Water-Data Report 2013

11269500 Lake McClure at Exchequer, CA

San Joaquin River Basin

LOCATION.--Lat 37°35′02″, long 120°16′09″ referenced to North American Datum of 1927, in NW ¼ SE ¼ sec.13, T.4 S., R.15 E., Mariposa County, CA, Hydrologic Unit 18040008, on left end of New Exchequer Dam on Merced River, 0.9 mi east of Exchequer, and 5.5 mi northeast of Merced Falls.

DRAINAGE AREA.--1,037 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1926 to September 1930 (daily gage heights; also summary of yearly contents in WSP 881), October 1930 to current year.

REVISED RECORDS.--WSP 881: 1926-32 (yearly summaries only). WSP 1345: 1951 (instantaneous maximum discharge). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Merced Irrigation District). Prior to Oct. 1, 1964, indicator in powerplant at same datum. Oct. 1, 1964, to July 31, 1966, nonrecording gage at center of upstream face of dam at same datum.

COOPERATION.--Records, including diversion through Exchequer Powerplant (station 11269700), were provided by Merced Irrigation District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2179.

REMARKS.--Reservoir is formed by a rock-fill dam with a reinforced concrete face completed in March 1967. Dam is downstream from and connected to the original concrete arch and gravity-type dam which was completed in April 1926. Usable capacity, 1,024,000 acre-ft, between elevations 440.0 ft, invert entrance to outlet tunnel, and 867.0 ft, top of spillway gates. Dead storage, 300 acre-ft. Water is released through Exchequer Powerplant down the Merced River to a diversion dam for Merced Irrigation District's main canal. Records, excluding extremes, represent total contents at 2400 hours.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,026,000 acre-ft, July 14, 15, 1969, elevation, 867.2 ft; practically no storage at times in 1926, 1930-31, 1964-65 when reservoir was drained for inspection or construction. Minimum since construction of New Exchequer Dam in 1966 and since lake first filled, 66,100 acre-ft, Feb. 28, 1991, elevation, 588.4 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 576,000 acre-ft, May 18, elevation, 789.24 ft; minimum, 302,000 acre-ft, Sept. 30, elevation, 714.49 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by Merced Irrigation District, dated October 1999)

Elevation	Contents	Elevation	Contents	Elevation	Contents
570	47,300	660	173,500	820	729,600
590	67,900	680	215,200	840	845,800
600	79,900	700	263,000	860	975,700
610	92,800	720	317,800	870	1,046,000
620	106,700	750	415,900		
640	137,800	780	534,500		

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 11269500, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/11269500.2013.pdf

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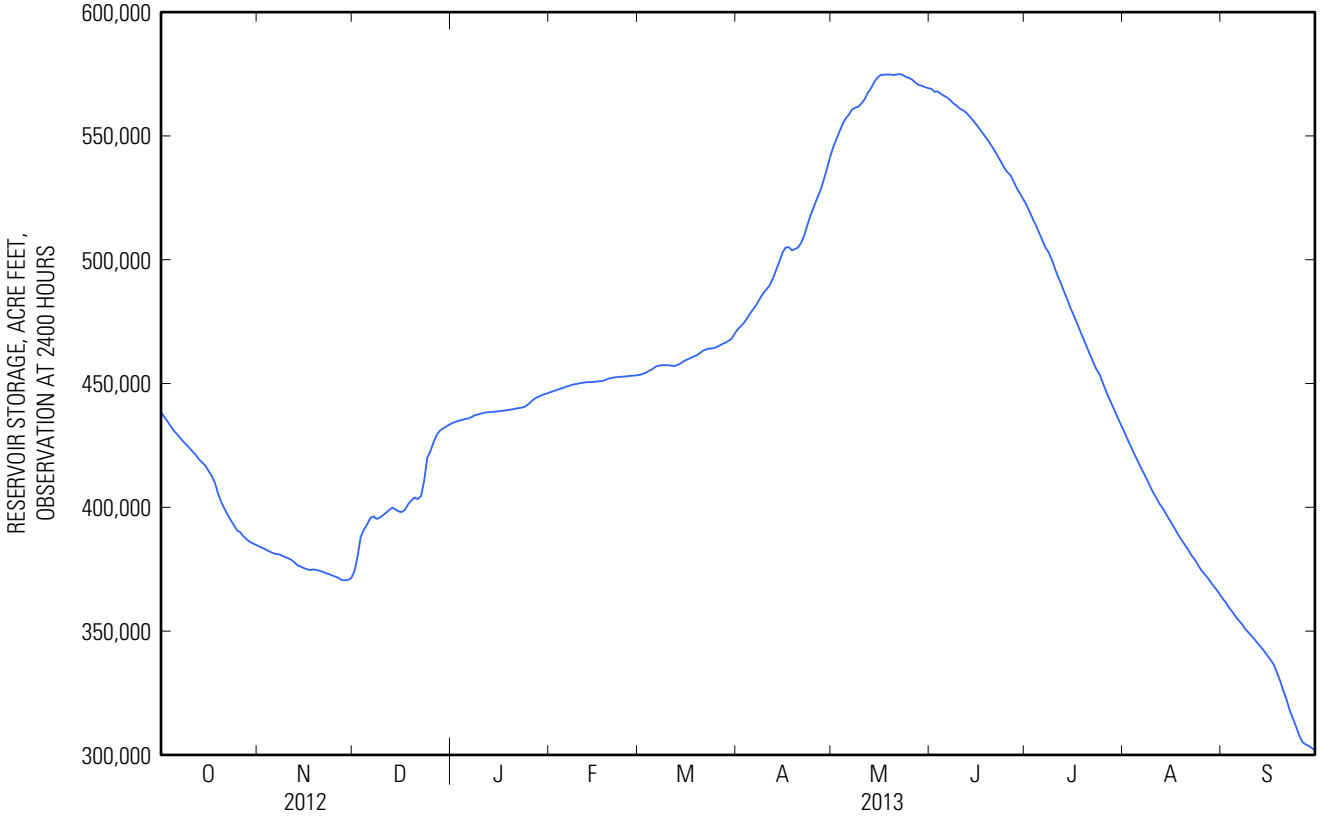
RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY OBSERVATION AT 2400 HOURS

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	438,400	384,200	374,100	434,100	446,600	453,500	472,000	e545,300	569,000	522,100	430,100	363,000
2	436,600	383,600	380,100	434,600	447,000	453,900	e473,300	e548,500	567,800	519,400	427,200	361,300
3	434,800	383,000	388,100	435,000	447,500	454,400	e474,700	e551,700	568,000	516,500	424,400	359,400
4	432,900	382,300	391,000	435,300	447,900	455,200	e476,600	e554,700	567,000	513,900	421,600	357,700
5	431,000	381,700	393,000	435,700	448,300	455,800	e478,600	e557,100	566,200	510,900	419,000	355,800
6	429,600	381,200	395,600	435,900	448,800	456,800	e480,400	e558,600	565,500	507,900	416,300	354,300
7	428,100	381,100	396,400	436,500	449,200	457,200	e482,200	e560,700	564,400	504,900	413,800	352,800
8	426,600	380,600	395,300	437,200	449,600	e457,400	e484,500	e561,400	563,100	503,000	411,300	350,900
9	425,300	380,000	395,800	437,500	449,800	e457,400	e486,500	e561,800	562,200	500,000	408,500	349,500
10	423,900	379,500	396,800	437,900	450,100	e457,400	e488,000	e563,200	561,000	496,400	405,900	348,100
11	422,500	378,900	397,800	e438,200	450,300	457,200	e489,700	e564,900	560,400	493,000	403,800	346,600
12	421,100	e377,900	398,900	438,400	450,500	457,100	e492,400	e567,500	559,400	490,100	401,400	345,000
13	419,400	e376,600	399,900	438,500	450,600	457,500	e495,700	e569,300	558,000	486,700	399,600	343,500
14	418,100	376,100	399,100	438,600	450,600	458,200	e499,100	e571,800	556,500	483,600	397,400	341,900
15	416,800	375,500	398,300	438,700	450,700	459,100	e502,700	e573,500	554,900	480,200	395,200	340,200
16	414,700	375,000	398,100	438,900	450,900	459,700	e504,900	e574,600	553,200	477,300	393,100	338,400
17	412,700	374,700	399,100	439,000	451,000	460,300	e505,100	574,700	551,500	474,300	390,900	336,500
18	e409,900	374,900	401,300	439,200	451,300	460,900	e503,800	574,800	549,700	471,000	388,700	333,400
19	405,600	374,700	402,800	439,400	451,900	461,400	e504,300	574,800	547,900	468,000	386,700	330,000
20	402,100	374,400	404,000	439,600	452,200	462,300	e505,000	574,600	546,000	464,900	384,800	326,000
21	399,500	374,000	403,300	439,900	452,500	463,300	e507,000	574,800	544,000	461,800	382,900	322,600
22	397,100	373,400	404,500	440,100	452,600	463,800	e510,200	575,000	541,700	458,800	380,700	318,200
23	394,800	373,000	410,600	440,300	452,700	464,100	e514,400	574,600	539,500	455,900	379,100	314,900
24	392,800	372,500	420,100	440,800	452,800	464,200	e518,300	573,800	537,100	453,900	377,000	311,600
25	390,700	372,000	422,700	441,800	452,900	464,600	e521,600	573,400	535,300	450,600	374,900	308,100
26	389,900	371,500	426,400	443,000	453,100	465,200	e524,900	572,700	534,100	447,300	373,300	305,300
27	388,300	370,600	429,300	444,000	453,200	465,900	e527,900	571,500	531,500	444,200	371,800	304,300
28	387,100	370,500	431,000	444,600	453,300	466,500	e532,000	570,600	528,800	441,400	370,000	303,700
29	386,100	370,700	431,900	445,200	---	467,200	e536,400	570,300	526,600	438,500	368,300	302,800
30	385,400	371,400	432,700	445,700	---	468,100	e541,200	e569,700	524,500	435,600	366,700	301,900
31	384,800	---	433,400	446,100	---	470,200	---	569,300	---	432,800	364,800	---
Max	438,400	384,200	433,400	446,100	453,300	470,200	541,200	575,000	569,000	522,100	430,100	363,000
Min	384,800	370,500	374,100	434,100	446,600	453,500	472,000	545,300	524,500	432,800	364,800	301,900
Elevation, in feet, at end of month												
	741.14	737.13	754.80	758.20	760.09	764.42	---	787.86	777.67	754.64	735.12	714.49
Change in contents, in acre-feet												
	-55,200	-13,400	+62,000	+12,700	+7,200	+16,900	+71,000	+28,100	-44,800	-91,700	-68,000	-62,900
Diversion, in acre-feet, through Exchequer Powerplant												
	56,580	20,830	19,900	5,080	833	922	27,890	74,760	77,680	94,020	72,160	63,550

	Calendar Year 2012	Water Year 2013
Change in contents, in acre-feet	-226,100	-138,100

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