



Water-Data Report 2009

05330920 MINNESOTA RIVER AT FT. SNELLING STATE PARK, MN

Minnesota Basin
Lower Minnesota Subbasin

LOCATION.--Lat 44°52'13", long 93°11'32" referenced to North American Datum of 1927, in SE ¼ SW ¼ NE ¼ sec.32, T.28 N., R.23 W., Hennepin County, MN, Hydrologic Unit 07020012, on left bank at Ft. Snelling State Park and at mile 3.5 upstream from Mississippi River.

DRAINAGE AREA.--16,900 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 2004 to current year.

GAGE.--Water-stage and velocity recorder. Datum of gage is 680.00 ft above sea level (NGVD of 1929).

REMARKS.--Records good to fair except those for estimated days, which are fair to poor, discharges less than 2,000 cfs which are considered fair and those under 1,000 cfs which are poor. Backwater from Mississippi River at all times.

05330920 MINNESOTA RIVER AT FT. SNELLING STATE PARK, MN—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	999	1,470	1,630	1,060	974	1,750	13,600	9,190	3,310	3,860	1,610	1,640
2	924	1,440	1,510	1,030	1,070	1,740	15,000	9,150	3,030	3,680	1,740	1,700
3	1,020	1,500	1,460	1,110	1,060	1,830	16,000	8,800	2,970	3,360	1,630	1,740
4	993	1,490	1,200	e1,060	974	1,780	16,500	8,530	2,950	3,200	1,500	1,600
5	931	1,460	1,170	e1,020	939	1,860	17,000	8,020	2,900	2,960	1,470	1,520
6	973	1,440	1,090	e1,110	914	1,920	17,500	7,900	2,900	2,790	1,680	1,580
7	1,170	1,640	1,100	e1,200	996	2,140	17,500	7,670	3,020	2,660	1,620	1,500
8	1,040	1,600	1,120	e1,150	1,180	2,200	18,100	7,490	3,090	2,530	3,330	1,370
9	875	1,540	1,120	1,170	1,060	2,280	18,500	7,320	3,100	2,530	2,580	1,260
10	983	1,610	e1,130	1,100	1,440	2,560	18,500	7,450	3,500	2,430	1,970	1,070
11	1,010	1,570	1,150	1,040	1,610	2,970	17,800	7,470	3,730	2,280	1,730	1,180
12	924	1,620	1,130	1,140	2,010	3,050	16,900	7,440	4,530	2,260	1,770	1,050
13	1,210	1,690	1,180	1,140	2,110	3,190	16,500	7,400	4,960	2,290	1,680	984
14	1,070	1,750	1,170	1,080	2,060	3,220	15,700	7,260	4,970	2,590	1,620	886
15	1,140	1,870	1,500	1,020	1,980	3,420	14,900	7,260	4,840	3,130	1,740	1,240
16	1,150	2,110	1,310	972	2,230	3,560	14,100	6,900	4,680	3,220	1,840	1,010
17	1,180	2,120	1,020	1,090	2,590	3,930	13,500	6,570	4,680	3,200	1,840	994
18	1,200	1,930	1,070	1,130	2,540	4,740	13,500	6,230	4,620	2,900	1,540	738
19	1,520	2,070	1,210	1,150	2,650	5,690	12,900	5,970	4,440	2,740	1,850	893
20	1,210	2,050	1,310	1,140	2,600	6,130	12,200	5,620	4,140	2,710	2,470	1,160
21	1,280	1,850	1,360	1,130	2,670	6,900	11,500	5,290	4,330	2,750	e1,960	776
22	1,150	1,750	1,170	1,070	2,320	6,890	11,200	4,950	4,260	2,640	e2,080	907
23	1,200	1,630	1,130	1,130	2,100	7,490	10,500	4,780	4,270	2,390	e2,060	807
24	1,100	1,770	1,180	1,130	2,100	8,480	9,970	4,560	4,070	2,200	e1,980	811
25	1,340	1,520	1,170	1,020	2,020	9,490	9,700	4,350	4,370	2,140	e1,880	969
26	1,160	1,290	1,270	964	2,130	11,100	9,250	4,260	4,710	2,060	1,960	917
27	1,130	1,520	1,260	965	1,990	12,700	9,390	3,810	4,800	1,980	1,910	900
28	1,220	1,730	1,330	965	1,750	13,600	9,340	3,940	4,450	1,870	1,970	792
29	1,390	1,710	1,270	976	---	13,400	9,240	3,790	4,260	1,950	1,960	755
30	1,500	1,860	1,350	994	---	13,200	8,960	3,850	4,060	1,740	1,780	874
31	1,530	---	1,210	944	---	13,000	---	3,450	---	1,570	1,830	---
Total	35,522	50,600	38,280	33,200	50,067	176,210	415,250	196,670	119,940	80,610	58,580	33,623
Mean	1,146	1,687	1,235	1,071	1,788	5,684	13,840	6,344	3,998	2,600	1,890	1,121
Max	1,530	2,120	1,630	1,200	2,670	13,600	18,500	9,190	4,970	3,860	3,330	1,740
Min	875	1,290	1,020	944	914	1,740	8,960	3,450	2,900	1,570	1,470	738
Ac-ft	70,460	100,400	75,930	65,850	99,310	349,500	823,600	390,100	237,900	159,900	116,200	66,690
Cfs/m	0.07	0.10	0.07	0.06	0.11	0.34	0.82	0.38	0.24	0.15	0.11	0.07
In.	0.08	0.11	0.08	0.07	0.11	0.39	0.91	0.43	0.26	0.18	0.13	0.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	6,300	3,494	2,434	2,136	2,244	5,902	14,000	12,230	11,820	4,967	2,574	3,183
Max	11,690	5,497	4,721	4,770	6,562	13,890	26,200	20,570	20,480	8,585	3,881	8,484
(WY)	(2008)	(2008)	(2006)	(2006)	(2006)	(2007)	(2006)	(2006)	(2004)	(2004)	(2004)	(2004)
Min	1,111	1,025	956	1,071	827	2,799	2,167	3,832	3,998	2,582	1,815	1,120
(WY)	(2007)	(2007)	(2007)	(2009)	(2004)	(2008)	(2004)	(2004)	(2009)	(2007)	(2006)	(2008)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 2004 - 2009	
Annual total	1,943,026		1,288,552			
Annual mean	5,309		3,530		6,045	
Highest annual mean					8,364	2006
Lowest annual mean					3,530	2009
Highest daily mean	23,300	May 10	18,500	Apr 9,10	36,900	Apr 13, 2006
Lowest daily mean	875	Oct 9	738	Sep 18	613	Jan 31, 2004
Annual seven-day minimum	975	Sep 29	850	Sep 23	618	Jan 31, 2004
Maximum peak flow			19,200	Apr 10	^a 36,900	Apr 14, 2006
Maximum peak stage			698.52	Mar 31	699.28	Apr 14, 2006
Instantaneous low flow			^b .91	Aug 19	^b 2,480	Aug 24, 2006
Annual runoff (ac-ft)	3,854,000		2,556,000		4,379,000	
Annual runoff (cfsm)	0.314		0.209		0.358	
Annual runoff (inches)	4.28		2.84		4.86	
10 percent exceeds	16,400		9,210		15,700	
50 percent exceeds	1,850		1,860		3,580	
90 percent exceeds	1,130		1,010		1,070	

^a Estimated daily-mean discharge.

^b Result of seiche.

