

Water-Data Report 2013

13213000 BOISE RIVER NEAR PARMA, ID

Middle Snake-Boise Basin
Lower Boise Subbasin

LOCATION.--Lat 43°46'54", long 116°58'22" referenced to North American Datum of 1983, in SE ¼ NE ¼ SE ¼ sec.7, T.5 N., R.5 W., Canyon County, ID, Hydrologic Unit 17050114, Parma quad., on left bank at county road crossing, 1.2 mi west of Parma, and at mile 3.8.

DRAINAGE AREA.--3,906 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--March 1938 to June 1939 (gage heights only), September 1971 to September 1997, October 2002 to current year.

REVISED RECORDS.--WDR-US-2010: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,196.49 ft above NGVD of 1929. March 1938 to June 1939, nonrecording gage 1.4 mi upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Station equipment includes satellite telemetry and crest stage gage. Many canals and small farm laterals divert water for irrigation from the Boise River above this site (see stations 13205995 and 13212996).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,240 ft³/s June 14, 1983, gage height, 13.83 ft; minimum, 60 ft³/s Apr. 18, 19, 1987, gage height, 5.88 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 20, 1943, reached a discharge of about 20,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,600 ft³/s Sept. 6, gage height, 9.83 ft; minimum daily, 172 ft³/s April 3.

13213000 BOISE RIVER NEAR PARMA, ID—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	940	924	942	863	917	858	238	267	839	334	329	631
2	934	920	952	852	897	851	179	325	704	271	337	716
3	910	866	937	864	889	858	172	372	645	232	356	757
4	925	866	936	842	884	847	200	329	521	255	353	845
5	968	879	984	845	880	844	218	313	431	280	392	932
6	948	877	988	861	880	839	312	359	378	294	387	1,410
7	899	858	946	861	877	846	348	352	326	294	351	1,170
8	813	926	939	865	883	846	371	341	274	319	344	993
9	784	992	933	866	884	838	395	328	245	325	349	924
10	755	982	920	882	874	830	384	322	275	310	352	853
11	742	971	913	868	869	830	416	253	258	312	352	804
12	798	976	938	847	861	830	391	257	262	361	390	734
13	893	969	938	826	860	834	409	273	250	372	402	697
14	888	962	919	839	862	824	427	274	241	375	404	725
15	899	953	920	849	861	825	452	289	258	409	370	721
16	953	963	926	827	855	806	431	620	275	411	340	706
17	967	962	927	828	859	806	419	963	305	404	323	679
18	899	974	908	e840	854	803	407	1,060	276	342	335	692
19	888	966	917	e830	862	797	412	1,080	249	316	381	687
20	934	958	901	e820	864	776	555	1,120	385	297	400	700
21	994	949	893	e830	869	621	585	1,110	437	273	400	672
22	981	939	885	e840	856	563	567	1,140	431	275	408	671
23	999	935	890	e850	907	517	493	1,170	431	257	453	691
24	940	941	895	851	895	518	432	823	463	235	500	711
25	930	993	882	850	872	516	398	862	572	246	545	807
26	923	964	880	891	871	520	361	995	760	280	585	908
27	922	941	879	931	869	497	310	1,150	694	301	608	896
28	925	948	876	900	861	450	265	1,300	561	313	607	875
29	923	948	874	884	---	390	261	1,410	465	341	600	888
30	909	940	883	895	---	349	222	1,460	343	340	574	983
31	914	---	873	931	---	289	---	1,070	---	324	594	---
Total	28,097	28,242	28,394	26,628	24,472	21,818	11,030	21,987	12,554	9,698	13,121	24,478
Mean	906	941	916	859	874	704	368	709	418	313	423	816
Max	999	993	988	931	917	858	585	1,460	839	411	608	1,410
Min	742	858	873	820	854	289	172	253	241	232	323	631
Ac-ft	55,730	56,020	56,320	52,820	48,540	43,280	21,880	43,610	24,900	19,240	26,030	48,550

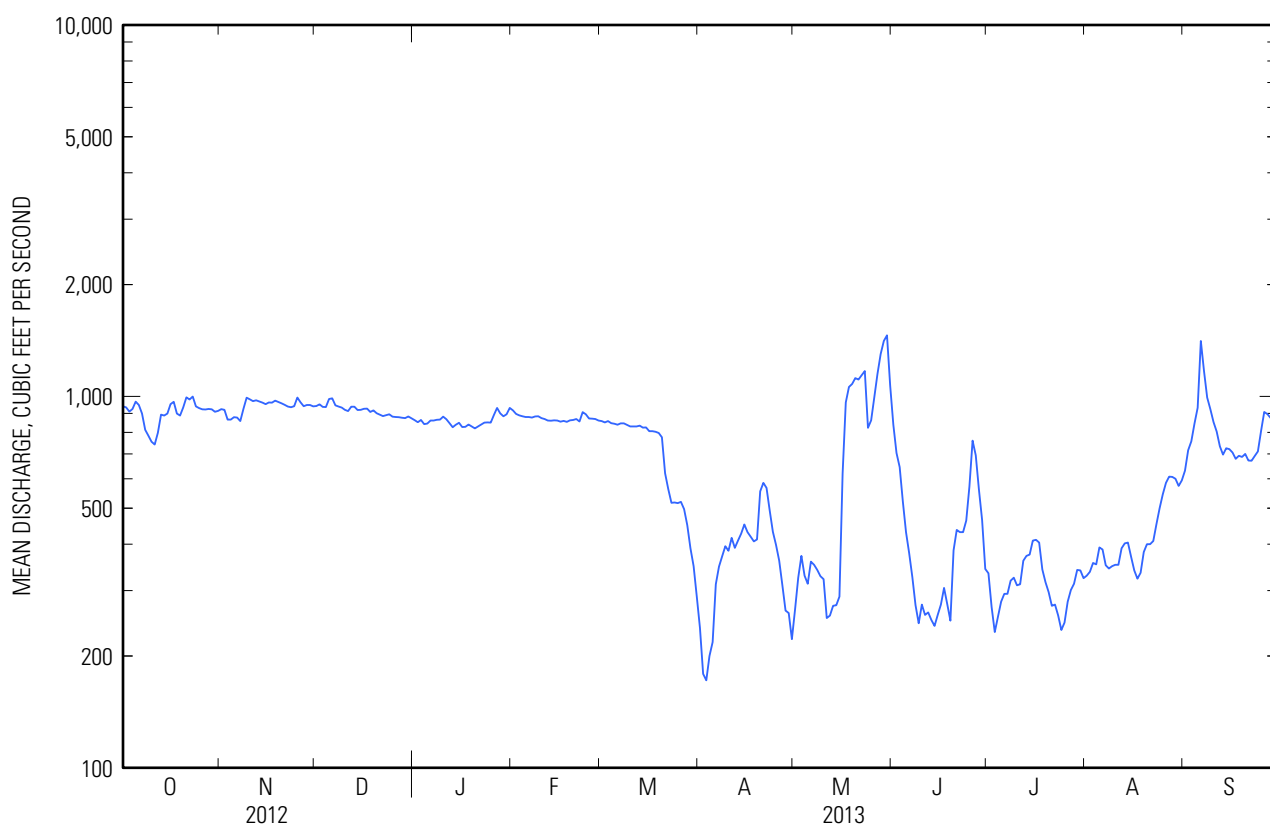
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,043	1,001	1,055	1,360	1,795	2,233	2,780	2,954	2,038	953	763	955
Max	2,395	2,322	2,512	6,882	7,916	7,466	6,942	6,867	6,817	3,098	1,580	2,587
(WY)	(1985)	(1985)	(1984)	(1997)	(1997)	(1997)	(1986)	(2011)	(1983)	(1982)	(1983)	(1984)
Min	423	633	606	652	653	506	219	276	315	282	187	184
(WY)	(1993)	(1993)	(1993)	(1993)	(1993)	(1992)	(1977)	(1992)	(1977)	(1992)	(1992)	(1992)

13213000 BOISE RIVER NEAR PARMA, ID—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1971 - 2013	
Annual total	734,947		250,519			
Annual mean	2,008		686		1,574	
Highest annual mean					3,895	
Lowest annual mean					459	
Highest daily mean	8,040	May 6	1,460	May 30	9,140	Jun 14, 1983
Lowest daily mean	488	Aug 11	172	Apr 3	66	Apr 18, 1987
Annual seven-day minimum	498	Aug 6	230	Mar 31	82	Apr 17, 1987
Annual runoff (ac-ft)	1,458,000		496,900		1,140,000	
10 percent exceeds	6,410		960		4,580	
50 percent exceeds	968		828		891	
90 percent exceeds	680		292		516	



13213000 BOISE RIVER NEAR PARMA, ID—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses July 1969 to December 1972, December 1973 to September 1981, October 1986 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: March to September 1973, November 1974 to March 1975, September 1975 to September 1976, October 1986 to September 1995, April to September 1997, October 1998 to September 1999, October 2008 to October 2010.

SPECIFIC CONDUCTANCE: October 2008 to October 2010.

pH: October 2008 to October 2010.

TURBIDITY: October 2008 to October 2010.

CHLOROPHYLL: October 2008 to October 2010.

DISSOLVED OXYGEN: October 2008 to October 2010.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 28.5 °C June 27-28, 1973; minimum, 0.0 °C on many days during winter months.

SPECIFIC CONDUCTANCE: Maximum, 556 microSiemens/cm Jan. 29, 2009; minimum, 129 µS/cm June 10, 2009.

pH: Maximum, 9.0 on numerous dates in February 2009, March and July 2010; minimum, 7.2 units June 7-10, 2009.

TURBIDITY: Maximum, 98 FNU Jan. 13, 2010; minimum, 0.1 FNU June 9, 2009.

CHLOROPHYLL: Maximum, 142 µg/L Nov. 27, 2009; minimum, 0.0 µg/L July 27, 28, 2009.

DISSOLVED OXYGEN: Maximum, 16.6 mg/L Feb. 20, 21, 2009; minimum, 6.1 mg/L Aug. 2, 3, 5, 2009, Aug. 6, 2010.

13213000 BOISE RIVER NEAR PARMA, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 1 of 3

[%, percent; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; °C, degrees Celsius; µS/cm, microsiemens per centimeter; --, no data; <, less than]

Date	Sample start time	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Discharge, instantaneous, ft ³ /s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Sampling method (82398)
10-29-2012	0600	--	--	--	--	--	--	--	--	Point sample
10-29-2012	1200	--	--	--	--	--	--	--	--	Point sample
10-29-2012	1800	--	--	--	--	--	--	--	--	Point sample
10-29-2012	2359	--	--	--	--	--	--	--	--	Point sample
10-30-2012	0600	--	--	--	--	--	--	--	--	Point sample
10-30-2012	1200	--	--	--	--	--	--	--	--	Point sample
10-30-2012	1800	--	--	--	--	--	--	--	--	Point sample
10-30-2012	2359	--	--	--	--	--	--	--	--	Point sample
10-31-2012	0600	--	--	--	--	--	--	--	--	--
10-31-2012	1200	--	--	--	--	--	--	--	--	Point sample
10-31-2012	1800	--	--	--	--	--	--	--	--	Point sample
10-31-2012	2359	--	--	--	--	--	--	--	--	Point sample
11-01-2012	0600	--	--	--	--	--	--	--	--	Point sample
11-01-2012	1300	701	15.5	920	10.7	109	8.2	479	12.6	EWI
11-29-2012	1440	701	6.0	949	12.6	113	8.4	495	7.0	EWI
12-11-2012	1550	696	4.5	896	12.7	114	8.4	499	6.9	EWI
01-08-2013	1530	709	1.5	873	14.4	115	8.4	498	3.1	EWI
02-20-2013	1357	701	7.0	868	15.3	134	7.6	498	6.2	EWI
03-07-2013	0922	705	2.0	846	11.3	100	7.6	498	6.6	EWI
04-26-2013	1120	703	20.5	371	9.9	104	7.5	413	13.9	EWI
05-22-2013	1500	700	15.5	1,200	9.8	104	7.3	292	14.3	EWI
06-24-2013	1415	694	23.0	531	--	--	7.6	424	19.5	EWI
07-15-2013	1425	702	34.0	516	9.1	117	7.9	432	23.5	EWI
08-21-2013	1250	704	34.0	--	9.5	116	7.9	168	21.4	EWI
09-17-2013	1333	699	25.0	--	9.6	114	7.8	442	19.3	EWI

13213000 BOISE RIVER NEAR PARMA, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 2 of 3

[%, percent; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; °C, degrees Celsius; µS/cm, microsiemens per centimeter; --, no data; <, less than]

Date	Sample start time	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, analytically determined, mg/L (62855)	Escherichia coli, Defined Substrate Technology, water, MPN/100 mL (50468)	Total coliforms, defined substrate test method (DSTM), water, most probable number per 100 milliliters (90908)	Chlorophyll a, phytoplankton, spectrophotometric acid method, micrograms per liter (32211)
10-29-2012	0600	--	--	--	0.29	--	--	--	--
10-29-2012	1200	--	--	--	.29	--	--	--	--
10-29-2012	1800	--	--	--	.28	--	--	--	--
10-29-2012	2359	--	--	--	.27	--	--	--	--
10-30-2012	0600	--	--	--	.27	--	--	--	--
10-30-2012	1200	--	--	--	.28	--	--	--	--
10-30-2012	1800	--	--	--	.29	--	--	--	--
10-30-2012	2359	--	--	--	.28	--	--	--	--
10-31-2012	0600	--	--	--	.27	--	--	--	--
10-31-2012	1200	--	--	--	.27	--	--	--	--
10-31-2012	1800	--	--	--	.27	--	--	--	--
10-31-2012	2359	--	--	--	.27	--	--	--	--
11-01-2012	0600	--	--	--	.28	--	--	--	--
11-01-2012	1300	.015	3.60	.259	.29	3.95	--	--	9.00
11-29-2012	1440	.012	4.08	.255	.27	4.34	28	4,600	--
12-11-2012	1550	.020	4.13	.320	.34	4.54	27	2,200	--
01-08-2013	1530	.048	4.45	.311	.35	4.69	28	930	--
02-20-2013	1357	< .010	4.43	.359	.41	4.84	17	1,100	--
03-07-2013	0922	< .010	4.10	.291	.34	4.25	80	1,100	36.2
04-26-2013	1120	.042	2.02	.188	.29	2.73	960	5,200	--
05-22-2013	1500	.066	1.48	.155	.29	2.19	440	11,000	--
06-24-2013	1415	.044	2.03	.227	.34	2.64	200	9,800	--
07-15-2013	1425	.019	1.71	.217	.32	2.37	120	16,000	--
08-21-2013	1250	.021	1.59	.228	.29	2.23	66	24,000	--
09-17-2013	1333	.016	2.21	.235	.28	2.46	20	6,500	--

13213000 BOISE RIVER NEAR PARMA, ID—Continued**WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Part 3 of 3

[%, percent; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; °C, degrees Celsius; µS/cm, microsiemens per centimeter; --, no data; <, less than]

Date	Sample start time	Pheophytin a, phytoplankton, spectrophotometric acid method, micrograms per liter (32218)	Suspended sediment, sieve diameter, percent smaller than 0.0625 mm (70331)	Suspended sediment concentration, mg/L (80154)
10-29-2012	0600	--	--	--
10-29-2012	1200	--	--	--
10-29-2012	1800	--	--	--
10-29-2012	2359	--	--	--
10-30-2012	0600	--	--	--
10-30-2012	1200	--	--	--
10-30-2012	1800	--	--	--
10-30-2012	2359	--	--	--
10-31-2012	0600	--	--	--
10-31-2012	1200	--	--	--
10-31-2012	1800	--	--	--
10-31-2012	2359	--	--	--
11-01-2012	0600	--	--	--
11-01-2012	1300	8.80	77	16
11-29-2012	1440	--	80	10
12-11-2012	1550	--	80	10
01-08-2013	1530	--	95	17
02-20-2013	1357	--	85	20
03-07-2013	0922	35.0	91	18
04-26-2013	1120	--	93	56
05-22-2013	1500	--	89	108
06-24-2013	1415	--	96	78
07-15-2013	1425	--	96	65
08-21-2013	1250	--	94	40
09-17-2013	1333	--	--	--