Water-Data Report 2011

10155000 PROVO RIVER NEAR HAILSTONE, UT

Jordan Basin
Provo Subbasin

LOCATION.--Lat 40°36′03″, long 111°19′51″ referenced to North American Datum of 1927, in SW ¼ NE ¼ SW ¼ sec.36, T.2 S., R.5 E., Wasatch County, UT, Hydrologic Unit 16020203, on left bank 0.25 mi downstream of bridge on State Highway 32, 4.5 mi upstream from Ross Creek and Hailstone.

DRAINAGE AREA.--230 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WDR UT-89-1, UT-93-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,220 ft above NGVD of 1929, from topographic map. Prior to November 20, 1964 at datum 1.00 ft higher. Gage relocated 1.5 mi upstream on April 8, 1993, to a site above the high water line of Jordanelle Reservoir, at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Records include flow of Weber-Provo diversion canal and Duchesne Tunnel, a transbasin diversion. Flow also affected by irrigation diversions above station and by storage in several small reservoirs at headwaters. Information on flow of Duchesne Tunnel, and capacities of small reservoirs is available from Provo River Water Commissioner's Report, (total capacity, 10,080 acre-ft).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,100 ft^3/s, Jun 7, 1986, from rating curve extended above 2,500 ft^3/s; gage height, 9.91 ft, from floodmarks at site and datum then in use; maximum gage height, 10.15 ft, Jun 6, 2010; minimum discharge, 11 ft^3/s, Aug 20, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,560 ft^3/s, Jun 25, gage height, 10.11 ft; minimum daily discharge, 64 ft^3/s, Oct 3.

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 10155000, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/10155000.2011.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	66	100	e98	e93	e94	84	183	288	1,010	2,570	244	85
2	68	95	e97	e96	e90	85	212	278	1,110	2,250	228	81
3	64	96	e96	e94	e87	88	280	297	1,220	2,160	213	80
4	66	98	e95	e92	e85	87	213	311	1,290	2,070	202	85
5	70	99	100	e90	e87	86	214	349	1,400	1,810	184	98
6	79	101	100	e88	e92	88	248	443	1,700	1,970	163	102
7	86	103	100	e89	e94	90	228	561	1,780	1,750	154	102
8	92	106	97	e85	e86	90	227	721	1,820	1,600	146	102
9	83	104	99	e87	e89	90	217	769	2,270	1,270	142	105
10	79	93	103	e86	e88	93	204	657	2,190	1,160	137	107
11	77	100	103	e83	e86	108	197	613	2,170	1,280	126	106
12	77	100	104	e85	e87	121	206	640	2,220	1,060	119	112
13	75	107	102	e86	e89	126	216	781	2,140	959	114	109
14	74	111	101	e87	e88	126	225	950	2,130	880	112	107
15	72	116	e95	e89	e87	133	213	1,110	2,440	765	131	108
16	72	119	e87	e90	e87	146	227	1,290	2,840	672	124	112
17	72	112	e92	e95	e88	153	251	1,170	2,800	611	116	148
18	71	107	e110	e96	e88	134	349	1,050	2,580	586	107	136
19	70	107	e103	e93	e86	135	402	1,000	2,530	580	103	122
20	71	109	e117	e96	e84	125	331	1,010	2,430	571	98	115
21	71	109	e110	e94	e85	124	344	916	2,250	539	93	110
22	71	105	e115	e94	e85	123	316	898	2,290	573	87	140
23	74	104	114	e92	e86	120	306	1,010	2,510	450	95	123
24	83	e95	102	e94	e86	133	292	e1,030	3,070	399	92	115
25	146	e85	e100	e92	e87	129	303	1,010	3,130	372	83	113
26	113	e93	e98	e90	e86	121	302	1,100	2,780	375	71	115
27	103	e97	e90	e88	e84	132	279	1,140	2,180	349	75	112
28	95	e101	e90	e92	e85	131	279	1,130	2,130	310	94	112
29	97	e103	e100	e95	---	122	317	1,070	1,990	280	104	124
30	98	e101	e95	e96	---	133	299	1,030	2,630	250	99	152
31	107	---	e90	e97	---	156	---	943	---	231	93	---
Total	2,542	3,076	3,103	2,824	2,446	3,612	7,880	25,565	65,030	30,702	3,949	3,338
Mean	82.0	103	100	91.1	87.4	117	263	825	2,168	990	127	111
Max	146	119	117	97	94	156	402	1,290	3,130	2,570	244	152
Min	64	85	87	83	84	84	183	278	1,010	231	71	80
Ac-ft	5,040	6,100	6,150	5,600	4,850	7,160	15,630	50,710	129,000	60,900	7,830	6,620

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	86.8	95.7	89.8	85.1	89.8	118	312	1,074	969	250	90.7	77.9
Max	191	170	156	135	228	311	824	1,935	2,168	990	263	203
(WY)	(1983)	(1973)	(1956)	(1971)	(1962)	(1986)	(1962)	(1993)	(2011)	(2011)	(1965)	(1983)
Min	41.9	59.0	46.2	51.6	55.5	65.4	113	131	102	25.3	20.9	27.2
(WY)	(2002)	(1977)	(2008)	(2008)	(2002)	(1977)	(1961)	(1977)	(1992)	(1961)	(1992)	(1960)

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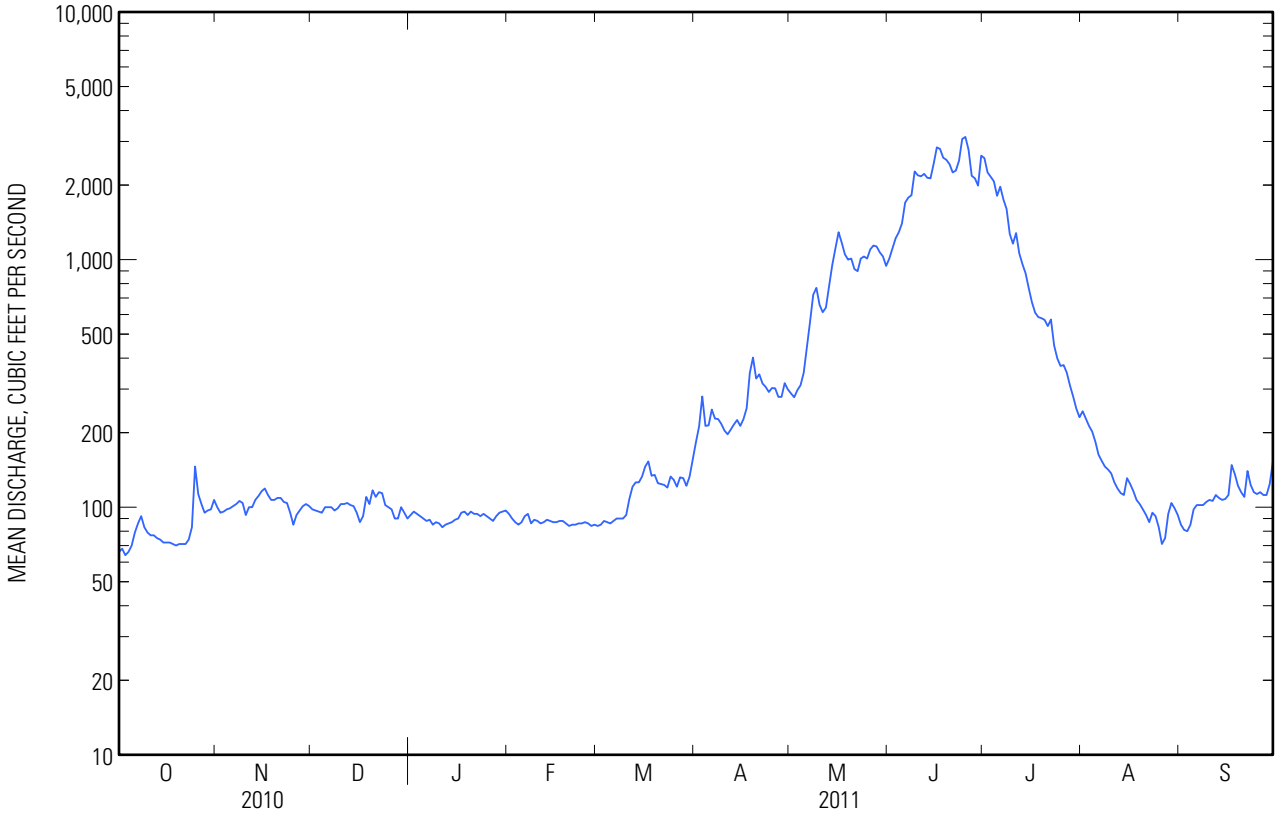
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1950 - 2011	
Annual total	107,226		154,067			
Annual mean	294		422		279	
Highest annual mean					445	1962
Lowest annual mean					80.2	1977
Highest daily mean	4,210	Jun 6	3,130	Jun 25	4,210	Jun 6, 2010
Lowest daily mean	38	Aug 18	64	Oct 3	12	Aug 21, 1960
Annual seven-day minimum	41	Aug 12	71	Oct 16	14	Jul 25, 1961
Annual runoff (ac-ft)	212,700		305,600		201,900	
10 percent exceeds	827		1,280		817	
50 percent exceeds	88		111		101	
90 percent exceeds	58		85		55