

Water-Data Report 2009

05085450 SNAKE RIVER ABOVE WARREN, MN

Lower Red Basin
Snake Subbasin

LOCATION.--Lat 48°12'35", long 96°43'05" referenced to North American Datum of 1983, Marshall County, MN, Hydrologic Unit 09020309, 2.5 mi east northeast of Warren, or approximately 25 mi west of Thief River Falls, on County Highway 34, 1.2 miles north of State Highway 1.

DRAINAGE AREA.--150 mi², approximately.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 2008 to present.

GAGE.--Water-stage recorder.

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

05085450 SNAKE RIVER ABOVE WARREN, 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	---	---	e8.4	e2.5	e1.6	e1.5	316	289	50	484	16	2.9
2	---	---	e8.1	e2.4	e1.6	e1.5	266	257	42	411	13	3.4
3	---	---	e8.1	e2.2	e1.7	e1.5	245	203	35	346	11	1.8
4	---	---	e7.8	e2.1	e1.7	e1.5	243	148	29	281	8.7	1.4
5	---	---	e7.7	e1.9	e1.7	e1.6	259	113	26	216	6.7	1.2
6	---	---	e7.3	e1.8	e1.7	e1.6	274	95	23	156	5.3	0.90
7	---	---	e7.3	e1.8	e1.7	e1.6	415	83	21	118	4.9	0.68
8	---	---	e7.3	e1.8	e1.7	e1.6	530	75	20	91	5.8	0.71
9	---	---	e7.1	e1.8	e1.8	e1.6	674	64	22	73	5.7	1.6
10	---	---	e7.0	e1.8	e1.8	e1.5	706	58	23	101	5.8	2.2
11	---	---	e6.8	e1.8	e1.8	e1.4	517	52	22	92	5.7	2.7
12	---	---	e6.6	e1.8	e1.8	e1.4	457	47	22	84	4.1	5.4
13	---	e99	e6.2	e1.8	e1.8	e1.4	577	53	19	73	3.0	14
14	---	104	e5.7	e1.8	e1.8	e1.4	776	66	17	70	2.7	15
15	---	92	e5.7	e1.7	e1.8	e1.4	660	72	15	116	4.3	14
16	---	e81	e5.7	e1.7	e1.7	e3.1	511	67	13	146	12	9.0
17	---	e72	e5.5	e1.7	e1.7	e10	422	57	11	122	29	9.0
18	---	e64	e5.2	e1.7	e1.7	e109	373	48	11	98	40	6.4
19	---	e54	e5.2	e1.7	e1.7	e234	335	43	17	82	39	3.6
20	---	e48	e4.6	e1.7	e1.7	e309	299	38	87	72	33	2.4
21	---	e38	e4.1	e1.7	e1.7	e391	268	34	80	64	36	1.1
22	---	e30	e4.1	e1.7	e1.7	e670	257	32	58	59	43	0.92
23	---	e24	e3.9	e1.7	e1.7	e1,170	221	28	44	55	37	0.82
24	---	e20	e3.7	e1.7	e1.6	1,740	196	25	33	62	28	0.65
25	---	e16	e3.6	e1.7	e1.6	1,580	179	24	25	102	21	0.53
26	---	e14	e3.5	e1.7	e1.6	1,190	159	54	20	89	17	0.49
27	---	e12	e3.3	e1.7	e1.6	969	160	150	332	74	12	0.36
28	---	e10	e3.0	e1.7	e1.6	863	183	136	832	58	9.5	0.39
29	---	e9.5	e2.9	e1.7	---	705	163	104	674	40	7.0	0.32
30	---	e8.8	e2.8	e1.6	---	568	216	78	569	29	5.2	0.39
31	---	---	e2.6	e1.6	---	420	---	60	---	21	3.8	---
Total	---	796.3	170.8	56.0	47.6	10,953.6	10,857	2,653	3,192	3,885	475.2	104.26
Mean	---	44.2	5.51	1.81	1.70	353	362	85.6	106	125	15.3	3.48
Max	---	104	8.4	2.5	1.8	1,740	776	289	832	484	43	15
Min	---	8.8	2.6	1.6	1.6	1.4	159	24	11	21	2.7	0.32
Ac-ft	---	1,580	339	111	94	21,730	21,530	5,260	6,330	7,710	943	207
Cfsm	---	0.29	0.04	0.01	0.01	2.31	2.37	0.56	0.70	0.82	0.10	0.02
In.	---	0.19	0.04	0.01	0.01	2.66	2.64	0.65	0.78	0.94	0.12	0.03

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

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	---	---	5.51	1.81	1.70	353	362	85.6	106	125	15.3	3.48
Max	---	---	5.51	1.81	1.70	353	362	85.6	106	125	15.3	3.48
(WY)	(---)	(---)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)
Min	---	---	5.51	1.81	1.70	353	362	85.6	106	125	15.3	3.48
(WY)	(---)	(---)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)

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SUMMARY STATISTICS

Water Year 2009		
Highest daily mean	1,740	Mar 24
Lowest daily mean	0.32	Sep 29
Annual seven-day minimum	0.45	Sep 24
Maximum peak flow	^a 1,880	Mar 24
Maximum peak stage	72.30	Mar 24
Instantaneous low flow	0.25	Sep 29

^a From measurement of flow.

