Water-Data Report 2013

05316580 MINNESOTA RIVER AT MORTON, MN

Minnesota Basin
Middle Minnesota Subbasin

LOCATION.--Lat 44°32′46″, long 94°59′46″ referenced to North American Datum of 1927, in NE ¼ SE ¼ sec.36, T.113 N., R.35 W., Redwood County, MN, Hydrologic Unit 07020007, on right bank 10 ft downstream from highway bridge, ½ mi southwest of town of Morton, and 203 mi upstream from mouth.

DRAINAGE AREA.--8,970 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 2000 to current year.

REVISED RECORDS.--Unpublished, 2009: 2001(M).

GAGE.--Water-stage recorder.

REMARKS.--Records good to fair except those for estimated daily discharges, which are fair to poor. Some regulation from Big Stone Lake, Marsh Lake, and Lac qui Parle dams.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 05316580, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/05316580.2013.pdf

05316580 MINNESOTA RIVER AT MORTON, MN—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

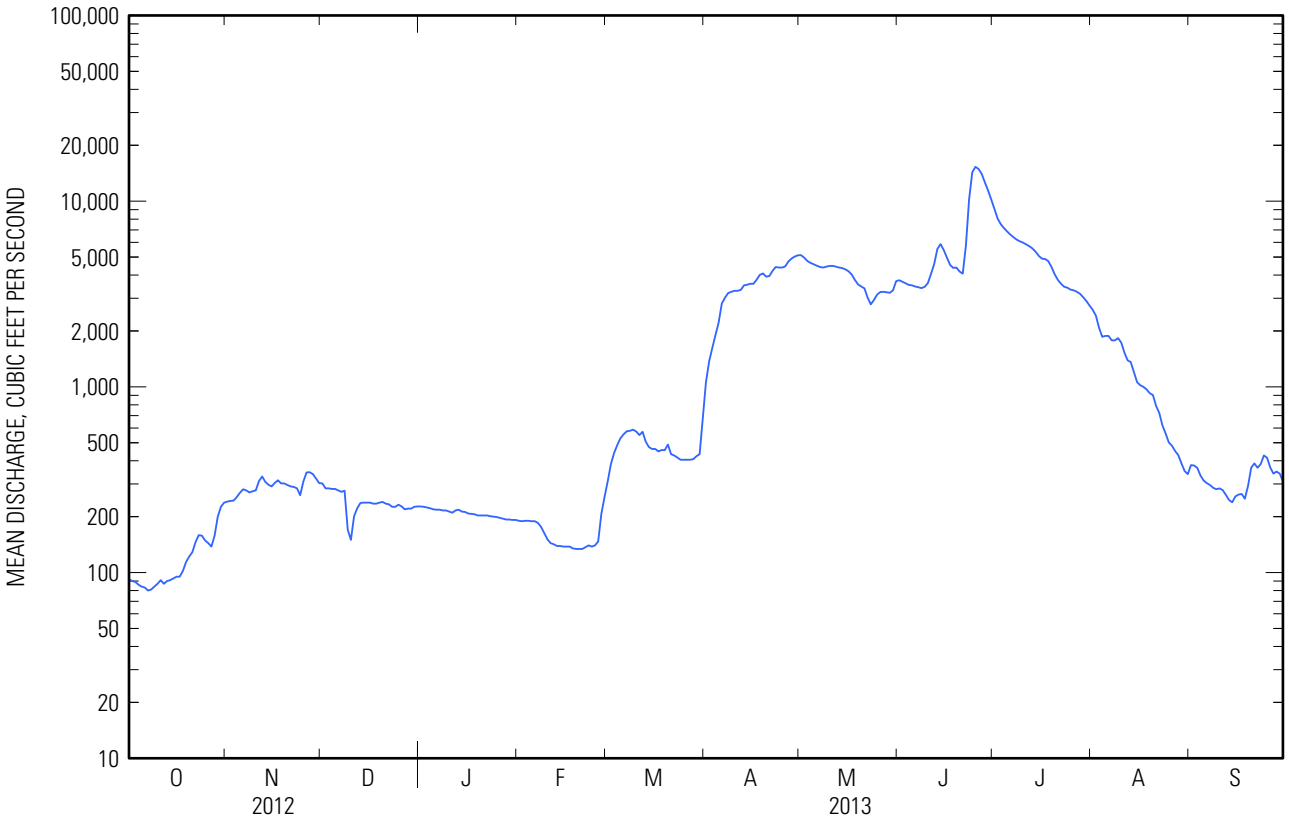
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	92	241	302	e227	e190	e309	e1,060	5,120	3,750	9,080	2,600	379
2	90	243	284	e226	e189	e383	e1,370	4,960	3,680	8,060	2,420	377
3	89	244	284	e224	e190	e439	e1,620	4,760	3,610	7,520	2,080	366
4	86	255	282	e222	e190	e485	e1,900	4,650	3,540	7,160	1,860	333
5	84	269	282	e219	e189	e528	e2,220	4,570	3,520	6,870	1,880	313
6	83	281	277	e218	e189	e555	e2,810	4,490	3,470	6,610	1,880	303
7	80	277	272	e218	e185	e576	e3,020	4,420	3,440	6,400	1,780	296
8	81	270	276	e216	e176	e580	e3,200	4,390	3,400	6,210	1,780	286
9	84	274	e170	e216	e163	e588	e3,250	4,440	3,460	6,080	1,830	281
10	87	277	e150	e213	e151	e575	e3,290	4,480	3,620	5,980	1,730	284
11	91	311	e201	e210	e144	e550	e3,290	4,480	4,060	5,850	1,530	278
12	87	329	e222	e216	e142	e573	e3,330	4,440	4,590	5,720	1,390	262
13	90	308	e237	e218	e139	e507	3,520	4,390	5,530	5,560	1,360	246
14	91	297	e238	e213	e139	e474	3,550	4,360	5,870	5,340	1,200	239
15	93	291	e238	e212	e138	e463	3,590	4,290	5,460	5,070	1,060	257
16	95	304	e238	e208	e138	e463	3,590	4,190	4,970	4,900	1,020	263
17	95	314	e235	e207	e138	e449	3,780	4,020	4,540	4,880	1,000	265
18	102	302	e235	e206	e135	e457	4,010	3,760	4,370	4,750	969	250
19	114	302	e238	e203	e134	e456	4,080	3,560	4,390	4,420	924	293
20	122	296	e240	e203	e134	e489	3,920	3,470	4,180	4,040	903	367
21	129	291	e235	e203	e134	e434	3,950	3,390	4,070	3,770	e789	387
22	146	289	e233	e203	e137	e427	4,210	3,020	5,760	3,590	e723	367
23	159	284	e226	e201	e140	e416	4,420	2,780	10,200	3,460	e619	384
24	158	261	e226	e200	e138	e405	4,390	2,940	14,300	3,420	e561	427
25	149	309	e232	e199	e140	e405	4,390	3,140	15,300	3,340	e502	415
26	144	346	e227	e197	e147	e405	4,450	3,240	14,900	3,310	e482	368
27	138	347	e219	e195	e207	e405	4,730	3,250	14,000	3,250	451	341
28	158	339	e221	e193	e255	e408	4,910	3,230	12,600	3,170	429	350
29	200	321	e221	e193	---	e423	5,030	3,210	11,400	3,040	387	341
30	226	303	e226	e192	---	e434	5,110	3,310	10,200	2,900	352	310
31	238	---	e227	e192	---	e677	---	3,710	---	2,740	339	---
Total	3,681	8,775	7,394	6,463	4,491	14,738	105,990	122,460	196,180	156,490	36,830	9,628
Mean	119	292	239	208	160	475	3,533	3,950	6,539	5,048	1,188	321
Max	238	347	302	227	255	677	5,110	5,120	15,300	9,080	2,600	427
Min	80	241	150	192	134	309	1,060	2,780	3,400	2,740	339	239
Ac-ft	7,300	17,410	14,670	12,820	8,910	29,230	210,200	242,900	389,100	310,400	73,050	19,100
Cfsm	0.01	0.03	0.03	0.02	0.02	0.05	0.39	0.44	0.73	0.56	0.13	0.04
In.	0.02	0.04	0.03	0.03	0.02	0.06	0.44	0.51	0.81	0.65	0.15	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,460	1,375	994	763	762	3,483	8,373	5,143	4,725	3,094	1,281	1,344
Max	7,243	4,158	3,081	2,695	2,556	13,290	26,720	11,780	9,938	11,410	5,242	9,505
(WY)	(2011)	(2011)	(2011)	(2011)	(2011)	(2010)	(2001)	(2001)	(2011)	(2011)	(2011)	(2010)
Min	98.2	231	178	148	160	475	740	1,349	1,366	731	378	151
(WY)	(2001)	(2004)	(2004)	(2004)	(2013)	(2013)	(2004)	(2004)	(2009)	(2009)	(2006)	(2012)

05316580 MINNESOTA RIVER AT MORTON, MN—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 2001 - 2013	
Annual total	444,181		673,120			
Annual mean	1,214		1,844		2,735	
Highest annual mean					7,686	2011
Lowest annual mean					1,036	2004
Highest daily mean	6,710	May 7	15,300	Jun 25	45,400	Apr 15, 2001
Lowest daily mean	80	Oct 7	[a]80	Oct 7	[a]80	Oct 7, 2012
Annual seven-day minimum	84	Oct 4	84	Oct 4	84	Oct 4, 2012
Maximum peak flow			15,300	Jun 25	45,400	Apr 15, 2001
Maximum peak stage			23.52	Jun 25	[b]29.26	Apr 16, 2001
Instantaneous low flow			80	Oct 6	[c]80	Oct 6, 2000
Annual runoff (ac-ft)	881,000		1,335,000		1,981,000	
Annual runoff (cfsm)	0.135		0.206		0.305	
Annual runoff (inches)	1.84		2.79		4.14	
10 percent exceeds	3,120		4,750		6,570	
50 percent exceeds	602		387		1,160	
90 percent exceeds	136		143		245	

[a] Due in part to regulation.
[b] Maximum recorded, peak stage was less than 30.0 feet.
[c] Also occurred Oct. 6, 2012.