

Discharge at
High-Flow Partial-Record Stations,
Low-Flow Sites, and
Miscellaneous Sites

Discharge at High-Flow Partial-Record Stations

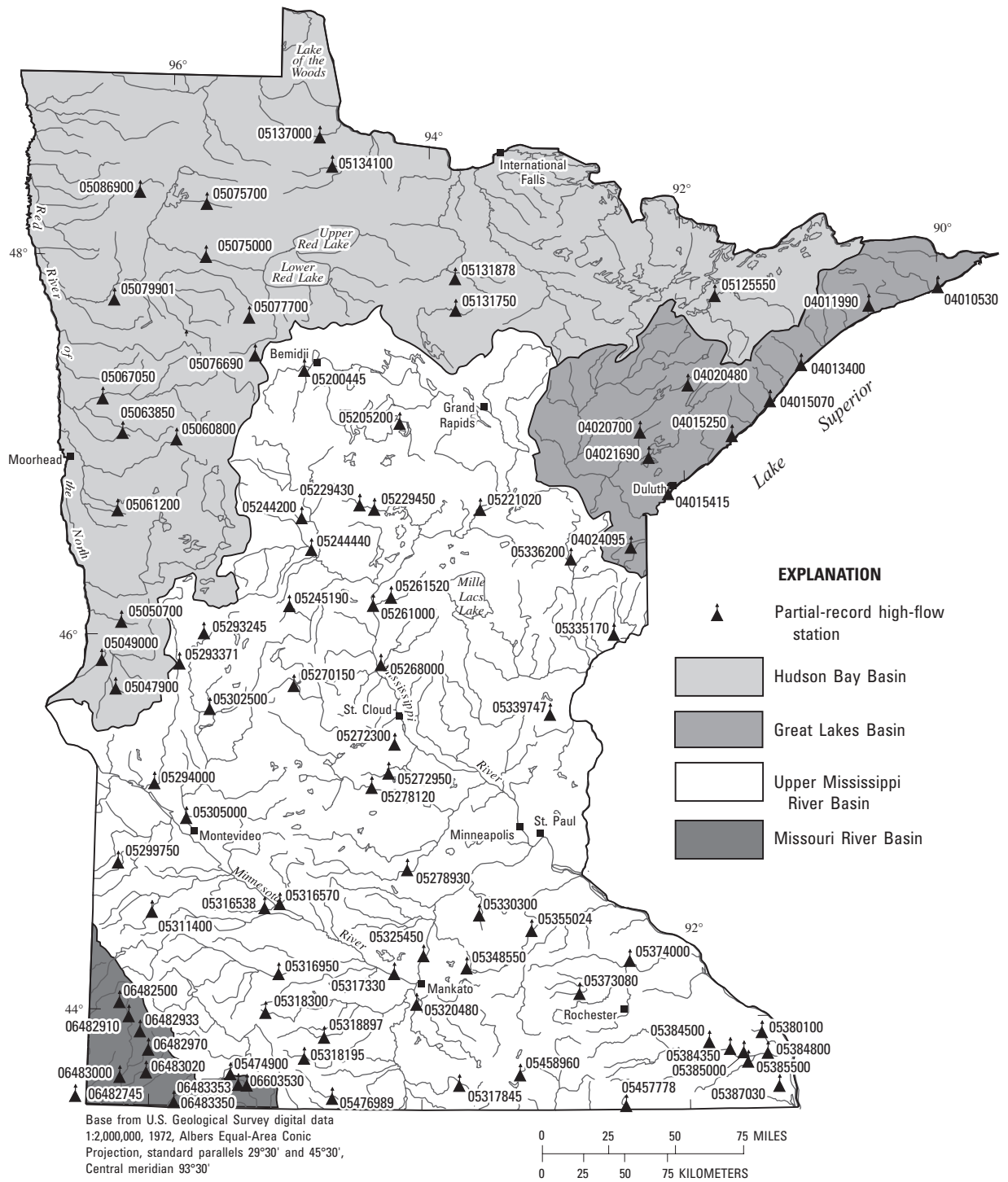


Figure 7. Location of high-flow partial-record stations.

DISCHARGE AT HIGH-FLOW PARTIAL-RECORD STATIONS

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 U.S. 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 high-flow partial-record stations are presented in a table of annual maximum stage and discharge. Discharge measurements made at miscellaneous sites for both low flows and high flows are given in a second table.

The following table contains annual maximum discharges for high-flow (crest-stage) partial-record 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. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at high-flow sites during water year 2003
[--, data not available; mi², square miles]

Station name and [Station number]	Location and [Drainage area]	Period of record	Water year 2003 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Reservation River near Hovland [04010530]	Lat 47°52'38", long 89°51'45", in SE ¹ / ₄ SW ¹ / ₄ sec. 6, T.62 N., R.5 E., Cook County, Hydrologic Unit 04010101, at bridge on U.S. Highway 61, on Grand Portage Indian Reserva- tion, 1,200 feet upstream from mouth, and 5.5 miles northeast of Hovland [Drainage area: 16.5 mi ²].	1991-92#, 2000- current year	04-14-03	ab3.49	251	04-24-01	a3.58	928
Cascade River near Grand Marais [04011990]	Lat 47°47'24", long 90°31'35", in SE ¹ / ₄ SW ¹ / ₄ sec. 1., T.61 N., R.2 W., Cook County, Hydrologic Unit 04010101, at bridge on Forest Road 45, 6.6 miles upstream from mouth, 9.5 miles west of Grand Marais [Drainage area: 87.6 mi ²].	1985- current year	04-21-03	b12.46	705	04-24-01	13.36	1,810
Little Marais River near Little Marais [04013400]	Lat 47°24'58", long 91°06'08", in SW ¹ / ₄ SW ¹ / ₄ sec. 16, T.57 N., R.6 W., Lake County, Hydrologic Unit 04010101, at bridge on U.S. Highway 61, 0.5 mile northeast of Little Marais [Drainage area: 4.47 mi ²].	2000- current year	04-10-03	a18.34	c71	11-07-00	a18.14	c400
Lake Superior Tributary at Split Rock State Park [04015070]	Lat 47°11'33', long 91°23'29", in SE ¹ / ₄ NE ¹ / ₄ sec. 6, T.54 N., R.8 W., Lake County, Hydrologic Unit 04010102, at culvert on U.S. Highway 61, 1 mile northeast of Split Rock River, 1.5 mile southwest of Split Rock Lighthouse State Park entrance, and 6 miles southwest of Beaver River [Drainage area: 3.27 mi ²].	2001- current year	05-09-03	15.76	146	11-07-00	16.68	197
Silver Creek Tributary near Two Harbors [04015250]	Lat 47°04'40", long 91°36'49", in SW ¹ / ₄ NE ¹ / ₄ sec. 16, T.53 N., R.10 W., Lake County, Hydrologic Unit 04010102, at culvert on County High- way 3, 1.0 mile upstream from mouth, 4.5 miles northeast of Two Harbors [Drainage area: 3.62 mi ²].	1965- current year	04-10-03	d	<186	9-20-72	17.08	1,880
Lake Superior Tributary on West 9th Street in Duluth [04015415]	Lat 46°45'27", long 92°09'25", in NE ¹ / ₄ SE ¹ / ₄ sec. 6, T.49 N., R.14 W., St. Louis County, Hydrologic Unit 04010201, at culvert on West 9th St. in Duluth, 1.0 mile above mouth, locally called Merrit Creek [Drain- age area: 1.81 mi ²].	2001- current year	10-04-02	9.66	132	10-04-02	9.66	132

Annual maximum discharge at high-flow sites during water year 2003--Continued

Station name and [Station number]	Location and [Drainage area]	Period of record	Water year 2003 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
North Branch Whiteface River near Fairbanks [04020480]	Lat 47°22'20", long 91°56'28", in NW ¹ / ₄ NW ¹ / ₄ sec. 1, T.56 N., R.13 W., St. Louis County, Hydrologic Unit 04010201, at culvert on County High- way 16, 2 miles upstream from the mouth of Jenkins Creek, 0.7 mile west of Fairbanks [Drainage area: 17.1 mi ²].	1979- current year	07-03-03	11.19	35	04-23-79	13.67	660
Bug Creek at Shaw [04020700]	Lat 47°06'40", long 92°21'03", in SW ¹ / ₄ SE ¹ / ₄ sec. 34, T.54 N., R.16 W., St. Louis County, Hydrologic Unit 04010201, at culverts on County Road 15 at Shaw, 7.5 miles upstream from mouth [Drainage area: 24.8 mi ²].	1979- current year	05-21-03	bf11.03	31	07-05-99	18.00	1,350
Cloquet River near Toimi [04021690]	Lat 47°21'00", long 91°39'30", in NE ¹ / ₄ SW ¹ / ₄ sec. 7, T.56 N., R.10 W., Lake County, Hydrologic Unit 04010202, at bridge on County High- way 2, 5.8 miles southeast of Toimi, 23 miles north of Two Harbors [Drainage area: 40.8 mi ²].	1986- current year	07-08-03	bd	<190	07-04-93	9.06	1,540
Nemadji River near Holyoke [04024095]	Lat 46°31'04", long 92°23'22", in NE ¹ / ₄ NE ¹ / ₄ sec. 32, T.47 N., R.16 W., Carlton County, Hydrologic Unit 04010301, at bridge on State Highway 23, 3.5 miles north of Holyoke and 7 miles south of Wrenshall [Drainage area: 127 mi ²].	1972- current year	06-23-03	11.87	1,880	09-03-85	17.38	4,420
Twelvemile Creek near Dumont [05047900]	Lat 45°42'58", long 96°20'54", in SE ¹ / ₄ SW ¹ / ₄ sec. 17, T.126 N., R.45 W., Traverse County, Hydrologic Unit 09020102, at bridge on Traverse County Road 6, 3 miles east of Dumont.	1996- current year	06-25-03	8.68	536	04-06-97	13.63	c3,720
Mustinka River above Wheaton [05049000]	Lat 45°49'15", long 96°29'25", in SW ¹ / ₄ SW ¹ / ₄ sec. 8, T.127 N., R.46 W., Traverse County, Hydrologic Unit 09020102, at bridge on U.S. Highway 75, 1 mile upstream from Chicago, Milwaukee and St. Paul railroad bridge, 0.5 mile north of Wheaton, about 8 miles above Lake Traverse. Prior to 2002 WY at datum 73.77 ft lower [Drainage area: 810 mi ²].	1915-24 [#] , 1930-58 [#] , 1985- current year	06-26-03	85.49	2,040	04-07-97 04-09-01	g97.40 g94.45	8,800 11,000
Rabbit River near Nashua [05050700]	Lat 46°04'30", long 96°18'24", in SE ¹ / ₄ NE ¹ / ₄ sec. 15, T.130 N., R.45 W., Wilkin County, Hydrologic Unit 09020101, at bridge on County Road 19, 2.6 miles north of Nashua, 4.8 miles upstream from mouth of South Fork Rabbit River [Drainage area: 99.2 mi ²].	1979- current year	06-25-03	14.11	689	04-05-97	a15.76	c1,640
Buffalo River near Callaway [05060800]	Lat 47°01'17", long 95°54'43", in SW ¹ / ₄ SW ¹ / ₄ sec. 17, T.141 N., R.41 W., Becker County, Hydrologic Unit 09020106, at culvert on U.S. Highway 59, 2.7 miles north of Callaway [Drainage area: 76.4 mi ²].	1960- current year	06-25-03	b12.69	153	07-16-93	24.90	1,630

DISCHARGE AT HIGH-FLOW PARTIAL-RECORD STATIONS--Continued

Annual maximum discharge at high-flow sites during water year 2003--Continued

Station name and [Station number]	Location and [Drainage area]	Period of record	Water year 2003 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Whiskey Creek at Barnesville [05061200]	Lat 46°39'35", long 96°23'54", in SE ¹ / ₄ SW ¹ / ₄ sec. 20, T.137 N., R.45 W., Clay County, Hydrologic Unit 09020106, at culvert on State High- way 34, 0.7 mile upstream from Blue Eagle Lake, 1.0 mile northeast of Barnesville [Drainage area: 76.3 mi ²].	1961-64, 1965-66#, 1967- current year	06-25-03	4.66	122	05-31-85	7.12	660
State Ditch 45 Tributary near Ulen [05063850]	Lat 47°06'28", long 96°25'03", in SE ¹ / ₄ SW ¹ / ₄ sec.17, T.142 N., R.45 W., Clay County, Hydrologic Unit 09020108, at culvert on 180th Ave. North, 7.5 miles northwest of Ulen [Drainage area: 3.26 mi ²].	2002- current year	06-09-02 06-25-03	18.27 b16.57	i386 184	06-09-02	18.27	h386
Marsh River Ditch near Ada [05067050]	Lat 47°17'46", long 96°26'09", in NE ¹ / ₄ NE ¹ / ₄ sec. 13, T.144 N., R. 46 W., Norman County, Hydrologic Unit 09020108, at bridge on County High- way 24, 3.5 miles southeast of Ada.	1985- current year	06-25-03	12.55	0	06-24-02	19.64	2,000
Red Lake River at High Landing near Goodridge [05075000]	Lat 48°02'34", long 95°48'28", in NW ¹ / ₄ NW ¹ / ₄ sec. 28, T.153 N., R.40 W., Pennington County, Hydrologic Unit 09020303, on left bank 50 ft upstream from County Highway 24 bridge at High Landing, 7 miles south of Goodridge and 33 miles upstream from Thief River Falls [Drainage area: 2,300 mi ²].	1929- 2000#, 2001- current year	10-01-02	7.17	1,020	07-07-75	13.39	4,060
Mud River near Grygla [05075700]	Lat 48°19'31", long 95°44'35", in NE ¹ / ₄ NE ¹ / ₄ sec. 23, T.156 N., R.40 W., Hydrologic Unit 09020304, Mar- shall County, at bridge on State Highway 89, 6 miles west of Grygla [Drainage area: 150 mi ²].	1979- current year	03-17-03	a12.58	217	06-22-02	18.54	2,840
Clearwater River Tributary near Bagley [05076690]	Lat 47°30'34", long 95°24'15", in SE ¹ / ₄ NE ¹ / ₄ sec. 31, T.147 N., R.37 W., Clearwater County, Hydrologic Unit 09020305, at culvert on County State Aid Highway 28, 0.5 mile south of Bagley.	2001- current year	06-25-03	b6.77	1.8	06-23-02	e13.50	--
Ruffy Brook near Gonvick [05077700]	Lat 47°44'50", long 95°24'45", in SE ¹ / ₄ SE ¹ / ₄ sec. 5, T.149 N., R.37 W., Clearwater County, Hydrologic Unit 09020305, at culvert on County High- way 67, 4.0 miles upstream from mouth, 4.8 miles east of Gonvick [Drainage area: 46.2 mi ²].	1960-78#, 1979-85, 1986#, 1987- current year	06-25-03	b2.58	137	04-19-96	5.78	455
Burnham Creek near Crookston [05079901]	Lat 47°43'59", long 96°39'52", in SE ¹ / ₄ SW ¹ / ₄ sec. 10, T.149 N., R.47 W., Polk County, Hydrologic Unit 09020303, at triple box culvert on U.S. Highway 75, 0.75 mile northeast of Girard, 3 miles southwest of Crookston, 7 miles above mouth [Drainage area: 134 mi ²].	1986- current year	06-23-03	17.10	900	04-15-97	22.63	3,000
Middle River near Newfolden [05086900]	Lat 48°22'04", long 96°16'47", in NE ¹ / ₄ NE ¹ / ₄ sec. 3, T.156 N., R.44 W., Marshall County, Hydrologic Unit 09020309, at bridge on township road, 2.0 miles northeast of New- folden [Drainage area: 88.8 mi ²].	1979- current year	06-14-03	15.39	160	06-11-02 05-18-96	20.12 18.31	-- 2,300

Annual maximum discharge at high-flow sites during water year 2003--Continued

Station name and [Station number]	Location and [Drainage area]	Period of record	Water year 2003 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Stoney River near Babbitt [05125550]	Lat 47°41'36", long 91°45'38", in SW ¹ / ₄ SW ¹ / ₄ sec. 8, T.60 N., R.11 W., Lake County, Hydrologic Unit 09030001, in Superior National For- est, at bridge on Forest Road 424, 4.7 miles upstream from mouth, 8.5 miles east of Babbitt [Drainage area: 215 mi ²].	1975-80 [#] , 1986- current year	07-02-03	4.54	326	04-19-76	8.71	2,490
Big Fork River near Bigfork [05131750]	Lat 47°44'56", long 93°46'31", in SE ¹ / ₄ SE ¹ / ₄ sec. 1, T.149 N., R.25 W., Itasca County, Hydrologic Unit 09030006, at bridge on State Highway 6, 5.5 miles west of Bigfork [Drainage area: 606 mi ²].	1973- current year	06-27-03	d	<451	04-22-79	15.48	2,830
Bowerman Brook near Craigville [05131878]	Lat 47°55'29", long 93°45'34", in NE ¹ / ₄ NW ¹ / ₄ sec. 26, T.63 N., R.27 W., Koochiching County, Hydrologic Unit 09030006, at culvert on State High- way 6, 2.4 miles upstream from mouth, 7.0 miles west of Craigville [Drainage area: 25.7 mi ²].	1979- current year	06-26-03	10.39	40	06-23-02	15.83	937
North Branch Rapid River near Baudette [05134100]	Lat 48°31'56", long 94°38'50", in NW ¹ / ₄ SW ¹ / ₄ sec. 4, T.158 N., R.31 W., Lake of the Woods County, Hydrologic Unit 09030007, at bridge on County Highway 1, 12.7 miles southwest of Baudette [Drainage area: 174 mi ²].	1986- current year	06-25-03	7.50	275	06-11-02	e18.34	6,380
Winter Road River near Baudette [05137000]	Lat 48°42'39", long 94°41'52", in NW ¹ / ₄ NE ¹ / ₄ sec. 1, T.160 N., R.32 W., Lake of the Woods County, Hydrologic Unit 09030008, at bridge on State Highway 11, 4.5 miles west of Bau- dette, 1.8 miles east of Pitt, 5 miles upstream of mouth [Drainage area: 140 mi ²].	1986- current year	06-25-03	8.90	268	06-11-02	de19.35	9,900
Mississippi River at Bemidji [05200445]	Lat 47°27'04", long 94°54'23", in NW ¹ / ₄ NW ¹ / ₄ sec. 20, T.146 N., R.33 W., Beltrami County, Hydrologic Unit 07010101, at bridge on County High- way 11, 1.4 miles southwest of intersection of State Highway 197 and County Highway 7 in Bemidji [Drainage area: 358 mi ²].	1973-87, 1988-89 [#] , 1990- current year	06-25-03	b10.58	273	04-18-97	13.17	1,820
Boy River near Remer [05205200]	Lat 47°04'51", long 94°05'54", in NE ¹ / ₄ NE ¹ / ₄ sec. 33, T.142 N., R.27 W., Cass County, Hydrologic Unit 07010102, at bridge on County High- way 53, 1.9 miles upstream from Boy Lake and 9 miles northwest of Remer [Drainage area: 289 mi ²].	1986- current year	07-10-03	bd	<213	04-10-96 07-23-87	a11.59 11.64	c660 660
Willow River below Palisade [05221020]	Lat 46°42'36", long 93°33'21", in NW ¹ / ₄ NE ¹ / ₄ sec. 30, T.49 N., R.25 W., Aitkin County, Hydrologic Unit 07010103, at bridge on County High- way 3, 3.2 miles west of Palisade [Drainage area: 523 mi ²].	1972- current year	07-11-03	d	<673	04-25-79	17.25	3,730
Hoblin Creek near Pine River [05229430]	Lat 46°41'06", long 94°30'49", in SE ¹ / ₄ NE ¹ / ₄ sec. 18, T.137 N., R.30 W., Cass County, Hydrologic Unit 07010105, at culvert on township road, 3.4 miles upstream from mouth, 5.6 miles southwest of Pine River.	2002- current year	07-10-03	7.59	--	07-08-02	8.38	--

Annual maximum discharge at high-flow sites during water year 2003--Continued

Station name and [Station number]	Location and [Drainage area]	Period of record	Water year 2003 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Pine River near Pine River [05229450]	Lat 46°41'39", long 94°22'11", in NE ¹ / ₄ SE ¹ / ₄ sec. 8, T.137 N., R.29 W., Cass County, Hydrologic Unit 07010105, at bridge on U.S. Highway 371, 2.3 miles southeast of Pine River, 4.9 miles upstream of Upper Whitefish Lake [Drainage area: 261 mi ²].	1986- current year	07-10-03	3.38	313	05-14-99	5.15	1,520
Cat River near Nimrod [05244200]	Lat 46°37'49", long 94°55'51", in SW ¹ / ₄ SW ¹ / ₄ sec. 36, T.137 N., R.34 W., Wadena County, Hydrologic Unit 07010106, at bridge on State Highway 227, 2.5 miles west of Nimrod, 3.0 miles upstream from mouth [Drainage area: 57.1 mi ²].	1961- current year	06-25-03	bd	<74	10-12-73	9.43	560
Leaf River near Aldrich [05244440]	Lat 46°27'25", long 94°50'29", in SW ¹ / ₄ SW ¹ / ₄ sec. 34, T.135 N., R.33 W., Wadena County, Hydrologic Unit 07010107, at bridge on County High- way 29, 3.3 miles upstream from mouth, 7.0 miles northeast of Ald- rich [Drainage area: 870 mi ²].	1972- current year	06-26-03	11.77	988	04-12-01	16.40	5,800
Eagle Creek Tributary near Eagle Bend [05245190]	Lat 46°48'01", long 94°01'36", in NW ¹ / ₄ NE ¹ / ₄ sec. 24, T.131 N., R.35 W., Todd County, at culvert on township road, 1.0 mile upstream from mouth, 1.0 mile south of Eagle Bend.	2003- current year	06-24-03	8.52	--	06-24-03	8.52	--
Mississippi River near Fort Ripley [05261000]	Lat 46°10'50", long 94°21'56", in SE ¹ / ₄ NW ¹ / ₄ sec. 27, T.43 N., R.32 W., Crow Wing County, on left bank 600 feet. Upstream from Nokasippi River and 1.0 mile north of Ft. Ripley. [Drainage area 10,840 mi ²].	1987-00#, 2001- current year	06-29-03	8.59	11,500	04-08-97	14.15	32,200
Nokasippi River near Fort Ripley [05261520]	Lat 46°12'02", long 94°19'03", in NE ¹ / ₄ NE ¹ / ₄ sec. 24, T.43 N., R.32 W., Crow Wing County, Hydrologic Unit 07010104, at bridge on County High- way 2, 3 miles northeast of Fort Ripley [Drainage area: 193 mi ²].	1967-70†, 1974†, 1976†, 1986- current year	06-26-03	15.17	1,160	06-26-03	15.17	1,160
Platte River at Royalton [05268000]	Lat 45°50'43", long 94°17'40", in SE ¹ / ₄ NW ¹ / ₄ sec. 26, T.39 N., R.32 W., Morrison County, Hydrologic Unit 07010201, at bridge on County High- way 27, 0.6 mile north of Royalton, 6.6 miles upstream from mouth [Drainage area: 432 mi ²].	1929-36, 1972- current year	06-26-03	13.39	2,760	07-26-72	--	6,850
Ashley Creek near Sauk Centre [05270150]	Lat 45°46'46", long 94°58'52", in NW ¹ / ₄ SE ¹ / ₄ sec. 29, T.127 N., R.34 W., Todd County, Hydrologic Unit 07010202, at bridge on County High- way 11, 3 miles north of Sauk Centre [Drainage area: 119 mi ²].	1963- 70†,74†, 1976†, 1986-88, 1989#, 1990- current year	06-26-03	16.38	686	04-08-01	18.00	1,020
Johnson Creek near St. Augusta [05272300]	Lat 45°27'49", long 94°09'19", in NW ¹ / ₄ SW ¹ / ₄ sec. 13, T.123 N., R.28 W., Stearns County, Hydrologic Unit 07010203, at bridge on County High- way 7, 1.0 mile south of St. Augusta, 3.3 miles upstream from mouth [Drainage area: 45.6 mi ²].	1964- current year	04-20-03	b12.70	246	09-09-85	16.37	2,350

Annual maximum discharge at high-flow sites during water year 2003--Continued

Station name and [Station number]	Location and [Drainage area]	Period of record	Water year 2003 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Clearwater River near South Haven [05272950]	Lat 45°16'45", long 94°15'04", in NE ¹ / ₄ NW ¹ / ₄ sec. 19, T.121 N., R.28 W., Wright County, Hydrologic Unit 07010203, at culvert 3.4 miles southeast of Kimball, 0.25 mile downstream of Scott Lake Outlet, 2.0 miles southwest of South Haven [Drainage area: 78.8 mi ²].	1985- current year	06-26-03	14.65	241	09-09-85	17.11	1,040
North Fork Crow River near Kingston [05278120]	Lat 45°12'13", long 94°23'16", in SW ¹ / ₄ SE ¹ / ₄ sec. 13, T.120 N., R.30 W., Meeker County, Hydrologic Unit 07010204, at bridge on State Highway 24, 3.7 miles west of Kingston, 3.9 miles east of Forest City [Drainage area: 779 mi ²].	1986- current year	06-30-03	14.95	2,410	05-01-86	17.82	4,850
Buffalo Creek near Glencoe [05278930]	Lat 44°45'50", long 94°05'27", in SW ¹ / ₄ SW ¹ / ₄ sec. 16, T.115 N., R.27 W., McLeod County, Hydrologic Unit 07010205, at bridge on County High- way 1, 2.6 miles east of Glencoe [Drainage area: 373 mi ²].	1972-95, 1998- current year	06-30-03	14.32	815	09-12-91	11.78	4,300
Lake Ina Tribu- tary near Melby [05293245]	Lat 46°03'50", long 95°43'40", in NW ¹ / ₄ NW ¹ / ₄ sec. 21, T.130 N., R.40 W., Douglas County, Hydrologic unit 07020002, upstream from culvert on County Road 24, at Lake Ina, 0.3 mile east of Melby.	2003- current year	06-24-03	9.95	f43	06-24-03	9.95	f43
Pomme de Terre River near Elbow Lake [05293371]	Lat 45°57'47", long 95°53'07", in SE ¹ / ₄ SW ¹ / ₄ sec. 19, T.129 N., R.41 W., Grant County, Hydrologic Unit 07020002, at bridge on County Road 47, 4 miles southeast of Elbow Lake, 2.5 miles south of the outlet of Pomme de Terre Lake [Drainage area: 340 mi ²].	1986- current year	06-25-03	5.21	238	06-15-01	6.85	600
Pomme de Terre River near Appleton [05294000]	Lat 45°12'10", long 96°01'20", in SW ¹ / ₄ NW ¹ / ₄ sec. 14, T.120 N., R.43 W., Swift County, Hydrologic Unit 07020002, on left bank 60 feet upstream from bridge on U.S. Highway 59 and State Highway 119 at Apple- ton, 8 miles upstream from mouth [Drainage area: 864 mi ²].	1931-35' 1935-99 [#] , 2000- current year	06-30-03	7.19	795	04-07-97	18.13	8,890
Florida Creek near Burr [05299750]	Lat 44°44'10", long 96°25'10", in SE ¹ / ₄ SE ¹ / ₄ sec. 29, T.115 N., R.46 W., Yellow Medicine County, Hydro- logic Unit 07020003, at culvert on County Road 15, 3.0 miles west of Burr, 7.6 miles northwest of Canby [Drainage area: 77.3 mi ²].	1982, 1983-84 [#] , 1991- current year	03-16-03	a5.83	63	04-01-97	26.57	2,490
Little Chippewa River near Starbuck [05302500]	Lat 45°36'52", long 95°37'12", in NW ¹ / ₄ NE ¹ / ₄ sec. 30, T.125 N., R.39 W., Pope County, Hydrologic Unit 07020005, at culvert on State High- way 28, 4.4 miles west of Starbuck [Drainage area: 96.2 mi ²].	1979- current year	06-24-03	13.76	348	04-08-01	14.02	980

DISCHARGE AT HIGH-FLOW PARTIAL-RECORD STATIONS--Continued

Annual maximum discharge at high-flow sites during water year 2003--Continued

Station name and [Station number]	Location and [Drainage area]	Period of record	Water year 2003 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Chippewa River near Watson [05305000]	Lat 45°01'18", long 95° 47'25 ", in NE ¹ / ₄ NW ¹ / ₄ sec. 22, T.118 N., R.41 W., Chippewa County, Hydrologic Unit 07020005, 150 feet downstream from County Road 13 bridge and dam, one mile north of Watson, 5.5 miles northwest of Montevideo, and 12.1 miles above confluence with Minne- sota River in Montevideo [Drainage area: 2,050 mi ²].	1910-17, 1931-36, 2001- current year	07-01-03	39.61	793	04-11-01	45.41	4,600
South Branch Yellow Medicine River near Minneota [05311400]	Lat 44°33'50", long 95°59'50", in SE ¹ / ₄ SE ¹ / ₄ , sec. 26, T.113 N., R.43 W., Lyon County, Hydrologic Unit 07020004, at bridge on State Highway 68, on northwest edge of Minneota and 6 miles upstream from mouth [Drainage area: 115 mi ²].	1960-81 [#] , 1981-87, 1998- current year	04-19-03	b15.32	150	04-18-69	13.41	4,430
Ramsey Creek near Redwood Falls [05316538]	Lat 44°33'08", long 95°10'38", in SE ¹ / ₄ NE ¹ / ₄ sec. 33, T.113 N., R.36 W., Redwood County, Hydrologic Unit 07020006 at bridge on township road 2.3 miles northeast of KLGR radio towers, on west side of Redwood Falls [Drainage area: 629 mi ²].	1991-93, 1995 - current year	04-17-03	19.24	138	06-17-93	25.94	920
Beaver Creek at Beaver Falls [05316570]	Lat 44°35'03", long 95°02'49", in NE ¹ / ₄ NW ¹ / ₄ sec. 22, T.113 N., R.35 W., Renville County, Hydrologic Unit 07020004, at bridge on County High- way 2 in Beaver Falls, 2.2 miles upstream from mouth, 3.8 miles northwest of Morton [Drainage area: 191 mi ²].	1972- current year	05-21-03	b7.98	186	04-02-97	14.73	3,300
Cottonwood River near Springfield [05316950]	Lat 44°12'12", long 95°02'53", in SW ¹ / ₄ NW ¹ / ₄ sec. 34, T.109 N., R.35 W., Brown County, Hydrologic Unit 07020008, at bridge on County High- way 2, 1.3 miles downstream from Mound Creek, 1.0 mile upstream from Coal Mine Creek, 3.5 miles southwest of Springfield [Drainage area: 777 mi ²].	1973- current year	04-21-03	17.11	1,100	06-18-93	31.40	14,500
Minnesota River Tributary at State High- way 68 near Jud- son [05317330]	Lat 44°11'40", long 94°12'27", in NW ¹ / ₄ NW ¹ / ₄ sec. 4, T.108 N., R.28 W., Blue Earth County, Hydrologic Unit 07020007, at culvert on State High- way 68, 0.5 mile southwest of Jud- son, 0.4 mile above mouth [Drainage area: 0.97 mi ²].	2001- current year	05-15-03	d	--	06-22-02	8.84	--
East Branch Blue Earth River near Walters [05317845]	Lat 43°37'58", long 93°42'28", in SE ¹ / ₄ SE ¹ / ₄ sec. 16, T.102 N., R.24 W., Faribault County, Hydrologic Unit 07020009, at culvert on State Highway 22, 2.5 miles northwest of Walters [Drainage area: 30.2 mi ²].	1979- current year	05-17-03	15.73	323	08-15-93	18.73	657
Elm Creek at County Road 103 near Trimont [05318195]	Lat 43°45'27", long 94°50'30", in NW ¹ / ₄ NW ¹ / ₄ sec. 5, T.103 N., R.33 W., Martin County, Hydrologic Unit 07020009, at bridge on County Road 103, 12.5 miles northeast of Jack- son, 5 miles west of Trimont.	1991- current year	06-25-03	d	<371	06-04-91	22.92	2,000

Annual maximum discharge at high-flow sites during water year 2003--Continued

Station name and [Station number]	Location and [Drainage area]	Period of record	Water year 2003 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Watowan River near Delft [05318300]	Lat 43°59'55", long 95°07'11", in NE ¹ / ₄ SE ¹ / ₄ sec. 11, T.106 N., R.36 W., Cottonwood County, Hydrologic Unit 07020010, at culvert on U.S. Highway 71, 1.7 miles northwest of Delft [Drainage area: 13.5 mi ²].	1960-2003	05-11-03	14.63	49	06-18-93	17.70	1,000
South Fork Watowan River near Ormsby [05318897]	Lat 43°53'08", long 94°41'27", in SE ¹ / ₄ NW ¹ / ₄ sec.21, T.105 N., R.32 W., Watowan County, Hydrologic Unit 07020010, at bridge on township road, 2.6 miles north of Ormsby, 5.0 miles upstream from Willow Creek [Drainage area: 107 mi ²].	1979- current year	06-25-03	11.07	216	05-31-80	18.40	1,920
Maple River near Rapidan [05320480]	Lat 44°03'54", long 94°01'32", in SW ¹ / ₄ SW ¹ / ₄ sec. 13, T.107 N., R.27 W., Blue Earth County, Hydrologic Unit 07020011, at bridge on County High- way 35, 3.0 miles southeast of Rapi- dan, 3.3 miles upstream from mouth [Drainage area: 338 mi ²].	1972- current year	05-12-03	9.74	1,500	04-12-01	13.79	5,540
Minnesota River Tributary below St. Peter [05325450]	Lat 44°20'13", long 93°54'45", in NE ¹ / ₄ NE ¹ / ₄ sec. 14, T.110 N., R.26 W., Le Sueur County, Hydrologic Unit 07020007, at culvert on County State Aid Highway 23, 1.8 miles east of St. Peter [Drainage area: 2.13 mi ²].	2001- current year	05-15-03	d	--	02-25-01	7.20	--
Sand Creek near New Prague [05330300]	Lat 44°32'37", long 93°32'16", in NE ¹ / ₄ NW ¹ / ₄ sec. 1, T.112 N., R.23 W., Le Sueur County, Hydrologic Unit 07020012, at culvert on State High- way 13 and 19, 1.9 miles east of New Prague [Drainage area: 62.2 mi ²].	1960- current year	05-12-03	10.80	296	05-21-60	14.84	1,100
Crooked Creek near Hinckley [05335170]	Lat 46°00'42", long 92°31'45", in NE ¹ / ₄ NE ¹ / ₄ sec. 30, T.41 N., R.17 W., Pine County, Hydrologic Unit 07030001, at culvert on State High- way 48, 2.7 miles upstream from mouth, 8 miles south of Duxbury, 19 miles east of Hinckley [Drainage area: 94.4 mi ²].	1966- 70†,74†, 76†, 79- 80†, 1986- current year	06-23-03	14.14	1,060	04-23-01	16.65	2,100
Glaisby Brook near Kettle River [05336200]	Lat 46°27'19", long 92°51'34", in SE ¹ / ₄ NW ¹ / ₄ sec. 22, T.46 N., R.20 W., Carlton County, Hydrologic Unit 07030003, at bridge on State High- ways 27 and 73, 1.0 mile upstream from mouth, 2.4 miles south of Ket- tle River [Drainage area: 27.0 mi ²].	1960-70#, 1971- current year	06-23-03	15.12	134	07-22-72	10.18	1,370
Goose Creek at Harris [05339747]	Lat 45°35'11", long 92°58'39", in SW ¹ / ₄ SW ¹ / ₄ sec. 21, T.36 N., R.21 W., Chisago County, Hydrologic Unit 07030005, at culverts on County Highway 9, 0.15 mile west of County Highway 30 in Harris, 8 miles above mouth [Drainage area: 47.3 mi ²].	1986- current year	06-26-03	6.93	241	04-23-01	8.11	360
Cannon River below Sabre Lake near Kilkenny [05348550]	Lat 44°17'50", long 93°37'44", in NE ¹ / ₄ NE ¹ / ₄ sec. 31, T.110 N., R.23 W., Le Sueur County, Hydrologic Unit 07040002, at bridge on township road, 0.25 mile downstream of Sabre Lake, 3 miles southwest of Kilkenny [Drainage area: 87.9 mi ²].	1985- current year	05-12-03	12.12	205	04-12-01	13.83	563

DISCHARGE AT HIGH-FLOW PARTIAL-RECORD STATIONS--Continued

Annual maximum discharge at high-flow sites during water year 2003--Continued

Station name and [Station number]	Location and [Drainage area]	Period of record	Water year 2003 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Cannon River at Northfield [05355024]	Lat 44°27'19", long 93°09'46", in NE ¹ / ₄ NE ¹ / ₄ sec. 1, T.111 N., R.20 W., Rice County, Hydrologic Unit 07040002, at Fifth Street bridge in Northfield [Drainage area: 929 mi ²].	1980- current year	05-13-03	903.36	3,540	04-12-01	905.40	8,370
Milliken Creek near Concord [05373080]	Lat 44°07'13", long 92°49'08", in NW ¹ / ₄ NW ¹ / ₄ sec. 36, T.108 N., R.17 W., Dodge County, Hydrologic Unit 07040004, at bridge on County Road 9, 8.0 miles upstream from mouth, 2.1 miles southeast of Concord [Drainage area: 22.1 mi ²].	1979- current year	05-11-03	12.54	343	06-13-01	15.80	3,470
Zumbro River at Zumbro Falls [05374000]	Lat 44°17'12", long 92°25'56", in NE ¹ / ₄ SE ¹ / ₄ sec. 36, T.110 N., R.14 W., Wabasha County, Hydrologic Unit 07040004, in Zumbro Falls, 1,000 feet downstream from Cold Creek, 0.7 mile upstream from bridge on U.S. Highway 63, and 6.3 miles downstream from North Fork [Drainage area: 1,150 mi ²].	1909-17 [#] , 1929-80 [#] , 1990- current year	05-12-03	14.69	7,630	07-21-51	30.80	35,900
Cedar River near Ridgeway [05380100]	Lat 43°56'49", long 91°33'59", in NW ¹ / ₄ NE ¹ / ₄ sec. 32, T.106 N., R.6 W., Winona County, Hydrologic Unit 07040003, at bridge on County Road 9, 2.9 miles northeast of Witoka, 6 miles southeast of Winona [Drainage area: 7.16 mi ²].	2001- current year	02-21-03	a12.16	--	02-21-03	a12.16	--
Root River at Rushford [05384350]	Lat 43°48'11", long 91°45'10", in NE ¹ / ₄ NE ¹ / ₄ sec. 23, T.104 N., R.8 W., Fillmore County, Hydrologic Unit 07040008, at U.S. Highway 16 bridge on south side of Rushford, 0.2 mile upstream from Rush Creek [Drainage area: 992 mi ²].	1985- current year	05-12-03	17.52	2,770	06-02-00	26.35	32,400
Rush Creek near Rushford [05384500]	Lat 43°50'00", long 91°46'40", in SW ¹ / ₄ SW ¹ / ₄ sec. 3, T.104 N., R.8 W., Fillmore County, Hydrologic Unit 07040008, at bridge, 1.5 miles northwest of Rushford, 3.0 miles upstream from mouth [Drainage area: 132 mi ²].	1942-79 [#] , 1980- current year	02-21-03	3.11	432	03-26-50	13.54	11,600
Cambell Valley Creek near Money Creek [05384800]	Lat 43°49'54", long 91°34'53", in NE ¹ / ₄ NW ¹ / ₄ sec. 8, T.104 N., R.6 W., Houston County, Hydrologic Unit 07040008, at triple box culvert on County State Aid Highway 26, 1.8 miles northwest of Money Creek [Drainage area: 6.82 mi ²].	2001- current year	03-16-03	3.11	--	03-16-03	3.11	--
Root River near Houston [05385000]	Lat 43°46'07", long 91°35'11", in SW ¹ / ₄ NW ¹ / ₄ sec. 33, T.104 N., R.6 W., Houston County, Hydrologic Unit 07040008, on right bank 0.2 mile north of Houston, 1.6 miles upstream from confluence with South Fork Root River and 1.2 miles upstream from mouth [Drainage area: 1,250 mi ²].	1909-17, 1929, 1930-83 [#] , 1983-90 1991-00 [#] , 2001- current year	05-13-03	7.00	2,650	04-01-52 03-02-65	-- 18.32	37,000 --
South Fork Root River near Houston [05385500]	Lat 43°44'19", long 91°33'50", in NE ¹ / ₄ SW ¹ / ₄ sec. 9, T.103 N., R.6 W., Houston County, Hydrologic Unit 07040008, at bridge on State Highway 76, 0.5 mile upstream from Badger Creek, 1.5 mile south of Houston [Drainage area: 275 mi ²].	1953-83 [#] , 1985- current year	06-04-02 03-16-03	h4.88 b3.09	h681 348	06-01-00	14.90	13,800

Annual maximum discharge at high-flow sites during water year 2003--Continued

Station name and [Station number]	Location and [Drainage area]	Period of record	Water year 2003 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Crooked Creek at Freeburg [05387030]	Lat 43°36'37", long 91°21'39", in SW ¹ / ₄ NE ¹ / ₄ sec. 30, T.102 N., R.4 W., Houston County, Hydrologic Unit 07060001, at bridge on State Highway 249 at Freeburg 6.5 miles upstream from mouth [Drainage area: 44.8 mi ²].	1979- current year	03-16-03	d	<275	03-04-92	19.02	2,200
Little Cedar River near Johnsburg [05457778]	Lat 43°30'52", long 92°45'19", in NW ¹ / ₄ NE ¹ / ₄ sec. 33, T.101 N., R.16 W., Mower County, Hydrologic Unit 07080201, at bridge on County Road 6, 1 mile northeast of Johnsburg, 1 mile north of Minnesota-Iowa border [Drainage area: 45.8 mi ²].	1986- current year	05-11-03	10.94	348	08-16-93	17.58	9,280
Bancroft Creek at Bancroft [05458960]	Lat 43°42'09", long 93°21'23", in SW ¹ / ₄ SE ¹ / ₄ sec. 21, T.103 N., R.21 W., Freeborn County, Hydrologic Unit 07080202, at bridge on County Road 14, 1.6 miles northeast of Fountain Lake, 1 mile north of Interstate 90 [Drainage area: 28.7 mi ²].	1985†, 1986- current year	05-11-03	f6.05	230	06-14-01	8.81	1,070
Elk Creek near Brewster [05474900]	Lat 43°40'43", long 95°27'10", in NE ¹ / ₄ SE ¹ / ₄ sec. 36, T.102 N., R.39 W., Nobles County, Hydrologic Unit 07100001, at bridge on County High- way 1, 0.7 miles south of Brewster.	1996- current year	05-12-03	18.23	335	05-30-01	25.29	4,000
East Fork Des Moines River near Ceylon [05476989]	Lat 43°33'53", long 94°39'15", in NW ¹ / ₄ SW ¹ / ₄ sec. 11, T.101 N., R.32 W., Martin County, Hydrologic Unit 07010003, at bridge on County Road 23, 2.4 miles northwest of Ceylon [Drainage area: 128 mi ²].	1986- current year	05-11-03	15.44	204	07-05-93	21.65	1,350
North Branch Pipestone Creek near Pipestone [06482500]	Lat 44°04'54", long 96°18'27", in SE ¹ / ₄ SE ¹ / ₄ sec. 12, T.107 N., R.46 W., Pipestone County, Hydrologic Unit 10170203, at bridge on U.S. Highway 75, 5.5 miles north of Pipe- stone. Formerly "Pipestone Creek near Pipestone" [Drainage area: 31.5 mi ²].	1991- current year	04-16-03	17.10	260	05-08-93	20.28	2,650
Beaver Creek at Valley Springs, South Dakota [06482745]	Lat 43°35'10", long 96°28'20", in NW ¹ / ₄ NW ¹ / ₄ sec. 3, T.101 N., R.47 W., Minnehaha County, South Dakota, Hydrologic Unit 10170203, at bridge on County Road 103 (Valley Drive), 1 mile west of South Dakota-Minnesota border, 2.5 miles south of Inter- state 90 [Drainage area: 104 mi ²].	1986- current year	04-07-03	14.66	141	06-13-94	24.89	2,280
Rock River Tribu- tary at County Highway 18 near Hatfield [06482910]	Lat 43°56'38", long 96°06'13", in SW ¹ / ₄ NW ¹ / ₄ sec. 35, T.106 N., R.44 W., Pipestone County, Hydrologic Unit 10170204, at culvert on County State Aid Highway 18, 1.5 miles upstream of mouth, 4 miles east of Hatfield, 5 miles north of Edgerton [Drainage area: 3.28 mi ²].	2001- current year	03-16-03	3.98	17	06-26-01	6.16	186
Chanarambi Creek near Edgerton [06482933]	Lat 43°53'59", long 96°03'39", in NW ¹ / ₄ SW ¹ / ₄ sec. 18, T.105 N., R.43 W., Murray County, Hydrologic Unit 10170204, at bridge on township road, 3.8 miles northeast of Edger- ton, 7.4 miles upstream from mouth [Drainage area: 57.3 mi ²].	1979- current year	03-16-03	d	<169	04-23-01 05-03-01	16.79 18.14	928 850

DISCHARGE AT HIGH-FLOW PARTIAL-RECORD STATIONS--Continued

Annual maximum discharge at high-flow sites during water year 2003--Continued

Station name and [Station number]	Location and [Drainage area]	Period of record	Water year 2003 maximum			Period of record maximum		
			Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Champepadan Creek at County Road 18 near Leota [06482970]	Lat 43°47'24", long 96°00'40", in NW ¹ / ₄ NW ¹ / ₄ sec. 28, T.104 N., R. 43 W., Nobles County, Hydrologic Unit 10170204, at bridge on County Road 18, near junction with County Road 19, 3 miles south of Leota [Drainage area: --].	1996- current year	03-16-03	a12.73	157	04-23-01	17.54	895
Rock River at Luverne [06483000]	Lat 43°39'15", long 96°12'03", in SW ¹ / ₄ NE ¹ / ₄ sec. 11, T.102 N., R45 W., Rock County, Hydrologic Unit 10170204, at bridge on Main Street (County Highway 4) in Luverne [Drainage area: 419 mi ²].	1911-14 [#] , 1968-69, 1971- current year	03-16-03	6.09	1,410	05-08-93	14.23	c35,400
Elk Creek near Lismore [06483020]	Lat 43°41'38", long 96°00'46", in NE ¹ / ₄ SE ¹ / ₄ sec. 29, T.103 N., R. 43 W., Nobles County, Hydrologic Unit 10170204, at bridge on County Road 19, 4.6 miles southwest of Lismore [Drainage area: 4.62 mi ²].	1996- current year	03-16-03	a14.08	--	06-14-01	15.62	--
Little Rock River near Rushmore [06483350]	Lat 43°32'36", long 95°48'58", in NE ¹ / ₄ NE ¹ / ₄ sec. 24, T.101 N., R.42 W., Nobles County, Hydrologic Unit 10170204, at bridge #4967, on County Road 6, 1.5 miles west of Ransom, 5.1 miles south of Rushmore [Drainage area: 45.8 mi ²].	1991- current year	05-11-03	b22.82	108	07-11-93	27.04	4,290
Little Rock Creek near Rushmore [06483353]	Lat 43°32'37", long 95°50'50", in NE ¹ / ₄ NW ¹ / ₄ sec. 23, T.101 N., R.42 W., Nobles County, Hydrologic Unit 10170204, at bridge on County Road 6, 5.5 miles southwest of Rushmore [Drainage area: 32.1 mi ²].	1996- current year	05-11-03	21.26	102	05-30-01	27.99	3,070
Little Sioux River near Spafford [06603530]	Lat 43°36'08", long 95°15'27", in NE ¹ / ₄ NE ¹ / ₄ sec. 34, T.102 N., R.37 W., Jackson County, Hydrologic Unit 10230003, at bridge on township road, 1.6 miles downstream from Jackson County ditch No. 11, 5.8 miles east of Spafford [Drainage area: 40.5 mi ²].	1962- current year	06-09-03	7.80	113	06-29-69	12.06	4,500

< less than

c Estimated.

g Backwater from Lake Traverse.

Operated as a continuous-record
gaging station.

d Did not reach bottom of gage

h Peak flow determined from indirect
measurement.

† Operated as a low-flow site.

e From high-water mark.

i Revised.

a Backwater from ice.

f Backwater from beaver dam

j Stage from downstream gage.

b Not annual maximum.