Water-Data Report 2013

11294000 Highland Creek below New Spicer Meadow Reservoir, CA

San Joaquin River Basin

LOCATION.--Lat 38°23′35″, long 119°59′53″ referenced to North American Datum of 1927, in NW ¼ NE ¼ sec.9, T.7 N., R.18 E., Tuolumne County, CA, Hydrologic Unit 18040010, in Stanislaus National Forest, on right bank in New Spicer Meadow Powerplant at downstream side of New Spicer Meadow Dam, 5.4 mi upstream from mouth, and 6.5 mi east-southeast of Big Meadows.

DRAINAGE AREA.--45.4 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1952 to current year.

REVISED RECORDS.--WSP 1930: 1953. WDR CA-89-3: Drainage area, 1987 (instantaneous maximum discharge), 1988 (instantaneous maximum discharge), WRD US-2009: 2005.

GAGE.--Acoustic-flow meter at New Spicer Meadow Powerplant (station 11293760) and water-stage recorder on New Spicer Meadow Reservoir (station 11293770). Elevation of gage is 6,340 ft above NGVD of 1929, from topographic map. October 1952 to November 1986, at site 900 ft upstream at different datum. December 1986 to September 1990 at site 1,400 ft downstream at different datum.

COOPERATION.--Records were collected by Northern California Power Agency, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2409.

REMARKS.--Low and medium flows regulated by New Spicer Meadow Reservoir since 1988 and, prior to 1988, by Spicer Meadows Reservoir, capacity, 4,060 acre-ft. Flow has been diverted to New Spicer Meadow Reservoir from North Fork Stanislaus River since Oct. 21, 1987. Penstock diverts from New Spicer Meadow Reservoir to New Spicer Meadow Powerplant. At times flow may bypass New Spicer Meadow Powerplant. Discharges, including extremes, represent flow through powerplant and flow over spillway of reservoir. See schematic diagram of Stanislaus River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,860 ft^3/s, Jan. 31, 1963, gage height, 11.88 ft, site and datum then in use, from rating curve extended above 1,200 ft^3/s; no flow some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1950, reached a stage of 11.50 ft, site and datum then in use, from Pacific Gas and Electric Co. recorder chart, discharge, 8,800 ft^3/s.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	181	103	36	50	23	44	23	24	152	356	161	187
2	180	105	21	50	23	29	23	42	153	401	161	187
3	181	106	28	50	23	23	22	25	153	356	163	187
4	182	109	51	50	23	23	23	24	152	261	166	187
5	234	114	50	50	23	23	23	24	152	194	165	175
6	240	123	50	50	23	23	23	24	152	174	165	165
7	240	116	50	50	23	23	23	25	152	170	166	165
8	205	116	50	50	23	23	23	25	152	171	168	168
9	180	116	50	50	27	23	23	25	152	173	168	169
10	179	116	50	50	34	23	22	22	152	174	167	168
11	180	115	50	50	33	23	22	23	152	167	168	169
12	180	133	45	50	33	23	22	29	152	160	167	168
13	182	179	51	50	33	23	22	30	152	161	168	168
14	208	169	100	50	33	23	22	30	152	163	168	169
15	201	151	90	50	33	23	22	31	151	167	167	168
16	175	169	115	50	33	23	23	31	152	170	167	163
17	170	217	70	50	23	41	23	49	152	171	167	160
18	174	107	22	50	23	42	23	67	151	171	167	157
19	174	109	38	50	23	23	23	67	151	171	167	161
20	174	112	57	50	24	23	23	79	158	171	167	162
21	173	112	57	50	29	23	23	90	160	170	168	162
22	164	112	48	50	43	22	23	101	160	170	169	162
23	152	113	36	50	50	22	23	102	160	194	168	161
24	153	113	36	50	50	23	23	101	161	221	169	160
25	153	113	36	31	50	23	23	101	160	259	168	160
26	151	112	36	23	50	23	24	102	160	226	167	161
27	153	112	36	23	50	23	24	101	162	205	166	160
28	155	111	36	23	50	23	24	109	172	173	166	160
29	155	111	36	23	---	23	24	124	250	178	166	160
30	155	73	45	23	---	23	24	137	313	171	169	160
31	146	---	50	23	---	23	---	140	---	166	187	---
Total	5,530	3,667	1,526	1,369	908	775	688	1,904	4,903	6,235	5,186	5,009
Mean	178	122	49.2	44.2	32.4	25.0	22.9	61.4	163	201	167	167
Max	240	217	115	50	50	44	24	140	313	401	187	187
Min	146	73	21	23	23	22	22	22	151	160	161	157
Ac-ft	10,970	7,270	3,030	2,720	1,800	1,540	1,360	3,780	9,730	12,370	10,290	9,940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	96.9	80.1	93.6	83.9	97.6	125	191	317	298	165	126	115
Max	358	302	399	334	902	605	456	1,047	1,324	787	592	441
(WY)	(1997)	(2012)	(1965)	(1997)	(1997)	(1999)	(1995)	(1969)	(2005)	(1995)	(1998)	(2011)
Min	0.00	0.00	0.50	0.50	2.69	0.83	17.9	21.9	37.7	5.23	1.63	1.34
(WY)	(1965)	(1965)	(1961)	(1961)	(1960)	(1977)	(1992)	(1991)	(1987)	(1961)	(1961)	(1977)

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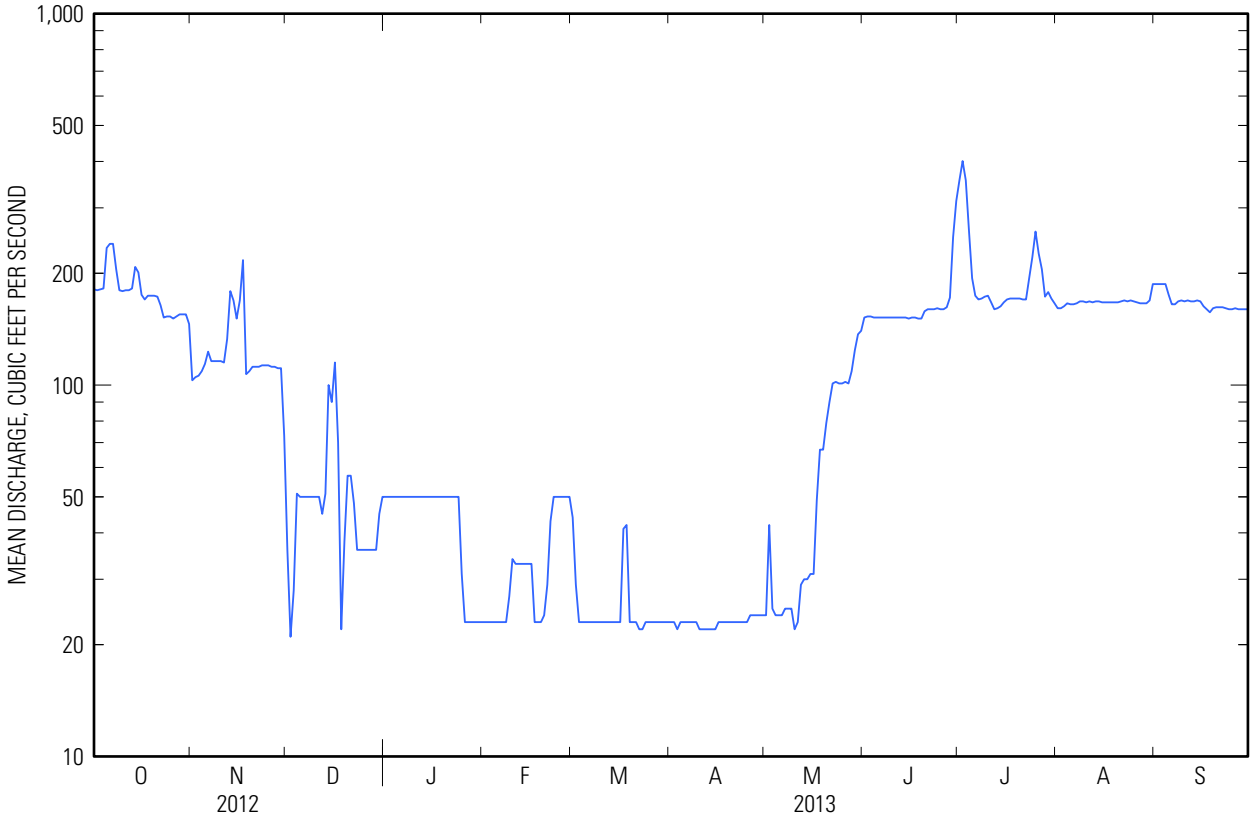
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1953 - 2013	
Annual total	42,374		37,700			
Annual mean	116		103		149	
Highest annual mean					344	2006
Lowest annual mean					25.3	1977
Highest daily mean	411	Aug 12	401	Jul 2	5,040	Dec 23, 1955
Lowest daily mean	20	Mar 17	21	Dec 2	0.00	Sep 28, 1964
Annual seven-day minimum	21	Mar 14	22	Apr 9	0.00	Sep 28, 1964
Maximum peak flow			408	Jul 2	9,860	Jan 31, 1963
Maximum peak stage					11.88	Jan 31, 1963
Annual runoff (ac-ft)	84,050		74,780		108,100	
10 percent exceeds	204		175		397	
50 percent exceeds	113		109		70	
90 percent exceeds	22		23		3.5