



Water-Data Report 2012

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.--No estimated daily discharges. Records good. 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, 8,120 ft³/s May 5, gage height, 14.12 ft; minimum daily, 488 ft³/s Aug. 11.

Water-Data Report 2012

13213000 BOISE RIVER NEAR PARMA, ID—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

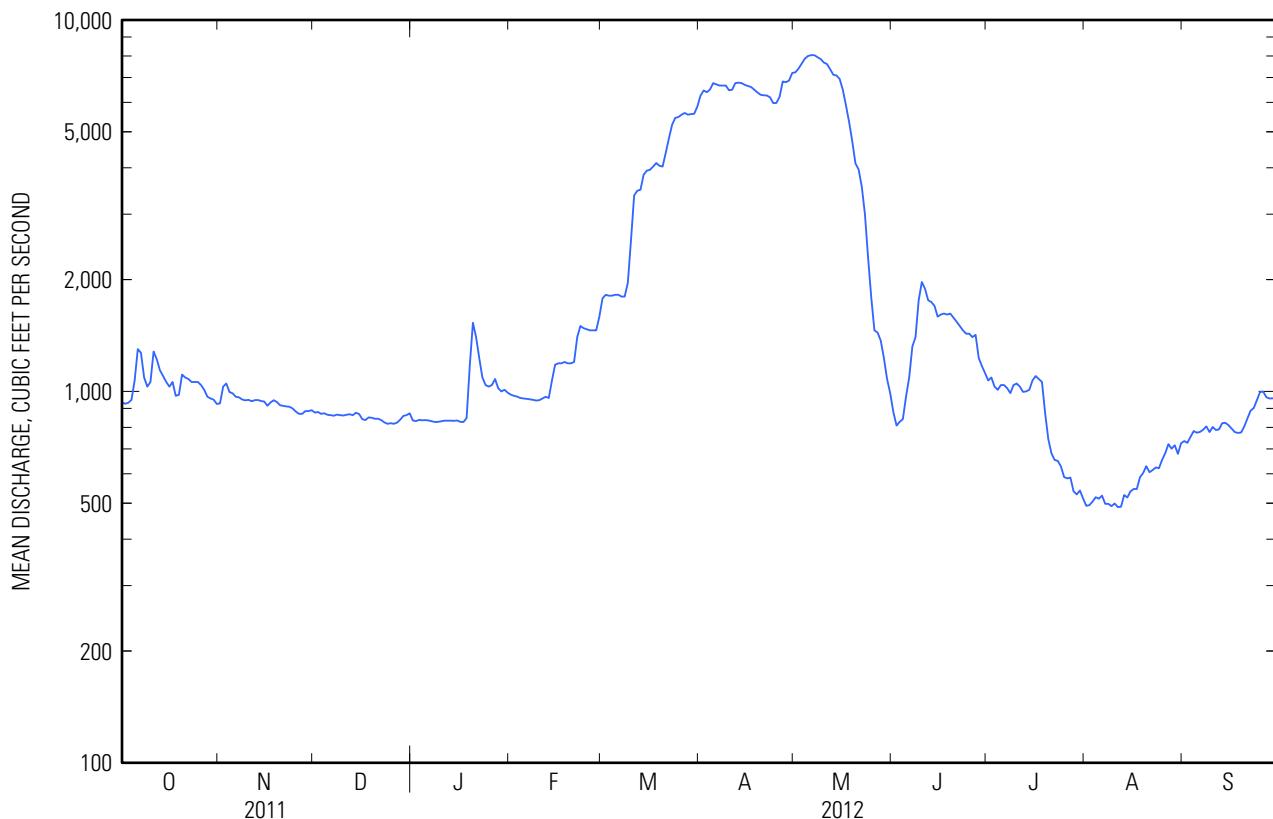
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	934	928	877	835	980	1,780	6,260	7,230	879	1,070	492	735
2	926	1,030	880	832	973	1,820	6,460	7,400	809	1,090	494	727
3	932	1,050	870	838	968	1,810	6,390	7,630	828	1,030	505	755
4	949	996	873	836	960	1,810	6,500	7,870	842	1,010	519	782
5	1,070	988	865	837	957	1,820	6,760	8,000	968	1,040	514	774
6	1,300	967	863	835	955	1,820	6,710	8,040	1,090	1,040	524	778
7	1,270	964	860	831	952	1,800	6,660	8,040	1,320	1,020	498	789
8	1,090	951	866	827	949	1,800	6,660	7,940	1,400	989	498	805
9	1,030	946	863	828	945	1,960	6,660	7,850	1,760	1,040	491	777
10	1,060	949	861	831	947	2,550	6,470	7,680	1,970	1,050	499	802
11	1,280	941	865	834	957	3,370	6,490	7,610	1,890	1,030	488	787
12	1,220	947	868	834	967	3,470	6,760	7,370	1,760	997	489	790
13	1,140	948	863	834	960	3,490	6,780	7,120	1,740	1,000	526	821
14	1,100	942	876	833	1,070	3,830	6,760	7,090	1,700	1,010	518	823
15	1,060	939	869	835	1,180	3,930	6,690	6,940	1,590	1,070	538	811
16	1,030	915	842	828	1,190	3,950	6,640	6,490	1,610	1,100	546	794
17	1,060	934	837	827	1,190	4,030	6,600	5,890	1,620	1,080	546	777
18	973	947	851	847	1,200	4,120	6,490	5,310	1,610	1,060	587	773
19	979	936	849	1,170	1,190	4,050	6,380	4,710	1,620	874	603	775
20	1,110	918	844	1,530	1,190	4,030	6,290	4,110	1,580	744	629	805
21	1,090	914	844	1,400	1,200	4,390	6,270	3,960	1,540	681	606	846
22	1,080	911	837	1,230	1,400	4,800	6,260	3,560	1,500	654	614	888
23	1,060	909	825	1,090	1,500	5,220	6,190	3,000	1,460	650	624	902
24	1,060	899	818	1,040	1,480	5,450	5,970	2,290	1,430	628	621	948
25	1,060	882	821	1,030	1,470	5,480	5,980	1,790	1,430	588	654	997
26	1,040	870	818	1,040	1,460	5,560	6,210	1,460	1,400	583	682	998
27	1,010	870	824	1,080	1,460	5,620	6,830	1,440	1,420	586	721	964
28	968	885	839	1,020	1,460	5,560	6,800	1,370	1,230	538	701	957
29	957	885	859	1,000	1,590	5,580	6,870	1,230	1,170	528	716	958
30	950	890	863	1,010	---	5,590	7,200	1,080	1,120	541	679	955
31	925	---	873	992	---	5,850	---	988	---	515	725	---
Total	32,713	28,051	26,463	29,634	33,700	116,340	195,990	162,488	42,286	26,836	17,847	25,093
Mean	1,055	935	854	956	1,162	3,753	6,533	5,242	1,410	866	576	836
Max	1,300	1,050	880	1,530	1,590	5,850	7,200	8,040	1,970	1,100	725	998
Min	925	870	818	827	945	1,780	5,970	988	809	515	488	727
Ac-ft	64,890	55,640	52,490	58,780	66,840	230,800	388,700	322,300	83,870	53,230	35,400	49,770

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,046	1,002	1,059	1,374	1,820	2,275	2,847	3,016	2,082	971	772	958
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 2011	Water Year 2012			Water Years 1971 - 2012	
Annual total	823,976		737,441			
Annual mean	2,257		2,015		1,599	
Highest annual mean					3,895	1983
Lowest annual mean					459	1992
Highest daily mean	7,420	May 17	8,040	May 6	9,140	Jun 14, 1983
Lowest daily mean	578	Aug 10	488	Aug 11	66	Apr 18, 1987
Annual seven-day minimum	604	Aug 5	498	Aug 6	82	Apr 17, 1987
Annual runoff (ac-ft)	1,634,000		1,463,000		1,158,000	
10 percent exceeds	6,870		6,410		4,630	
50 percent exceeds	996		999		896	
90 percent exceeds	672		680		530	



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 2011 TO SEPTEMBER 2012

Part 1 of 4

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; 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; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Discharge, instantaneous, ft ³ /s (00061)	Dissolved	pH,	Specific conductance, water, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Sampling method (82398)	
					Dissolved oxygen, water, unfiltered, mg/L (00300)	oxygen, water, unfiltered, % saturation (00301)				
11-09-2011	1355	714	11.0	931	14.2	128	8.7	499	8.2	EWI
02-22-2012	1112	705	13.5	1,420	11.2	99	8.2	375	6.9	EWI
04-20-2012	1018	707	19.5	6,310	10.1	95	7.6	125	9.6	EWI
04-20-2012	1019	--	--	--	--	--	--	--	--	--
05-10-2012	1005	701	12.0	7,590	--	--	7.5	113	10.5	EWI
06-21-2012	1508	696	32.0	1,590	10.6	123	8.4	244	18.2	EWI
07-17-2012	1406	697	33.0	1,090	9.0	111	8.0	286	21.1	EWI
08-20-2012	0600	--	--	--	--	--	--	--	--	--
08-20-2012	1200	--	--	--	--	--	--	--	--	--
08-20-2012	1800	--	--	--	--	--	--	--	--	--
08-20-2012	2359	--	--	--	--	--	--	--	--	--
08-21-2012	0600	--	--	--	--	--	--	--	--	--
08-21-2012	1200	--	--	--	--	--	--	--	--	--
08-21-2012	1800	--	--	--	--	--	--	--	--	--
08-21-2012	2359	--	--	--	--	--	--	--	--	--
08-22-2012	0600	--	--	--	--	--	--	--	--	--
08-22-2012	1200	--	--	--	--	--	--	--	--	--
08-22-2012	1800	--	--	--	--	--	--	--	--	--
08-22-2012	2359	--	--	--	--	--	--	--	--	--
08-23-2012	0600	--	--	--	--	--	--	--	--	--
08-23-2012	1200	--	--	--	--	--	--	--	--	--
08-23-2012	1630	698	33.5	644	--	--	8.3	405	22.1	EWI
08-23-2012	1800	--	--	--	--	--	--	--	--	--
08-23-2012	2359	--	--	--	--	--	--	--	--	--
08-24-2012	0600	--	--	--	--	--	--	--	--	--
08-24-2012	1200	--	--	--	--	--	--	--	--	--
09-13-2012	1104	712	18.0	823	8.7	92	8.0	402	14.8	EWI

13213000 BOISE RIVER NEAR PARMA, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 4

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; 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; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Calcium, water, filtered, mg/L (00915)		Magnesium, water, filtered, mg/L (00925)		Potassium, water, filtered, mg/L (00935)		Sodium, water, filtered, mg/L (00930)		ANC, water, unfiltered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as CaCO ₃ (90410)		Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO ₂ (00955)	Sulfate, water, filtered, mg/L (00945)
11-09-2011	1355	43.9		13.0		4.70		45.7		182		19.5	0.55	30.0	39.9
02-22-2012	1112	--	--	--	--	--	--	--	--	--	--	--	--	--	--
04-20-2012	1018	--	--	--	--	--	--	--	--	--	--	--	--	--	--
04-20-2012	1019	--	--	--	--	--	--	--	--	--	--	--	--	--	--
05-10-2012	1005	--	--	--	--	--	--	--	--	--	--	--	--	--	--
06-21-2012	1508	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07-17-2012	1406	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-20-2012	0600	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-20-2012	1200	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-20-2012	1800	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-20-2012	2359	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-21-2012	0600	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-21-2012	1200	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-21-2012	1800	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-21-2012	2359	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-22-2012	0600	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-22-2012	1200	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-22-2012	1800	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-22-2012	2359	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-23-2012	0600	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-23-2012	1200	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-23-2012	1630	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-23-2012	1800	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-23-2012	2359	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-24-2012	0600	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08-24-2012	1200	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09-13-2012	1104	--	--	--	--	--	--	--	--	--	--	--	--	--	--

13213000 BOISE RIVER NEAR PARMA, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 4

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; 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; µg/L, micrograms per liter; --, 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, filtered, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, analytically determined, mg/L (62855)	Tech-nology, water, MPN/100 mL (50468)	Esche-richia coli, Defined Substrate	Total coliform, Quantitray method, water, most probable number per 100 milliliters (90908)	Iron, water, filtered, µg/L (01046)
11-09-2011	1355	0.015	3.95	0.281	0.30	4.21	16		2,000	13.5
02-22-2012	1112	.014	2.86	.222	.32	3.32	120		1,300	--
04-20-2012	1018	< .010	.40	.067	.10	.62	130		1,400	--
04-20-2012	1019	--	--	--	--	--	--		--	--
05-10-2012	1005	< .010	.31	.061	.12	.58	--		--	--
06-21-2012	1508	< .010	1.12	.144	.24	1.80	260		8,200	--
07-17-2012	1406	.016	1.36	.181	.30	2.11	730		24,000	--
08-20-2012	0600	--	--	--	.31	--	--		--	--
08-20-2012	1200	--	--	--	.30	--	--		--	--
08-20-2012	1800	--	--	--	.31	--	--		--	--
08-20-2012	2359	--	--	--	.29	--	--		--	--
08-21-2012	0600	--	--	--	.27	--	--		--	--
08-21-2012	1200	--	--	--	.29	--	--		--	--
08-21-2012	1800	--	--	--	.30	--	--		--	--
08-21-2012	2359	--	--	--	.31	--	--		--	--
08-22-2012	0600	--	--	--	.28	--	--		--	--
08-22-2012	1200	--	--	--	.33	--	--		--	--
08-22-2012	1800	--	--	--	.29	--	--		--	--
08-22-2012	2359	--	--	--	.33	--	--		--	--
08-23-2012	0600	--	--	--	.29	--	--		--	--
08-23-2012	1200	--	--	--	.29	--	--		--	--
08-23-2012	1630	< .010	1.83	.221	.30	2.49	--		--	--
08-23-2012	1800	--	--	--	.31	--	--		--	--
08-23-2012	2359	--	--	--	.28	--	--		--	--
08-24-2012	0600	--	--	--	.28	--	--		--	--
08-24-2012	1200	--	--	--	.30	--	--		--	--
09-13-2012	1104	--	--	--	--	--	240		11,000	--

13213000 BOISE RIVER NEAR PARMA, ID—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 4 of 4

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; 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; µg/L, micrograms per liter; --, no data; <, less than]

Date	Sample start time	Suspended sediment, sieve		
		Manganese, water, filtered, µg/L (01056)	diameter, percent smaller than 0.0625 mm (70331)	Suspended sediment concentration, mg/L (80154)
11-09-2011	1355	14.3	86	8
02-22-2012	1112	--	85	52
04-20-2012	1018	--	69	27
04-20-2012	1019	--	73	23
05-10-2012	1005	--	--	--
06-21-2012	1508	--	72	6
07-17-2012	1406	--	91	79
08-20-2012	0600	--	--	--
08-20-2012	1200	--	--	--
08-20-2012	1800	--	--	--
08-20-2012	2359	--	--	--
08-21-2012	0600	--	--	--
08-21-2012	1200	--	--	--
08-21-2012	1800	--	--	--
08-21-2012	2359	--	--	--
08-22-2012	0600	--	--	--
08-22-2012	1200	--	--	--
08-22-2012	1800	--	--	--
08-22-2012	2359	--	--	--
08-23-2012	0600	--	--	--
08-23-2012	1200	--	--	--
08-23-2012	1630	--	80	42
08-23-2012	1800	--	--	--
08-23-2012	2359	--	--	--
08-24-2012	0600	--	--	--
08-24-2012	1200	--	--	--
09-13-2012	1104	--	89	34