

Water-Data Report 2011

12438900 NINEMILE CREEK NEAR OROVILLE, WA

Upper Columbia Basin
Okanogan Subbasin

LOCATION.--Lat 48°58'12", long 119°24'16" referenced to North American Datum of 1927, in SW ¼ NW ¼ sec.14, T.40 N., R.27 E., Okanogan County, WA, Hydrologic Unit 17020006, on left bank, .6 miles upstream from Eastlake Road, 3.5 miles N-NE from Oroville town center, and 1.1 miles upstream from mouth.

DRAINAGE AREA.--12.8 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 2006 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,070 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. No known regulation. May be small diversions above station for irrigation. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--5 years (water years 2007-2011), 1.24 ft³/s, 900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47 ft³/s, May 27, 2011, gage height, 2.92 ft; minimum discharge, 0.23 ft³/s, many days, July to September, 2009.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 47 ft³/s, May 27, gage height, 2.92 ft; minimum discharge, 0.24 ft³/s, Sept. 1

12438900 NINEMILE CREEK NEAR OROVILLE, WA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

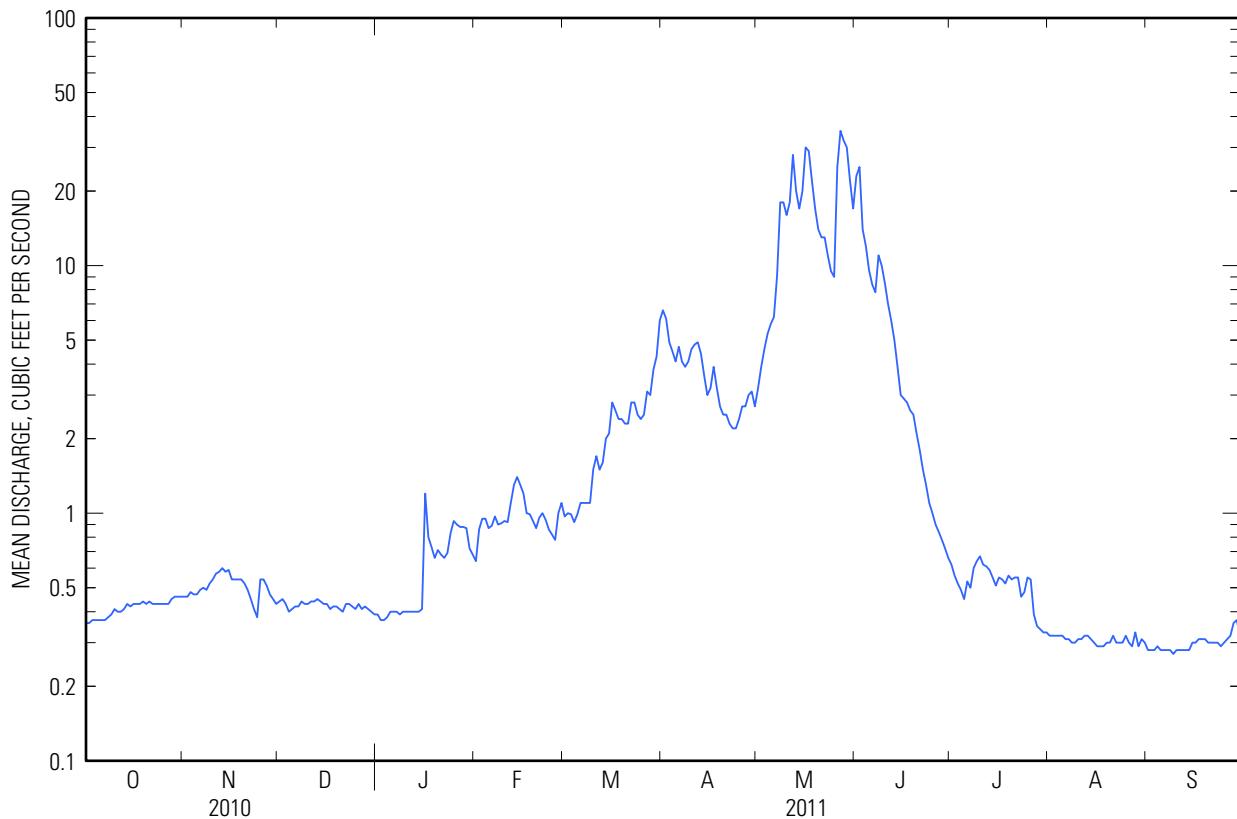
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.36	0.46	0.44	e0.39	e0.64	0.97	6.6	3.2	23	e0.62	0.32	0.28
2	0.36	0.46	0.45	0.37	0.86	1.0	6.1	3.9	e25	e0.56	0.32	0.28
3	0.37	0.48	0.43	0.37	0.95	0.99	4.9	4.6	14	e0.52	0.32	0.28
4	0.37	0.47	0.40	0.38	0.95	0.92	4.5	5.3	12	e0.49	0.32	0.29
5	0.37	0.47	0.41	0.40	0.87	0.99	4.1	5.8	9.6	e0.45	0.32	0.28
6	0.37	0.49	0.42	0.40	0.89	1.1	4.7	6.2	8.4	0.53	0.31	0.28
7	0.37	0.50	0.42	0.40	0.97	1.1	4.1	9.1	7.8	0.50	0.31	0.28
8	0.38	0.49	0.44	0.39	0.90	1.1	3.9	18	e11	0.60	0.30	0.28
9	0.39	0.52	0.43	0.40	0.91	1.1	4.1	18	e10	0.64	0.30	0.27
10	0.41	0.54	0.43	0.40	0.93	1.5	4.6	16	e8.5	0.67	0.31	0.28
11	0.40	0.57	0.44	0.40	0.92	1.7	4.8	18	e7.0	0.62	0.31	0.28
12	0.40	0.58	0.44	0.40	1.1	1.5	4.9	28	e6.0	0.61	0.32	0.28
13	0.41	0.60	0.45	0.40	1.3	1.6	4.4	20	e5.0	0.59	0.32	0.28
14	0.43	0.58	0.44	0.40	1.4	2.0	3.6	17	e3.9	0.55	0.31	0.28
15	0.42	0.59	0.43	0.41	1.3	2.1	3.0	20	e3.0	0.51	0.30	0.30
16	0.43	0.54	0.43	1.2	1.2	2.8	3.2	30	e2.9	0.55	0.29	0.30
17	0.43	0.54	0.41	0.80	1.0	2.6	3.9	e29	e2.8	0.54	0.29	0.31
18	0.43	0.54	0.42	0.73	0.99	2.4	3.2	22	e2.6	0.52	0.29	0.31
19	0.44	0.54	0.42	0.66	0.93	2.4	2.7	17	e2.5	0.56	0.30	0.31
20	0.43	0.52	0.41	0.71	0.87	2.3	2.5	14	e2.1	0.54	0.30	0.30
21	0.44	0.49	0.40	0.68	0.96	2.3	2.5	13	e1.8	0.55	0.32	0.30
22	0.43	e0.45	0.43	0.66	1.0	2.8	2.3	e13	e1.5	0.55	0.30	0.30
23	0.43	e0.41	0.43	0.69	0.94	2.8	2.2	e11	e1.3	0.46	0.30	0.30
24	0.43	e0.38	0.42	0.83	e0.86	2.5	2.2	9.5	e1.1	0.48	0.30	0.29
25	0.43	0.54	0.41	0.93	e0.82	2.4	2.4	9.0	e1.0	0.55	0.32	0.30
26	0.43	0.54	0.43	0.90	e0.78	2.5	2.7	25	e0.90	0.54	0.30	0.31
27	0.43	0.51	0.41	0.88	1.0	3.1	2.7	e35	e0.84	0.39	0.29	0.32
28	0.45	0.47	0.42	0.88	1.1	3.0	3.0	e32	e0.78	0.35	0.33	0.36
29	0.46	0.45	0.41	0.87	---	3.8	3.1	30	e0.72	0.34	0.29	0.37
30	0.46	0.43	0.40	e0.72	---	4.3	2.7	22	e0.66	0.33	0.31	0.32
31	0.46	---	e0.39	e0.68	---	6.0	---	17	---	0.33	0.30	---
Total	12.82	15.15	13.11	18.73	27.34	67.67	109.6	521.6	177.70	16.04	9.52	8.92
Mean	0.41	0.51	0.42	0.60	0.98	2.18	3.65	16.8	5.92	0.52	0.31	0.30
Max	0.46	0.60	0.45	1.2	1.4	6.0	6.6	35	25	0.67	0.33	0.37
Min	0.36	0.38	0.39	0.37	0.64	0.92	2.2	3.2	0.66	0.33	0.29	0.27
Ac-ft	25	30	26	37	54	134	217	1,030	352	32	19	18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2006 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	0.37	0.50	0.44	0.57	0.81	2.38	2.55	4.11	2.16	0.39	0.30	0.31
Max	0.44	0.56	0.57	0.88	1.23	3.94	3.65	16.8	5.92	0.52	0.33	0.34
(WY)	(2008)	(2008)	(2008)	(2007)	(2007)	(2007)	(2011)	(2011)	(2011)	(2011)	(2007)	(2010)
Min	0.30	0.41	0.34	0.36	0.43	1.26	1.15	0.48	0.30	0.28	0.25	0.28
(WY)	(2010)	(2010)	(2010)	(2010)	(2009)	(2009)	(2007)	(2009)	(2007)	(2009)	(2009)	(2009)

SUMMARY STATISTICS

	Calendar Year 2010	Water Year 2011	Water Years 2006 - 2011	
Annual total	433.25	998.20		
Annual mean	1.19	2.73	1.24	
Highest annual mean			2.73	2011
Lowest annual mean			0.64	2009
Highest daily mean	7.5 May 28	35 May 27	35 May 27, 2011	
Lowest daily mean	0.29 Aug 19	0.27 Sep 9	0.24 Aug 4, 2009	
Annual seven-day minimum	0.30 Aug 16	0.28 Sep 5	0.24 Aug 2, 2009	
Annual runoff (ac-ft)	859	1,980	900	
10 percent exceeds	3.2	6.8	2.6	
50 percent exceeds	0.45	0.55	0.44	
90 percent exceeds	0.32	0.30	0.29	



Water-Data Report 2011

12438900 NINEMILE CREEK NEAR OROVILLE, WA—Continued**WATER-QUALITY RECORDS**

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: February 2007 to current year.

INSTRUMENTATION.--Water temperature recorder with a 15-minute logging interval since February, 2007.

REMARKS.--Temperature records: excellent, Oct. 1 - July 22, Aug. 31 - Sept. 30; good, July 23 - Aug. 30.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 19.7°C, July 28, Aug. 1, 2009; minimum, 0.0°C, Jan. 16, 21-23, 2008.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 17.5°C, July 7; minimum, 0.3°C, several days November to February.

**TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	13.4	10.1	11.7	10.9	9.4	10.0	5.1	4.3	4.7	0.7	0.3	0.3
2	13.6	10.4	12.0	10.1	7.9	8.9	4.8	3.9	4.4	1.5	0.3	0.9
3	13.7	11.6	12.5	8.6	6.1	7.4	3.9	3.1	3.6	2.0	1.1	1.5
4	13.7	11.6	12.6	8.6	5.5	6.9	4.4	2.6	3.8	2.8	2.0	2.3
5	12.3	9.6	10.9	9.8	7.6	8.6	3.5	1.2	2.4	3.4	2.6	3.0
6	11.7	8.3	9.9	10.4	9.2	9.7	4.2	2.8	3.5	4.3	3.3	3.8
7	12.2	7.8	9.9	10.6	7.2	9.8	4.9	3.9	4.4	4.8	4.0	4.5
8	13.4	11.4	12.2	8.4	6.2	7.1	5.9	4.7	5.3	4.7	2.5	4.0
9	12.7	12.2	12.4	7.7	6.6	7.1	6.1	5.3	5.7	2.8	1.0	2.0
10	13.1	10.5	12.4	7.6	6.7	7.1	6.4	5.7	6.0	2.6	1.7	2.1
11	11.0	8.4	9.7	7.2	4.9	6.2	5.7	4.1	4.9	2.7	1.4	2.1
12	11.5	9.1	10.2	7.4	5.5	6.6	5.6	4.1	5.1	3.3	1.8	2.6
13	11.6	9.3	10.4	7.5	5.5	6.7	6.4	5.6	5.8	4.5	3.0	3.6
14	11.3	8.1	9.8	8.1	7.2	7.6	6.6	4.9	5.9	5.1	4.3	4.7
15	10.9	8.0	9.6	8.2	7.4	7.7	4.9	3.4	4.2	5.9	4.5	5.1
16	9.0	6.1	7.5	8.8	6.9	7.9	4.7	3.2	4.1	5.8	2.9	4.6
17	8.6	5.3	6.9	8.1	7.5	7.8	4.6	2.7	3.9	5.2	3.5	4.4
18	9.6	6.7	7.9	7.7	5.3	6.5	3.6	2.1	2.9	4.8	3.0	4.0
19	10.0	6.2	8.0	5.3	3.8	4.7	4.4	3.2	3.8	3.2	1.6	2.2
20	10.0	6.9	8.5	3.8	2.6	3.4	4.3	3.1	3.7	4.4	1.8	3.3
21	9.6	6.5	8.1	2.8	1.5	2.4	4.9	3.8	4.4	4.4	2.4	3.4
22	10.8	8.0	9.3	1.5	0.3	0.7	4.2	3.5	3.8	4.1	2.1	3.1
23	10.8	8.5	9.6	0.3	0.3	0.3	5.4	4.2	4.9	4.4	2.9	3.6
24	10.9	8.6	10.2	1.0	0.3	0.3	5.5	4.6	5.1	4.9	3.2	4.2
25	9.9	8.3	8.9	2.5	1.0	1.9	5.6	4.7	5.2	5.5	4.5	4.9
26	9.4	6.9	8.3	3.8	2.5	3.1	5.9	4.7	5.4	5.7	4.8	5.1
27	10.0	8.5	9.1	4.7	3.7	4.2	5.0	3.3	4.2	5.5	4.0	4.7
28	9.7	9.0	9.3	4.1	2.5	3.6	5.7	4.6	5.0	5.4	3.7	4.6
29	10.2	9.0	9.5	3.3	1.1	2.3	4.7	2.8	4.1	5.0	3.7	4.7
30	10.3	9.0	9.7	4.6	3.3	4.0	2.8	0.6	1.8	3.7	0.9	2.2
31	10.9	9.4	10	---	---	---	0.6	0.3	0.3	2.0	0.3	0.8
Month	13.7	5.3	9.9	10.9	0.3	5.7	6.6	0.3	4.3	5.9	0.3	3.3

12438900 NINEMILE CREEK NEAR OROVILLE, WA—Continued
**TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March				April				May
1	1.7	0.3	0.7	4.3	1.9	3.1	7.1	4.3	5.6	12.8	4.9	8.5
2	2.6	1.4	1.9	5.7	3.0	4.1	8.1	4.3	5.8	9.0	6.5	7.9
3	3.6	1.7	2.7	5.6	2.8	4.1	9.0	3.2	5.7	10.8	5.0	7.8
4	4.2	2.8	3.3	5.5	3.0	4.2	8.0	4.7	6.1	12.2	4.6	8.2
5	4.8	3.0	3.8	6.6	4.2	5.1	9.1	4.0	6.2	12.4	7.2	9.1
6	4.1	3.2	3.8	6.7	3.7	4.9	6.3	3.6	5.0	12.4	7.1	9.5
7	5.7	3.7	4.5	6.4	3.8	4.8	6.7	3.2	4.7	10.4	8.1	9.0
8	3.8	2.0	3.1	6.1	3.3	4.6	9.6	2.1	5.2	9.7	6.5	7.8
9	3.0	0.8	1.9	6.0	4.7	5.2	9.4	3.9	6.4	11.7	5.5	8.5
10	4.1	1.5	2.5	7.2	4.7	5.8	8.1	4.4	6.3	12.4	6.9	9.6
11	5.0	2.3	3.6	6.3	3.4	4.8	9.6	4.5	7.2	11.6	9.2	10.4
12	5.9	3.2	4.3	7.5	4.5	5.8	8.1	2.3	5.0	11.6	8.7	9.9
13	6.1	3.2	4.2	6.7	5.0	5.7	7.5	3.7	5.6	11.3	7.0	9.3
14	5.8	3.6	4.7	7.9	4.1	5.8	9.0	3.8	6.2	11.7	9.3	10.4
15	5.7	3.8	4.8	6.4	5.1	5.6	10.4	3.6	6.6	11.0	9.7	10.2
16	5.4	3.6	4.4	7.3	3.2	5.0	10.1	6.4	7.6	10.0	8.8	9.6
17	5.6	3.4	4.3	7.7	3.1	4.9	8.7	3.4	5.9	11.8	7.0	9.3
18	5.6	3.5	4.3	7.6	4.0	5.5	10.0	3.1	6.0	13.2	7.5	10.3
19	3.8	1.6	2.6	7.1	4.5	5.7	9.9	2.8	5.9	13.8	8.2	11.0
20	3.3	0.7	1.6	7.4	2.5	4.8	9.2	3.0	6.0	15.2	9.5	12.1
21	3.5	0.5	2.0	8.1	4.8	6.2	9.2	5.4	6.8	13.9	11.2	12.6
22	4.3	2.6	3.5	8.9	4.7	6.4	11.4	3.4	7.0	15.2	11.5	12.9
23	2.8	1.7	2.4	7.4	2.9	5.1	11.9	4.1	7.7	14.6	11.1	12.6
24	2.1	0.3	1.4	5.7	4.2	4.8	12.6	4.6	8.4	14.2	10.7	12.5
25	0.4	0.3	0.3	7.3	4.5	5.5	11.2	6.7	8.9	13.4	11.5	12.1
26	1.8	0.3	0.8	7.8	4.8	6.1	11.9	7.1	9.2	11.5	9.3	10.2
27	2.8	1.3	2.0	8.6	4.7	6.0	11.3	5.6	8.4	11.6	7.7	9.8
28	4.4	2.6	3.6	9.8	4.3	6.5	9.5	6.2	7.8	11.8	9.6	10.7
29	---	---	---	9.3	5.0	6.7	9.9	5.1	7.2	12.6	9.4	10.9
30	---	---	---	9.9	5.3	7.1	12.7	5.2	8.5	12.2	8.9	10.8
31	---	---	---	10.5	4.8	7.0	---	---	---	11.7	9.9	10.8
Month	6.1	0.3	3.0	10.5	1.9	5.4	12.7	2.1	6.6	15.2	4.6	10.1

12438900 NINEMILE CREEK NEAR OROVILLE, WA—Continued
TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	13.0	9.4	11.0	14.9	10.7	12.9	16.1	12.4	14.4	13.8	10.8	12.5
2	14.6	11.3	12.6	16.3	11.5	13.9	15.3	12.1	13.8	14.2	11.1	12.6
3	14.7	10.1	12.4	16.5	13.2	14.8	16.3	12.4	14.3	14.0	10.2	12.1
4	15.8	10.5	13.2	15.7	11.8	13.9	16.9	12.9	14.9	14.1	9.5	11.9
5	16.4	11.1	13.7	16.7	11.9	14.2	17.1	13.6	15.3	14.5	10.2	12.4
6	17.4	12.0	14.6	17.3	13.0	15.1	16.8	13.2	15.1	14.9	11.3	13.1
7	15.2	11.9	13.3	17.5	13.7	15.5	16.7	12.9	14.9	14.8	10.7	12.8
8	12.3	10.8	11.6	15.3	11.8	13.7	16.9	13.0	15.0	14.9	11.0	13.0
9	15.5	10.6	12.7	15.3	10.8	13.1	16.9	13.3	15.1	15.5	11.9	13.7
10	15.5	12.6	13.7	15.4	12.0	13.8	16.4	13.3	14.9	15.7	12.0	13.8
11	16.3	12.0	13.9	16.2	12.6	14.4	16.5	13.2	14.9	15.5	11.8	13.7
12	17.1	12.4	14.5	15.6	13.9	14.7	16.9	13.2	15.0	15.5	12.1	13.8
13	16.4	12.7	14.2	16.2	12.9	14.5	16.6	12.7	14.7	15.2	12.4	13.9
14	16.2	10.6	13.3	14.6	12.0	13.5	16.1	12.9	14.5	14.8	11.7	13.4
15	13.1	11.2	12.2	15.6	11.5	13.5	15.6	13.2	14.5	14.3	11.4	12.9
16	12.1	10.2	11.1	14.8	12.6	13.9	15.3	11.4	13.4	13.1	10.3	11.8
17	15.3	10.6	12.5	15.9	12.4	14.1	15.4	11.1	13.3	12.8	9.7	11.3
18	14.0	11.6	12.8	16.8	13.9	15.1	15.4	12.4	14.1	14.3	11.9	12.9
19	16.4	11.3	13.7	15.6	13.6	14.2	15.4	11.7	13.6	13.6	11.7	12.9
20	17.4	11.4	14.3	15.6	11.9	13.8	15.8	11.7	13.8	12.8	9.3	11.1
21	17.4	11.8	14.6	15.6	13.1	14.3	16.5	12.4	14.3	13.5	9.7	11.6
22	16.4	12.1	14.3	15.0	12.2	13.7	15.5	13.1	14.5	13.9	11.8	12.8
23	15.9	12.9	14.2	15.4	11.3	13.4	16.4	13.4	14.9	15.9	12.4	14.0
24	14.1	10.7	12.5	16.4	11.6	14.0	16.6	13.1	14.8	15.2	12.2	13.8
25	13.6	10.0	11.9	15.0	12.9	13.7	17.0	13.8	15.4	14.4	12.6	14.0
26	15.6	9.9	12.6	15.2	12.6	13.9	16.7	13.6	15.2	12.6	10.3	11.3
27	14.9	11.8	13.5	15.8	12.1	14.0	16.4	12.9	14.7	13.4	11.5	12.3
28	16.6	12.6	14.4	16.0	12.2	14.1	16.3	12.8	14.6	11.9	9.0	10.6
29	16.1	13.6	14.8	16.4	13.2	14.7	16.2	12.6	14.5	11.7	8.0	9.9
30	14.8	12.0	13.5	16.8	12.7	14.7	15.8	13.7	14.9	12.5	9.0	10.8
31	---	---	---	16.8	13.2	15.0	15.2	13.5	14.4	---	---	---
Month	17.4	9.4	13.3	17.5	10.7	14.1	17.1	11.1	14.6	15.9	8.0	12.6

	Max	Min	Mean
Year	17.5	0.3	8.6