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

Discharge at High-Flow Partial-Record Stations



Yellow Bank River near Odessa gage, April 9, 2001.

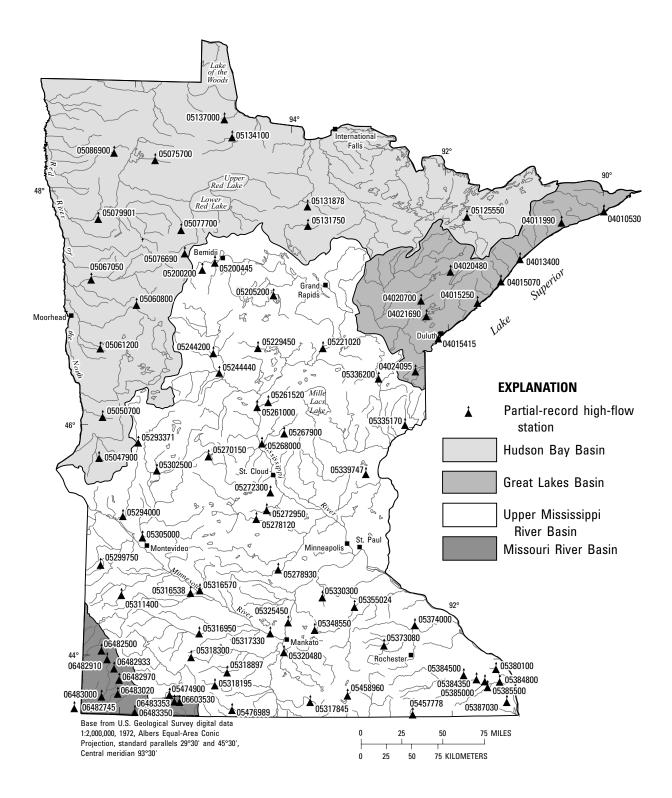


Figure 7. Location of high-flow partial-record stations.

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 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 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 2001 [--, data not available]

		Period	Water	year 2001	Maximum	Period (of Record	l Maximum
Station Name and [Station Number]	Location and [Drainage area]	of Record	Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Reservation River near Hovland [04010530]	Lat $47^{\circ}52'38"$, long $89^{\circ}51'45"$, in SE ¹ / ₄ SW ¹ / ₄ sec. 6, T.62 N., R.5 E., Cook County, Hydrologic Unit 04010101, on Grand Portage Indian Reservation, on left bank at down- stream side of bridge on U.S. High- way 61, 1,200 feet upstream from mouth, and 5.5 miles northeast of Hovland [Drainage area: 6.88 mi ²]	1991-92#, 2000- current year	06-20-00 04-24-01	2.68 3.58	370 928	04-24-01	c3.58	928
Cascade River near Grand Marais [04011990]	Lat $47^{\circ}47'24''$, long $90^{\circ}31'35''$, in $SE^1/_4$ 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	04-24-01	13.36	1,810	04-24-01	13.36	1,810
Little Marais River near Lit- tle Marais [04013400]	Lat 47°24′58″, long 91°06′08″, in $SW^{1}_{4} SW^{1}_{4}$ sec. 16, T.57 N., R.6W., Lake County, Hydrologic Unit 04010101, at bridge on U.S. Highway 61, 0.5 mile northeast of Little Marais.	2000- current year	11-07-00	al8.14	b400	11-07-00	a18.14	b400
Lake Superior Trib. at Split Rock State Park [04015070]	Lat $47^{\circ}11'33'$, long $91^{\circ1}23'29''$, 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. Hwy 61, 1 mile mile northeast of Split Rock River, 1.5 mile southwest of south of Split Rock Lighthouse State Park entrance, and 6 miles southwest of Beaver River.	2001- current year	11-07-00	a16.68	197	11-07-00	a16.68	197
Silver Creek tributary near Two Harbors [04015250]	Lat $47^{\circ}04'40''$, long $91^{\circ}36'49''$, 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 Har- bors.[Drainage area: 3.62 mi ²]	1965- current year	11-07-00	a4.52	268	9-20-72	17.08	1,880
Lake Superior Trib. on W. 9th St. in Duluth [04015415]	Lat $46^{\circ}45'27''$, long $92^{\circ}09'25''$, 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.	2001- current year	04-23-01	9.22	122	04-23-01	9.22	122

		Period	Water	year 2001	Maximum	Period of Record		d Maximum	
Station Name and [Station Number]	Location and [Drainage area]	of Record	Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)	
North Branch Whiteface River near Fairbanks [04020480]	Lat $47^{\circ}22'20"$, long $91^{\circ}56'28"$, 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]	year	04-25-01	13.02	290	04-23-79	13.67	660	
Bug Creek at Shaw [04020700]	Lat $47^{\circ}06'40"$, long $92^{\circ}21'03"$, 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	04-24-01	15.33	525	07-05-99	18.00	1,350	
Cloquet River near Toimi [04021690]	Lat $47^{\circ}21'00"$, long $91^{\circ}39'30"$, in NE ¹ /4SW 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	04-25-01	8.13	915	07-04-93	9.06	1,540	
Nemadji River near Holyoke [04024095]	Lat $46^{\circ}31'04"$, long $92^{\circ}23'22"$, 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, 7 miles south of Wrenshall. [Drainage area: 127 mi ²]	1972- current year	04-23-01	a14.15	3,120	09-03-85	17.38	4,420	
Twelvemile Creek near Dumont [05047900]	Lat $45^{\circ}42'58''$, long $96^{\circ}20'54''$, in $\mathrm{SE}^{1}_{4}\mathrm{SW}^{1}_{4}$ 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	04-13-01	a12.35	2,630	04-06-97	13.63	b3,720	
Mustinka River above Wheaton [05049000]	Lat 45°49'15", long 96°29'25", in $SW^1/_4$ 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. [Drainage area: 810 mi ²]	1915-24 [#] , 1930-58 [#] , 1985- current year	04-09-01	21.18	11,000	04-07-97 04-09-01	23.63 21.18	8,800 11,000	
Rabbit River near Nashua [05050700]	Lat $46^{\circ}04'30"$, long $96^{\circ}18'24"$, in $SE^{1}/_4NE^{1}/_4$ 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	04-08-01	15.85	1,480	04-05-97	c15.76	b1,640	
Buffalo River near Callaway [05060800]	Lat $47^{\circ}01'17"$, long $95^{\circ}54'43"$, 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	04-07-01	c16.34	b430	07-16-93	24.90	1,630	

		Period	Water	year 2001	Maximum	Period (of Record	Maximum
Station Name and [Station Number]	Location and [Drainage area]	of Record	Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Whiskey Creek at Barnesville [05061200]	Lat $46^{\circ}39'35"$, long $96^{\circ}23'54"$, 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	04-08-01	5.60	258	05-31-85	7.12	660
Coon Creek Trib. near Twin Valley [05062850]	Lat 47°16'02", long 96°20'01", in $NE^{1}_{4}NW^{1}_{4}$ sec. 25, T.144 N., R45 W., Norman County, Hydrologic Unit Hydrologic Unit 09020108, 35 miles west of Twin Valley, o.5 mile above mouth.	2000- 2001	06-20-01 04-08-01	15.65 9.30	 118	06-20-01	15.65	
Marsh River Ditch near Ada [05067050]	Lat $47^\circ17{}^{\prime}46{}^{"}$, long $96^\circ26{}^{\prime}09{}^{"}$, in $NE^1/_4NE^1/_4$ sec. 13, T. 144 N., R 46 W., Norman County, Hydrologic Unit 09020108, at bridge on County Highway 24, 3.5 miles southeast of Ada.	1985- current year	04-08-01	c17.16	b150	04-06-89	16.74	1,070
Red Lake River at High Landing near Goodridge [05075000]	Lat $48^{\circ}02'34''$, long $95^{\circ}48'28''$, in $NW^{1}/_{4}NW^{1}/_{4}$ sec. T.153 N., R.40W., 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. [Drainage area: 2,300 mi ²]	1929- 2000#, 2001	04-08-01	11.45	2,590	07-07-75	13.39	4,060
Mud River near Grygla [05075700]	Lat 48°19'31", long 95°44'35", in $NE^{1}/_4NE^{1}/_4$ sec. 23, T. 156 N., R. 40 W., Hydrologic Unit 09020304, Marshall County, at bridge on State Highway 89, 6 miles west of Grygla.[Drainage area: 150 mi ²]	1979- current year	08-02-01	18.25	1,400	03-31-99	18.18	1,960
Clearwater River Trib. near Bagley [05076690]	Lat $47^{\circ}30'34''$, long $95^{\circ}24'15''$, 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	04-07-01	c8.92	b23	04-07-01	e8.92	b23
Ruffy Brook near Gonvick [05077700]	Lat $47^{\circ}44'50"$, long $95^{\circ}24'45"$, in $SE^{1}/_{4}SE^{1}/_{4}$ sec. 5, T. 149 N., R. 37 W., Clearwater County, Hydrologic Unit 09020305, at culvert on County Highway 67, 4.0 miles upstream from mouth, 4.8 miles east of Gon-vick.[Drainage area: 46.2 mi ²]	1960-78#, 1979-85, 1986#, 1987- current year	04-09-01	4.49	278	04-19-96	5.78	455
Burnham Creek near Crookston [05079901]	Lat $47^{\circ}43^{\circ}59^{\circ}$, long $96^{\circ}39^{\circ}52^{\circ}$, 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	04-08-01	20.90	b2,500	04-15-97	22.63	3,000
Middle River near Newfolden [05086900]	Lat 48°22'04", long 96°16'47", in $NE^{1}/_4NE^{1}/_4$ sec. 3, T. 156 N., R. 44 W., Marshall County, Hydrologic Unit 09020309, at bridge on township road, 2.0 miles northeast of Newfolden.[Drainage area: 88.8 mi ²]	1979- current year	04-08-01	c18.70	900	04-08-01 05-18-96	18.70 18.31	2,300

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Station Name and [Station Number]	Location and [Drainage area]	of Record	Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)	
Stoney River near Babbitt [05125550]	Lat $47^{\circ}41'36"$, long $91^{\circ}45'38"$, 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 southeast of Babbitt. [Drainage area: 215 mi ²]	1975-80 [#] , 1986- current year	05-03-01	8.24	2,000	04-19-76	8.71	2,490	
Big Fork River near Bigfork [05131750]	Lat 47°44'56", long 93°46'31", in $SE^1/_4SE^1/_4$ sec. l, 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	05-23-01	14.08	2,100	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 Highway 6,2.4 miles upstream from mouth, 7.0 miles west of Craigville. [Drainage area: 25.7 mi ²]	1979- current year	05-23-01	14.52	326	04-21-79	14.73	650	
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	08-02-01	13.93	1,630	05-18-96	13.27	1,550	
Winter Road River near Baudette [05137000]	Lat $48^{\circ}42'39"$, long $94^{\circ}41'52"$, 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	08-01-01	16.25	2,940	08-01-01	16.25	2,940	
Mississippi River at Bemidji [05200445]	Lat $47^{\circ}27'04''$, long $94^{\circ}54'23''$, 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	04-12-01	12.66	1,320	04-18-97	13.17	1,820	
Boy River near Remer [05205200]	Lat $47^{\circ}04'51''$, long $94^{\circ}05'54''$, 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	05-25-01	10.83	432	04-10-96 07-23-87	c11.59 11.64	b660 660	
Willow River below Palisade [05221020]	Lat 46°42'36", long 93°33'21", in $NW^1/_4NE^1/_4$ sec.30, T.49 N., R.25 W., Aitkin County, Hydrologic Unit 07010103, at bridge on County Highway 3, 3.2 miles west of Palisade. [Drainage area: 523 mi ²]	1972- current year	04-12-01	16.68	3,060	04-25-79	17.25	3,730	
Pine River near Pine River [05229450]	Lat $46^{\circ}41'39''$, long $94^{\circ}22'11''$, in NE ¹ / ₄ SE ¹ / ₄ sec.8, T.137 N., R.29 W., Cass County, Hydrologic Unit 07010105, at bridge 2.3 miles south- east of Pine River, on U.S. Highway 371, 4.9 miles upstream of upper Whitefish Lake. [Drainage area: 261 mi ²]	1986- current year	04-12-01	a4.82	1,400	05-14-99	5.15	1,520	

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Station Name and [Station Number]	Location and [Drainage area]	of Record	Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Cat River near Nimrod [05244200]	Lat $46^{\circ}37'49''$, long $94^{\circ}55'51''$, 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	04-08-01	7.69	277	10-12-73	9.43	560
Leaf River near Aldrich [05244440]	Lat $46^{\circ}27'25''$, long $94^{\circ}50'29''$, 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	04-12-01	16.40	5,800	04-12-01	16.40	5,800
Mississippi River near Fort Ripley [05261000]	Lat $46^{\circ}10^{\circ}50^{\circ}$, long $94^{\circ}21^{\circ}56^{\circ}$, in $\mathrm{SE}^{1}/_4\mathrm{NW}^{1}/_4$ 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. Reached from Ft. Ripley by driving north on U.S. 371 for about 1.0 mile, turn left (west) on the second road to the river north of the Noka- sippi River bridge on U.S. 371 at electrical transformer station.	1987-00#, 2001- current year	04-13-01	13.84	31,200	04-08-97	14.15	32,200
Nokasippi River near Fort Ripley [05261520]	Lat $46^{\circ}12'02''$, long $94^{\circ}19'03''$, 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	06-15-01	14.83	1,110	06-15-01	14.83	1,110
Hillman Creek near Pierz [05267900]	Lat $45^{\circ}58'27''$, long $94^{\circ}04'21''$, in $NE^{1}/_{4}SE^{1}/_{4}$ sec. 9, T.40 N., R.30 W., Morrison County, Hydrologic Unit 07010201, at bridge on county highway, 1.1 miles upstream from mouth, 1.5 miles east of Pierz. [Drainage area: 45.0 mi^{2}]	1964- current year	04-08-01	14.47	1,250	04-09-69	15.48	2,960
Platte River at Royalton [05268000]	Lat $45^{\circ}50'43''$, long $94^{\circ}17'40''$, in $SE^{1}/_4NW^{1}/_4$ sec.26, T.39 N.,R.32 W., Morrison County, Hydrologic Unit 07010201, at bridge on County Highway 27, 0.6 mile north of Royalton, 6.6 miles upstream from mouth.[Drainage area: 432 mi ²]	1929-36, 1972- current year	04-10-01	14.28	3,520	07-26-72		6,850
Ashley Creek near Sauk Centre [05270150]	Lat $45^{\circ}46'46''$, long $94^{\circ}58'52''$, in $NW^{1}/_4SE^{1}/_4$ sec.29, T.127 N., R.34 W., Todd County, Hydrologic Unit 07010202, at bridge on County Highway 11, 3 miles north of Sauk Centre.[Drainage area: 119 mi ²]	1963- 70†,74†, 1976†, 1986-88, 1989 [#] , 1990- current year	04-08-01	18.00	1,020	04-08-01	18.00	1,020
Johnson Creek near St.Augusta [05272300]	Lat $45^\circ 27' 49''$, long $94^\circ 09' 19''$, in $NW^1/_4 SW^1/_4$ sec.13, T.123 N.,R.28 W., Stearns County, Hydrologic Unit 07010203, at bridge on County Highway 7, 1.0 mile south of St. Augusta, 3.3 miles upstream from mouth.[Drainage area: $45.6\ mi^2$]	1964- current year	04-25-01	14.88	952	09-09-85	16.37	2,350

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Station Name and [Station Number]	Location and [Drainage area]	of Record	Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Clearwater River near South Haven [05272950]	Lat $45^{\circ}16'45''$, long $94^{\circ}15'04''$, 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 southeast of South Haven.[Drainage area: 78.8 mi ²]	1985- current year	04-25-01	16.42	738	09-09-85	17.11	1,040
North Fork Crow River near Kingston [05278120]	Lat $45^{\circ}12'13''$, long $94^{\circ}23'16''$, 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	04-12-01	17.27	4,280	05-01-86	17.82	4,850
Buffalo Creek near Glencoe [05278930]	Lat 44°45'50", long 94°05'27", in $SW^{1}/_4SW^{1}/_4$ sec. 16, T. 115 N., R. 27 W., McLeod County, Hydrologic Unit 07010205, at bridge on County Hwy 1, 2.6 miles east of Glencoe. [Drainage area: 373 mi ²]	1972-95, 1998- current year	04-11-01	19.27	2,910	09-12-91	11.78	4,300
Pomme de Terre River near Elbow Lake [05293371]	Lat $45^{\circ}57'47''$, long $95^{\circ}53'07''$, 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	06-15-01	6.85	600	06-15-01	6.85	600
Pomme de Terre River near Appleton [05294000]	Lat $45^{\circ}12'10"$, long $96^{\circ}01'20"$, in $SW^{1}_{4} NW^{1}_{4}$ sec.14 T.120 N., R.43 W., Swift County, Hydrologic Unit 0702002, on left bank 60 ft upstream from bridge on U.S. Highway 59 and State Highway 119 at Appleton, 8 miles upstream from mouth: [Drainage area: 864 mi ²]	11	04-08-01	16.07	7,980	04-07-97	18.13	8,890
Florida Creek near Burr [05299750]	Lat $44^{\circ}44'10''$, long $96^{\circ}25'10''$, in $SE^{1}_{4}SE^{1}_{4}$ sec. 29, T. 115 N., R.46 W., Yellow Medicine County, Hydrologic 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	04-01-97 04-24-01	26.57 24.04	2,490 1,740	04-01-97	26.57	2,490
Little Chippewa River near Starbuck [05302500]	Lat $45^{\circ}36'52''$, long $95^{\circ}37'12''$, 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 Star- buck.[Drainage area: 96.2 mi ²]	1979- current year	04-08-01	14.02	980	04-08-01	14.02	980
Chippewa River near Watson [05305000]	Lat $45^{\circ}01'18"$, 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 ft downstream from Chippewa County Road 13 bridge and dam, one mile north of Watson, 5.5 miles northwest of Montevideo, and 12.1 miles above confluence with Minnesota River in Montevideo. [Drainage area: 2,050mi ²]	1910-17, 1931-36, 2001- current year	04-12-01	45.41	4,600	04-11-01	45.41	4,600

		Period	Water	year 2001	Maximum	Period o	of Record	Maximum
Station Name and [Station Number]	Location and [Drainage area]	of Record	Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
South Fork Yellow Medicine River near Minneota [05311400]	Lat $44^{\circ}33'50''$, long $95^{\circ}59'50''$, in $SE^{1}/_4SE^{1}/_4$, sec.26, T.113 N., R.43 W., Lyon County, Hydrologic Unit 07020004, on downstream side of 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	04-24-01	11.57		04-18-69	13.41	4,430
Ramsey Creek near Redwood Falls [05316538]	Lat $44^{\circ}33'08"$, long $95^{\circ}10'38"$, in $SE^{1}/_4NE^{1}/_4$ 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	04-24-01	24.66	781	06-17-93	25.94	920
Beaver Creek at Beaver Falls [05316570]	Lat $44^{\circ}35'03''$, long $95^{\circ}02'49''$, 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	04-24-01	13.04	2,260	04-02-97	14.73	3,300
Cottonwood River near Springfield [05316950]	Lat 44°12'12", long 95°02'53", on line between secs. 33 and 34, T.109 N., R.35 W., Brown County, Hydro- logic Unit 07020008, at bridge on County Highway 2, 1.3 miles down- stream 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	04-24-01	29.42	8,650	06-18-93	31.40	14,500
Minnesota River Tributary at St. Hwy. 68 near Judson [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 Highway 68, 0.5 mile southwest of Judson, 0.4 mile above mouth.	2001- current year	04-11-01	7.90		04-11-01	7.90	
East Branch Blue Earth River near Walters [05317845]	Lat $43^{\circ}37'58''$, long $93^{\circ}42'28''$, in $SE^1/_4SE^1/_4$ 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	08-15-93 06-13-01	18.73 18.53	657 626	08-15-93	18.73	657
Elm Creek on Co. Rd. 103 near Trimont [05318195]	Lat 43°45'27", long 94°50'30", in $NW^{1}/_4NW^{1}/_4$ sec. 5, T. 103 N., R. 33 W., Martin County, Hydrologic Unit 07020009, at bridge on County Road 103, 12.5 miles northeast of Jackson, 5 miles west of Trimont.	1991- current year	04-23-01	22.33	1,340	06-04-91	22.92	2,000
Watonwan River near Delft [05318300]	Lat $43^{\circ}59'55''$, long $95^{\circ}07'11''$, 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- current year	04-23-01	16.77	322	06-18-93	d17.70	1,000
South Fork Waton- wan River near Ormsby [05318897]	Lat 43°53′08″, long 94°41′27″, in $SE^{1}/_4NW^{1}/_4$ sec.21, T. 105 N., R.32 W., Watonwan 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	04-12-01		bl,340	05-31-80	18.40	1,920

		Period	Water	year 2001	Maximum	Period (of Record	Maximum
Station Name and [Station Number]	Location and [Drainage area]	of Record	Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Maple River near Rapidan [05320480]	Lat $44^{\circ}03'54''$, long $94^{\circ}01'32''$, 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 Highway 35, 3.0 miles southeast of Rapidan, 3.3 miles upstream from mouth.[Drainage area: 338 mi ²]	1972- current year	04-12-01	13.79	5,540	04-12-01	13.79	5,540
Minnesota River Trib. below St. Peter [05325450]	Lat $44^{\circ}20'13''$, long $93^{\circ}54'45''$, 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.	2001	02-25-01	c7.20		02-25-01	c7.20	
Sand Creek near New Prague [05330300]	Lat $44^{\circ}32'37''$, long $93^{\circ}32'16''$, 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	04-11-01	11.52	418	05-21-60	14.84	1,100
Crooked Creek near Hinckley [05335170]	Lat $46^{\circ}00'42''$, long $92^{\circ}31'45''$, 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	04-23-01	16.65	2,100	04-23-01	16.65	2,100
Glaisby Brook near Kettle River [05336200]	Lat $46^{\circ}27'19"$, long $92^{\circ}51'34"$, in $SE^{1}/_4NW^{1}/_4$ sec.22, T.46 N., R.20 W., Carlton County, Hydrologic Unit 07030003, at bridge on State Highways 27 and 73, 1.0 mile upstream from mouth, 2.4 miles south of Kettle River. [Drainage area: 27.0 mi ²]	1960-70#, 1971- current year	04-23-01	8.24	900	07-22-72	10.18	1,370
Goose Creek at Harris [05339747]	Lat $45^{\circ}35'11''$, long $92^{\circ}58'39''$, 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	04-23-01	8.11	360	04-23-01	8.11	360
Cannon River below Sabre Lake near Kilkenny [05348550]	Lat $44^{\circ}17'50"$, long $93^{\circ}37'44"$, 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 southeast of Kilk-enny.[Drainage area: 87.9 mi ²]	1985- current year	04-12-01	13.83	563	04-12-01	13.83	563
Cannon River at Northfield [05355024]	Lat $44^{\circ}27'19"$, long $93^{\circ}09'46"$, 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	04-12-01	905.40	8,370	04-12-01	905.40	8,370

a		Period	Water	year 2001	Maximum	Period	of Record	l Maximum	
Station Name and [Station Number]	Location and [Drainage area]	of Record	Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)	
Milliken Creek near Concord [05373080]	Lat 44°07'13", long 92°49'08", in NW ¹ /4NW 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	$\begin{array}{c} 08-29-79\\ 07-11-81\\ 05-31-82\\ 09-18-83\\ 06-22-86\\ 07-07-90\\ 08-08-91\\ 04-01-93\\ 06-17-96\\ 07-25-97\\ 04-01-98\\ 05-21-99\\ 06-02-00\\ 06-13-01 \end{array}$	$13.93 \\ 13.85 \\ 14.50 \\ 13.56 \\ 13.60 \\ 14.32 \\ 13.57 \\ 14.30 \\ 13.78 \\ 14.32 \\ 12.33 \\ 13.98 \\ 14.23 \\ 15.80 \\ $	e883 e824 e1,410 e660 e1,220 e648 e1,200 e774 e1,220 e350 e922 e1,140 3,470	06-13-01	15.80	3,470	
Zumbro River at Zumbro Falls [05374000]	Lat 44°17'12", long 92°25'56", in sec.36, T.110 N., R.14 W., Wabasha County, Hydrologic Unit 07040004, in Zumbro Falls, 1,000 ft downstream from Cold Creek, 0.7 mi upstream from bridge on U.S. Highway 63, and 6.3 mi downstream from North Fork. [Drainage area: 1,150 mi ²]	1929-80 [#] ,	04-13-01	23.04	19,700	07-21-51	30.80	35,900	
Cedar River near Ridgeway [05380100]	Lat $43^{\circ}56'49''$, long $91^{\circ}33'59''$, in NW/ ₄ NE/ 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.	2001- current year	04-07-01	11.44		04-07-01	11.44		
Root River at Rushford [05384350]	Lat 43°48'11", long 91°45'10", in $NE^{1}/_4NE^{1}/_4$ sec.23, T.104 N., R.8 W., Fillmore County, Hydrologic Unit 07040008, at U.S. Highway 16 bridge on south side of Rushford. [Drainage area: 992 mi ²]	1985- current year	04-07-01	24.86	14,600	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	04-07-01	<2.46	<278	03-26-50	13.54	11,600	
Campbell Valley Creek near Money Creek [05384800]	Lat $43^{\circ}49'54''$, long $91^{\circ}34'53''$, 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 north west of Money Creek.	2001- current year	04-06-01	2.98		04-06-01	2.98		
Root River near Houston [05385000]	Lat $43^{\circ}46^{\circ}07^{\circ}$, long $91^{\circ}35^{\circ}11^{\circ}$, in $SW^{1}/_4NW^{1}/_4$, 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]	1929, 1930-83#, 1983-90	04-13-01	15.51	16,700	04-01-52 03-02-65	 18.32	37,000	
South Fork Root River near Houston [05385500]	Lat $43^{\circ}44'19''$, long $91^{\circ}33'50''$, 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 Hous- ton.[Drainage area: 275 mi ²]	1953-83 [#] , 1985- current year	04-11-01	6.85	1,170	06-01-00	14.90	13,800	

		Period	Water	year 2001	r 2001 Maximum Pe		Period of Record Maximum	
Station Name and [Station Number]	Location and [Drainage area]	of Record	Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Crooked Creek at Freeburg [05387030]	Lat $43^{\circ}36'37''$, long $91^{\circ}21'39''$, 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	04-12-01	12.77	833	03-04-92	19.02	2,200
Little Cedar River near Johnsburg [05457778]	Lat $43^{\circ}30'52''$, long $92^{\circ}45'19''$, 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 bor- der.[Drainage area: 45.8 mi ²]	1986- current year	04-12-01	15.26	3,220	08-16-93	17.58	9,280
Bancroft Creek at Bancroft [05458960]	Lat $43^{\circ}42'09''$, long $93^{\circ}21'23''$, 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	06-14-01	8.81	1,070	06-14-01	8.81	1,070
Elk Creek near Brewster [05474900]	Lat $43^{\circ}40'43''$, long $95^{\circ}27'10''$, in $NE^{1}/_{4}SE^{1}/_{4}$ sec.36, T.102 N., R.39 W., Nobles County, Hydrologic Unit 07100001, on County Highway 1 bridge 0.7 miles south of Brewster.	1996- current year	05-30-01	25.29	4,000	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.ll, 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	04-12-01	21.26	1,210	07-05-93	21.65	1,350
	- 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 Pipestone. Formerly "Pipestone Creek near Pipe- stone"	1991- current year	04-23-01	19.00	1,320	05-08-93	20.28	2,650
Beaver Creek at Valley Springs, South Dakota [06482745]	Lat 43°35′10″, long 96°28′20″, in $NW^{1}/_4NW^{1}/_4$ 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 Interstate 90. [Drainage area: 104 mi ²]	1986- current year	04-23-01	23.55	1,760	06-13-94	24.89	2,280
Rock River Trib. at Co. Hwy. 18 near Hatfield [06482910]	Lat $43^{\circ}56'38"$, long $96^{\circ}06'13"$, 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	06-26-01	6.16	186	06-26-01	6.16	186
Chanarambi Creek near Edgerton [06482933]	Lat $43^{\circ}53'59''$, long $96^{\circ}03'39''$, 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	04-23-01	16.79	928	04-23-01 05-03-01	16.79 18.14	928 850

Annual maximum discharge at high-flow sites during water year 2001--Continued

		Period	Water	year 2001	Maximum	Period o	of Record	Maximum
Station Name and [Station Number]	Location and [Drainage area]	of Record	Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (feet)	Discharge (ft ³ /s)
Champepadan Creek at Co. Rd. 18 near Leota [06482970]	Lat $43^{\circ}47'24''$, long $96^{\circ}00'40''$, in NW ¹ / ₄ NW ¹ / ₄ sec.28, T.104 N., R. 43 W., Nobles County, Hydrologic Unit 10170204, at bridge on Nobles County Road 18 near junction with County Road 19, 3 miles south of Leota.	1996- current year	$\begin{array}{c} 06-18-96\\ 04-06-97\\ 03-29-98\\ 04-09-99\\ 05-18-00\\ 04-23-01 \end{array}$	16.46 17.20 13.29 14.09 15.22 17.54	e697 e830 e256 e347 e500 895	04-23-01	17.54	895
Rock River at Luverne [06483000]	Lat $43^{\circ}39'15''$, long $96^{\circ}12'03''$, in SW ¹ / ₄ NE ¹ / ₄ sec. 11, T.102N., R45W., Rock County, Hydrologic Unit 10170204, at left bank downstream side of bridge on Main Street (County Highway 4) in Luverne. [Drainage area: 419 mi ²]	1911-14 [#] , 1968-69, 1971- current year	04-23-01	12.25	11,900	05-08-93	14.23	35,400
Elk Creek near Lismore [06483020]	Lat $43^{\circ}41'38''$, long $96^{\circ}00'46''$, in $NE^{1}/_{4}SE^{1}/_{4}$ sec. 29, T.103 N., R. 43 W., Nobles County, Hydrologic Unit 10170204, at bridge on Nobles County Road 19, 4.6 miles southwest of Lismore.	1996- current year	06-14-01	15.62		06-14-01	15.62	
Little Rock River near Rushmore [06483350]	Lat $43^\circ32'36''$, long $95^\circ48'58''$, in $\rm NE^1/_4NE^1/_4$ 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.	1991- current year	05-20-01	25.22	795	07-11-93	27.04	4,290
Little Rock Creek near Rushmore [06483353]	Lat $43^{\circ}32'37''$, long $95^{\circ}50'50''$, in NE ¹ /4NW 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.	1996- current year	05-30-01	27.99	3,070	05-30-01	27.99	3,070
Little Sioux River near Spafford [06603530]	Lat $43^{\circ}36'08"$, long $95^{\circ}15'27"$, in NE ¹ / ₄ NE ¹ / ₄ sec. 34, T. 102 N., R. 37 W., Jackson County, Hydrologic Unit 10230003, at bridge on county high- way, 1.6 miles downstream from Jack- son County ditch No. 11, 5.8 miles east of Spafford. [Drainage area: 40.5 mi ²]	1962- current year	07-05-87 03-25-88 07-11-89 06-22-91 07-10-92 06-30-93 08-10-94 03-26-95 06-19-96 03-22-97 03-29-98 04-11-99 04-23-01	9.28 6.46 6.97 9.82 9.44 10.37 9.81 8.92 7.00 8.24 6.51 8.04 9.33	e364 e49 e68 e649 e434 e1,110 e642 e255 e69 e150 e50 e131 384	06-29-69	12.06	4,500

 # Operated as a continuous-record
 b Estimated.
 d Stage from downstream gage.

 gaging station.
 + Operated as a low flow site.
 c Backwater from ice.
 e Revised.

^a Not annual maximum.