

11299000 New Melones Reservoir near Sonora, CA

San Joaquin River Basin

LOCATION.--Lat 37°57'04", long 120°31'21" referenced to North American Datum of 1927, in NW ¼ SE ¼ sec.11, T.1 N., R.13 E., Tuolumne County, CA, Hydrologic Unit 18040010, at right abutment of New Melones Dam on Stanislaus River, 0.1 mi downstream from the old Melones Dam, and 7.6 mi southwest of Sonora.

DRAINAGE AREA.--904 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--1926 (year-end contents only, published in WSP 1315-A), June 1927 to current year. Prior to October 1970, published as "Melones Reservoir at Melones Dam." October 1970 to September 1978, published as "Melones Lake near Sonora."

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to Feb. 28, 1961, nonrecording gage, and Mar. 1, 1961, to Nov. 26, 1978, water-stage recorder at site on left side of old Melones Dam, at same datum.

COOPERATION.--Records, including discharge through New Melones Powerplant, were provided by U.S. Bureau of Reclamation.

REMARKS.--Reservoir is formed by earth and rock-fill dam completed in November 1978. Dam is downstream from the original concrete dam which was completed in December 1926. Usable capacity, 2,420,000 acre-ft, between elevations 543.0 ft, invert entrance to outlet tunnel, and 1,088.0 ft, gross pool elevation. No dead storage. When elevation is above 808.0 ft, water is released through New Melones Powerplant (station 11299200) to Tulloch Reservoir (station 11299995) where it is used for irrigation. Records for the 1971 water year represent contents at 1630 hours. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Stanislaus River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--(Subsequent to completion of New Melones Dam in 1978) Maximum contents, 2,400,000 acre-ft, July 8-10, 1983, elevation, 1,086.42 ft; minimum since reservoir first filled in July 1983, 83,630 acre-ft, Oct. 1, 1992, elevation, 721.15 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,539,000 acre-ft, Mar. 9, 10, elevation, 1,007.24 ft; minimum, 1,099,000 acre-ft, Sept. 30, elevation, 955.79 ft.

**Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on table provided by U.S. Army Corps of Engineers, dated September 1978)**

Elevation	Contents	Elevation	Contents	Elevation	Contents	Elevation	Contents
700	53,900	760	160,500	880	611,500	1,000	1,471,000
710	66,950	780	212,300	900	723,000	1,020	1,662,000
720	81,800	800	272,800	920	846,500	1,040	1,867,000
730	98,530	820	342,400	940	982,600	1,060	2,087,000
740	117,200	840	421,800	960	1,132,000	1,088	2,420,000
750	137,800	860	511,200	980	1,295,000		

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RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY OBSERVATION AT 2400 HOURS

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1	1,435,000	1,428,000	1,437,000	1,451,000	1,490,000	1,532,000	1,485,000	1,409,000	1,349,000	1,282,000	1,201,000	1,130,000	
2	1,436,000	1,429,000	1,438,000	1,450,000	1,492,000	1,534,000	1,482,000	1,409,000	1,347,000	1,280,000	1,199,000	1,128,000	
3	1,437,000	1,429,000	1,437,000	1,451,000	1,497,000	1,535,000	1,481,000	1,408,000	1,345,000	1,277,000	1,196,000	1,127,000	
4	1,436,000	1,428,000	1,439,000	1,453,000	1,499,000	1,533,000	1,479,000	1,407,000	1,344,000	1,274,000	1,193,000	1,125,000	
5	1,435,000	1,428,000	1,438,000	1,456,000	1,501,000	1,535,000	1,478,000	1,405,000	1,342,000	1,272,000	1,190,000	1,124,000	
6	1,435,000	1,428,000	1,439,000	1,459,000	1,502,000	1,536,000	1,476,000	1,403,000	1,339,000	1,269,000	1,187,000	1,123,000	
7	1,436,000	1,429,000	1,439,000	1,460,000	1,503,000	1,537,000	1,475,000	1,402,000	1,337,000	1,267,000	1,186,000	1,121,000	
8	1,435,000	1,429,000	1,440,000	1,461,000	1,504,000	1,538,000	1,472,000	1,401,000	1,335,000	1,265,000	1,182,000	1,120,000	
9	1,434,000	1,429,000	1,441,000	1,462,000	1,505,000	1,539,000	1,468,000	1,399,000	1,333,000	1,262,000	1,180,000	1,118,000	
10	1,433,000	1,429,000	1,441,000	1,463,000	1,507,000	1,539,000	1,466,000	1,399,000	1,331,000	1,260,000	1,177,000	1,117,000	
11	1,433,000	1,429,000	1,440,000	1,463,000	1,508,000	1,537,000	1,462,000	1,396,000	1,330,000	1,257,000	1,175,000	1,116,000	
12	1,433,000	1,430,000	1,441,000	1,464,000	1,509,000	1,535,000	1,460,000	1,394,000	1,327,000	1,255,000	1,172,000	1,114,000	
13	1,432,000	1,430,000	1,442,000	1,464,000	1,510,000	1,536,000	1,456,000	1,390,000	1,325,000	1,252,000	1,169,000	1,113,000	
14	1,432,000	1,430,000	1,441,000	1,465,000	1,511,000	1,537,000	1,453,000	1,389,000	1,324,000	1,249,000	1,166,000	1,112,000	
15	1,432,000	1,431,000	1,441,000	1,466,000	1,512,000	1,536,000	1,449,000	1,387,000	1,321,000	1,247,000	1,164,000	1,110,000	
16	1,431,000	1,431,000	1,442,000	1,463,000	1,513,000	1,531,000	1,447,000	1,385,000	1,319,000	1,244,000	1,162,000	1,108,000	
17	1,432,000	1,432,000	1,443,000	1,463,000	1,514,000	1,532,000	1,444,000	1,383,000	1,317,000	1,241,000	1,159,000	1,108,000	
18	1,432,000	1,432,000	1,443,000	1,464,000	1,515,000	1,532,000	1,442,000	1,382,000	1,315,000	1,239,000	1,156,000	1,107,000	
19	1,432,000	1,433,000	1,444,000	1,465,000	1,516,000	1,529,000	1,440,000	1,379,000	1,312,000	1,235,000	1,154,000	1,106,000	
20	1,432,000	1,434,000	1,446,000	1,465,000	1,514,000	1,527,000	1,437,000	1,375,000	1,310,000	1,232,000	1,151,000	1,106,000	
21	1,432,000	1,434,000	1,446,000	1,466,000	1,516,000	1,522,000	1,432,000	1,375,000	1,308,000	1,229,000	1,149,000	1,105,000	
22	1,431,000	1,435,000	1,447,000	1,468,000	1,518,000	1,519,000	1,430,000	1,374,000	1,306,000	1,226,000	1,148,000	1,103,000	
23	1,430,000	1,432,000	1,447,000	1,471,000	1,519,000	1,517,000	1,426,000	1,368,000	1,304,000	1,225,000	1,146,000	1,102,000	
24	1,431,000	1,433,000	1,448,000	1,473,000	1,522,000	1,515,000	1,422,000	1,365,000	1,301,000	1,221,000	1,144,000	1,102,000	
25	1,431,000	1,434,000	1,449,000	1,475,000	1,525,000	1,509,000	1,419,000	1,362,000	1,298,000	1,219,000	1,141,000	1,102,000	
26	1,430,000	1,434,000	1,449,000	1,476,000	1,527,000	1,505,000	1,417,000	1,360,000	1,295,000	1,216,000	1,139,000	1,101,000	
27	1,431,000	1,434,000	1,448,000	1,480,000	1,528,000	1,501,000	1,415,000	1,358,000	1,293,000	1,213,000	1,137,000	1,103,000	
28	1,431,000	1,435,000	1,449,000	1,484,000	1,530,000	1,498,000	1,413,000	1,357,000	1,290,000	1,210,000	1,135,000	1,102,000	
29	1,429,000	1,436,000	1,450,000	1,485,000	1,531,000	1,494,000	1,411,000	1,356,000	1,288,000	1,208,000	1,134,000	1,101,000	
30	1,427,000	1,436,000	1,451,000	1,487,000		---	1,491,000	1,410,000	1,353,000	1,285,000	1,206,000	1,133,000	1,099,000
31	1,428,000		---	1,451,000	1,489,000		---	1,488,000		---	1,351,000		---
Max	1,437,000	1,436,000	1,451,000	1,489,000	1,531,000	1,539,000	1,485,000	1,409,000	1,349,000	1,282,000	1,201,000	1,130,000	
Min	1,427,000	1,428,000	1,437,000	1,450,000	1,490,000	1,488,000	1,410,000	1,351,000	1,285,000	1,201,000	1,131,000	1,099,000	
Gage height, in feet, at end of month	995.23	996.18	997.82	1,001.89	1,006.44	1,001.86	993.29	986.59	978.88	968.68	959.96	955.79	
Change in contents, in acre-feet	-9,000	+8,000	+15,000	+38,000	+42,000	-43,000	-78,000	-59,000	-66,000	-84,000	-70,000	-32,000	
Total evaporation, in acre-feet	2,586	1,444	952	1,188	1,262	2,477	3,785	4,776	6,141	6,436	6,171	4,721	
Discharge, in acre-feet, through New Melones Powerplant	37,110	10,570	15,460	9,460	4,820	95,030	147,000	133,000	109,500	123,900	109,400	71,130	

	Calendar Year 2007	Water Year 2008
Change in contents, in acre-feet	-541,000	-338,000

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