Water-Data Report 2011

13047500 FALLS RIVER NEAR SQUIRREL, ID

Upper Snake Basin
Lower Henrys Subbasin

LOCATION.--Lat 44°04′07″, long 111°14′29″ referenced to North American Datum of 1983, in NW ¼ NE ¼ sec.34, T.9 N., R.44 E., Fremont County, ID, Hydrologic Unit 17040203, Porcupine Lake quad., on right bank 0.2 mi upstream from road bridge, 0.5 mi downstream from headgates of Marysville Canal, 4 mi northeast of Squirrel, 10.8 mi upstream from Conant Creek, and at mile 19.8.

DRAINAGE AREA.--329 mi^2, Mean elevation, 7,520 ft.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1902 to June 1909 (gage heights only prior to October 1904), May 1918 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "Fall River at Wilson's Mill, near Marysville" 1902, as "Fall River near Marysville" 1903, as "Fall River at Fremont" 1904-09, and as "Fall River near Squirrel" 1918-59.

REVISED RECORDS.--WSP 1217: Drainage area. WSP 1317: 1908. WSP 1347: 1905. WDR ID-05-1: Drainage area. WDR-US-2010: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 5,590 ft above NGVD of 1929, from topographic map. Prior to Jan. 1, 1904, non-recording gage at site 3 mi upstream at different datum. Jan. 1, 1904 to Nov. 6, 1937, non-recording gage at site 200 ft upstream at different datum, and Nov. 7, 1937 to Oct. 7, 1948, non-recording gage at site 100 ft downstream at datum 0.29 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Station equipment includes satellite telemetry. Flow since October 1939 regulated by Grassy Lake, capacity about 15,200 acre-feet. Diversions above station for irrigation of about 17,000 acres below station and in adjacent basins, and diversions from tributary upstream from station for irrigation of about 500 acres (1966 determination). Diversions to Marysville Canal were increased beginning August 1993 for power generation at Marysville Hydropower plant.

EXTREMES FOR PERIOD OF RECORD.--

UNREGULATED PERIOD (1905-93): Maximum discharge prior to diversions for Marysville Hydropower plant, 7,060 ft^3/s June 9, 1981, gage height, 5.93 ft; minimum observed, 72 ft^3/s Jan. 17, 1930.

REGULATED PERIOD (1994 to current year): Maximum daily discharge since diversions began, 5,500 ft^3/s June 8, 2011; minimum, 77 ft^3/s Sept. 13, 2001, gage height, 0.44 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,500 ft^3/s June 8; minimum daily discharge, 200 ft^3/s Feb. 1, 9, 26.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 13047500, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/13047500.2011.pdf

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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	233	386	e235	e220	e200	233	242	222	2,090	3,080	740	380
2	233	322	e240	e220	e205	232	239	222	2,370	2,780	796	376
3	232	273	e260	e235	e210	230	238	226	1,930	2,600	629	382
4	232	248	e235	e240	e220	232	237	227	1,790	2,690	588	376
5	230	238	229	e240	e215	238	242	237	2,140	2,690	565	369
6	229	233	230	e240	e220	242	241	379	2,720	2,650	556	360
7	229	231	226	e245	e220	243	250	913	e4,300	2,630	529	357
8	230	251	227	249	e210	244	238	1,490	e5,500	2,490	516	349
9	231	250	227	247	e200	342	236	1,380	4,370	2,360	482	340
10	225	224	227	248	e210	245	237	1,230	3,020	2,140	464	332
11	227	221	226	247	e215	243	238	1,020	2,740	1,980	447	327
12	227	223	226	e220	e220	245	239	1,260	2,820	2,030	498	319
13	229	223	227	e225	e220	247	238	1,750	2,820	2,160	504	372
14	222	229	228	e230	e215	261	235	2,360	3,750	1,960	508	349
15	221	231	225	253	e220	251	234	2,990	3,550	1,850	503	353
16	226	239	225	251	e220	243	235	3,340	3,370	1,700	499	310
17	223	224	226	249	e220	239	257	2,470	2,810	1,530	484	361
18	222	226	e235	249	e220	242	246	2,330	2,370	1,430	470	294
19	222	227	e240	245	240	262	237	2,560	2,780	1,380	450	285
20	308	e220	e230	e218	241	275	238	2,570	2,860	1,320	450	272
21	225	e215	224	241	e210	280	238	2,260	2,580	1,130	449	253
22	223	e210	227	242	233	282	234	2,360	2,780	1,010	437	229
23	224	e210	226	239	e215	255	236	2,550	3,120	921	428	227
24	266	e205	226	235	e210	250	237	3,410	3,490	814	413	227
25	683	e210	223	236	e205	246	230	3,540	3,490	746	421	227
26	371	e215	224	237	e200	245	222	3,150	3,290	784	417	227
27	277	e220	223	237	e215	245	221	2,180	2,910	719	411	226
28	241	e210	223	237	e220	243	223	1,870	2,790	598	401	227
29	235	e220	229	237	---	246	223	1,900	2,980	543	391	225
30	238	e235	e230	238	---	241	222	1,850	3,150	521	381	231
31	325	---	e220	237	---	240	---	1,800	---	501	388	---
Total	7,939	7,069	7,099	7,387	6,049	7,762	7,083	56,046	90,680	51,737	15,215	9,162
Mean	256	236	229	238	216	250	236	1,808	3,023	1,669	491	305
Max	683	386	260	253	241	342	257	3,540	5,500	3,080	796	382
Min	221	205	220	218	200	230	221	222	1,790	501	381	225
Ac-ft	15,750	14,020	14,080	14,650	12,000	15,400	14,050	111,200	179,900	102,600	30,180	18,170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1993, BY WATER YEAR (WY) (UNREGULATED)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	503	489	446	407	397	402	698	1,901	2,155	899	561	523
Max	933	912	647	564	565	590	1,419	3,255	3,786	2,370	918	791
(WY)	(1984)	(1928)	(1984)	(1984)	(1928)	(1928)	(1990)	(1993)	(1927)	(1975)	(1982)	(1927)
Min	259	276	283	219	287	285	404	1,086	589	298	316	223
(WY)	(1932)	(1932)	(1932)	(1932)	(1932)	(1988)	(1967)	(1934)	(1934)	(1931)	(1977)	(1993)

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SUMMARY STATISTICS

	Water Years 1905 - 1993	
Annual mean	[a]781	
Highest annual mean	1,144	1984
Lowest annual mean	475	1931
Highest daily mean	6,440	Jun 27, 1927
Lowest daily mean	72	Jan 17, 1930
Annual seven-day minimum	182	Jan 7, 1930
Annual runoff (ac-ft)	565,500	
10 percent exceeds	1,880	
50 percent exceeds	490	
90 percent exceeds	363	

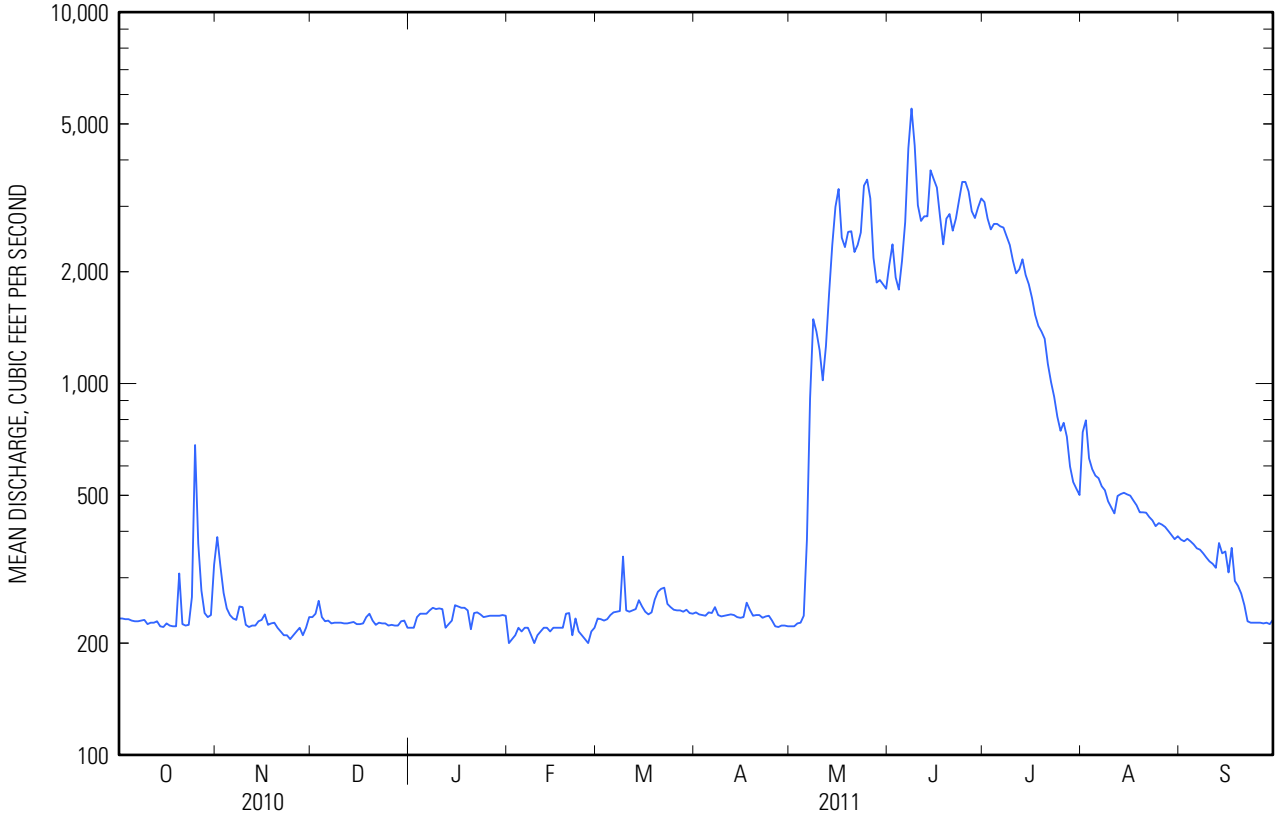
[a] Statistics 1905-1993 are prior to diversions to Marysville Hydropower plant.

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	244	245	233	237	243	235	399	1,665	1,653	539	268	245
Max	289	284	260	269	276	261	617	3,043	3,186	1,669	539	372
(WY)	(2007)	(2000)	(2003)	(1996)	(2004)	(2002)	(1997)	(1997)	(1997)	(2011)	(1997)	(1997)
Min	223	225	217	212	216	206	227	812	280	231	210	219
(WY)	(1999)	(2010)	(2004)	(2010)	(2011)	(1996)	(2008)	(2010)	(2001)	(2001)	(2001)	(2001)

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1994 - 2011	
Annual total	166,146		[b]273,228			
Annual mean	455		749		518	
Highest annual mean					861	1997
Lowest annual mean					324	2001
Highest daily mean	5,160	Jun 8	5,500	Jun 8	5,500	Jun 8, 2011
Lowest daily mean	198	Aug 11	200	Feb 1	151	Dec 30, 1996
Annual seven-day minimum	202	Jan 20	211	Nov 22	173	Jun 19, 1994
Annual runoff (ac-ft)	329,600		541,900		375,200	
10 percent exceeds	1,130		2,570		1,450	
50 percent exceeds	233		243		239	
90 percent exceeds	218		220		220	

[b] Regulated by diversions to Marysville Hydropower plant.

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