.6	6.0
28	122	42	26	48	112	60	56	36	78	23	8.5	5.4
29	105	52	27	45	91	58	54	33	69	23	7.9	5.2
30	89	49	27	41	---	63	68	31	62	22	7.4	5.2
31	79	---	27	37	---	68	---	28	---	22	6.8	---
TOTAL	2817	2743	1071	2004	2123	1926	2398	1676	3956	1162	436.4	178.5
MEAN	90.9	91.4	34.5	64.6	73.2	62.1	79.9	54.1	132	37.5	14.1	5.95
MAX	292	328	52	344	178	132	179	98	514	66	28	8.4
MIN	34	42	26	21	29	22	53	28	24	22	6.8	5.0
CFSM	1.43	1.44	.54	1.02	1.15	.98	1.26	.85	2.07	.59	.22	.09
IN.	1.65	1.60	.63	1.17	1.24	1.13	1.40	.98	2.31	.68	.26	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1996, BY WATER YEAR (WY)

MEAN	19.2	22.9	17.6	12.3	16.6	67.6	72.0	32.7	27.0	26.7	16.2	14.8
MAX	90.9	106	80.0	64.6	105	176	266	107	132	246	115	76.2
(WY)	1996	1962	1966	1996	1966	1952	1993	1960	1996	1993	1960	1960
MIN	.63	.53	.16	.094	.079	5.40	7.80	3.54	1.36	.95	.56	.55
(WY)	1965	1965	1959	1959	1959	1964	1964	1958	1964	1964	1964	1963

05423500 SOUTH BRANCH ROCK RIVER AT WAUPUN, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1949 - 1996		
ANNUAL TOTAL	17086.0		22490.9				
ANNUAL MEAN	46.8		61.5		29.0		
HIGHEST ANNUAL MEAN					94.1		1993
LOWEST ANNUAL MEAN					2.47		1964
HIGHEST DAILY MEAN	328	Nov 2	514	Jun 19	1280	Apr 4	1959
LOWEST DAILY MEAN	(a)4.4	Feb 14,15	5.0	Sep 15,25	.00		(b)
ANNUAL SEVEN-DAY MINIMUM	(a)4.6	Feb 11	5.3	Sep 14	.00	(c)Sep 7	1958
INSTANTANEOUS PEAK FLOW			530	Jun 19	(d)1500	Apr 3	1959
INSTANTANEOUS PEAK STAGE			6.49	Jun 19	7.97	Apr 3	1959
INSTANTANEOUS LOW FLOW			4.2	Sep 27	.00		(e)
ANNUAL RUNOFF (CFSM)	.74		.97		.46		
ANNUAL RUNOFF (INCHES)	9.99		13.16		6.20		
10 PERCENT EXCEEDS	90		117		68		
50 PERCENT EXCEEDS	36		48		10		
90 PERCENT EXCEEDS	6.0		8.9		.87		

(a) Ice affected
(b) Many days in 1958-59, 1963-64
(c) Also occurred in 1959
(d) From rating curve extended above 650 ft^3/s
(e) No flow at times in 1949, 1953-54, 1958-59, 1963-64

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 mi^2.

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 sea level. Prior to Sept. 26, 1933, nonrecording gage at site 700 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 28 to Dec. 2, Dec. 6 to Feb. 18, Feb. 27–29, and Mar. 3–9. Records good except those for ice-affected periods, which are poor (see page 12). Flow partly regulated by powerplant at Watertown. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	469	1100	840	210	740	1100	923	1170	855	2330	315	190
2	395	1390	800	200	720	999	912	1150	787	2270	258	159
3	418	1400	706	190	720	960	912	1140	672	2200	245	141
4	464	1370	643	180	700	900	932	1130	590	2110	229	101
5	500	1370	609	180	640	940	930	1110	567	2000	202	77
6	792	1400	500	180	600	960	922	1100	629	1930	322	118
7	1060	1440	370	190	600	900	917	1080	1260	1840	363	83
8	1050	1480	400	190	640	900	918	1070	1570	1770	475	88
9	1000	1540	430	200	700	920	915	1070	1550	1720	438	85
10	989	1570	440	210	760	949	920	1160	1520	1650	394	93
11	950	1610	400	210	800	858	913	1200	1480	1550	351	106
12	914	1650	420	220	780	867	919	1170	1470	1490	316	117
13	918	1650	370	230	760	857	910	1150	1410	1390	298	108
14	923	1660	330	240	740	856	892	1160	1400	1290	294	118
15	911	1680	310	240	720	930	899	1240	1370	1140	278	103
16	917	1670	290	230	700	1030	964	1310	1380	927	272	91
17	916	1670	280	230	720	985	1060	1320	2370	703	252	101
18	910	1640	270	350	740	929	1090	1350	3340	580	234	89
19	911	1670	260	600	775	924	1180	1350	2690	591	229	63
20	939	1650	240	740	777	940	1250	1360	2310	676	266	73
21	935	1610	230	720	785	938	1260	1360	2230	724	288	91
22	913	1560	240	700	782	964	1210	1350	2260	744	338	75
23	893	1460	240	740	806	991	1200	1330	2320	741	372	61
24	875	1410	230	800	825	1010	1190	1310	2450	652	349	81
25	863	1350	230	900	825	1060	1170	1260	2520	525	279	91
26	827	1270	220	920	843	1050	1160	1230	2540	425	269	119
27	861	1210	210	940	1000	970	1150	1200	2550	394	251	119
28	942	100	200	920	1000	931	1100	1160	2540	357	238	137
29	936	940	230	920	1000	906	1080	1120	2480	315	231	152
30	936	880	230	880	---	905	1140	1060	2450	355	218	152
31	956	---	230	800	---	913	---	993	---	343	204	---
TOTAL	26283	42400	11398	14460	22198	29342	30938	37163	53560	35732	9068	3182
MEAN	848	1413	368	466	765	947	1031	1199	1785	1153	293	106
MAX	1060	1680	840	940	1000	1100	1260	1360	3340	2330	475	190
MIN	395	100	200	180	600	856	892	993	567	315	202	61
CFSM	.87	1.46	.38	.48	.79	.98	1.06	1.24	1.84	1.19	.30	.11
IN.	1.01	1.63	.44	.56	.85	1.13	1.19	1.43	2.06	1.37	.35	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1996, BY WATER YEAR (WY)

MEAN	350	420	338	286	345	955	1288	700	423	336	242	259
MAX	2981	2034	1148	1055	1627	2448	3875	2634	1785	1625	1540	1552
(WY)	1987	1986	1986	1946	1938	1985	1979	1993	1996	1993	1960	1986
MIN	11.6	27.2	22.3	20.4	29.8	114	192	58.2	23.6	19.4	8.42	3.60
(WY)	1964	1964	1938	1940	1936	1964	1964	1958	1931	1936	1934	1932

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1931 - 1996	
ANNUAL TOTAL	197046		315724			
ANNUAL MEAN	540		863		497	
HIGHEST ANNUAL MEAN					1186	1993
LOWEST ANNUAL MEAN					64.5	1964
HIGHEST DAILY MEAN	1680	Nov 15	3340	Jun 18	4970	Apr 4 1959
LOWEST DAILY MEAN	50	Jul 17,18	61	Sep 23	.90	(a)Oct 15 1939
ANNUAL SEVEN-DAY MINIMUM	54	Jul 16	76	Sep 18	1.1	Sep 15 1932
INSTANTANEOUS PEAK FLOW			3790	Jun 18	(b)5080	Mar 31 1979
INSTANTANEOUS PEAK STAGE			5.51	Jun 18	6.32	Apr 4 1959
ANNUAL RUNOFF (CFSM)	.56		.89		.51	
ANNUAL RUNOFF (INCHES)	7.56		12.12		6.97	
10 PERCENT EXCEEDS	1200		1570		1310	
50 PERCENT EXCEEDS	418		896		254	
90 PERCENT EXCEEDS	77		190		38	

(a) Also occurred Sept. 9, 1944
(b) Gage height, 6.19 ft

05425912 BEAVERDAM RIVER AT BEAVER DAM, WI

LOCATION.--Lat 43°26'57", long 88°50'21", in NE 1/4 SW 1/4 sec.4, T.11 N., R.14 E., Dodge County, Hydrologic Unit 07090002, on left bank 5 ft upstream from bridge on Davis Street, 0.8 mi downstream from outlet of Beaverdam Lake, at Beaver Dam.

DRAINAGE AREA.--157 mi^2.

PERIOD OF RECORD.--March 1985 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 839.42 ft above sea level.

REMARKS.--No estimated daily discharge. Records good (see page 12). Flow regulated by dam 0.8 mi upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	262	130	43	138	153	218	189	47	354	128	15
2	32	310	90	44	134	153	209	177	69	344	122	15
3	25	321	89	43	131	151	207	177	70	328	117	11
4	21	300	52	43	132	151	217	171	73	301	111	5.2
5	21	280	37	43	130	150	202	165	71	292	117	4.8
6	83	281	40	43	128	148	199	112	83	270	142	5.1
7	95	308	26	42	129	147	198	83	110	261	145	5.1
8	87	300	17	42	147	145	142	89	104	244	145	5.2
9	108	278	19	42	154	141	122	94	110	223	133	5.8
10	119	281	20	42	154	135	121	132	143	207	122	5.3
11	115	295	21	87	156	130	126	130	160	188	119	6.5
12	114	274	24	104	154	128	129	129	160	172	89	6.3
13	115	272	27	101	152	127	143	132	160	194	67	5.4
14	128	266	30	99	150	127	130	134	157	186	41	5.1
15	123	257	29	97	148	128	148	145	149	164	27	3.9
16	107	254	30	96	146	127	151	152	143	168	22	3.8
17	93	246	30	96	143	127	131	183	221	151	20	3.8
18	102	235	30	119	140	126	135	211	270	192	18	3.7
19	102	225	30	127	138	134	151	203	304	204	24	3.4
20	129	217	30	131	135	142	167	211	332	189	30	3.3
21	146	208	38	133	131	136	158	169	351	183	27	3.1
22	137	198	43	132	129	133	213	131	377	181	64	3.6
23	126	190	43	133	129	131	221	220	363	178	73	2.9
24	140	182	43	135	131	136	207	208	384	175	65	3.9
25	129	175	43	135	134	143	211	196	363	169	63	2.9
26	129	170	43	139	141	140	238	189	372	156	36	5.2
27	151	176	43	146	149	171	199	178	379	144	19	4.9
28	164	170	42	143	149	187	187	175	380	140	18	4.7
29	162	162	42	143	151	205	198	133	382	146	18	3.7
30	189	156	42	141	---	231	219	107	381	141	17	3.1
31	205	---	42	139	---	228	---	65	---	132	16	---
TOTAL	3431	7249	1265	3003	4083	4611	5297	4790	6668	6377	2155	160.7
MEAN	111	242	40.8	96.9	141	149	177	155	222	206	69.5	5.36
MAX	205	321	130	146	156	231	238	220	384	354	145	15
MIN	21	156	17	42	128	126	121	65	47	132	16	2.9
CFSM	.70	1.54	.26	.62	.90	.95	1.12	.98	1.42	1.31	.44	.03
IN.	.81	1.72	.30	.71	.97	1.09	1.26	1.13	1.58	1.51	.51	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1996, BY WATER YEAR (WY)

MEAN	100	131	104	83.7	73.9	175	178	102	88.1	96.9	65.8	67.2
MAX	446	350	289	281	182	312	527	449	369	561	249	282
(WY)	1987	1986	1986	1986	1986	1994	1993	1993	1993	1993	1986	1986
MIN	2.89	6.66	14.2	21.3	20.8	10.9	44.2	4.55	4.86	2.86	3.05	5.13
(WY)	1989	1989	1995	1995	1988	1988	1994	1989	1985	1988	1988	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1985 - 1996	
ANNUAL TOTAL	26322.4		49089.7			
ANNUAL MEAN	72.1		134		106	
HIGHEST ANNUAL MEAN					244	1993
LOWEST ANNUAL MEAN					39.0	1988
HIGHEST DAILY MEAN	321	Nov 3	384	Jun 24	657	Jul 12,14 1993
LOWEST DAILY MEAN	4.7	Aug 2	2.9	Sep 23,25	.64	Oct 30 1988
ANNUAL SEVEN-DAY MINIMUM	6.3	Jul 29	3.3	Sep 19	.77	Feb 11 1987
INSTANTANEOUS PEAK FLOW			475	Jun 29	(a)758	Jul 9 1993
INSTANTANEOUS PEAK STAGE			8.36	Jun 29	9.35	Sep 26 1986
ANNUAL RUNOFF (CFSM)	.46		.85		.68	
ANNUAL RUNOFF (INCHES)	6.24		11.63		9.19	
10 PERCENT EXCEEDS	187		248		281	
50 PERCENT EXCEEDS	42		134		51	
90 PERCENT EXCEEDS	8.2		19		6.5	

(a) Gage height, 9.32 ft

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 mi^2.

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 sea level. Prior to July 28, 1966, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Mar. 16, 17, 23, 24, 29–31, Apr. 1, 2, June 16, 17, July 26–29, and ice-affected periods, Nov. 21, 24, and Nov. 29 to Mar. 10. Records good except those for estimated daily discharges, which are fair (see page 12). Some diurnal fluctuation at lower flows, due to manipulation of gates on small dams upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	833	540	180	660	1100	660	782	506	2080	489	167
2	267	984	560	170	640	1100	640	761	519	1980	470	156
3	281	1050	540	170	600	1100	642	768	527	1850	448	151
4	272	1140	500	170	600	1000	683	753	556	1710	408	150
5	273	1160	460	160	580	1000	637	716	557	1580	368	143
6	467	1180	440	160	520	960	626	685	584	1460	451	135
7	703	1230	400	160	500	940	626	639	965	1360	560	128
8	851	1200	380	170	500	900	610	613	1050	1250	676	118
9	941	1120	360	180	540	840	590	584	1140	1150	696	124
10	979	1130	350	180	600	800	551	629	1230	1040	670	115
11	971	1160	350	190	700	799	508	710	1280	935	631	116
12	947	1020	340	190	800	808	532	792	1290	856	585	116
13	894	1010	300	200	900	880	548	861	1280	820	537	117
14	864	989	260	200	980	941	524	874	1250	800	491	107
15	827	953	250	210	980	970	546	915	1180	809	464	98
16	766	934	240	210	960	1000	568	959	1100	794	434	97
17	657	897	230	220	940	900	564	975	1500	764	395	102
18	666	873	230	340	900	852	585	979	2060	821	355	96
19	615	826	220	520	840	856	649	949	2420	856	305	92
20	613	838	220	680	800	878	774	975	2810	881	319	87
21	573	800	220	760	760	707	843	963	3050	882	307	90
22	545	769	210	820	740	653	936	897	3180	865	300	101
23	508	747	210	840	720	600	960	872	3190	850	299	96
24	502	720	210	900	720	600	929	841	3150	800	273	102
25	526	714	200	860	700	589	883	786	3010	762	264	91
26	549	699	200	840	740	604	889	751	2850	700	260	93
27	588	698	200	800	860	656	836	706	2700	660	252	103
28	660	504	190	780	940	688	797	679	2530	620	237	113
29	711	450	180	760	1000	680	813	646	2340	600	223	132
30	759	500	180	720	---	680	809	596	2210	548	203	105
31	786	---	180	680	---	660	---	541	---	511	183	---
TOTAL	19759	27128	9350	13420	21720	25741	20758	24197	52014	31594	12553	3441
MEAN	637	904	302	433	749	830	692	781	1734	1019	405	115
MAX	979	1230	560	900	1000	1100	960	979	3190	2080	696	167
MIN	198	450	180	160	500	589	508	541	506	511	183	87
CFSM	.84	1.19	.40	.57	.98	1.09	.91	1.02	2.28	1.34	.53	.15
IN.	.96	1.32	.46	.66	1.06	1.26	1.01	1.18	2.54	1.54	.61	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1996, BY WATER YEAR (WY)

MEAN	276	307	254	240	299	1041	974	491	334	280	192	244
MAX	2565	1958	1065	1278	1576	2473	3206	2337	1734	2189	899	1881
(WY)	1987	1986	1983	1946	1938	1948	1959	1973	1996	1993	1993	1986
MIN	16.8	25.9	18.0	15.2	16.2	56.2	193	73.8	34.4	17.9	18.0	8.11
(WY)	1964	1950	1959	1940	1959	1940	1964	1958	1934	1965	1964	1958

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1931 - 1996	
ANNUAL TOTAL	172645		261675			
ANNUAL MEAN	473		715		412	
HIGHEST ANNUAL MEAN					1117	1993
LOWEST ANNUAL MEAN					61.8	1964
HIGHEST DAILY MEAN	1280	Aug 20,21	3190	Jun 23	6130	Apr 6 1959
LOWEST DAILY MEAN	88	Jul 3	87	Sep 20	.30	Sep 15 1958
ANNUAL SEVEN-DAY MINIMUM	(a)100	Feb 5	94	Sep 19	1.5	Sep 11 1958
INSTANTANEOUS PEAK FLOW			3210	Jun 22	6140	Apr 6 1959
INSTANTANEOUS PEAK STAGE			8.27	Jun 22	11.15	Apr 6 1959
ANNUAL RUNOFF (CFSM)	.62		.94		.54	
ANNUAL RUNOFF (INCHES)	8.43		12.77		7.35	
10 PERCENT EXCEEDS	976		1130		1080	
50 PERCENT EXCEEDS	412		673		185	
90 PERCENT EXCEEDS	115		170		37	

(a) Ice affected

05426250 BARK RIVER NEAR ROME, WI

LOCATION.--Lat 42°57'37" long 88°40'14" (revised), 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 mi^2.

PERIOD OF RECORD.--November 1979 to September 1982. October 1982 to September 1983 (fragmentary). October 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 810 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 9 to Mar. 13 and Mar. 21. Records good except those for ice-affected periods, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	121	102	60	45	86	86	133	74	107	75	52
2	34	149	102	60	43	82	93	139	100	108	60	52
3	36	142	104	58	42	76	96	143	104	124	60	51
4	17	150	105	56	41	72	96	139	122	113	63	45
5	25	152	103	54	40	68	97	131	141	108	67	44
6	74	150	112	52	39	58	97	121	140	103	108	43
7	86	139	91	52	39	56	94	114	244	96	99	43
8	99	128	89	50	42	56	92	109	279	90	89	41
9	116	129	86	50	50	54	88	105	272	85	83	41
10	109	129	84	50	70	54	85	127	290	73	78	40
11	105	126	82	49	90	56	82	137	301	70	76	39
12	100	126	82	49	82	66	84	139	278	71	73	37
13	95	120	80	48	76	74	79	141	254	71	66	36
14	83	112	80	48	70	83	79	136	232	70	60	20
15	73	106	76	47	66	90	89	148	209	68	58	19
16	73	102	72	47	62	90	104	158	190	68	58	19
17	72	99	70	49	58	92	116	161	230	67	58	19
18	65	93	70	90	56	90	123	178	280	79	58	19
19	64	93	68	100	54	86	128	161	274	80	64	19
20	65	96	68	110	56	78	137	136	258	81	67	20
21	65	96	66	90	56	78	135	151	243	82	63	23
22	66	100	64	80	56	78	136	129	231	82	61	25
23	69	99	64	76	60	77	133	104	216	78	58	24
24	71	92	62	72	66	83	132	109	207	79	55	25
25	69	91	60	70	74	86	131	111	190	85	56	25
26	69	90	58	66	84	91	127	107	176	86	57	29
27	86	81	58	62	94	95	127	103	149	108	57	47
28	102	85	60	58	100	92	124	93	107	109	55	42
29	104	93	60	56	94	88	122	61	108	101	57	41
30	104	97	60	52	---	90	129	60	109	94	55	40
31	105	---	60	48	---	85	---	64	---	87	54	---
TOTAL	2339	3386	2398	1909	1805	2410	3241	3848	6008	2723	2048	1020
MEAN	75.5	113	77.4	61.6	62.2	77.7	108	124	200	87.8	66.1	34.0
MAX	116	152	112	110	100	95	137	178	301	124	108	52
MIN	17	81	58	47	39	54	79	60	74	67	54	19
CFSM	.62	.93	.63	.50	.51	.64	.89	1.02	1.64	.72	.54	.28
IN.	.71	1.03	.73	.58	.55	.73	.99	1.17	1.83	.83	.62	.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1996, BY WATER YEAR (WY)

MEAN	74.4	99.2	85.9	68.7	77.2	129	149	101	70.0	61.5	64.4	70.6
MAX	214	214	138	105	118	248	327	180	200	176	127	212
(WY)	1987	1986	1986	1985	1985	1986	1993	1993	1996	1993	1995	1986
MIN	23.6	48.6	34.2	40.4	34.5	59.8	85.7	48.1	13.3	7.66	6.04	15.4
(WY)	1989	1990	1990	1989	1989	1980	1989	1989	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1980 - 1996	
ANNUAL TOTAL	27275		33135			
ANNUAL MEAN	74.7		90.5		88.2	
HIGHEST ANNUAL MEAN					139	1993
LOWEST ANNUAL MEAN					52.9	1989
HIGHEST DAILY MEAN	356	Aug 17	301	Jun 11	459	Apr 20 1993
LOWEST DAILY MEAN	(a)16	Jun 27,28	17	Oct 4	3.6	Aug 4 1988
ANNUAL SEVEN-DAY MINIMUM	17	Jun 24	19	Sep 14	3.8	Aug 1 1988
INSTANTANEOUS PEAK FLOW			(b)323	Jun 10	476	Apr 20 1993
INSTANTANEOUS PEAK STAGE			(c)2.45	Feb 5	2.56	Apr 20 1993
ANNUAL RUNOFF (CFSM)	.61		.74		.72	
ANNUAL RUNOFF (INCHES)	8.32		10.10		9.82	
10 PERCENT EXCEEDS	128		139		158	
50 PERCENT EXCEEDS	69		82		76	
90 PERCENT EXCEEDS	22		44		30	

(a) Also occurred Aug. 3,4
(b) Gage height, 2.07 ft
(c) Backwater from ice

05427235 LAKE KOSHKONONG NEAR NEWVILLE, WI

LOCATION.--Lat 42°51'27", long 88°56'27", in NW 1/4 NE 1/4 sec.34, T.5 N., R.13 E., Jefferson County, Hydrologic Unit 07090001, 80 ft east of Pottawatomi Trail Bridge at Bingham Point Estates, and 4.5 mi northeast of Newville.

DRAINAGE AREA.--2,560 mi^2, at lake outlet. Area of Lake Koshkonong, 16.3 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 770.00 ft above sea level.

REMARKS.--No estimated daily gage heights. Records good (see page 12). Lake level regulated by dam at Indianford. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum recorded gage height, 12.23 ft, Apr. 25, 1993; minimum recorded, 5.40 ft, Dec. 26, 27, 1989.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 10.70 ft, June 23; minimum recorded, 5.88 ft, Jan. 16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.25	7.49	7.51	6.13	7.22	7.57	7.32	7.79	7.40	10.23	6.71	6.14
2	6.27	7.67	7.48	6.10	7.18	7.63	7.29	7.80	7.46	10.11	6.63	6.14
3	6.31	7.81	7.47	6.08	7.16	7.66	7.30	7.80	7.45	9.97	6.55	6.14
4	6.32	7.91	7.45	6.06	7.13	7.67	7.31	7.77	7.42	9.81	6.44	6.10
5	6.32	7.99	7.42	6.04	7.11	7.66	7.27	7.73	7.34	9.66	6.35	6.08
6	6.53	8.08	7.37	6.02	7.07	7.61	7.27	7.69	7.30	9.50	6.41	6.08
7	6.75	8.17	7.28	6.00	7.04	7.55	7.27	7.62	7.49	9.36	6.43	6.14
8	6.94	8.19	7.21	5.98	6.99	7.50	7.25	7.59	7.70	9.20	6.45	6.17
9	7.14	8.15	7.15	5.96	6.95	7.45	7.24	7.58	7.95	9.04	6.44	6.18
10	7.25	8.21	7.10	5.94	6.97	7.39	7.22	7.64	8.21	8.88	6.43	6.12
11	7.32	8.29	7.03	5.94	7.07	7.34	7.21	7.65	8.45	8.72	6.42	6.11
12	7.36	8.22	6.98	5.93	7.17	7.28	7.19	7.66	8.59	8.58	6.40	6.11
13	7.38	8.20	6.92	5.92	7.27	7.25	7.18	7.70	8.67	8.48	6.37	6.11
14	7.40	8.17	6.88	5.91	7.35	7.27	7.12	7.72	8.69	8.38	6.34	6.11
15	7.38	8.14	6.81	5.89	7.39	7.34	7.16	7.78	8.66	8.25	6.29	6.10
16	7.34	8.13	6.75	5.89	7.41	7.39	7.19	7.81	8.63	8.12	6.23	6.11
17	7.29	8.11	6.69	5.90	7.42	7.43	7.20	7.84	8.74	7.98	6.19	6.11
18	7.28	8.11	6.64	6.02	7.40	7.47	7.25	7.88	9.19	7.93	6.15	6.10
19	7.25	8.10	6.58	6.26	7.38	7.48	7.36	7.89	9.64	7.86	6.13	6.09
20	7.25	8.08	6.54	6.52	7.33	7.46	7.47	7.92	10.00	7.68	6.14	6.08
21	7.21	8.09	6.50	6.74	7.28	7.45	7.55	7.94	10.27	7.57	6.13	6.13
22	7.18	8.05	6.46	6.93	7.24	7.44	7.66	7.94	10.47	7.49	6.15	6.13
23	7.14	8.00	6.41	7.07	7.21	7.42	7.70	7.92	10.57	7.44	6.15	6.12
24	7.18	7.93	6.38	7.17	7.21	7.41	7.74	7.85	10.66	7.40	6.14	6.10
25	7.14	7.88	6.35	7.22	7.22	7.42	7.76	7.79	10.65	7.35	6.15	6.07
26	7.12	7.85	6.31	7.27	7.24	7.42	7.82	7.73	10.63	7.27	6.14	6.11
27	7.20	7.86	6.27	7.29	7.31	7.40	7.78	7.66	10.59	7.16	6.12	6.19
28	7.26	7.76	6.23	7.28	7.39	7.39	7.74	7.63	10.53	7.06	6.10	6.17
29	7.31	7.62	6.20	7.27	7.48	7.37	7.76	7.59	10.45	6.98	6.12	6.15
30	7.35	7.55	6.17	7.26	---	7.36	7.80	7.53	10.36	6.90	6.11	6.11
31	7.39	---	6.15	7.24	---	7.35	---	7.45	---	6.79	6.13	---
MEAN	7.06	7.99	6.80	6.43	7.23	7.45	7.41	7.74	9.01	8.30	6.29	6.12
MAX	7.40	8.29	7.51	7.29	7.48	7.67	7.82	7.94	10.66	10.23	6.71	6.19
MIN	6.25	7.49	6.15	5.89	6.95	7.25	7.12	7.45	7.30	6.79	6.10	6.07

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 mi^2.

PERIOD OF RECORD.--May 1975 to current year.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 763.84 ft above sea level (Rock County Surveyor bench mark). Prior to Oct. 1, 1990, at datum 0.10 ft lower.

REMARKS.--Estimated daily discharges: Feb. 3–6. Records fair (see page 12). Natural flow of stream affected by dam in Indianford. Discharge is adjusted for flow through wicket gates. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	618	2360	2260	888	1750	2270	2140	2740	2620	6550	1790	478
2	847	2400	2250	897	1680	2320	2040	2750	2600	6350	1680	484
3	869	2410	2210	830	1640	2370	2190	2950	2590	6100	1540	777
4	885	2720	2220	833	1600	2450	2200	3120	2630	5830	1410	670
5	1010	2810	2100	797	1560	2470	2090	3070	2570	5580	1280	401
6	1070	2910	2050	785	1540	2440	2070	3020	2600	5340	1340	367
7	1220	3050	1980	772	1560	2300	2080	2920	2900	5110	1350	384
8	1450	3040	1910	749	1630	2200	2040	2870	3150	4830	1410	394
9	1770	3020	1560	754	1640	2170	2100	2850	3450	4670	1440	680
10	2140	3100	1580	750	1600	2100	2130	2980	3730	4460	1430	756
11	2200	3170	1550	769	1770	2030	2050	2970	3970	4210	1400	460
12	2280	3070	1520	740	1890	2000	2210	2950	4160	4020	1360	348
13	2250	3080	1520	743	1960	1970	2180	2990	4240	3900	1320	375
14	2200	3070	1490	744	2070	2010	2180	2970	4270	3800	1260	345
15	2280	3010	1480	743	2130	2070	2100	3060	4180	3580	1270	365
16	2300	3000	1440	717	2110	2170	2100	3090	4130	3430	1330	411
17	2120	3000	1400	743	2140	2200	2130	3080	4330	3290	1340	398
18	2260	2990	1380	771	2110	2220	2130	3060	5120	3150	1300	369
19	2100	2970	1330	891	2080	2280	2270	3050	5820	3210	1180	376
20	2060	2880	1220	1140	2050	2360	2340	3260	6240	3030	985	352
21	1990	2940	1210	1380	2020	2240	2500	3240	6620	2820	862	347
22	2010	2910	1160	1600	1970	2210	2660	3170	6970	2670	835	334
23	1960	2830	1110	1800	1900	2210	2740	3340	7180	2620	925	634
24	1760	2740	1050	1860	1870	2180	2740	3340	7360	2560	865	532
25	1950	2710	1050	1930	1950	2020	2610	3170	7410	2490	847	623
26	1980	2710	1030	1990	2020	2120	2760	3110	7340	2440	910	624
27	2030	2760	979	1920	2000	2190	2780	3090	7220	2320	908	566
28	2110	2560	949	1970	2060	2210	2850	3010	7050	2200	595	710
29	2100	2360	918	1830	2180	2200	2980	2910	6780	2100	756	766
30	2220	2300	909	1820	---	2150	2680	2810	6740	2000	604	703
31	2300	---	896	1790	---	2180	---	2690	---	1860	476	---
TOTAL	56339	84880	45711	35946	54480	68310	70070	93630	145970	116520	35998	15029
MEAN	1817	2829	1475	1160	1879	2204	2336	3020	4866	3759	1161	501
MAX	2300	3170	2260	1990	2180	2470	2980	3340	7410	6550	1790	777
MIN	618	2300	896	717	1540	1970	2040	2690	2570	1860	476	334
CFSM	.69	1.08	.56	.44	.71	.84	.89	1.15	1.85	1.43	.44	.19
IN.	.80	1.20	.65	.51	.77	.97	.99	1.32	2.06	1.65	.51	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1996, BY WATER YEAR (WY)

MEAN	1515	1772	1707	1159	1265	2957	3810	2384	1527	1370	1019	1157
MAX	7729	5047	3745	2622	2403	6113	9466	6028	4866	4549	3377	3911
(WY)	1987	1986	1986	1985	1988	1985	1979	1993	1996	1993	1993	1986
MIN	216	297	262	254	283	795	1538	317	185	158	130	182
(WY)	1977	1977	1977	1977	1977	1977	1977	1977	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1975 - 1996	
ANNUAL TOTAL	560830		822883			
ANNUAL MEAN	1537		2248		1806	
HIGHEST ANNUAL MEAN					3252	1993
LOWEST ANNUAL MEAN					509	1977
HIGHEST DAILY MEAN	3440	Aug 24	7410	Jun 25	11700	Apr 7 1979
LOWEST DAILY MEAN	344	Jul 14	334	Sep 22	39	Jun 19 1988
ANNUAL SEVEN-DAY MINIMUM	402	Jul 2	370	Sep 16	85	Jun 15 1988
INSTANTANEOUS PEAK FLOW			(a)7450	Jun 24	11900	Apr 5 1979
INSTANTANEOUS PEAK STAGE			(b)14.76	Jun 23	(c)16.23	Apr 5 1979
ANNUAL RUNOFF (CFSM)	.58		.85		.69	
ANNUAL RUNOFF (INCHES)	7.93		11.64		9.33	
10 PERCENT EXCEEDS	2710		3490		3810	
50 PERCENT EXCEEDS	1480		2110		1320	
90 PERCENT EXCEEDS	461		744		354	

(a) Gage height, 14.72 ft
(b) Backwater caused by orifice flow at dam gates
(c) Datum then in use

05427718 YAHARA RIVER AT WINDSOR, WI

LOCATION.--Lat 43°12'32", long 89°21'09", in NW 1/4 NE 1/4 sec.31, T.9 N., R.10 E., Dane County, Hydrologic Unit 07090001, at bridge on road to Lake Windsor Country Club.

DRAINAGE AREA.--73.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1976 to December 1981, October 1989 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 870 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 7–16, 26–28, Jan. 6–12, Jan. 19 to Feb. 19, Mar. 3–10, 26 and 27. Records good except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	44	20	19	20	31	20	24	20	21	19	16
2	16	72	20	18	19	25	19	21	37	22	18	16
3	16	32	21	25	18	24	19	20	24	21	18	16
4	16	26	21	19	18	23	21	20	23	21	18	16
5	16	23	21	18	18	22	19	20	22	20	30	16
6	60	22	19	18	18	21	19	19	46	20	73	16
7	29	22	19	18	19	20	18	19	86	20	40	16
8	22	21	19	18	35	20	18	19	42	19	26	16
9	20	20	21	19	50	20	18	20	32	19	22	16
10	18	20	20	19	170	20	18	75	31	19	20	16
11	17	20	19	20	150	21	18	39	32	19	20	16
12	17	20	19	20	100	23	19	28	25	19	19	16
13	17	19	19	20	60	24	19	24	23	19	19	16
14	17	19	21	20	45	26	19	22	21	19	19	16
15	17	19	20	19	38	24	19	26	20	18	18	16
16	16	19	19	20	32	23	21	25	21	18	18	16
17	17	19	19	19	29	22	20	24	299	18	18	16
18	17	19	19	185	27	21	21	23	200	59	17	16
19	18	20	19	150	26	21	28	21	78	31	20	16
20	19	21	19	80	25	20	38	22	50	24	19	16
21	18	20	19	35	27	19	27	22	39	22	18	17
22	18	20	19	27	24	19	23	20	40	21	18	17
23	20	19	19	24	29	19	20	21	33	20	18	17
24	22	19	19	23	44	21	21	20	31	20	17	17
25	19	19	18	22	45	27	20	19	27	19	17	17
26	18	19	18	22	84	21	20	20	24	19	17	18
27	31	19	18	23	176	19	19	19	23	18	17	19
28	29	19	18	24	72	19	19	19	21	19	17	18
29	23	21	18	22	44	19	22	19	21	19	17	17
30	21	20	19	21	---	19	28	18	23	19	17	17
31	20	---	19	20	---	19	---	18	---	19	16	---
TOTAL	641	692	598	1007	1462	672	630	726	1414	661	660	494
MEAN	20.7	23.1	19.3	32.5	50.4	21.7	21.0	23.4	47.1	21.3	21.3	16.5
MAX	60	72	21	185	176	31	38	75	299	59	73	19
MIN	16	19	18	18	18	19	18	18	20	18	16	16
CFSM	.28	.31	.26	.44	.68	.29	.29	.32	.64	.29	.29	.22
IN.	.32	.35	.30	.51	.74	.34	.32	.37	.71	.33	.33	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

MEAN	15.9	17.3	15.1	15.7	24.5	43.3	23.6	18.6	21.7	22.9	18.0	18.9
MAX	29.2	30.4	27.0	32.5	74.2	135	47.8	35.3	47.1	95.3	40.3	50.1
(WY)	1994	1994	1994	1996	1994	1976	1993	1995	1996	1993	1993	1980
MIN	7.75	8.78	8.54	6.50	4.76	11.8	14.0	7.71	7.48	7.12	7.29	7.12
(WY)	1978	1978	1978	1978	1978	1978	1978	1977	1977	1977	1991	1977

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1976 - 1996	
ANNUAL TOTAL	8235		9657			
ANNUAL MEAN	22.6		26.4		20.8	
HIGHEST ANNUAL MEAN					39.1	1993
LOWEST ANNUAL MEAN					10.9	1977
HIGHEST DAILY MEAN	86	May 17	299	Jun 17	519	Jul 6 1993
LOWEST DAILY MEAN	14	Sep 17	16	(a)Oct 2	4.6	Mar 1 1978
ANNUAL SEVEN-DAY MINIMUM	15	Sep 24	16	Aug 31	4.6	Mar 1 1978
INSTANTANEOUS PEAK FLOW			(b)460	Jun 17	2050	Jul 6 1993
INSTANTANEOUS PEAK STAGE			(c)5.58	Feb 10	6.58	Jul 6 1993
INSTANTANEOUS LOW FLOW			(d)11	Dec 25	(d)2.9	Feb 25 1991
ANNUAL RUNOFF (CFSM)	.31		.36		.28	
ANNUAL RUNOFF (INCHES)	4.16		4.88		3.84	
10 PERCENT EXCEEDS	31		35		32	
50 PERCENT EXCEEDS	19		20		15	
90 PERCENT EXCEEDS	16		17		8.2	

(a) Also occurred Oct. 3-5, 16, and Aug. 31 to Sept. 20
(b) Gage height, 5.53 ft
(c) Ice affected
(d) Result of freezeup

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1980, October 1989 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: March 1990 to current year.
TOTAL-PHOSPHORUS DISCHARGE: March 1990 to current year.
TOTAL ORTHO-PHOSPHORUS DISCHARGE: October 1990 to September 1992.

INSTRUMENTATION.--Water-quality sampler since March 1990.

REMARKS.--Records good. Samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 7,070 mg/L, June 29, 1990; minimum observed, 4.0 mg/L, Aug. 24, 1994.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 1,280 tons, July 5, 1993; minimum daily, 0.16 ton, Jan. 6-7, 1991.
TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 5.10 mg/L, June 7, 1993; minimum observed, 0.01 mg/L, Jan. 31, 1991.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 3,240 lb, Feb. 20, 1994; minimum daily, 0.81 lb, Jan. 31, 1991.
TOTAL ORTHO-0HOSPHORUS CONCENTRATIONS: Maximum observed, 1.10 mg/L, Mar. 2, 3, 1991; minimum observed, <0.01 mg/L, Nov. 13, 1990 and June 26, 1994.
TOTAL ORTHO-PHOSPHORUS DISCHARGE: Maximum daily, 1,260 lb, Mar. 2, 1991; minimum daily, 0.49 lb, Nov. 26, 1990.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 765 mg/L, Feb. 26; minimum observed, 5.0 mg/L, Apr. 5.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 269 tons, June 17; minimum daily, 0.24 ton, Apr. 6.
TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 1.80 mg/L, Jan. 18; minimum observed, 0.02 mg/L, Nov. 30.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 1,420 lb, June 17; minimum daily, 2.14 lb, Nov. 30.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	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)
OCT 1995					
*04...	0902	16	0.070	--	13
*04...	1458	16	0.060	0.044	--
05...	2345	24	0.290	0.170	61
06...	0200	46	0.470	--	118
06...	0315	62	0.670	0.260	267
06...	0500	92	0.800	0.210	715
06...	0839	73	0.440	--	164
*06...	0846	71	0.470	--	120
06...	1515	59	0.730	0.280	446
08...	0430	23	0.310	0.120	146
10...	1440	18	0.040	--	28
23...	1915	24	0.330	--	121
23...	2315	25	--	--	36
27...	0800	25	0.230	--	29
27...	1130	38	0.300	--	68
27...	1930	37	0.260	--	40
28...	1930	27	0.220	--	16
*31...	1050	20	0.050	--	17
NOV					
01...	1145	25	0.130	--	19
01...	1700	32	0.170	0.090	--
01...	1815	45	0.270	--	147
01...	1945	75	0.500	0.260	205
01...	2115	110	0.760	--	418
01...	2245	129	0.750	0.300	369
02...	0215	110	--	--	252
02...	1015	75	0.600	0.340	179
03...	1315	32	0.260	--	22
08...	0730	32	0.460	--	382
30...	1357	19	0.020	--	13

* Equal-width increment (EWI) sample

05427718 YAHARA RIVER AT WINDSOR, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	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)
JAN 1996						
*03...	0900	--	31	0.030	--	11
18...	0430	--	42	0.910	0.360	319
18...	0700	--	109	1.50	--	598
18...	0915	--	172	1.80	0.630	595
18...	1130	--	226	1.60	--	431
18...	1330	--	279	1.60	0.700	547
*18...	1331	--	279	--	--	425
*18...	1335	--	279	1.60	0.630	--
18...	1515	--	308	1.20	--	486
21...	1145	35	--	0.420	--	37
23...	1145	24	--	0.110	--	26
FEB						
09...	0600	50	--	0.260	--	27
09...	1336	50	--	--	--	31
*09...	1347	50	--	0.370	--	34
09...	1815	50	--	0.520	0.400	285
10...	0345	170	--	0.800	--	132
10...	1145	170	--	--	--	163
10...	1500	170	--	0.950	0.750	336
10...	1615	170	--	0.840	0.690	427
11...	0815	150	--	--	--	99
11...	2200	150	--	0.800	0.530	61
12...	1540	100	--	0.570	--	72
*12...	1544	100	--	0.590	--	106
13...	1100	60	--	0.430	--	36
14...	1100	45	--	0.470	--	44
*21...	1100	45	--	0.330	--	--
*21...	1110	--	27	--	--	28
23...	1930	--	39	--	--	180
24...	1130	--	34	--	--	45
24...	1800	--	60	0.850	--	135
26...	0930	--	43	--	--	43
26...	1730	--	45	0.540	--	95
26...	1930	--	99	0.710	0.360	378
26...	2000	--	138	--	--	731
26...	2030	--	172	--	--	765
26...	2130	--	274	1.40	--	552
26...	2315	--	386	0.840	0.540	381
27...	0130	--	307	1.20	--	216
27...	0842	--	150	0.830	0.610	147
*27...	0843	--	150	0.960	0.620	112
27...	1500	--	162	1.40	--	209
28...	0045	--	100	1.40	--	202
29...	1441	--	46	0.590	--	44
MAR						
25...	0345	--	28	0.150	--	38
APR						
*05...	1337	--	19	0.030	--	5
19...	0115	--	30	0.210	--	84
19...	1715	--	26	0.150	--	17
20...	0200	--	44	0.300	--	161
21...	0200	--	30	0.180	--	30
29...	2100	--	28	0.120	--	24
30...	0500	--	28	0.090	--	23
MAY						
01...	0500	--	26	0.140	--	16
*02...	1448	--	21	0.050	--	27
10...	0145	--	30	0.270	--	78
10...	0400	--	65	0.720	0.050	470
10...	0545	--	87	0.550	--	327
10...	0715	--	99	0.710	0.130	416
*10...	1145	--	95	0.720	<0.010	361
10...	1152	--	95	--	--	343
10...	1515	--	88	--	--	267
10...	1845	--	71	0.750	0.220	204
11...	1330	--	37	0.140	--	24
12...	0530	--	30	--	--	24
13...	0710	--	24	0.080	--	20
15...	0845	--	27	0.100	--	20
20...	1945	--	29	0.190	--	66
23...	1355	--	21	0.140	--	35

* Equal-width increment (EWI) sample

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	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)
JUN 1996					
01...	2230	28	0.310	--	178
01...	2345	37	--	--	228
02...	0030	46	0.440	--	246
02...	0830	38	0.390	--	168
03...	0830	24	0.170	--	50
06...	0130	29	0.240	--	84
06...	0315	48	0.530	0.100	369
06...	0515	71	0.730	0.050	520
06...	0915	54	0.470	--	179
06...	2100	35	0.370	0.150	77
06...	2400	55	0.420	--	145
07...	0200	76	0.550	0.010	345
07...	0445	97	0.490	--	209
07...	0730	107	0.560	0.240	201
07...	1430	92	0.510	--	155
07...	2230	60	0.310	--	64
08...	1330	41	0.220	--	42
09...	2130	30	0.170	--	43
10...	1330	29	--	--	32
10...	2100	37	0.380	--	283
11...	0500	35	--	--	126
*14...	0847	21	0.160	--	49
16...	2345	24	0.350	--	93
17...	0245	43	0.270	--	223
17...	0400	111	0.660	0.210	374
17...	0515	244	1.20	0.220	708
17...	0615	367	--	--	560
17...	0715	428	1.20	--	522
17...	0829	457	1.10	0.300	501
*17...	1456	366	0.800	--	236
17...	1506	364	0.790	--	235
17...	1900	295	0.690	--	196
18...	0830	226	0.530	0.310	151
18...	1430	181	0.500	--	136
*18...	1440	179	0.540	--	142
19...	0245	100	0.430	--	139
20...	0700	53	0.320	--	128
21...	1500	38	0.230	--	122
21...	2300	42	--	--	211
22...	0115	52	0.510	--	358
23...	0915	29	0.200	--	121
23...	1930	42	0.290	--	373
25...	1130	27	0.160	--	59
27...	1930	22	0.140	--	63
JUL					
02...	1145	26	0.230	--	161
*15...	1500	19	0.100	--	27
18...	0415	33	0.310	--	140
18...	0615	83	0.610	--	374
18...	0815	107	0.830	--	457
*19...	0535	34	0.390	--	--
20...	0545	25	0.220	--	53
AUG					
05...	1915	37	0.410	--	154
05...	2045	66	--	--	380
05...	2230	95	0.810	--	588
06...	0345	45	0.350	--	144
06...	0915	73	--	--	280
06...	1045	104	0.580	--	406
07...	0200	54	0.480	--	152
07...	1800	33	0.290	--	82
08...	1800	24	0.180	--	51
19...	1845	28	0.200	--	111
*23...	0745	18	0.110	--	61

* Equal-width increment (EWI) sample

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.84	23	.69	.58	1.2	2.6	.39	1.2	2.4	3.1	1.1	.83
2	.73	36	.69	.55	1.1	1.4	.35	1.4	15	4.9	1.0	.82
3	.64	2.8	.72	.77	1.1	1.3	.30	1.4	3.3	2.5	.98	.80
4	.56	1.5	.73	.57	1.0	1.2	.29	1.3	2.5	2.1	.96	.78
5	.64	1.2	.72	.55	1.0	1.1	.25	1.3	2.0	1.9	19	.78
6	53	1.1	.67	.53	1.0	1.1	.24	1.2	25	1.7	47	.76
7	20	1.0	.65	.53	1.0	1.0	.25	1.1	40	3.2	12	.74
8	7.2	1.4	.65	.52	2.0	1.0	.27	1.1	5.5	2.1	4.2	.74
9	3.3	.98	.71	.55	14	.99	.29	1.1	3.7	1.9	2.6	.75
10	1.6	.93	.68	.54	105	.97	.30	58	5.9	1.8	2.0	.74
11	1.1	.93	.64	.57	42	1.0	.32	3.6	9.5	1.7	1.6	.72
12	.94	.88	.64	.56	20	1.1	.35	1.7	4.7	1.7	1.3	.71
13	.89	.86	.63	.57	7.2	1.1	.37	1.3	3.5	1.6	1.1	.70
14	.86	.83	.70	.54	5.2	1.2	.39	1.2	2.8	1.4	1.0	.68
15	.84	.81	.66	.52	4.2	1.1	.43	1.4	2.4	1.3	.93	.69
16	.81	.80	.62	.54	3.3	1.0	.49	1.4	2.7	1.3	.92	.69
17	.80	.79	.63	.54	2.8	.97	.49	1.3	269	1.3	.88	.67
18	.79	.79	.63	191	2.5	.90	.59	1.2	82	33	.86	.66
19	1.0	.82	.62	68	2.2	.89	2.3	1.1	29	6.2	2.9	.64
20	1.2	.83	.61	16	2.0	.85	7.3	1.8	17	3.2	4.4	.65
21	1.1	.80	.61	3.6	2.0	.81	2.0	1.8	14	2.1	3.7	.66
22	.95	.78	.61	2.3	1.7	.80	1.5	1.5	24	1.5	3.3	.66
23	1.7	.75	.60	1.7	6.2	.77	1.1	1.7	17	1.4	2.8	.64
24	1.6	.71	.61	1.6	10	.93	1.1	1.5	9.7	1.3	2.1	.63
25	.98	.71	.58	1.5	8.1	1.9	1.0	1.3	4.5	1.2	1.6	.62
26	.86	.72	.56	1.5	69	.90	.93	1.3	3.9	1.2	1.2	.67
27	3.4	.71	.56	1.5	92	.69	.84	1.2	3.8	1.1	.94	.71
28	1.8	.68	.56	1.6	27	.61	.79	1.2	3.4	1.1	.90	.65
29	1.0	.75	.57	1.4	6.4	.54	1.3	1.1	3.0	1.1	.89	.62
30	.95	.70	.57	1.3	---	.48	1.6	1.0	5.6	1.1	.86	.60
31	.93	---	.58	1.2	---	.44	---	1.0	---	1.1	.83	---
TOTAL	113.01	85.56	19.70	303.73	442.2	31.64	28.12	99.7	616.8	92.1	125.85	21.01

WTR YR 1996 TOTAL 1979.42

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.27	101	2.15	3.00	11.3	81.8	4.98	14.8	14.4	18.2	11.4	9.06
2	7.44	231	2.19	2.92	10.6	51.4	4.43	6.73	70.5	21.4	10.9	8.98
3	6.66	51.2	2.32	4.10	10.0	39.4	3.91	5.31	22.6	16.2	10.1	8.76
4	5.56	30.3	2.38	3.08	9.95	31.9	3.75	5.09	20.3	15.0	9.80	8.65
5	6.18	22.1	2.40	2.98	9.89	26.1	3.19	4.86	18.2	14.0	69.6	8.64
6	200	17.2	2.26	2.92	9.83	21.3	3.08	4.60	116	13.4	207	8.42
7	73.9	13.8	2.23	2.92	10.3	17.3	3.10	4.41	224	16.0	81.3	8.32
8	29.0	14.5	2.26	2.92	24.4	14.8	3.15	4.35	54.7	12.7	29.3	8.30
9	11.4	8.15	2.52	3.08	117	12.7	3.22	4.60	31.5	12.0	17.8	8.44
10	4.74	5.69	2.43	3.08	785	11.0	3.23	267	33.3	11.6	13.6	8.42
11	3.75	5.28	2.34	3.24	658	11.2	3.36	47.1	48.8	11.2	12.5	8.20
12	3.66	4.86	2.37	3.24	340	12.0	3.57	16.0	25.4	11.3	12.0	8.14
13	3.66	4.58	2.40	3.29	148	12.6	3.64	10.9	21.0	11.1	11.7	8.10
14	3.61	4.29	2.68	3.16	112	13.0	3.69	11.0	18.5	10.4	11.3	7.89
15	3.60	4.03	2.58	3.05	91.5	11.9	3.90	13.6	17.1	10.0	10.5	7.97
16	3.54	3.87	2.48	3.22	73.3	11.2	4.30	12.9	22.8	9.80	10.3	8.01
17	3.58	3.72	2.54	3.24	63.1	10.5	4.13	11.8	1420	9.89	9.87	7.88
18	3.60	3.59	2.58	1260	55.9	9.76	5.21	10.8	582	189	9.55	7.82
19	8.27	3.59	2.57	744	51.2	9.66	25.9	9.58	167	59.2	16.0	7.51
20	16.8	3.54	2.59	278	47.2	9.12	45.7	13.6	83.7	28.0	16.4	7.65
21	10.4	3.30	2.62	77.8	48.5	8.75	22.5	13.6	52.5	21.1	13.3	7.92
22	8.28	3.10	2.66	32.9	40.2	8.57	12.9	10.2	81.3	17.7	11.8	7.85
23	16.5	2.90	2.69	15.6	68.3	8.22	8.11	12.1	41.6	16.1	10.7	7.66
24	30.1	2.64	2.76	13.6	156	10.5	7.37	10.2	34.3	15.0	10.3	7.61
25	20.6	2.57	2.66	12.9	140	17.8	6.89	8.50	23.6	14.3	9.89	7.55
26	16.9	2.51	2.65	12.8	355	10.5	6.34	8.47	19.6	13.4	9.77	8.14
27	41.5	2.40	2.69	13.3	1120	8.48	5.72	8.31	17.4	12.9	9.70	8.66
28	36.6	2.23	2.72	13.8	434	7.63	5.29	8.25	15.8	12.7	9.64	7.97
29	19.0	2.38	2.81	12.6	157	6.76	11.0	8.15	15.0	12.5	9.54	7.67
30	9.77	2.14	2.88	12.0	---	6.06	15.9	7.79	27.4	12.1	9.27	7.51
31	5.73	---	2.95	11.3	---	5.53	---	7.68	---	11.6	9.04	---
TOTAL	622.60	562.46	78.36	2564.04	5157.47	517.44	241.46	582.28	3340.3	659.79	693.87	243.70

WTR YR 1996 TOTAL 15263.77

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 mi^2, of which 1.22 mi^2 is noncontributing.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder, crest-stage gage, parshall flume, and concrete control. Datum of gage is 901.5 ft above sea level.

REMARKS.--Estimated daily discharges: Ice-affected period, Jan. 28 to Feb. 6. Records fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	23	2.7	1.6	1.2	2.9	2.2	3.7	5.3	2.8	2.0	1.6
2	1.4	40	2.4	1.5	1.2	2.3	2.2	3.0	18	3.5	2.0	1.5
3	2.0	8.7	2.9	1.5	1.2	1.9	2.2	2.7	4.3	2.5	2.0	1.5
4	1.5	4.2	2.9	1.5	1.2	1.8	2.7	2.5	3.2	2.3	2.0	1.5
5	3.6	3.5	2.8	1.3	1.2	1.7	2.3	2.2	2.9	2.2	14	1.5
6	37	3.2	2.6	1.3	1.2	1.5	2.2	2.1	28	2.1	26	1.4
7	7.4	3.0	2.3	1.3	1.5	1.5	2.3	2.0	65	2.3	4.6	1.3
8	3.1	2.7	2.1	1.3	2.8	1.4	2.3	2.2	16	2.9	2.7	1.4
9	2.7	2.6	1.8	1.3	16	1.4	2.3	2.7	7.3	2.6	2.2	1.5
10	2.3	3.3	1.7	1.3	103	1.4	2.3	49	5.2	2.3	2.0	1.3
11	2.5	2.9	1.6	1.4	57	1.9	2.5	13	4.2	2.1	2.0	1.3
12	2.2	2.7	1.7	1.4	9.9	2.4	2.7	4.9	3.6	3.3	2.0	1.3
13	1.9	2.5	1.7	1.4	4.3	2.4	2.6	3.7	3.2	2.4	1.8	1.5
14	1.7	2.4	2.1	1.5	3.4	2.6	2.4	3.4	2.9	2.3	1.8	1.6
15	1.7	2.3	2.0	1.4	2.9	2.3	3.3	3.8	2.6	2.1	1.9	1.6
16	1.6	2.3	1.8	1.4	2.5	2.0	3.4	4.6	4.6	2.1	1.8	1.5
17	1.6	2.4	1.7	2.0	2.3	2.1	2.9	4.0	262	2.5	1.9	1.5
18	1.6	2.4	1.7	107	2.0	1.8	4.6	3.3	110	113	1.8	1.4
19	2.8	2.5	1.7	25	2.1	1.8	6.6	3.0	24	15	2.2	1.5
20	2.1	2.9	1.7	5.0	2.8	1.8	15	4.6	13	4.6	2.1	1.4
21	1.8	2.7	1.6	3.5	4.1	1.6	4.8	3.7	5.7	3.5	2.0	1.2
22	1.7	2.4	1.6	2.9	2.9	1.6	3.5	3.1	4.3	6.9	1.8	1.3
23	2.8	2.2	1.6	2.3	5.0	1.6	3.0	3.2	6.4	8.2	1.8	1.5
24	2.5	2.0	1.6	2.2	12	3.3	2.7	2.8	4.3	3.2	1.7	1.5
25	1.9	2.0	1.6	1.9	8.0	4.4	2.7	3.0	3.5	2.9	1.6	1.4
26	1.8	2.0	1.6	1.8	18	2.9	2.4	3.5	3.0	2.5	1.6	3.4
27	23	2.0	1.5	1.3	92	2.3	2.1	3.5	2.8	2.3	1.6	2.1
28	15	2.1	1.4	1.3	17	2.1	2.0	5.1	2.6	2.3	1.6	1.6
29	4.2	1.9	1.4	1.3	4.3	2.0	5.3	3.4	3.5	2.3	1.5	1.5
30	3.1	2.0	1.5	1.1	---	2.0	5.9	2.4	3.5	2.2	1.5	1.4
31	3.0	---	1.5	1.2	---	2.3	---	2.1	---	2.1	1.5	---
TOTAL	143.5	140.8	58.8	182.2	383.0	65.0	103.4	156.2	624.9	213.3	97.0	46.0
MEAN	4.63	4.69	1.90	5.88	13.2	2.10	3.45	5.04	20.8	6.88	3.13	1.53
MAX	37	40	2.9	107	103	4.4	15	49	262	113	26	3.4
MIN	1.4	1.9	1.4	1.1	1.2	1.4	2.0	2.0	2.6	2.1	1.5	1.2
CFSM	.27	.27	.11	.34	.77	.12	.20	.30	1.22	.40	.18	.09
IN.	.31	.31	.13	.40	.83	.14	.23	.34	1.36	.46	.21	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1996, BY WATER YEAR (WY)

MEAN	2.47	3.28	2.43	2.41	6.01	11.2	5.09	2.98	4.86	5.54	3.15	3.75
MAX	6.42	12.3	6.11	7.52	20.4	34.6	14.7	6.15	20.8	32.5	8.78	13.0
(WY)	1987	1986	1985	1989	1994	1993	1993	1978	1996	1993	1993	1980
MIN	.86	.67	.34	.36	.46	1.63	.95	.96	.92	.94	1.07	.74
(WY)	1977	1991	1990	1991	1978	1981	1990	1977	1989	1976	1976	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1974 - 1996	
ANNUAL TOTAL	1349.5		2214.1			
ANNUAL MEAN	3.70		6.05		4.46	
HIGHEST ANNUAL MEAN					11.0	1993
LOWEST ANNUAL MEAN					2.78	1977
HIGHEST DAILY MEAN	40	Nov 2	262	Jun 17	349	Mar 12 1976
LOWEST DAILY MEAN	1.3	(a)Feb 12-14	(b)1.1	Jan 30	.17	Dec 25-27 1989
ANNUAL SEVEN-DAY MINIMUM	(b)1.4	Feb 11	(b)1.2	Jan 30	.18	Dec 21 1989
INSTANTANEOUS PEAK FLOW			437	Jun 17	746	Jul 6 1993
INSTANTANEOUS PEAK STAGE			7.67	Jun 17	8.92	Jul 6 1993
INSTANTANEOUS LOW FLOW			1.1	(c)Jan 27	.15	Dec 21 1989
ANNUAL RUNOFF (CFSM)	.22		.35		.26	
ANNUAL RUNOFF (INCHES)	2.94		4.82		3.55	
10 PERCENT EXCEEDS	6.6		6.7		5.9	
50 PERCENT EXCEEDS	2.3		2.3		1.8	
90 PERCENT EXCEEDS	1.5		1.4		.77	

(a) Also occurred Sept. 18
(b) Ice affected
(c) Also occurred Jan. 29,30, ice affected

05427948 PHEASANT BRANCH AT MIDDLETON, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 1977 to current year.
TOTAL-PHOSPHORUS DISCHARGE: January 1992 to December 1993, and October 1994 to current year.
TOTAL ORTHO-PHOSPHORUS DISCHARGE: January to September 1992.

INSTRUMENTATION.--Automatic pumping sampler since December 1977.

REMARKS.--Records good. Samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 15,400 mg/L, Apr. 30, 1984; minimum observed, 4 mg/L, Mar. 12, 1979, and May 11, 1995.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 2,870 tons, June 10, 1984; minimum daily, 0.01 ton, on many days in 1990 and 1991 water years.
TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 15.1 mg/L, July 4, 1994; minimum observed, 0.06 mg/L, Jan. 3, 1996.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 2,040 lb, July 6, 1993; minimum daily, 0.30 lb, Aug. 20, 21. 1992.
TOTAL ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 2.40 mg/L, Feb. 29, 1992; minimum observed, 0.03 mg/L, May 22, 1992.
TOTAL ORTHO-PHOSPHORUS DISCHARGE: Maximum daily, 966 lb, Feb. 28, 1992; minimum daily, 0.13 lb, Sept. 13, 1992.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 2,580 mg/L, Jan. 18; minimum observed, 6 mg/L, Jan. 3 and Apr. 4.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 1,100 tons, June 17; minimum daily, 0.02 ton, Jan. 5–13, 15 and 16.
TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 3.90 mg/L, Feb. 26; minimum observed, 0.06 mg/L, Jan. 3.
TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 2,510 lb, June 17; minimum daily, 0.32 lb, Jan. 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	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)
OCT 1995					
*04...	1032	1.5	1.96	0.462	--
05...	2240	13	--	--	66
05...	2400	58	--	--	567
06...	0130	55	--	--	242
06...	0600	40	--	--	285
06...	0900	50	--	--	330
06...	1104	43	--	--	252
*06...	1105	43	--	--	243
06...	1200	40	--	--	224
07...	0135	15	--	--	107
*19...	0809	1.6	--	--	55
19...	1700	10	--	--	66
*21...	0903	1.7	--	--	74
23...	1945	11	0.320	--	211
27...	0530	12	--	--	37
27...	1155	29	0.300	--	55
27...	1755	32	0.450	--	126
28...	0555	25	0.900	--	--
28...	0944	16	--	--	45
*28...	0945	16	--	--	36
28...	2240	7.0	0.730	--	22
NOV					
01...	0155	6.2	--	--	23
*01...	1020	4.4	0.220	--	15
01...	1705	24	--	--	263
01...	1730	40	0.560	0.230	--
01...	1835	59	--	--	400
01...	2005	73	0.910	0.100	--
01...	2135	61	--	--	244
02...	0035	75	1.20	--	408
02...	0335	62	1.30	--	288
02...	0739	48	--	--	189
*02...	0740	48	1.30	0.790	169
02...	1235	35	1.20	--	150
03...	0035	16	0.850	--	53
03...	1835	5.7	0.530	--	21

* Equal-width increment (EWI) sample

05427948 PHEASANT BRANCH AT MIDDLETON, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	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)
DEC 1995					
*01...	1340	2.7	0.160	--	18
JAN 1996					
*03...	1505	1.5	0.060	--	6
18...	0130	9.6	0.720	--	95
18...	0600	53	0.410	0.290	221
18...	0940	152	3.50	0.900	1030
18...	1340	213	1.10	0.670	2580
18...	1640	176	2.30	--	1550
18...	2040	93	1.90	1.00	269
19...	0540	34	1.20	--	83
*22...	1056	3.0	0.220	--	13
FEB					
09...	1655	20	1.10	--	43
09...	2310	52	1.70	--	90
10...	0940	53	1.70	--	73
10...	1305	103	1.60	1.30	155
10...	1615	188	1.40	1.20	756
10...	1915	176	1.50	1.20	864
10...	2345	128	1.80	1.50	415
12...	1054	8.7	--	--	36
*12...	1055	8.7	1.10	0.930	26
13...	0005	5.3	1.00	--	25
*23...	1235	3.3	0.400	--	8
24...	0225	12	1.10	--	55
24...	2015	19	0.910	--	70
25...	0215	13	--	--	50
26...	0215	6.2	0.630	--	22
26...	1945	9.2	0.600	--	247
26...	2140	67	--	--	481
26...	2155	89	0.620	--	2460
26...	2255	142	3.90	0.850	1620
27...	0030	266	2.20	1.00	630
27...	0250	197	2.40	--	394
27...	0505	134	--	--	--
27...	0615	109	--	--	275
*27...	0959	50	2.20	--	--
27...	1000	50	2.10	--	212
27...	1320	45	2.40	--	202
27...	1620	71	3.10	1.00	435
28...	0420	27	2.10	--	78
29...	0310	5.1	1.60	--	54
MAR					
*08...	1230	1.3	0.160	--	15
24...	2305	9.6	0.180	--	345
APR					
*04...	1415	2.6	0.080	--	6
18...	2040	12	0.210	--	105
18...	2120	23	0.240	--	--
18...	2305	11	--	--	187
19...	2225	23	0.660	--	114
20...	1625	13	--	--	49
21...	0425	5.3	0.510	--	24
29...	1050	9.6	0.420	--	85
29...	2250	5.3	0.250	--	13
30...	1050	7.4	--	--	18
30...	1650	5.1	0.390	--	11
MAY					
09...	2350	17	0.320	--	91
10...	0050	47	0.500	0.030	314
10...	0220	45	--	--	243
10...	0520	67	0.700	--	494
10...	0820	77	2.50	0.800	922
10...	1120	59	--	--	1250
*10...	1235	51	2.20	--	814
10...	1236	51	2.30	--	851
10...	1720	36	1.10	0.460	404
11...	0520	16	--	--	173
11...	2320	6.6	0.420	--	30
16...	1450	9.6	0.250	--	77
28...	1440	10	0.240	--	50
JUN					
01...	1745	9.2	0.490	--	60
01...	2335	20	--	--	106
02...	0010	35	0.620	--	147
02...	1210	17	--	--	43
03...	0010	6.2	0.630	--	19

* Equal-width increment (EWI) sample

05427948 PHEASANT BRANCH AT MIDDLETON, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	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)
JUN 1996					
06...	0055	12	0.340	--	15
06...	0140	42	0.610	--	411
06...	0440	34	0.440	--	201
06...	1040	22	0.890	--	145
06...	2210	58	0.900	--	474
07...	0005	89	0.830	0.120	458
07...	0305	109	1.30	0.170	1260
07...	0435	108	1.40	--	681
07...	0605	96	1.20	0.380	457
07...	1035	66	0.870	--	255
07...	1635	44	0.770	0.400	210
08...	0135	25	0.750	--	68
10...	0135	6.2	0.330	--	19
16...	1445	12	0.340	--	84
17...	0200	62	1.60	--	1100
17...	0245	166	2.00	0.100	1640
17...	0410	234	1.80	--	1640
*17...	0809	428	1.80	0.450	--
17...	1035	368	2.10	--	1780
17...	1205	288	1.90	--	1300
17...	1440	181	1.80	--	530
17...	1705	123	1.90	--	410
17...	1850	158	1.80	0.670	813
17...	2000	277	1.50	--	1070
17...	2130	366	--	--	1390
17...	2240	409	1.50	0.350	1980
18...	0125	321	1.80	--	668
18...	0410	175	2.40	--	582
18...	0905	93	3.40	1.10	424
18...	1615	55	1.10	--	229
19...	1815	20	0.460	--	64
21...	0615	6.2	1.60	--	22
21...	1330	5.3	--	--	15
23...	1605	23	0.540	--	272
24...	0020	6.2	0.380	--	17
*28...	0825	2.7	0.240	--	30
29...	2205	10	--	--	65
JUL					
17...	2355	12	0.300	--	66
18...	0025	22	--	--	224
18...	0340	40	0.370	0.110	234
18...	0415	166	0.390	--	2410
18...	0445	232	1.70	0.140	1830
18...	0555	196	0.770	--	622
18...	0655	230	1.70	0.320	1180
*18...	1015	215	1.60	--	686
*18...	1226	142	1.50	--	435
18...	1230	140	--	--	448
18...	2055	46	1.10	0.610	224
*19...	0629	19	0.720	--	68
19...	0630	19	--	--	74
20...	0105	6.2	0.530	--	28
22...	1510	20	0.260	--	71
22...	1520	35	0.350	--	196
22...	1800	8.7	0.430	--	290
23...	0410	14	0.270	--	79
*25...	1454	2.8	0.190	--	--
AUG					
05...	1905	15	0.170	--	43
05...	1925	57	--	0.060	613
05...	1940	116	--	0.130	2100
05...	2140	43	0.610	0.290	214
06...	0630	34	0.500	--	207
07...	0030	9.6	0.490	--	55
SEP					
*03...	1314	1.5	--	--	30
*03...	1315	1.5	1.70	--	--
*25...	1646	1.5	0.080	--	75
26...	1355	5.3	0.200	--	42

* Equal-width increment (EWI) sample

05427948 PHEASANT BRANCH AT MIDDLETON, WI--CONTINUED

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	19	.13	.03	.03	.17	.03	.08	.81	.24	.09	.13
2	.12	23	.11	.03	.03	.10	.03	.05	3.0	.39	.09	.12
3	.24	.84	.13	.03	.03	.08	.03	.04	.20	.17	.09	.12
4	.12	.24	.13	.03	.03	.07	.05	.04	.12	.13	.09	.12
5	1.7	.19	.12	.02	.03	.07	.03	.04	.09	.11	26	.12
6	25	.18	.11	.02	.03	.06	.03	.03	21	.10	10	.11
7	1.7	.17	.09	.02	.04	.06	.03	.03	80	.10	.34	.10
8	.49	.15	.08	.02	.11	.06	.03	.04	2.4	.16	.14	.11
9	.41	.14	.07	.02	2.6	.06	.03	.13	.56	.11	.12	.12
10	.32	.22	.06	.02	128	.06	.03	81	.24	.09	.11	.10
11	.48	.15	.06	.02	14	.11	.03	4.5	.16	.08	.11	.10
12	.37	.14	.06	.02	.88	.16	.04	.29	.11	.29	.10	.10
13	.28	.13	.06	.02	.21	.16	.04	.11	.09	.12	.09	.11
14	.26	.12	.07	.03	.09	.17	.03	.10	.08	.11	.09	.12
15	.25	.12	.06	.02	.07	.12	.07	.11	.07	.10	.09	.11
16	.24	.12	.05	.02	.05	.08	.06	.36	1.0	.09	.09	.11
17	.24	.12	.05	.05	.04	.09	.05	.13	1100	.13	.09	.11
18	.24	.12	.05	351	.03	.06	1.1	.09	161	269	.09	.10
19	.59	.12	.05	5.5	.04	.06	.92	.08	6.3	3.2	.17	.11
20	.44	.14	.04	.19	.07	.06	2.4	.32	1.4	.33	.18	.09
21	.37	.13	.04	.12	.10	.05	.23	.11	.29	.22	.16	.08
22	.33	.12	.04	.10	.05	.05	.09	.08	.16	2.2	.15	.09
23	1.1	.11	.04	.08	.51	.05	.06	.08	1.6	1.2	.15	.10
24	.45	.10	.04	.07	2.0	.63	.06	.06	.20	.20	.14	.29
25	.16	.10	.04	.06	.67	.36	.05	.07	.19	.16	.14	.28
26	.13	.10	.03	.06	54	.07	.05	.09	.19	.12	.13	.70
27	5.8	.10	.03	.04	91	.04	.04	.07	.20	.11	.13	.16
28	2.0	.10	.03	.04	3.8	.03	.04	.40	.21	.11	.13	.10
29	.17	.09	.03	.04	.47	.03	.53	.14	.54	.11	.12	.09
30	.10	.10	.03	.03	---	.03	.22	.08	.41	.10	.12	.08
31	.11	---	.03	.03	---	.03	---	.06	---	.10	.12	---
TOTAL	44.37	46.46	1.96	357.78	299.01	3.23	6.43	88.81	1382.62	279.68	39.66	4.18

WTR YR 1996 TOTAL 2554.19

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.79	97.1	2.31	.54	1.34	12.2	.83	6.03	11.6	4.14	1.81	.79
2	1.57	260	2.06	.51	1.34	5.82	.80	4.04	59.5	8.71	1.71	.77
3	2.44	32.2	2.35	.48	1.33	3.10	.74	3.44	10.8	3.77	1.72	.74
4	1.59	9.44	2.31	.46	1.32	2.48	1.15	3.04	4.13	3.18	1.67	.73
5	12.0	5.39	2.18	.41	1.31	2.12	.96	2.66	3.30	2.82	59.8	.73
6	115	3.65	1.91	.38	1.30	1.69	.92	2.42	113	2.55	69.6	.69
7	11.8	3.13	1.67	.37	1.87	1.43	.95	2.28	352	2.54	10.6	.62
8	3.34	2.73	1.45	.36	6.03	1.20	.93	2.63	55.4	4.13	4.23	.67
9	2.75	2.47	1.22	.35	113	1.17	.93	3.62	16.7	2.88	2.51	.71
10	2.18	4.76	1.10	.35	882	1.17	.93	373	8.52	2.39	2.15	.63
11	3.62	3.48	1.00	.35	485	1.51	.99	45.5	5.58	2.15	2.13	.59
12	2.23	2.85	1.03	.35	60.4	1.81	1.07	7.98	4.03	5.97	2.02	.61
13	1.69	2.69	1.03	.35	20.5	1.80	.99	3.65	3.29	2.65	1.87	.69
14	1.56	2.55	1.24	.36	12.5	1.90	.90	3.22	2.83	2.31	1.80	.73
15	1.51	2.40	1.12	.33	8.08	1.58	1.92	3.91	2.38	2.10	1.85	.71
16	1.43	2.37	.98	.32	5.38	1.34	2.37	5.33	6.62	2.03	1.72	.69
17	1.40	2.41	.91	.68	3.86	1.36	1.79	4.31	2510	2.46	1.76	.66
18	1.37	2.37	.89	1030	2.60	1.16	4.19	3.25	1220	829	1.64	.63
19	3.52	2.45	.87	154	2.19	1.11	13.3	2.73	78.4	59.5	2.41	.66
20	2.21	2.80	.82	12.3	3.34	1.06	41.3	5.86	24.7	9.73	2.20	.59
21	1.72	2.58	.78	5.59	6.37	.94	12.0	3.99	7.71	4.22	1.76	.51
22	1.52	2.29	.75	3.59	4.15	.89	6.61	2.90	5.09	10.8	1.42	.57
23	3.92	2.07	.73	2.72	20.0	.88	4.68	3.08	13.4	10.8	1.26	.63
24	2.94	1.88	.71	2.59	58.2	2.16	4.14	2.64	6.65	3.42	1.00	.66
25	1.84	1.88	.67	2.25	29.7	3.83	3.83	2.63	4.64	2.97	.89	.61
26	1.64	1.86	.64	2.11	191	1.91	3.30	3.03	4.02	2.50	.86	2.59
27	48.2	1.80	.59	1.50	1200	1.22	2.76	2.99	3.69	2.27	.85	1.15
28	64.5	1.89	.55	1.49	191	1.04	2.44	5.78	3.39	2.20	.83	.84
29	11.9	1.69	.54	1.48	31.1	.92	9.21	3.38	9.44	2.20	.76	.81
30	4.48	1.79	.54	1.25	---	.87	10.7	2.25	10.0	2.02	.76	.78
31	3.31	---	.55	1.35	---	.92	---	1.88	---	1.91	.74	---
TOTAL	322.97	466.97	35.50	1229.17	3346.21	62.59	137.63	523.45	4560.81	1000.32	186.33	22.79

WTR YR 1996 TOTAL 11894.74

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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1976 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 855.3 ft above sea level.

REMARKS.--No estimated daily discharges. Records are good except those for periods of flow between 0.00 ft^3/s and 0.3 ft^3/s, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	24	.56	.00	.00	.29	.28	.60	8.4	.34	.00	.00
2	.41	11	.53	.00	.00	.09	.26	.26	11	4.8	.00	.00
3	1.3	.74	.45	.00	.00	.00	1.3	.18	2.0	.54	.00	.00
4	.43	.22	.22	.00	.00	.00	.65	.09	.38	.15	.00	.00
5	6.5	.12	.25	.00	.00	.01	.45	.00	1.3	.04	13	.00
6	27	.01	.15	.00	.00	.00	.31	.00	30	.00	17	.00
7	2.1	.14	.06	.00	.11	.00	.42	.00	31	.00	1.7	.00
8	.45	.20	.00	.00	3.5	.00	.30	.14	2.8	.15	.32	.08
9	.35	.12	.00	.00	4.6	.04	.26	3.6	.75	.07	.12	.03
10	.16	2.0	.00	.00	15	.09	.20	29	.60	.03	.02	.00
11	.06	.57	.00	.00	2.1	.73	.20	1.5	.33	.02	.00	.02
12	.00	.23	.00	.00	.26	.89	.29	.30	.21	1.7	.00	.00
13	.00	.25	.04	.08	.27	.76	.20	.13	.07	.38	.00	.00
14	.00	.15	.19	.01	.71	.55	.34	.44	.00	.33	.00	.00
15	.00	.06	.11	.00	.12	.32	4.3	1.9	.00	.17	.00	.00
16	.00	.05	.14	.00	.10	.26	.50	1.8	2.2	.06	.00	.08
17	.00	.07	.07	1.3	.10	.38	.32	.75	76	2.5	.00	.00
18	.00	.00	.05	45	.06	.33	3.1	.31	28	51	.00	.00
19	2.0	.06	.06	3.8	.22	.21	7.0	.73	2.3	4.1	3.7	.14
20	.28	.15	.06	.32	1.5	.20	5.8	5.3	.31	.33	4.7	1.3
21	.19	.03	.05	.11	.31	.21	.54	1.8	.17	.12	.56	.05
22	.11	.00	.05	.09	.17	.25	.23	.36	.06	8.9	.18	.00
23	3.4	.00	.05	.05	2.4	.25	.16	2.5	1.3	2.4	.07	.08
24	1.8	.00	.05	.02	2.3	2.6	.00	.59	.81	5.4	.00	.32
25	.94	.04	.04	.02	1.4	1.4	.06	.40	.21	.62	.00	.05
26	.47	.00	.00	.00	1.8	.31	.01	.28	.10	1.4	.00	5.8
27	21	.08	.00	.00	5.0	.25	.00	.37	.02	.11	.00	2.4
28	5.5	.00	.07	.00	.48	.25	.00	5.4	.00	.03	.00	.27
29	.53	.00	.00	.00	.16	.25	7.9	1.7	4.6	.13	.00	.10
30	.18	.09	.05	.00	---	.25	3.3	.37	4.9	.00	.00	.01
31	1.1	---	.00	.00	---	.37	---	.21	---	.00	.00	---
TOTAL	77.36	40.38	3.30	50.80	42.67	11.54	38.68	61.01	209.82	85.82	41.37	10.73
MEAN	2.50	1.35	.11	1.64	1.47	.37	1.29	1.97	6.99	2.77	1.33	.36
MAX	27	24	.56	45	15	2.6	7.9	29	76	51	17	5.8
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
CFSM	.76	.41	.03	.50	.45	.11	.39	.60	2.13	.84	.41	.11
IN.	.87	.46	.04	.57	.48	.13	.44	.69	2.37	.97	.47	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1996, BY WATER YEAR (WY)

MEAN	1.08	1.33	.59	.48	1.24	2.23	1.71	1.26	2.16	2.12	1.91	1.78
MAX	3.19	3.64	1.99	1.73	3.60	6.97	4.30	2.71	6.99	6.51	4.24	4.97
(WY)	1985	1993	1985	1990	1994	1993	1993	1990	1996	1993	1981	1980
MIN	.11	.027	.000	.000	.050	.37	.54	.25	.33	.30	.36	.11
(WY)	1995	1977	1990	1977	1978	1996	1985	1994	1987	1976	1988	1976

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1976 - 1996	
ANNUAL TOTAL	480.61		673.48			
ANNUAL MEAN	1.32		1.84		1.50	
HIGHEST ANNUAL MEAN					3.09	1993
LOWEST ANNUAL MEAN					.97	1988
HIGHEST DAILY MEAN	27	(a)Apr 11	76	Jun 17	77	Jul 1 1978
LOWEST DAILY MEAN	.00	Many days	.00	Many days	.00	Many days
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 3	.00	Oct 12	.00	(b)
INSTANTANEOUS PEAK FLOW			470	Jun 17	754	Jul 5 1993
INSTANTANEOUS PEAK STAGE			3.41	Jun 17	4.16	Jul 5 1993
ANNUAL RUNOFF (CFSM)	.40		.56		.46	
ANNUAL RUNOFF (INCHES)	5.43		7.62		6.20	
10 PERCENT EXCEEDS	3.7		3.6		3.4	
50 PERCENT EXCEEDS	.12		.16		.12	
90 PERCENT EXCEEDS	.00		.00		.00	

(a) Also occurred Oct. 6
(b) Annual seven-day minimum flows are 0.00 for most years

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1976 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1991 to current year.

INSTRUMENTATION.--Automatic pumping sampler.

REMARKS.--Records good. Samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 3,870 mg/L, July 4, 1994; minimum observed, 1 mg/L, Aug. 6, 1993.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 137 tons, June 17, 1996; minimum daily, 0.00 ton, on many days.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 2,030 mg/L, Apr. 18; minimum observed, 4 mg/L, Sept. 27.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 137 tons, June 17; minimum daily, 0.00 ton, on many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SED-MENT SUS-PENDED (MG/L) (80154)
OCT 1995			
05...	2139	17	132
05...	2209	53	243
06...	0225	80	47
06...	0801	21	15
06...	1701	12	9
07...	0201	4.7	7
19...	1524	15	112
19...	1735	4.7	43
23...	1801	30	439
23...	1833	56	345
23...	2037	6.7	41
27...	0422	22	55
27...	0740	41	37
27...	1040	35	31
27...	1940	16	15
28...	1040	5.5	8
NOV			
01...	0108	9.1	12
01...	1308	4.7	12
01...	1650	60	126
01...	1908	116	169
01...	2222	39	74
*02...	0705	16	169
02...	0710	16	153
02...	1010	12	159
02...	1610	5.0	132
10...	1425	18	207
10...	1615	5.0	59
JAN 1996			
18...	0010	11	160
18...	0123	44	276
18...	0846	58	747
18...	0916	110	614
18...	1314	89	318
18...	1539	42	156
FEB			
08...	1416	15	95
09...	1557	11	54
10...	0057	7.2	22
10...	0957	6.1	23
10...	1220	33	145
10...	1520	32	88
10...	2045	11	38
11...	0245	4.7	25
20...	1716	4.7	53
23...	1333	5.2	72
24...	1316	6.4	123
26...	2050	12	252
27...	0501	13	167
27...	1401	4.7	41
MAR 1996			
24...	1349	7.2	459
24...	2229	4.1	217
APR			
03...	0933	4.1	112
15...	0027	11	339
15...	0327	9.6	54
18...	1930	10	2030
18...	2152	11	298
19...	0352	4.1	36
19...	2211	46	363
20...	0111	14	64
20...	1311	3.4	10
29...	0936	12	159
29...	1236	14	41
29...	2136	9.6	12
30...	0936	3.6	15
MAY			
09...	2235	14	396
09...	2309	51	542
10...	0001	110	792
10...	0044	56	739
10...	0311	81	155
10...	0326	107	288
10...	0522	51	85
*10...	1018	20	39
10...	1019	20	38
10...	1306	17	33
11...	0106	4.1	25
16...	1334	17	1090
16...	1405	5.8	191
20...	1302	5.2	89
20...	1513	33	354
20...	1903	9.1	10
21...	0103	4.4	5
23...	0803	13	102
23...	1037	4.1	38
28...	1319	15	147
29...	0119	3.8	5
JUN			
01...	1639	14	211
01...	2332	36	31
02...	1333	5.0	11
02...	1548	16	502
02...	1735	5.5	58
02...	1849	33	736
02...	1858	16	370
03...	0058	4.7	7
05...	2056	7.2	50
06...	0014	6.7	16
06...	0229	96	756
06...	0243	69	1060

* Equal-width increment (EWI) sample

05427965 SPRING HARBOR STORM SEWER AT MADISON, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SEDIMENT SUSPENDED (MG/L) (80154)
JUN 1996			
06...	0438	27	91
06...	1638	6.7	16
06...	2053	80	197
06...	2125	131	689
06...	2239	133	417
07...	0008	71	251
*07...	0710	39	73
07...	0711	39	87
07...	1428	17	67
08...	0528	4.1	40
16...	2247	4.4	56
16...	2348	30	134
17...	0229	128	467
17...	0326	368	945
17...	0330	61	1420
17...	0343	283	1760
17...	0638	109	427
*17...	0639	106	380
17...	0831	70	219
17...	1619	38	137
17...	1904	323	896
17...	1908	16	971
17...	1927	102	1970
17...	2027	14	1500
17...	2041	245	1210
17...	2043	96	1200
18...	1306	18	219
18...	1345	18	118
19...	0445	3.8	68
23...	1614	12	220
23...	1737	3.8	105
29...	2042	16	491
29...	2148	90	579
30...	0814	5.8	8
JUL 1996			
02...	0505	37	200
02...	1405	4.4	10
12...	0752	14	114
17...	2246	37	543
17...	2310	61	741
18...	0206	24	78
18...	0327	156	378
18...	0424	377	746
18...	0515	138	588
18...	0729	66	157
18...	1029	51	52
19...	0129	12	36
22...	1423	103	1060
22...	1427	170	471
22...	1504	70	938
22...	1646	16	120
23...	0146	5.2	33
23...	2400	34	334
24...	1336	4.1	21
AUG			
05...	1602	34	346
05...	1912	43	177
05...	1936	250	1220
05...	2008	63	520
06...	0344	15	25
06...	0601	117	154
06...	1240	14	44
06...	2140	5.0	34
19...	2221	57	609
19...	2242	102	393
19...	2322	26	325
20...	0707	5.2	11
SEP			
26...	0713	7.2	28
26...	1613	14	41
27...	0452	4.1	4

* Equal-width increment (EWI) sample

05427965 SPRING HARBOR STORM SEWER AT MADISON, WI--CONTINUED

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	6.9	.02	.00	.00	.01	.01	.02	3.2	.00	.00	.00
2	.01	3.8	.01	.00	.00	.00	.01	.01	2.4	.74	.00	.00
3	.11	.07	.01	.00	.00	.00	.03	.00	.04	.01	.00	.00
4	.01	.01	.00	.00	.00	.00	.05	.00	.01	.00	.00	.00
5	5.1	.00	.00	.00	.00	.00	.01	.00	.06	.00	18	.00
6	7.9	.00	.00	.00	.00	.00	.01	.00	27	.00	3.4	.00
7	.04	.00	.00	.00	.00	.00	.01	.00	9.5	.00	.08	.00
8	.01	.00	.00	.00	.69	.00	.01	.00	.25	.01	.00	.00
9	.01	.00	.00	.00	.47	.00	.01	5.3	.02	.00	.00	.00
10	.00	.55	.00	.00	3.1	.00	.00	15	.01	.00	.00	.00
11	.00	.02	.00	.00	.13	.02	.00	.06	.01	.00	.00	.00
12	.00	.00	.00	.00	.01	.02	.02	.01	.00	.22	.00	.00
13	.00	.00	.00	.00	.01	.02	.01	.00	.00	.01	.00	.00
14	.00	.00	.00	.00	.03	.01	.04	.01	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.01	2.3	.10	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.01	1.4	.52	.00	.00	.00
17	.00	.00	.00	.20	.00	.01	.01	.04	137	2.7	.00	.00
18	.00	.00	.00	50	.00	.01	5.1	.01	33	39	.00	.00
19	.57	.00	.00	.24	.01	.00	2.8	.08	.34	.25	3.7	.00
20	.01	.00	.00	.01	.17	.00	.62	1.4	.01	.00	.23	.06
21	.00	.00	.00	.00	.01	.00	.01	.02	.00	.00	.01	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.6	.00	.00
23	1.9	.00	.00	.00	.31	.00	.00	.35	.38	.21	.00	.00
24	.09	.00	.00	.00	.75	2.5	.00	.01	.05	1.3	.00	.01
25	.03	.00	.00	.00	.15	.37	.00	.01	.00	.01	.00	.00
26	.01	.00	.00	.00	.78	.01	.00	.01	.00	.02	.00	.39
27	2.0	.00	.00	.00	1.6	.01	.00	.01	.00	.00	.00	.04
28	.14	.00	.00	.00	.01	.00	.00	1.6	.00	.00	.00	.00
29	.01	.00	.00	.00	.00	.00	.97	.02	6.2	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.12	.00	.78	.00	.00	.00
31	.04	---	.00	.00	---	.01	---	.00	---	.00	.00	---
TOTAL	18.10	11.35	0.04	50.45	8.23	3.01	12.16	25.47	220.78	53.08	25.42	0.50

WTR YR 1996 TOTAL 428.59

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 mi^2. Area of Lake Mendota, 15.2 mi^2.

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 sea level, 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.

REMARKS.--No estimated daily gage heights. Records are good (see page 12). 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, 12.20 ft, July 14–15, 1993; minimum observed, 8.02 ft, Feb. 24 to Mar. 10, 1920, current datum.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 11.55 ft, June 24; minimum recorded, 9.34 ft, Nov. 25.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.70	9.74	9.47	9.47	9.84	10.20	10.00	10.11	10.05	11.37	10.88	10.16
2	9.69	9.85	9.46	9.46	9.83	10.19	9.99	10.11	10.13	11.37	10.83	10.13
3	9.71	9.86	9.47	9.46	9.82	10.18	10.01	10.10	10.15	11.34	10.77	10.11
4	9.72	9.83	9.47	9.45	9.81	10.17	10.01	10.10	10.13	11.31	10.71	10.09
5	9.73	9.78	9.51	9.45	9.80	10.16	9.99	10.09	10.11	11.29	10.70	10.07
6	9.92	9.76	9.50	9.44	9.81	10.16	9.98	10.07	10.18	11.26	10.82	10.04
7	9.97	9.78	9.47	9.44	9.79	10.14	9.98	10.06	10.36	11.25	10.87	10.02
8	9.98	9.75	9.48	9.43	9.79	10.12	9.97	10.07	10.42	11.23	10.87	10.00
9	10.00	9.69	9.49	9.42	9.79	10.11	9.96	10.08	10.43	11.18	10.84	9.98
10	9.98	9.70	9.45	9.42	9.81	10.09	9.95	10.24	10.44	11.15	10.80	9.95
11	9.96	9.76	9.43	9.44	9.89	10.08	9.95	10.27	10.44	11.10	10.78	9.94
12	9.94	9.70	9.45	9.44	9.97	10.07	9.97	10.26	10.44	11.09	10.77	9.89
13	9.92	9.68	9.46	9.43	9.99	10.07	9.94	10.26	10.44	11.09	10.74	9.84
14	9.91	9.66	9.48	9.43	10.01	10.08	9.94	10.24	10.42	11.07	10.71	9.80
15	9.85	9.64	9.49	9.42	10.01	10.07	9.96	10.26	10.39	11.04	10.65	9.75
16	9.80	9.62	9.49	9.42	10.00	10.08	9.96	10.26	10.37	11.00	10.59	9.72
17	9.75	9.60	9.49	9.42	9.99	10.07	9.94	10.27	10.76	10.96	10.54	9.70
18	9.74	9.59	9.49	9.52	9.98	10.07	9.96	10.27	11.22	11.17	10.49	9.67
19	9.73	9.56	9.49	9.65	9.97	10.06	9.99	10.27	11.34	11.25	10.45	9.64
20	9.74	9.58	9.49	9.72	9.96	10.06	10.06	10.28	11.39	11.23	10.46	9.62
21	9.71	9.55	9.49	9.76	9.96	10.04	10.06	10.31	11.41	11.21	10.45	9.62
22	9.68	9.51	9.49	9.77	9.96	10.02	10.08	10.29	11.43	11.22	10.43	9.61
23	9.65	9.50	9.49	9.79	9.96	10.01	10.07	10.29	11.43	11.22	10.41	9.58
24	9.68	9.46	9.48	9.80	9.96	10.02	10.05	10.26	11.43	11.21	10.37	9.58
25	9.64	9.44	9.48	9.80	9.98	10.04	10.09	10.23	11.44	11.18	10.35	9.54
26	9.63	9.43	9.47	9.83	10.00	10.04	10.08	10.21	11.43	11.14	10.33	9.55
27	9.69	9.47	9.47	9.87	10.08	10.03	10.04	10.17	11.42	11.10	10.29	9.57
28	9.74	9.47	9.46	9.87	10.16	10.03	10.03	10.16	11.42	11.07	10.26	9.55
29	9.73	9.46	9.46	9.87	10.20	10.02	10.07	10.14	11.40	11.05	10.24	9.52
30	9.70	9.46	9.46	9.85	---	10.01	10.13	10.10	11.41	10.99	10.21	9.49
31	9.69	---	9.47	9.85	---	10.01	---	10.07	---	10.93	10.19	---
MEAN	9.78	9.63	9.48	9.59	9.94	10.08	10.01	10.19	10.79	11.16	10.57	9.79
MAX	10.00	9.86	9.51	9.87	10.20	10.20	10.13	10.31	11.44	11.37	10.88	10.16
MIN	9.63	9.43	9.43	9.42	9.79	10.01	9.94	10.06	10.05	10.93	10.19	9.49

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 mi^2. Area of Lake Monona, 5.3 mi^2.

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 sea level, 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.

REMARKS.--No estimated daily gage heights. Records are good (see page 12). 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, 7.28 ft, June 19, 1996; minimum observed, 3.22 ft, Jan. 20, 1965, current datum.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 7.28 ft, June 19; minimum recorded, 4.02 ft, Jan. 9 and 10.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.95	5.06	4.55	4.04	---	4.51	4.35	4.91	5.19	6.50	5.93	5.29
2	4.95	5.18	4.51	4.04	---	4.51	4.35	4.93	5.29	6.50	5.93	5.28
3	4.96	5.15	4.47	4.04	---	4.50	4.36	4.94	5.31	6.45	5.93	5.27
4	4.95	5.13	4.43	4.04	---	4.50	4.34	4.96	5.32	6.40	5.93	5.24
5	4.97	5.11	4.39	4.04	---	4.50	4.33	4.96	5.33	6.36	5.92	5.23
6	5.19	5.09	4.33	4.03	4.28	4.49	4.33	4.96	5.41	6.32	5.93	5.22
7	5.19	5.04	4.30	4.03	4.27	4.49	4.32	4.97	5.70	6.27	5.89	5.21
8	5.19	4.99	4.28	4.03	4.27	4.49	4.31	4.98	5.80	6.20	5.82	5.21
9	5.19	4.98	4.26	4.03	4.30	4.49	4.29	5.00	5.80	6.14	5.74	5.21
10	5.20	4.98	4.23	4.03	4.35	4.49	4.30	5.28	5.78	6.11	5.69	5.20
11	5.21	4.95	4.21	4.05	4.41	4.47	4.32	5.39	5.75	6.09	5.63	5.18
12	5.20	4.94	4.20	4.05	4.43	4.45	4.35	5.41	5.75	6.10	5.57	5.14
13	5.17	4.91	4.19	4.05	4.44	4.42	4.36	5.40	5.71	6.11	5.53	5.10
14	5.12	4.88	4.19	4.05	4.44	4.41	4.40	5.39	5.67	6.10	5.50	5.05
15	5.07	4.85	4.17	4.04	4.44	4.41	4.43	5.39	5.63	6.08	5.50	5.04
16	5.04	4.83	4.15	4.04	4.44	4.41	4.44	5.36	5.61	6.06	5.52	5.04
17	5.02	4.81	4.13	4.05	4.44	4.41	4.50	5.32	6.29	6.07	5.54	5.02
18	5.00	4.78	4.11	4.21	4.44	4.41	4.53	5.29	7.13	6.30	5.56	5.00
19	4.99	4.77	4.09	4.35	4.43	4.39	4.60	5.26	7.26	6.36	5.57	4.99
20	4.98	4.74	4.07	4.37	4.42	4.37	4.67	5.25	7.25	6.33	5.63	4.99
21	4.94	4.69	4.06	4.37	4.41	4.36	4.70	5.24	7.18	6.28	5.58	4.98
22	4.92	4.68	4.04	4.35	4.40	4.35	4.71	5.19	7.09	6.25	5.54	4.95
23	4.93	4.66	4.04	4.34	4.41	4.35	4.71	5.18	6.98	6.22	5.51	4.95
24	4.95	4.64	4.04	4.33	4.42	4.38	4.73	5.15	6.88	6.16	5.47	4.94
25	4.93	4.63	4.04	4.32	4.43	4.39	4.74	5.12	6.78	6.10	5.43	4.93
26	4.91	4.62	4.04	4.33	4.44	4.39	4.72	5.11	6.68	6.05	5.41	4.97
27	4.99	4.65	4.03	4.37	4.50	4.40	4.75	5.10	6.60	6.02	5.37	4.97
28	5.04	4.66	4.03	4.36	4.51	4.39	4.78	5.10	6.53	5.99	5.35	4.94
29	5.03	4.63	4.03	4.35	4.51	4.38	4.83	5.12	6.51	5.95	5.33	4.92
30	5.01	4.59	4.03	4.34	---	4.38	4.87	5.13	6.54	5.95	5.31	4.90
31	5.00	---	4.04	---	---	4.36	---	5.15	---	5.93	5.30	---
MEAN	5.04	4.85	4.18	---	---	4.43	4.51	5.16	6.16	6.19	5.61	5.08
MAX	5.21	5.18	4.55	---	---	4.51	4.87	5.41	7.26	6.50	5.93	5.29
MIN	4.91	4.59	4.03	---	---	4.35	4.29	4.91	5.19	5.93	5.30	4.90

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 mi^2.

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 sea level (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 (see page 12). Flow regulated by dams at outlets of Lake Mendota and Lake Waubesa. The Madison Metropolitan Sewerage District diverted an average of 64 ft^3/s of effluent into the Badfish Creek basin during 1996 water year. The data were provided by the Madison Metropolitan Sewerage District. Prior to 1958 the effluent was discharged into the Yahara River above McFarland. Gage-height telemeter at station and for Lake Waubesa stage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	294	220	123	184	222	194	158	188	401	277	256
2	23	328	209	125	182	221	187	158	215	394	276	255
3	21	328	202	128	181	221	187	159	222	383	276	255
4	22	320	196	128	177	215	186	160	231	367	275	253
5	21	308	189	126	174	211	182	157	233	355	286	252
6	63	298	182	126	172	210	180	157	276	341	328	250
7	75	301	170	125	172	209	177	157	399	330	323	250
8	74	297	163	123	173	206	161	156	439	318	309	251
9	173	284	161	123	176	202	107	162	431	304	294	254
10	245	283	155	123	186	196	80	256	421	291	280	251
11	237	297	148	127	205	192	65	298	407	277	269	250
12	240	286	146	128	207	192	58	297	396	273	262	243
13	247	279	145	128	205	193	63	320	380	279	256	237
14	243	273	146	128	203	196	67	331	366	286	252	230
15	237	268	141	126	202	197	75	358	354	286	249	224
16	229	262	139	123	202	197	81	379	346	284	250	220
17	220	256	135	125	200	197	85	366	512	283	253	217
18	216	253	131	153	199	197	88	352	715	345	258	214
19	216	245	129	181	197	197	103	340	772	370	264	210
20	222	247	127	183	195	196	123	334	762	363	276	207
21	222	248	124	186	196	194	131	330	726	352	283	206
22	217	238	122	187	195	193	132	316	682	343	286	206
23	215	213	121	188	197	189	136	305	632	339	284	202
24	219	226	119	192	200	190	140	295	583	334	278	204
25	218	222	119	188	202	202	126	284	526	323	274	198
26	217	221	121	189	206	203	103	276	474	307	269	203
27	238	204	120	198	224	198	108	273	448	294	267	209
28	255	211	119	194	231	195	111	217	428	287	263	206
29	256	239	121	192	227	194	125	176	411	282	262	201
30	253	228	119	190	---	192	154	181	411	279	259	195
31	265	---	122	187	---	196	---	184	---	277	258	---
TOTAL	5625	7957	4561	4743	5670	6213	3715	7892	13386	9947	8496	6809
MEAN	181	265	147	153	196	200	124	255	446	321	274	227
MAX	265	328	220	198	231	222	194	379	772	401	328	256
MIN	21	204	119	123	172	189	58	156	188	273	249	195
CFSM	.55	.81	.45	.47	.60	.61	.38	.78	1.36	.98	.84	.69
IN.	.64	.91	.52	.54	.65	.71	.42	.90	1.52	1.13	.97	.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1996, BY WATER YEAR (WY)

MEAN	125	155	147	140	157	249	260	180	144	140	116	113
MAX	401	355	375	376	363	599	719	520	446	511	478	422
(WY)	1981	1986	1986	1986	1938	1937	1959	1933	1996	1993	1993	1993
MIN	4.09	27.4	36.5	34.0	31.6	67.4	25.5	42.1	15.6	16.0	15.9	13.8
(WY)	1965	1940	1940	1977	1991	1934	1966	1958	1936	1965	1988	1964

05429500 YAHARA RIVER NEAR MCFARLAND, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1930 - 1996	
ANNUAL TOTAL	59982		85014			
ANNUAL MEAN	164		232		160	
HIGHEST ANNUAL MEAN					336	1993
LOWEST ANNUAL MEAN					63.8	1964
HIGHEST DAILY MEAN	328	Nov 2,3	772	Jun 19	853	Apr 11 1959
LOWEST DAILY MEAN	16	Sep 16	21	Oct 3,5	1.2	Jun 27 1979
ANNUAL SEVEN-DAY MINIMUM	22	Jun 27	36	Oct 1	2.0	Jun 22 1979
INSTANTANEOUS PEAK FLOW			(a)778	Jun 19	(b)867	Apr 10 1959
INSTANTANEOUS PEAK STAGE			(c)6.72	Jun 20	(d)6.33	Jul 23,24 1950
ANNUAL RUNOFF (CFSM)	.50		.71		.49	
ANNUAL RUNOFF (INCHES)	6.82		9.67		6.66	
10 PERCENT EXCEEDS	278		345		321	
50 PERCENT EXCEEDS	159		215		133	
90 PERCENT EXCEEDS	37		123		38	

(a) Gage height, 6.66 ft
(b) Gage height, 5.82 ft, datum then in use
(c) Backwater from vegetation and channel slope
(d) Datum then in use, backwater from aquatic vegetation

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 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 810 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 10–12, Jan. 8, 28, Jan. 30 to Feb. 9, and Mar. 3. Records good except those for ice-affected periods, which are fair (see page 12). Approximately 53 percent of flow is effluent from Nine Springs treatment plant. (Data provided by Madison Metropolitan Sewerage District.) Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	181	104	82	98	106	98	125	99	130	105	101
2	79	234	101	84	98	101	98	115	140	135	106	97
3	79	145	105	88	96	100	100	111	116	130	102	102
4	75	125	107	86	96	99	103	109	110	122	98	112
5	76	116	108	84	98	99	99	107	105	116	100	117
6	216	116	104	83	100	97	96	108	122	116	382	110
7	163	114	100	84	110	96	94	112	391	116	347	107
8	124	110	97	84	110	95	91	109	263	116	167	102
9	115	108	85	86	120	91	96	115	181	117	145	116
10	111	113	98	85	258	91	97	230	159	115	133	106
11	107	115	100	87	205	93	98	159	150	113	126	103
12	104	108	98	85	124	98	101	124	146	114	123	101
13	102	108	95	83	112	100	100	114	136	116	125	99
14	97	108	97	83	108	102	98	112	130	113	123	96
15	93	106	94	82	105	103	107	114	122	109	119	96
16	96	106	91	87	102	97	117	110	123	111	117	95
17	97	106	89	86	100	96	110	109	1070	111	114	99
18	95	103	92	261	97	98	109	105	1450	253	111	96
19	99	103	93	161	99	99	125	102	524	173	120	101
20	105	110	92	118	103	99	125	104	271	135	130	98
21	98	109	92	109	110	97	113	112	220	125	120	97
22	94	104	91	109	102	98	111	101	192	119	122	95
23	97	99	89	108	110	95	109	103	172	123	119	96
24	110	91	86	104	118	98	104	100	261	121	111	98
25	102	93	80	104	116	110	105	94	178	118	107	96
26	100	94	79	104	117	101	105	91	160	114	109	110
27	143	105	87	100	153	99	101	88	150	110	112	115
28	144	102	88	100	123	99	100	125	144	108	109	100
29	118	95	87	100	109	99	125	146	136	108	109	95
30	111	100	85	100	---	96	150	109	141	111	108	96
31	110	---	83	100	---	98	---	101	---	106	104	---
TOTAL	3365	3427	2897	3117	3397	3050	3185	3564	7562	3824	4123	3052
MEAN	109	114	93.5	101	117	98.4	106	115	252	123	133	102
MAX	216	234	108	261	258	110	150	230	1450	253	382	117
MIN	75	91	79	82	96	91	91	88	99	106	98	95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1996, BY WATER YEAR (WY)

MEAN	94.3	102	95.5	89.1	102	125	120	102	112	102	93.3	95.5
MAX	139	162	129	122	163	190	193	129	252	171	133	139
(WY)	1987	1986	1983	1988	1994	1993	1993	1993	1996	1993	1996	1993
MIN	66.9	69.5	69.7	65.3	73.1	80.4	88.7	78.3	76.4	70.4	59.2	67.6
(WY)	1978	1978	1979	1991	1979	1981	1990	1981	1991	1977	1977	1991

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1977 - 1996	
ANNUAL TOTAL	37473		44563			
ANNUAL MEAN	103		122		103	
HIGHEST ANNUAL MEAN					136	1993
LOWEST ANNUAL MEAN					80.4	1991
HIGHEST DAILY MEAN	234	Nov 2	1450	Jun 18	1450	Jun 18 1996
LOWEST DAILY MEAN	74	Sep 28,29	75	Oct 4	35	Aug 1 1977
ANNUAL SEVEN-DAY MINIMUM	76	Sep 24	84	Dec 25	48	Jul 28 1977
INSTANTANEOUS PEAK FLOW			2210	Jun 17	2210	Jun 17 1996
INSTANTANEOUS PEAK STAGE			10.18	Jun 17	10.18	Jun 17 1996
10 PERCENT EXCEEDS	124		145		135	
50 PERCENT EXCEEDS	98		105		93	
90 PERCENT EXCEEDS	85		91		73	

05430175 YAHARA RIVER NEAR FULTON, WI

LOCATION (REVISED).--Lat 42°49'50", long 89°10'18", 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 to April. Location from May to September: Lat 42°49'35", long 89°10'19", in SE 1/4 NE 1/4 sec.10, T.4 N., R.11 E., Rock County, Hydrologic Unit 07090001, on left bank, 20 ft upstream from bridge on State Highway 59, 0.5 mi downstream from Badfish Creek, and 2.6 mi northwest of Fulton.

DRAINAGE AREA.--518 mi^2. (Area at site used prior to May 1, 1996, 517 mi^2.)

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 789.45 ft above sea level. Prior to May 1, 1996, recording gage at site about 2,000 ft upstream at datum 3.25 ft higher.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 28, 29, Dec. 7–13, Jan. 6–8, 20, 24, 25, Jan. 28 to Feb. 9, and Mar. 3, 7–10. Records good except for ice-affected periods, which are fair (see page 12). Diurnal fluctuation caused by powerplant at Stebbensville 1.5 mi upstream, and additional regulation from other dams and powerplants upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	493	289	279	340	440	381	335	393	760	563	357
2	171	746	497	275	340	427	386	184	451	749	524	378
3	305	726	365	288	330	380	393	395	408	689	542	351
4	316	665	461	281	330	372	400	353	417	669	530	327
5	144	536	501	289	330	367	388	176	428	640	533	322
6	259	578	467	290	340	362	363	318	419	575	918	293
7	285	595	430	290	350	360	243	385	1180	606	971	292
8	303	476	420	290	370	350	203	341	991	564	741	302
9	290	514	400	300	410	350	292	332	920	557	664	348
10	379	502	390	297	602	360	362	480	781	541	616	347
11	565	554	380	298	538	370	275	495	749	540	578	335
12	530	514	370	301	407	367	200	548	707	488	572	329
13	371	492	360	296	398	370	207	511	743	497	542	310
14	521	503	353	294	400	352	202	525	654	494	549	299
15	425	502	356	286	401	285	213	559	601	485	486	335
16	428	502	367	288	396	498	228	548	625	480	464	250
17	425	500	371	290	383	325	284	582	2040	446	451	279
18	426	490	366	537	382	265	313	680	2880	749	505	387
19	408	475	352	466	374	370	284	659	1820	697	486	371
20	416	480	332	380	376	362	348	641	1380	640	434	362
21	406	481	297	310	395	364	357	504	1360	595	375	360
22	400	490	289	311	375	367	231	673	1270	597	236	300
23	403	481	286	315	374	374	314	605	1260	578	272	277
24	421	447	284	330	360	377	297	584	1350	597	304	377
25	408	410	276	340	316	387	269	428	1180	594	309	362
26	404	279	277	345	406	371	289	619	1080	585	369	306
27	457	382	283	348	462	366	266	490	948	584	369	349
28	475	430	288	350	448	358	216	539	977	581	353	368
29	481	420	287	350	434	355	281	573	865	582	349	382
30	547	405	288	350	---	363	589	296	843	585	305	338
31	582	---	282	350	---	375	---	310	---	580	293	---
TOTAL	12130	15068	10964	10014	11367	11389	9074	14668	29720	18324	15203	9993
MEAN	391	502	354	323	392	367	302	473	991	591	490	333
MAX	582	746	501	537	602	498	589	680	2880	760	971	387
MIN	144	279	276	275	316	265	200	176	393	446	236	250
CFSM	.76	.97	.68	.62	.76	.71	.58	.91	1.91	1.14	.95	.64
IN.	.87	1.08	.79	.72	.82	.82	.65	1.05	2.13	1.32	1.09	.72

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1996, BY WATER YEAR (WY)

MEAN	358	412	397	342	361	463	453	371	342	312	293	323
MAX	596	711	558	542	585	760	1043	858	991	862	760	696
(WY)	1987	1986	1983	1986	1986	1994	1993	1993	1996	1993	1993	1993
MIN	171	181	167	192	168	229	204	155	136	121	117	109
(WY)	1991	1990	1990	1978	1991	1978	1978	1981	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1977 - 1996	
ANNUAL TOTAL	127965		167914			
ANNUAL MEAN	351		459		371	
HIGHEST ANNUAL MEAN					629	1993
LOWEST ANNUAL MEAN					262	1991
HIGHEST DAILY MEAN	746	Nov 2	2880	Jun 18	2880	Jun 18 1996
LOWEST DAILY MEAN	140	Jul 11	144	Oct 5	60	* Aug 7 1977
ANNUAL SEVEN-DAY MINIMUM	148	Sep 22	230	Apr 11	104	Aug 3 1977
INSTANTANEOUS PEAK FLOW			3230	Jun 18	3230	Jun 18 1996
INSTANTANEOUS PEAK STAGE			11.16	Jun 18	11.16	Jun 18 1996
ANNUAL RUNOFF (CFSM)	.68		.89		.72	
ANNUAL RUNOFF (INCHES)	9.19		12.06		9.72	
10 PERCENT EXCEEDS	534		660		597	
50 PERCENT EXCEEDS	307		385		336	
90 PERCENT EXCEEDS	180		285		149	

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 Creek.

DRAINAGE AREA.--3,340 mi^2.

PERIOD OF RECORD.--January 1914 to current year. Monthly discharge 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 sea level. Prior to Aug. 23, 1932, a nonrecording gage 20 ft upstream, and Aug. 23, 1932, to Sept. 30, 1933, water-stage recorder, at same site at datum 1 ft higher.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 8 to Jan. 17, Jan. 25 to Feb. 20, Feb. 27, and Mar. 4–8. Records are good except those for ice-affected periods, which are fair, and periods of discharge below 800 ft^3/s, which are poor (see page 12). Diurnal fluctuation caused by powerplants above station. Data-collection platform at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	998	3200	2910	1300	2300	2970	2720	3280	2970	7300	2360	955
2	1060	3270	2790	1300	2200	3000	2640	2980	3140	7030	2290	1080
3	1210	3300	2920	1300	2100	3010	2700	3110	3000	6810	2240	1060
4	1360	3510	2880	1200	2100	3000	2800	3310	2930	6500	2170	1240
5	1360	3620	2880	1200	2100	3000	2710	3150	2890	6190	2090	909
6	1570	3570	2780	1200	2100	3000	2650	3060	2910	5870	2360	954
7	1620	3890	2690	1200	2100	2900	2610	3150	3710	5650	2680	641
8	1810	3780	2600	1200	2100	2900	2450	3070	4360	5330	2370	832
9	2150	3790	2200	1200	2200	2860	2450	3040	4070	5110	2300	989
10	2550	3830	2200	1200	2300	2770	2490	3290	4420	4870	2290	1260
11	2800	4060	2100	1200	2400	2690	2430	3360	4490	4610	2210	1130
12	2870	3900	2100	1200	2500	2650	2380	3280	4860	4380	2180	687
13	2820	3880	2100	1200	2500	2610	2380	3320	4780	4190	2110	848
14	2600	3850	2100	1200	2600	2610	2390	3310	4900	4090	2050	639
15	2680	3800	2000	1100	2600	2620	2430	3440	4720	3920	2000	812
16	2700	3770	2000	1100	2600	2670	2330	3450	4720	3730	1910	839
17	2640	3770	2000	1200	2600	2920	2360	3500	5460	3600	1650	703
18	2630	3740	1900	1700	2600	2680	2460	3460	7650	3800	1750	866
19	2650	3730	1900	1720	2600	2810	2520	3520	8110	3820	1760	858
20	2610	3680	1800	1700	2700	2920	2660	3620	7690	3610	1570	889
21	2560	3630	1700	1900	2700	2860	2810	3620	7820	3330	1470	814
22	2480	3650	1600	2160	2640	2800	2860	3530	8030	3140	1360	742
23	2540	3600	1600	2300	2620	2770	2980	3670	8160	3070	1200	693
24	2320	3500	1500	2330	2520	2790	3010	3700	8380	2990	1310	1180
25	2440	3400	1500	2400	2550	2680	2960	3590	8430	2990	1290	782
26	2470	3330	1400	2400	2620	2640	2970	3430	8240	2920	1290	945
27	2700	3310	1400	2400	2700	2750	3110	3430	8050	2810	1490	886
28	2730	3330	1400	2400	2750	2770	3070	3610	7900	2700	1260	1090
29	2700	3160	1300	2400	2860	2730	3240	3540	7650	2630	1080	1180
30	2790	3050	1300	2300	---	2730	3210	3260	7490	2530	1240	1220
31	2990	---	1300	2300	---	2730	---	2890	---	2440	872	---
TOTAL	71408	107900	62850	50910	71260	86840	80780	103970	171930	131960	56202	27723
MEAN	2303	3597	2027	1642	2457	2801	2693	3354	5731	4257	1813	924
MAX	2990	4060	2920	2400	2860	3010	3240	3700	8430	7300	2680	1260
MIN	998	3050	1300	1100	2100	2610	2330	2890	2890	2440	872	639
CFSM	.69	1.08	.61	.49	.74	.84	.81	1.00	1.72	1.27	.54	.28
IN.	.80	1.20	.70	.57	.79	.97	.90	1.16	1.91	1.47	.63	.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	1389	1574	1471	1305	1522	3344	4113	2524	1725	1389	1099	1186
MAX	8219	5883	4395	3558	5647	8958	10010	7911	5731	5443	5376	5088
(WY)	1987	1986	1986	1960	1938	1918	1979	1973	1996	1993	1924	1938
MIN	254	397	383	275	327	610	1002	389	314	247	183	212
(WY)	1940	1964	1940	1959	1959	1940	1931	1958	1934	1934	1934	1939

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	733673		1023733			
ANNUAL MEAN	2010		2797		1890	
HIGHEST ANNUAL MEAN					3925	1993
LOWEST ANNUAL MEAN					557	1964
HIGHEST DAILY MEAN	4060	Nov 11	8430	Jun 25	13000	Mar 23,24 1929
LOWEST DAILY MEAN	607	Jul 15	639	Sep 14	42	Aug 25,26 1934
ANNUAL SEVEN-DAY MINIMUM	671	Jul 9	771	Sep 12	115	Aug 24 1934
INSTANTANEOUS PEAK FLOW			8500	Jun 24	(a)13000	Mar 23 1929
INSTANTANEOUS PEAK STAGE			10.09	Jun 24	(b)13.05	Feb 5 1916
ANNUAL RUNOFF (CFSM)	.60		.84		.57	
ANNUAL RUNOFF (INCHES)	8.17		11.40		7.69	
10 PERCENT EXCEEDS	3320		4080		4040	
50 PERCENT EXCEEDS	1990		2650		1300	
90 PERCENT EXCEEDS	806		1200		470	

(a) Gage height, 11.81 ft, present datum
(b) Present datum, backwater from ice

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 20 ft downstream of Interstate Highway 43, 1.1 mi upstream from Delavan Lake inlet at Mound Road, and 1.5 mi south of Elkhorn.

DRAINAGE AREA.--4.34 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR WI-89-1: 1988.

GAGE.--Water-stage recorder. Datum of gage is 924.70 ft above sea level (Wisconsin Department of Transportation bench mark). Prior to Dec. 4, 1992, at site 180 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 2–5, June 4, Aug. 11–31, Sept. 1–25, and ice-affected periods, Dec. 26–31, Jan. 1–15, 25–31, Feb. 1–24, 29, and Mar. 1–13. Records good except those for estimated daily discharges, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	14	5.6	1.0	.90	1.7	1.2	5.9	8.7	1.5	.73	.24
2	.86	10	6.0	1.2	.86	1.4	1.2	4.0	17	1.9	.63	.23
3	.80	5.7	10	1.1	.82	1.2	1.3	2.7	8.6	2.0	.52	.48
4	.76	3.6	7.3	1.0	.78	1.1	1.4	2.3	7.6	1.7	.42	.35
5	.74	2.6	7.0	1.0	.76	1.0	1.0	2.1	7.0	1.9	.78	.30
6	17	2.5	4.6	.90	.74	.90	1.0	2.0	22	2.0	5.6	.27
7	6.2	2.3	2.8	.86	.90	.84	.94	2.0	30	2.3	.51	.50
8	3.1	2.0	2.3	.84	10	.78	1.0	2.0	9.7	2.8	.37	.35
9	2.2	1.9	2.4	.80	7.4	.76	1.1	4.5	7.3	2.5	.48	.40
10	1.8	17	1.9	.80	5.0	.76	1.0	24	7.1	2.3	.35	.32
11	1.6	13	1.8	.82	3.7	.80	1.0	8.3	5.4	1.9	.56	.27
12	1.4	7.4	1.7	.84	3.0	.88	1.1	6.2	4.2	2.9	.45	.24
13	1.3	6.0	1.8	.86	2.0	1.0	1.1	5.2	3.2	2.8	.40	.22
14	1.4	5.0	2.7	.90	1.8	1.3	.93	4.9	2.5	3.4	.35	.20
15	1.1	4.1	1.8	1.0	1.7	1.2	17	6.6	1.9	2.2	.32	.18
16	1.1	3.8	1.6	1.3	1.6	.89	9.4	5.8	4.6	1.8	.30	.17
17	1.1	3.5	1.5	7.5	1.5	.86	6.1	5.4	67	8.4	.29	.17
18	1.1	3.8	1.6	37	1.4	1.1	5.2	5.0	28	12	.28	.16
19	1.5	5.5	1.6	11	1.4	1.2	8.6	4.2	8.7	3.1	.35	.16
20	1.6	7.5	1.5	4.1	1.6	1.4	15	36	6.3	1.7	1.0	.20
21	1.8	5.8	1.5	2.9	1.4	1.1	7.4	18	5.1	1.1	.80	.17
22	1.2	3.9	1.6	2.6	1.4	1.1	5.8	8.7	4.3	1.0	.70	.16
23	1.9	2.6	1.6	2.4	2.0	.97	4.1	10	3.2	.98	.60	.15
24	2.6	1.9	1.5	2.2	1.9	1.5	2.9	7.4	3.2	2.7	.54	.14
25	1.4	1.9	1.3	2.0	2.0	2.4	2.9	6.0	2.4	1.6	.50	.14
26	1.3	1.9	1.2	1.8	2.1	1.2	2.3	5.4	1.9	.79	.45	5.0
27	9.2	3.1	1.1	1.6	3.4	1.0	1.8	4.9	1.2	.71	.42	.86
28	6.9	2.3	1.0	1.4	2.1	1.1	1.6	5.2	1.2	.73	.40	.43
29	3.7	2.1	.90	1.2	1.8	1.1	9.7	4.8	1.2	.77	.35	.29
30	2.4	2.4	1.0	1.1	---	1.1	8.4	3.4	2.0	.76	.28	.36
31	2.6	---	1.0	1.0	---	1.3	---	2.8	---	.74	.26	---
TOTAL	83.66	149.1	81.20	95.02	65.96	34.94	123.47	215.7	282.5	72.98	19.99	13.11
MEAN	2.70	4.97	2.62	3.07	2.27	1.13	4.12	6.96	9.42	2.35	.64	.44
MAX	17	17	10	37	10	2.4	17	36	67	12	5.6	5.0
MIN	.74	1.9	.90	.80	.74	.76	.93	2.0	1.2	.71	.26	.14
CFSM	.62	1.15	.60	.71	.52	.26	.95	1.60	2.17	.54	.15	.10
IN.	.72	1.28	.70	.81	.57	.30	1.06	1.85	2.42	.63	.17	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1996, BY WATER YEAR (WY)

MEAN	2.35	4.39	2.95	1.83	3.49	5.34	5.15	3.33	2.85	2.28	1.75	2.50
MAX	7.23	13.3	6.55	4.61	8.81	10.7	14.4	7.11	9.42	5.39	5.59	10.8
(WY)	1986	1986	1985	1993	1985	1986	1993	1990	1996	1992	1995	1986
MIN	.30	.58	.49	.45	.33	1.13	1.28	.79	.54	.44	.30	.27
(WY)	1995	1990	1990	1994	1989	1996	1989	1989	1988	1988	1988	1987

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1984 - 1996	
ANNUAL TOTAL	1103.19		1237.63			
ANNUAL MEAN	3.02		3.38		3.18	
HIGHEST ANNUAL MEAN					5.74	1993
LOWEST ANNUAL MEAN					1.70	1989
HIGHEST DAILY MEAN	46	Aug 9	67	Jun 17	113	Feb 19 1994
LOWEST DAILY MEAN	.07	Aug 6	.14	Sep 24	.05	Jun 19 1994
ANNUAL SEVEN-DAY MINIMUM	.10	Jan 5	.16	Sep 19	.10	Jan 5 1995
INSTANTANEOUS PEAK FLOW			195	Jun 17	210	Apr 19 1993
INSTANTANEOUS PEAK STAGE			9.98	Jun 17	10.00	Apr 19 1993
ANNUAL RUNOFF (CFSM)	.70		.78		.73	
ANNUAL RUNOFF (INCHES)	9.46		10.61		9.94	
10 PERCENT EXCEEDS	7.0		7.4		7.0	
50 PERCENT EXCEEDS	1.5		1.6		1.3	
90 PERCENT EXCEEDS	.25		.40		.38	

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.
DISSOLVED AMMONIA NITROGEN DISCHARGE: February 1993 to September 1995.
TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Water years 1984-85 and February 1993 to September 1995.
DISSOLVED NITRITE PLUS NITRATE DISCHARGE: February 1993 to September 1995.
TOTAL NITRITE PLUS NITRATE DISCHARGE: Water years 1984-85.
TOTAL-PHOSPHORUS DISCHARGE: October 1983 to current year.
DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: February 1993 to September 1995.

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, May 12, 1990, and May 11, 1995.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 136 tons, June 17, 1996; minimum daily, 0.00 ton, on several days in 1994 and 1995 water years.
DISSOLVED AMMONIA NITROGEN CONCENTRATIONS: Maximum observed, 1.00 mg/L, Jan. 24, 1994; minimum observed, <0.015 mg/L, on many days in 1995 water year.
DISSOLVED AMMONIA NITROGEN DISCHARGE: Maximum daily, 298 lb, Mar. 23, 1993; minimum daily, 0.02 lb, Jan. 8-11 and July 1-2, 1995.
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, 1,710 lb, Feb. 19, 1994; minimum daily, 0.09 lb, Jan. 9-11, 1995.
DISSOLVED NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 7.6 mg/L, Apr. 28, 1995; minimum observed, 0.30 mg/L, Aug. 7, 1995.
DISSOLVED NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 1,080 lb, June 8, 1993; minimum daily, 0.43 lb, Aug. 6, 1995.
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, 1985.
TOTAL NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 1,489 lb, May 28, 1984; minimum daily, 0.17 lb, July 23, 1985.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 8.20 mg/L, Aug. 7, 1984; minimum observed, 0.01 mg/L, Jan. 16, Mar. 14, 1990, and Dec. 27, 1994.
TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 584 lb, Feb. 19, 1994; minimum daily, 0.01 lb, Aug. 2, 1994.
DISSOLVED ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.81 mg/L, Mar. 4, 1993; minimum observed, <0.01 mg/L, on many days during 1995.
DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: Maximum daily, 126 lb, Mar. 23, 1993; minimum daily, 0.00 lb, Aug. 2, 1994, and Jan. 8-11, Aug. 6, 1995.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 2,150 mg/L, June 17; minimum observed, 5 mg/L, Mar. 15.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 136 tons, June 17; minimum daily, 0.01 ton, on several days.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 2.5 mg/L, Apr. 15,19; minimum observed, 0.03 mg/L, Mar. 4 and Aug. 28.
TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 299 lb, June 17; minimum daily, 0.04 lb, Sept. 24,25.

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT 1995					
01...	0145	--	5.8	1.40	351
*02...	1315	0.86	--	0.050	61
06...	0200	--	11	1.60	1010
06...	0230	--	20	0.460	1010
06...	0630	--	26	0.340	115
*06...	0840	--	16	0.180	33
06...	1030	--	11	0.200	35
06...	1545	--	24	0.290	60
06...	1945	--	22	0.250	66
07...	0145	--	9.9	0.220	62
27...	0530	--	7.9	0.720	551
27...	0615	--	14	0.900	787
27...	0815	--	16	0.310	83
27...	1415	--	8.6	0.470	145
27...	1615	--	11	0.280	25
28...	0015	--	7.9	0.220	19
*28...	0855	--	8.1	0.140	23
NOV					
01...	0830	--	10	0.380	155
01...	1430	--	13	0.240	49
01...	1630	--	12	--	23
01...	1830	--	20	0.760	378
01...	1900	--	28	--	532
01...	2000	--	37	0.530	287
01...	2200	--	31	--	102
01...	2400	--	22	0.340	42
*02...	0745	--	10	--	20
02...	0800	--	10	0.200	15
02...	1600	--	8.2	--	29
*03...	0750	--	6.0	0.050	--
*03...	0850	--	5.8	--	42
10...	1115	--	12	2.10	1160
10...	1145	--	18	--	719
10...	1545	--	26	0.590	184
10...	1900	--	38	0.550	202
10...	2030	--	47	0.540	189
10...	2230	--	37	--	86
11...	0030	--	27	0.420	85
11...	0630	--	15	0.270	28
*24...	1015	--	1.9	0.080	61
DEC					
01...	2015	--	6.8	0.130	45
02...	2015	--	6.3	0.130	38
03...	0415	--	11	0.190	43
03...	1015	--	9.9	0.110	8
03...	2015	--	9.8	0.160	26
*04...	0805	--	7.4	0.080	71
JAN 1996					
*05...	1305	1.0	--	0.060	66
17...	1615	--	9.1	1.30	797
17...	2015	--	15	0.900	174
17...	2315	--	31	0.970	311
18...	0315	--	47	0.930	460
18...	0715	--	56	0.740	331
*18...	1055	--	37	0.500	80
18...	1315	--	32	0.550	62
18...	1915	--	28	0.400	46
*19...	0935	--	12	0.140	7
FEB					
*05...	0810	0.76	--	0.040	37
07...	1630	0.90	--	0.160	80
08...	0530	10	--	0.210	45
08...	1400	10	--	0.580	105
08...	1600	10	--	0.560	75
08...	2000	10	--	0.390	11
09...	1000	7.4	--	0.300	12
*09...	1005	7.4	--	0.250	16
09...	1330	7.4	--	0.330	--
*09...	1331	7.4	--	0.410	62
09...	1545	7.4	--	0.430	79
*10...	0650	5.0	--	--	34
10...	0945	5.0	--	0.250	24
10...	1545	5.0	--	0.400	51
*11...	0645	3.7	--	0.110	--
MAR					
*04...	0740	1.1	--	0.030	29
*15...	1130	--	1.2	0.060	5

* Equal-width increment (EWI) sample

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
APR 1996				
*01...	0810	1.1	0.040	107
*11...	1145	1.1	0.040	78
15...	0245	14	2.50	1540
15...	0315	22	--	1830
15...	0400	30	1.70	1040
15...	0600	39	0.070	479
15...	0800	27	0.360	158
*15...	0812	26	--	135
15...	1200	17	0.160	49
15...	1800	12	0.160	23
*16...	0730	10	0.070	16
18...	2300	14	0.230	41
*19...	0800	7.8	0.080	34
19...	2300	14	1.50	340
19...	2330	33	2.50	320
*20...	0840	13	0.230	29
29...	1100	14	0.830	333
29...	1300	18	0.550	148
29...	1500	16	0.340	68
29...	2300	11	0.150	20
*30...	0755	8.7	--	7
30...	0815	8.7	--	14
MAY				
*01...	0805	6.0	--	23
*06...	0815	1.9	0.040	30
10...	0300	15	0.500	647
10...	0400	34	1.00	776
10...	0500	59	0.540	756
10...	0730	53	0.910	425
*10...	0800	47	0.380	346
10...	1100	25	0.310	108
10...	1900	13	0.150	10
*11...	0855	8.5	0.090	16
20...	1315	14	1.70	736
20...	1515	36	--	1360
20...	1530	64	1.70	--
20...	1700	100	--	928
20...	1730	120	2.10	1610
20...	1930	112	0.780	433
20...	2200	63	0.450	175
21...	0330	24	0.230	37
21...	1109	17	--	14
*21...	1110	17	--	21
21...	1111	17	0.200	--
*21...	1112	17	0.170	--
*22...	0755	8.9	0.040	34
23...	1030	14	0.660	184
23...	1230	15	0.260	45
23...	1630	11	0.190	14
JUN				
01...	2015	15	0.470	293
01...	2045	22	--	465
01...	2145	32	0.460	358
01...	2230	45	0.650	363
02...	0030	36	0.330	167
02...	0430	27	--	95
02...	0630	21	0.240	33
02...	1430	11	0.150	11
02...	2345	11	0.180	38
05...	2300	12	0.680	330
06...	0015	32	--	421
06...	0045	42	0.990	326
06...	0245	39	0.340	277
06...	0445	30	--	135
*06...	0725	26	--	61
06...	1045	19	0.220	29
06...	2045	12	0.120	12
07...	0045	22	0.270	134
07...	0315	56	0.810	473
07...	0345	72	1.50	923
07...	0730	48	0.530	164
07...	0815	42	--	99
07...	1130	25	0.240	33
07...	1730	16	0.180	18
08...	0130	12	0.140	16
08...	0930	9.9	0.140	8
*09...	0700	7.4	0.090	7
16...	1730	17	0.690	794
16...	1930	12	0.340	86

Equal-width increment (EWI) sample

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
JUN 1996					
17...	0345	--	12	0.580	183
17...	0645	--	22	0.330	175
17...	0700	--	53	0.110	845
17...	0715	--	110	1.70	1930
17...	0800	--	166	1.80	2150
17...	0830	--	188	0.730	1630
17...	1030	--	164	1.30	825
17...	1230	--	97	0.620	243
17...	1600	--	53	0.340	103
17...	2000	--	32	0.310	144
17...	2030	--	57	1.20	952
17...	2215	--	71	0.770	553
18...	0015	--	74	0.580	323
18...	0415	--	47	0.160	102
*18...	0755	--	29	0.200	42
18...	1215	--	20	0.140	78
18...	2015	--	13	0.120	90
19...	0615	--	9.4	0.090	10
*19...	0745	--	9.1	--	10
*20...	0725	--	6.5	0.090	11
*26...	1115	--	2.1	0.070	29
JUL					
*01...	0800	--	1.3	0.090	--
*01...	0805	--	1.3	--	56
13...	2330	--	8.6	0.270	134
17...	1330	--	18	0.700	595
17...	1545	--	21	0.350	70
17...	1745	--	11	0.240	29
17...	2300	--	17	0.510	307
17...	2315	--	31	--	502
17...	2400	--	1	0.490	249
18...	0100	--	25	0.270	56
18...	0500	--	13	0.170	30
18...	1100	--	14	0.170	20
18...	1700	--	8.2	0.180	6
19...	0855	--	3.2	0.090	21
24...	1630	--	11	0.250	132
*31...	1030	--	0.67	0.090	89
AUG					
*05...	0820	--	0.42	0.050	24
05...	2345	--	9.4	0.430	205
06...	0615	--	9.9	0.310	162
06...	0815	--	11	0.250	74
*06...	0816	--	11	0.190	71
06...	0845	--	18	0.470	292
06...	1245	--	6.3	0.200	22
*07...	0730	--	0.51	0.140	16
*28...	1320	0.40	--	0.030	26
SEP					
*04...	0800	0.35	--	0.170	--
26...	1015	--	6.0	1.30	982
26...	1045	--	14	1.50	1160
26...	1245	--	16	0.560	274
26...	1445	--	9.1	--	89
26...	1845	--	5.8	0.210	36
27...	1015	--	0.67	0.220	29
*27...	1016	--	0.67	0.230	32

* Equal-width increment (EWI) sample

054310157 JACKSON CREEK TRIBUTARY NEAR ELKHORN, WI--CONTINUED

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	5.7	.72	.18	.06	.14	.34	.35	5.4	.22	.13	.02
2	.17	.79	.66	.21	.07	.11	.35	.26	2.9	.26	.09	.02
3	.10	.60	.64	.20	.07	.10	.35	.19	.64	.28	.06	.03
4	.07	.36	1.3	.18	.07	.08	.37	.17	1.5	.23	.03	.02
5	.05	.24	1.3	.18	.07	.07	.26	.16	4.0	.23	.16	.02
6	7.3	.20	.89	.16	.06	.05	.25	.16	7.2	.23	1.5	.02
7	.81	.17	.54	.15	.14	.04	.22	.14	20	.25	.02	.03
8	.25	.13	.44	.14	1.5	.03	.24	.12	.25	e.87	.02	.02
9	.17	.11	.46	.13	.78	.03	.23	.32	.13	.25	.02	.02
10	.14	10	.36	.12	.54	.02	.22	21	.12	.23	.02	.02
11	.12	1.4	.34	.12	.31	.02	.21	.33	.09	.18	.03	.02
12	.11	.54	.33	.12	.24	.02	.22	.25	.07	e.92	.02	.01
13	.09	.42	.33	.12	.16	.02	.20	.20	.05	e.87	.02	.01
14	.10	.33	.51	.13	.15	.02	.16	.18	.04	e1.2	.02	.01
15	.07	.26	.35	.14	.14	.02	15	.23	.03	e.60	.02	.01
16	.07	.23	.30	.19	.13	.02	.40	.19	2.0	.11	.02	.01
17	.07	.20	.28	5.7	.12	.02	.21	.17	136	4.4	.02	.01
18	.07	.22	.30	21	.11	.03	.22	.15	9.4	1.2	.02	.01
19	e.30	e1.7	.29	.35	.11	.04	1.8	.12	.33	.15	.02	.01
20	e.32	e2.6	.27	.09	.13	.05	3.4	63	.20	.08	.06	.01
21	e.38	e1.8	.28	.07	.11	.05	.55	1.7	.19	.05	.05	.01
22	e.22	.53	.29	.07	.11	.05	.42	.75	.18	.04	.04	.01
23	e.41	.39	.29	.07	.16	.06	.28	1.1	.16	.03	.04	.01
24	e.62	.31	.28	.07	.15	.11	.19	.28	.18	.31	.03	.01
25	e.27	.31	.25	.07	.16	.20	.18	.22	.16	.09	.03	.01
26	.07	.32	.22	.07	.17	.12	.14	.19	.15	.06	.03	3.9
27	3.3	e.78	.20	.07	.27	.12	.11	.16	.11	.07	.03	.08
28	.41	.38	.18	.07	.16	.16	.09	.17	.12	.09	.03	.05
29	.21	.34	.16	.06	.14	.20	2.4	.15	.14	.12	.02	.04
30	.11	.38	.18	.06	---	.24	.33	.10	e.52	.15	.02	.06
31	.20	---	.18	.06	---	.33	---	.08	---	.17	.02	---
TOTAL	18.08	31.74	13.12	30.35	6.39	2.57	29.34	92.59	192.26	13.94	2.64	4.51

WTR YR 1996 TOTAL 437.53

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.2	30.1	4.04	.34	.24	.33	.26	2.55	17.5	.71	.31	.11
2	.39	11.1	4.29	.40	.22	.25	.27	1.48	20.4	.88	.24	.13
3	.19	1.66	7.91	.36	.20	.20	.28	.88	5.46	.95	.18	.36
4	.15	.89	3.51	.33	.18	.18	.31	.65	3.12	.80	.13	.31
5	.13	.60	2.98	.32	.16	.17	.23	.52	5.05	.84	.69	.26
6	28.3	.53	1.97	.29	.16	.17	.22	.43	38.6	.87	8.68	.22
7	6.42	.47	1.19	.27	.60	.17	.20	.44	91.7	.98	.39	.39
8	2.42	.37	.95	.26	20.2	.16	.22	.44	6.80	e1.90	.26	.26
9	1.61	.32	.99	.24	14.0	.17	.23	3.25	3.57	1.01	.31	.28
10	1.29	59.7	.77	.24	8.17	.18	.22	58.8	3.14	.95	.21	.21
11	1.06	18.0	.73	.24	2.41	.20	.22	4.33	2.22	.77	.31	.17
12	.90	3.83	.70	.24	1.66	.24	.24	2.79	1.59	e2.10	.23	.14
13	.77	2.83	.70	.24	1.04	.29	.23	2.20	1.12	e1.90	.19	.12
14	.77	2.13	1.06	.25	.88	.40	.20	1.96	.80	e2.70	.16	.10
15	.56	1.62	.72	.27	.79	.38	35.5	2.44	.57	e1.30	.13	.09
16	.54	1.34	.61	.44	.70	.28	3.76	2.03	7.76	.55	.12	.08
17	.51	1.13	.57	34.2	.62	.26	1.98	1.75	299	18.1	.10	.08
18	.48	1.13	.62	130	.54	.32	2.23	1.53	35.3	13.5	.09	.07
19	e.64	e5.10	.60	10.2	.51	.36	19.0	1.20	4.34	1.67	.11	.06
20	e.70	e8.40	.54	2.14	.55	.41	52.0	212	3.04	.71	.29	.07
21	e.85	e5.50	.55	1.42	.46	.31	5.26	18.6	2.37	.43	.22	.06
22	e.45	2.33	.58	1.20	.43	.29	3.01	2.10	1.92	.35	.18	.05
23	e.93	1.32	.57	1.06	.58	.26	1.94	10.5	1.36	.30	.14	.05
24	e1.54	.86	.55	.91	.52	.40	1.25	6.71	1.29	1.96	.12	.04
25	e.57	.92	.48	.79	.51	.61	1.10	4.72	.93	.85	.10	.04
26	.36	1.04	.43	.68	.52	.30	.81	3.64	.73	.42	.08	15.1
27	18.3	e2.00	.39	.57	.77	.25	.58	2.86	.49	.37	.07	1.00
28	5.53	1.52	.35	.47	.44	.26	.47	2.61	.50	.37	.07	.39
29	2.06	1.54	.31	.38	.37	.26	18.0	2.09	.51	.38	.07	.20
30	.96	1.93	.34	.33	---	.26	5.45	1.28	e1.10	.37	.08	.18
31	1.21	---	.34	.28	---	.29	---	.91	---	.35	.09	---
TOTAL	90.79	170.21	40.34	189.36	58.43	8.61	155.67	357.69	562.28	59.34	14.35	20.62

WTR YR 1996 TOTAL 1727.69

e Estimated

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI

LOCATION.--Lat 42°38'27", long 88°33'39", in SE 1/4 SE 1/4 sec.11, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, on left bank at bridge on Mound Road, 2.3 mi south of Elkhorn.

DRAINAGE AREA.--16.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 920.00 ft above sea level (Wisconsin Department of Transportation benchmark).

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 5–13, Dec. 27 to Jan. 16, Jan. 24 to Feb. 10, and Mar. 3–10. Records fair except those for ice-affected periods, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	29	16	3.9	1.9	5.9	5.3	24	15	7.8	3.8	.66
2	2.9	66	20	4.0	1.7	5.0	5.1	18	103	7.2	3.4	.65
3	3.0	34	38	3.8	1.5	4.0	5.7	14	61	6.7	3.0	.63
4	3.1	21	37	3.3	1.4	3.2	6.4	12	46	5.8	2.8	.83
5	3.0	16	25	2.7	1.3	2.9	5.8	11	43	4.8	2.6	.75
6	42	14	16	2.3	1.8	2.7	5.5	10	111	4.2	11	.72
7	47	13	13	2.1	3.5	2.5	5.3	9.6	148	4.0	7.8	.72
8	22	10	11	1.9	12	2.3	5.0	9.4	77	4.1	4.4	.70
9	14	9.0	10	1.8	50	2.0	4.8	12	49	4.4	3.1	.72
10	10	32	9.0	1.7	40	1.9	4.6	81	42	4.0	2.7	.58
11	8.1	91	8.0	1.6	26	2.7	4.8	53	33	3.4	2.4	.92
12	7.1	45	7.6	1.6	11	3.5	5.8	32	26	3.7	1.9	.87
13	6.2	29	7.4	1.8	8.8	3.9	6.0	23	21	4.0	1.8	.64
14	7.7	22	9.7	1.8	7.4	4.2	5.4	18	17	4.5	1.7	.58
15	5.9	18	9.2	1.7	5.4	4.2	48	19	14	4.0	1.5	.63
16	4.7	16	8.2	1.9	4.6	4.2	43	17	15	3.4	1.4	.60
17	3.9	14	7.2	7.6	4.6	4.2	30	15	452	7.9	1.2	.62
18	3.5	14	7.3	147	4.1	4.2	22	12	345	52	1.0	.63
19	3.8	15	7.5	63	4.0	4.5	27	10	110	32	1.0	.53
20	4.9	27	6.9	25	4.5	4.7	64	65	62	16	1.5	.49
21	5.4	25	6.4	16	4.4	4.4	37	126	43	11	1.2	.58
22	5.0	18	5.6	14	4.2	4.2	25	48	34	9.1	1.0	.54
23	4.4	14	5.5	12	5.8	4.1	20	38	24	7.8	.89	.43
24	7.0	11	5.1	9.0	7.2	4.5	16	34	21	7.4	.73	.56
25	5.4	10	5.0	7.0	6.9	7.5	14	25	17	8.8	.92	.53
26	5.0	11	4.5	6.0	7.5	7.0	13	22	14	6.4	.88	4.7
27	19	12	4.3	4.5	10	4.8	11	20	12	5.1	1.2	6.1
28	30	13	4.0	3.8	9.4	4.8	9.2	19	11	4.8	1.2	2.2
29	20	11	3.6	3.2	6.7	4.9	21	20	9.8	4.8	1.0	1.5
30	13	11	3.4	2.7	---	4.8	36	15	9.4	4.4	.88	.90
31	12	---	3.5	2.3	---	5.4	---	13	---	4.2	.73	---
TOTAL	333.3	671.0	324.9	361.0	257.6	129.1	511.7	845.0	1985.2	257.7	70.63	31.51
MEAN	10.8	22.4	10.5	11.6	8.88	4.16	17.1	27.3	66.2	8.31	2.28	1.05
MAX	47	91	38	147	50	7.5	64	126	452	52	11	6.1
MIN	2.9	9.0	3.4	1.6	1.3	1.9	4.6	9.4	9.4	3.4	.73	.43
CFSM	.64	1.33	.62	.69	.53	.25	1.02	1.62	3.94	.49	.14	.06
IN.	.74	1.49	.72	.80	.57	.29	1.13	1.87	4.40	.57	.16	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	5.54	10.9	6.61	6.94	13.5	20.3	32.5	14.6	29.2	8.88	8.98	3.37
MAX	10.8	22.4	10.5	11.6	33.9	48.2	77.4	27.3	66.2	22.6	23.8	7.16
(WY)	1996	1996	1996	1996	1994	1993	1993	1996	1996	1993	1995	1993
MIN	1.60	4.32	4.65	1.18	3.82	4.16	8.32	4.18	3.78	1.94	2.28	1.05
(WY)	1995	1994	1994	1994	1995	1996	1994	1994	1994	1995	1996	1996

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1993 - 1996	
ANNUAL TOTAL	4383.85		5778.64			
ANNUAL MEAN	12.0		15.8		11.0	
HIGHEST ANNUAL MEAN					15.8	1996
LOWEST ANNUAL MEAN					7.87	1994
HIGHEST DAILY MEAN	201	Aug 17	452	Jun 17	578	Apr 20 1993
LOWEST DAILY MEAN	.60	Jul 19	.43	Sep 23	.43	Sep 23 1996
ANNUAL SEVEN-DAY MINIMUM	1.0	Jul 13	.52	Sep 19	.52	Sep 19 1996
INSTANTANEOUS PEAK FLOW			1180	Jun 17	1190	Apr 20 1993
INSTANTANEOUS PEAK STAGE			11.59	Jun 17	11.60	Apr 20 1993
INSTANTANEOUS LOW FLOW			.39	Sep 23	.39	(a)Aug 22 1994
ANNUAL RUNOFF (CFSM)	.71		.94		.66	
ANNUAL RUNOFF (INCHES)	9.71		12.80		8.92	
10 PERCENT EXCEEDS	26		36		29	
50 PERCENT EXCEEDS	7.0		6.1		4.9	
90 PERCENT EXCEEDS	1.7		1.1		1.2	

(a) Also occurred Aug. 23, 1994, and Sept. 23, 1996

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to September 1985, February 1993 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: February 1993 to current year.
DISSOLVED AMMONIA NITROGEN DISCHARGE: February 1993 to September 1995.
TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: February 1993 to September 1995.
DISSOLVED NITRITE PLUS NITRATE DISCHARGE: February 1993 to September 1995.
TOTAL PHOSPHORUS DISCHARGE: February 1993 to current year.
DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: February 1993 to current year.

INSTRUMENTATION.--Automatic pumping sampler since February 1993.

REMARKS.--Records good.

COOPERATION.--Observer furnished by Delavan Lake Sanitary District.

EXTREMES OUTSIDE PERIOD OF DAILY RECORD.--
TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 2.1 mg/L, July 10, 1985; minimum observed, 0.30 mg/L, Jan. 24, 1985.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.55 mg/L, July 10, 1985; minimum observed, 0.03 mg/L, Apr. 2, 1985.
DISSOLVED ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.20 mg/L, Nov. 20, 1984 and May 22, 1985; minimum observed, <0.01 mg/L, July 10, 23, 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 1,420 mg/L, June 17, 1996; minimum observed, 2 mg/L, Sept. 16, 1993, July 25, 1995, and July 18, 1996.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 1,030 tons, June 17, 1996; minimum daily, 0.01 ton, Aug. 25-28 and Sept. 11, 1993, July 19, 22, 1995, and many days in 1994 and 1996 water years.
DISSOLVED AMMONIA NITROGEN CONCENTRATIONS: Maximum observed, 1.70 mg/L, Mar. 5, 1993; minimum observed, 0.01 mg/L, Aug. 1, 29, and Sept. 25, 1994.
DISSOLVED AMMONIA NITROGEN DISCHARGE: Maximum daily, 1,410 lb, Feb. 20, 1994; minimum daily, 0.07 lb, July 31, 1995.
TOTAL AMMONIA PLUS ORGANIC NITROGEN CONCENTRATIONS: Maximum observed, 4.6 mg/L, Mar. 5, 1993; minimum observed,0.40 mg/L, Oct. 6 and Dec. 15, 1993, and Jan. 14, Mar. 28-29, 1995.
TOTAL AMMONIA PLUS ORGANIC NITROGEN DISCHARGE: Maximum daily, 4,900 lb, Apr. 20, 1993; minimum daily, 1.5 lb, June 19, 1994.
DISSOLVED NITRITE PLUS NITRATE CONCENTRATIONS: Maximum observed, 13.0 mg/L, Apr. 30, 1995; minimum observed, <0.05 mg/L, Sept. 2, 1993, and many days in 1994 and 1995 water years.
DISSOLVED NITRITE PLUS NITRATE DISCHARGE: Maximum daily, 5,310 lb, Apr. 20, 1993; minimum daily, 0.16 lb, July 19, 1995.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 1.6 mg/L, June 17, 1996; minimum observed, 0.02 mg/L, Dec. 15, 1993, and several days during 1995 water year.
TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 2,630 lb, Apr. 20, 1993; minimum daily, 0.16 lb, Dec. 29, 1993.
DISSOLVED ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.58 mg/L, Feb. 20, 1994; minimum observed, <0.01 mg/L, May 13, 1993 and Mar. 21, Apr. 14, 18, 1994, and many days during 1995–96 water years.
DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: Maximum daily, 609 lb, Feb. 20, 1994; minimum daily, 0.05 lb, Feb. 14, 1995.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 1,420 mg/L, June 17; minimum observed, 2 mg/L, July 18.
SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 1,030 tons, June 17; minimum daily, 0.01 ton, on many days.
TOTAL PHOSPHORUS CONCENTRATIONS: Maximum observed, 1.60 mg/L, June 17; minimum observed, 0.04 mg/L, May 1, 6.
TOTAL PHOSPHORUS DISCHARGE: Maximum daily, 2,030 lb, June 17; minimum daily, 0.48 lb, Jan. 12.
DISSOLVED ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.54 mg/L, Jan. 18; minimum observed, <0.01 mg/L, on several days.
DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: Maximum daily, 417 lb, June 17; minimum daily, 0.15 lb, Feb. 5.

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	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)
OCT 1995						
*02...	1000	--	2.9	--	--	18
06...	0700	--	25	0.240	--	147
*06...	0840	--	37	--	--	29
*06...	0850	--	38	0.220	--	--
06...	1130	--	47	0.260	--	16
06...	1730	--	59	0.250	--	19
06...	2330	--	75	0.240	--	18
07...	0530	--	59	0.230	--	11
07...	2030	--	33	0.220	--	5
27...	1315	--	23	0.210	0.100	21
27...	1915	--	30	0.140	0.100	16
27...	2215	--	33	0.170	0.100	34
*28...	0905	--	31	0.200	0.090	50
29...	0115	--	24	0.130	0.090	21
NOV						
01...	1245	--	23	0.140	--	12
01...	2115	--	57	0.150	--	29
01...	2315	--	75	--	--	22
02...	0215	--	87	0.180	--	22
02...	0515	--	85	--	--	21
02...	0815	--	75	0.250	--	18
*02...	0816	--	75	0.270	--	27
02...	1415	--	61	--	--	10
02...	2015	--	48	0.220	--	24
03...	0515	--	39	--	--	98
03...	1415	--	31	0.160	--	17
10...	1530	--	24	0.130	--	103
10...	2000	--	67	0.220	--	127
11...	0145	--	127	0.360	--	105
11...	1045	--	91	0.420	--	92
11...	2245	--	62	--	--	19
12...	1045	--	44	0.250	--	101
12...	1945	--	37	--	--	15
*13...	0845	--	28	0.130	--	47
*22...	1115	--	17	0.090	0.040	64
DEC						
04...	0815	--	39	0.210	0.020	17
05...	2015	25	--	0.130	0.030	43
JAN 1996						
*05...	1345	2.7	--	0.060	0.020	74
17...	2215	--	23	0.350	0.140	40
18...	0100	--	50	0.180	0.070	31
18...	0330	--	91	0.250	0.090	31
18...	0600	--	142	0.990	0.540	56
18...	1030	--	190	0.610	0.340	10
18...	1930	--	161	0.660	0.360	14
19...	0130	--	104	--	--	27
*19...	1010	--	46	0.450	0.270	13
FEB						
*05...	0825	1.3	--	0.070	0.020	36
08...	1545	12	--	0.240	0.050	22
08...	1745	12	--	0.290	0.090	44
08...	2015	12	--	0.360	0.140	24
09...	0515	50	--	0.490	0.270	8
09...	1215	50	--	0.630	0.430	18
*09...	1216	50	--	0.620	0.370	27
09...	1217	50	--	0.610	0.400	29
09...	1230	50	--	--	--	17
*09...	1231	50	--	--	--	23
10...	0330	40	--	0.460	0.260	14
*10...	0700	40	--	0.420	0.250	16
*11...	0700	--	26	0.310	0.170	16
MAR						
*04...	0755	3.2	--	0.050	--	20
*15...	1015	--	4.2	0.100	0.020	14

*Equal-width increment (EWI) sample

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	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)
APR 1996					
*01...	0825	5.5	0.060	--	46
*11...	1215	4.8	0.100	<0.010	75
15...	0600	25	0.130	--	61
15...	0700	39	--	--	133
*15...	0836	53	0.230	--	54
15...	1145	69	--	--	42
15...	1445	71	0.210	--	45
15...	1745	66	--	--	24
16...	0845	44	0.100	--	15
16...	2045	40	--	--	14
17...	0845	29	0.090	--	24
*19...	0805	27	0.080	--	23
19...	1100	27	0.070	0.030	13
19...	2000	25	0.090	0.030	23
20...	0230	66	0.210	0.120	43
20...	0445	85	0.130	0.050	34
20...	0745	79	--	--	101
20...	1045	69	0.210	0.060	66
20...	1945	54	--	--	14
21...	1045	37	0.080	--	8
22...	0145	28	--	--	13
22...	1400	24	0.060	0.020	7
29...	1445	25	0.180	--	22
29...	2045	39	0.080	--	13
30...	0245	40	0.120	--	12
*30...	0815	37	--	--	14
30...	0845	36	0.130	--	12
30...	1745	34	0.050	--	7
MAY					
01...	0245	27	0.050	--	9
*01...	0800	25	0.040	--	--
*01...	0805	25	--	--	23
*06...	0830	11	0.040	--	27
10...	0615	48	0.180	<0.010	52
10...	0700	67	0.170	0.010	56
10...	0745	89	0.170	0.020	47
*10...	0810	98	0.160	<0.010	60
10...	1200	127	0.150	0.020	30
10...	1800	100	0.220	0.080	28
10...	2400	75	0.160	0.050	13
11...	0900	56	0.120	0.050	6
*11...	0910	56	0.050	<0.010	12
11...	1800	43	--	--	6
12...	0600	35	0.120	0.060	6
20...	1700	47	0.680	<0.010	488
20...	1830	123	0.200	0.040	57
20...	1930	183	0.200	<0.010	41
20...	2000	212	--	--	36
20...	2100	243	0.210	0.030	72
20...	2400	237	0.290	0.060	50
21...	0600	154	0.270	0.110	35
21...	1200	114	0.300	0.110	18
*22...	0820	51	0.120	--	14
JUN					
02...	0100	64	0.080	<0.010	15
02...	0215	83	--	--	21
02...	0415	107	0.130	0.030	20
02...	0700	129	0.180	0.070	34
02...	1000	129	--	--	29
02...	1300	119	0.220	0.110	28
02...	2200	83	0.180	0.100	16
03...	1000	66	0.120	0.060	7
06...	0230	66	0.060	0.020	8
06...	0515	114	0.070	0.030	13
*06...	0740	137	0.140	0.040	28
06...	0745	138	0.120	0.060	28
06...	1045	140	--	--	31
06...	1345	131	0.190	0.040	20
06...	1945	107	--	--	14
07...	0145	100	0.130	0.070	7
07...	0515	149	0.150	0.050	27
07...	0630	178	--	--	7

* Equal-width increment (EWI) sample

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI--CONTINUED

WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	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)
JUN 1996					
07...	0930	198	0.170	0.070	25
07...	1230	183	0.210	0.100	27
07...	1530	154	--	--	6
07...	2130	119	0.160	0.080	11
08...	1530	69	0.150	0.090	--
*09...	0715	51	0.130	0.070	6
17...	0745	69	0.060	0.020	8
17...	0900	183	0.220	0.060	234
17...	0945	412	0.230	0.060	293
17...	1015	646	0.720	0.060	675
17...	1045	847	0.520	0.070	940
17...	1130	1120	0.260	0.140	1420
17...	1330	1050	1.60	0.170	1340
17...	1630	729	0.860	0.200	885
17...	2130	453	0.830	0.200	398
18...	0030	544	0.600	0.190	358
18...	0130	591	0.230	0.200	449
18...	0530	531	0.520	0.210	504
*18...	0840	384	0.570	0.090	370
18...	0930	351	0.440	0.210	337
18...	1430	249	0.520	0.190	227
18...	1445	243	--	--	213
18...	1545	231	0.440	0.180	--
*18...	1546	231	0.430	0.200	190
18...	2330	163	0.330	0.180	159
*19...	0800	121	0.100	0.060	82
19...	1430	97	0.250	0.180	119
20...	0530	69	0.210	0.130	20
*20...	0740	66	0.190	0.120	18
JUL					
*01...	0825	8.4	0.090	--	37
17...	2245	22	0.290	<0.010	15
18...	0430	40	0.210	0.130	2
18...	0730	53	0.170	0.050	8
18...	1030	61	--	--	4
18...	1330	62	0.290	0.110	6
18...	1930	59	0.220	0.140	5
19...	0430	40	0.200	0.150	2
19...	1330	28	0.210	0.140	3
*20...	0730	18	0.150	0.100	9
*31...	0945	4.2	0.060	0.060	8
AUG					
*05...	0840	2.7	0.140	0.110	6
06...	1415	15	0.180	0.070	20
06...	2315	12	0.160	0.090	4
*07...	0750	8.7	--	--	12
*07...	0850	8.4	0.190	0.110	--
28...	1445	1.2	0.180	0.170	2
SEP					
04...	0810	0.83	0.260	0.160	7
26...	1330	3.4	0.290	0.100	16
26...	1530	7.0	0.190	0.020	41
26...	1830	11	0.200	0.070	44
27...	0030	10	0.160	0.070	30
27...	0835	7.0	0.190	0.090	27

* Equal-width increment (EWI) sample

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI--CONTINUED

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	2.1	2.0	.76	.16	.31	.65	1.2	.26	.76	.07	.01
2	.15	4.9	2.9	.78	.15	.26	.66	1.1	6.4	.62	.06	.01
3	.15	5.4	7.6	.75	.14	.22	.78	.94	1.3	.51	.05	.01
4	.17	1.3	2.8	.65	.13	.17	.92	.84	.71	.39	.04	.01
5	.17	.88	3.5	.53	.12	.15	.87	.78	.58	.28	.05	.01
6	3.9	.71	2.7	.43	.17	.14	.86	.72	5.3	.22	.35	.01
7	1.8	.61	2.2	.36	.31	.12	.88	.60	5.4	.18	.20	.01
8	.47	.46	1.9	.30	1.1	.11	.88	.53	1.8	.16	.11	.01
9	.30	.37	1.7	.26	2.7	.09	.89	.69	.80	.15	.07	.01
10	.23	12	1.5	.23	1.9	.09	.89	6.8	.65	.13	.06	.01
11	.19	27	1.4	.20	1.1	.12	.95	1.2	.50	.09	.05	.01
12	.17	7.6	1.3	.18	.44	.15	1.0	.46	.38	.09	.04	.01
13	.16	3.3	1.3	.19	.34	.16	.94	.32	.30	.09	.03	.01
14	.20	2.6	1.7	.18	.29	.16	.74	.25	.24	.08	.03	.01
15	.16	1.9	1.6	.15	.22	.16	5.0	.25	.19	.07	.02	.01
16	.13	1.6	1.4	.16	.19	.17	1.7	.23	.20	.05	.02	.01
17	.11	1.3	1.3	.90	.19	.18	1.7	.20	1030	.20	.02	.01
18	.10	1.2	1.3	11	.18	.20	1.4	.16	316	.68	.01	.01
19	.12	1.8	1.3	4.4	.17	.23	1.5	.13	28	.27	.01	.01
20	.15	4.5	1.3	1.5	.20	.26	7.1	11	3.5	.35	.01	.01
21	.18	4.0	1.2	.99	.20	.26	.89	9.4	2.3	.25	.01	.01
22	.17	2.9	1.0	.87	.19	.26	.57	1.8	1.9	.21	.01	.01
23	.15	2.1	1.0	.75	.27	.27	.33	1.3	1.4	.18	.01	.01
24	.25	1.6	.95	.60	.34	.32	.25	1.0	1.3	.17	.01	.01
25	.20	1.3	.94	.48	.33	.58	.21	.69	1.1	.19	.01	.01
26	.19	1.2	.84	.42	.36	.58	.19	.54	1.0	.14	.01	.42
27	1.5	1.2	.81	.33	.51	.42	.15	.45	.94	.11	.01	.43
28	3.6	1.2	.76	.29	.47	.45	.12	.39	.91	.10	.01	.12
29	1.5	.95	.69	.25	.34	.49	.75	.36	.86	.10	.01	.06
30	.77	1.1	.65	.22	---	.52	.92	.25	.89	.09	.01	.03
31	.52	---	.68	.19	---	.63	---	.19	---	.09	.01	---
TOTAL	18.11	99.08	52.22	29.30	13.21	8.23	34.69	44.77	1415.11	7.00	1.41	1.31

WTR YR 1996 TOTAL 1724.44

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1.10	22.4	e9.70	1.44	1.02	1.86	1.73	5.48	3.26	3.80	1.55	.82
2	1.66	81.1	e14.1	1.44	.83	1.48	1.74	3.81	102	3.35	1.65	.84
3	1.67	32.6	e41.4	1.34	.67	1.13	2.08	3.10	41.8	3.02	1.78	.87
4	1.72	17.9	39.3	1.13	.57	.88	2.46	2.69	17.3	2.53	1.96	1.19
5	1.67	12.3	20.4	.90	.51	.85	2.33	2.41	9.47	2.02	2.08	1.07
6	55.7	9.92	11.4	.76	.78	.84	2.33	2.25	85.4	1.71	10.1	1.01
7	59.3	8.62	9.02	.68	1.73	.83	2.38	2.09	140	1.58	7.12	1.00
8	24.5	6.57	7.44	.61	12.8	.82	2.38	2.08	65.0	1.55	2.65	.96
9	13.3	5.36	6.60	.57	148	.76	2.42	3.76	33.4	1.60	1.78	.98
10	8.70	37.2	5.79	.53	87.5	.77	2.45	78.0	23.4	1.43	1.61	.78
11	6.58	189	5.02	.49	41.8	1.15	2.65	29.5	15.3	1.17	1.43	1.22
12	5.67	61.2	4.65	.48	11.2	1.62	3.21	19.5	9.76	1.21	1.21	1.14
13	4.83	21.6	4.41	.53	7.12	1.90	3.33	12.4	6.49	1.28	1.18	.83
14	5.79	15.0	5.64	.52	5.70	2.19	2.99	8.38	4.47	1.38	1.13	.74
15	4.33	11.7	5.23	.49	3.90	2.30	49.9	7.16	3.04	1.19	1.05	.79
16	3.40	10.0	4.51	.54	3.17	2.24	25.6	5.67	2.77	.98	1.00	.75
17	2.76	8.63	3.89	8.09	3.01	2.17	14.8	4.18	2030	7.12	.90	.77
18	2.40	8.19	3.82	517	2.54	2.10	10.2	2.88	826	66.2	.77	.77
19	2.55	e8.70	3.83	167	2.35	2.19	12.6	2.01	119	35.1	.78	.64
20	3.20	e23.3	3.47	40.8	2.49	2.23	59.2	82.2	65.8	13.3	1.17	.58
21	3.47	e20.5	3.10	24.0	2.28	2.01	18.0	186	41.2	8.17	.99	.68
22	3.12	8.89	2.68	18.7	2.08	1.88	8.78	33.4	29.9	6.21	.84	.63
23	2.65	6.38	2.53	14.2	2.67	1.76	6.38	20.9	19.6	4.94	.77	.50
24	4.16	4.76	2.33	10.0	3.17	1.87	5.02	16.7	16.2	4.29	.65	.63
25	3.14	4.21	2.22	7.13	2.89	3.02	4.32	10.8	12.2	4.71	.84	.60
26	2.82	4.00	1.92	5.58	2.96	2.74	4.00	8.27	9.34	3.17	.82	5.13
27	17.5	4.09	1.80	3.82	3.86	1.82	3.10	6.77	7.65	2.32	1.14	5.98
28	28.7	4.16	1.64	2.94	3.31	1.75	2.61	5.59	6.52	2.01	1.22	2.20
29	14.1	3.31	1.44	2.26	2.22	1.73	12.2	5.05	5.38	1.86	1.10	1.45
30	8.63	e5.20	1.32	1.74	---	1.65	18.0	3.45	4.86	1.58	.98	.86
31	6.76	---	1.33	1.36	---	1.80	---	2.54	---	1.44	.86	---
TOTAL	305.88	656.79	231.93	837.07	363.13	52.34	289.19	579.02	3756.51	192.22	53.11	36.41

WTR YR 1996 TOTAL 7353.60

e Estimated

05431016 JACKSON CREEK AT MOUND ROAD NEAR ELKHORN, WI--CONTINUED

PHOSPHORUS ORTHO WATER, WHOLE, DISSOLVED, LBS/DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.70	13.6	e6.90	.47	.36	.44	.30	2.45	.87	1.33	1.49	.62
2	.82	49.7	e10.1	.47	.28	.34	.29	1.62	46.4	1.13	1.51	.60
3	.85	20.3	e31.0	.44	.21	.25	.33	1.16	21.5	.99	1.55	.58
4	.88	11.1	4.39	.38	.17	.18	.36	.89	7.45	.80	1.62	.75
5	.85	7.38	3.89	.31	.15	.18	.33	.70	3.51	.62	1.47	.66
6	23.2	5.75	2.70	.26	.23	.18	.31	.59	28.0	.50	4.69	.62
7	26.5	4.84	2.16	.24	.52	.17	.30	.54	64.5	.45	4.05	.61
8	11.4	3.57	1.81	.22	4.34	.17	.29	.53	37.1	.43	1.38	.58
9	6.28	2.82	1.62	.20	90.7	.16	.27	.65	18.0	.43	.94	.59
10	4.14	17.5	1.44	.19	51.0	.16	.26	17.1	11.7	.37	.88	.46
11	3.15	88.2	1.26	.18	22.8	.24	.30	9.94	7.19	.29	.80	.71
12	2.72	30.4	1.18	.18	5.59	.33	.64	9.47	4.31	.29	.70	.66
13	2.33	12.0	1.14	.20	3.32	.39	1.28	5.97	2.69	.30	.71	.48
14	2.80	8.30	1.47	.20	2.56	.45	2.22	3.83	1.75	.31	.70	.42
15	2.10	6.38	1.38	.19	1.68	.47	21.9	3.11	1.11	.26	.66	.45
16	1.66	5.39	1.21	.22	1.31	.45	12.6	2.35	.95	.21	.66	.42
17	1.35	4.56	1.05	3.28	1.20	.43	7.01	1.65	417	.47	.61	.42
18	1.18	4.25	1.05	286	.97	.42	4.44	1.08	362	30.2	.54	.42
19	1.26	e6.15	1.06	100	.86	.43	5.09	.72	76.8	24.9	.56	.35
20	1.59	e17.1	.97	27.1	.88	.43	21.6	11.0	41.5	8.95	.87	.31
21	1.73	e15.0	.88	15.1	.77	.39	7.50	64.0	24.5	5.69	.76	.36
22	1.56	4.04	.77	11.2	.67	.36	3.13	11.8	16.8	4.50	.67	.33
23	1.33	2.85	.74	8.07	.83	.33	2.02	7.28	10.5	3.71	.63	.26
24	2.10	2.10	.68	5.40	.95	.35	1.47	5.82	8.21	3.36	.55	.33
25	1.59	1.84	.66	3.64	.83	.56	1.17	3.76	5.86	3.83	.74	.31
26	1.43	1.72	.58	2.70	.82	.51	1.01	2.86	4.24	2.68	.74	1.71
27	10.1	1.74	.55	1.75	1.02	.33	.72	2.34	3.29	2.04	1.06	2.75
28	15.2	1.74	.50	1.28	.84	.32	.56	1.92	2.66	1.83	1.16	.96
29	9.54	1.37	.45	.93	.54	.31	5.87	1.73	2.08	1.76	1.00	.58
30	5.25	e3.60	.42	.68	---	.29	7.85	1.18	1.78	1.55	.83	.32
31	3.69	---	.42	.50	---	.32	---	.87	---	1.45	.69	---
TOTAL	149.28	355.29	84.43	471.98	196.40	10.34	111.42	178.91	1234.25	105.63	35.22	18.62

WTR YR 1996 TOTAL 2951.77

e Estimated

05431017 DELAVAN LAKE INLET AT STATE HIGHWAY 50 AT LAKE LAWN, WI

LOCATION.--Lat 42°37'16", long 88°34'57", in NE 1/4 sec.22, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, on downstream headwall of State Highway 50 bridge, and 1.0 mi east of Lake Lawn.

DRAINAGE AREA.--21.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1984 and 1985 water years (unpublished) to current year. Published as "at U.S. Highway 50" prior to October 1988.

GAGE.--Nonrecording gage. Datum of gage is 922.94 ft above sea level (Wisconsin Department of Transportation bench mark). Previously published datum of 914.48 ft in 1989-91 annual data reports was in error. Acoustical velocity meter used to determine discharges equal to or greater than 20 ft^3/s for period from Oct. 1, 1985 to May 7, 1987.

REMARKS.--Daily mean discharges were estimated based on discharges upstream at Jackson Creek near Elkhorn (05431014) and Jackson Creek Tributary near Elkhorn (054310157) for Oct. 1, 1992 to Jan. 31, 1993, and on discharges upstream at Jackson Creek at Mound Road near Elkhorn (05431016) for subsequent periods. Records poor (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	38	21	5.1	2.5	7.7	6.9	31	19	10	4.9	.86
2	3.8	86	26	5.2	2.2	6.5	6.6	23	134	9.4	4.4	.84
3	3.9	44	49	4.9	1.9	5.2	7.4	18	79	8.7	3.9	.82
4	4.0	27	48	4.3	1.8	4.2	8.3	16	60	7.5	3.6	1.1
5	3.9	21	32	3.5	1.7	3.8	7.5	14	56	6.2	3.4	.97
6	55	18	21	3.0	2.3	3.5	7.1	13	144	5.5	14	.94
7	61	17	17	2.7	4.5	3.2	6.9	12	192	5.2	10	.94
8	29	13	14	2.5	16	3.0	6.5	12	100	5.3	5.7	.91
9	18	12	13	2.3	65	2.6	6.2	16	64	5.7	4.0	.94
10	13	42	12	2.2	52	2.5	6.0	105	55	5.2	3.5	.75
11	11	118	10	2.1	34	3.5	6.2	69	43	4.4	3.1	1.2
12	9.2	58	9.9	2.1	14	4.5	7.5	42	34	4.8	2.5	1.1
13	8.1	38	9.6	2.3	11	5.1	7.8	30	27	5.2	2.3	.83
14	10	29	13	2.3	9.6	5.5	7.0	23	22	5.8	2.2	.75
15	7.7	23	12	2.2	7.0	5.5	62	25	18	5.2	1.9	.82
16	6.1	21	11	2.5	6.0	5.5	56	22	19	4.4	1.8	.78
17	5.1	18	9.4	9.9	6.0	5.5	39	19	588	10	1.6	.81
18	4.5	18	9.5	191	5.3	5.5	29	16	448	68	1.3	.82
19	4.9	19	9.7	82	5.2	5.8	35	13	143	42	1.3	.69
20	6.4	35	9.0	32	5.8	6.1	83	84	81	21	1.9	.64
21	7.0	32	8.3	21	5.7	5.7	48	164	56	14	1.6	.75
22	6.5	23	7.3	18	5.5	5.5	32	62	44	12	1.3	.70
23	5.7	18	7.1	16	7.5	5.3	26	49	31	10	1.2	.56
24	9.1	14	6.6	12	9.4	5.8	21	44	27	9.6	.95	.73
25	7.0	13	6.5	9.1	9.0	9.7	18	32	22	11	1.2	.69
26	6.5	14	5.8	7.8	9.7	9.1	17	29	18	8.3	1.1	6.1
27	25	16	5.6	5.8	13	6.2	14	26	16	6.6	1.6	7.9
28	39	17	5.2	4.9	12	6.2	12	25	14	6.2	1.6	2.9
29	26	14	4.7	4.2	8.7	6.4	27	26	13	6.2	1.3	1.9
30	17	14	4.4	3.5	---	6.2	47	19	12	5.7	1.1	1.2
31	16	---	4.5	3.0	---	7.0	---	17	---	5.5	.95	---
TOTAL	435.0	870	422.1	469.4	334.3	167.8	663.9	1096	2579	334.6	91.20	40.94
MEAN	14.0	29.0	13.6	15.1	11.5	5.41	22.1	35.4	86.0	10.8	2.94	1.36
MAX	61	118	49	191	65	9.7	83	164	588	68	14	7.9
MIN	3.8	12	4.4	2.1	1.7	2.5	6.0	12	12	4.4	.95	.56
CFSM	.64	1.33	.62	.69	.53	.25	1.02	1.62	3.94	.50	.13	.06
IN.	.74	1.48	.72	.80	.57	.29	1.13	1.87	4.40	.57	.16	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1996, BY WATER YEAR (WY)

MEAN	7.68	16.1	12.6	7.59	15.9	26.3	25.0	14.1	15.8	8.39	5.75	7.51
MAX	25.9	54.5	30.3	19.5	44.1	68.3	100	35.4	86.0	29.3	30.5	37.4
(WY)	1987	1986	1992	1993	1994	1986	1993	1996	1996	1993	1995	1986
MIN	.67	1.14	1.12	1.11	1.31	5.41	3.28	1.44	.76	.61	.50	.61
(WY)	1989	1990	1990	1991	1989	1996	1989	1989	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1984 - 1996	
ANNUAL TOTAL	5682.19		7504.24			
ANNUAL MEAN	15.6		20.5		13.5	
HIGHEST ANNUAL MEAN					30.3	1993
LOWEST ANNUAL MEAN					5.38	1989
HIGHEST DAILY MEAN	261	Aug 17	588	Jun 17	751	Apr 20 1993
LOWEST DAILY MEAN	.78	Jul 19	.56	Sep 23	.22	Sep 15 1988
ANNUAL SEVEN-DAY MINIMUM	1.4	Jul 13	.68	Sep 19	.25	Sep 9 1988
ANNUAL RUNOFF (CFSM)	.71		.94		.62	
ANNUAL RUNOFF (INCHES)	9.70		12.81		8.42	
10 PERCENT EXCEEDS	34		47		32	
50 PERCENT EXCEEDS	9.1		8.0		4.6	
90 PERCENT EXCEEDS	2.2		1.5		.84	

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: 1984 and 1985 water years (unpublished), October 1989 to September 1995.

TOTAL-PHOSPHORUS DISCHARGE: 1984 and 1985 water years (unpublished) to current year.

DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: April 1994 to current year.

REMARKS.--Records poor. Daily mean discharges are estimated based on discharges from upstream stations 05431014 and 054310157 from Oct. 1, 1992 to Jan. 31, 1993, and from station 05431016 from Feb. 1, 1993 to Sept. 30, 1994. Samples are equal-width increment unless otherwise indicated.

COOPERATION.--Observer furnished by Delavan Lake Sanitary District.

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum observed, 345 mg/L, Apr. 16, 1984; minimum observed, 0 mg/L, Sept. 23, 1991, July 17, Sept. 26, 1992, and Nov. 16, 1994.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 468 tons, Apr. 20, 1993; minimum daily, 0.00 ton, Sept. 26, 1990, many days during 1992 to 1994 water years, and July 14, 15, 18, 19, 1995.

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 3.8 mg/L, May 27, 1985; minimum observed, 0.01 mg/L, Mar. 7, 1990, Dec. 15, 1994, Apr. 17, 1995, and Oct. 6, 1995.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 1,910 lb, Apr. 20, 1993; minimum daily, 0.10 lb, Dec. 28, 1989.

DISSOLVED ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.64 mg/L, Aug. 2-3, 1995; minimum observed, <0.01 mg/L, Apr. 14, 1994, many days during 1995 water year, and Nov. 22, 1995.

DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: Maximum daily, 262 lb, Aug. 17, 1995; minimum daily, 0.14 lb, Jan. 9-10, 1995.

DISSOLVED CHLORIDE CONCENTRATIONS: Maximum observed, 130 mg/L, Aug. 8, 1995; minimum observed, 18 mg/L, June 1, 1995.

EXTREMES FOR CURRENT YEAR.--

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.97 mg/L, June 18; minimum observed, 0.01 mg/L, Oct. 6.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 1,330 lb, June 18; minimum daily, 0.42 lb, Mar. 10.

DISSOLVED ORTHO-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.50 mg/L, July 19; minimum observed, <0.01 mg/L, Nov. 22.

DISSOLVED ORTHO-PHOSPHORUS DISCHARGE: Maximum daily, 352 lb, June 18; minimum daily, 0.14 lb, Mar. 10.

WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND (00060)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)
OCT 1995				
02...	1450	3.8	0.210	--
06...	0930	55	<0.010	--
07...	0950	61	0.200	--
07...	1455	61	0.160	--
08...	0940	29	0.150	--
08...	1450	29	0.210	--
10...	1010	13	0.120	--
27...	0900	25	0.040	0.040
27...	1420	25	0.030	0.020
28...	0940	39	0.030	0.030
29...	0925	26	0.040	0.030
29...	1345	26	0.040	0.030
31...	0850	16	0.030	--
NOV				
01...	0815	38	0.030	--
02...	0910	86	0.030	--
11...	1115	118	0.050	--
11...	1340	118	0.060	--
12...	1000	58	0.170	--
13...	0955	38	0.180	--
13...	1430	38	0.160	--
14...	0910	29	0.160	--
*22...	1100	23	0.030	<0.010
DEC				
04...	0920	48	0.040	0.040
05...	0855	32	0.080	<0.010
06...	0920	21	0.030	--
JAN 1996				
**05...	1400	3.5	0.200	0.020
FEB				
*09...	1125	65	0.250	0.150
*29...	1200	8.7	0.050	0.020
MAR				
*15...	0945	5.5	0.080	0.020
APR				
01...	0915	6.9	0.170	--
11...	1300	6.2	0.200	<0.010
15...	1450	62	0.260	--
16...	0855	56	0.210	--
16...	1435	56	0.180	--
17...	0925	39	0.170	--
17...	1450	39	0.160	--
18...	0840	29	0.120	<0.010
19...	0935	35	0.170	<0.010
23...	0850	26	0.130	--
24...	1025	21	0.120	--
30...	0900	47	0.120	--
30...	1435	47	0.170	--
MAY				
01...	0855	31	0.110	--
01...	1435	31	0.060	--
02...	0830	23	0.070	--
02...	1440	23	0.080	--
03...	0830	18	0.070	--
06...	0910	13	0.100	--

* Single vertical sample
** Grab sample

05431017 DELAVAN LAKE INLET AT STATE HIGHWAY 50 AT LAKE LAWN, WI--CONTINUED

WATER-QUALITY DATA, OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
MAY 1996				
10...	0915	105	0.070	<0.010
10...	1415	105	0.070	<0.010
11...	0945	69	0.130	0.020
12...	0945	42	0.070	0.010
13...	0905	30	0.050	0.020
13...	1440	30	0.030	--
14...	0840	23	0.030	--
15...	0900	25	0.050	--
20...	0910	84	0.060	<0.010
21...	0940	164	0.200	0.020
21...	1445	164	0.200	0.020
22...	0905	62	0.160	--
23...	0845	49	0.110	--
23...	1505	49	0.140	--
24...	0925	44	0.080	--
JUN				
02...	1000	134	0.090	0.030
03...	0945	79	0.130	0.040
03...	1445	79	0.140	0.020
04...	0850	60	0.130	0.040
04...	1455	60	0.130	0.050
05...	0850	56	0.100	0.040
06...	0820	144	0.070	0.020
06...	1415	144	0.070	0.020
07...	0930	192	0.110	0.040
07...	1255	192	0.130	0.040
08...	0855	100	0.210	0.110
08...	1545	100	0.190	0.100
09...	0900	64	0.170	0.110
10...	0905	55	0.150	0.090
18...	0940	448	0.970	0.130
18...	1400	448	0.270	0.160
19...	0845	143	0.380	0.210
19...	1445	143	0.370	0.150
JUN 1996				
20...	0830	81	0.340	0.240
21...	0825	56	0.340	0.190
24...	1050	27	0.270	0.180
JUL				
01...	0910	10	0.190	--
08...	0900	5.3	0.340	--
15...	1045	5.2	0.390	0.360
18...	0935	68	0.530	0.440
18...	1430	68	0.600	0.470
19...	1040	42	0.620	0.500
19...	1410	42	0.620	0.490
20...	0950	21	0.470	0.480
21...	0955	14	0.400	0.370
22...	0910	12	0.430	0.370
31...	1130	5.5	0.340	0.310
AUG				
05...	0935	3.4	0.470	0.350
06...	0935	14	0.430	0.310
08...	0850	5.7	0.500	0.420
09...	0900	4.0	0.560	0.450
10...	0940	3.5	0.560	0.490
19...	0850	1.3	0.490	0.400
26...	0920	1.1	0.920	0.360
28...	1430	1.6	0.470	0.410
SEP				
04...	0825	1.1	0.380	0.350
16...	0900	0.78	0.330	--
23...	0900	0.56	0.260	0.240
27...	0920	7.9	0.310	0.280
27...	1520	7.9	0.320	0.230
28...	1040	2.9	0.290	0.200
28...	1430	2.9	0.270	0.190
29...	1000	1.9	0.290	0.240
30...	0820	1.2	0.260	0.220

05431017 DELAVAN LAKE INLET AT STATE HIGHWAY 50 AT LAKE LAWN, WI--CONTINUED

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.35	6.16	3.40	2.34	1.68	1.98	6.33	15.1	5.27	10.5	9.63	1.93
2	4.09	13.9	4.48	6.81	1.41	1.59	6.17	9.10	63.7	10.6	9.23	1.83
3	2.35	7.13	9.53	6.03	1.17	1.21	7.03	7.06	55.5	10.7	8.74	1.73
4	1.08	4.37	12.0	4.97	1.06	.93	8.01	6.93	41.4	9.98	8.62	2.26
5	.47	3.40	11.3	3.80	.96	.80	7.35	6.83	29.0	8.97	8.45	1.96
6	7.64	2.92	3.70	3.07	1.31	.71	7.07	6.84	58.6	8.65	33.2	1.88
7	49.7	2.75	2.75	2.60	3.49	.61	6.99	5.87	130	8.88	25.3	1.86
8	27.5	2.11	2.27	2.26	17.1	.55	6.69	5.37	103	9.71	15.7	1.78
9	15.7	1.94	2.11	1.96	84.0	.45	6.48	6.55	58.6	10.7	12.0	1.82
10	8.52	8.22	1.94	1.76	60.9	.42	6.37	42.9	44.4	9.95	10.6	1.43
11	6.31	39.5	1.62	1.58	34.6	.64	6.73	41.4	32.4	8.58	9.22	2.26
12	4.70	49.3	1.60	1.49	12.4	1.02	8.62	15.9	23.9	9.55	7.33	2.05
13	3.69	34.7	1.56	1.54	8.46	1.45	9.56	6.68	17.8	10.5	6.64	1.53
14	4.06	24.1	2.11	1.45	6.42	1.95	9.15	4.18	13.6	12.0	6.26	1.37
15	2.79	15.8	1.94	1.30	4.07	2.35	84.3	6.58	10.4	10.9	5.33	1.48
16	1.97	11.8	1.78	1.39	3.09	2.49	59.9	6.19	12.4	9.27	4.97	1.38
17	1.47	8.19	1.52	8.23	2.80	2.61	34.1	5.54	1240	22.0	4.35	1.39
18	1.15	6.66	1.54	281	2.24	2.73	20.7	4.84	1330	203	3.48	1.36
19	1.12	5.71	1.57	116	1.99	3.01	30.9	4.08	279	136	3.51	1.11
20	1.30	8.55	1.46	39.7	2.01	3.30	70.8	36.2	150	53.5	5.57	.99
21	1.27	6.36	1.34	23.0	1.79	3.23	38.3	160	101	31.1	5.13	1.12
22	1.05	3.81	1.18	18.6	1.56	3.26	23.8	51.3	74.2	27.6	4.56	1.01
23	.82	2.92	1.15	15.8	2.19	3.28	18.1	32.3	48.5	22.6	4.60	.79
24	1.17	2.27	1.07	11.4	3.21	3.75	13.7	20.1	39.4	21.1	3.99	1.00
25	.80	2.11	1.05	8.27	3.58	6.56	11.7	13.0	30.4	23.6	5.51	.96
26	.93	2.27	.94	6.78	4.50	6.43	11.0	11.2	23.7	17.3	5.15	9.71
27	4.53	2.59	.91	4.83	6.61	4.58	9.07	9.48	20.0	13.4	5.74	13.3
28	6.68	2.75	.84	3.91	4.65	4.79	7.78	8.63	16.6	12.3	4.30	4.48
29	5.42	2.27	.76	3.21	2.45	5.17	17.5	8.50	14.7	12.0	3.21	2.90
30	3.18	2.27	.71	2.56	---	5.24	35.2	5.88	12.9	10.7	2.63	1.70
31	2.62	---	.73	2.10	---	6.18	---	4.98	---	10.2	2.20	---
TOTAL	180.43	286.83	80.86	589.74	281.70	83.27	589.40	569.51	4080.37	775.84	245.15	70.37

WTR YR 1996 TOTAL 7833.47

PHOSPHORUS ORTHO WATER, WHOLE, DISSOLVED, LBS/DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.44	4.14	1.13	.34	.95	.78	.74	1.67	1.03	6.60	8.41	1.74
2	2.77	9.29	1.96	.56	.78	.62	.66	1.24	19.9	6.61	7.74	1.66
3	1.69	4.75	6.59	.53	.63	.46	.69	.97	13.2	6.59	7.03	1.58
4	.86	2.92	8.13	.46	.56	.35	.73	.86	13.6	6.11	6.66	2.07
5	.42	2.27	1.95	.38	.49	.30	.61	.76	11.0	5.43	6.28	1.79
6	6.77	1.94	1.13	.32	.66	.25	.54	.70	17.6	5.18	24.3	1.70
7	41.0	1.84	.92	.29	1.74	.22	.49	.65	46.3	5.27	19.9	1.67
8	18.8	1.40	.76	.27	8.80	.19	.43	.65	52.6	5.79	13.0	1.58
9	9.48	1.30	.70	.25	49.0	.16	.39	.86	32.8	6.77	9.84	1.60
10	5.61	5.26	.65	.24	34.4	.14	.35	6.15	26.4	6.71	9.16	1.25
11	4.13	24.5	.54	.23	18.4	.21	.34	6.26	18.8	6.17	8.00	1.97
12	3.02	33.4	.53	.23	6.18	.31	.40	2.77	13.5	7.31	6.31	1.77
13	2.33	22.3	.52	.25	3.96	.41	.42	3.03	9.73	8.61	5.67	1.31
14	2.51	15.0	.70	.25	2.82	.52	.38	2.23	7.21	10.4	5.31	1.16
15	1.69	9.12	.65	.24	1.68	.59	3.35	2.19	5.36	10.0	4.48	1.24
16	1.17	6.26	.59	.27	1.23	.59	3.02	1.75	5.56	8.55	4.15	1.16
17	.86	4.04	.51	3.01	1.12	.59	2.11	1.37	271	20.0	3.61	1.18
18	.66	3.04	.51	176	.89	.59	1.57	1.04	352	165	2.86	1.17
19	.63	2.41	.52	80.6	.80	.63	1.89	.77	141	111	2.80	.97
20	.72	3.34	.49	28.6	.80	.66	4.48	5.30	96.5	52.3	4.03	.88
21	.69	2.29	.45	17.1	.72	.62	2.59	16.5	58.1	28.6	3.35	1.01
22	.56	1.28	.39	13.6	.62	.59	1.73	5.41	44.2	23.9	2.68	.92
23	.43	.97	.38	11.3	.88	.57	1.40	3.33	30.6	19.5	2.44	.71
24	.60	.76	.36	7.92	1.28	.63	1.13	2.42	26.1	18.4	1.90	.86
25	.41	.70	.35	5.60	1.43	1.05	.97	1.73	20.1	20.7	2.36	.78
26	.66	.76	.31	4.48	1.80	.98	.92	1.57	15.5	15.3	2.16	8.15
27	3.82	.86	.30	3.11	2.64	.67	.76	1.40	13.0	11.9	3.32	10.7
28	6.08	.92	.28	2.46	1.86	.67	.65	1.35	10.7	11.0	3.50	3.18
29	4.16	.76	.25	1.97	.98	.69	1.46	1.40	9.41	10.8	2.82	2.37
30	2.41	.76	.24	1.53	---	.67	2.54	1.03	8.19	9.73	2.33	1.35
31	1.96	---	.24	1.22	---	.76	---	.92	---	9.26	1.97	---
TOTAL	131.34	168.58	33.03	363.61	148.10	16.47	37.74	78.28	1390.99	639.49	188.37	59.48

WTR YR 1996 TOTAL 3255.48

423556088365001 DELAVAN LAKE AT CENTER NEAR DELAVAN LAKE, WI

LOCATION.--Lat 42°35'56", long 88°36'50", in SE 1/4 SW 1/4, sec.28, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, 2.6 mi southeast of Delavan.

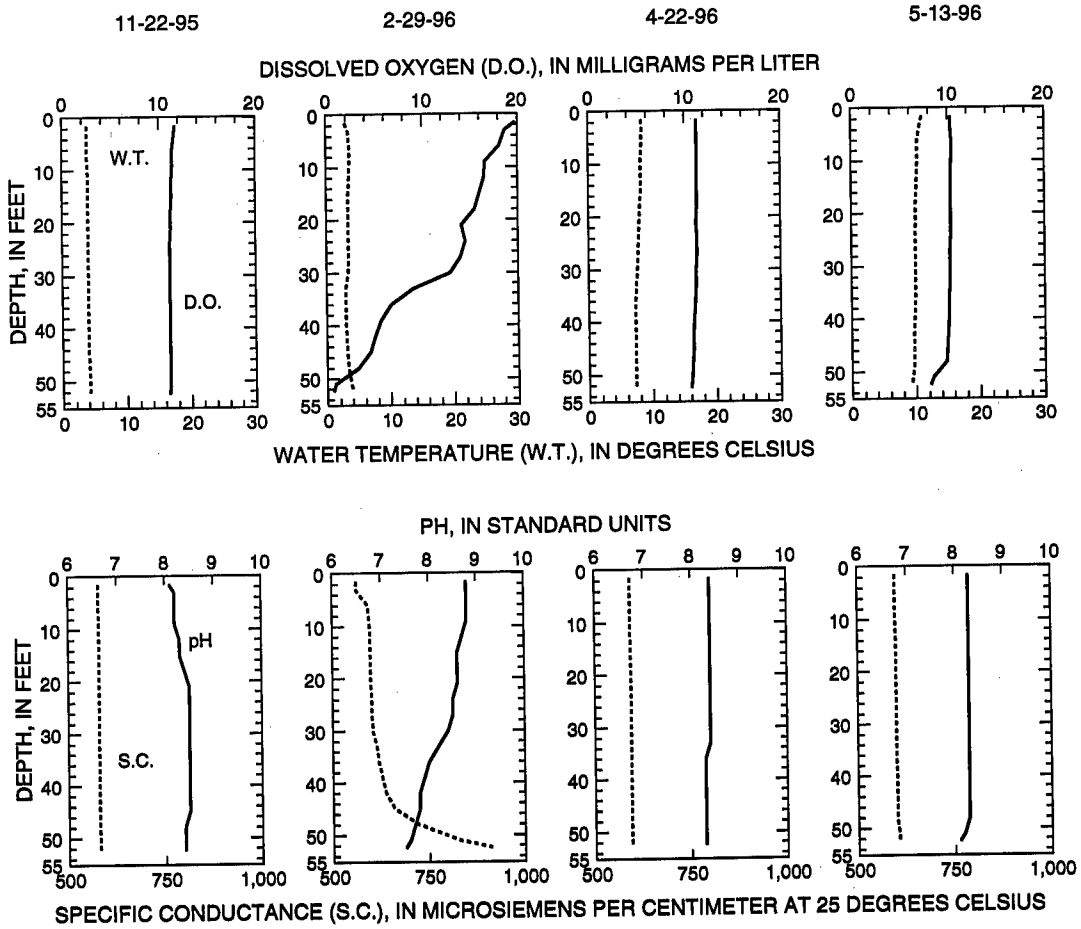
DRAINAGE AREA.--41.4 mi^2, of which 2.3 mi^2 is non-contributing.

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

REMARKS.--Lake ice-covered during February measurements. Water-quality analyses done by the U.S. Geological Survey National Water Quality Laboratory.

WATER-QUALITY DATA, NOVEMBER 22, 1995 TO MAY 13, 1996
(Milligrams per liter unless otherwise indicated)

	Nov. 22		Feb. 29		Apr. 22		May 13	
Depth of sample (ft)	1.5	53	1.5	53	1.5	53	1.5	53
Lake stage (ft)	5.01		4.94		5.11		5.01	
Specific conductance (µS/cm)	578	580	563	920	592	595	597	606
pH (units)	8.1	8.4	8.8	7.5	8.4	8.3	8.3	8.1
Water temperature (°C)	4.0	4.0	3.0	4.0	8.5	7.5	11.0	9.5
Color (Pt-Co. scale)	---	---	---	---	7	10	---	---
Turbidity (NTU)	---	---	---	---	0.30	0.30	---	---
Secchi-depth (meters)	4.9		2.1		6.4		8.1	
Dissolved oxygen	11.7	11.0	19.8	0.6	11.3	10.6	10.3	8.1
Hardness, as CaCO3	---	---	---	---	240	240	---	---
Calcium, dissolved (Ca)	---	---	---	---	43	43	---	---
Magnesium, dissolved (Mg)	---	---	---	---	33	32	---	---
Sodium, dissolved (Na)	---	---	---	---	26	26	---	---
Potassium, dissolved (K)	---	---	---	---	3	3	---	---
Alkalinity, as CaCO3	---	---	---	---	190	190	---	---
Sulfate, dissolved (SO4)	---	---	---	---	30	30	---	---
Chloride, dissolved (Cl)	---	---	---	---	60	60	---	---
Fluoride, dissolved (F)	---	---	---	---	0.2	0.2	---	---
Silica, dissolved (SiO2)	---	---	---	---	0.6	0.8	---	---
Solids, dissolved, at 180°C	---	---	---	---	320	317	---	---
Nitrogen, NO2 + NO3, diss. (as N)	0.24	---	0.21	---	---	---	0.25	---
Nitrogen, ammonia, dissolved (as N)	---	---	0.00	---	---	---	0.05	---
Nitrogen, amm. + org., total (as N)	0.60	---	0.60	---	0.70	0.80	0.60	---
Nitrogen, total (as N)	0.84	---	0.81	---	0.70	0.80	0.85	---
Phosphorus, total (as P)	0.078	0.086	0.069	0.240	0.071	0.086	0.069	0.084
Phosphorus, ortho, dissolved (as P)	0.066	0.042	0.001	0.190	0.032	0.012	0.043	0.055
Iron, dissolved (Fe) µg/L	---	---	---	---	10	12	---	---
Manganese, dissolved (Mn) µg/L	---	---	---	---	9	8	---	---
Chlorophyll a, phytoplankton (µg/L)	1.7	---	8.9	---	1.2	---	0.2	---

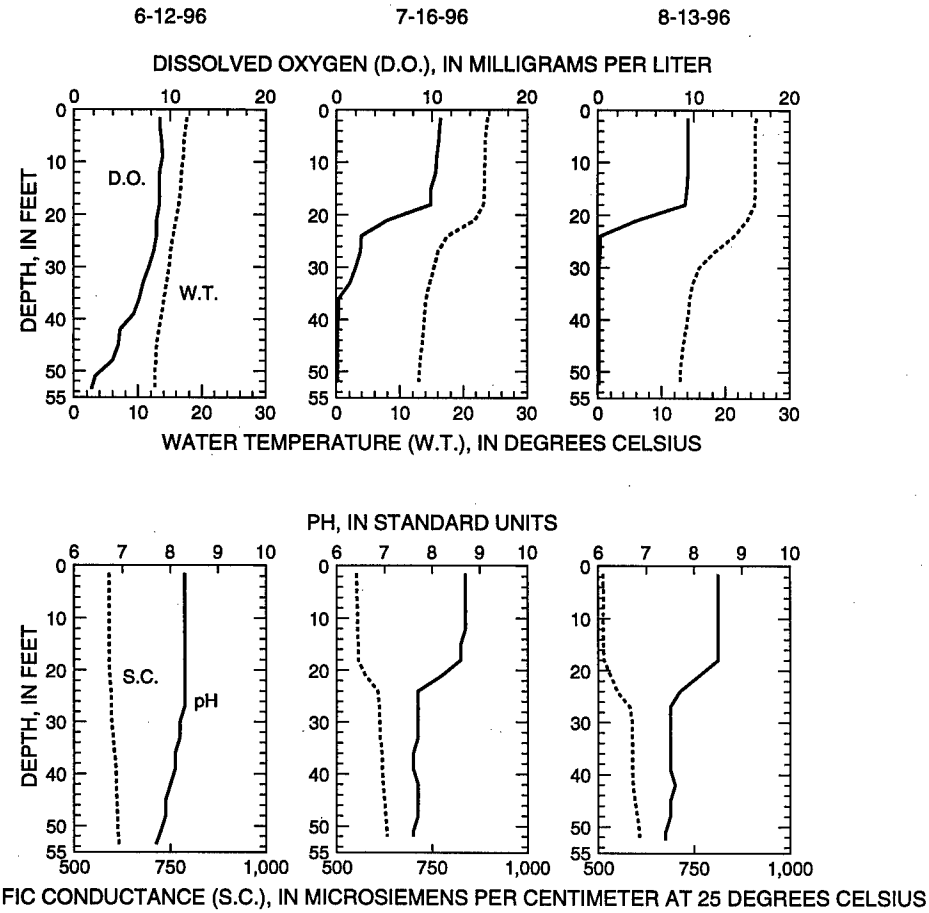


423556088365001 DELAVAN LAKE AT CENTER NEAR DELAVAN LAKE, WI--CONTINUED

WATER-QUALITY DATA, JUNE 12 TO AUGUST 13, 1996
(Milligrams per liter unless otherwise indicated)

	June 12		July 16			
Depth of sample (ft)	1.5	54	1.5	21	36	52
Lake stage (ft)	5.00		4.85			
Specific conductance (µS/cm)	590	616	551	575	618	632
pH (units)	8.3	7.7	8.7	8.2	7.6	7.6
Water temperature (°C)	17.5	12.5	24.0	22.0	14.0	13.0
Secchi-depth (meters)	8.1		2.3			
Dissolved oxygen	8.9	1.8	10.9	5.3	0.2	0.1
Nitrogen, NO2 + NO3, diss. (as N)	0.29	---	---	---	---	---
Nitrogen, ammonia, dissolved (as N)	0.00	---	---	---	---	---
Nitrogen, amm. + org., total (as N)	0.60	---	---	---	---	---
Nitrogen, total (as N)	0.89	---	---	---	---	---
Phosphorus, total (as P)	0.072	0.170	---	0.070	0.170	0.450
Phosphorus, ortho, dissolved (as P)	0.018	0.100	---	0.039	0.140	0.210
Chlorophyll a, phytoplankton (µg/L)	0.1	---	9.8	---	---	---

	Aug. 13							
Depth of sample (ft)	1.5	6.0	18	24	30	39	48	53
Lake stage (ft)	4.87							
Specific conductance (µS/cm)	512	513	514	549	588	589	601	607
pH (units)	8.5	8.5	8.5	7.7	7.5	7.5	7.5	7.4
Water temperature (°C)	25.0	24.5	24.5	21.5	16.0	14.0	13.0	13.0
Secchi-depth (meters)	1.6							
Dissolved oxygen	9.4	9.4	9.1	0.2	0.1	0.1	0.1	0.1
Nitrogen, NO2 + NO3, diss. (as N)	<0.00	---	---	---	---	---	---	---
Nitrogen, ammonia, dissolved (as N)	0.01	---	---	---	---	---	---	---
Nitrogen, amm. + org., total (as N)	0.80	---	---	---	---	---	---	---
Nitrogen, total (as N)	0.80	---	---	---	---	---	---	---
Phosphorus, total (as P)	0.037	0.029	0.034	0.039	0.110	0.300	0.210	0.530
Phosphorus, ortho, dissolved (as P)	<0.001	---	<0.001	---	---	0.200	---	0.074
Chlorophyll a, phytoplankton (µg/L)	6.9	---	---	---	---	---	---	---



423556088365001 DELAVAN LAKE AT CENTER NEAR DELAVAN LAKE, WI--CONTINUED

ADDITIONAL WATER-QUALITY DATA, APRIL 24 TO SEPTEMBER 25, 1996
(Milligrams per liter unless otherwise indicated)

	Apr. 24	May 01	May 21	May 30	June 05	June 10	June 20	June 25	July 02	July 09
Depth of sample (ft)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lake stage (ft)	5.05	4.99	5.26	5.02	5.18	5.11	5.67	5.00	4.96	4.90
Water temperature (°C)	10.0	8.5	14.5	14.0	16.0	16.5	22.5	25.5	25.3	----
Secchi-depth (meters)	9.1	7.0	8.7	8.4	7.9	7.3	2.7	5.5	4.3	1.8
Phosphorus, total (as P)	0.070	0.060	0.068	0.062	0.069	0.070	0.091	0.095	0.060	0.088

	July 23	July 31	Aug. 07	Aug. 20	Aug. 26	Sept.03	Sept.10	Sept.18	Sept. 25
Depth of sample (ft)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lake stage (ft)	4.92	4.86	4.91	4.82	4.80	4.73	4.69	4.58	4.56
Water temperature (°C)	22.5	22.0	25.0	24.0	24.5	24.5	25.0	19.5	17.5
Secchi-depth (meters)	2.4	2.1	1.7	2.3	2.0	2.4	2.4	2.4	2.1
Phosphorus, total (as P)	0.077	0.042	0.034	0.035	0.030	0.027	0.027	0.054	0.080

423526088380101 DELAVAN LAKE, AT SW END, NEAR DELAVAN LAKE, WI

LOCATION.--Lat 42°35'26", long 88°38'01", in SE 1/4 NW 1/4, sec.32, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, 2.6 mi southeast of Delavan.

DRAINAGE AREA.--41.4 mi^2, of which 2.3 mi^2 is non-contributing.

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

WATER-QUALITY DATA, APRIL 22 TO AUGUST 13, 1996

	Apr. 22	May 13	June 12	July 16	Aug. 13
Secchi-depth (meters)	5.3	8.1	9.0	2.6	1.4

423659088354401 DELAVAN LAKE, AT NORTH END, NEAR LAKE LAWN, WI

LOCATION.--Lat 42°36'59", long 88°35'44", in NW 1/4 SW 1/4, sec.22, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, 2.6 mi southeast of Delavan.

DRAINAGE AREA.--41.4 mi^2, of which 2.3 mi^2 is non-contributing.

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

WATER-QUALITY DATA, APRIL 22 TO AUGUST 13, 1996

	Apr. 22	May 13	June 12	July 16	Aug. 13
Secchi-depth (meters)	4.7	5.6	7.5	2.0	1.4

423706088363400 DELAVAN LAKE NEAR DELAVAN, WI

LOCATION.--Lat 42°36'27", long 88°36'19", in SW 1/4 NE 1/4 sec.28, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, at Delavan Lake Sanitary District Lift Station No. 2 at Delavan Lake Yacht Club, 1.0 mi southeast of outlet, and 2.7 mi southeast of Delavan.

DRAINAGE AREA.--41.4 mi^2, of which 2.3 mi^2 is non-contributing. Area of Delavan Lake, 2,072 acres.

PERIOD OF RECORD.--October 1983 to current year. October 1983 to September 1985 data published in Water Resources Investigation series report "Water Quality and Hydrology of Delavan Lake in Southeastern Wisconsin" by Stephen J. Field and Marvin D. Duerk.

GAGE.--Water-stage recorder. Datum of gage is 922.92 ft above sea level. Prior to Sept. 5, 1989, staff gage at bridge on North Shore Drive at same datum.

REMARKS.--No estimated daily gage heights. Records good (see page 12). Lake was ice covered from Dec. 16 to Mar. 31. Lake levels controlled by Delavan Lake Sanitary District. Prior to Mar. 20, 1995, lake levels were controlled by Town of Delavan.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 6.19 ft, Feb. 21, 1994; minimum daily, -4.44 ft Nov. 6, 1989 (lake drawn down for lake rehabilitation program).

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 5.86 ft, June 18, 19; minimum, 4.55 ft, Sept. 25, 26.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.80	4.99	5.07	4.90	4.96	4.93	4.91	4.99	5.01	4.97	4.85	4.74
2	4.79	5.06	5.07	4.90	4.94	4.92	4.91	4.98	5.14	4.96	4.84	4.73
3	4.78	5.06	5.07	4.90	4.92	4.90	4.91	4.96	5.17	4.95	4.83	4.73
4	4.78	5.04	5.08	4.90	4.90	4.89	4.92	4.96	5.18	4.94	4.82	4.72
5	4.77	5.04	5.09	4.90	4.88	4.89	4.92	4.95	5.18	4.93	4.81	4.72
6	4.91	5.03	5.07	4.90	4.87	4.88	4.92	4.94	5.23	4.93	4.89	4.71
7	4.97	5.05	5.07	4.90	4.86	4.88	4.92	4.93	5.30	4.92	4.91	4.70
8	4.97	5.04	5.06	4.90	4.85	4.87	4.92	4.92	5.25	4.91	4.92	4.70
9	4.96	5.03	5.05	4.90	4.88	4.87	4.92	4.94	5.16	4.90	4.91	4.70
10	4.95	5.06	5.03	4.89	4.92	4.86	4.92	5.05	5.11	4.88	4.89	4.69
11	4.94	5.12	5.02	4.91	4.95	4.85	4.92	5.04	5.05	4.87	4.88	4.68
12	4.93	5.08	5.01	4.92	4.96	4.86	4.92	5.01	5.00	4.86	4.87	4.66
13	4.92	5.05	5.01	4.92	4.96	4.87	4.92	5.01	4.98	4.86	4.87	4.63
14	4.92	5.04	5.01	4.91	4.97	4.88	4.91	5.02	4.99	4.86	4.86	4.61
15	4.89	5.03	5.00	4.91	4.98	4.89	5.01	5.02	5.00	4.86	4.84	4.61
16	4.87	5.03	4.97	4.90	4.98	4.89	5.06	5.02	5.00	4.85	4.82	4.60
17	4.86	5.02	4.95	4.92	4.97	4.88	5.07	5.02	5.31	4.88	4.82	4.59
18	4.85	5.02	4.93	5.00	4.95	4.88	5.09	5.03	5.81	4.96	4.81	4.58
19	4.85	5.02	4.93	5.01	4.95	4.89	5.12	5.03	5.82	4.97	4.81	4.58
20	4.86	5.03	4.93	5.00	4.94	4.89	5.16	5.10	5.67	4.95	4.82	4.57
21	4.87	5.03	4.93	5.01	4.93	4.88	5.14	5.26	5.51	4.94	4.82	4.57
22	4.87	5.01	4.93	5.01	4.92	4.89	5.11	5.17	5.36	4.92	4.82	4.57
23	4.87	5.00	4.93	5.02	4.91	4.89	5.07	5.07	5.21	4.92	4.82	4.57
24	4.89	4.99	4.93	5.03	4.93	4.89	5.05	5.02	5.10	4.91	4.82	4.56
25	4.88	4.99	4.92	5.03	4.93	4.92	5.02	5.00	5.00	4.90	4.81	4.56
26	4.89	4.98	4.92	5.04	4.93	4.91	4.99	5.00	4.99	4.88	4.80	4.60
27	4.93	5.02	4.91	5.05	4.94	4.90	4.96	4.98	4.99	4.89	4.78	4.66
28	4.98	5.08	4.91	5.04	4.94	4.90	4.92	4.98	4.98	4.89	4.77	4.66
29	4.98	5.06	4.91	5.03	4.94	4.90	4.95	5.02	4.97	4.88	4.76	4.63
30	4.98	5.06	4.90	5.01	---	4.90	4.99	5.02	4.97	4.87	4.76	4.62
31	4.97	---	4.90	4.98	---	4.92	---	5.01	---	4.86	4.75	---
MEAN	4.89	5.04	4.98	4.96	4.93	4.89	4.98	5.01	5.18	4.91	4.83	4.64
MAX	4.98	5.12	5.09	5.05	4.98	4.93	5.16	5.26	5.82	4.97	4.92	4.74
MIN	4.77	4.98	4.90	4.89	4.85	4.85	4.91	4.92	4.97	4.85	4.75	4.56

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 mi^2, of which 2.3 mi^2 is non-contributing.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 914.50 ft above sea level (Public Service Commission bench mark).

REMARKS.--Estimated daily discharges: Oct. 31 to Jan. 31, Feb. 1–8, 13–15, 19–21, 26–28, Mar. 3–6, 10–12, 18–20, and May 28 to June 2. Records good except those for estimated daily discharges, which are poor (see page 12).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	16	28	7.8	23	17	4.7	46	60	3.3	8.9	.37
2	.15	33	38	7.8	23	17	6.0	47	74	3.1	13	.37
3	.17	28	48	7.8	22	13	6.2	31	92	3.3	13	.32
4	.19	19	54	7.6	22	10	6.0	29	96	3.2	13	.34
5	.19	5.8	42	7.4	21	10	5.7	30	96	3.0	13	.32
6	6.4	5.8	41	7.4	19	9.8	5.7	29	132	3.1	5.8	.31
7	44	5.6	27	7.4	18	9.7	5.7	29	186	3.5	.30	.33
8	30	5.6	24	7.4	20	9.9	5.9	30	194	4.1	.32	.37
9	19	5.6	23	7.6	25	9.6	6.7	31	139	5.2	.39	.36
10	13	30	23	7.6	38	9.8	6.4	93	111	6.7	.91	.35
11	8.3	100	23	7.6	31	4.0	6.4	104	110	8.7	4.9	.30
12	6.5	74	23	7.6	15	.35	6.2	49	76	8.3	6.6	.32
13	6.1	28	23	7.6	12	.31	6.3	27	31	7.9	1.8	.30
14	5.4	24	39	7.6	15	3.1	6.6	30	15	6.7	1.2	.30
15	8.4	18	45	7.6	13	7.9	32	38	15	5.9	1.3	.30
16	5.6	12	45	7.6	17	8.1	49	40	15	4.9	1.3	.29
17	.91	9.0	35	7.6	18	7.2	34	41	138	2.2	1.4	.28
18	.23	12	25	110	17	7.0	26	42	240	42	1.5	.28
19	.25	13	20	100	17	6.8	52	32	246	45	1.3	.28
20	.25	19	18	60	17	6.6	83	57	235	26	1.0	.29
21	.22	24	18	25	17	6.5	84	165	216	16	.47	.28
22	.22	24	18	20	17	6.6	89	187	190	13	.26	.27
23	.24	17	18	23	18	6.9	53	146	164	9.9	.28	.26
24	.24	13	18	20	17	6.7	41	80	142	15	.29	.26
25	.22	14	18	17	17	6.7	59	44	64	15	.30	.29
26	.22	14	18	20	17	8.6	56	46	20	13	.29	.25
27	19	13	18	23	17	9.4	53	48	17	3.6	.32	.10
28	35	33	13	23	17	6.8	32	35	21	4.3	.32	9.6
29	27	31	8.0	24	17	6.1	25	18	11	10	.34	23
30	19	22	8.0	24	---	5.2	42	52	11	6.7	.34	7.9
31	15	---	8.0	24	---	4.7	---	60	---	6.6	.35	---
TOTAL	271.57	668.4	807.0	642.0	557	241.36	894.5	1736	3157	309.2	94.48	48.59
MEAN	8.76	22.3	26.0	20.7	19.2	7.79	29.8	56.0	105	9.97	3.05	1.62
MAX	44	100	54	110	38	17	89	187	246	45	13	23
MIN	.15	5.6	8.0	7.4	12	.31	4.7	18	11	2.2	.26	.10
AC-FT	539	1330	1600	1270	1100	479	1770	3440	6260	613	187	96
CFSM	.22	.56	.65	.52	.48	.20	.75	1.41	2.64	.25	.08	.04
IN.	.25	.62	.75	.60	.52	.23	.84	1.62	2.95	.29	.09	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1996, BY WATER YEAR (WY)

MEAN	26.2	23.4	22.0	18.4	26.8	30.5	36.5	16.7	20.6	12.0	5.44	17.2
MAX	127	93.1	51.1	44.7	97.8	71.2	145	56.0	105	53.7	32.6	110
(WY)	1990	1986	1986	1993	1994	1986	1993	1996	1996	1993	1995	1989
MIN	.000	.003	.000	.31	.71	.41	.000	.006	.014	.025	.011	.020
(WY)	1991	1991	1990	1990	1990	1990	1990	1990	1990	1990	1991	1990

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1984 - 1996	
ANNUAL TOTAL	6867.36		9427.10			
ANNUAL MEAN	18.8		25.8		21.2	
HIGHEST ANNUAL MEAN					42.6	1993
LOWEST ANNUAL MEAN					11.0	1991
HIGHEST DAILY MEAN	161	Apr 27	246	Jun 19	406	Feb 22 1994
LOWEST DAILY MEAN	.01	Jul 10	.10	Sep 27	.00	(a)Jun 21 1989
ANNUAL SEVEN-DAY MINIMUM	.02	Jun 21	.23	Oct 20	.00	(b)Nov 14 1989
INSTANTANEOUS PEAK FLOW			248	Jun 18,19	473	Feb 22 1994
INSTANTANEOUS PEAK STAGE			7.94	Jun 18,19	8.27	Feb 22 1994
ANNUAL RUNOFF (AC-FT)	13620		18700		15380	
ANNUAL RUNOFF (CFSM)	.47		.65		.53	
ANNUAL RUNOFF (INCHES)	6.42		8.81		7.25	
10 PERCENT EXCEEDS	48		59		58	
50 PERCENT EXCEEDS	8.8		13		7.4	
90 PERCENT EXCEEDS	.17		.31		.02	

(a) Also occurred many days during 1990 and 1991 water years (lake drawn down for lake rehabilitation program)
(b) Also occurred in 1991 water year

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: Water years 1984-85, 1990-91.

TOTAL-PHOSPHORUS DISCHARGE: October 1983 to current year.

INSTRUMENTATION.--Automatic pumping sampler from October to December 1983. Manual samples from January 1984 to present.

REMARKS.--Records good except for periods of Oct. 31 to Jan. 1, Feb. 1–8, 13–15, 19–21, 26–28, Mar. 3–6, 10–12, 18–20, and May 28 to June 2, which are poor. Samples collected using equal-width increment method.

COOPERATION.--Observer furnished by Delavan 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.

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 29 tons, Feb. 25, 1985; minimum daily, 0.00 ton, on many days during 1990 and 1991 water years.

DISSOLVED CHLORIDE CONCENTRATIONS: Maximum observed, 71 mg/L, June 5, 1995; minimum observed, 40 mg/L, July 5, 1995.

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 6.00 mg/L, Jan. 5, 1990; minimum observed, <0.01 mg/L, Mar. 9-10, 1990, several days during 1992, 1994, and 1995 water years, and Oct. 2, 1995.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 585 lb, Feb. 22, 1994; minimum daily, 0.00 lb, Aug. 9, 13, 1987, and many days during 1990, 1991, and 1994 water years, Dec. 4, 1994, July 10-11, 1995, Oct. 1–5, 1995, and Sept. 27, 1996.

EXTREMES FOR CURRENT YEAR.--

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.14 mg/L, Jan. 18; minimum observed, <0.01 mg/L, Oct. 2.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 123 lb, June 19; minimum daily, 0.01 lb, Oct. 1–5 and Sept. 27.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
OCT 1995				
*02...	1520	--	0.16	<0.010
06...	0905	--	0.31	<0.010
07...	0940	--	46	<0.010
07...	1435	--	44	0.020
08...	0920	--	31	0.020
08...	1430	--	30	0.020
10...	0955	--	13	0.050
27...	0820	--	167	0.040
27...	1350	--	0.37	0.040
28...	0925	--	46	0.040
29...	0900	--	31	0.040
29...	1330	--	21	0.040
30...	0815	--	27	0.040
31...	0820	15	--	0.050
NOV				
01...	0745	16	--	0.030
02...	0845	33	--	0.070
11...	1005	100	--	0.070
11...	1320	100	--	0.090
12...	0910	74	--	0.080
13...	0925	28	--	0.070
13...	1425	28	--	0.080
14...	0850	24	--	0.060
24...	1215	13	--	0.080
DEC				
04...	0900	54	--	0.080
05...	0835	42	--	0.020
06...	0900	41	--	0.090
JAN 1996				
05...	1145	7.4	--	0.110
18...	1135	110	--	0.120
18...	1500	110	--	0.140
19...	0845	100	--	0.100
FEB 1996				
05...	0855	21	--	0.110
09...	1100	--	36	0.120
10...	0840	--	37	0.090
10...	1340	--	36	0.090
11...	0840	--	34	0.090
11...	1430	--	29	0.090
13...	0750	12	--	0.090
MAR				
04...	0825	10	--	0.080
15...	1415	--	8.7	0.070
APR				
01...	0850	--	4.6	0.020
11...	1040	--	6.6	<0.010
15...	0855	--	7.6	<0.010
15...	1425	--	47	0.010
16...	0835	--	48	<0.010
16...	1355	--	45	0.060
17...	0845	--	22	0.020
17...	1425	--	34	0.030
19...	0820	--	18	<0.010
20...	0740	--	84	0.020
21...	0740	--	83	0.030
23...	0830	--	87	0.030
24...	0845	--	15	0.070
30...	0850	--	39	0.020
30...	1430	--	43	0.020
MAY				
01...	0835	--	46	0.030
01...	1420	--	46	0.020
02...	0815	--	47	0.040
02...	1420	--	47	0.020
03...	0800	--	48	0.030
06...	0840	--	29	0.050

* Grab sample

05431022 DELAVAN LAKE OUTLET AT BORG ROAD NEAR DELAVAN, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
MAY 1996				
10...	0825	--	34	0.050
10...	1330	--	108	0.080
11...	0925	--	138	0.040
12...	0915	--	79	0.030
13...	0845	--	27	0.020
13...	1415	--	26	<0.010
14...	0820	--	26	0.030
15...	0845	--	61	0.030
21...	0910	--	90	0.020
21...	1425	--	204	0.020
22...	0850	--	193	0.030
23...	0820	--	152	0.050
23...	1455	--	149	0.030
24...	0825	--	121	0.040
JUN				
02...	0935	74	--	0.050
03...	0815	--	92	0.040
03...	1420	--	91	0.040
04...	0825	--	98	0.040
04...	1435	--	97	0.030
05...	0815	--	97	0.030
06...	0750	--	101	0.040
06...	1345	--	160	0.100
07...	0900	--	174	0.040
07...	1235	--	185	0.080
08...	0730	--	196	0.090
08...	1525	--	193	0.080
JUN 1996				
09...	0735	--	184	0.080
10...	0840	--	112	0.110
18...	0855	--	235	0.080
18...	1322	--	244	0.060
19...	0815	--	248	0.090
19...	1420	--	246	0.100
20...	0800	--	237	0.100
21...	0755	--	223	0.060
JUL				
01...	0850	--	3.6	0.050
18...	0910	--	63	0.090
18...	1410	--	53	0.090
19...	1030	--	43	0.030
19...	1400	--	35	0.080
20...	0940	--	39	0.020
21...	0945	--	17	0.080
*31...	1300	--	0.34	0.040
AUG				
05...	0910	--	13	0.070
06...	0845	--	14	0.080
07...	0910	--	0.28	0.040
*28...	0935	--	0.34	0.030
SEP				
27...	0900	--	0.10	0.030
27...	1500	--	0.10	0.010
28...	1400	--	0.10	0.010
29...	0745	--	24	0.030
30...	0900	--	0.51	0.020

* Grab sample

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	3.31	12.1	4.51	13.4	7.54	.50	6.35	15.8	.91	3.61	.06
2	.01	11.9	16.4	4.54	13.4	7.56	.60	7.19	19.1	.83	5.30	.06
3	.01	10.6	20.7	4.57	12.9	5.64	.58	4.94	20.2	.88	5.28	.05
4	.01	7.18	19.1	4.48	13.0	4.31	.52	5.71	18.1	.86	5.10	.05
5	.01	2.19	7.38	4.40	12.5	4.26	.47	6.92	16.6	.81	5.20	.05
6	.34	2.19	18.4	4.43	11.6	4.13	.43	7.86	47.4	.85	2.42	.05
7	3.43	2.12	13.2	4.46	11.2	4.03	.41	7.94	67.7	.94	.07	.05
8	3.34	2.12	11.8	4.49	12.7	4.08	.39	8.08	88.3	1.11	.07	.06
9	3.30	2.12	11.4	4.64	15.3	3.90	.41	8.49	64.0	1.39	.08	.06
10	3.24	11.3	11.5	4.67	18.7	3.94	.37	32.1	64.3	1.82	.19	.06
11	2.22	42.7	11.6	4.70	15.1	1.59	.35	23.8	62.3	2.34	1.00	.05
12	1.71	31.5	11.6	4.73	7.42	.14	.33	7.88	41.5	2.23	1.34	.05
13	1.57	11.1	11.7	4.76	5.82	.12	.34	2.42	16.3	2.15	.36	.05
14	1.39	8.03	20.0	4.80	7.24	1.18	.36	4.57	7.72	1.82	.24	.05
15	2.12	6.02	23.2	4.83	6.24	2.96	1.72	6.04	7.25	1.60	.25	.05
16	1.38	4.13	23.4	4.86	8.16	2.88	7.47	5.94	6.88	1.33	.25	.05
17	.22	3.19	18.3	4.89	8.37	2.37	4.84	5.80	61.3	.59	.27	.05
18	.06	4.37	13.2	74.1	8.24	2.13	2.44	5.45	94.0	17.1	.27	.05
19	.06	4.87	10.6	55.8	7.97	1.92	3.62	3.99	123	11.7	.23	.05
20	.06	7.33	9.61	32.6	7.92	1.73	9.57	6.44	114	4.08	.19	.05
21	.05	9.52	9.68	13.7	7.87	1.59	13.4	18.8	71.7	6.11	.08	.05
22	.05	9.79	9.74	11.0	7.99	1.50	14.4	32.6	60.4	5.06	.05	.04
23	.05	7.14	9.81	12.7	8.08	1.44	9.39	30.9	51.0	3.73	.05	.04
24	.05	5.60	9.87	11.1	7.90	1.31	14.2	16.7	43.4	5.32	.05	.04
25	.05	6.05	9.94	9.50	7.87	1.21	17.7	9.76	19.3	4.79	.05	.05
26	.05	6.05	10.0	11.2	7.65	1.43	13.6	10.5	6.02	3.92	.05	.04
27	4.12	5.62	10.1	13.0	7.60	1.46	10.3	11.2	4.98	1.03	.05	.01
28	7.52	14.3	7.32	13.1	7.56	.98	5.23	8.38	5.99	1.13	.05	.73
29	5.85	13.4	4.54	13.7	7.58	.81	3.21	4.41	3.06	2.57	.06	3.21
30	4.34	9.50	4.57	13.8	---	.64	4.85	13.1	2.91	1.55	.05	.92
31	3.62	---	4.60	13.9	---	.54	---	15.5	---	1.58	.06	---
TOTAL	50.24	265.24	385.36	377.96	287.28	79.32	142.00	339.76	1224.51	92.13	32.32	6.18

WTR YR 1996 TOTAL 3282.30

05431032 TURTLE CREEK AT DELAVAN, WI

LOCATION.--Lat 42°38'13", long 88°39'27", in NW 1/4 NW 1/4 sec.18, T.2 N., R.16 E., Walworth County, Hydrologic Unit 07090001, on left bank 0.1 mi downstream from bridge on County Highway P, 0.7 mi northwest of Post Office at Delavan.

DRAINAGE AREA.--83.3 mi^2, of which 2.33 mi^2 is noncontributing.

PERIOD OF RECORD.--June to September 1996.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 873.00 ft above sea level (levels by U.S. Geological Survey).

REMARKS.--Estimated daily discharges: June 1–7. Records good except those for estimated daily discharges, which are fair (see page 12). Some seasonal regulation caused by dams used to maintain levels of Turtle and Delavan Lakes. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	100	32	25	14
2	---	---	---	---	---	---	---	---	120	32	28	14
3	---	---	---	---	---	---	---	---	150	30	26	15
4	---	---	---	---	---	---	---	---	160	28	25	14
5	---	---	---	---	---	---	---	---	160	27	26	13
6	---	---	---	---	---	---	---	---	210	26	67	15
7	---	---	---	---	---	---	---	---	290	25	39	15
8	---	---	---	---	---	---	---	---	306	20	20	15
9	---	---	---	---	---	---	---	---	290	19	15	16
10	---	---	---	---	---	---	---	---	216	20	17	15
11	---	---	---	---	---	---	---	---	182	20	17	15
12	---	---	---	---	---	---	---	---	141	21	17	15
13	---	---	---	---	---	---	---	---	90	22	16	15
14	---	---	---	---	---	---	---	---	49	21	11	14
15	---	---	---	---	---	---	---	---	47	26	8.1	14
16	---	---	---	---	---	---	---	---	68	27	11	14
17	---	---	---	---	---	---	---	---	187	33	12	14
18	---	---	---	---	---	---	---	---	307	64	14	14
19	---	---	---	---	---	---	---	---	345	86	16	13
20	---	---	---	---	---	---	---	---	312	71	18	14
21	---	---	---	---	---	---	---	---	288	48	18	14
22	---	---	---	---	---	---	---	---	264	29	18	14
23	---	---	---	---	---	---	---	---	224	26	18	14
24	---	---	---	---	---	---	---	---	191	26	17	15
25	---	---	---	---	---	---	---	---	167	32	16	15
26	---	---	---	---	---	---	---	---	84	32	17	38
27	---	---	---	---	---	---	---	---	52	24	16	29
28	---	---	---	---	---	---	---	---	51	22	16	21
29	---	---	---	---	---	---	---	---	39	25	16	34
30	---	---	---	---	---	---	---	---	45	27	15	28
31	---	---	---	---	---	---	---	---	---	23	15	---
TOTAL	---	---	---	---	---	---	---	---	5135	964	610.1	510
MEAN	---	---	---	---	---	---	---	---	171	31.1	19.7	17.0
MAX	---	---	---	---	---	---	---	---	345	86	67	38
MIN	---	---	---	---	---	---	---	---	39	19	8.1	13
CFSM	---	---	---	---	---	---	---	---	2.05	.37	.24	.20
IN.	---	---	---	---	---	---	---	---	2.29	.43	.27	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1996, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	171	31.1	19.7	17.0
MAX	---	---	---	---	---	---	---	---	171	31.1	19.7	17.0
(WY)	---	---	---	---	---	---	---	---	1996	1996	1996	1996
MIN	---	---	---	---	---	---	---	---	171	31.1	19.7	17.0
(WY)	---	---	---	---	---	---	---	---	1996	1996	1996	1996

SUMMARY STATISTICS — FOR 1996 WATER YEAR (JUNE-SEPTEMBER)

HIGHEST DAILY MEAN	345	Jun 19
LOWEST DAILY MEAN	8.1	Aug 15
ANNUAL SEVEN-DAY MINIMUM	13	Aug 13
INSTANTANEOUS PEAK FLOW	379	Jun 19
INSTANTANEOUS PEAK STAGE	3.44	Jun 19
10 PERCENT EXCEEDS	190	
50 PERCENT EXCEEDS	25	
90 PERCENT EXCEEDS	14	

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 mi^2, of which 2.33 mi^2 is noncontributing.

PERIOD OF RECORD.--September 1939 to current year. Prior to January 1980, all records published as "Turtle Creek near Clinton" (05431500).

REVISED RECORDS.--WSP 955: 1940. WSP 1308: 1950(M). WDR WI-71-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 823 ft above sea level, from topographic map. Prior to January 17, 1940, non-recording gage, and January 17, 1940 to December 31, 1979, water-stage recorder at site 1.8 mi downstream at a different datum.

REMARKS.--Estimated daily discharges: Nov. 27 and June 14–20, and ice-affected periods, Nov. 15, 23, 24, Nov. 28 to Dec. 1, Dec. 6 to Feb. 23, Feb. 29 to Mar. 12, and Mar. 25–27. Records good except those for estimated daily discharges, which are fair (see page 12). Some seasonal regulation caused by dams used to maintain levels of Turtle and Delavan Lakes. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	140	110	66	70	80	77	185	175	128	96	71
2	60	259	116	70	70	90	77	167	472	120	97	70
3	55	208	153	66	70	80	80	154	361	116	96	69
4	56	181	170	64	70	80	83	129	313	113	93	67
5	53	146	163	64	70	80	82	120	315	110	92	67
6	148	121	150	62	70	78	80	120	481	108	157	66
7	211	95	140	62	90	78	80	110	1070	106	170	68
8	180	93	130	62	150	80	78	108	808	105	117	69
9	150	88	130	62	200	70	78	113	571	99	95	70
10	108	114	120	62	180	68	78	261	503	96	86	68
11	89	307	120	62	130	68	78	315	380	95	86	67
12	76	307	110	62	100	72	80	288	326	97	86	63
13	71	261	110	62	86	73	82	190	255	102	85	64
14	68	198	110	62	80	76	80	144	197	99	84	64
15	69	140	110	62	80	77	157	148	152	100	78	65
16	69	129	100	62	80	81	200	151	118	102	73	64
17	66	118	94	90	80	80	186	138	355	125	74	63
18	59	108	94	200	80	80	158	135	891	219	76	63
19	57	110	90	250	80	78	149	129	643	243	79	60
20	61	129	90	230	86	76	197	159	532	191	84	60
21	63	140	86	150	86	73	213	414	484	156	85	61
22	63	141	86	100	90	76	199	332	469	135	83	63
23	62	130	84	90	92	76	203	344	395	116	82	60
24	68	110	84	82	101	79	170	330	423	111	77	61
25	66	106	80	82	102	82	129	255	370	110	74	61
26	63	101	76	76	105	78	133	192	261	110	73	77
27	92	104	70	76	120	80	130	172	180	106	78	112
28	150	110	70	76	108	82	122	217	153	100	79	81
29	154	110	72	76	100	78	141	439	145	101	77	75
30	133	110	74	70	---	77	197	240	135	102	72	84
31	107	---	70	70	---	77	---	184	---	99	72	---
TOTAL	2790	4414	3262	2730	2826	2403	3797	6383	11933	3720	2756	2053
MEAN	90.0	147	105	88.1	97.4	77.5	127	206	398	120	88.9	68.4
MAX	211	307	170	250	200	90	213	439	1070	243	170	112
MIN	53	88	70	62	70	68	77	108	118	95	72	60
CFSM	.46	.75	.54	.45	.50	.39	.64	1.05	2.02	.61	.45	.35
IN.	.53	.83	.62	.52	.53	.45	.72	1.21	2.26	.70	.52	.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

MEAN	101	110	105	106	139	231	176	127	114	96.9	85.4	95.3
MAX	312	388	343	315	518	664	757	486	407	458	278	482
(WY)	1974	1986	1983	1946	1949	1959	1973	1973	1993	1978	1972	1972
MIN	30.1	37.9	34.5	24.5	30.4	55.4	52.7	31.6	35.2	24.8	21.5	19.6
(WY)	1958	1950	1965	1959	1959	1954	1958	1958	1965	1958	1958	1958

05431486 TURTLE CREEK AT CARVERS ROCK ROAD NEAR CLINTON, WI--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1939 - 1996	
ANNUAL TOTAL	37317		49067			
ANNUAL MEAN	102		134		124	
HIGHEST ANNUAL MEAN					289	1973
LOWEST ANNUAL MEAN					43.0	1958
HIGHEST DAILY MEAN	365	Apr 28	1070	Jun 7	6400	Apr 21 1973
LOWEST DAILY MEAN	44	Sep 15	53	Oct 5	16	Sep 13 1958
ANNUAL SEVEN-DAY MINIMUM	46	Sep 10	61	Sep 19	17	Sep 9 1958
INSTANTANEOUS PEAK FLOW			1170	Jun 7	(a)16500	Apr 21 1973
INSTANTANEOUS PEAK STAGE			6.98	Jun 7	(b)12.85	Apr 21 1973
INSTANTANEOUS LOW FLOW			(c)26	Mar 3	(c)8.0	Dec 29 1956
ANNUAL RUNOFF (CFSM)	.52		.68		.63	
ANNUAL RUNOFF (INCHES)	7.06		9.28		8.56	
10 PERCENT EXCEEDS	168		245		228	
50 PERCENT EXCEEDS	88		95		83	
90 PERCENT EXCEEDS	54		64		43	

(a) From rating curve extended above 6,500 ft^3/s on basis of slope-area measurement of peak flow
(b) Site and datum then in use
(c) Result of freezeup

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 mi^2.

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 sea level. Prior to Dec. 19, 1939, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 28–30, Dec. 6, and Dec. 9 to Mar. 13. Records good except those for ice-affected periods, which are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	170	125	84	130	200	134	160	200	346	171	129
2	146	397	124	84	130	190	128	143	306	291	167	128
3	118	251	125	84	120	180	131	136	280	271	161	126
4	115	178	123	84	120	160	136	134	237	258	158	125
5	114	161	125	84	120	150	135	129	221	249	162	124
6	193	154	60	82	120	140	128	126	341	240	476	122
7	275	149	121	82	130	130	126	125	757	235	649	121
8	177	140	115	82	150	120	123	126	595	229	305	123
9	147	131	110	82	230	110	120	136	474	227	234	132
10	135	138	100	84	560	110	118	769	414	218	207	128
11	125	149	96	86	900	120	118	651	373	209	195	123
12	120	122	94	88	620	130	121	388	333	227	186	119
13	116	136	94	90	320	150	123	307	299	241	179	119
14	113	131	94	90	280	170	122	264	272	215	175	118
15	112	111	94	90	250	160	131	251	251	206	168	118
16	109	133	92	90	220	144	145	240	243	197	161	117
17	108	125	92	94	190	135	140	227	1060	193	156	115
18	108	124	92	470	170	135	136	214	1060	293	152	113
19	109	123	92	860	150	130	164	204	673	278	160	111
20	117	123	92	560	170	123	178	198	550	213	170	112
21	118	120	90	300	300	117	178	208	486	199	162	119
22	114	103	90	250	280	117	161	190	438	200	176	116
23	114	100	90	220	250	117	149	181	399	271	171	113
24	121	108	90	200	350	123	141	177	602	206	157	114
25	120	129	90	190	320	177	137	169	444	192	147	114
26	114	120	88	180	290	159	135	166	370	184	144	125
27	118	118	88	170	370	134	127	165	337	178	141	155
28	128	70	86	160	280	151	121	220	315	186	137	139
29	126	130	86	150	220	133	131	327	304	215	134	124
30	118	120	86	140	---	128	173	244	405	190	131	117
31	115	---	86	140	---	132	---	210	---	175	130	---
TOTAL	3977	4264	3030	5450	7740	4375	4110	7185	13039	7032	6022	3659
MEAN	128	142	97.7	176	267	141	137	232	435	227	194	122
MAX	275	397	125	860	900	200	178	769	1060	346	649	155
MIN	108	70	60	82	120	110	118	125	200	175	130	111
CFSM	.47	.52	.36	.64	.98	.52	.50	.85	1.59	.83	.71	.45
IN.	.54	.58	.41	.74	1.05	.60	.56	.98	1.78	.96	.82	.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

MEAN	129	141	123	157	217	381	240	195	230	200	149	140
MAX	302	674	338	546	738	951	731	780	773	1796	610	487
(WY)	1985	1962	1983	1960	1953	1959	1959	1960	1969	1993	1993	1942
MIN	39.9	43.8	34.6	31.6	38.3	60.9	69.8	51.1	42.2	32.7	42.1	38.3
(WY)	1965	1965	1959	1959	1959	1957	1957	1958	1965	1965	1958	1958

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1939 - 1996	
ANNUAL TOTAL	57404		69883			
ANNUAL MEAN	157		191		192	
HIGHEST ANNUAL MEAN					534	1993
LOWEST ANNUAL MEAN					66.5	1958
HIGHEST DAILY MEAN	566	Mar 12	1060	Jun 17,18	11200	Jul 16 1950
LOWEST DAILY MEAN	(a)60	Dec 6	(a)60	Dec 6	24	(b)Jul 25 1965
ANNUAL SEVEN-DAY MINIMUM	(a)83	Feb 9	(a)83	Jan 3	25	Jul 24 1965
INSTANTANEOUS PEAK FLOW			1320	Jun 17	(c)22000	Jul 16 1950
INSTANTANEOUS PEAK STAGE			10.88	Jun 17	20.71	Jul 16 1950
INSTANTANEOUS LOW FLOW			(a,d)28	Dec 6	(d)17	Nov 29 1966
ANNUAL RUNOFF (CFSM)	.58		.70		.70	
ANNUAL RUNOFF (INCHES)	7.82		9.52		9.54	
10 PERCENT EXCEEDS	256		320		327	
50 PERCENT EXCEEDS	131		140		122	
90 PERCENT EXCEEDS	91		94		56	

(a) Ice affected
(b) Also occurred July 26, 27, 30, 1965
(c) From rating curve extended above 11,000 ft^3/s on basis of slope-area determination of peak flow
(d) Result of freezeup

05433000 EAST BRANCH PECATONICA RIVER NEAR BLANCHARDVILLE, WI

LOCATION (REVISED).--Lat 42°47'08" long 89°51'40", in SE 1/4 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 mi^2.

PERIOD OF RECORD.--September 1939 to September 1986, October 1987 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 796.8 ft above sea level. Prior to Dec. 20, 1939, nonrecording gage at bridge 50 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 6, 7, Nov. 2, 3, May 10–12, 29, and June 6–9, and ice-affected periods, Nov. 28 to Dec. 2 and Dec. 8 to Mar. 11. Records good except those for estimated daily discharges, which are poor (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	173	110	100	140	180	140	179	171	249	214	165
2	118	330	120	100	130	180	138	158	317	235	206	163
3	118	250	131	98	130	170	141	152	236	228	198	160
4	119	166	129	98	130	160	145	150	206	211	194	158
5	118	153	129	96	120	160	141	146	197	205	200	156
6	250	150	120	96	120	150	137	146	400	198	639	154
7	280	147	179	96	140	140	141	144	800	197	810	153
8	154	140	160	96	160	130	141	145	500	196	359	155
9	134	136	130	96	240	130	137	151	400	193	266	161
10	126	141	120	96	450	130	136	700	295	185	242	154
11	122	155	110	96	860	140	137	600	285	179	231	151
12	120	139	110	98	500	151	140	320	259	189	223	149
13	119	137	110	100	300	152	140	237	238	232	214	150
14	118	135	110	100	200	150	136	219	222	189	209	148
15	116	129	120	100	150	148	144	221	210	181	202	148
16	114	135	120	100	140	143	158	214	204	174	199	146
17	114	133	120	110	130	141	148	204	749	171	194	145
18	114	132	120	500	130	140	145	195	1090	1900	190	143
19	115	132	120	840	120	139	182	186	593	1780	198	141
20	122	135	110	560	140	135	196	187	411	590	220	143
21	121	133	110	350	250	132	175	205	356	340	202	146
22	119	128	110	260	200	132	158	179	331	295	289	143
23	116	124	110	230	210	131	151	174	310	315	211	140
24	123	127	110	210	240	138	147	174	407	272	192	143
25	119	134	100	190	220	184	149	168	315	268	185	142
26	117	126	100	180	200	147	149	167	280	244	182	150
27	126	130	100	170	330	138	141	167	258	230	178	170
28	140	120	100	160	210	143	138	194	245	232	174	151
29	126	110	100	150	190	137	154	290	235	287	171	143
30	120	110	100	140	---	137	220	190	297	238	168	139
31	118	---	100	140	---	140	---	173	---	218	166	---
TOTAL	4051	4390	3618	5756	6480	4528	4505	6735	10817	10621	7526	4510
MEAN	131	146	117	186	223	146	150	217	361	343	243	150
MAX	280	330	179	840	860	184	220	700	1090	1900	810	170
MIN	114	110	100	96	120	130	136	144	171	171	166	139
CFSM	.59	.66	.53	.84	1.01	.66	.68	.98	1.63	1.55	1.10	.68
IN.	.68	.74	.61	.97	1.09	.76	.76	1.13	1.82	1.79	1.27	.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1996, BY WATER YEAR (WY)

MEAN	111	118	109	125	166	266	194	161	165	151	119	118
MAX	252	311	278	354	597	574	547	584	403	885	303	331
(WY)	1985	1962	1983	1960	1948	1950	1959	1973	1993	1993	1993	1981
MIN	54.9	55.8	47.6	46.4	52.1	62.7	71.5	54.5	59.6	48.2	43.7	44.6
(WY)	1965	1965	1959	1959	1959	1957	1957	1958	1958	1958	1958	1958

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1939 - 1996	
ANNUAL TOTAL	52960		73537			
ANNUAL MEAN	145		201		150	
HIGHEST ANNUAL MEAN					338	1993
LOWEST ANNUAL MEAN					70.4	1958
HIGHEST DAILY MEAN	330	Nov 2	1900	Jul 18	7560	Feb 28 1948
LOWEST DAILY MEAN	(a)84	Feb 12,13	(a)96	Jan 5-11	41	(b)Aug 18 1958
ANNUAL SEVEN-DAY MINIMUM	(a)85	Feb 10	(a)96	Jan 5	42	Oct 1 1958
INSTANTANEOUS PEAK FLOW			2970	Jul 18	(c)11700	Feb 28 1948
INSTANTANEOUS PEAK STAGE			14.47	Jul 18	16.54	Jul 6 1993
INSTANTANEOUS LOW FLOW					(d)18	Nov 29 1966
ANNUAL RUNOFF (CFSM)	.66		.91		.68	
ANNUAL RUNOFF (INCHES)	8.91		12.38		9.22	
10 PERCENT EXCEEDS	209		296		234	
50 PERCENT EXCEEDS	133		151		110	
90 PERCENT EXCEEDS	100		113		65	

(a) Ice affected
(b) Also occurred on Sept. 1,22,23,29, Oct. 2,6, 1958, and Dec. 19,20, 1964
(c) Gage height, 15.74 ft
(d) Result of freezeup

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 mi^2.

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 sea level. Prior to Jan. 6, 1940, nonrecording gage at same site and datum. Auxiliary wire-weight gage 1.2 mi downstream, at same datum.

REMARKS.--Estimated daily discharges: Ice-affected period, Dec. 8 to Mar. 14. Records good except those for ice-affected period, which is poor (see page 12). Diurnal fluctuation at low flow caused by powerplant in Argyle, 28.2 mi upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	452	620	702	380	580	940	546	776	1110	1340	1070	709
2	470	1020	650	380	560	900	551	733	1170	1300	1010	701
3	492	1280	608	380	560	860	543	658	1290	1190	978	695
4	494	1220	602	370	540	840	544	622	1270	1110	942	685
5	476	940	603	370	540	800	550	604	1130	1060	922	677
6	656	788	581	360	540	760	548	589	1110	1020	1100	668
7	990	740	428	360	540	700	536	577	1600	984	1360	662
8	1100	702	500	350	580	660	529	573	1880	962	1670	664
9	905	672	700	350	800	640	526	598	1970	946	1710	674
10	710	646	600	350	1400	620	517	948	1930	930	1550	675
11	616	656	560	350	1600	620	513	1510	1790	902	1230	673
12	579	672	540	350	1700	660	517	1690	1620	898	1060	654
13	555	650	520	360	1700	720	524	1520	1450	936	984	642
14	536	621	520	370	1500	660	530	1240	1310	974	943	637
15	524	605	500	370	1100	643	554	1070	1190	926	908	633
16	512	585	500	370	980	630	595	996	1100	873	882	630
17	502	583	480	390	920	605	613	961	1860	852	861	622
18	497	592	470	700	860	585	601	913	2120	3280	841	617
19	504	588	470	1200	840	575	602	869	2380	4670	840	611
20	514	587	460	1400	840	562	665	850	2810	5150	885	606
21	522	590	460	1300	860	544	725	895	3170	5050	916	608
22	526	584	450	1000	880	527	708	873	3030	4300	879	612
23	520	564	450	900	900	521	654	831	2580	3210	905	610
24	539	497	440	820	940	523	614	807	2120	2330	880	602
25	539	517	440	780	1000	555	590	780	1940	1770	825	597
26	529	578	430	740	1100	620	577	753	1850	1410	793	613
27	526	582	420	700	1100	637	568	741	1650	1240	773	658
28	544	573	400	680	1000	573	548	941	1440	1160	759	686
29	584	431	400	640	1000	567	552	1540	1300	1150	743	670
30	575	601	390	620	---	561	687	1540	1270	1180	729	630
31	549	---	390	600	---	548	---	1310	---	1140	717	---
TOTAL	18037	20284	15664	18290	27460	20156	17327	29308	52440	54243	30665	19421
MEAN	582	676	505	590	947	650	578	945	1748	1750	989	647
MAX	1100	1280	702	1400	1700	940	725	1690	3170	5150	1710	709
MIN	452	431	390	350	540	521	513	573	1100	852	717	597
CFSM	.56	.65	.49	.57	.92	.63	.56	.91	1.69	1.69	.96	.63
IN.	.65	.73	.56	.66	.99	.73	.62	1.05	1.89	1.95	1.10	.70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

MEAN	527	586	514	585	803	1414	955	788	802	786	575	568
MAX	1226	2429	1492	2049	2512	3155	2943	3200	2075	5190	1752	1920
(WY)	1987	1962	1983	1960	1953	1950	1960	1973	1993	1993	1993	1965
MIN	187	211	162	147	182	259	327	234	233	181	167	166
(WY)	1957	1965	1959	1959	1959	1957	1957	1958	1965	1965	1958	1958

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	246480		323295			
ANNUAL MEAN	675		883		742	
HIGHEST ANNUAL MEAN					1720	1993
LOWEST ANNUAL MEAN					292	1964
HIGHEST DAILY MEAN	1680	May 11	5150	Jul 20	14600	Jul 1 1969
LOWEST DAILY MEAN	(a)370	Feb 12-15	(a)350	Jan 8-12	132	Nov 7 1949
ANNUAL SEVEN-DAY MINIMUM	(a)374	Feb 10	(a)353	Jan 6	140	Jan 18 1959
INSTANTANEOUS PEAK FLOW			5230	Jul 20	15100	Jul 1 1969
INSTANTANEOUS PEAK STAGE			16.13	Jul 20	21.46	Jul 1 1969
INSTANTANEOUS LOW FLOW					(b).00	Dec 14 1939
ANNUAL RUNOFF (CFSM)	.65		.85		.72	
ANNUAL RUNOFF (INCHES)	8.87		11.63		9.74	
10 PERCENT EXCEEDS	1030		1500		1330	
50 PERCENT EXCEEDS	598		671		513	
90 PERCENT EXCEEDS	430		479		252	

(a) Ice affected
(b) Result of regulation

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 mi^2.

PERIOD OF RECORD.--January 1914 to current year. Monthly discharge 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-73-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 768.14 ft above sea level. Prior to Oct. 17, 1938, nonrecording gage 20 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 27–30, Dec. 6 to Jan. 17, Jan. 26 to Feb. 11, Feb. 16–22, and Feb. 27 to Mar. 13. Records good except those for ice-affected periods, which are fair (see page 12). Some regulation from dam and powerplant upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	271	415	381	240	380	380	320	525	620	592	449	323
2	297	618	376	240	370	350	320	498	563	582	435	320
3	277	732	364	240	360	300	322	437	628	537	429	333
4	257	837	380	240	350	290	330	389	648	518	408	297
5	251	782	391	240	350	290	333	368	581	491	408	299
6	346	549	360	230	350	280	326	338	527	467	566	302
7	596	436	290	230	350	270	321	347	1000	453	823	300
8	709	414	290	230	400	270	318	343	1360	444	1120	303
9	766	390	280	230	500	270	315	355	1460	438	1070	310
10	613	387	280	230	900	280	310	546	1250	433	675	315
11	450	401	280	230	1400	290	309	736	932	418	517	309
12	379	404	270	230	1790	330	313	847	733	417	462	302
13	332	392	270	240	1730	340	319	816	659	424	427	298
14	315	375	270	250	1450	355	320	596	599	440	411	297
15	303	364	270	260	1120	353	340	489	531	404	398	296
16	296	355	260	260	800	344	363	472	498	416	386	299
17	290	351	260	270	660	336	389	449	2040	399	375	293
18	270	352	260	468	560	328	378	437	3710	3490	362	290
19	280	352	260	726	490	324	383	418	4290	3480	369	290
20	313	367	260	1100	430	317	416	416	3870	2710	406	290
21	331	378	250	1100	390	309	432	433	2490	1570	438	294
22	307	368	250	995	400	304	427	439	1660	987	415	296
23	300	349	250	784	412	303	384	426	1170	737	399	294
24	308	335	250	737	442	309	348	408	950	635	388	289
25	318	336	250	637	525	336	317	393	914	562	368	290
26	316	327	250	560	606	363	341	380	898	530	356	287
27	333	330	250	520	520	339	335	375	807	505	348	356
28	396	320	240	500	460	335	318	446	694	499	343	358
29	450	290	240	460	430	323	340	852	619	561	338	334
30	429	310	240	430	---	317	435	813	606	546	333	314
31	382	---	240	400	---	319	---	788	---	488	329	---
TOTAL	11481	12616	8762	13507	18925	9854	10422	15575	37307	25173	14551	9178
MEAN	370	421	283	436	653	318	347	502	1244	812	469	306
MAX	766	837	391	1100	1790	380	435	852	4290	3490	1120	358
MIN	251	290	240	230	350	270	309	338	498	399	329	287
CFSM	.71	.80	.54	.83	1.25	.61	.66	.96	2.38	1.55	.90	.58
IN.	.82	.90	.62	.96	1.35	.70	.74	1.11	2.65	1.79	1.03	.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 1996, BY WATER YEAR (WY)

MEAN	282	306	270	292	423	669	455	362	352	297	255	295
MAX	788	836	597	1168	1690	1698	1159	1368	1244	1248	694	1579
(WY)	1928	1962	1929	1916	1938	1929	1993	1973	1996	1993	1924	1938
MIN	126	127	120	89.4	127	181	198	140	113	117	105	106
(WY)	1965	1965	1956	1956	1959	1934	1938	1934	1934	1958	1934	1958

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1914 - 1996	
ANNUAL TOTAL	128162		187351			
ANNUAL MEAN	351		512		355	
HIGHEST ANNUAL MEAN					694	1993
LOWEST ANNUAL MEAN					172	1934
HIGHEST DAILY MEAN	1050	May 11	4290	Jun 19	10800	Mar 14 1929
LOWEST DAILY MEAN	213	Sep 16	(a)230	Jan 6-12	51	Jun 13 1934
ANNUAL SEVEN-DAY MINIMUM	218	Sep 13	(a)230	Jan 6	71	Jun 28 1934
INSTANTANEOUS PEAK FLOW			6020	Jul 18	(b)14800	Sep 13 1915
INSTANTANEOUS PEAK STAGE			8.91	Jul 18	(c)11.40	Sep 13 1915
INSTANTANEOUS LOW FLOW					35	Sep 19 1959
ANNUAL RUNOFF (CFSM)	.67		.98		.68	
ANNUAL RUNOFF (INCHES)	9.12		13.33		9.22	
10 PERCENT EXCEEDS	507		814		579	
50 PERCENT EXCEEDS	317		375		257	
90 PERCENT EXCEEDS	233		270		150	

(a) Ice affected
(b) From rating curve extended above 7,500 ft^3/s
(c) From floodmarks

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 mi^2.

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" 1903-9; as "at Rockford" 1914-19. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORD.--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 sea level (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: Dec. 10–26, Jan. 28 to Feb. 12, and May 11–22. Records good except those for estimated daily discharges, which are poor (see page 12). Low flow regulated by powerplant above station. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft^3/s, Mar. 30, 1916, gage height, 13.06 ft, site and datum then in use; minimum daily, 501 ft^3/s, Sept. 14, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1937 reached a stage of 14.6 ft (backwater from ice), from painted floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2470	5440	5060	3010	4300	6240	4810	6260	10900	13100	7380	3320
2	2800	5970	5010	2980	4300	6070	4760	6070	12300	12400	6740	3480
3	2790	6530	5360	2920	4200	5840	4780	6110	11900	11800	6300	3360
4	2920	6830	5390	2910	4200	5730	4900	6260	10900	11200	5980	3480
5	2930	7120	5510	2840	4200	5510	4840	5990	10200	10600	5630	3350
6	3420	7160	5320	2760	4300	5450	4710	5660	10200	10200	6360	3070
7	4040	7230	4900	2820	4400	5160	4680	5710	13900	9710	7360	2930
8	4600	6830	4580	3200	4500	5300	4470	5560	14400	9290	6970	2980
9	5090	6430	2920	3060	5400	5100	4470	5570	13300	8880	6830	3170
10	5580	6590	3150	2920	7400	4970	4470	6420	13200	8540	6830	3600
11	5740	6900	3300	2830	8600	4920	4430	8300	13100	8210	6890	3450
12	5560	7130	3400	2760	9000	4940	4350	8150	13000	7930	6690	2930
13	5190	6940	3500	2720	9290	5040	4380	8000	12700	7710	6230	2990
14	4710	6750	3700	2760	9150	5110	4380	7830	12200	7510	5750	2980
15	4670	6490	3700	2730	9010	5080	4720	8000	11600	7370	5410	2600
16	4630	6330	3600	2760	8730	4990	4730	7820	11000	7140	5150	3160
17	4530	6220	3600	2830	8360	5270	4820	7440	11200	7170	4730	2630
18	4410	6140	3500	3730	7790	4970	4920	7200	13300	10500	4720	2870
19	4530	6060	3600	4500	6970	5010	5050	6980	15000	15800	4690	2960
20	4430	6080	3400	4760	6070	5090	5360	7440	16300	19300	4490	2910
21	4400	6020	3350	5150	5410	5000	5530	9500	17400	17800	4390	2940
22	4350	5920	3300	5530	5190	4920	5690	8770	17900	15100	4300	2910
23	4330	5860	3300	5740	5160	4810	5770	8560	17400	13300	4060	2660
24	4170	5700	3300	5920	5200	4860	5810	8500	16900	12100	4140	3190
25	4070	5600	3300	6230	5460	4800	5600	8130	16600	11500	4050	2790
26	4150	5450	3200	5860	5730	4660	5220	7630	16000	11000	4030	3190
27	4570	5380	3140	5520	6210	4780	5460	7550	15400	10300	4160	3220
28	4790	5420	3190	5100	6340	4920	5560	8530	14800	9810	3950	3430
29	4840	5030	3040	4800	6250	4890	5660	10900	14300	9830	3560	3490
30	4880	4920	3120	4600	---	4870	6000	10800	13700	9090	3700	3480
31	5100	---	3050	4300	---	4840	---	10400	---	8180	3320	---
TOTAL	134690	186470	117790	120550	181120	159140	150330	236040	411000	332370	164790	93520
MEAN	4345	6216	3800	3889	6246	5134	5011	7614	13700	10720	5316	3117
MAX	5740	7230	5510	6230	9290	6240	6000	10900	17900	19300	7380	3600
MIN	2470	4920	2920	2720	4200	4660	4350	5560	10200	7140	3320	2600
CFSM	.68	.98	.60	.61	.98	.81	.79	1.20	2.15	1.68	.84	.49
IN.	.79	1.09	.69	.70	1.06	.93	.88	1.38	2.40	1.94	.96	.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

MEAN	3050	3484	3247	3203	3699	7285	7288	5135	4121	3542	2766	2824
MAX	13340	11320	9049	9432	7984	13920	18530	17770	13700	17000	9039	7753
(WY)	1987	1986	1983	1960	1974	1974	1993	1973	1996	1993	1993	1972
MIN	857	1100	1004	800	1000	1692	2476	1103	1248	1056	793	780
(WY)	1965	1940	1959	1940	1940	1954	1958	1958	1977	1965	1958	1958

05437500 ROCK RIVER AT ROCKTON, IL--CONTINUED

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	1528570		2287810			
ANNUAL MEAN	4188		6251		4137	
HIGHEST ANNUAL MEAN					9484	1993
LOWEST ANNUAL MEAN					1568	1958
HIGHEST DAILY MEAN	9940	May 16	19300	Jul 20	29700	Mar 25 1975
LOWEST DAILY MEAN	(a)2100	Feb 15-17	2470	Oct 1	501	Sep 14 1958
ANNUAL SEVEN-DAY MINIMUM	(a)2140	Feb 12	(a)2770	Jan 11	622	Oct 2 1958
INSTANTANEOUS PEAK FLOW			19500	Jul 20	30000	Mar 25 1975
INSTANTANEOUS PEAK STAGE			11.49	Jul 20	15.54	Mar 25 1975
INSTANTANEOUS LOW FLOW			1750	Oct 1		
ANNUAL RUNOFF (CFSM)	.66		.98		.65	
ANNUAL RUNOFF (INCHES)	8.94		13.38		8.83	
10 PERCENT EXCEEDS	6450		11100		8320	
50 PERCENT EXCEEDS	3900		5280		3080	
90 PERCENT EXCEEDS	2450		3050		1280	

(a) Ice affected

05438283 PISCASAW CREEK NEAR WALWORTH, WI

LOCATION.--Lat 42°31'18", long 88°39'39", in NE 1/4 NE 1/4 sec.25, T.1 N., R.15 E., Walworth County, Hydrologic Unit 07090006, on right bank 0.9 mi upstream from County Trunk Highway B bridge, 3.2 mi southwest of Walworth.

DRAINAGE AREA.--9.58 mi^2.

PERIOD OF RECORD.--September 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 935 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records are fair (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.9	1.2	.74	.68	.74	.68	1.3	4.4	2.9	2.0	1.5
2	1.2	2.5	1.2	.79	.68	1.2	.70	1.3	18	2.8	1.9	1.5
3	1.3	1.8	1.7	.77	.68	.71	.71	1.3	8.7	2.7	1.8	1.5
4	1.2	1.5	1.5	.73	.68	.71	.68	1.4	5.3	2.7	1.8	1.5
5	1.3	1.3	1.4	.72	.68	.69	.70	1.4	4.4	2.7	1.8	1.5
6	2.3	1.2	1.3	.68	.65	.68	.71	1.5	20	2.7	8.4	1.5
7	1.9	1.2	1.2	.68	.65	.68	.74	1.6	27	2.7	2.4	1.5
8	1.4	1.1	1.2	.68	9.8	.69	.74	1.5	8.0	2.7	2.1	1.6
9	1.3	1.1	1.2	.68	7.0	.61	.77	1.4	5.5	2.5	2.0	1.7
10	1.2	2.1	1.1	.68	4.9	.58	.82	2.5	5.0	2.5	2.0	1.7
11	1.2	2.9	1.1	.68	1.3	.58	.84	2.2	4.1	2.3	1.8	1.7
12	1.1	1.9	.99	.68	.87	.63	.88	1.9	3.4	2.3	1.9	1.7
13	1.3	1.6	.99	.68	.80	.63	.94	1.7	3.0	2.2	1.8	1.7
14	1.4	1.6	.99	.68	.75	.65	1.1	1.5	2.7	2.2	1.9	1.7
15	1.2	1.5	.99	.67	.74	.68	1.9	1.4	2.6	2.1	1.8	1.7
16	1.1	1.3	.95	.68	.74	.68	1.6	1.3	2.5	2.0	1.8	1.7
17	1.1	1.3	.89	1.1	.74	.68	1.3	1.2	192	2.8	1.8	1.8
18	1.1	1.2	.89	12	.74	.68	1.2	1.0	23	5.9	1.8	1.5
19	1.1	1.3	.89	1.8	.74	.72	1.1	1.0	8.2	3.1	1.8	1.3
20	1.1	1.4	.89	1.2	.74	.74	1.5	3.3	6.3	2.7	1.8	1.3
21	1.1	1.5	.89	1.0	.74	.70	1.2	6.6	7.2	2.6	1.8	1.5
22	1.0	1.3	.89	.89	.74	.68	1.1	2.6	5.8	2.5	1.9	1.5
23	.98	1.3	.89	.81	.74	.68	1.0	2.4	8.7	2.4	1.8	1.5
24	1.0	1.2	.89	.80	.74	.69	1.0	2.3	8.3	2.3	1.8	1.6
25	1.1	1.2	.85	.80	.74	.72	.98	2.0	4.7	2.3	1.8	1.4
26	1.1	1.2	.81	.74	.74	.64	.90	1.8	4.0	2.1	1.8	1.9
27	1.3	1.4	.74	.74	1.3	.66	.93	1.8	3.6	2.0	1.6	1.8
28	1.3	1.4	.74	.74	.93	.68	.95	3.1	3.1	2.0	1.4	1.7
29	1.2	1.3	.76	.73	.79	.68	1.1	5.1	3.0	2.0	1.4	1.6
30	1.1	1.2	.78	.68	---	.68	1.3	2.9	2.9	2.0	1.4	1.5
31	1.1	---	.74	.68	---	.68	---	2.5	---	2.0	1.5	---
TOTAL	38.38	44.7	31.55	35.93	42.02	21.45	30.07	64.8	405.4	78.7	62.6	47.6
MEAN	1.24	1.49	1.02	1.16	1.45	.69	1.00	2.09	13.5	2.54	2.02	1.59
MAX	2.3	2.9	1.7	12	9.8	1.2	1.9	6.6	192	5.9	8.4	1.9
MIN	.98	1.1	.74	.67	.65	.58	.68	1.0	2.5	2.0	1.4	1.3
CFSM	.13	.16	.11	.12	.15	.07	.10	.22	1.41	.27	.21	.17
IN.	.15	.17	.12	.14	.16	.08	.12	.25	1.57	.31	.24	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1996, BY WATER YEAR (WY)

MEAN	1.98	2.12	2.27	2.58	4.48	4.89	4.37	2.64	7.96	2.89	2.19	2.13
MAX	3.68	3.29	4.54	5.85	12.6	12.0	12.4	4.40	15.0	6.22	4.27	4.48
(WY)	1994	1993	1993	1993	1994	1993	1993	1993	1993	1993	1993	1993
MIN	1.24	1.41	1.02	1.16	1.23	.69	1.00	1.95	1.38	1.07	1.02	.89
(WY)	1996	1995	1996	1996	1995	1996	1996	1995	1995	1995	1995	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1992 - 1996	
ANNUAL TOTAL	469.05		903.20			
ANNUAL MEAN	1.29		2.47		3.35	
HIGHEST ANNUAL MEAN					6.41	1993
LOWEST ANNUAL MEAN					1.32	1995
HIGHEST DAILY MEAN	5.4	Apr 27	192	Jun 17	192	Jun 17 1996
LOWEST DAILY MEAN	.74	(a)Dec 27	.58	Mar 10,11	.58	Mar 10,11 1996
ANNUAL SEVEN-DAY MINIMUM	.77	Dec 25	.62	Mar 9	.62	Mar 9 1996
INSTANTANEOUS PEAK FLOW			544	Jun 17	544	Jun 17 1996
INSTANTANEOUS PEAK STAGE			9.56	Jun 17	10.05	Jun 30 1993
INSTANTANEOUS LOW FLOW			.58	(b)Mar 9	.58	(b)Mar 9 1996
ANNUAL RUNOFF (CFSM)	.13		.26		.35	
ANNUAL RUNOFF (INCHES)	1.82		3.51		4.76	
10 PERCENT EXCEEDS	1.8		3.0		4.9	
50 PERCENT EXCEEDS	1.2		1.3		1.9	
90 PERCENT EXCEEDS	.89		.68		.94	

(a) Also occurred Dec. 28, 31
(b) Also occurred Mar. 10-12, 1996

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 mi^2.

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 and crest-stage gage. Datum of gage is 662.00 ft above sea level. 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: Dec. 10 to Mar. 13 and June 12. Records good except those for June 6–11, which are fair, and those for estimated daily discharges, which are poor (see page 12). Recording rain gage and gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	88	100	34	30	190	44	232	285	66	17	.85
2	3.7	105	122	33	26	190	43	233	262	67	16	.66
3	3.1	146	154	30	23	160	43	223	252	49	14	.58
4	3.6	174	175	27	21	115	45	202	267	29	12	.48
5	3.2	184	188	24	21	75	46	172	312	23	12	.37
6	6.5	184	189	22	21	64	46	142	313	19	46	.37
7	23	169	185	20	23	56	43	118	338	16	52	4.2
8	34	140	169	20	40	42	39	102	414	13	35	17
9	40	107	148	19	70	36	35	95	447	10	23	18
10	34	94	105	19	110	32	33	289	479	8.6	17	13
11	28	191	74	19	150	30	33	414	497	7.9	18	8.3
12	24	286	54	20	160	35	34	419	485	7.7	15	5.4
13	21	344	49	23	160	56	38	412	463	8.3	11	3.8
14	19	380	45	24	140	63	39	391	423	9.2	8.2	3.1
15	17	398	45	24	110	61	81	369	379	9.8	6.1	2.6
16	15	398	50	25	85	55	179	347	334	10	5.7	2.6
17	16	382	49	30	64	47	249	323	305	16	5.2	2.4
18	12	359	45	100	50	40	291	297	387	220	3.8	2.2
19	12	330	44	180	38	35	317	265	441	260	4.0	1.7
20	23	297	42	250	35	30	330	336	455	216	4.1	1.2
21	43	266	40	280	35	30	331	579	469	157	4.6	1.1
22	50	237	38	280	35	29	327	962	483	99	4.1	1.8
23	47	209	36	250	34	28	319	1160	457	62	3.4	1.9
24	43	178	35	200	35	32	305	1040	418	44	2.8	1.7
25	37	142	33	160	40	59	289	848	368	37	2.6	1.3
26	34	112	31	130	60	77	267	650	309	32	2.0	3.2
27	34	97	30	95	80	72	238	521	246	29	1.5	24
28	46	98	32	72	130	60	201	458	182	26	1.2	27
29	80	95	30	51	180	52	180	417	123	23	1.3	16
30	97	95	29	41	---	48	214	372	78	21	1.2	11
31	95	---	32	34	---	46	---	329	---	19	1.0	---
TOTAL	950.4	6285	2398	2536	2006	1945	4679	12717	10671	1614.5	350.8	177.81
MEAN	30.7	209	77.4	81.8	69.2	62.7	156	410	356	52.1	11.3	5.93
MAX	97	398	189	280	180	190	331	1160	497	260	52	27
MIN	3.1	88	29	19	21	28	33	95	78	7.7	1.0	.37
CFSM	.25	1.70	.63	.67	.56	.51	1.27	3.34	2.89	.42	.09	.05
IN.	.29	1.90	.73	.77	.61	.59	1.42	3.85	3.23	.49	.11	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1996, BY WATER YEAR (WY)

MEAN	43.8	73.6	96.2	64.9	94.5	224	225	119	79.7	57.8	46.1	57.5
MAX	364	390	382	279	327	673	718	410	356	363	417	410
(WY)	1987	1986	1983	1993	1974	1979	1993	1996	1996	1978	1978	1972
MIN	.056	2.75	3.06	1.46	2.35	14.9	33.4	6.15	1.90	.78	.87	.060
(WY)	1995	1972	1977	1977	1977	1968	1977	1977	1988	1988	1988	1994

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1967 - 1996	
ANNUAL TOTAL	35447.36		46330.51			
ANNUAL MEAN	97.1		127		98.7	
HIGHEST ANNUAL MEAN					206	1993
LOWEST ANNUAL MEAN					9.24	1977
HIGHEST DAILY MEAN	797	Apr 30	1160	May 23	2100	Mar 21 1979
LOWEST DAILY MEAN	.91	Jul 11,12	.37	Sep 5,6	.00	(a)
ANNUAL SEVEN-DAY MINIMUM	1.0	Jul 9	.62	Aug 31	.00	Jul 27 1988
INSTANTANEOUS PEAK FLOW			1200	May 23	(b)2120	Mar 21 1979
INSTANTANEOUS PEAK STAGE			8.31	May 23	10.75	(c)Mar 6 1976
INSTANTANEOUS LOW FLOW			.37	(d)		
ANNUAL RUNOFF (CFSM)	.79		1.03		.80	
ANNUAL RUNOFF (INCHES)	10.72		14.01		10.90	
10 PERCENT EXCEEDS	272		351		275	
50 PERCENT EXCEEDS	45		46		32	
90 PERCENT EXCEEDS	3.7		4.1		2.9	

(a) At times in most years
(b) Gage height, 9.69 ft
(c) Also occurred Sept. 27, 1986
(d) All or part of each day Sept. 4-7

05543800 FOX RIVER, AT WATERTOWN ROAD, NEAR WAUKESHA, WI

LOCATION.--Lat 43°03'12", long 88°11'41", in NW 1/4 SE 1/4 sec.24, T.7 N., R.19 E., Waukesha County, Hydrologic Unit 07120006, on left bank at upstream side of Watertown Road bridge, 3.5 mi northeast of Waukesha.

DRAINAGE AREA.--77.4 mi^2.

PERIOD OF RECORD.--December 1992 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 820 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records are good (see page 12). Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	100	60	36	43	109	58	156	48	76	37	23
2	23	174	73	37	47	94	57	137	133	75	36	20
3	21	165	84	33	42	84	55	129	176	74	32	21
4	22	137	92	36	39	57	66	109	149	62	31	21
5	21	118	96	33	36	50	70	90	111	56	30	22
6	94	105	80	32	33	45	65	78	129	51	73	23
7	170	86	83	33	34	42	60	72	197	48	49	23
8	129	68	70	32	48	42	55	68	271	47	37	28
9	85	57	55	31	81	38	51	74	281	48	31	50
10	61	59	47	31	117	39	51	165	273	46	28	37
11	48	102	40	32	140	40	49	229	256	45	26	33
12	40	91	36	33	116	51	52	204	228	43	26	28
13	34	84	36	34	129	69	55	174	195	43	26	26
14	32	70	41	35	114	88	55	149	159	45	25	22
15	31	64	46	34	89	90	100	162	120	43	23	24
16	29	59	47	33	74	83	180	175	86	51	22	26
17	26	54	45	37	64	74	181	163	273	46	23	28
18	26	54	44	141	55	66	157	147	503	119	24	31
19	26	59	44	205	51	64	157	130	653	115	38	27
20	35	71	43	175	50	60	176	115	687	93	51	26
21	41	78	38	137	52	56	173	120	567	84	37	28
22	41	72	38	122	51	54	154	104	437	71	36	28
23	37	59	39	111	55	51	137	89	336	58	33	34
24	40	51	39	93	70	53	119	80	282	50	28	36
25	39	50	38	73	86	70	103	71	228	48	24	37
26	36	48	36	59	101	71	93	65	191	46	25	61
27	76	46	35	53	177	67	84	60	165	42	23	78
28	107	45	35	51	165	63	76	58	142	40	23	42
29	89	52	34	50	125	57	95	55	120	43	23	31
30	75	50	34	54	---	54	162	51	97	43	22	27
31	63	---	35	49	---	56	---	47	---	39	25	---
TOTAL	1618	2328	1563	1945	2284	1937	2946	3526	7493	1790	967	941
MEAN	52.2	77.6	50.4	62.7	78.8	62.5	98.2	114	250	57.7	31.2	31.4
MAX	170	174	96	205	177	109	181	229	687	119	73	78
MIN	21	45	34	31	33	38	49	47	48	39	22	20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1996, BY WATER YEAR (WY)

MEAN	47.0	58.4	54.9	55.1	66.4	109	176	88.7	122	99.1	47.4	48.4
MAX	57.4	77.6	84.6	86.0	109	163	418	114	250	178	59.7	109
(WY)	1994	1996	1993	1993	1994	1994	1993	1996	1996	1993	1995	1993
MIN	31.5	45.7	40.4	23.4	29.7	62.5	72.3	41.7	28.5	25.2	31.2	25.4
(WY)	1995	1994	1994	1994	1995	1996	1994	1994	1994	1995	1996	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1993 - 1996	
ANNUAL TOTAL	21130		29338			
ANNUAL MEAN	57.9		80.2		66.6	
HIGHEST ANNUAL MEAN					80.2	1996
LOWEST ANNUAL MEAN					53.5	1995
HIGHEST DAILY MEAN	220	Apr 28	687	Jun 20	1130	Apr 21 1993
LOWEST DAILY MEAN	16	Sep 15,16	20	Sep 2	16	Sep 15,16 1995
ANNUAL SEVEN-DAY MINIMUM	18	Sep 10	22	Sep 1	18	Sep 10 1995
INSTANTANEOUS PEAK FLOW			717	Jun 19	1170	Apr 21 1993
INSTANTANEOUS PEAK STAGE			10.48	Jun 19	11.55	Apr 21 1993
INSTANTANEOUS LOW FLOW			15	Sep 4,7	13	Sep 16 1995
10 PERCENT EXCEEDS	117		162		175	
50 PERCENT EXCEEDS	41		54		51	
90 PERCENT EXCEEDS	22		27		24	

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 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 793.04 ft above sea level (levels by City of Waukesha).

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 10, 11, Jan. 30 to Feb. 9, and Mar. 3, 7, 8. Records good except those for ice-affected periods, which are fair (see page 12). There is occasional regulation from mill dam 1.0 mi upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	156	107	56	60	143	89	219	88	156	73	27
2	40	222	118	57	60	125	89	191	203	166	71	26
3	37	216	130	50	58	100	88	169	234	157	67	27
4	36	182	141	58	56	86	98	143	206	137	63	26
5	40	152	146	53	54	80	103	121	163	128	94	27
6	187	136	127	52	52	70	98	109	195	112	143	27
7	233	120	130	52	54	66	92	102	333	84	97	31
8	192	100	117	50	70	62	85	97	429	74	64	60
9	135	85	91	50	110	58	80	108	431	66	51	67
10	105	114	84	49	168	57	78	248	387	60	43	50
11	86	154	76	51	199	61	78	301	357	59	39	48
12	72	143	71	52	163	76	80	260	328	56	38	46
13	63	129	70	48	162	99	82	215	297	53	37	43
14	58	123	81	45	147	118	82	195	255	54	37	34
15	53	118	85	43	123	123	146	216	210	83	34	31
16	51	115	82	43	106	117	230	252	179	68	33	19
17	48	108	79	60	92	109	231	256	503	71	36	24
18	44	106	80	211	82	99	208	240	773	203	33	27
19	46	110	80	255	78	96	203	218	856	178	58	32
20	51	121	77	262	80	90	224	204	870	140	74	22
21	57	130	70	157	82	85	223	197	747	121	56	24
22	58	124	68	137	79	83	198	182	595	104	54	32
23	57	110	65	127	83	78	180	161	470	89	48	27
24	55	100	64	113	99	83	164	146	416	85	39	25
25	53	100	61	94	117	104	145	140	351	86	34	25
26	50	96	57	81	159	106	134	133	301	84	36	79
27	115	94	56	72	225	100	123	125	271	78	34	121
28	143	83	54	69	213	96	113	121	244	74	31	73
29	120	103	52	66	170	88	150	113	212	85	33	46
30	104	96	53	64	---	84	216	104	184	81	30	39
31	94	---	55	62	---	85	---	74	---	76	28	---
TOTAL	2520	3746	2627	2639	3201	2827	4110	5360	11088	3068	1608	1185
MEAN	81.3	125	84.7	85.1	110	91.2	137	173	370	99.0	51.9	39.5
MAX	233	222	146	262	225	143	231	301	870	203	143	121
MIN	36	83	52	43	52	57	78	74	88	53	28	19
CFSM	.65	.99	.67	.68	.88	.72	1.09	1.37	2.93	.79	.41	.31
IN.	.74	1.11	.78	.78	.95	.83	1.21	1.58	3.27	.91	.47	.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1996, BY WATER YEAR (WY)

MEAN	75.2	84.5	84.8	63.8	85.3	195	210	122	88.6	72.9	57.6	75.3
MAX	346	303	207	188	213	451	598	371	370	271	146	385
(WY)	1987	1986	1992	1973	1984	1974	1993	1990	1996	1993	1980	1986
MIN	6.44	8.14	4.80	6.35	6.26	22.5	53.4	26.6	19.0	9.33	8.23	6.44
(WY)	1964	1964	1964	1964	1964	1968	1963	1977	1964	1963	1963	1963

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1963 - 1996	
ANNUAL TOTAL	31992		43979			
ANNUAL MEAN	87.6		120		103	
HIGHEST ANNUAL MEAN					193	1993
LOWEST ANNUAL MEAN					31.6	1964
HIGHEST DAILY MEAN	317	Aug 30	870	Jun 20	2160	Apr 22 1973
LOWEST DAILY MEAN	24	Jul 14	19	Sep 16	3.2 (a)	Dec 29-31 1963
ANNUAL SEVEN-DAY MINIMUM	26	Jul 8	26	Sep 15	3.3	Dec 26 1963
INSTANTANEOUS PEAK FLOW			967	Jun 18	2260	Apr 22 1973
INSTANTANEOUS PEAK STAGE			6.10	Jun 18	7.42	Apr 22 1973
ANNUAL RUNOFF (CFSM)	.70		.95		.82	
ANNUAL RUNOFF (INCHES)	9.45		12.98		11.11	
10 PERCENT EXCEEDS	171		220		224	
50 PERCENT EXCEEDS	66		88		62	
90 PERCENT EXCEEDS	32		39		18	

(a) Also occurred Jan. 1, 1964

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 mi^2.

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

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 779.23 ft above sea level (Southeastern Wisconsin Regional Planning Commission bench mark). Prior to Oct. 19, 1981, at datum 0.85 ft higher.

REMARKS.--Estimated daily discharges: Dec. 7, Feb. 1–9, 28, and Apr. 13–16. Records good except those for estimated daily discharges, which are fair (see page 12). Discharge affected by manipulation of gates at dams 800 ft and 11.4 mi upstream. Gage-height telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	78	67	31	18	61	34	76	22	30	25	21
2	28	86	81	33	32	58	37	74	61	32	26	21
3	30	96	81	33	31	53	41	69	97	33	28	20
4	28	101	78	34	31	26	67	64	107	33	29	18
5	24	94	77	33	31	16	72	60	101	32	51	19
6	74	85	73	33	31	20	65	27	95	32	101	20
7	122	58	66	34	32	24	59	14	98	32	107	19
8	135	46	60	34	37	27	30	19	103	31	111	20
9	124	43	55	35	50	31	21	30	109	31	86	22
10	50	47	51	35	64	33	25	75	130	33	70	23
11	26	57	47	38	67	37	32	95	130	38	62	25
12	32	60	31	39	120	45	62	114	120	44	58	23
13	35	64	8.9	39	130	74	69	110	45	39	26	22
14	67	60	12	39	95	85	68	98	16	39	12	21
15	70	57	16	39	59	78	70	69	21	40	13	20
16	32	57	20	52	56	72	72	61	26	37	15	19
17	17	57	23	67	28	67	73	61	101	38	16	19
18	17	57	27	90	19	36	76	62	163	86	18	19
19	19	55	30	97	24	21	99	61	206	102	27	19
20	21	55	50	93	27	25	105	62	145	101	62	21
21	22	54	56	88	33	29	98	65	113	91	77	21
22	21	52	52	83	38	31	92	65	112	83	73	21
23	22	49	49	79	65	36	67	63	102	53	74	19
24	32	46	46	78	76	44	54	60	95	29	50	19
25	35	45	44	76	70	101	53	57	60	32	25	18
26	36	22	24	77	65	107	52	54	49	34	19	24
27	71	16	17	75	68	44	29	50	47	26	20	71
28	87	23	20	69	66	19	20	50	33	21	22	69
29	81	24	24	68	63	22	42	49	23	23	24	45
30	76	33	26	36	---	26	76	26	23	24	22	38
31	71	---	29	15	---	31	---	18	---	25	22	---
TOTAL	1528	1677	1340.9	1672	1526	1379	1760	1858	2553	1324	1371	756
MEAN	49.3	55.9	43.3	53.9	52.6	44.5	58.7	59.9	85.1	42.7	44.2	25.2
MAX	135	101	81	97	130	107	105	114	206	102	111	71
MIN	17	16	8.9	15	18	16	20	14	16	21	12	18
CFSM	.67	.75	.58	.73	.71	.60	.79	.81	1.15	.58	.60	.34
IN.	.77	.84	.67	.84	.77	.69	.88	.93	1.28	.66	.69	.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1996, BY WATER YEAR (WY)

MEAN	48.6	57.9	56.1	46.8	53.2	78.3	78.8	63.2	51.3	44.3	45.5	48.2
MAX	98.7	110	83.7	77.8	83.7	151	150	155	138	80.8	83.5	88.7
(WY)	1987	1986	1983	1974	1974	1974	1993	1975	1975	1993	1979	1986
MIN	25.5	29.2	26.2	22.8	31.1	43.9	43.3	16.9	14.4	13.3	18.5	23.4
(WY)	1990	1977	1990	1977	1978	1981	1977	1977	1988	1988	1991	1995

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1973 - 1996	
ANNUAL TOTAL	16280.9		18744.9			
ANNUAL MEAN	44.6		51.2		55.8	
HIGHEST ANNUAL MEAN					90.3	1974
LOWEST ANNUAL MEAN					30.8	1977
HIGHEST DAILY MEAN	164	Aug 20	206	Jun 19	275	Mar 6 1974
LOWEST DAILY MEAN	8.9	Dec 13	8.9	Dec 13	1.8	Dec 23 1975
ANNUAL SEVEN-DAY MINIMUM	15	Jul 9	18	Aug 13	6.8	Oct 31 1988
INSTANTANEOUS PEAK FLOW			224	Jun 19	(a)300	Mar 5 1976
INSTANTANEOUS PEAK STAGE			3.23	Jun 19	3.55	Sep 29 1986
ANNUAL RUNOFF (CFSM)	.60		.69		.75	
ANNUAL RUNOFF (INCHES)	8.17		9.41		10.24	
10 PERCENT EXCEEDS	79		96		102	
50 PERCENT EXCEEDS	37		44		48	
90 PERCENT EXCEEDS	19		20		22	

(a) Gage height, 2.50 ft, datum then in use

425109088075000 MUSKEGO LAKE OUTLET NEAR WIND LAKE, WI

LOCATION.--Lat 42°51'09", long 88°07'50", in SE 1/4 NE 1/4 sec.33, T.5 N ., R.20 E., Waukesha County, Hydrologic Unit 07120006, on right bank at dam outlet of Muskego Lake, 700 ft north of Muskego Dam Drive, 2 mi northeast of Wind Lake.

DRAINAGE AREA.--28.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1987 to September 1989, October 1995 to September 1996.

GAGE.--Water-stage recorder. Datum of gage is 760.00 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 18, 1987, non-recording gage at same site and datum, October 1989 to September 1995, nonrecording gage at same datum.

REMARKS.--Flows were significantly influenced by the drawdown of Muskego Lake as part of a rehabilitation project on the lake. Flows were regulated by variable gate openings, pumps, and siphon tubes. Flows were calculated using a slope/conveyance relation for the canal between Muskego Lake Dam and Wind Lake. Accuracy of calculated flow was fair. Estimated daily discharges: Dec. 29 to Feb. 9, Mar. 5–7, Apr. 8, May 1, 4–9, 14, 18–22, May 28 to June 6, June 16, July 11 to Sept. 30. Accuracy of estimated daily flows range from poor to fair (see page 12). Knowledge of pump operating times and flow rates along with numerous measurements of flow by current meter (about 30 during year) were the basis of estimating flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	53	41	13	13	33	23	12	11	50	3.4	.00
2	36	46	40	13	13	34	7.0	7.0	11	51	6.7	1.8
3	43	48	41	13	13	54	27	23	15	52	1.5	1.0
4	43	46	42	13	4.0	15	46	33	16	49	2.2	.40
5	34	40	33	11	.00	.00	10	11	15	48	12	.00
6	46	44	37	11	2.0	.00	8.3	30	11	47	17	.00
7	44	51	41	11	4.0	.00	7.2	35	67	47	17	.00
8	29	50	40	14	5.0	23	5.0	32	71	37	17	.00
9	45	52	36	18	30	47	4.9	40	79	27	17	.00
10	58	43	28	20	47	42	3.5	40	71	18	17	.90
11	55	40	25	19	55	42	3.6	50	61	17	17	.00
12	54	47	24	18	56	44	11	35	41	17	13	.00
13	59	48	25	17	55	53	9.7	27	45	17	3.2	.00
14	54	51	27	15	55	47	8.0	28	51	6.6	1.8	.00
15	43	55	28	15	60	39	33	30	45	8.3	3.0	.00
16	49	54	29	18	61	38	56	37	42	4.6	.00	.00
17	42	55	29	18	60	38	37	17	40	3.8	4.8	3.1
18	42	54	30	18	61	39	25	36	63	11	1.5	.00
19	48	46	32	17	61	35	25	35	71	20	7.0	.60
20	47	43	33	16	61	26	34	34	77	18	9.3	.00
21	39	41	33	16	59	28	50	32	67	14	3.3	.00
22	41	45	31	15	52	37	58	30	68	12	3.5	.00
23	44	44	30	14	42	30	53	30	66	10	5.1	.60
24	39	40	29	13	38	22	41	36	66	2.0	2.5	.20
25	45	39	28	13	40	14	22	29	67	6.7	1.8	.00
26	43	42	25	13	41	36	38	35	69	8.3	3.2	.00
27	42	38	22	13	44	39	33	12	69	3.5	4.5	.00
28	39	34	22	13	56	41	35	16	63	5.3	1.2	.00
29	34	38	18	13	44	38	49	18	53	6.2	3.5	.00
30	44	40	13	13	---	36	14	18	54	12	.50	.10
31	53	---	13	13	---	55	---	18	---	7.3	.00	---
TOTAL	1370	1367	925	457	1132.00	1025.00	777.2	866.0	1545	636.6	200.50	8.70
MEAN	44.2	45.6	29.8	14.7	39.0	33.1	25.9	27.9	51.5	20.5	6.47	.29
MAX	59	55	42	20	61	55	58	50	79	52	17	3.1
MIN	29	34	13	11	.00	.00	3.5	7.0	11	2.0	.00	.00
CFSM	1.56	1.61	1.05	.52	1.38	1.17	.92	.99	1.82	.73	.23	.01
IN.	1.80	1.80	1.22	.60	1.49	1.35	1.02	1.14	2.03	.84	.26	.01
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1996, BY WATER YEAR (WY)												
MEAN	16.2	17.8	27.4	23.2	34.8	29.7	29.0	12.3	17.2	6.94	4.47	10.3
MAX	44.2	45.6	44.2	43.9	51.2	33.1	46.5	27.9	51.5	20.5	6.94	30.6
(WY)	1996	1996	1988	1988	1988	1996	1988	1996	1996	1996	1989	1989
MIN	.000	.25	8.30	10.9	13.3	27.0	14.6	1.60	.003	.000	.000	.000
(WY)	1989	1989	1989	1989	1989	1989	1989	1989	1989	1988	1988	1988

SUMMARY STATISTICS	FOR 1996 WATER YEAR		WATER YEARS 1988 - 1996	
ANNUAL TOTAL	10310.00			
ANNUAL MEAN	28.2		19.4	
HIGHEST ANNUAL MEAN			28.2	1996
LOWEST ANNUAL MEAN			9.42	1989
HIGHEST DAILY MEAN	79	Jun 9	115	Apr 8 1988
LOWEST DAILY MEAN	.00	Feb 5	.00	May 26 1988
ANNUAL SEVEN-DAY MINIMUM	.04	Sep 24	.00	May 26 1988
ANNUAL RUNOFF (CFSM)	1.00		.69	
ANNUAL RUNOFF (INCHES)	13.55		9.33	
10 PERCENT EXCEEDS	54		50	
50 PERCENT EXCEEDS	29		12	
90 PERCENT EXCEEDS	1.4		.00	

425109088075000 MUSKEGO LAKE OUTLET NEAR WIND LAKE, WI--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1987 to September 1989, October 1995 to September 1996.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: October 1995 to September 1996.

TOTAL-PHOSPHORUS DISCHARGE: October 1987 to September 1989, October 1995 to September 1996.

REMARKS.--Total-phosphorus discharge records are fair. Samples to define the temporal fluctuation in total-phosphorus concentration were collected at about 1 1/2-day intervals (on average). Suspended-sediment discharge records are fair to poor. Samples to define the temporal fluctuation in suspended-sediment concentration were collected at about 3-day intervals (on average). Phosphorus analyses by the Wisconsin State Laboratory of Hygiene. Samples collected Oct. 1 to Jan. 4 were single-vertical samples unless otherwise indicated; samples collected Jan. 8 to Aug. 15 were grab samples unless otherwise indicated.

EXTREMES FOR PERIOD OF RECORD.--

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 359 lb, Sept. 10, 1989; minimum daily, 0.00 lb, many days.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT DISCHARGE: Maximum daily, 44 tons, June 14; minimum daily, 0 ton, many days.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 83.6 lb, Apr. 4; minimum daily, 0.00 lb, many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND (00060)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT 1995				
01...	1800	36	0.053	--
02...	1839	36	0.054	--
*03...	1140	43	0.054	12
03...	1150	43	0.053	10
03...	1700	43	0.051	--
04...	1800	44	0.057	--
09...	1830	45	0.047	15
10...	2030	58	0.049	--
11...	1320	55	0.038	10
11...	1335	55	0.041	6
11...	1900	55	0.040	--
12...	1900	54	0.047	--
13...	2230	59	0.048	13
14...	1945	54	0.041	--
15...	1900	43	0.038	--
16...	1900	49	0.033	7
17...	1800	42	0.051	--
18...	1900	42	0.045	--
19...	1600	48	0.049	--
20...	1630	47	0.040	8
22...	1900	41	0.034	--
23...	2000	44	0.049	13
24...	1815	39	0.076	--
26...	1800	43	0.060	--
27...	1800	42	0.042	61
29...	1400	34	0.034	--
30...	1800	44	0.042	--
NOV				
*02...	1325	46	0.030	4
02...	1335	46	0.030	4
06...	1800	44	0.031	--
07...	1800	51	0.027	5
08...	1700	50	0.034	--
*09...	1205	52	0.045	18
09...	1215	52	0.038	9
09...	1700	52	0.035	--
11...	1600	40	0.045	--
12...	1730	47	0.050	23
13...	1700	49	0.024	4
14...	1500	51	0.026	--
15...	1745	55	0.024	--
16...	1730	54	0.024	--
17...	1900	55	0.028	8
18...	1920	54	0.030	11
19...	1600	46	0.027	--
20...	1745	43	0.027	--
21...	1750	41	0.029	--
22...	1630	45	0.027	13
24...	1500	40	0.029	--
25...	1400	39	0.027	--
26...	1315	42	0.028	11
28...	1800	34	0.060	--
*29...	1225	38	0.022	3
DEC 1995				
01...	1315	41	0.035	--
02...	1200	40	0.042	--
03...	1630	41	0.036	--
04...	1700	43	0.039	86
05...	1615	33	0.035	--
06...	1730	37	0.034	--
*07...	1220	42	0.037	23
07...	1230	42	0.048	--
07...	1600	42	0.040	--
08...	1515	40	0.045	28
11...	1800	25	0.036	--
12...	1900	24	0.029	--
13...	1700	25	0.026	66
14...	1700	27	0.032	--
15...	1435	28	0.020	--
16...	1650	29	0.034	--
17...	1500	29	0.064	--
18...	1800	30	0.035	74
19...	1830	32	0.044	--
20...	1900	33	0.120	--
21...	1715	33	0.063	159
JAN 1996				
04...	1150	13	0.047	75
08...	1700	14	0.054	--
09...	1740	18	0.068	65
10...	1745	20	0.042	--
11...	1630	19	0.042	--
12...	1715	18	0.052	--
13...	1750	17	0.063	--
14...	1700	15	0.050	75
15...	1545	15	0.045	--
16...	1600	18	0.044	21
17...	1700	18	0.067	--
18...	1735	18	0.066	--
19...	1715	17	0.062	23
20...	1745	16	0.066	--
21...	1630	16	0.063	--
22...	1630	15	0.061	--
24...	1050	13	0.073	30
24...	1055	13	0.076	48
FEB				
01...	1130	13	0.209	98
09...	1745	35	0.078	11
10...	1630	47	0.082	--
11...	1515	55	0.082	--
12...	1715	56	0.081	8
13...	1800	55	0.083	--
14...	1700	56	0.083	--
**15...	1145	61	0.046	6
15...	1630	61	0.096	--
16...	1745	61	0.100	29
17...	1400	60	0.086	--
18...	0600	61	0.098	--

* Equal-width increment (EWI) sample
** Single vertical sample

425109088075000 MUSKEGO LAKE OUTLET NEAR WIND LAKE, WI--CONTINUED

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DISCHARGE, IN CUBIC FEET PER SECOND (00060)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	SEDIMENT, SUSPENDED (MG/L) (80154)
FEB 1996				
19...	1515	61	0.098	26
20...	1730	61	0.095	--
21...	1800	59	0.182	--
*28...	1235	56	0.175	71
29...	1045	44	0.151	--
29...	1600	44	0.099	--
MAR				
01...	1700	33	0.098	33
02...	1735	34	0.099	--
03...	1630	54	0.102	--
08...	1830	40	0.098	--
09...	1600	48	0.099	--
10...	1715	42	0.103	--
11...	1745	42	0.098	13
12...	1845	44	0.158	--
13...	1900	53	0.170	--
*14...	1125	47	0.220	--
14...	1130	47	0.197	56
14...	1800	47	0.141	--
15...	1700	39	0.148	14
16...	0800	38	0.162	--
17...	0730	39	0.149	--
18...	1900	39	0.252	19
19...	1715	35	0.154	--
20...	1835	26	0.153	--
21...	1930	28	0.151	--
22...	1800	37	0.143	93
23...	0900	30	0.149	--
24...	1700	22	0.337	--
25...	1930	15	0.328	38
26...	1945	37	0.208	--
27...	1700	39	0.149	--
28...	0800	42	0.169	--
*28...	1155	42	0.209	49
28...	1200	42	0.196	30
30...	1700	36	0.258	63
31...	1000	55	0.274	--
APR				
01...	1900	23	0.231	--
02...	1730	7.0	0.230	26
03...	1700	27	0.339	--
04...	1845	46	0.348	--
05...	1835	10	0.166	--
06...	1700	8.3	0.128	--
07...	1300	7.2	0.129	--
09...	1900	4.9	0.127	14
14...	1835	8.0	0.156	--
15...	1905	33	0.144	29
16...	1835	56	0.146	--
17...	1900	38	0.136	--
18...	1900	25	0.174	--
19...	1900	25	0.189	--
20...	1935	34	0.181	--
21...	1800	50	0.152	--
22...	1940	58	0.143	55
23...	1900	53	0.157	--
24...	1845	41	0.206	--
25...	1840	22	0.210	--
26...	1845	39	0.430	239
27...	1915	33	0.204	--
28...	1700	35	0.148	--
29...	1830	49	0.357	208
30...	1800	14	0.165	--
MAY				
01...	1900	12	0.158	--
02...	1845	7.0	0.187	--
03...	1800	23	0.220	188
04...	1800	33	0.109	--
05...	1200	11	0.123	--
MAY 1996				
06...	1945	30	0.109	--
07...	1800	35	0.120	38
12...	1200	35	0.114	--
13...	1845	27	0.144	--
*15...	1300	30	0.108	49
15...	1315	30	0.085	32
15...	1800	30	0.087	32
16...	1930	37	0.089	--
17...	1850	17	0.102	33
18...	1900	36	0.131	--
19...	1945	35	0.195	47
20...	1800	34	0.142	--
21...	1845	32	0.148	58
22...	1800	30	0.169	--
23...	1945	30	0.150	24
24...	2015	36	0.162	--
25...	1945	29	0.153	46
26...	1900	35	0.167	--
27...	1915	12	0.291	160
28...	1920	16	0.274	--
29...	2300	18	0.323	173
30...	1200	18	0.177	184
30...	1950	18	0.168	58
31...	2030	18	0.177	--
JUN				
01...	1130	11	0.216	83
02...	1415	11	0.181	--
03...	1930	15	0.259	449
09...	0930	79	0.110	54
10...	2030	71	0.196	--
12...	1510	41	0.248	--
14...	1515	51	0.077	388
15...	2030	45	0.272	--
16...	1200	42	0.135	245
17...	1830	40	0.140	--
18...	2025	63	0.098	15
19...	1819	71	0.105	--
20...	1050	77	0.130	22
20...	1420	77	0.114	141
20...	1430	77	--	22
24...	2130	66	0.132	29
25...	1915	67	0.124	--
26...	1950	69	0.118	22
JUL				
*03...	1105	52	0.295	61
05...	2000	48	0.239	99
06...	1800	47	0.231	--
07...	1900	47	0.372	384
08...	1815	37	0.325	--
09...	2050	27	0.447	328
10...	2015	19	0.384	--
11...	0615	17	0.475	643
*11...	1240	17	0.380	130
19...	2050	20	0.257	--
20...	1515	18	0.164	--
21...	1230	14	0.172	1403
22...	2030	12	0.164	--
23...	2100	11	0.402	2868
*24...	1330	2.0	0.243	155
25...	2010	6.7	0.114	105
26...	2015	8.3	0.147	--
27...	2030	3.5	0.183	297
28...	0930	5.3	0.199	--
29...	2030	6.2	0.134	28
AUG				
06...	2000	17	0.109	39
07...	2130	17	0.129	--
12...	2230	13	0.331	379
15...	1120	3.0	0.294	364

* Equal-width increment (EWI) sample

425109088075000 MUSKEGO LAKE OUTLET NEAR WIND LAKE, WI--CONTINUED

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.88	1.1	3.1	2.6	3.2	2.3	1.4	2.7	6.2	.29	.00
2	1.1	.54	2.2	2.9	2.7	2.7	.52	1.6	5.5	7.4	.59	.19
3	1.3	.51	4.4	2.8	2.0	3.7	1.7	9.9	14	8.7	.14	.11
4	1.3	.52	8.3	2.6	.48	.90	2.7	17	3.7	10	.21	.04
5	1.1	.48	5.5	2.2	.00	.00	.54	4.3	2.4	12	1.2	.00
6	1.5	.56	3.8	2.1	.14	.00	.42	3.7	1.7	21	1.8	.00
7	1.5	.71	11	2.1	.21	.00	.33	3.8	10	40	1.8	.00
8	1.1	1.2	5.3	2.5	.20	.86	.21	3.4	10	36	1.9	.00
9	1.8	1.8	2.9	3.2	.94	1.7	.19	4.4	12	25	2.0	.00
10	2.0	1.4	2.5	3.6	1.3	1.5	.21	4.5	12	23	2.1	.10
11	1.3	1.8	2.5	3.5	1.4	1.5	.21	5.9	12	15	2.2	.00
12	1.2	2.5	2.6	3.4	1.3	2.4	.89	4.2	9.5	6.3	5.9	.00
13	1.8	.95	3.0	3.3	1.1	4.9	.73	3.4	15	6.7	1.2	.00
14	1.7	.59	3.5	2.9	.99	5.9	.51	3.6	44	2.7	.81	.00
15	1.1	.78	4.0	1.9	1.2	2.1	2.5	3.4	38	3.6	1.6	.00
16	1.0	.94	4.7	1.2	3.7	1.5	4.7	3.3	24	2.1	.00	.00
17	.85	1.2	5.1	1.0	4.5	1.7	3.5	1.5	5.1	1.9	.83	.33
18	.87	1.5	5.9	1.1	4.3	1.9	2.5	3.6	3.3	5.8	.23	.00
19	1.0	1.4	7.9	1.0	4.3	2.2	2.8	4.2	3.4	11	.95	.06
20	1.0	1.4	10	1.0	4.4	1.9	4.0	4.6	6.4	24	1.1	.00
21	.97	1.3	13	1.1	4.3	1.7	6.5	5.1	4.2	43	.36	.00
22	1.2	1.6	13	1.1	3.9	5.2	8.2	13	4.6	18	.38	.00
23	1.5	1.5	12	1.1	3.2	6.2	5.3	2.6	4.7	24	.55	.06
24	1.5	1.3	11	1.4	2.9	3.3	2.7	2.9	5.1	1.6	.27	.02
25	1.9	1.2	9.7	1.5	3.1	1.7	1.8	3.3	4.9	2.1	.19	.00
26	2.1	1.2	8.2	1.3	3.3	4.0	15	7.0	4.4	3.4	.35	.00
27	4.3	.70	7.0	1.2	4.0	4.7	5.1	4.1	4.6	2.3	.49	.00
28	2.6	.39	6.6	1.1	9.3	4.5	7.2	3.1	4.9	2.4	.13	.00
29	1.4	.30	5.1	.94	6.1	4.4	21	6.2	4.8	.85	.38	.00
30	1.3	.55	3.5	.84	---	5.6	2.5	6.8	5.7	.91	.05	.01
31	1.2	---	3.3	.75	---	7.5	---	3.3	---	.59	.00	---
TOTAL	45.49	31.70	188.6	59.73	77.86	89.36	106.76	149.1	282.6	367.55	30.00	0.92

WTR YR 1996 TOTAL 1429.67

PHOSPHORUS TOTAL, POUNDS PER DAY, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.2	9.86	7.60	3.52	14.2	17.6	30.1	10.4	12.1	61.4	2.30	.00
2	10.6	7.59	8.81	3.44	13.0	18.1	8.84	6.75	11.3	72.0	4.41	2.86
3	12.2	7.85	8.20	3.37	11.5	29.6	45.4	25.7	19.1	80.3	.96	1.59
4	13.0	7.62	8.74	3.32	3.15	8.20	83.6	24.7	20.2	71.8	1.38	.64
5	10.2	6.70	6.41	2.89	.00	.00	11.6	7.28	16.2	63.8	7.13	.00
6	13.2	7.33	6.80	2.98	1.24	.00	6.18	18.3	10.2	60.0	10.1	.00
7	12.2	7.86	8.70	3.08	2.20	.00	5.01	22.0	53.7	82.6	11.2	.00
8	7.78	8.78	9.42	4.09	2.45	12.2	3.46	20.6	48.3	67.7	13.3	.00
9	11.6	10.9	8.18	6.14	13.1	25.4	3.37	25.4	51.1	59.3	16.1	.00
10	15.0	9.06	5.98	5.25	20.4	23.3	2.47	25.4	65.7	40.9	19.4	1.43
11	12.4	9.48	4.97	4.35	24.3	22.9	2.65	31.4	70.1	37.4	23.3	.00
12	13.0	12.0	4.08	4.84	24.6	33.3	8.28	22.3	51.2	33.3	21.6	.00
13	15.1	7.87	3.67	5.46	24.6	47.8	7.75	20.0	38.3	31.8	5.57	.00
14	12.7	7.03	4.31	4.30	24.2	45.0	6.64	19.4	26.2	11.8	2.99	.00
15	9.06	7.30	3.48	3.73	23.5	31.1	26.5	16.5	48.6	14.1	4.79	.00
16	9.25	7.02	5.00	4.40	32.2	32.4	43.6	17.8	36.2	7.48	.00	.00
17	10.3	8.01	8.56	5.93	29.4	34.1	28.3	9.14	29.7	5.89	7.62	4.92
18	10.7	8.48	6.76	6.43	32.0	46.9	21.9	23.9	37.8	16.6	2.38	.00
19	12.4	6.88	7.43	5.80	32.1	34.1	25.2	32.5	39.8	28.1	11.1	.95
20	10.7	6.34	16.5	5.60	32.2	21.4	33.2	29.0	49.4	18.3	14.8	.00
21	7.98	6.22	13.8	5.50	49.7	22.9	43.2	25.4	42.9	13.1	5.24	.00
22	7.85	6.74	10.4	5.00	50.9	29.4	45.7	26.3	44.7	10.5	5.56	.00
23	10.5	6.63	9.93	5.02	40.7	27.9	44.1	25.1	44.8	17.3	8.10	.95
24	14.0	6.22	9.40	5.29	36.5	34.4	41.9	30.4	46.7	2.87	3.97	.32
25	17.0	5.79	8.73	6.10	38.6	25.7	24.9	24.1	46.0	5.26	2.86	.00
26	14.3	6.60	7.65	6.92	39.7	48.3	73.0	30.8	45.0	6.07	5.08	.00
27	10.5	8.02	6.74	7.85	41.8	34.8	47.1	15.6	48.6	3.21	7.14	.00
28	8.21	9.80	6.51	8.90	52.0	42.0	31.6	24.2	50.6	5.37	1.91	.00
29	6.45	5.71	5.19	10.1	30.9	46.0	75.2	29.4	49.0	4.98	5.56	.00
30	9.42	5.93	3.67	11.5	---	49.0	15.9	20.1	57.0	8.33	.79	.16
31	10.9	---	3.59	13.0	---	79.7	---	17.0	---	5.06	.00	---
TOTAL	348.70	231.62	229.21	174.10	741.14	923.50	846.65	676.87	1210.5	946.62	226.64	13.82

WTR YR 1996 TOTAL 6569.37

05545750 FOX RIVER NEAR NEW MUNSTER, WI

LOCATION.--Lat 42°36'39", long 88°13'33", in NW 1/4 NW 1/4 sec.26, T.2 N., R.19 E., Kenosha County, Hydrologic Unit 07120006, on right bank 40 ft downstream from bridge on County Trunk Highway JB, 2.2 mi north of New Munster, and 17.0 mi upstream from Fox Chain of Lakes.

DRAINAGE AREA.--811 mi^2.

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1993, published as "at Wilmot" under station number 05546500.

REVISED RECORDS.--WSP 1308: 1943(M), 1945(M). WDR WI-67-1: Drainage area. WDR WI-92-1: 1991.

GAGE.--Water-stage recorder. Datum of gage is 735.72 ft above sea level (Racine County Surveyor bench mark). Prior to Sept. 1, 1965, nonrecording gage at bridge in Wilmot 11 mi downstream at datum 0.50 ft lower, and recording gage Sept. 1, 1965 to Sept. 30, 1993.

REMARKS.--Estimated daily discharges: Ice-affected periods, Nov. 29 to Dec. 1, Dec. 8 to Feb. 26, Feb. 29 to Mar. 14, Mar. 20 and 21. Records are good, except for ice-affected periods, which are fair (see page 12). Gage-height telemeter and data-collection platform at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	736	620	220	310	800	323	890	560	1080	329	190
2	247	892	642	230	290	660	377	775	797	656	320	188
3	250	994	736	230	270	520	396	734	1140	604	307	184
4	268	969	888	230	270	430	444	785	1310	622	293	179
5	264	892	907	220	260	380	541	739	1360	551	281	174
6	379	809	861	210	260	360	488	683	1520	421	344	173
7	648	770	821	200	280	340	482	641	1830	455	413	175
8	708	779	780	190	330	320	457	624	2040	470	474	175
9	708	719	600	190	500	310	389	515	1980	478	452	178
10	748	737	560	190	700	310	358	836	1830	433	418	185
11	703	990	560	190	820	320	290	1400	1780	366	360	205
12	568	1010	540	200	760	350	306	1350	1760	351	260	215
13	468	1010	520	190	700	450	334	1220	1680	340	268	216
14	386	967	540	180	620	470	359	1110	1540	341	266	199
15	340	877	560	180	540	592	669	1090	1270	345	259	191
16	472	821	520	180	500	655	1290	1170	1090	331	251	185
17	456	772	520	220	450	587	1280	1190	1230	338	221	185
18	361	780	520	450	430	502	1140	1100	2160	525	209	180
19	379	684	520	800	420	447	1060	977	2830	732	234	169
20	359	633	500	1000	420	440	1330	970	2890	694	240	200
21	370	742	450	900	420	400	1450	1730	2790	597	268	123
22	368	762	420	800	420	349	1380	1940	2540	547	296	154
23	365	696	380	740	430	350	1250	1730	2240	536	313	176
24	343	654	360	700	470	379	1140	1490	2060	495	297	186
25	348	629	330	620	600	415	934	1280	1900	418	285	204
26	346	598	300	560	800	429	802	1120	1750	349	265	220
27	380	603	280	480	1050	518	756	900	1550	351	192	293
28	526	583	260	420	1140	506	599	866	1390	350	199	316
29	612	700	250	380	940	477	605	828	1300	362	203	377
30	603	660	230	360	---	461	888	698	1220	355	201	350
31	657	---	220	330	---	371	---	608	---	352	197	---
TOTAL	13859	23468	16195	11990	15400	13898	22117	31989	51337	14845	8915	6145
MEAN	447	782	522	387	531	448	737	1032	1711	479	288	205
MAX	748	1010	907	1000	1140	800	1450	1940	2890	1080	474	377
MIN	229	583	220	180	260	310	290	515	560	331	192	123
CFSM	.55	.96	.64	.48	.65	.55	.91	1.27	2.11	.59	.35	.25
IN.	.64	1.08	.74	.55	.71	.64	1.01	1.47	2.35	.68	.41	.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1996, BY WATER YEAR (WY)

MEAN	387	485	458	420	509	1135	1083	692	512	384	328	340
MAX	1931	1536	1755	1818	1354	2434	3591	2078	1711	1382	902	1763
(WY)	1987	1986	1983	1960	1974	1979	1993	1973	1996	1969	1952	1972
MIN	79.5	113	91.4	87.7	105	252	256	108	124	69.2	57.2	62.7
(WY)	1957	1950	1964	1940	1940	1968	1958	1958	1988	1958	1958	1946

SUMMARY STATISTICS	FOR 1995 CALENDAR YEAR		FOR 1996 WATER YEAR		WATER YEARS 1940 - 1996	
ANNUAL TOTAL	188535		230158			
ANNUAL MEAN	517		629		561	
HIGHEST ANNUAL MEAN					1240	1993
LOWEST ANNUAL MEAN					174	1958
HIGHEST DAILY MEAN	1830	Apr 28	2890	Jun 20	7100	Apr 1 1960
LOWEST DAILY MEAN	136	Jul 14	123	Sep 21	35	Sep 9 1958
ANNUAL SEVEN-DAY MINIMUM	151	Jul 10	170	Sep 17	41	Sep 7 1958
INSTANTANEOUS PEAK FLOW			2920	Jun 19	(a)7520	Mar 31 1960
INSTANTANEOUS PEAK STAGE			12.15	Jun 19	(b)14.10	Feb 21 1994
INSTANTANEOUS LOW FLOW			118	Sep 21	.00	(c)Oct 26 1945
ANNUAL RUNOFF (CFSM)	.64		.78		.69	
ANNUAL RUNOFF (INCHES)	8.65		10.56		9.40	
10 PERCENT EXCEEDS	945		1260		1270	
50 PERCENT EXCEEDS	450		479		360	
90 PERCENT EXCEEDS	192		204		122	

(a) Gage height, 9.25 ft, from graph based on gage readings, site and datum then in use
(b) Backwater from ice
(c) Also occurred Aug. 10, 1990

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. 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 some special reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at miscellaneous sites for both low flows and high flows are given in separate tables.

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 maximum has been determined.

Maximum discharge at crest-stage partial-record stations

Station Number and Name	Location and Drainage Area	Period of Record	Water Year 1996 Maximum			Period of Record Maximum		
			Date	Gage height (feet)	Discharge (ft^3/s)	Date	Gage height (feet)	Discharge (ft^3/s)
		STREAMS TRIBUTARY TO LAKE SUPERIOR						
04024400 Stony Brook near Superior	Lat 46°35'01", long 92°07'10" in SE 1/4 sec. 4, T.47 N., R.14 W., Douglas County, Hydrologic Unit 04010301, 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; drainage ares, 1.86 mi^2.	1959-96	07-18-96	13.60	135	09-02-85	35.23	595
04025200 Pearson Creek near Maple	Lat 46°38'51", long 91°42'55" on common boundary of secs. 11 and 14, T.48 N., R.11 W., Douglas County, Hydrologic Unit 04010301, at box culvert on State Highway 13, 4.0 mi north of Maple; drainage area, 4.07 mi^2	1957-96	04-21-96	14.06	375	09-02-85	31.83	1,440
04026200 Sand River Tributary near Red Cliff	Lat 46°53'53", long 90°56'47" in NE 1/4 section 14, T.51 N., R.5 W., Bayfield County, Hydrologic Unit 04010301, at box culvert on State Highway 13, 8.0 mi northwest of Red Cliff; drainage area, 1.09 mi^2.	1959-96	04-19-96	12.02	106	05-23-64	16.86	624
04026300 Sioux River near Washburn	Lat 46°41'20", long 90°57'02" in NE 1/4 sec. 35, T.49 N., R.5 W., Bayfield County, Hydrologic Unit 04010301, on County Trunk Highway C, 2.5 mi west of Washburn; drainage area, 33.9 mi^2	1959-65 1966# 1967-96	04-21-96 05-09-95	12.66 10.93	559 F277	09-02-85	29.45	2,200
04026450 Bad River near Mellen	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, Hydrologic Unit 04010302, on left bank 150 ft downstream from bridge on U.S. Forest Service Road, 4.4 mi southwest of Mellen; drainage area, 82.0 mi^2.	1971-75# 1976-96	04-26-96 04-21-96	5.80 G6.01	1,160	07-02-92	8.65	2,450

Station Number and Name	Location and Drainage Area	Period of Record	Water Year 1996 Maximum			Period of Record Maximum		
			Date	Gage height (feet)	Discharge (ft^3/s)	Date	Gage height (feet)	Discharge (ft^3/s)
		STREAMS TRIBUTARY TO LAKE SUPERIOR--CONTINUED						
04027200 Pearl Creek at Grandview	Lat 46°22'05", long 91°05'27" in NE 1/4 sec.22, T.45 N., R.6 W., Bayfliield County, Hydrologic Unit 04010302, at bbox culvert on U.S. Highway 63, 0.8 mi east of Grandview; drainage area, 16.9 mi^2.	1960-96	04-19-96	11.94	177	07-02-92	28.47	1,920
		STREAMS TRIBUTARY TO LAKE MICHIGAN						
04059900 Allen Creek Tributary near Alvin	Lat 45°58'05", long 88°47'24" on north boundary sec. 7, T.40 N., R.14 E., Forest County, Hydrologic Unit 04030106, at culvert on State Highway 70, 2.2 mi southeast of Alvin; drainage area, 1.22 mi	1960-96	1996	C		05-22-83	11.38	40
04063640 North Branch Pine River at Windsor Dam near Alvin	Lat 45°55'43", long 88°51'38" in SE 1/4 sec.21,T.40 Nl, R.13 E., Forest County, Hydrologic Unit 04030108, 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; drainage area, 27.8 mi^2.	1967-68# 1970-96	04-21-96	3.09	100	04-09-80	3.89	165
04067760 Peshtigo River near Cavour	Lat 45°39'20", long 88°38'52" in SW 1/4 sec.29, T.37 N., R.15 E., Forest County, Hydrologic Unit 04040105, at bridge on U.S. Highway 8, 0.7 mi northwest of Cavour; drainage area, 150 mi^2.	1970-96	04-21-96	15.78	1,600	04-21-96	15.78	1,600
04069700 North Branch Oconto River near Wabeno	Lat 45°26'19", long 88°37'40" in SW 1/4 sec.9, T.34 N., R.15 E., Forest County, Hydrologic Unit 04030104, at pipe arch culvert on County Trunk Highway C, 0.6 mi east of intersection with State Highway 32 at Wabeno; drainage area, 34.1 mi^2.	1970-96	04-20-96	14.21	621	04-20-96	14.21	621
04071700 North Branch Little River near Coleman	Lat 45°00'37", long 88°02'43" on common boundary of secs. 2 and 3, T.29 N., R.20 E., Oconto County, Hydrologic Unit 04030104, at bridge on U.S. Highway 141, 3.8 mi south of Coleman; drainage area, 21.4 mi^2.	1958-96	06-17-96	12.91	250	03-30-67	14.50	640
04071800 Pensaukee River near Pulaski	Lat 44°45'48" long 88°15'07" in NE 1/4 sec.1, T.26 N., R.18 E., Shawano County, Hydrologic Unit 04030103, at bridge on State Highway 32, 6.1 mi north of Pulaski; drainage area, 48.80 mi^2.	1961-96	06-18-96 03-20-95	16.96 E11.05	1,810 F330	06-18-96	16.96	1,810
04073400 Bird Creek at Wautoma	Lat 44°04'06", long 89°18'08" in S 1/2 section 34, T.19 N., R.10 E., Waushara County, Hydrologic Unit 04030201, at concrete culvert on State Highway 21, 0.2 mi west of Wautoma; drainage area, 4.14 mi^2.	1959-96	06-18-96	12.58	141	03-07-73	13.07	190

Station Number and Name	Location and Drainage Area	Period of Record	Water Year 1996 Maximum			Period of Record Maximum		
			Date	Gage height (feet)	Discharge (ft^3/s)	Date	Gage height (feet)	Discharge (ft^3/s)
	STREAMS TRIBUTARY TO LAKE MICHIGAN--CONTINUED							
04074850 Lily River near Lily	Lat 45°20'59", long 88°49'52" in SE 1/4 sec.11, T.33 N., R.13 E., Langlade County, Hydrologic Unit 04030202, at culvert on County Trunk Highway A, 3.2 mi north from junction of State Highways 55 and 52 at Lily; drainage area, 45.6 mi^2.	1970-96	04-20-96	10.25	167	04-20-96	10.25	167
*04075200 Evergreen Creek near Langlade	Lat 45°10'11", long 88°48'12" in NW 1/4 sec.18, T.31 N., R.14 E., Langlade County, Hydrologic Unit 04030202, on culvert on State Highway 64, 3.5 mi southest of Langlade; drainage area, 8.09 mi^2.	1959-65 1966-72# 1973-96	1996	C	<25	07-11-82	11.66	80
04079700 Spaulding Creek near Big Falls	Lat 44°38'13", long 89°01'20" on common boundary of secs. 14 and 15, T.25 N., R.12 E., Waupaca County, Hydrologic Unit 04030202, at culvert on County Trunk Highway E, 1.5 mi north of Big Falls; drainage area, 5.57 mi^2.	1959-65 1966# 1967-96	06-18-96	11.56	93	05-07-60	11.64	101
04081900 Sawyer Creek at Oshkosh	Lat 44°02'00", long 88°35'00" in SW 1/4 sec.15, T.18 N., R.16 E., Winnebago County, Hydrologic Unit 04030201, at bridge on U.S. Highway 41, 1.0 mi southwest of bridge on Algoma Street at Fox River, at Oshkosh; drainage area, 12.10 mi^2.	1961-96	06-19-96	13.42	940	09-11-86	17.47	2,350
04085145 Red River near Dykesville	Lt 44°38'59", long 87°42'47" in SW 1/4 SE 1/4 sec.9, T.25 N., R.23 E., Kewaunee County, Hydrologic Unit 04030102, at upstream crossing of County Highway A, 2.5 mi east of Dykesville.	1996	06-18-96	12.41	203	06-18-96	12.41	203
04085400 Killsnake River near Chilton	Lat 44°03'33", long 88°08'36" in E 1/2 sec.6, T.18 N., R.20 E., Calumet County, Hydrologic Unit 04030101, at bridge on country road, 2.4 mi northeast of Cilton; drainage area, 29.4 mi^2.	1961-96	06-18-96	11.27	430	03-30-79	14.37	1,840
04087100 Honey Creek at Milwaukee	Lat 42°58'41", long 87°59'52" in SE 1/4 sec.15, T.6 N., R.21 E., Milwaukee County, Hydrologic Unit 04040003, 400 ft upstream from bridge on S. 68th Street, 6.0 mi northwest of mouth of Milwaukee River, at Milwaukee; drainage area, 3.26 mi^2.	1959-96	06-17-96	20.74	490	12-02-82	22.60	1,050
04087200 Oak Creek near South Milwaukee	Lat 42°52'58", long 87°53'31" on common boundary of sec. 21 and 22, T.5 N., R.22 E., Milwaukee County, Hydrologic Unit 04040002, at bridge on West Nicholson Road, 3.0 mi southest of South Milwaukee; drainage area, 13.8 mi^2.	1958-96	06-18-96	16.11	440	03-30-60	17.49	1,100

Station Number and Name	Location and Drainage Area	Period of Record	Water Year 1996 Maximum			Period of Record Maximum		
			Date	Gage height (feet)	Discharge (ft^3/s)	Date	Gage height (feet)	Discharge (ft^3/s)
			STREAMS TRIBUTARY TO LAKE MICHIGAN--CONTINUED					
04087250 Pike Creek near Kenosha	Lat 42°36'12", long 87°53'41" in W 1/2 sec.27, T.2 N., R.22 E., Kenosha County, Hydrologic Unit 04040002, at box culvert on State Highway 43, 3.0 mi northest of Kenosha; drainage area, 7.25 mi^2.	1960-96	05-20-96	16.40	174	09-17-78	17.6	220
			ST. CROIX RIVER BASIN					
05340300 Trade River near Frederic	Lat 45°37'41", long 92°29'19" in SW 1/4 sec.4, T.36 N., R.17 W., Polk County, Hydrologic Unit 07030005, at box culvert on State Highways 35 and 48, 2.5 mi southwest of Frederic; drainage area, 6.34 mi^2.	1958-96	06-26-96 05-19-96	11.56 D16.19	230	06-12-84	18.89	1,050
05341313 Bull Brook near Amery	Lat 45°17'03", long 92°19"00" in SW 1/4 SE 1/4, sec.2, T.32 N., R.16 W., Polk County, Hydrologic Unit 07030005, on right bank just upstream from 32-ft concrete box culvert on County Trunk Highway F, 1.8 mi south of junction of County Trunk Highway J, and about 2.5 mi southeast of Amery.	1996	10-02-95 08-14-95	11.10 12.34	99.1 191	08-14-95	12.34	191
05341900 Kinnickinnic River Tributary at River Falls	Lat 44°49'57", long 92°38'23" in NE 1/4 sec.14, T.27 N., R.19 W., Pierce County, Hydrologic Unit 07030005, at bridge on County Trunk Highway FF, 1.6 mi southwest of River Falls; drainage area, 7.26 mi^2.	1959-96	03-14-96	13.37	609	08-09-88	15.99	5,200
			CHIPPEWA RIVER BASIN					
05357360 Bear River near Powell	Lat 46°04'40", long 90°00'52" in NE 1/4 sec.32, T.42 N., R.4 E., Iron County, Hydrologic Unit 07050002, at bridge on State Highway 182, 3.0 mi west of Powell; drainage area, 120 mi^2.	1970-96	04-26-96 04-21-96	13.06 G13.18	730	04-26-96 04-21-96	13.06 G13.18	730
05359600 Price Creek near Phillips	Lat 45°43'33", long 90°40'12" in SW 1/4 sec.31, T.38 N., R.2 W., Price County, Hydrologic Unit 07050002, at culvert on County Trunk Highway W, 13.0 mi west of Phillips; drainage area, 16.9 mi^2.	1958-65 1966# 1967-96	04-20-96	14.82	328	09-15-94	17.43	552
05361400 Hay Creek near Prentice	Lat 45°32'32", long 90°21'37" in SE 1/4 sec.4, T.35 N., R.1 E., Price County, Hydrologic Unit 07050004, at culvert on U.S. Highway 8, 3.5 mi west of Prentice; drainage area, 22.6 mi^2.	1961-96	04-11-96	G13.87	572	09-16-94	15.39	1,650
05361420 Douglas Creek near Prentice	Lat 45°31'06", long 90°15'28" in NE 1/4 sec.17, T.35 N., R.2 E., Price County, Hydrologic Unit 07050004, at culvert on County Trunk Highway C, 2.3 mi southeast of intersection with State Highway 13 at Prentice; drainage area, 25.2 mi^2.	1970-96	04-12-96	G15.78	641	09-15-94	17.66	1,620

Station Number and Name	Location and Drainage Area	Period of Record	Water Year 1996 Maximum			Period of Record Maximum		
			Date	Gage height (feet)	Discharge (ft^3/s)	Date	Gage height (feet)	Discharge (ft^3/s)
		CHIPPEWA RIVER BASIN--CONTINUED						
05361989 Jump River Tributary near Jump River	Lat 45°21'08", long 90°49'23" in SW 1/4 SW 1/4 sec.12, T.33 N., R.4 W., Taylor County, Hydrologic Unit 07050004, on left bank just upstream from a 23-ft concrete box culvert at a cut-off road at Junction of Hwys 73 and I-94, 1 mi west of Jump River and 7.5 mi northeast of Sheldon.	1996	04-11-96 08-14-95	11.30 11.33	133 136	08-14-95	11.33	136
05363775 Babit Creek at Gilman	Lat 45°10'00", long 90°47'49" in NW 1/4 SW 1/4 sec.18, T.31 N., R.3 W., Taylor County, Hydrologic Unit 07050005, on right bank just upstream from a 30 ft concrete culvert on State Highway 64 at east side of Gilman; drainage area, 8.49 mi^2.	1996	04-19-96 08-14-95	11.89 11.52	148 112	04-19-96	11.89	148
05364000 Yellow River at Cadott	Lat 44°57'21", long 91°08'48" in NE 1/4 sec.31, T.29 N., R.6 W., Chippewa County, Hydrologic Unit 07050005, at bridge on State Highway 27, at Cadott; drainage area, 364 mi^2.	1943-61# 1962-96	04-12-96	10.65	4,400	F-09-22-86	15.82	16,600
05364100 Seth Creek near Cadott	Lat 44°59'24", long 91°08'48" in SW 1/4 sec.17, T.29 N., R.6 W., Chippewa County, Hydrologic Unit 07050005, at culvert on State Highway 27, 3.1 mi north of Cadott; drainage area, 3.25 mi^2.	1962-96	04-12-96	12.44	34	09-22-86	18.00	785
05364500 Duncan Creek at Bloomer	Lat 45°07'00", long 91°30'00" in sec.8, T.30 N., R.9 W., Chippewa County, Hydrologic Unit 07070005, 0.2 mi below Bloomer dam, at Bloomer; drainage area, 50.3 mi^2.	1945-51# 1958-96	04-12-96 03-13-95	9.75 F7.76	2,120 F1,110	06-29-79	11.81	5,400
05366500 Eau Claire River near Fall Creek	Lat 44°48'35", long 91°16'50" in NW 1/4 sec.19, T.27 N., R.7 W., Eau Claire County, Hydrologic Unit 07050006, 500 ft east of County Trunk Highway K, 3.2 mi north of Fall Creek; drainage area, 760 mi^2.	1943-55# 1958-96	06-19-96	9.36	5,910	06-20-93	19.38	24,500
05367030 Willow Creek near Eau Claire	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, Hydrologic Unit 07050005, at box culvert on State Highway 93, 4.0 mi south of Eau Claire; drainage area, 3.83 mi^2.	1958-96	1996	C	<60	07-08-59	14.12	400
053674588 Rock Creek Tributary near Canton	Lat 42°27'06", long 90°36'08" in SW 1/4 SW 1/4 sec.3, T.34 N., R.10 W., Barron County, Hydrologic Unit 07050007, 3 mi north of U.S. Hwy 8 on 27th Street, about 40 ft north of intersection of 27th Street and 17th Avenue, and 2.5 mi east and 1.7 mi north of Canton.	1996	04-19-96 1996 08-14-95	11.21 G11.47 12.11	124 247	08-14-95	12.11	247

Station Number and Name	Location and Drainage Area	Period of Record	Water Year 1996 Maximum			Period of Record Maximum		
			Date	Gage height (feet)	Discharge (ft^3/s)	Date	Gage height (feet)	Discharge (ft^3/s)
			CHIPPEWA RIVER BASIN--CONTINUED					
05367700 Lightning Creek at Almena	Lat 45°25'17", long 92°01'57" in NW 1/4 sec.19, T.34 N., R.13 W., Barron County, Hydrologic Unit 07050007, at bridge on County Trunk Highway P, at Almena; drainage area, 19.0 mi^2.	1958-96	04-12-96	12.06	395	03-30-67	12.39	1,550
05370900 Spring Creek near Durand	Lat 44°34'13", long 91°57'48" in S 1/2 sec.9, T.24 N., R.13 W., Buffalo County, Hydrologic Unit 07050005, at bridge on country road, 4.0 mi south of bridge on Chippewa River at Durand; drainage area, 6.45 mi^2.	1962-96	--	C	<200	08-23-75	15.71	860
			BUFFALO RIVER BASIN					
05371800 Buffalo River Tributary near Osseo	Lat 44°35'01" long 91°05'40" in S 1/2 sec.3, T.24 N., R.6 W., Jackson County, Hydrologic Unit 07040003, at culvert on U.S. Highway 10, 6.5 mi east of Osseo; drainage area, 1.44 mi^2.	1960-96	03-19-96	11.45	76	09-12-78	12.85	188
05371920 Buffalo River near Mondovi	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, Hydrologic Unit 07040003, at bridge on State Highway 88, 4.0 mi south of Mondovi; drainage area, 279 mi^2.	1974-96	03-19-96	12.50	990	09-10-75	15.39	5,180
			TREMPEALEAU RIVER BASIN					
05379187 Pine Creek near Taylor	Lat 44°20'07", long 91°05'17" in NE 1/4 NE 1/4 sec.3, T.21 N., R.6 W., Jackson County, Hydrologic Unit 07040005, at bridge on Taylor Road, about 2 mi northeast of Taylor; drainage area, 10.9 mi^2.	1996	03-19-96	9.95	78	03-19-96	9.95	78
05379288 Bruce Valley Creek near Pleasantville	Lat 44°26'45", long 91°21'40" in SE 1/4 NW 1/4 sec.28, T.23 N., R.8 W., Trempealeau County, Hydrologic Unit 07040005, on left bank, 100 ft upstream from bridge on CTH D, 0.9 mi upstream from Elk Creek, and 2.9 mi west of Pleasantville; drainage area, 10.1 mi^2.	1996	03-19-96	7.61	185	03-19-96	7.61	185
			BLACK RIVER BASIN					
05380900 Poplar River near Owen	Lat 44°53'10", long 90°34'17" in NW 1/4 sec.25, T.28 N., R.2 W., Clark County, Hydrologic Unit 07040007, at bridge on County Trunk Highway N, 4.2 mi south of Owen; drainage area, 157 mi^2.	1958-65 1966# 1967-96	06-17-96	14.93	2,790	06-06-80	20.12	12,500

Station Number and Name	Location and Drainage Area	Period of Record	Water Year 1996 Maximum			Period of Record Maximum		
			Date	Gage height (feet)	Dis-charge (ft^3/s)	Date	Gage height (feet)	Dis-charge (ft^3/s)
		BLACK RIVER BASIN--CONTINUED						
05380970 Cawley Creek near Neillsville	Lat 44°35'42", long 90°34'31" in SW 1/4 sec.25, T.25 N., R.2 W., Clark County, Hydrologic Unit 07040007, at bridge on State Highway 73, 3.7 mi north of Neillsville; drainage area, 38.6 mi^2.	1961-96	04-19-96	15.58	1,420	09-22-86	20.62	7,880
05382200 French Creek near Ettrick	Lat 44°11'04", long 91°18'49" in NE 1/4 sec.27, T.20 N., R.8 W., Trempealeau County, Hydrologic Unit 07040007, at bridge on County Trunk Highways D and T, 2.5 mi west of Ettrick; drainage area, 14.3 mi^2.	1960-96	03-19-96	9.50	658	08-14-95	11.43	1,790
		BAD AXE RIVER BASIN						
05387100 North Fork Bad Axe River near Genoa	Lat 43°33'10", long 91°08'58" in SW 1/4 sec.36, T.13 N., R.7 W., Vernon County, Hydrologic Unit 07060001, at bridge on State Highway 56, 4.1 mi southeast of Genoa; drainage area, 80.8 mi^2.	1959-65 1966# 1967-96	06-17-96	10.50	250	08-27-59	19.59	10,000
		WISCONSIN RIVER BASIN						
05391260 Gudegast Creek near Starks	Lat 45°41'41", long 89°15'42" in NW 1/4 sec.16, T.37 N., R.10 E., Oneida County, Hydrologic Unit 07070001, at corrugated culvert on coutnry road, 3.0 mi northwest of Starks; drainage area, 14.0 mi^2.	1970-96	04-19-96	12.46	88	05-09-90	13.33	130
05391950 Squaw Creek near Harrison	Lat 45°32'47" long 89°29'16" in SW 1/4 sec.3, T.35 N., R.8 E., Lincoln County, Hydrologic Unit 07070001, at culvert on County Trunk Highway A, 5.0 mi northeast of Harrison.; drainage area, 3.23 mi^2.	1970-96	10-23-95	10.91	34	03-03-87	11.35	F51
05392150 Mishonagon Creek near Woodruff	Lat 45°54'41", long 89°45'30" in NE 1/4 sec.32, T.40 N., R.6 E., Vilas County, Hydrologic Unit 07070001, at Twin culverts on Stte Highway 47, 3.0 mi northwest of Woodruff; drainage area, 17.6 mi^2.	1958-96	04-19-96	10.43	78	08-17-72	11.33	117
05392350 Bearskin Creek near Harshaw	Lat 45°38'43", long 89°41'12" in SW 1/4 sec.36, T.37 N., R.6 E., Oneida County, Hydrologic Unit 07070001, at culvert on County Trunk Highway K, 2.1 mi southwest of Harshaw; drainage area, 31.1 mi^2.	1958-65 1966# 1967-96	04-19-96	9.75	83	06-14-81	10.97	180
05393640 Little Pine Creek near Irma	Lat 45°23'37", long 89°40'20" in NW 1/4 sec.31, T.34 N., R.7 E., Lincoln County, Hydrologic Unit 07070002, at box culvert on U.S. Highway 51, 3.0 mi north of Irma; drainage area, 22.0 mi^2.	1970-96	04-19-96	13.58	210	06-14-81	14.38	310

Station Number and Name	Location and Drainage Area	Period of Record	Water Year 1996 Maximum			Period of Record Maximum		
			Date	Gage height (feet)	Discharge (ft^3/s)	Date	Gage height (feet)	Discharge (ft^3/s)
WISCONSIN RIVER BASIN--CONTINUED								
05394200 Devil Creek near Merrill	Lat 45°08'56", long 89°47'13" in N 1/2 sec.30, T.31 N., R.6 E., Lincoln County, Hydrologic Unit 07070002, at culvert on County Trunk Highway F, 5.8 mi southwest of Merrill; drainage area, 9.58 mi^2.	1961-96	04-20-96 08-29-95 03-23-94 09-13-93 11-01-91	13.04 12.98 12.13 12.86 13.29	344 F276 F172 F255 F335	06-13-90	17.98	1,600
05395020 Lloyd Creek near Doering	Lat 45°13'57", long 89°22'04" in SE 1/4, T.32 N., R.9 E., Langlade County, Hydrologic Unit 07070002, at bridge on County Trunk Highway C, 4.5 mi east of Doering; drainage area, 7.80 mi^2.	1970-96	04-20-96 08-15-95 09-15-94 06-20-93 04-16-92 05-26-91	12.73 12.59 11.83 13.23 12.67 12.87	285 F249 F142 F380 F267 F310	06-13-90	>16.00	>1,000
05395100 Trappe River Tributary near Merrill	Lat 45°08'07" long 89°30'08" in SW 1/4 sec.28, T.31 N., R.8 E., Lincoln County, Hydrologic Unit 07070002, at culvert on County Trunk Highway P, 9.5 mi southeast of Merrill; drainage area, 1.58 mi^2.	1959-96	06-18-96 08-15-95	12.75 F17.79	124 F396	08-15-95	F17.79	F396
05396300 Wisconsin River Tributary at Wausua	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, Hydrologic Unit 07070002, on road right-of-way of 24th Avenue opposite the Ace Motel, 300 ft east of U.S. Highway 51, at Wausau; drainage area, 1.10 mi^2.	1982-96	06-18-96	5.16	E89	06-12 or 13-90	9.11	740
05397600 Big Sandy Creek near Wausau	Lat 45°01'55", long 89°27'00" in SE 1/4 sec.31, T.30 N., R.9 E., Marathon County, Hydrologic Unit 07070002, at bridge on State Highway 52, 10.0 mi northeast of Wausau; drainage area, 11.5 mi^2.	1959-96	06-18-96	12.52	523	09-27-59	15.18	2,120
05400025 Johnson Creek near Knowlton	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, Hydrologic Unit 07070002, at bridge on County Trunk Highway X, 2.7 mi east of Knowlton; drainage area, 25.1 mi^2.	1973-96	06-18-96	15.97	1,250	06-06-80	21.78	3,700
05401800 Yellow River Tributary near Pittsville	Lat 44°28'58", long 90°07'05" on common boundary of secs.11 and 14, T.23 N., R.3 E., Wood County, Hydrologic Unit 07070003, at bridge on County Trunk Highway C, 2.0 mi north of Pittsville; drainage area, 7.23 mi^2.	1959-96	06-17-96	12.13	318	05-02-73	13.82	810
05403700 Dell Creek near Lake Delton	Lat 43°33'05" long 89°51'55" in NW 1/4 sec.2, T.12 N., R.5 E., Sauk County, Hydrologic Unit 07070003, on right bank 50 ft upstream from highway bridge, 6.0 mi southwest of Lake Delton, and 7.0 mi upstream from mouth; drainage area, 44.9 mi^2.	1957-65# 1966-70 1971-80# 1983-96	06-17-96	6.88	327	09-14-92	9.80	1,200

Station Number and Name	Location and Drainage Area	Period of Record	Water Year 1996 Maximum			Period of Record Maximum		
			Date	Gage height (feet)	Discharge (ft^3/s)	Date	Gage height (feet)	Discharge (ft^3/s)
			WISCONSIN RIVER BASIN--CONTINUED					
05405600 Rowan Creek at Poynette	Lat 43°23'13", long 89°23'25" in S 1/2 sec.35, T.11 N., R.9 E., Columbia County, Hydrologic Unit 07070005, at bridge on U.S. Highway 51, at Poynette; drainage area, 10.4 mi^2.	1961-96	02-26-96	11.95	210	09-09-65	17.90	2,260
05407200 Crooked Creek near Boscobel	Lat 43°06'27", long 90°42'18" in SE 1/4 sec.2, T.7 N., R.3 W., Grant County, Hydrologic Unit 07070005, at bridge on U.S. Highway 61, 1.6 mi south of Boscobel; drainage area, 12.9 mi^2.	1959-96	06-17-96	10.10	130	07-27-64	18.21	2,460
			GRANT RIVER BASIN					
05413400 Pigeon Creek near Lancaster	Lat 42°49'00", long 90°43'20" in SW 1/4 sec.15, T.4 N., R.3 W., Grant County, Hydrologic Unit 07060003, at culvert on country road, 2.0 mi south of Lancaster; drainage area, 6.93 mi^2.	1960-65 1966# 1967-96	02-11-96	10.00	E180	01-24-67	20.85	2,800
			PLATTE RIVER BASIN					
05414213 Little Platte River near Platteville	Lat 42°43'23", long 90°31'41" in NE 1/4 NE 1/4 sec.19, T.3 N., R.1 W., Grant County, Hydrologic Unit 07060003, on left bank 150 ft upstream from Stumptown Road, 2.6 mi southwest of Post Office in Platteville; drainage area, 79.7 mi^2.	1987-90# 1991-96	08-06-96	12.39	2,100	06-29-90	15.35	3,800
			GALENA RIVER BASIN					
05414900 Pats Creek near Elk Grove	Lat 42°40'03", long 90°22'40" in SW 1/4 sec.4, T.2 N., R.1 E., Lafayette County, Hydrologic Unit 07060005, at bridge on State Highway 81, 7.0 mi southeast of Platteville; drainage area, 8.50 mi^2.	1960-96	06-17-96	12.51	380	06-29-69	17.32	7,040
			ROCK RIVER BASIN					
05430403 Fisher Creek Tributary at Janesville	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, Hydrologic Unit 07090001, 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; drainage area, 1.42 mi^2.	1982-96	07-18-96	8.17	411	07-18-96	8.17	411
05431400 Little Turtle Creek at Allens Grove	Lat 42°34'46", long 88°45'33" in NE 1/4 sec.6, T.1 N., R.15 E., Walworth County, Hydrologic Unit 07090001, at bridge on country road, 0.2 mi south of Allens Grove; drainage area, 42.4 mi^2.	1962-96	1996	B	<1,570	04-21-73	18.28	8,400

Station Number and Name	Location and Drainage Area	Period of Record	Water Year 1996 Maximum			Period of Record Maximum		
			Date	Gage height (feet)	Discharge (ft^3/s)	Date	Gage height (feet)	Discharge (ft^3/s)
			ROCK RIVER BASIN					
05432055 Livingston Branch Pecatonica River near Livingston	Lat 42°54'01", long 90°22'23", in SW 1/4 SE 1/4 sec.16, T.5 N., R.1 E., Iowa County, Hydrologic Unit 07090003, on the left bank 75 ft upstream from Enloe Road and 2.7 mi east of Livingston; drainage area, 16.4 mi^2.	1987-91# 1996	02-11-96	G8.22	E570	06-29-90	13.49	6,260
05432300 Rock Branch near Mineral Point	Lat 42°50'02", long 90°09'15" in SE 1/4 sec.8, T.4 N., R.3 E., Iowa County, Hydrologic Unit 07090003, at box culvert on State Highway 23, 2.5 mi south of Mineral Point; drainage area, 4.83 mi^2.	1959-96	08-06-96	11.96	175	07-05-93	22.63	3,100
05433500 Yellowstone River near Blanchard-ville	Lat 42°46'55", long 89°59'50" in NE 1/4 sec.34, T.4 N., R.4 E., Lafayette County, Hydrologic Unit 07090003, 0.6 mi upstream from bridge on County Trunk Highway F, 7.0 mi west-southwest of Blanchardville; drainage area, 28.5 mi^2.	1954-65# 1966-96	06-17-96	10.74	5,100	06-29-90	11.40	8,500
05436200 Gill Creek near Brooklyn	Lat 42°49'38", long 89°26'43" in NW 1/4 sec.16, T.4 N., R.9 E., Green County, Hydrologic Unit 07090004, at culvert on State Highway 92, 4.3 mi west of Brooklyn; drainage area, 3.33 mi^2.	1961-96	06-17-96	13.77	150	03-31-65	15.06	370
			ILLINOIS RIVER BASIN					
05545100 Sugar Creek at Elkhorn	Lat 42°41'05", long 88°30'50" in SW 1/4 sec.29, T.3 N., R.17 E., Walworth County, Hydrologic Unit 07120006, at culvert on State Highway 11, 2.0 mi northeast of Elkhorn; drainage area, 6.63 mi^2.	1962-96	06-17-96	12.89	215	04-21-73	17.47	900
05545200 White River Tributary near Burl-ington	Lat 42°41'03", long 88°22'37" on com-mon boundry of secs.27 and 34, T.3 N., R.18 E., Walworth County, Hydrologic Unit 07120006, at box culvert on State Highway 11, 4.5 mi west of Burlington; drainage area, 2.42 mi^2.	1958-96	06-17-96	12.76	182	04-21-73	14.10	290
05548150 North Branch Nippersink Creek near Genoa City	Lat 42°30'15", long 88°23'01" in SW 1/4 NW 1/4 sec.33, T.1 N., R.18 E., Walworth County, Hydrologic Unit 07120006, at bridge on County Trunk Highway B, 3.0 mi west of Genoa City; drainage area, 13.6 mi^2.	1962-96	06-17-96	11.69	204	09-25-86	13.63	475

Operated as a continuous-record station
B Peak did not reach bottom of gage
C Peak not recorded
D Backwater from debris
E Estimated
F Revised
G Backwater from ice

Discharge at Miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		ST. CROIX RIVER BASIN				
Namekagon River	St. Croix River	Lat 45°59'22", long 91°30'33", in NE 1/4 SE 1/4 sec.32, T.41 N., R.9 W., Sawyer County, Hydrologic Unit 04040003, 1.1 mi upstream from Spring Lake Creek, and 2.1 mi southwest of intersection of U.S. Highway 63 and State Highway 27 in Hayward.	--	--	09/17/96	275
Kinnickinnic River	St. Croix River	Lat 44°52'30", long 92°37'16", in NE 1/4 NE 1/4 , sec.36, T.28 N., R.19 W., St. Croix County, Hydrologic Unit 07030005, on left bank 200 ft upstream from bridge on State Highway 35, 1.4 mi northeast of intersection of State Highways 29 and 35 in River Falls.	115	--	04/30/96 06/07/96 07/28/96 10/04/96	66.1 108 122 50
South Fork Kinnickinnic River	Kinnickinnic River	Lat 44°51'06", long 92°37'36", in SW 1/4 SE 1/4, sec.1, T.27 N., R.19 W., Pierce County, Hydrologic Unit 07030005, on left bank 0.2 mi upstream from State Highway 29 bridge at River Falls and 0.5 mi upstream from mouth.	18.1	--	05/01/96 06/07/96 07/28/96 10/04/96	10.6 17.9 88.6 9.28
Kinnickinnic River Tributary	Kinnickinnic River	Lat 44°50'36", long 92°38'38", in SE 1/4 NE 1/4, sec.11, T.27 N., R.19 W., Pierce County, Hydrologic Unit 07030005, on left bank, about 600 ft upstream from mouth, 1.4 mi southwest of Maple Street crossing of Kinnickinnic River in River Falls.	10.4	--	04/30/96 07/29/96 10/04/96	4.88 7.42 4.14
Kinnickinnic River	St. Croix River	Lat 44°50'43", long 92°38'51", in NW 1/4 NE 1/4, sec.11, T.27 N., R.19 W., Pierce County, Hydrologic Unit 07030005, on left bank, appoximately 700 ft downstream from intermittent tributary from south, and 1.1 mi southwest of intersection of State Highways 29 and 35 near River Falls.	147	--	04/30/96 06/07/96 07/28/96 08/28/96 10/04/96	97.6 131 192 74.6 76.4
		CHIPPEWA RIVER BASIN				
Allequash Creek, Site 3	Trout River	Lat 46°01'58", long 89°36'28", in NE 1/4 SW 1/4 sec.15, T.41 N., R.7 E., Vilas County, Hydrologic Unit 07050002, upstream of bridge on unnamed road, near Boulder Junction.	--	1992-95	09/20/95 11/03/95 06/19/96 07/26/96 09/13/96	3.48 4.38 4.73 6.74 4.56

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		CHIPPEWA RIVER BASIN--CONTINUED				
Little John Lake Tributary	Allequash Creek	Lat 46°01'29", long 89°39'00", in NE 1/4 NW 1/4 sec.20, T.41 N., R.7 E., Vilas County, Hydrologic Unit 07050002, at confluence with Allequash Creek, near Boulder Junction.	--	1992-95	09/21/95	5.87
					11/08/95	6.94
					06/02/96	2.85
					07/10/96	1.73
					09/13/96	1.63
North Creek	Trout River	Lat 46°04'43", long 89°40'02", in SW 1/4 NE 1/4 sec.31, T.42 N., R.7 E., Vilas County, Hydrologic Unit 07050002, at inlet to Trout Lake, 2.6 mi southwest of Boulder Junction.	3.58	1992-95	09/20/95	3.94
					11/08/95	5.97
					05/20/96	6.50
					07/01/96	0.00
					09/13/96	0.00
Mann Creek	Trout River	Lat 46°00'41", long 89°40'33", in NW 1/4 NW 1/4 sec.30, T.41 N., R.7 E., Vilas County, Hydrologic Unit 07050002, at County Trunk Highway N, near Boulder Junction.	--	1991-95	09/21/95	3.03
					11/03/95	9.32
					05/01/96	3.45
					07/10/96	3.77
					08/26/96	4.54
Mann Creek	Jump River	Lat 45°20'07", long 91°03'16", in SW 1/4 SE 1/4 sec.13, T.33 N., R.6 W., Rusk County, Hydrologic Unit 07050004, on town road approximately 3.5 mi northwest of Sheldon.	138	1988-89	10/28/94	108
					06/21/95	19.3
					08/14/95	2,800
					08/15/95	1,410
					08/16/95	598
					04/22/96	848
					04/24/96	456
					08/08/96	36.8
		BLACK RIVER BASIN				
Pigeon Creek	Glen Creek	Lat 44°12'53", long 90°36'26", in NE 1/4 NW 1/4, sec.15, T.20 N., R.2 W., Jackson County, Hydrologic Unit 07040007, above Pigeon Creek Flowage and 4 mi northeast of Millston.	--	--	08/01/96	0.19
					08/13/96	0.14
					08/27/96	0.12
					09/10/96	0.06
					09/24/96	0.17
Clear Creek	Robinson Creek	Lat 44°08'07", long 90°39'55", in NE 1/4 NE 1/4, sec.7, T.19 N., R.2 W., Monroe County, Hydrologic Unit 07040006, on the Fort McCoy Military Reservation and above the North Flowage of Cranberry Bog.	2.70	--	08/01/96	1.57
					08/13/96	1.42
					08/27/96	1.40
					09/10/96	1.66
					09/25/96	1.35
Stony Creek	Shamrock Creek	Lat 44°10'67", long 90°46'13", in NW 1/4, SE 1/4, sec.32, T.20 N., R.3 W., Jackson County, Hydrologic Unit 07040007, approximately 2 mi upstream from County Trunk O and on the Mills property.	--	--	08/01/96	0.77
					08/13/96	0.63
					08/27/96	0.65
					09/25/96	0.38

Water-quality data in this section are for samples collected at gaging stations and other sites on streams for reconnaissance or other purposes on a non-continuous basis.

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

STREAMS TRIBUTARY TO LAKE MICHIGAN

04085139 FOX RIVER AT MOUTH AT GREEN BAY, WI (LAT 44 32 22N LONG 88 00 16W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
OCT 1995												
23...	1145	5450	35	8.0	9.5	10.1	744	160	31	21	11	2.7
DEC												
05...	1600	10700	--	8.5	--	--	741	200	42	24	23	3.0

DATE	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	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)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT 1995											
23...	--	--	--	13	17	0.10	1.4	208	0.150	0.020	0.330
DEC											
05...	78	23	102	28	36	0.20	6.5	291	0.580	0.010	0.510

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	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)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 1995											
23...	1.3	1.1	0.160	0.080	0.090	35	5.0	8.8	1.1	17	93
DEC											
05...	1.6	1.3	0.160	0.080	0.080	44	10	--	--	27	94

DATE	TIME	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
JUN 1996		
18...	1000	38

040853915 PINE CREEK NEAR NEW HOLSTEIN, WI (LAT 43 57 50N LONG 88 04 05W)

DATE	TIME	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
JUN 1996		
18...	1300	14

040853922 DRAINAGE DITCH AT NEW HOLSTEIN, WI (LAT 43 57 34N LONG 88 04 54W)

DATE	TIME	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
JUN 1996		
18...	1130	16

040853923 JORDON CREEK NEAR NEW HOLSTEIN, WI (LAT 43 57 50N LONG 88 04 32W)

DATE	TIME	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
JUN 1996		
18...	1200	52

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

STREAMS TRIBUTARY TO LAKE MICHIGAN--CONTINUED

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)
040853926 PINE CREEK AT MEGGERS ROAD NEAR NEW HOLSTEIN, WI (LAT 43 58 18N LONG 88 03 54W)			
JUN 1996			
18...	1310	---	37
040853936 PINE CREEK AT QUARRY ROAD AT HAYTON, WI (LAT 44 00 30N LONG 88 06 40W)			
JUN 1996			
18...	1045	239	45

04085454 MEEME RIVER AT CT HIGHWAY XX NEAR CLEVELAND, WI (LAT 43 55 20N LONG 87 48 45W)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE LAB (STANDARD UNITS) (00403)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
OCT 1995								
05...	1328	1.8	8.4	1.3	130	<5	<0.027	0.099
10...	1404	2.7	8.4	1.8	270	<5	<0.027	0.116
19...	1324	1.9	8.4	1.6	100	<5	<0.027	0.088
26...	1234	3.2	--	--	--	<5	<0.027	0.086
NOV								
30...	1209	6.8	8.0	1.6	130	<5	0.032	0.083
JAN 1996								
10...	1320	2.4	7.9	1.4	390	<5	0.125	0.090
FEB								
12...	1137	3.5	7.6	6.3	--	15	1.23	0.391
26...	1333	E40	7.6	4.1	300	6	0.837	0.300
MAR								
14...	1618	E50	8.0	3.1	200	6	0.682	0.291
28...	1024	15	8.2	2.3	80	18	0.172	0.165
APR								
04...	1217	10	8.2	2.0	40	9	0.133	0.140
11...	1248	12	8.4	2.3	30	6	<0.027	0.104
17...	1548	33	8.3	1.8	60	10	0.055	0.150
24...	1422	15	8.7	1.9	10	9	0.040	0.129
MAY								
01...	1210	46	8.3	2.3	360	5	0.056	0.185
07...	1428	10	9.0	2.1	30	<5	<0.027	0.094
15...	1422	10	8.7	3.8	350	<5	<0.027	0.092
22...	1222	5.6	8.9	2.6	20	5	<0.027	0.197
29...	1334	3.8	8.9	3.3	20	<5	<0.027	0.146
JUN								
05...	1214	8.0	8.4	<3.0	130	<5	0.058	0.195
11...	1216	20	8.2	<3.0	310	<5	0.062	0.216
19...	1340	140	7.9	<3.0	2000	15	0.081	0.283
25...	1602	10	8.3	3.3	210	13	0.147	0.256
JUL								
02...	1112	5.2	8.4	9.2	22000	25	0.034	0.412
10...	1802	4.4	8.6	<3.0	90	6	0.028	0.258
16...	1414	2.7	8.8	3.2	210	9	0.030	0.210
24...	1422	2.4	8.8	<3.0	190	7	0.037	0.197
31...	1115	4.4	8.4	1.5	9000	10	0.038	0.226
AUG								
05...	1354	2.5	8.8	1.0	1200	<5	0.030	0.181
15...	1514	2.4	8.7	0.4	460	5	<0.027	0.198
28...	1242	2.2	8.5	1.5	130	7	0.032	0.169
SEP								
05...	1742	2.2	8.6	1.6	630	13	0.027	0.144
12...	1102	2.2	8.4	1.1	620	12	0.034	0.136
20...	1808	2.0	--	0.1	790	7	<0.027	0.099
27...	1418	2.0	--	1.1	11000	18	0.065	0.146

E Estimated

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

STREAMS TRIBUTARY TO LAKE MICHIGAN--CONTINUED

04086710 MILWAUKEE RIVER AT HIGHWAY 167 AT THIENSVILLE, WI (LAT 43 13 18N LONG 87 58 52W)

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)
JUN 1996 19...	1230	18	109

04087120 MENOMONEE RIVER AT WAUWATOSA, WI (LAT 43 02 44N LONG 87 59 59W)

BEGINNING DATE	BEGINNING TIME	ENDING DATE	ENDING TIME	RUNOFF VOLUME, MILLIONS OF CUBIC FEET (99905)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L) (00310)	CALCIUM TOTAL RECOVERABLE (MG/L AS CA) (00916)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, TOTAL RECOVERABLE (MG/L) (00921)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
08-19-96	0250	08-19-96	2010	14.4	10	51	36	21	15

DATE	ALKALINITY WAT WH TOT FET LAB MG/L AS CACO3 (00417)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	CADMIUM TOTAL RECOVERABLE (UG/L) (01113)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	COPPER, TOTAL RECOVERABLE (UG/L) (01119)	COPPER, DISSOLVED (UG/L AS CU) (01040)
Aug 1996 19...	110	68	186	0.473	<0.027	0.359	0	0.04	20	3.9

DATE	LEAD, TOTAL RECOVERABLE (UG/L) (01114)	LEAD, DISSOLVED (UG/L AS PB) (01049)	ZINC, TOTAL RECOVERABLE (UG/L) (01094)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	ACENAPHTHYLENE TOTAL (UG/L) (34200)	ACENAPHTHENE TOTAL (UG/L) (34205)	ANTHRACENE TOTAL (UG/L) (34220)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L) (34526)	BENZO-A-PYRENE TOTAL (UG/L) (34247)	BENZO B FLUORANTHENE TOTAL (UG/L) (34230)
Aug 19996 19...	30	<0.40	110	<8.0	<0.044	<0.140	0.230	1.20	2.20	2.00

DATE	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L) (34521)	BENZO K FLUORANTHENE TOTAL (UG/L) (34242)	CHRYSENE TOTAL (UG/L) (34320)	FLUORANTHENE TOTAL (UG/L) (34376)	FLUORENE TOTAL (UG/L) (34381)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L) (34403)	NAPHTHALENE TOTAL (UG/L) (34696)	1,2,5,6-DIBENZANTHRACENE TOTAL (UG/L) (34556)	PHENANTHRENE TOTAL (UG/L) (34461)	PYRENE TOTAL (UG/L) (34469)
Aug 1996 19...	1.60	1.10	1.70	4.00	<0.160	1.70	<0.054	0.180	1.80	2.80

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

ST. CROIX RIVER BASIN

453546092042201 KIRBY LAKE TRIBUTARY AT SITE H NR CUMBERLAND, WI (LAT 45 35 46N LONG 092 04 22W)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
APR 1996			
20...	1100	E0.20	0.113

453550092042201 KIRBY LAKE TRIBUTARY AT SITE G NR CUMBERLAND, WI (LAT 45 35 50N LONG 092 04 22W)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
NOV 1995			
01...	1110	E2.0	0.055
APR 1996			
17...	1440	0.38	0.082
20...	1050	E3.0	0.094
MAY 1996			
06...	0930	E0.80	0.061
10...	0950	0.33	0.064
JUN			
27...	0935	1.9	0.076
JUL			
05...	1715	0.22	0.065

453551092035501 KIRBY LAKE TRIBUTARY AT SITE I NR CUMBERLAND, WI (LAT 45 35 51N LONG 092 03 55W)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
APR 1996			
20...	0930	<0.10	0.093

453555092042301 KIRBY LAKE TRIBUTARY AT SITE F NR CUMBERLAND, WI (LAT 45 35 55N LONG 092 04 23W)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
NOV 1995			
01...	1115	E0.02	0.030
APR 1996			
17...	1445	E0.50	0.052
20...	1040	E0.20	0.093
MAY 1996			
06...	0930	E0.10	0.064
JUN			
27...	0925	<0.10	0.091

453559092033701 KIRBY LAKE TRIBUTARY AT SITE J NR CUMBERLAND, WI (LAT 45 35 59N LONG 092 03 37W)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
APR 1996			
20...	0920	<0.05	0.081

453603092033201 KIRBY LAKE TRIBUTARY AT SITE K NR CUMBERLAND, WI (LAT 45 36 03N LONG 092 03 32W)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
APR 1996			
20...	0910	E0.20	0.094

453616092041101 KIRBY LAKE TRIBUTARY AT SITE E NR CUMBERLAND, WI (LAT 45 36 16N LONG 092 04 11W)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
NOV 1995			
01...	1100	E0.20	0.019
APR 1996			
17...	1510	E1.0	0.055
20...	1030	E0.30	0.047
MAY 1996			
06...	0930	E0.10	0.038
10...	1205	E0.05	0.040
JUN			
27...	0830	E0.10	0.127

453617092033101 KIRBY LAKE TRIBUTARY AT SITE L NR CUMBERLAND, WI (LAT 45 36 17N LONG 092 03 31W)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
APR 1996			
20...	0900	<0.10	0.057
MAY 1996			
10...	1225	E0.01	0.149

453621092035501 KIRBY LAKE TRIBUTARY AT SITE D NR CUMBERLAND, WI (LAT 45 36 21N LONG 092 03 55W)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
NOV 1995			
01...	1052	E0.10	0.025
APR 1996			
17...	1530	E0.90	0.072
20...	1020	E0.90	0.048
JUN 1996			
27...	0910	E0.50	0.060

453623092035101 KIRBY LAKE TRIBUTARY AT SITE C NR CUMBERLAND, WI (LAT 45 36 23N LONG 092 03 51W)

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOSPHORUS TOTAL (MG/L AS P) (00665)
NOV 1995			
01...	1043	E0.01	0.060
APR 1996			
20...	1010	E0.05	0.059
JUN 1996			
27...	0905	E0.01	0.062

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

ST. CROIX RIVER BASIN--CONTINUED

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
453628092034301 KIRBY LAKE TRIBUTARY AT SITE A NR CUMBERLAND, WI (LAT 45 36 28N LONG 092 03 43W)							
NOV 1995				MAY 1996			
01...	1030	E0.20	0.059	06...	0900	E0.20	0.058
APR 1996				10...	1220	E0.05	0.070
17...	1550	E0.30	0.068	JUN			
20...	0950	E0.40	0.071	27...	0840	E0.60	0.140
453628092035001 KIRBY LAKE TRIBUTARY AT SITE B NR CUMBERLAND, W I (LAT 45 36 28N LONG 092 03 50w)							
NOV 1995				MAY 1996			
01...	1033	E0.05	0.092	06...	0915	E0.05	0.169
APR 1996				10...	1215	E0.01	0.108
17...	1540	E0.35	0.059	JUN			
20...	1000	E0.10	0.112	27...	0835	E0.20	0.061

CHIPPEWA RIVER BASIN

454657091300600 BIG SISSABAGAMA TRIBUTARY NEAR STONE LAKE, WI (LAT 45 46 57N LONG 091 30 06W)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
AUG 1996						
20...	1045	86	8.1	23.0	8.6	0.031

BLACK RIVER BASIN

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	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)
053813805 PIGEON CR ABOVE PIGEON CR FLOWAGE NR MILLSTON,WI (LAT 44 13 21N LONG 90 36 03W)											
AUG 1996											
01...	1400	0.19	17	6.1	17.0	8.6	<5	0.078	<0.027	0.40	0.025
13...	1417	0.14	18	5.8	19.0	8.8	<5	0.081	<0.027	0.50	0.035
27...	1509	0.12	16	6.0	15.5	8.8	<5	0.052	<0.027	0.40	0.029
SEP											
10...	1120	0.06	24	6.6	19.0	9.2	9	0.022	<0.027	0.40	0.062
10...	1820	0.09	17	5.9	17.5	8.3	<5	0.033	<0.027	0.60	0.030
24...	1700	0.17	--	6.4	--	--	<5	0.015	<0.027	0.30	0.012

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BLACK RIVER BASIN--CONTINUED

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	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)
05381386 CLEAR CREEK SITE C-1 @ FORT MCCOY NR MILLSTON,WI (LAT 44 08 36N LONG 90 39 22W)											
AUG 1996											
01...	0910	1.6	31	6.7	9.5	10.6	<5	0.681	<0.027	<0.21	0.046
13...	0950	1.4	28	6.6	10.0	10.4	<5	0.714	<0.027	<0.21	0.053
27...	1115	1.4	27	6.6	11.0	10.8	<5	0.766	<0.027	0.08	0.049
SEP											
10...	0859	1.7	28	6.2	10.0	9.7	<5	0.723	<0.027	<0.21	0.044
25...	0940	1.3	--	6.6	--	--	<5	0.714	<0.027	<0.21	0.053
05381391 STONY CREEK S-1 @ MILLS PROPERTY NR SHAMROCK, WI (LAT 44 10 00N LONG 90 46 12W)											
AUG 1996											
01...	1230	0.77	98	7.2	17.5	10.9	<5	0.639	<0.027	0.30	0.033
13...	1240	0.63	102	6.9	19.0	9.4	<5	0.215	<0.027	0.36	0.036
27...	1345	0.65	90	7.3	16.5	9.4	<5	0.321	<0.027	0.32	0.029
SEP											
25...	1140	0.38	--	7.4	--	--	<5	0.673	<0.027	0.20	0.023

WISCONSIN RIVER BASIN

054064509 BLACK EARTH CREEK LOW FLOW #3 NR CROSS PLAINS,WI (LAT 43 05 49N LONG 89 37 32W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)
OCT 1995											
23...	1255	1.7	643	8.1	9.5	8.4	11.1	727	21	--	308
DEC											
07...	1130	1.5	695	7.7	0.0	2.5	13.1	743	16	50	338

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)	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, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT 1995											
23...	16	20	<0.10	0.020	2.60	0.050	0.40	0.050	0.020	0.030	86
DEC											
07...	20	24	0.20	0.020	3.00	0.170	0.50	0.060	0.020	0.020	48

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

ROCK RIVER BASIN

05427270 KOSHKONONG CREEK NEAR SUN PRAIRIE, WI (LAT 43 08 58N LONG 89 14 13W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)
MAY 1996												
07...	1050	8.0	1270	7.2	10.5	2.0	10.7	747	33	200	--	330
JUN												
27...	0800	15	1060	7.5	16.5	3.8	6.2	745	44	250	--	322
JUL												
08...	1300	13	1480	7.7	18.0	1.6	7.1	734	24	1200	--	319
AUG												
13...	1350	5.9	1480	7.6	20.0	1.1	7.1	741	29	1900	350	318

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)	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, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
MAY 1996											
07...	41	170	0.50	0.030	4.00	0.340	1.2	1.80	1.70	1.10	4
JUN											
27...	32	120	0.40	0.090	4.50	0.420	1.1	0.890	0.810	0.790	18
JUL											
08...	33	230	0.50	0.160	5.70	0.190	1.0	1.20	1.20	0.960	12
AUG											
13...	33	240	0.40	1.10	11.0	0.160	1.0	1.90	1.80	1.80	10

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
SEP 1996						
04...	0600	--	--	--	18.5	5.4
04...	0630	--	--	--	18.0	5.4
04...	0700	--	--	--	18.0	5.4
04...	0730	--	--	--	18.0	5.6
04...	0800	--	--	--	18.0	5.7
04...	0830	--	--	--	18.5	6.0
04...	0900	4.8	1790	7.7	18.5	6.2
04...	0930	--	--	--	18.5	6.3
04...	1000	--	--	--	19.0	7.1
04...	1030	--	--	--	19.0	7.5

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

ROCK RIVER BASIN--CONTINUED

05427507 KOSHKONONG CREEK NEAR ROCKDALE, WI (LAT 42 57 05N LONG 89 01 37W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)
MAY 1996												
08...	1020	83	833	7.9	9.5	1.6	10.9	745	36	97	--	314
JUL												
09...	1000	86	814	7.9	18.5	33	7.1	738	46	770	--	311
AUG												
13...	0740	63	830	8.0	21.5	26	7.2	746	37	410	260	327
SEP												
05...	1010	37	880	8.1	22.0	9.2	7.0	748	28	450	--	325

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)	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, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
MAY 1996											
08...	73	46	0.20	0.030	3.50	0.130	0.90	0.170	0.090	0.090	17
JUL											
09...	51	42	0.20	0.160	3.90	0.200	1.1	0.510	0.130	0.140	206
AUG											
13...	47	49	0.20	0.060	3.50	0.110	0.80	0.360	0.130	0.180	59
SEP											
05...	42	63	0.20	0.080	3.40	0.140	0.60	0.290	0.190	0.200	64

DATE	TIME	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
AUG 1996			
13...	0555	21.5	7.0
13...	0625	21.5	7.1
13...	0655	21.5	7.0
13...	0725	21.5	7.1
13...	0740	21.5	7.2
13...	0755	21.5	7.3
13...	0825	21.5	7.2
13...	0855	21.5	7.3
13...	0925	21.5	7.3
13...	0955	21.5	7.4
13...	1025	21.5	7.6
13...	1055	21.5	7.7

05427851 YAHARA RIVER AT WESTPORT ROAD NEAR MADISON, WI (LAT 43 07 52N LONG 89 24 15W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT 1995				
04...	1335	--	0.083	0.003

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

ROCK RIVER BASIN--CONTINUED

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
05427905 SIXMILE CREEK @ WOODLAND DRIVE NEAR WAUNAKEE, WI (LAT 43 08 27N LONG 89 25 55W)				
OCT 1995 04...	1411	12	0.154	0.114
05427933 SPRING CREEK AT NORTH SHORE ROAD NR WESTPORT, WI (LAT 43 07 59N LONG 89 26 16W)				
OCT 1995 04...	1242	4.7	0.143	0.114
05427952 PHEASANT BRANCH AT MOUTH AT MIDDLETON, WI (LAT 43 06 28N LONG 89 29 01W)				
OCT 1995 04...	1050	4.8	0.121	0.030

05429580 DOOR CREEK NEAR COTTAGE GROVE, WI (LAT 43 02 54N LONG 89 13 54W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)
OCT 1995 23...	1000	5.9	816	7.6	7.5	3.4	9.4	732	22	--	355
DEC 07...	1355	7.6	800	7.6	0.5	2.9	13.3	748	15	87	358

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)	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, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
OCT 1995 23...	40	31	0.10	0.030	4.40	0.140	0.70	0.060	0.020	0.030	66
DEC 07...	43	32	0.20	0.020	5.00	0.090	0.50	0.050	0.030	0.020	57

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

ROCK RIVER BASIN--CONTINUED

05430175 YAHARA RIVER AT STATE HIGH 59 NEAR FULTON, WI (LAT 42 49 50N LONG 89 10 18W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	ACETO-CHLOR, WATER, UNFLTRD REC (UG/L) (49259)	ALA-CHLOR TOTAL RECOVER (UG/L) (77825)	ALA-CHLOR (ELISA) WAT FLT 0.7 U GF, REC (UG/L) (82695)	ATRA-ZINE WATER UNFLTRD REC (UG/L) (39630)
MAY 1996							
15...	1140	574	1.86	<0.10	<0.150	<1.0	<0.150
22...	1135	663	0.743	<0.10	<0.150	<1.0	<0.150
29...	1330	564	3.17	0.35	<0.150	<1.0	0.179
JUN							
03...	1225	409	3.02	<0.10	<0.150	<1.0	<0.150
05...	1245	438	3.06	<0.10	<0.150	1.6	<0.150
07...	1330	1510	0.500	0.70	0.186	<1.0	0.331
12...	1230	591	2.12	0.19	<0.150	<1.0	0.903
17...	1425	2590	4.41	1.0	0.225	2.0	1.25
18...	1245	2920	2.75	0.63	0.922	<1.0	5.58
19...	1150	1770	2.14	0.61	0.251	<1.0	7.83
24...	1000	1450	0.690	0.50	<0.150	<1.0	0.289
26...	1240	1030	0.500	0.17	<0.150	<1.0	<0.150
JUL							
02...	1220	869	2.03	<0.10	<0.150	<1.0	0.359
11...	1330	551	2.32	<0.10	<0.150	<1.0	<0.150
17...	1230	469	1.93	<0.10	<0.150	1.1	<0.150

DATE	CYAN-AZINE TOTAL (UG/L) (81757)	DEETHYL ATRA-ZINE, WATER, WHOLE, TOTAL (UG/L) (75981)	DEETHYL DE-ISO PROPYL ATRAZIN WAT, WH TOTAL (UG/L) (75979)	DE-ISO PROPYL ATRAZIN WATER, WHOLE, TOTAL (UG/L) (75980)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L) (82612)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L) (82611)
MAY 1996						
15...	<0.500	<0.300	<1	<0.300	<0.250	<0.050
22...	<0.500	<0.300	<1	<0.300	<0.250	<0.050
29...	1.53	<0.300	<1	<0.300	<0.250	<0.050
JUN						
03...	<0.500	<0.300	<1	<0.300	<0.250	<0.050
05...	<0.500	<0.300	<1	<0.300	<0.250	<0.050
07...	3.33	<0.300	<1	<0.300	1.20	<0.050
12...	<0.500	<0.300	<1	<0.300	0.370	<0.050
17...	7.43	<0.300	<1	<0.300	2.03	<0.050
18...	0.933	0.666	<1	<0.300	2.38	0.096
19...	1.90	0.871	<1	0.357	2.53	0.062
24...	1.42	<0.300	<1	<0.300	0.748	<0.050
26...	<0.500	<0.300	<1	<0.300	<0.250	<0.050
JUL						
02...	<0.500	<0.300	<1	<0.300	<0.250	<0.050
11...	<0.500	<0.300	<1	<0.300	<0.250	<0.050
17...	<0.500	<0.300	<1	<0.300	<0.250	<0.050

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

ROCK RIVER BASIN--CONTINUED

05434500 PECATONICA RIVER AT MARTINTOWN, WI (LAT 42 30 34N LONG 89 47 58W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	ACETO-CHLOR, WATER, UNFLTRD REC (UG/L) (49259)	ALA-CHLOR TOTAL RECOVER (UG/L) (77825)	ALA-CHLOR (ELISA) WAT FLT 0.7 U GF, REC (UG/L) (82695)	ATRA-ZINE WATER UNFLTRD REC (UG/L) (39630)
MAY 1996							
15...	0940	1080	4.74	<0.10	<0.150	<1.0	0.281
22...	0945	876	4.18	<0.10	<0.150	<1.0	0.343
29...	1100	1550	5.55	0.87	<0.150	2.0	5.24
30...	1045	1560	5.21	0.72	<0.150	<1.0	2.13
JUN							
03...	1020	1290	4.85	<0.10	<0.150	<1.0	0.784
05...	1100	1130	4.70	<0.10	<0.150	<1.0	0.746
07...	1115	1630	4.89	0.40	<0.150	<1.0	1.48
08...	1300	1890	0.500	1.0	<0.150	<1.0	2.97
09...	1315	1980	0.500	0.74	<0.150	<1.0	2.89
12...	1100	1630	0.650	<0.10	<0.150	<1.0	<0.150
17...	1215	2210	4.45	1.0	0.234	1.7	1.24
18...	1040	2090	1.32	0.43	0.173	<1.0	0.157
19...	1000	2350	0.870	1.1	<0.150	<1.0	0.389
21...	1500	3200	1.86	0.76	0.338	<1.0	3.12
26...	0950	1870	5.02	0.14	<0.150	<1.0	1.06
JUL							
02...	1045	1320	1.75	<0.10	<0.150	<1.0	0.375
11...	1130	904	4.79	<0.10	<0.150	<1.0	<0.150
17...	1030	844	5.23	<0.10	<0.150	<1.0	<0.150

DATE	CYAN-AZINE TOTAL (UG/L) (81757)	DEETHYL ATRA-ZINE, WATER, WHOLE, TOTAL (UG/L) (75981)	DEETHYL DE-ISO PROPYL ATRAZIN WAT, WH TOTAL (UG/L) (75979)	DE-ISO PROPYL ATRAZIN WATER, WHOLE, TOTAL (UG/L) (75980)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L) (82612)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L) (82611)
MAY 1996						
15...	<0.500	<0.300	<1	<0.300	0.332	<0.050
22...	<0.500	<0.300	<1	<0.300	0.362	<0.050
29...	2.72	0.565	<1	<0.300	2.17	0.050
30...	<0.500	0.334	<1	<0.300	1.01	<0.050
JUN						
03...	0.546	0.312	<1	<0.300	0.295	<0.050
05...	<0.500	<0.300	<1	<0.300	0.711	<0.050
07...	1.07	0.302	<1	<0.300	1.04	<0.050
08...	1.28	0.410	<1	<0.300	3.13	<0.050
09...	0.802	0.437	<1	<0.300	1.63	<0.050
12...	<0.500	<0.300	<1	<0.300	<0.250	<0.050
17...	8.07	<0.300	<1	<0.300	2.05	<0.050
18...	1.43	<0.300	<1	<0.300	<0.250	<0.050
19...	1.99	<0.300	<1	<0.300	1.15	<0.050
21...	1.24	0.656	<1	<0.300	2.40	0.102
26...	0.671	<0.300	<1	<0.300	1.09	<0.050
JUL						
02...	<0.500	<0.300	<1	<0.300	<0.250	<0.050
11...	<0.500	<0.300	<1	<0.300	<0.250	<0.050
17...	<0.500	<0.300	<1	<0.300	<0.250	<0.050

MISCELLANEOUS WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

ROCK RIVER BASIN--CONTINUED

05435980 WEST BRANCH SUGAR RIVER NEAR MT. VERNON, WI (LAT 42 54 47N LONG 89 37 19W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)
MAY 1996												
07...	1415	19	651	8.4	10.0	0.70	14.3	746	13	130	--	279
JUL												
08...	1025	32	673	8.0	14.0	24	9.2	736	12	1900	--	289
AUG												
16...	0710	23	680	8.0	13.0	25	9.3	745	17	3900	2400	288
SEP												
05...	1300	18	678	8.1	15.5	7.2	9.9	745	<10	2700	--	288

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)	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, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	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)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
MAY 1996											
07...	19	28	0.20	0.030	2.80	0.030	0.40	0.140	0.130	0.120	7
JUL											
08...	17	20	0.10	0.040	6.40	0.040	0.20	0.270	0.100	0.120	108
AUG											
16...	18	25	0.10	0.040	6.30	0.030	0.30	0.230	0.170	0.170	102
SEP											
05...	19	23	0.10	0.030	6.10	0.050	0.30	0.160	0.120	0.150	39

DATE	TIME	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
AUG 1996			
16...	0555	13.0	9.3
16...	0625	13.0	9.3
16...	0655	13.0	9.3
16...	0710	13.0	9.3
16...	0725	13.0	9.3
16...	0755	12.5	9.4
16...	0825	13.0	9.5
16...	0855	13.0	9.5
16...	0925	13.0	9.5
16...	0955	13.5	9.6
16...	1025	13.5	9.5
16...	1055	13.5	9.6

GROUND-WATER RECORDS

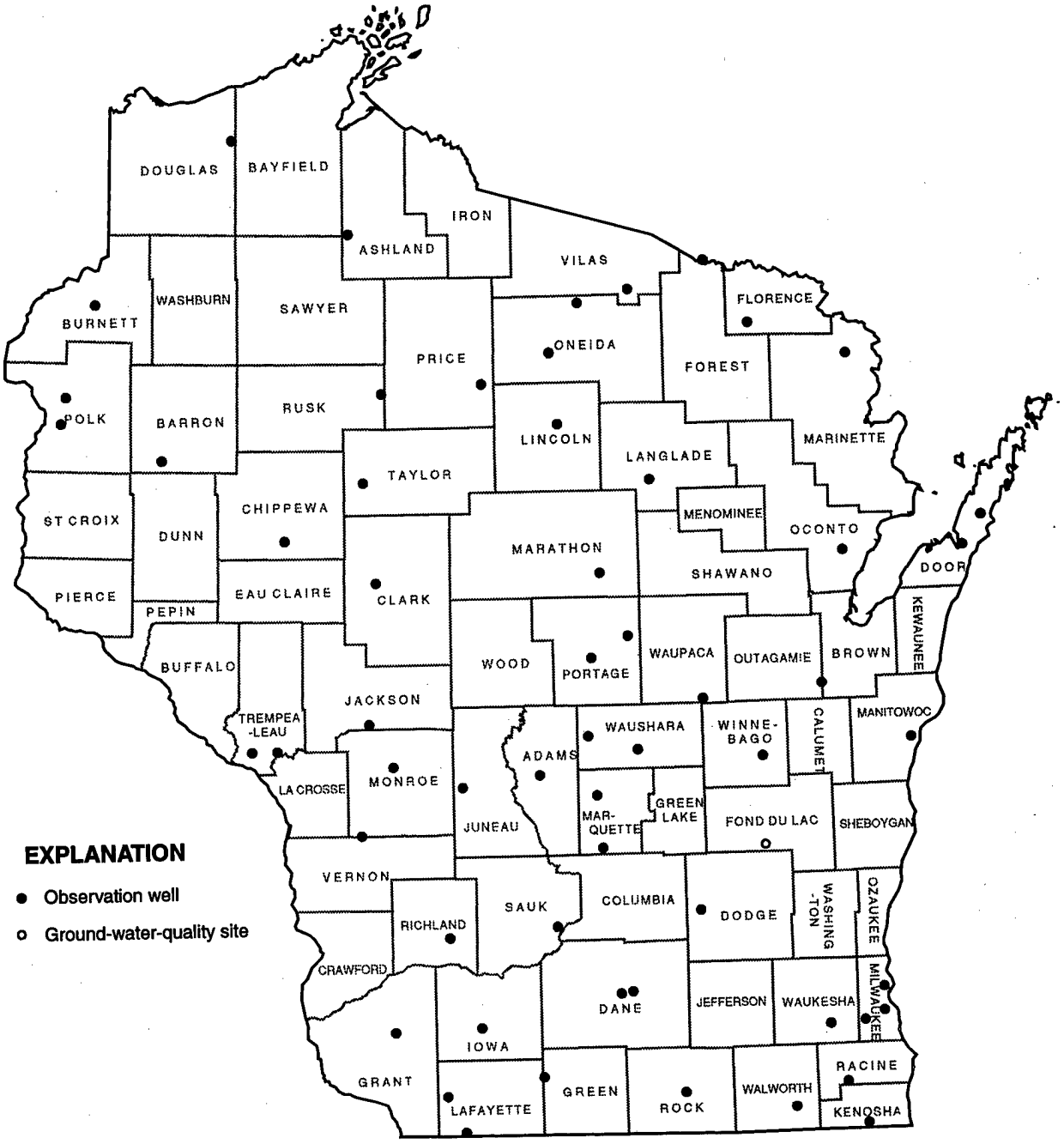


Figure 6. Location of observation wells and ground-water-quality site in Wisconsin.

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.

INSTRUMENTATION.--Water level measured weekly by observer.

DATUM.--Elevation of land-surface datum is 955 ft above sea level. 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, 9.69 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	14.98	DEC 04	14.60	FEB 05	15.43	APR 08	14.25	JUN 10	13.52	AUG 19	14.44
09	14.40	11	14.78	12	15.56	15	14.49	17	13.70	26	14.45
16	14.38	18	14.93	19	15.55	22	14.10	JUL 01	13.00	SEP 03	14.74
23	14.29	26	15.01	26	15.56	29	13.74	08	13.53	09	14.83
30	14.50	JAN 02	15.25	MAR 04	15.40	MAY 06	13.55	15	13.49	16	14.90
NOV 06	14.05	08	15.25	11	15.53	13	13.52	22	13.30	23	15.05
13	14.14	16	15.40	18	15.08	20	13.40	29	13.50	30	15.45
21	14.28	22	15.20	25	14.90	27	13.45	AUG 05	13.69		
27	14.30	29	15.26	APR 01	14.75	JUN 03	13.82	12	14.46		

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.

INSTUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 1,470 ft above sea level. 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	28.40	NOV 16	28.40	DEC 14	28.60	JAN 26	28.90	FEB 21	29.10	APR 17	29.10

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.

INSTRUMENTATION.--Water level measured monthly by observer.

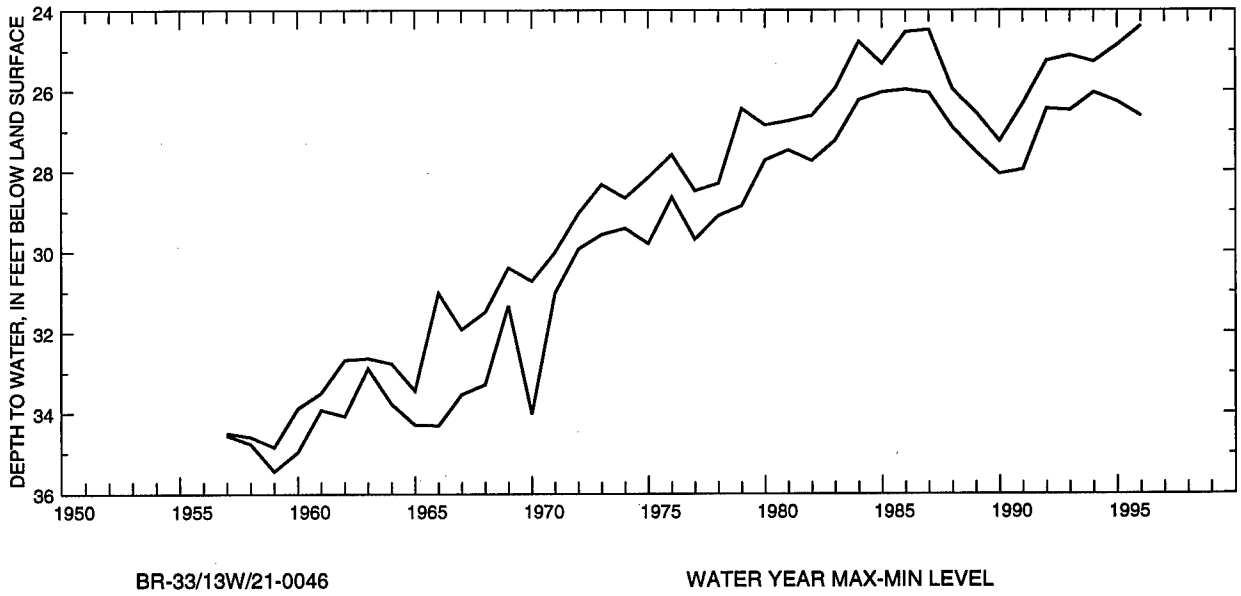
DATUM.--Elevation of land-surface datum is 1,115 ft above sea level. Measuring point: top of casing, 2.00 ft above land-surface datum.

PERIOD OF RECORD.--October 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.38 ft below land-surface datum, June 10, 1996; 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	25.00	JAN 17	24.99	MAR 14	25.46	MAY 24	26.62	JUN 10	24.38	JUL 03	26.45
NOV 10	24.76	FEB 29	25.31	APR 08	25.12						



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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 590 ft above sea level. 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	134.44	JAN 11	140.50	MAR 12	122.70	MAY 23	120.77	JUL 30	124.90	SEP 30	133.90
NOV 17	127.36	FEB 05	123.38	APR 17	121.90	JUN 24	122.30				

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.

INSTRUMENTATION.--Water level measured weekly by observer.

DATUM.--Elevation of land-surface datum is 981 ft above sea level. 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, 37.90 ft below land-surface datum, Aug. 21, 1992.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	32.72	DEC 01	32.57	JAN 26	32.79	MAR 22	32.89	JUN 21	32.55	AUG 23	32.27
13	32.65	08	32.72	FEB 02	32.83	29	32.91	JUL 05	32.47	30	32.30
20	32.69	15	32.75	09	32.70	APR 05	32.91	12	32.40	SEP 06	32.30
27	32.56	22	32.70	16	32.86	12	32.81	19	32.41	13	32.29
NOV 03	32.71	29	32.71	23	32.68	19	32.88	26	32.39	20	32.32
10	32.56	JAN 05	32.77	MAR 01	32.73	26	32.92	AUG 02	32.36	27	32.35
17	32.73	12	32.64	08	32.93	JUN 07	32.63	09	32.40		
24	32.65	19	32.78	15	32.77	14	32.61	16	32.33		

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.

INSTRUMENTATION.--Water level measured weekly by observer.

DATUM.--Elevation of land-surface datum is 965 ft above sea level. Measuring point: 1/4-in. hole in top of casing, 2.20 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.97 ft below land-surface datum, Oct. 28, 1986; 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	30.07	DEC 14	29.95	FEB 14	30.20	APR 15	30.32	JUN 14	29.58	AUG 13	29.30
NOV 15	30.28	JAN 15	30.70	MAR 14	30.17	MAY 15	29.62	JUL 17	29.35	SEP 18	29.56

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.

INSTRUMENTATION.--Water level measured by observer.

DATUM.--Elevation of land-surface datum is 1,210 ft above sea level. 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, 50.00 ft below land-surface datum Apr. 28, 1987; 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 05	56.71	DEC 01	56.75	JAN 25	57.13	MAR 20	57.58	JUN 04	56.04

430429089230301. Local number, DN-07/09E/23-0005.

LOCATION.--Lat 43°04'29", long 89°23'03", Hydrologic Unit 07090001. Owner: State of Wisconsin.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 346 ft, cased to 265 ft, open end.

INSTRUMENTATION.--Water level measured weekly by observer.

DATUM.--Elevation of land-surface datum is 930 ft above sea level. Measuring point: hole in pump base, 3.50 ft below land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 83.55 ft below land-surface datum, Dec. 25, 1960 lowest water level measured, 125.80 ft below land-surface datum, Aug. 1, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	119.09	NOV 27	99.90	JAN 22	106.87	MAR 18	104.69	JUN 10	99.02	AUG 12	111.58
09	116.27	DEC 04	106.18	29	107.99	APR 15	108.02	24	98.79	19	114.10
16	118.86	11	109.98	FEB 05	111.21	22	93.40	JUL 02	112.29	26	110.30
23	111.18	18	108.49	12	108.81	29	101.99	08	102.13	SEP 03	120.60
30	110.19	26	103.14	19	107.68	MAY 06	97.39	15	100.00	09	122.20
NOV 06	111.76	JAN 02	105.50	26	109.90	13	102.09	22	107.90	17	122.75
13	110.08	08	108.39	MAR 04	108.49	20	96.95	30	105.80	23	117.51
20	103.10	16	106.42	11	107.95	JUN 03	96.24	AUG 05	113.20		

430456089190601. Local number, DN-07/10E/09-0105.

LOCATION.--Lat 43°04'56", long 89°19'06", Hydrologic Unit 07070005. Owner: City of Madison.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in., depth 380 ft, cased to 85 ft, open end.

INSTRUMENTATION.--Continuous water-level recorder.

DATUM.--Elevation of land-surface datum is 870 ft above sea level. Measuring point: top of casing, 1.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.63 ft below land-surface datum, Mar. 23, 1986; lowest water level measured, 32.76 ft below land-surface datum, June 30, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		26.36	26.62	26.82	26.87	26.52	26.91	26.55	26.67	23.30	25.77	27.05
10		26.31	26.59	26.87	26.94	26.66	26.99	25.56	25.40		24.00	26.00
15		26.37	26.66	26.93	26.87	26.87	27.07	25.91	26.37	23.59	24.05	25.24
20		26.28	26.83	26.73	26.87	26.88	27.07	26.00	22.60	24.69	24.41	25.74
25		26.27	26.58	26.69	26.72	26.89	26.68	26.38	23.39	24.19	24.80	25.51
EOM	26.82	26.95	26.65	26.83	26.64	26.90	26.75	26.37	23.66	24.02	26.16	25.29

WTR YEAR 1996 MAX 27.84 APR 18 MIN 22.42 JUN 19

432407088552701. Local number, DG-11/13E/23-0081.

LOCATION.--Lat 43°24'15", long 88°55'26", Hydrologic Unit 07090002. Owner: Wis. Dept. of Transportation.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled domestic artesian well, diameter 6 in., depth 125 ft, cased to 57 ft, open end.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 880 ft above sea level. Measuring point: 1/4-in. hole in side of casing, 1.30 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.00 ft below land-surface datum, Dec. 4, 1991; lowest water level measured, 26.67 ft below land-surface datum, Feb. 3, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 07	17.26	JAN 09	19.27	MAR 04	18.69	JUN 12	17.26	AUG 07	17.97	SEP 19	18.22
DEC 04	17.48	15	19.54	MAY 29	18.14						

DOOR COUNTY

455757087151701. Local number, DR-29/27E/30-0007.

LOCATION.--Lat 44°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 84 ft.

INSTRUMENTATION.--Water level measured by observer.

DATUM.--Elevation of land-surface datum is 725 ft above sea level. Measuring point: hole in pump base, 1.00 ft above land-surface datum.

REMARKS.--Revised latitude and longitude effective 1994 water year.

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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	45.03	DEC 05	18.18	FEB 07	45.92	APR 17	11.77

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.

INSTRUMENTATION.--Continuous water-level recorder.

DATUM.--Elevation of land-surface datum is 616 ft above sea level. 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, 3.49 ft above land-surface datum, Apr. 20, 1972; lowest water level, 35.33 ft below land-surface datum, Feb. 1, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5			21.19			17.75	7.51	3.91	7.78		13.29	
10		17.74			19.83	20.12	7.37	4.70	5.00		15.10	
15		19.50			20.77	11.77	6.19	5.35			16.10	
20					22.32	10.71	3.33	5.97			17.51	
25	25.08				19.83	9.65	0.97	6.55			18.12	
EOM	22.45				15.84	7.22	3.47	8.90			20.30	

WTR YEAR 1996 MAX 25.10 OCT 26 MIN 0.97 APR 25

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 and gravel.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in., depth 40 ft, cased to 40 ft perforated 37-40 ft.

INSTRUMENTATION.--Water level measured by observer.

DATUM.--Elevation of land-surface datum is 980 ft above sea level. 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 12	1.25	MAR 08	1.47	APR 30	.01	JUL 01	1.87	AUG 06	.02	SEP 03	.75
FEB 01	1.26	APR 01	.86	JUN 05	2.02						

454622088324802. Local number, FC-38/15E/18-0093.

LOCATION.--Lat 45°46'22", long 88°32'48", Hydrologic Unit 04030108. Owner: U.S. Forest Service.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Augered water-table observation well, diameter 3 in.

DATUM.--Datum of gage is approximately 1,400 ft above sea level.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum observed water level, 65.57 ft, June 20, 1993; minimum observed water level, 62.04 ft, Mar. 10-11, 1990.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63.76	---	64.08	64.04	64.05	64.00	63.97	65.05	65.29	65.36	65.16	64.78
2	63.77	---	64.07	64.03	64.04	64.00	63.98	65.04	65.45	65.41	65.12	64.77
3	63.79	---	64.07	64.04	64.04	63.99	63.99	65.07	65.46	65.36	65.11	64.75
4	63.80	---	64.07	64.03	64.03	63.98	63.98	65.11	65.45	65.33	65.09	64.75
5	---	---	64.09	64.02	64.04	63.98	63.97	65.12	65.42	65.31	65.16	64.73
6	---	---	64.09	64.01	64.03	63.97	63.97	65.15	65.52	65.30	65.18	64.72
7	---	---	64.09	64.01	64.05	63.97	63.98	65.19	65.51	65.30	65.25	64.71
8	---	---	64.08	64.02	64.04	63.97	63.98	65.21	65.51	65.30	65.18	64.71
9	---	---	64.09	64.01	64.03	63.96	63.97	65.20	65.48	65.26	65.13	64.70
10	---	---	64.08	64.00	64.05	63.96	64.01	65.22	65.47	65.23	65.11	64.68
11	---	---	64.08	64.00	64.06	63.95	64.12	65.20	65.46	65.22	65.09	64.69
12	---	---	64.08	64.01	64.06	63.95	64.23	65.19	65.45	65.33	65.07	64.67
13	---	---	64.08	64.00	64.06	63.97	64.20	65.19	65.43	65.38	65.07	64.66
14	---	---	64.08	64.00	64.06	63.98	64.17	65.19	65.40	65.33	65.07	64.65
15	---	---	64.07	63.98	64.06	63.98	64.19	65.20	65.39	65.30	65.05	64.64
16	---	---	64.07	64.00	64.05	63.98	64.18	65.21	65.39	65.26	65.03	64.63
17	---	---	64.07	64.00	64.05	63.98	64.20	65.23	65.46	65.22	65.00	64.60
18	---	---	64.07	64.08	64.05	63.97	64.31	65.24	65.51	65.36	64.98	64.59
19	---	---	64.07	64.10	64.04	63.96	64.63	65.28	65.49	65.35	64.98	64.57
20	---	---	64.07	64.08	64.02	63.95	64.93	65.28	65.46	65.29	64.97	64.56
21	---	---	64.07	64.07	64.00	63.95	65.07	65.29	65.46	65.26	64.95	64.58
22	---	---	64.07	64.07	64.00	63.95	65.12	65.30	65.46	65.23	64.97	64.68
23	---	---	64.07	64.06	64.01	63.94	65.10	65.29	65.45	65.20	64.94	64.63
24	---	---	64.07	64.06	64.01	63.96	65.13	65.27	65.46	65.22	64.92	64.62
25	---	---	64.07	64.05	64.00	63.98	65.25	65.28	65.41	65.21	64.90	64.59
26	---	---	64.07	64.04	63.99	63.96	65.22	65.29	65.42	65.17	64.89	64.59
27	---	---	64.07	64.06	64.00	63.96	65.13	65.29	65.51	65.15	64.87	64.62
28	---	64.07	64.05	64.04	64.00	63.96	65.10	65.30	65.46	65.21	64.85	64.60
29	---	64.07	64.05	64.07	63.99	63.97	65.09	65.29	65.44	65.23	64.83	64.56
30	---	64.08	64.05	64.05	---	63.98	65.08	65.29	65.39	65.21	64.81	64.55
31	---	---	64.04	64.05	---	63.97	---	65.29	---	65.19	64.80	---
MEAN	---	---	64.07	64.03	64.03	63.97	64.47	65.22	65.45	65.27	65.02	64.65
MAX	---	---	64.09	64.10	64.06	64.00	65.25	65.30	65.52	65.41	65.25	64.78
MIN	---	---	64.04	63.98	63.99	63.94	63.97	65.04	65.29	65.15	64.80	64.55

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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 1,552 ft above sea level. 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, 12.50 ft below land-surface datum, Dec. 24, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 08	10.68	JAN 30	10.49	APR 10	11.09	JUN 05	10.50

GRANT COUNTY

425551090391301. Local number, GR-05/02W/06-0005.

LOCATION.--Lat 42°55'51", long 90°39'13", Hydrologic Unit 07060003. Owner: Homer Yelinek.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in., depth 35 ft, cased to 5 ft, open end.

INSTRUMENTATION.--Water level measured monthly by observer.

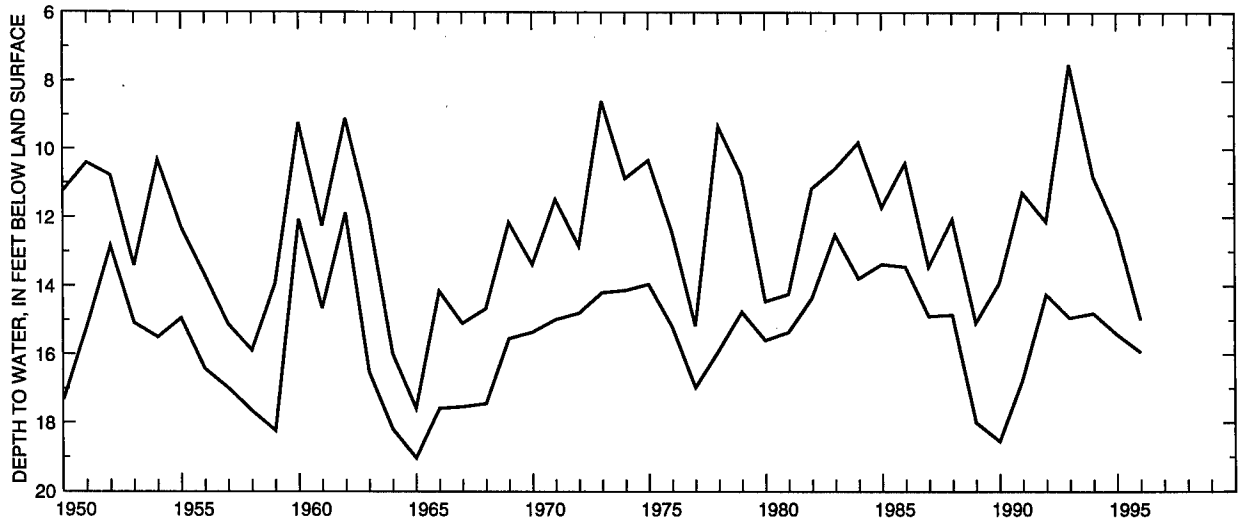
DATUM.--Elevation of land-surface datum is 980 ft above sea level. Measuring point: edge of pump base, 0.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.52 ft below land-surface datum, July 22, 1993; 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	14.97	DEC 18	15.49	MAR 05	15.45	MAY 08	15.90	JUL 18	15.26	SEP 19	15.93
NOV 30	15.35	JAN 24	15.25	APR 10	15.71	JUN 18	15.20	AUG 12	15.45		



GR-05/02W/06-0005 WATER YEAR MAX-MIN LEVEL

GREEN COUNTY

424427089494701. Local number, GN-03/06E/18-0002.

LOCATION.--Lat 42°44'27", long 89°49'47", Hydrologic Unit 07090003. Owner: Earl Waddington.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 6 in., depth 150 ft.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 1,020 ft above sea level. Measuring point: hole in 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, 119.68 ft below land-surface datum, Feb. 22, 1994; lowest water level measured, 143.94 ft below land-surface datum, Feb. 18, 1960.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	127.07	JAN 10	127.97	MAR 14	127.91	MAY 14	127.45	AUG 01	126.66	SEP 24	125.55
DEC 04	127.78	FEB 15	127.91	APR 18	128.01	JUN 05	128.46				

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-Platteville.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 92 ft.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 1,200 ft above sea level. Measuring point: 1/4-in. hole in top of casing, at land-surface datum.

PERIOD OF RECORD.--August 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 36.02 ft below land-surface datum, July 22, 1993; 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	57.50	JAN 10	59.08	MAR 14	56.09	MAY 14	57.03	AUG 21	54.89	SEP 11	55.52
DEC 05	58.05	FEB 20	56.64	APR 18	57.14	JUN 04	55.47				

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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 845 ft above sea level. 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, 13.70 ft below land-surface datum, June 30, 1993; 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	18.67	JAN 10	19.67	MAR 14	19.89	APR 01	19.70	MAY 22	18.92	JUL 10	18.04
NOV 24	19.07	FEB 06	19.76								

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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 930 ft above sea level. 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	12.12	JAN 10	12.13	MAR 14	11.72	APR 01	11.50	MAY 22	11.46	JUL 10	11.64
NOV 24	11.77	FEB 07	12.03								

423055088020301. Local number, KE-01/21E/29-0288.

LOCATION.--Lat 42°30'55", long 88°02'03", Hydrologic Unit 07120004. Owner: Joe Thomison.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 232 ft, cased to 226 ft, open end.

INSTRUMENTATION.--Water level measured by observer.

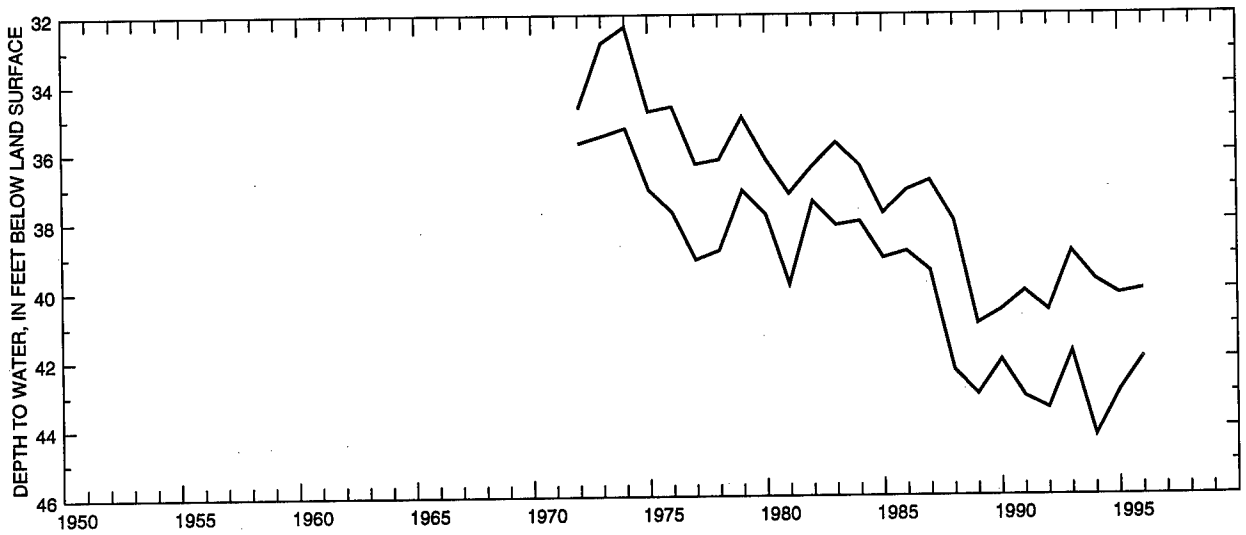
DATUM.--Elevation of land-surface datum is 767 ft above sea level. Measuring point: top of casing, 2.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.33 ft below land-surface datum, June 11, 1974; lowest water level measured, 44.25 ft below land-surface datum, Aug. 12, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	41.98	JAN 04	41.25	MAR 19	41.01	APR 23	40.81	JUN 25	40.02	JUL 16	41.34
DEC 07	41.49	FEB 08	41.15								



KE-01/21E/29-0288 WATER YEAR MAX-MIN LEVEL

LAFAYETTE COUNTY

423114090161101. Local number, LF-01/02E/33-0057.

LOCATION.--Lat 42°31'13", long 90°16'11", Hydrologic Unit 07060005. Owner: Coulthard Estate.

AQUIFER.--Galena-Platteville.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in., depth 265 ft, cased to 16 ft, open end.

INSTRUMENTATION.--Continuous water-level recorder.

DATUM.--Elevation of land-surface datum is 1,000 ft above sea level. 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, 18.29 ft below land-surface datum, July 18, 1993; lowest water level, 130.99 ft below land-surface datum, Nov. 6, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.85	32.75	33.58	34.76	35.20	35.03	36.16	36.46	32.13	28.47	29.05	30.39
10	31.48	32.41	33.97	34.57	34.54	35.75	35.98	36.37	31.61	28.66	29.40	30.63
15	31.63	32.93	33.99	34.96	35.12	35.17	35.75	35.17		28.44	29.57	30.65
20	31.65	32.96	33.97	34.76	35.06	35.43	36.12	34.43		28.73	29.82	30.82
25	32.18	33.13	34.08	34.73	35.03	35.78	35.54	34.62		28.83	29.95	31.31
EOM	32.53	33.22	33.99	34.96	35.33	35.93	36.02	33.29	28.65	28.93	30.18	31.55

WTR YEAR 1996 MAX 36.73 MAY 6 MIN 28.44 JUL 15

424004090220601. Local number, LF-02/01E/04-0011.

LOCATION.--Lat 42°40'04", long 90°22'06", Hydrologic Unit 07060005. Owner: Ed Wiegel.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 64 ft.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 1,010 ft above sea level. Measuring point: top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--March 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.58 ft below land-surface datum, July 22, 1993; lowest water level measured, 38.81 ft below land-surface datum, Aug. 1, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	26.80	JAN 08	27.95	MAR 14	27.92	MAY 15	28.14	AUG 01	26.99	SEP 24	25.67
DEC 06	27.80	FEB 21	28.28	APR 19	28.55	JUN 05	27.50				

LANGLADE COUNTY

450933089084801. Local number, LA-31/11E/20-0064.

LOCATION.--Lat 45°09'33", long 89°08'48", Hydrologic Unit 07070002. Owner: Wis. Dept. of Natural Resources.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 2 in., depth 20 ft, cased to 18 ft, well point 18-20 ft.

INSTRUMENTATION.--Water level measured weekly by observer.

DATUM.--Elevation of land-surface datum is 1,508 ft above sea level. Measuring point: top of collar on casing, 0.30 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.40 ft below land-surface datum, June 21, 1993; lowest water level measured, 16.46 ft below land-surface datum, Jan. 31, 1949.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09	13.22	DEC 06	13.33	MAR 05	14.37	APR 25	13.36	JUL 02	11.85	AUG 26	12.31
16	13.15	18	13.46	13	14.45	MAY 01	13.00	08	11.88	SEP 02	12.45
23	13.17	26	13.65	21	14.43	10	11.90	15	12.17	10	12.50
NOV 06	13.16	FEB 05	14.07	26	14.28	17	11.95	22	11.98	16	12.60
13	12.98	14	14.16	APR 01	14.35	JUN 04	12.19	29	12.09	23	12.82
22	13.20	19	14.25	10	14.35	11	12.35	AUG 05	12.49	30	12.99
27	13.34	27	14.33	17	13.56	18	11.85	12	12.21		

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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 1,435 ft above sea level. 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, 2.03 ft below land-surface datum, May 7, 1952; lowest water level measured, 9.89 ft below land-surface datum, Aug. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	8.16	NOV 28	8.05	JAN 22	8.28	MAR 14	8.47	APR 24	6.79	JUN 07	6.35

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.

INSTRUMENTATION.--Water level measured weekly by observer.

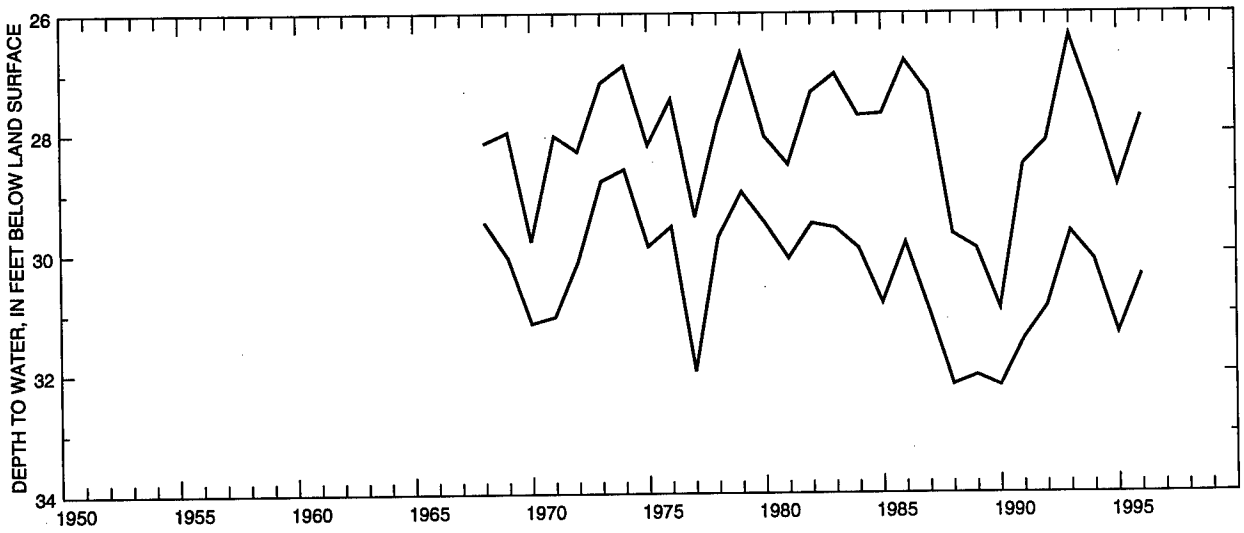
DATUM.--Elevation of land-surface datum is 670 ft above sea level. Measuring point: 1/4-in. hole in pump base, 1.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.37 ft below land-surface datum, May 4, 1993; lowest water level measured, 32.22 ft below land-surface datum, Dec. 28, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03	30.07	DEC 19	29.47	FEB 13	29.19	APR 09	28.73	JUN 04	28.66	AUG 12	28.59
12	30.17	26	29.46	20	29.10	16	28.67	11	28.47	20	29.19
17	30.37	JAN 02	29.66	27	28.72	23	28.55	18	28.06	27	29.50
31	29.90	09	29.54	MAR 05	28.86	30	28.33	25	27.73	SEP 03	29.66
NOV 08	29.90	16	29.60	12	28.91	MAY 07	28.56	JUL 02	27.91	10	29.90
28	29.55	23	29.41	19	28.83	09	28.46	11	28.03	18	29.65
DEC 05	29.41	25	29.39	21	28.83	14	28.59	15	27.78	23	29.62
06	29.46	31	29.28	26	28.86	21	28.43	23	28.48		
12	29.51	FEB 06	29.43	APR 02	28.80	28	28.97	31	28.39		



MN-19/23E/35-0028 WATER YEAR MAX-MIN LEVEL

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.

INSTRUMENTATION--Water level measured weekly by observer.

DATUM.--Elevation of land-surface datum is 1,229 ft above sea level. 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, 12.18 ft below land-surface datum, Aug. 1, 1993; 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	19.30	DEC 03	18.94	FEB 04	19.29	APR 07	18.32	JUN 16	17.36	AUG 19	16.21
08	19.25	10	18.94	11	19.29	14	18.21	23	16.98	25	16.18
15	19.26	17	18.94	18	19.21	21	18.09	30	17.00	SEP 08	16.09
22	20.13	24	18.93	25	19.26	28	17.88	JUL 07	16.86	15	16.09
29	19.13	31	18.93	MAR 03	19.26	MAY 06	17.82	14	16.71	22	17.12
NOV 05	19.08	JAN 07	18.93	10	19.31	12	17.74	21	16.58	29	16.19
12	19.05	14	18.99	17	18.88	19	17.69	28	16.49		
19	19.01	21	18.99	24	19.07	26	17.56	AUG 04	16.47		
26	18.96	28	19.07	31	18.93	JUN 01	16.18	10	16.29		

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.

INSTRUMENTATION.--Water level measured weekly by observer.

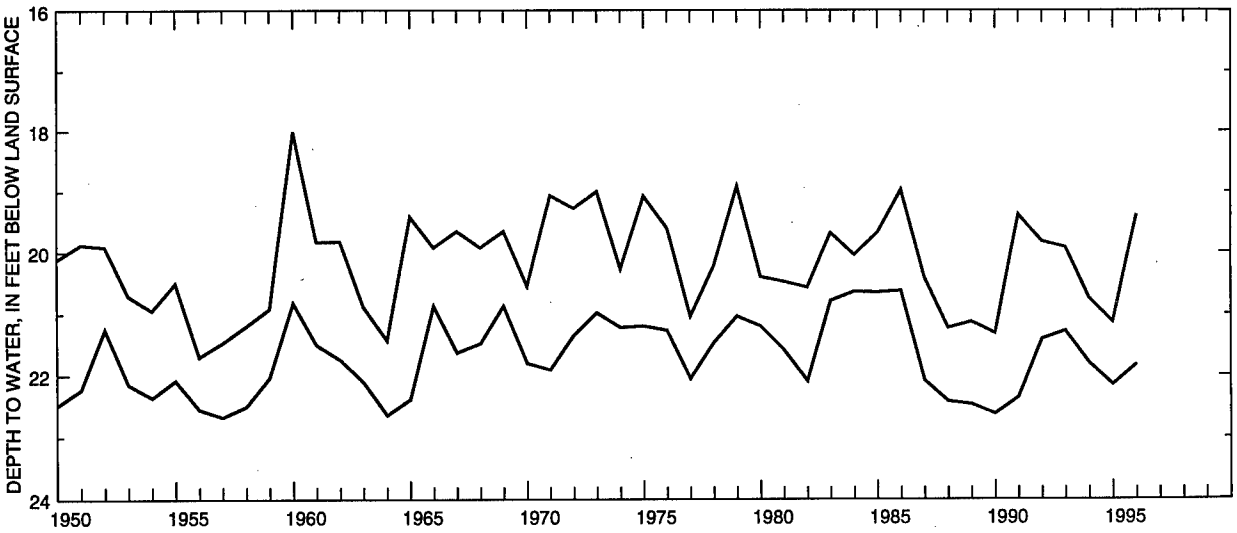
DATUM.--Elevation of land-surface datum is 980 ft above sea level. Measuring point: pointer on float gage, 4.00 ft above land-surface datum.

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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03	21.82	DEC 06	21.47	FEB 06	21.51	APR 09	21.29	JUN 11	19.60	AUG 13	19.90
10	21.64	12	21.53	13	21.53	16	21.04	18	19.65	27	20.10
18	21.46	20	21.55	21	21.54	23	20.40	25	19.65	SEP 10	20.30
24	21.48	26	21.55	27	21.56	30	19.76	JUL 02	19.72	17	20.37
31	21.33	JAN 02	21.59	MAR 05	21.60	MAY 07	19.51	09	19.80	24	20.42
NOV 08	21.20	10	21.63	12	21.65	14	19.41	16	19.75		
15	21.20	16	21.64	19	21.50	21	19.38	30	19.78		
21	21.29	23	21.57	26	21.42	28	19.49	AUG 03	20.01		
28	21.39	30	21.51	APR 02	21.35	JUN 04	19.60	06	19.84		



MT-37/20E/34-0007 WATER YEAR MAX-MIN LEVEL

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 unused artesian well, diameter 6 in., depth 274 ft.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 880 ft above sea level. 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, 12.15 ft below land-surface datum, July 13, 1993; 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	14.49	FEB 06	15.12	JUN 11	14.72	JUL 15	14.69	AUG 07	13.69	SEP 18	15.02
DEC 04	15.06	APR 09	15.08								

433956089275601. Local number, MQ-14/09E/30-0026.

LOCATION.--Lat 43°39'56", long 89°27'56", Hydrologic Unit 04030201. Owner: Leslie Mountford.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 6 in., depth 170 ft, cased to 145 ft, open end.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 800 ft above sea level. Measuring point: 1/4-in. hole in cap of casing, 0.75 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.80 ft below land-surface datum, Apr. 2, 1973; lowest water level measured, 19.22 ft below land-surface datum, Feb. 22, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	16.01	FEB 06	16.26	JUN 11	15.28	JUL 15	15.67	AUG 07	16.17	SEP 18	17.59
DEC 04	16.24	APR 09	15.80								

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.

INSTRUMENTATION.--Water level measured by observer.

DATUM.--Elevation of land-surface datum is 705 ft above sea level. 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, 342.30 ft below land-surface datum, Mar. 27, 1992.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 05	345.06	DEC 10	344.74	JUL 26	342.90	AUG 21	342.08	OCT 25	342.39

430412087545801. Local number, ML-07/22E/17-0120.

LOCATION.--Lat 43°04'12", long 87°54'58", Hydrologic Unit 04040003. Owner: Nunn-Bush Shoe Co.

AQUIFER.--Silurian dolomite.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in., depth 400 ft, cased to 215 ft, open end.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 685 ft above sea level. 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, 54.99 ft below land-surface datum, Apr. 28, 1986; lowest water level, 144.20 ft below land-surface datum, Aug. 29, 1991

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 01	111.58	JAN 11	110.91	MAR 06	110.95	APR 23	110.57	JUN 13	110.04	JUL 16	109.97

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.

INSTRUMENTTION.--Water level measured monthly by observer.

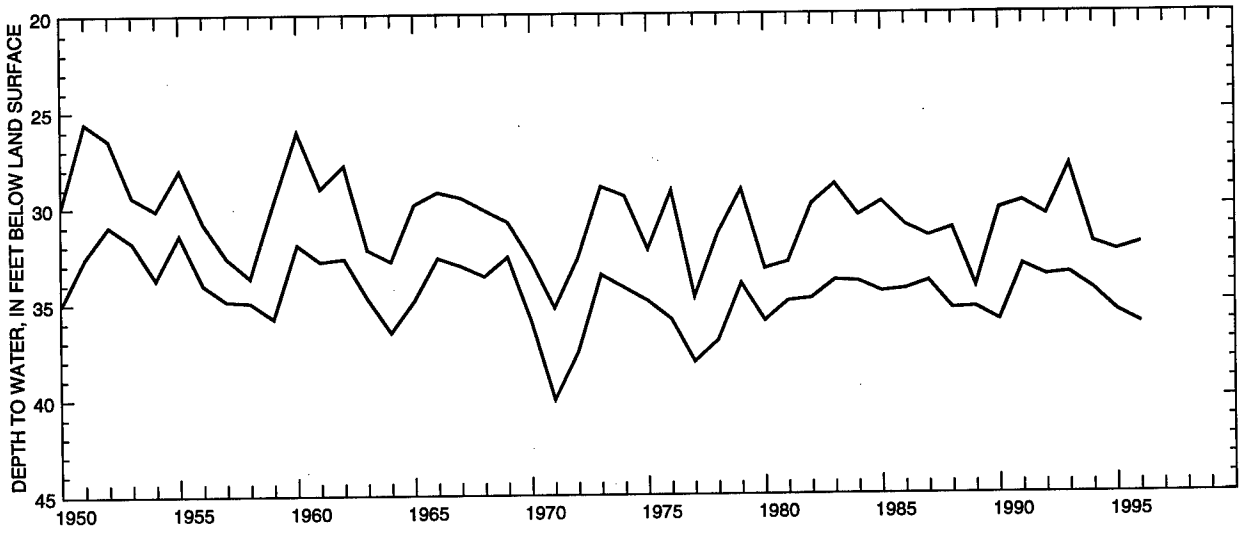
DATUM.--Elevation of land-surface datum is 774 ft above sea level. Measuring point: top of 1/4-in. pipe, at land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.56 ft below land-surface datum, Mar. 4, 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04	34.05	JAN 04	33.67	MAR 19	34.18	MAY 21	32.94	AUG 21	32.08	SEP 27	36.16
NOV 10	34.01	FEB 12	34.31	APR 29	33.21	JUN 10	32.03				



ML-06/21E/32-0148

WATER YEAR MAX-MIN LEVEL

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.

INSTRUMENTTION.--Continuous water-level recorder.

DATUM.--Elevation of land-surface datum is 1,100 ft above sea level. 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, 18.68 ft below land-surface datum, Feb. 23, 1935.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.01	6.73	7.15	7.18	7.23	7.11	6.76	6.86	7.00	6.85	7.08	7.16
10	6.91	6.92	7.18	7.17	7.18	7.21	6.82	6.89	6.68	6.96	7.11	7.17
15	6.94	7.03	7.13	7.20	7.21	6.29	6.89	6.91	6.90	6.96	7.11	7.19
20	6.99	7.07	7.12	6.92	7.23	6.62	6.68	6.91	6.09	6.98	7.13	7.22
25	6.96	7.12	7.10	7.12	6.98	6.20	6.62	6.98	6.64	7.03	7.14	7.22
EOM	7.00	7.15	7.12	7.22	6.92	6.60	6.81	7.02	6.80	7.04	7.15	7.24

WTR YEAR 1996 MAX 7.25 FEB 21 Min 5.20 JUN 18

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.

INSTRUMENTATION.--Continuous water-level recorder.

DATUM.--Elevation of land-surface datum is 909 ft above sea level. 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, 0.48 ft below land-surface datum, Sept. 29, 1965; lowest water level, 8.62 ft below land-surface datum, Oct. 7, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.95	2.34	3.23	3.18	3.25	3.60	3.21	2.91	3.25	3.50	4.30	4.04
10	2.54	2.29	2.88	3.22	3.56	3.65	3.13	3.03	3.26	3.54	4.63	4.15
15	2.48	2.34	3.39	3.33	3.68	3.35	3.01	3.03	3.40	3.78	3.72	4.19
20	2.54	2.46	3.01	3.28	3.69	3.29	2.90	3.14	3.13	3.93	3.83	4.22
25	2.81	2.51	2.97	3.33	3.61	3.41	2.83	3.14	3.13	4.15	3.70	4.31
EOM	2.63	2.62	3.02	3.25	3.48	3.27	2.79	3.22	3.11	4.27	3.84	4.37

WTR YEAR 1996 MAX 4.63 AUG 10 MIN 2.29 NOV 10

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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 640 ft above sea level. 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	10.86	NOV 30	10.70	JAN 26	10.77	MAR 20	10.67	MAY 08	10.46	JUL 11	10.30

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.

INSTRUMENTATION.--Continuous water-level recorder.

DATUM.--Elevation of land-surface datum is 1,607 ft above sea level. 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, 12.31 ft below land-surface datum, May 28, 1973; lowest water level, 22.02 ft below land-surface datum, Jan. 20, 1993.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	16.04	15.58	15.32	15.50	15.82	16.08	16.37	15.05	13.83	14.06	14.44	14.70
10	15.95	15.50	15.33	15.54	15.84	16.15	16.39	14.65	13.80	14.17	14.42	14.75
15	15.87	15.46	15.34	15.63	15.90	16.16	16.39	14.35	13.81	14.19	14.43	14.76
20	15.82	15.40	15.35	15.66	15.95	16.24	16.35	14.10	13.84	14.27	14.50	14.82
25	15.77	15.35	15.38	15.71	15.97	16.25	16.05	13.98	13.93	14.30	14.55	14.86
EOM	15.67	15.35	15.43	15.76	16.05	16.30	15.50	13.86	13.93	14.38	14.62	13.94

WTR YEAR 1996 MAX 16.40 APR 14 MIN 13.75 JUN 11

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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 1,529 ft above sea level. 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, 34.29 ft below land-surface datum, June 6, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06	30.21	JAN 30	29.84	MAR 28	30.28	MAY 07	29.46	MAY 30	28.83	JUN 27	28.45
DEC 11	30.41										

OUTAGAMIE COUNTY

441840088115001. Local number, OU-21/19E/04-0326.

LOCATION.--Lat 44°18'40", long 88°11'50", Hydrologic Unit 04030204. Owner: Outagamie County, Rapid Croche.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled domestic artesian well, diameter 6 in., depth 280 ft, cased to 82 ft.

INSTRUMENTAION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 660 ft above sea level. Measuring point: 1/4-in. hole in pump base, 1.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 46.10 ft below land-surface datum, Apr. 20, 1970; lowest water level measured, 99.94 ft below land-surface datum, Oct. 12, 1995.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12	99.94	DEC 05	96.93	JAN 26	94.61	MAR 21	94.58	MAY 10	93.64	JUL 12	94.81

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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 1,250 ft above sea level. 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, 29.55 ft below land-surface datum, July 23, 1986; 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	33.34	JAN 26	32.57	MAR 26	33.14	JUN 03	33.04	JUN 26	31.60	JUL 03	31.53
NOV 30	32.20	FEB 29	33.08	APR 17	32.98						

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.

INSTRUMENTATION.--Water level measured weekly by observer.

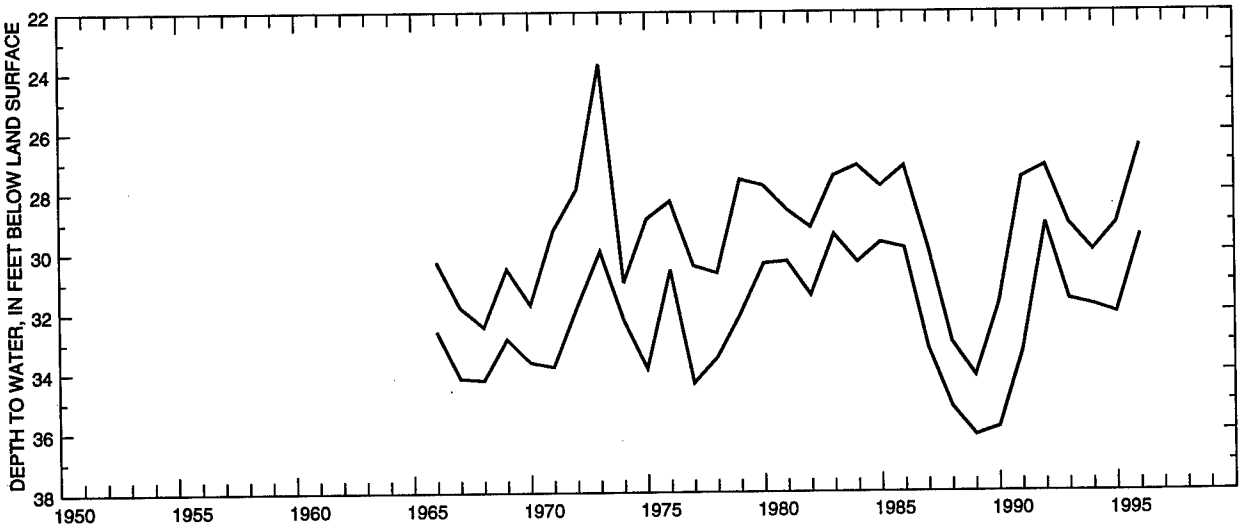
DATUM.--Elevation of land-surface datum is 1,140 ft above sea level. Measuring point: hole in pump base, 2.00 ft above land-surface datum.

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, 36.13 ft below land-surface datum, Mar. 22, 1989.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	28.79	NOV 28	28.05	MAR 06	29.32	MAY 02	27.88	JUN 28	27.08	AUG 21	27.68
09	28.69	DEC 04	28.18	14	28.79	09	27.60	JUL 03	27.18	28	27.80
16	28.36	11	28.02	20	29.10	15	27.20	10	27.14	SEP 04	28.00
23	28.68	18	28.32	28	28.88	23	27.08	17	27.38	11	28.20
31	28.55	27	28.44	APR 03	28.77	30	27.10	24	26.90	19	28.36
NOV 06	28.33	JAN 02	29.46	10	28.60	JUN 04	26.48	31	27.60	24	28.40
13	28.25	08	28.50	17	28.25	12	27.08	AUG 07	27.50		
20	28.15	FEB 29	29.28	24	27.95	19	27.32	14	27.60		



PK-34/18W/26-0093

WATER YEAR MAX-MIN LEVEL

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.

INSTRUMENTATION.--Water level measured bi-monthly by observer.

DATUM.--Elevation of land-surface datum is 1,133 ft above sea level. 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	31.43	DEC 09	31.50	FEB 03	31.59	MAR 30	31.67	MAY 25	31.61	JUL 20	31.56
28	31.45	23	31.52	17	31.60	APR 13	31.65	JUN 08	31.60	AUG 03	31.53
NOV 11	31.47	JAN 06	31.53	MAR 02	31.62	27	31.65	22	31.59	17	31.49
25	31.49	20	31.56	16	31.65	MAY 11	31.62	JUL 06	31.58	31	31.47

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.

INSTRUMENTATION.--Water level measured monthly by observer.

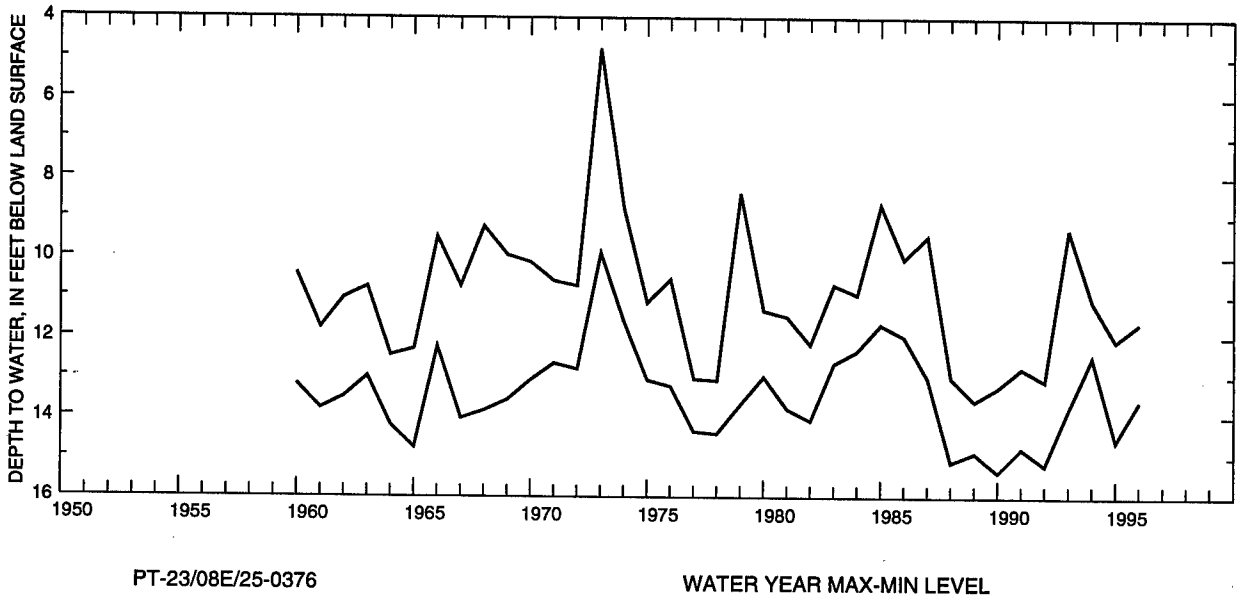
DATUM.--Elevation of land-surface datum is 1,099 ft above sea level. Measuring point: top of casing, 4.20 ft above land-surface datum.

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, 15.37 ft below land-surface datum, Feb. 15, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	12.85	JAN 18	13.40	MAR 15	13.25	MAY 15	11.65	JUL 15	11.95	AUG 24	12.40
NOV 17	12.70	FEB 17	13.60	APR 15	12.30	JUN 15	11.96	20	12.00	SEP 24	12.70
DEC 14	13.30										



453311090065301. Local number, PR-35/03E/04-0065.

LOCATION.--Lat 45°33'11", long 90°06'53", Hydrologic Unit 07070001. Owner: Town of Knox.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 6 in., depth 118 ft, cased to 118 ft, open end.

INSTRUMENTATION.--Water level measured monthly by observer.

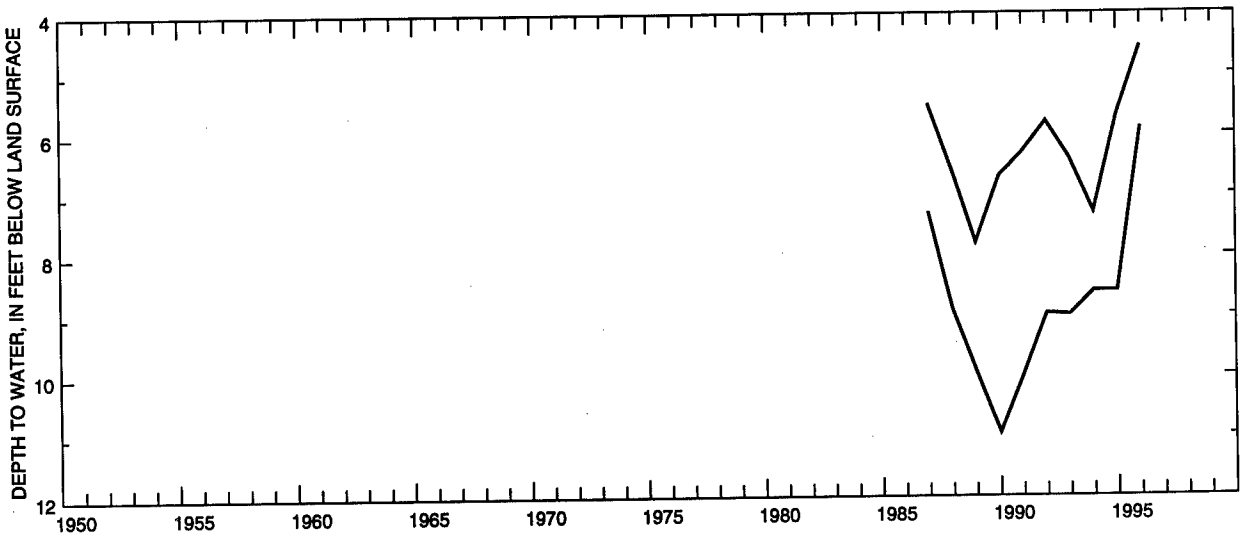
DATUM.--Elevation of land-surface datum is 1,695 ft above sea level. Measuring point: top of casing, 2.00 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.55 ft above land-surface datum, Aug. 5, 1996; lowest water level measured, 10.96 ft below land-surface datum, Feb. 15, 1990.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09	5.40	DEC 11	5.50	FEB 07	5.90	JUN 03	5.20	AUG 05	4.55	SEP 09	5.60
NOV 11	5.40	JAN 19	5.90	APR 08	5.50	JUL 08	5.10				



PR-35/03E/04-0065

WATER YEAR MAX-MIN LEVEL

424119088081801. Local number, RA-03/20E/28-0062.

LOCATION.--Lat 42°41'19", long 88°08'18", Hydrologic Unit 07120006. Owner: Wis. Dept .of Transportation.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in., depth 104 ft, cased to 104 ft, open hole.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 800 ft above sea level. Measuring point: hole in pump base, 1.50 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.21 ft below land-surface datum, Apr. 28, 1988; lowest water level measured, 31.15 ft below land-surface datum, Nov. 16, 1993.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	27.80	MAR 20	26.73	APR 24	26.30	JUN 12	23.95	JUL 18	25.56	AUG 14	26.32
FEB 08	26.52	APR 09	27.04	MAY 13	25.95	25	23.86				

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, ope end.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 725 ft above sea level. 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, 16.45 ft below land-surface datum, Mar. 14, 1991.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 22	12.31	JAN 23	12.33	MAR 20	12.96	MAY 01	12.31	JUL 30	11.97	SEP 11	12.36

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.

INSTRUMENTATION.--Water level measured weekly by observer.

DATUM.--Elevation of land-surface datum is 824 ft above sea level. 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, 49.27 ft below land-surface datum, Apr. 2 and 16, 1986; lowest water level measured, 67.52 ft below land-surface datum, Nov. 10, 1994.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

	WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL		WATER LEVEL
OCT 05	63.34	DEC 20	59.01	FEB 08	60.69	MAR 21	59.38	JUN 21	61.18	AUG 08	61.83
26	65.51	21	59.23	15	60.63	APR 11	63.38	27	61.92	19	63.52
NOV 02	61.83	JAN 04	59.47	23	59.07	23	63.72	JUL 18	62.83	22	65.29
07	59.46	11	60.47	MAR 13	59.22	MAY 16	63.05	19	61.92	SEP 01	64.99
09	61.54	18	59.11	14	59.20	JUN 13	61.78	25	63.39	27	64.17
30	59.69										

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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 1,380 ft above sea level. 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, 7.25 ft below land-surface datum, June 12, 1991; 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	11.25	DEC 20	12.25	MAR 04	13.64	MAY 22	10.50	JUN 17	10.94	JUL 12	10.21
NOV 07	10.15	FEB 08	13.19	APR 23	7.80						

432100089440001. Local number, SK-10/06E/02-0003.

LOCATION.--Lat 43°21'00", long 89°44'00", Hydrologic Unit 07070005. Owner: Badger Army Ammunition Plant.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 451 ft, cased to 160 ft, open end.

INSTRUMENTATION.--Continuous water-level recorder.

DATUM.--Elevation of land-surface datum is 884 ft above sea level. Measuring point: hole in platform, at land-surface datum.

REMARKS.--Water level affected by pumping of nearby wells.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 67.23 ft below land-surface datum, Aug. 10, 1993; lowest water level, 83.92 ft below land-surface datum, Aug. 2, 1946.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	74.58	75.40	0.00	76.59	76.79	76.96	76.93	76.30	74.64	72.49	72.11	72.66
10	74.84	75.31	76.16	76.47	76.48	77.23	76.63	76.04	74.44	72.45	72.28	72.74
15	74.90	75.54	76.15	76.63	76.89	76.96	76.49	75.76	74.41	72.19	72.32	72.74
20	74.85	75.57	76.50	76.64	76.89	77.01	76.49	75.40	73.89	72.25	72.35	72.79
25	75.15	75.62	76.30	76.62	76.83	77.02	76.18	75.29	73.22	72.17	72.42	73.01
EOM	75.28	75.77	76.24	76.71	77.02	76.94	76.13	74.92	72.79	72.13	72.51	73.17

WTR YEAR 1996 MAX 77.26 MAR 07 MIN 72.10 JUL 24

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.

INSTRUMENTATION.--Continuous water-level recorder.

DATUM.--Elevation of land-surface datum is 1,200 ft above sea level. 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, 3.69 ft below land-surface datum, June 21, 1993; lowest water level, 13.11 ft below land-surface datum, Oct. 15, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5			9.49	9.35	8.51	8.80	8.14	8.72	9.10	9.30	9.96	10.31
10			9.27	9.12	8.76	9.04	7.72	8.58	9.19	9.41	9.78	10.37
15			9.19	9.28	8.92	8.60	6.44	8.53	9.27	9.59	9.97	10.37
20		9.23	9.27	8.74	8.86	8.71	4.40	8.37	8.90	9.61	10.13	10.42
25		9.34	9.30	8.72	8.87	8.71	6.15	8.88	8.92	9.84	10.11	10.45
EOM		9.27	9.25	8.57	8.99	8.61	7.30	9.31	8.91	9.77	10.23	9.96

WTR YEAR 1996 MAX 10.83 JUL 01 MIN 4.40 APR 20

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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 820 ft above sea level. 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, 131.38 ft below land-surface datum, Sept. 7, 1993; lowest water level measured, 146.56 ft below land-surface datum, Sept. 1, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03	135.59	DEC 10	135.99	FEB 09	137.24	APR 01	136.44	JUN 10	137.30	AUG 05	137.50
NOV 09	135.64	JAN 12	136.50	MAR 08	137.08	MAY 03	136.95	JUL 01	136.83		

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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 740 ft above sea level. 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, 42.80 ft below land-surface datum, Oct. 12, 1993, and Apr. 12, 1994; 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09	45.10	FEB 08	46.10	APR 17	45.40	MAY 09	45.60	JUL 11	46.40	SEP 23	47.10
NOV 13	45.40	MAR 06	43.30								

455517089144001. Local number, VI-40/10E/28-0033.

LOCATION.--Lat 45°55'17", long 89°14'40", Hydrologic Unit 07070001. Owner: Trees for Tomorrow, Inc.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled observation water table well, diameter 6 in., depth 37 ft, cased to 37 ft.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 1,640 ft above sea level. Measuring point: top of casing, 0.75 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.63 ft below land-surface datum, July 21, 1968; lowest water level measured, 14.92 ft below land-surface datum, Aug. 10, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	12.75	FEB 15	12.86	APR 15	13.11	JUN 15	10.92	JUL 15	10.92	SEP 16	12.37
NOV 30	13.35	MAR 18	13.07	MAY 15	11.03	19	11.65	AUG 15	14.13		

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.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 860 ft above sea level. 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, 222.67 ft below land-surface datum, June 19, 1992.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	219.17	DEC 12	216.74	FEB 26	219.73	APR 15	216.15	JUN 04	215.65	AUG 26	218.00
NOV 19	219.60	JAN 19	217.90	MAR 11	216.15	MAY 07	216.25	JUL 25	213.98	SEP 30	215.08

425535088131701. Local number, WK-05/19E/02-0031.

LOCATION.--Lat 42°55'35", long 88°13'17", Hydrologic Unit 07120006. Owner: William Bahl.

AQUIFER.--Silurian dolomite.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 508 ft, cased to 434 ft, open end.

INSTRUMENTATION.--Continuous water-level recorder.

DATUM.--Elevation of land-surface datum is 962 ft above sea level. 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, 126.06 ft below land-surface datum, May 10, 1973; lowest water level, 138.14 ft below land-surface datum, Feb. 2, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	134.51	134.46	134.40	134.53	134.41	134.00	134.23	134.46	134.73	134.17	134.17	134.92
10	134.47	134.28	134.38	134.46	134.26	134.06	134.25	134.38	134.20	134.54	134.19	134.95
15	134.47	134.42	134.27	134.59	134.31	134.05	134.26	134.42	133.96	134.31	134.19	134.85
20	134.52	134.37	134.32	134.49	134.25	134.15	134.10	134.18	134.50	134.13	134.30	134.80
25	134.54	134.33	134.42	134.34	134.17	134.13	134.07	134.52	134.50	134.16	133.82	134.59
EOM	134.58	134.29	134.47	134.30	134.11	134.22	134.13	134.63	133.84	134.15	134.28	133.74

WTR YEAR 1996 MAX 135.18 JUL 09 MIN 133.33 JUN 27

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.

INSTRUMENTATION.--Water level measured weekly by observer.

DATUM.--Elevation of land-surface datum is 764 ft above sea level. 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 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07	13.33	DEC 09	13.80	FEB 10	14.30	APR 27	12.07	JUN 29	11.92	AUG 31	13.80
14	12.60	16	13.83	17	14.35	MAY 04	12.03	JUL 13	12.57	SEP 02	13.86
21	13.00	23	13.85	24	14.02	11	11.55	20	12.72	14	13.94
28	13.06	30	14.15	MAR 02	13.91	18	11.51	27	12.79	21	13.95
NOV 04	13.03	JAN 06	14.19	16	13.86	25	11.54	AUG 02	12.99	28	13.99
11	13.05	13	14.26	23	13.79	JUN 01	11.80	10	13.06		
18	13.26	20	14.30	30	13.76	08	12.06	14	13.65		
25	13.30	27	14.33	APR 13	13.59	15	12.39	17	13.65		
DEC 02	13.33	FEB 03	14.32	20	12.89	22	11.88	24	13.69		

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.--Drilled unused water-table well, diameter 4 in., depth 18 ft, cased to 18 ft.

INSTRUMENTATION.--Continuous water-level recorder.

DATUM.--Elevation of land-surface datum is 1,080 ft above sea level. 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, 15.34 ft below land-surface datum, Apr. 25, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.00	10.12	10.09	10.37	10.58	10.67	10.06		9.47	8.78		
10	9.91	10.11	10.13	10.39	10.55	10.72			9.44	8.73		
15	9.82	10.11	10.17	10.43	10.59	10.44			9.39	8.74		
20	9.79	10.11	10.23	10.41	10.63	10.01			9.24			9.59
25		10.10	10.27	10.48	10.66	10.12			8.96			9.64
EOM	10.14	10.10	10.33	10.53	10.63	10.08			8.84			9.69

WTR YEAR 1996 MAX 10.73 MAR 11 MIN 8.73 JUL 09

440345089151701. Local number, WS-18/10E/01-0105.

LOCATION.--Lat 44°03'45", long 89°15'17", Hydrologic Unit 04030201. Owner: Ronald Campbell.

AQUIFER.--Sand and gravel.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in., depth 14 ft, cased to 14 ft, open hole.

INSTRUMENTATION.--Continuous water-level recorder.

DATUM.--Elevation of land-surface datum is 873 ft above sea level. Measuring point: top of casing, 1.00 ft above land-surface datum.

PERIOD OF RECORD.--April 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.08 ft below land-surface datum, June 18, 1993; lowest water level measured, 7.87 ft below land-surface datum, Mar. 19, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	2.11	1.60	2.41	2.91	2.71	2.27		1.26	2.07	2.08	2.57	2.97
10	1.55	2.11	2.76	2.95	1.91	2.96		1.74	2.16	2.45	2.62	3.05
15	2.17	2.41	2.69	3.01	2.50	1.36			2.46	2.32	2.78	3.12
20	2.03	2.30	2.63	1.62	2.69	1.52		2.04	1.08	1.48	2.62	3.21
25	2.35	2.54	2.71	2.40	1.61	1.51	1.49	2.32	1.55	2.25	2.55	3.31
EOM	2.40	2.50	2.74	2.57	2.02		1.79	2.46	2.00	2.41	2.84	3.16

WTR YEAR 1996 MAX 5.76 DEC 01 MIN 0.64 JUN 18

440122088324601. Local number, WI-18/16E/23-0006.

LOCATION.--Lat 44°01'22", long 88°2'46", Hydrologic Unit 04030201. Owner: City of Oshkosh.

AQUIFER.--Sandstone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 200 ft.

INSTRUMENTATION.--Water level measured monthly by observer.

DATUM.--Elevation of land-surface datum is 765 ft above sea level. 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, 16.65 ft below land-surface datum, Apr. 28, 1993; lowest water level measured, 45.15 ft below land-surface datum, Jan. 1, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM,WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30	19.34	DEC 29	19.90	FEB 29	20.42	APR 30	18.79	JUN 25	18.86	AUG 28	22.36
DEC 01	19.25	JAN 31	20.08	APR 01	20.01	MAY 31	19.59	JUL 31	20.12	SEP 28	21.72

GEOLOGICAL UNIT.--365SNNP, rocks of the Sinnipee Group.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

FOND DU LAC COUNTY

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT	DATE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE LAB (US/CM) (90095)	PH WATER WHOLE LAB (STANDARD UNITS) (00403)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
434146088434801	FL-14/15E/08-0800	365SNNP	04-24-96	1415	206.80	1400	7.2	130	76
		365SNNP	04-24-96	1955	206.80	1130	7.4	120	66
		365SNNP	04-25-96	1205	206.80	1110	7.4	130	70
		365SNNP	04-25-96	1545	206.80	1490	7.6	--	--

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
04-24-96	17	31	412	150	130	0.20	0.11	14	884	250	93
04-24-96	15	15	345	140	95	0.20	0.090	13	692	330	74
04-25-96	10	5.5	388	120	81	0.20	0.10	15	700	190	34
04-25-96	--	--	317	110	190	0.10	0.060	19	1080	25	140

WISCONSIN DISTRICT PUBLICATIONS

The reports listed below are a partial list of reports prepared by the Wisconsin District in cooperation with other agencies since 1948. The list contains reports that are relevant and contribute significantly to understanding the hydrology of Wisconsin's water resources.

The reports published in a U.S. Geological Survey series are for sale by the U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225. Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices can be obtained by writing to the above address or by calling (303)236-7476. Copies of reports published by the University of Wisconsin, Geological and Natural History Survey, can be obtained from their office at 3817 Mineral Point Road, Madison, WI 53705.

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

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

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