

Water-Data Report 2009

05383950 ROOT RIVER NEAR PILOT MOUND, MN

Upper Mississippi Basin
Root Subbasin

LOCATION.--Lat 43°47'05", long 92°01'48" referenced to North American Datum of 1927, in SE ¼ NE ¼ sec.28, T.104 N., R.10 W., Fillmore County, MN, Hydrologic Unit 07040008, on right bank at bridge on County Road 21, 2.7 mi. south of Pilot Mound.

DRAINAGE AREA.--565 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 667.00 ft above sea level (NGVD of 1929). May 28, 1909 to Sept. 30, 1917, non-recording gage at site 1.3 mi downstream at different datum. May 4, 1929 to Sept. 27, 1933, non-recording gage and Sept. 28, 1933 to June 26, 1980, recording gage at site 0.9 mi upstream at datum 671.86 ft.

REMARKS.--Records good except those for estimated daily discharges, which are fair to poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June, 2000 reached a peak stage of 25.90 feet, discharge, 26,000 cubic feet per second, from floodmark.

05383950 ROOT RIVER NEAR PILOT MOUND, 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	214	e212	e175	e139	e129	e226	261	364	379	319	184	168
2	213	e210	e173	e139	e129	e212	253	338	349	305	177	165
3	212	e211	e160	e141	e127	e215	245	315	325	292	181	163
4	209	e214	e145	e141	e124	e228	238	299	306	285	172	161
5	214	e238	e141	e141	e122	289	235	296	291	272	169	160
6	218	e273	e140	e144	e128	814	230	296	286	260	163	157
7	223	e263	e139	e142	e139	1,070	225	299	299	253	176	156
8	279	e247	e139	e139	e141	825	221	296	464	282	268	154
9	280	e229	e144	e138	e170	541	218	318	2,800	271	369	152
10	248	e220	e142	e137	e609	e476	213	319	1,920	258	285	151
11	233	219	e139	e136	e1,080	e388	210	317	1,190	250	247	151
12	224	230	e138	e135	e767	e346	207	312	925	239	226	152
13	218	237	e141	e129	e375	e344	204	313	784	228	215	149
14	216	247	e148	e125	e344	e369	203	324	680	219	208	146
15	223	242	e141	e124	e309	431	201	328	601	217	198	145
16	221	235	e138	e123	e291	501	196	331	546	210	212	143
17	218	227	e138	e123	e299	648	197	312	546	203	219	142
18	215	219	e137	e124	e287	664	197	295	687	198	207	142
19	215	215	e142	e126	e246	517	204	281	1,950	196	198	142
20	212	212	e138	e127	e252	412	206	268	1,170	191	221	140
21	211	194	e135	e125	e240	365	204	256	831	191	240	141
22	215	221	e135	e125	e241	345	198	250	696	191	228	148
23	218	215	e135	e124	e249	336	194	245	601	202	216	160
24	219	210	e138	e119	e260	345	193	242	525	197	204	160
25	218	206	e135	e119	284	364	216	234	481	282	196	167
26	214	197	e141	e119	e320	356	246	246	441	247	192	180
27	210	198	e159	e118	296	329	321	292	413	216	187	179
28	207	198	e157	e118	e254	305	412	422	383	200	182	170
29	207	197	e155	e120	---	287	460	517	356	189	178	163
30	210	e194	e148	e123	---	275	402	478	334	193	173	158
31	e216	---	e141	e127	---	267	---	418	---	191	170	---
Total	6,850	6,630	4,477	4,010	8,212	13,090	7,210	9,821	21,559	7,247	6,461	4,665
Mean	221	221	144	129	293	422	240	317	719	234	208	156
Max	280	273	175	144	1,080	1,070	460	517	2,800	319	369	180
Min	207	194	135	118	122	212	193	234	286	189	163	140
Ac-ft	13,590	13,150	8,880	7,950	16,290	25,960	14,300	19,480	42,760	14,370	12,820	9,250
Cfsm	0.39	0.39	0.26	0.23	0.52	0.75	0.43	0.56	1.27	0.41	0.37	0.28
In.	0.45	0.44	0.29	0.26	0.54	0.86	0.47	0.65	1.42	0.48	0.43	0.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	396	263	228	198	261	627	709	555	901	363	451	464
Max	1,229	424	331	356	695	1,243	1,517	874	2,177	708	1,675	1,395
(WY)	(2008)	(2008)	(2005)	(2007)	(2005)	(2007)	(2008)	(2006)	(2008)	(2004)	(2007)	(2004)
Min	114	122	99.9	99.3	108	273	167	317	335	234	136	114
(WY)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2004)	(2009)	(2003)	(2009)	(2003)	(2003)

05383950 ROOT RIVER NEAR PILOT MOUND, MN—Continued

SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 2002 - 2009	
Annual total	215,881		100,232			
Annual mean	590		275		454	
Highest annual mean					703	2008
Lowest annual mean					245	2003
Highest daily mean	11,900	Jun 13	2,800	Jun 9	16,200	Sep 16, 2004
Lowest daily mean	135	Dec 21	^a 118	Jan 27	^b 79	Jan 31, 2004
Annual seven-day minimum	137	Dec 20	119	Jan 24	88	Jan 27, 2004
Maximum peak flow			^c 3,830	Jun 9	21,900	Sep 16, 2004
Maximum peak stage			^d 14.22	Feb 10	23.85	Sep 16, 2004
Instantaneous low flow			^a 118	Jan 27	^b 79	Jan 31, 2004
Annual runoff (ac-ft)	428,200		198,800		329,100	
Annual runoff (cfsm)	1.04		0.486		0.804	
Annual runoff (inches)	14.21		6.60		10.92	
10 percent exceeds	1,160		420		878	
50 percent exceeds	243		216		269	
90 percent exceeds	186		138		130	

^a Estimated daily-mean discharge, backwater from ice.

^b Estimated daily-mean discharge, backwater from ice, also occurred Feb. 1, 2004.

^c Gage-height 13.09 ft.

^d Backwater from ice.

