

CASITAS MUNICIPAL WATER DISTRICT

HYDROLOGY REPORT WATER YEAR 2016 - 2017

February 23rd, 2018

Prepared by
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Introduction

Casitas Municipal Water District (CMWD), in cooperation with the Ventura County Watershed Protection District (VCWPD) and the U.S. Geological Service (USGS), collects hydrology data on the Ventura River system. The hydrology data constitutes a valuable asset for developing an understanding of the water resources of the Ventura River system. Since 1981, the CMWD has summarized the data into a series of annual reports. This is an annual report that presents information and data for the 2016 – 2017 Water Year (2017 WY). Data is also presented for the 2017 Calendar Year for comparison to historical data.

Casitas acquired a pre-existing water system in June of 2017 consisting of services to approximately 3,000 customers. Water sources for this system include a well-field which draws from the Ojai Valley Groundwater Basin, located within the San Antonio Creek Watershed, a sub-basin to the Ventura River Watershed. This “Ojai System” has been historically supplemented by surface water deliveries from Casitas Reservoir, particularly in times of drought when aquifers are typically depleted and well production is reduced.

An additional rainfall station located on Ojai’s East End and a San Antonio Creek gaging station has been added to this report to reflect hydrologic conditions within the San Antonio Creek Watershed. A table showing Ojai Water System Sources and Deliveries has also been added to this report. Reporting of the hydrologic aspects of this system may be expanded in the future as more data become available.

Water Year 2016 – 2017 Summarized

The water year is a standard used for reporting hydrological cycles. It begins on October 01 of the preceding year and ends September 30 of the named water year. For this report, the 2017 WY began on October 01, 2016, and ended September 30, 2017.

There are four key elements of collected data that go into this report: 1) rainfall, 2) streamflow conditions, 3) lake storage & systems delivery and 4) ambient air temperatures.

Each of these elements are monitored and recorded by CMWD on a daily basis. The following are brief summaries of the hydrologic characteristics of the 2017 WY.

- **Rainfall** – Rainfall and evaporation data are collected on a daily basis at two stations, one at the Casitas Dam and one at the Lake Casitas Recreational Area. The methods for data collection are standardized for consistency. Rainfall data for Matilija Dam and Thacher School are obtained from VCWPD.

The average of the four rainfall stations was 31.26 inches for the 2017 WY. This is above the long-term average of 24.14 inches and is the first above-average water year since the 2011 WY. Casitas Dam received 31.53 inches while Matilija Dam received 35.46 inches.

The bulk of precipitation fell in the months of January and February, when cumulative monthly rainfall at Casitas Dam was 10.88 and 12.91 inches respectively. The highest daily rainfall was recorded on February 18th, with 7.04 inches of rainfall measured at Casitas Dam.

- **Streamflow Conditions**– Streamflow conditions are assessed by collecting data at key points in the Ventura River system. Gage station locations can be found on the Hydrology Map for the Ventura River System. The above average rainfall along with several storm events contributed to significant run-off within the watershed.

Preliminary data provided by VCWPD indicate discharge from North Fork Matilija Creek totaled 5,036 acre-feet (AF) between October 01, 2016 and August 04, 2017. Discharge from Matilija Dam measured at the Matilija Hot Springs gage totaled 19,746 AF with a peak flow of approximately 5,600 cfs on February 17th, 2017.

Surface flow at the measurement weir of the Robles Fish Passage and Diversion Facility (Robles) was present beginning January 08 and lasted until June 20 of 2017. During that period, 19,003 AF were released downstream with an additional 700 AF of un-gaged flow estimated to have overtopped the Robles Dam and bypass the facility during the February 17th storm event. There were four storm peaks that met the Biological Opinion's parameters to initiate supplemental downstream releases for fish passage: 1) January 20, 2017 – 437 cfs peak Robles inflow, 2) January 22, 2017 – 2,573 cfs, 3) February 06, 2017 – 243 cfs; and 4) February 17, 2017 – 10,000 cfs. Downstream release requirements were met when Robles inflow was sufficient to do so. All flow was released downstream when inflow was less than the required supplemental release.

Diversions to the Casitas Reservoir first began on January 22, 2017. Prior to January 22, all inflow was released downstream to allow for aquifer levels to rise to the extent that would be expected under natural conditions for the time of year and type of year (Trial Operating Criteria for Robles Casitas Diversion Facilities, 1959). The diversion canal was operated for 52 days and 6,091 AF was diverted during the 2017 WY.

Coyote Creek and Santa Ana Creek drainages contribute directly to Lake Casitas storage. A total of 5,381 AF were measured at the Santa Ana Creek gage while 11,404 AF were measured at the Coyote Creek gage for the 2017 WY.

- **Lake Storage & Systems Deliveries** – Water storage volumes for system reservoirs, Casitas Dam and Matilija Dam, were ascertained by the daily recording of the reservoir elevation and applying the elevation number to a storage table for each reservoir.

Lake Casitas Reservoir had a net increase in water storage for the 2017 WY. Lake elevation was 489.00 feet MSL on October 01, 2016 and ended on September 30, 2017 at 493.43 feet MSL, corresponding to 99,853 AF of storage in Lake Casitas at the end of the WY. The reservoir's 4.4-foot increase in elevation resulted in a net gain of 6,389 AF. Storage increased by 22,200 AF during the three-month period of January through March; net monthly storage losses occurred outside of that period.

The CMWD Board of Directors approved the adoption of a new Casitas Reservoir storage rating table prepared by Tetra Tech after completion of a LIDAR and bathymetric study resulting in a re-calculated reservoir capacity of 237,760 acre-feet (down from 254,000 acre-feet). This table was implemented on October 01, 2017 (start of 2018 WY) and Casitas Reservoir storage reported from that date forward will reflect this adjustment.

Water deliveries from the reservoir to the main conveyance system totaled 12,174 AF for the WY. This is down 21% from 2016 and 30% from the average deliveries during the previous 10 years. Mira Monte well production was 157 AF during the 2017 WY. Deliveries within the Ojai Water System totaled 1,563 AF; 1,281 AF of which was sourced from the Ojai System Well-Field with the additional 282 AF coming from water deliveries through the main conveyance system.

Casitas Municipal Water District did not conduct any controlled releases from Matilija Dam nor operate any valves at the dam during the water year. All flow was allowed to spill over the dam for the entire water year. The valves were exercised on November 21, 2017 per the request of the Department of Dam Safety. After several years of non-operation through the direction of the National Marine Fisheries Services due to concerns of downstream biological-impacts, the dam piping is presumably clogged with sediment, and no water was discharged during the exercise.

- **Ambient Air Temperatures** – Data was recorded by CMWD staff at two locations, Casitas Dam and the Lake Casitas Recreation Area. These measurements are made on a daily basis and include the maximum and minimum ambient air temperatures and wind speed. Several temperature records dating back to 1960 were tied or broken during the 2017 calendar year: highest monthly maximum (November for Casitas Dam; July, August, September, October, November, and December for Recreation), and highest monthly average (December for Casitas Dam; July, August, and November for Recreation). The all-time high temperature for Recreation (112° F) was tied on five separate occasions.

Hydrology Stations

The following hydrology stations are operated and maintained by the Casitas Municipal Water District:

Reservoir water surface elevations:

- Casitas Dam

Rainfall and Evaporation Monitoring Stations

- Lake Casitas (Upper) Recreation Area
- Casitas Dam

Streamflow Gaging Stations:

- Matilija Creek at Matilija Hot Springs
- Ventura River near Meiners Oaks
- Robles-Casitas Canal
- Santa Ana Creek near Oak View
- Coyote Creek near Oak View

The following hydrology stations are operated and maintained by other agencies:

Reservoir water surface elevations:

- Matilija Dam – Operated by Ventura County Watershed Protection District.

Rainfall Monitoring Stations

- Matilija Dam – Operated by Ventura County Watershed Protection District.
- Ojai – Thacher School – Operated by Ventura County Watershed Protection District.

Streamflow Gauging Stations:

- Ventura River near Ventura (Foster Park) – USGS service contract
- North Fork Matilija at Matilija Hot Springs– Operated by Ventura County Watershed Protection District.
- San Antonio Creek at Old Creek Rd – Operated by Ventura County Watershed Protection District

Historical Hydrology Period – 1959 through 2017

The historical data has been updated for the reporting period and is presented for the period from 1959 through 2017. The historical data includes summaries for the Casitas Reservoir operation, Robles Diversion, rainfall, and ambient air temperature.

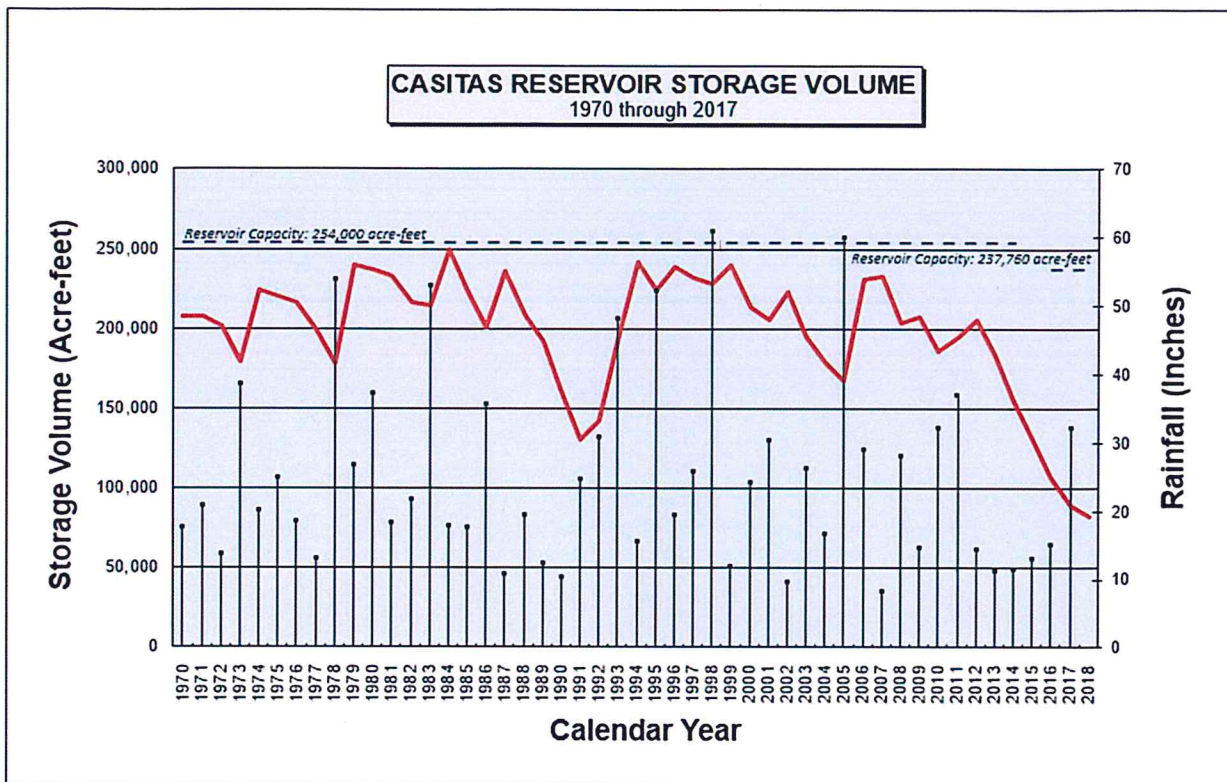


Figure 1. Storage volume, represented by a solid line, is reservoir storage at the start of each calendar year (elevation measured on last day of previous calendar year). Rainfall, represented by data points with drop lines, is the three-station water year average for Casitas Dam, Casitas Recreation and Matilija Dam rain gages. Reservoir volume prior to 1970 (not shown) represents initial filling period after Casitas Dam completion in 1959.

Trends

The historical section of this summary report contains data tables and figures that illustrate trends experienced by CMWD pertaining to rainfall and water use.

Ten-Year Moving Average of Mean Precipitation. The trend presented here is a ten-year moving average of precipitation from 1880 to present (Figure 2). It is created by calculating an average of a water year's three-station average rainfall combined with the previous nine years. The trend has resulted in what appears to be a somewhat sinusoidal curve, illustrating reoccurring periods of wet and dry conditions. From the curve, we may gain an insight on whether we are heading into a wet period or a drought.

The trend indicates that CMWD may be in or at the end of an overall dry period as illustrated by the downward direction of the trendline. Previous downward trends have lasted between 4 and 19 years. It is unknown if the above-average rainfall in WY 2017 marks the end of a 15 year dry period or if it is only a short respite during the ongoing drought. This trend does not guarantee or predict future occurrences.

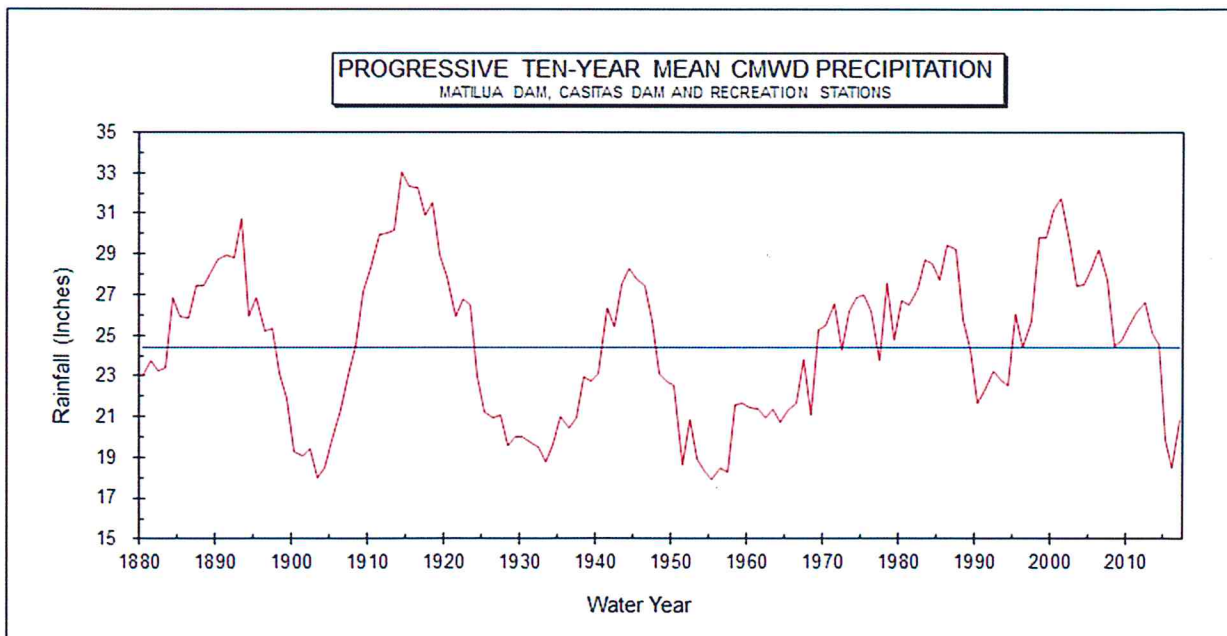
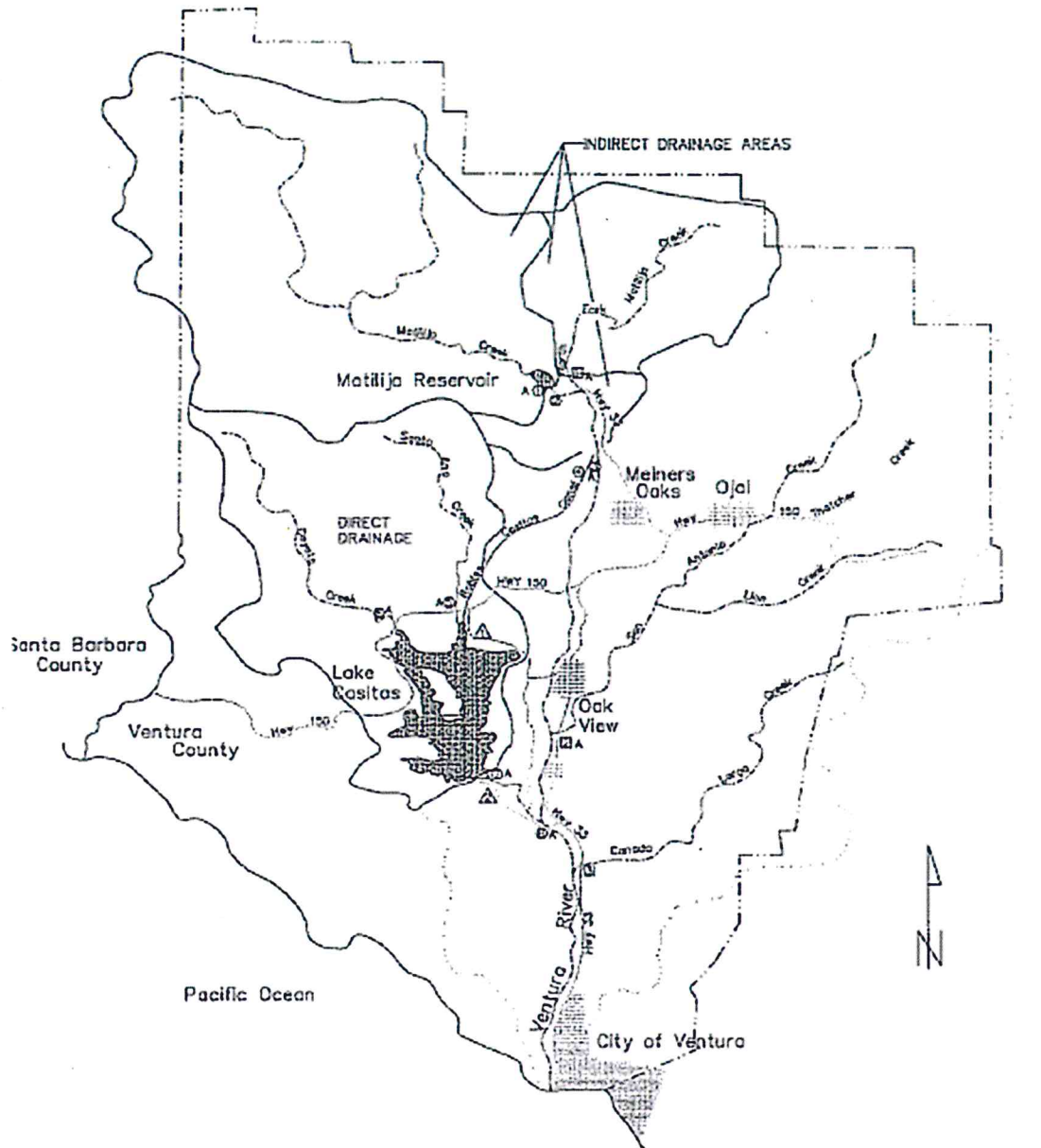


Figure 2. The ten-year moving average is represented by the solid line traversing across the overall average for the period (24.4 inches). Rainfall data for all three stations are available since 1959, rainfall prior to 1959 was assembled using comparable nearby stations and/or correlation factors with other available stations within the watershed.

HYDROLOGY MAP – VENTURA RIVER SYSTEM



DRAINAGE AREAS

DRAINAGE AREAS	SQ. MILES
DIRECT DRAINAGE	
Coyote Creek	13.30
Santa Ana Creek	9.90
Other	11.09
Subtotal	34.29
INDIRECT DRAINAGE	
Matilija Creek	54.18
N. Fork Matilija Creek	16.67
Above Robles Dam	3.40
Subtotal	74.25
TOTAL	108.54

LEGEND

- DRAINAGE AREA BOUNDARY
- - - - - CDMW BOUNDARY
- A "ALERT" TELEMETRY STATION
- OCMWD STREAM GAGING STATIONS
 - Matilija Reservoir
 - Matilija Creek near Matilija Hot Springs
 - Ventura River near Melners Oaks
 - Robles-Casitas Conal
 - Santa Ana Creek near Oak View
 - Coyote Creek near Oak View
 - Casitas Dam
 - Ventura River near Ventura – USGS Contract
- IVENTURA COUNTY STREAMGAGING STATIONS
 - North Fork Matilija Creek at Matilija Hot Springs
 - San Antonio Creek at Casitas Hot Springs
 - Canada Larga Creek near Ventura
- △ CDMW WEATHER STATIONS
 - △ Casitas Recreation
 - △ Casitas Dam

Figure 3. Hydrology map of Ventura River Watershed indicating drainages boundaries, stream gaging stations, and weather stations.

ANNUAL HYDROLOGY DATA

Casitas Reservoir Water Inventory Summary

Mira Monte Well Water Production

Ojai System Sources and Deliveries

Reservoir Water Surface Elevations:

- Matilija Dam
- Casitas Dam (listed in Monthly Casitas Reservoir Inventory)

Rainfall Stations:

- Matilija Dam
- Lake Casitas (upper) Recreation Area
- Casitas Dam
- Ojai – Thacher School

Streamflow Gaging Stations:

- Matilija Creek at Matilija Hot Springs
- North Fork Matilija Creek at Matilija Hot Springs
- Ventura River near Meiners Oaks (Robles measurement weir)
- Robles – Casitas Canal
- Ventura River near Ventura (Foster Park)
- Santa Ana Creek near Oak View
- Coyote Creek near Oak View
- San Antonio Creek at Old Creek Rd

Casitas Reservoir Water Inventory Summary

CASITAS RESERVOIR WATER INVENTORY SUMMARY
2016 - 2017 WATER YEAR

figures in acre-feet except where otherwise noted

MONTH	RESERVOIR (last of previous month)		RESERVOIR INFLOW				RESERVOIR RELEASES				CHANGE IN STORAGE
	ELEV (ft)	STORAGE	DIRECT	DIVERSIONS	TOTAL	PRECIP	EVAP	TO MAIN SYSTEM	SPILL		
OCT 2016	489.00	93464	-159	0	-159	82	322	1526	0	-1924	
NOV 2016	487.62	91540	-166	0	-166	90	205	1080	0	-1362	
DEC 2016	486.63	90178	-389	0	-389	450	146	749	0	-834	
JAN 2017	486.02	89344	2768	578	3346	1219	79	436	0	4050	
FEB 2017	488.95	93394	10786	4482	15268	1519	87	257	0	16443	
MAR 2017	499.95	109837	1152	1031	2183	172	277	371	0	1707	
APR 2017	501.02	111544	61	0	61	67	491	1026	0	-1388	
MAY 2017	500.15	110156	105	0	105	20	649	1202	0	-1725	
JUN 2017	499.06	108431	74	0	74	0	746	1339	0	-2011	
JUL 2017	497.77	106420	-61	0	-61	0	842	1463	0	-2366	
AUG 2017	496.23	104054	-65	0	-65	1	702	1412	0	-2178	
SEP 2017	494.79	101876	-166	0	-166	16	560	1313	0	-2023	
OCT 2017	493.43	99853	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
TOTAL			13941	6091	20032	3637	5106	12174	0	6389	

reservoir capacity = 254,000 a.f. @ 567 ft.

CASITAS RESERVOIR OPERATION
OCTOBER 2016

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@.0800 hrs.)		INFLOW		EVAPORATION		PRECIPITATION			RELEASES						
	Elevation (ft MSL)	Sep 30 th Storage	Surface Area (acres)	Direct	Ventura River Divers'n	Total	Pan @Dam (in)	Pan @Rec (in)	Lake Total	Dam (in)	at Rec (in)	Lake Total	Main System	To River	Spill	STORAGE CHANGE
1	488.94	93380	1404	-19	0	-19	0.21	0.11	14	0	0	0	51	0	0	-84
2	488.89	93310	1403	-7	0	-7	0.28	0.11	17	0	0	0	46	0	0	-70
3	488.84	93240	1403	3	0	3	0.15	0.09	11	0	0	0	63	0	0	-70
4	488.76	93128	1401	-34	0	-34	0.16	0.08	11	0	0	0	67	0	0	-112
5	488.71	93058	1401	3	0	3	0.17	0.09	11	0	0	0	61	0	0	-70
6	488.64	92960	1400	-26	0	-26	0.23	0.09	14	0	0	0	58	0	0	-98
7	488.59	92889	1398	2	0	2	0.19	0.10	13	0	0	0	60	0	0	-71
8	488.53	92806	1398	-27	0	-27	0.24	0.08	14	0	0	0	42	0	0	-83
9	488.49	92751	1396	6	0	6	0.34	0.11	20	0	0	0	41	0	0	-55
10	488.42	92653	1396	-29	0	-29	0.13	0.09	10	0	0	0	59	0	0	-98
11	488.35	92555	1395	-15	0	-15	0.27	0.08	15	0	0	0	68	0	0	-98
12	488.29	92471	1393	-17	0	-17	0.19	0.08	12	0	0	0	55	0	0	-84
13	488.24	92401	1393	5	0	5	0.24	0.12	16	0	0	0	60	0	0	-70
14	488.19	92331	1392	-7	0	-7	0.14	0.12	11	0	0	0	52	0	0	-70
15	488.15	92275	1392	-5	0	-5	0.17	0.09	11	0	0	0	39	0	0	-56
16	488.11	92219	1392	-10	0	-10	0.24	0.09	14	0	0	0	32	0	0	-56
17	488.14	92261	1392	71	0	71	0.00	0.00	0	0.22	0.07	17	46	0	0	42
18	488.10	92205	1392	9	0	9	0.14	0.08	10	0	0	0	55	0	0	-56
19	488.03	92106	1390	-26	0	-26	0.17	0.11	12	0	0	0	61	0	0	-99
20	487.96	92010	1388	-26	0	-26	0.08	0.09	7	0	0	0	63	0	0	-97
21	487.89	91914	1387	-18	0	-18	0.21	0.10	13	0	0	0	65	0	0	-96
22	487.82	91817	1387	-38	0	-38	0.20	0.08	12	0	0	0	47	0	0	-97
23	487.78	91760	1385	-5	0	-5	0.13	0.09	10	0	0	0	42	0	0	-56
24	487.77	91747	1385	47	0	47	0.07	0.09	7	0	0	0	54	0	0	-14
25	487.72	91678	1385	-5	0	-5	0.17	0.08	11	0	0	0	53	0	0	-69
26	487.68	91622	1384	3	0	3	0.17	0.09	11	0	0	0	47	0	0	-55
27	487.65	91581	1384	1	0	1	0.08	0.08	7	0	0	0	36	0	0	-41
28	487.64	91567	1384	-29	0	-29	0.00	0.00	0	0.26	0.45	41	26	0	0	-14
29	487.63	91553	1384	12	0	12	0.08	0.06	6	0.06	0.00	3	23	0	0	-14
30	487.61	91526	1384	-10	0	-10	0.00	0.06	3	0.08	0.00	5	19	0	0	-28
31	487.62	91540	1384	38	0	38	0.00	0.00	0	0.00	0.19	11	35	0	0	14
TOTAL				-159	0	-159	4.85	2.54	322	0.71	0.71	82	1526	0	0	-1924

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)

Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients: Jan=0.65, Feb=0.77, Mar=0.76, Apr=0.80, May=0.81, Jun=0.82, Jul= Aug=0.81, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

CASITAS RESERVOIR OPERATION
 NOVEMBER 2016

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)		INFLOW			EVAPORATION			PRECIPITATION			RELEASES					
	Elevation (ft MSL)	Oct 31 st Storage	Surface Area (acres)	Direct	Ventura River	Diversh	Total	Pan @Dam (in)	Pan @Rec (in)	Lake Total	at Dam (in)	at Rec (in)	Lake Total	To Main System	To River	Spill	STORAGE CHANGE
1	487.58	91484	1382	-31	0	-31	0.08	0.04	5	0	0	0	0	19	0	0	-55
2	487.55	91443	1382	-13	0	-13	0.09	0.03	5	0	0	0	0	23	0	0	-41
3	487.54	91429	1382	17	0	17	0.11	0.09	8	0	0	0	0	23	0	0	-14
4	487.50	91374	1382	-13	0	-13	0.15	0.08	10	0	0	0	0	33	0	0	-55
5	487.47	91333	1380	-4	0	-4	0.12	0.07	8	0	0	0	0	30	0	0	-41
6	487.43	91277	1380	-20	0	-20	0.09	0.09	7	0	0	0	0	28	0	0	-55
7	487.41	91250	1380	29	0	29	0.03	0.08	5	0	0	0	0	52	0	0	-28
8	487.36	91181	1379	-10	0	-10	0.07	0.10	7	0	0	0	0	52	0	0	-68
9	487.29	91083	1377	-24	0	-24	0.18	0.19	15	0	0	0	0	59	0	0	-98
10	487.25	91028	1377	15	0	15	0.10	0.10	8	0	0	0	0	62	0	0	-55
11	487.20	90959	1377	2	0	2	0.16	0.09	10	0	0	0	0	61	0	0	-69
12	487.14	90876	1376	-19	0	-19	0.11	0.11	9	0	0	0	0	55	0	0	-83
13	487.10	90821	1376	-5	0	-5	0.17	0.11	12	0	0	0	0	38	0	0	-55
14	487.07	90779	1374	7	0	7	0.15	0.07	9	0	0	0	0	40	0	0	-42
15	487.03	90724	1374	7	0	7	0.11	0.07	7	0	0	0	0	55	0	0	-55
16	486.97	90641	1372	-25	0	-25	0.09	0.06	6	0	0	0	0	52	0	0	-83
17	486.92	90573	1372	-8	0	-8	0.13	0.09	9	0	0	0	0	51	0	0	-68
18	486.83	90451	1371	-65	0	-65	0.10	0.07	7	0	0	0	0	50	0	0	-122
19	486.79	90395	1369	-12	0	-12	0.23	0.05	12	0	0	0	0	32	0	0	-56
20	486.75	90341	1369	-32	0	-32	0.11	0.07	7	0	0	0	0	16	0	0	-54
21	486.79	90395	1369	28	0	28	0.00	0.00	0	0.35	0.40	43	16	16	0	0	54
22	486.77	90368	1369	15	0	15	0.00	0.06	2	0	0	0	0	40	0	0	-27
23	486.74	90327	1369	-7	0	-7	0.00	0.05	2	0	0	0	0	32	0	0	-41
24	486.70	90273	1369	-25	0	-25	0.08	0.07	6	0	0	0	0	23	0	0	-54
25	486.67	90233	1368	-5	0	-5	0.12	0.06	7	0	0	0	0	27	0	0	-40
26	486.63	90178	1368	-32	0	-32	0.10	0.00	4	0	0	0	0	18	0	0	-55
27	486.64	90192	1368	-8	0	-8	0.00	0.06	2	0.48	0.34	47	22	22	0	0	14
28	486.67	90233	1368	60	0	60	0.00	0.05	2	0	0	0	17	17	0	0	41
29	486.65	90206	1368	2	0	2	0.10	0.06	7	0	0	0	23	23	0	0	-27
30	486.63	90178	1368	10	0	10	0.06	0.05	5	0	0	0	33	33	0	0	-27
TOTAL				-166	0	-166	2.74	2.22	205	0.83	0.74	90	1080	1080	0	0	-1362

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)

Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients: Jan=0.65, Feb=0.77, Mar=0.76, Apr=0.80, May=0.81, Jun=0.82, Jul= Aug=0.81, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

CASITAS RESERVOIR OPERATION
DECEMBER 2016

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)		INFLOW		EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE			
	Elevation (ft MSL)	Nov 30 th Surface Area (acres)	Direct	Ventura River Divers'n	Pan @ Dam (in)	Pan @ Rec (in)	Lake Total	Dam (in)	at Rec (in)	Lake Total	Main System	To River	Spill				
1	486.59	90123	1366	1366	0	0	0.43	0.06	18	0	0	0	32	0	0	-55	
2	486.56	90082	1366	1366	-7	0	0.04	0.06	4	0	0	0	31	0	0	-41	
3	486.54	90055	1366	1366	7	0	0.10	0.07	6	0	0	0	28	0	0	-27	
4	486.51	90014	1366	1366	-10	0	0.13	0.07	8	0	0	0	24	0	0	-41	
5	486.47	89958	1364	1364	-9	0	0.02	0.05	3	0	0	0	44	0	0	-56	
6	486.37	89823	1363	1363	-82	0	0.07	0.05	4	0	0	0	49	0	0	-135	
7	486.27	89685	1361	1361	-92	0	0.04	0.06	4	0	0	0	42	0	0	-138	
8	486.23	89631	1361	1361	4	0	0.01	0.06	3	0	0	0	55	0	0	-54	
9	486.17	89550	1360	1360	-46	0	0.04	0.06	4	0	0	0	31	0	0	-81	
10	486.13	89495	1360	1360	-20	0	0.15	0.05	7	0.01	0.00	1	28	0	0	-55	
11	486.10	89454	1360	1360	-10	0	0.02	0.16	7	0	0	0	24	0	0	-41	
12	486.09	89439	1358	1358	19	0	0.01	0.04	2	0	0	0	33	0	0	-16	
13	486.07	89412	1358	1358	-5	0	0.01	0.06	3	0	0	0	20	0	0	-27	
14	486.04	89371	1358	1358	-18	0	0.00	0.06	2	0	0	0	21	0	0	-41	
15	486.03	89358	1358	1358	12	0	0.02	0.07	3	0	0	0	22	0	0	-14	
16	486.15	89523	1360	1360	-40	0	0.00	0.00	0	1.93	1.91	218	12	0	0	165	
17	486.14	89509	1360	1360	17	0	0.35	0.09	16	0	0	0	14	0	0	-14	
18	486.10	89454	1360	1360	-28	0	0.03	0.08	4	0	0	0	23	0	0	-55	
19	486.08	89425	1358	1358	-12	0	0.08	0.02	4	0	0	0	13	0	0	-29	
20	486.07	89412	1358	1358	8	0	0.06	0.05	4	0	0	0	18	0	0	-14	
21	486.06	89398	1358	1358	5	0	0.07	0.07	5	0	0	0	14	0	0	-14	
22	486.02	89344	1358	1358	-44	0	0.00	0.00	0	0.06	0.04	6	16	0	0	-54	
23	486.00	89317	1358	1358	-10	0	0.04	0.05	3	0	0	0	14	0	0	-27	
24	486.14	89509	1360	1360	27	0	0.00	0.00	0	1.76	1.50	185	20	0	0	192	
25	486.16	89536	1360	1360	48	0	0.09	0.06	6	0	0	0	15	0	0	27	
26	486.15	89523	1360	1360	7	0	0.08	0.07	6	0	0	0	15	0	0	-14	
27	486.10	89454	1360	1360	-46	0	0.09	0.06	6	0	0	0	17	0	0	-69	
28	486.07	89412	1358	1358	-16	0	0.07	0.07	5	0	0	0	21	0	0	-43	
29	486.04	89371	1358	1358	-11	0	0.08	0.16	9	0	0	0	21	0	0	-41	
30	486.04	89371	1358	1358	1	0	0.00	0.00	0	0.17	0.14	18	18	0	0	0	
31	486.02	89344	1358	1358	-37	0	0.01	0.00	0	0.22	0.20	24	14	0	0	-27	
TOTAL					-389	0	-389	2.14	1.76	146	4.15	3.79	450	749	0	0	-834

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)

Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients:

Jan=0.65, Feb=0.77, Mar=0.76, Apr=0.80, May=0.81, Jun=0.82, Jul= Aug=0.81, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

CASITAS RESERVOIR OPERATION
JANUARY 2017

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)		INFLOW		EVAPORATION			PRECIPITATION			RELEASES			
	Elevation (ft MSL)	Dec 31 st Storage	Direct	Ventura River	Pan @Dam (in)	Pan @Rec (in)	Lake Total	Dam (in)	at Rec (in)	Lake Total	Main System	To River	STORAGE CHANGE	
														Area (acres)
1	486.04	89371	41	0	0.00	0.06	2	0	0	0	12	0	27	
2	486.00	89317	-30	0	0.05	0.05	4	0	0	0	21	0	-54	
3	485.99	89304	3	0	0.02	0.06	3	0	0	0	13	0	-14	
4	485.98	89290	13	0	0.03	0.04	3	0	0	0	24	0	-14	
5	486.04	89371	44	0	0.00	0.00	0	0.00	0.90	51	14	0	81	
6	486.05	89385	-32	0	0.08	0.06	5	1.14	0.00	65	14	0	14	
7	486.06	89398	1	0	0.00	0.00	0	0.02	0.50	29	17	0	14	
8	486.08	89425	18	0	0.00	0.06	2	0.39	0.00	22	11	0	27	
9	486.11	89468	-7	0	0.00	0.00	0	0.17	1.10	72	22	0	43	
10	486.13	89495	-15	0	0.09	0.02	4	1.10	0.00	62	15	0	27	
11	486.20	89590	76	0	0.00	0.00	0	0.00	0.65	37	18	0	95	
12	486.19	89577	-53	0	0.07	0.00	3	0.87	0.00	49	7	0	-13	
13	486.21	89604	41	0	0.00	0.00	0	0.09	0.00	5	20	0	26	
14	486.23	89631	29	0	0.08	0.04	4	0.35	0.00	20	17	0	27	
15	486.20	89590	-21	0	0.13	0.06	7	0	0	0	12	0	-41	
16	486.18	89564	-6	0	0.03	0.07	4	0	0	0	17	0	-26	
17	486.17	89550	1	0	0.02	0.03	2	0	0	0	13	0	-14	
18	486.15	89523	-11	0	0.05	0.04	3	0	0	0	13	0	-27	
19	486.25	89658	-8	0	0.00	0.00	0	1.16	1.50	151	8	0	136	
20	486.29	89712	36	0	0.00	0.00	0	0.58	0.00	33	15	0	54	
21	486.99	90668	738	0	0.08	0.00	3	1.93	2.10	230	10	0	956	
22	487.09	90806	-111	154	0.00	0.00	0	0.83	1.00	105	9	0	138	
23	488.43	92667	1196	395	0.00	0.00	0	2.22	2.70	286	17	0	1861	
24	488.85	93254	575	28	0.15	0.00	6	0.03	0.00	2	12	0	587	
25	488.90	93324	85	1	0.07	0.00	3	0	0	0	14	0	70	
26	488.92	93352	38	0	0.05	0.01	2	0	0	0	8	0	28	
27	488.93	93366	28	0	0.04	0.04	3	0	0	0	11	0	14	
28	488.91	93338	-11	0	0.02	0.07	3	0	0	0	14	0	-28	
29	488.91	93338	15	0	0.12	0.04	6	0	0	0	9	0	0	
30	488.92	93352	33	0	0.08	0.07	6	0	0	0	13	0	14	
31	488.95	93394	61	0	0.00	0.04	2	0	0	0	17	0	42	
TOTAL			2768	578	3346	79	1.26	0.86	10.88	10.45	1219	436	0	4050

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)

Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients: Jan=0.65, Feb=0.77, Mar=0.76, Apr=0.80, May=0.81, Jun=0.82, Jul= Aug=0.81, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

CASITAS RESERVOIR OPERATION
FEBRUARY 2017

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)		INFLOW		EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE		
	Elevation (ft MSL)	Jan 31 st Storage (acres)	Surface Area (acres)	Direct	Ventura River Divers/h	Total	Pan @Dam (in)	Pan @Rec (in)	Lake Total	Dam (in)	at Rec (in)	Lake Total	To Main System		To River	To Spill
1	488.94	93380	1404	0	0	0	0.07	0.06	6	0	0	0	8	0	0	-14
2	488.96	93408	1404	46	0	46	0.07	0.04	5	0	0	0	13	0	0	28
3	488.99	93450	1404	16	0	16	0.00	0.00	0	0.21	0.35	33	7	0	0	42
4	489.00	93464	1406	18	0	18	0.00	0.03	1	0.17	0.00	10	13	0	0	14
5	488.99	93450	1404	-1	0	-1	0.06	0.00	3	0	0	0	10	0	0	-14
6	489.29	93875	1409	-23	195	172	0.00	0.00	0	2.46	2.00	262	9	0	0	425
7	489.85	94666	1419	600	123	723	0.00	0.00	0	0.29	1.00	76	9	0	0	791
8	490.09	95005	1422	289	46	315	0.00	0.00	0	0.43	0.10	31	7	0	0	339
9	490.20	95164	1425	149	15	164	0.00	0.00	0	0.08	0.00	5	9	0	0	159
10	490.26	95250	1425	89	4	93	0.00	0.00	0	0.03	0.00	2	9	0	0	86
11	490.40	95450	1428	117	31	149	0.00	0.00	0	0.47	0.55	61	9	0	0	200
12	490.47	95550	1428	97	15	112	0.10	0.00	5	0.03	0.00	2	9	0	0	100
13	490.51	95607	1430	69	6	75	0.20	0.00	9	0	0	0	9	0	0	57
14	490.54	95650	1430	55	1	56	0.05	0.05	5	0	0	0	8	0	0	43
15	490.56	95679	1430	45	0	45	0.09	0.11	9	0	0	0	7	0	0	29
16	490.58	95707	1430	39	0	39	0.07	0.00	3	0	0	0	7	0	0	29
17	490.61	95750	1432	-110	122	12	0.00	0.00	0	0.28	0.35	38	7	0	0	43
18	495.26	102584	1506	5378	628	6006	0.00	0.00	0	7.04	6.25	834	7	0	0	6833
19	496.81	104940	1534	1491	875	2366	0.04	0.00	2	0.07	0.00	4	12	0	0	2357
20	497.58	106128	1545	546	568	1114	0.00	0.00	0	0.67	0.65	85	12	0	0	1188
21	498.19	107072	1555	496	432	928	0.00	0.00	0	0.26	0.25	33	17	0	0	944
22	498.64	107774	1563	358	328	686	0.05	0.00	3	0.19	0.25	29	10	0	0	702
23	498.99	108321	1568	308	256	564	0.09	0.04	7	0	0	0	11	0	0	547
24	499.22	108685	1574	171	207	378	0.13	0.01	7	0	0	0	8	0	0	363
25	499.44	109032	1577	189	171	361	0.11	0.00	6	0	0	0	8	0	0	348
26	499.65	109363	1581	159	169	328	0.00	0.04	2	0.22	0.00	14	10	0	0	331
27	499.80	109600	1584	96	155	251	0.10	0.05	8	0.01	0.00	1	7	0	0	237
28	499.95	109837	1586	119	133	252	0.10	0.05	8	0	0	0	7	0	0	237
TOTAL				10786	4482	15268	1.33	0.48	87	12.91	11.75	1519	257	0	0	16443

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)

Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients:

Jan=0.65, Feb=0.77, Mar=0.76, Apr=0.80, May=0.81, Jun=0.82, Jul= Aug=0.81, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

CASITAS RESERVOIR OPERATION
MARCH 2017

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)		INFLOW		EVAPORATION			PRECIPITATION			RELEASES			
	Elevation (ft MSL)	Feb 28 th Surface Area (acres)	Direct	Ventura River Divers'n	Pan @ Dam (in)	Pan @ Rec (in)	Lake Total	Dam (in)	at Rec (in)	Lake Total	Main System	To River	Spill	STORAGE CHANGE
1	500.08	110042	108	110	0.09	0.06	8	0	0	0	6	0	0	205
2	500.19	110220	92	101	0.12	0.06	9	0	0	0	6	0	0	178
3	500.29	110378	86	89	0.10	0.05	8	0	0	0	10	0	0	158
4	500.37	110507	66	84	0.13	0.17	15	0	0	0	5	0	0	129
5	500.45	110634	59	83	0.15	0.04	10	0	0	0	6	0	0	127
6	500.54	110778	43	69	0.00	0.00	0	0.18	0.40	39	6	0	0	145
7	500.60	110874	50	59	0.06	0.02	4	0	0	0	9	0	0	96
8	500.65	110954	45	54	0.16	0.04	10	0	0	0	9	0	0	80
9	500.70	111033	55	45	0.08	0.06	7	0	0	0	14	0	0	79
10	500.75	111113	64	41	0.18	0.04	11	0	0	0	14	0	0	80
11	500.79	111176	45	37	0.13	0.06	10	0	0	0	9	0	0	64
12	500.82	111225	40	32	0.16	0.05	11	0	0	0	13	0	0	49
13	500.84	111257	32	29	0.10	0.05	8	0	0	0	21	0	0	32
14	500.86	111289	33	25	0.12	0.04	8	0	0	0	18	0	0	32
15	500.87	111305	22	21	0.15	0.06	11	0	0	0	17	0	0	16
16	500.89	111337	41	19	0.16	0.05	11	0	0	0	17	0	0	32
17	500.90	111352	22	17	0.11	0.07	9	0	0	0	15	0	0	15
18	500.91	111368	23	14	0.07	0.05	6	0	0	0	15	0	0	16
19	500.92	111384	29	13	0.21	0.06	14	0	0	0	12	0	0	16
20	500.93	111400	30	10	0.18	0.07	13	0	0	0	12	0	0	16
21	500.95	111432	-33	26	0.00	0.00	0	0.39	0.33	48	9	0	0	32
22	501.06	111608	81	23	0.00	0.00	0	0.68	0.57	84	11	0	0	177
23	501.06	111608	3	12	0.11	0.00	6	0	0	0	9	0	0	0
24	501.07	111624	24	8	0.10	0.04	7	0	0	0	9	0	0	16
25	501.07	111624	7	6	0.11	0.03	7	0.02	0.00	1	8	0	0	0
26	501.08	111640	35	3	0.21	0.05	13	0	0	0	9	0	0	16
27	501.07	111624	-1	1	0.09	0.04	7	0	0	0	9	0	0	-16
28	501.06	111608	10	0	0.14	0.07	11	0	0	0	15	0	0	-16
29	501.05	111592	19	0	0.08	0.06	7	0	0	0	28	0	0	-16
30	501.03	111560	-5	0	0.28	0.05	17	0	0	0	11	0	0	-32
31	501.02	111544	27	0	0.38	0.06	22	0	0	0	20	0	0	-16
TOTAL			1152	1031	3.96	1.50	277	1.27	1.30	172	371	0	0	1707

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)

Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients:

Jan=0.65, Feb=0.77, Mar=0.76, Apr=0.80, May=0.81, Jun=0.82, Jul= Aug=0.81, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

CASITAS RESERVOIR OPERATION
APRIL 2017

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@.0800 hrs.)		INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE	
	Elevation (ft MSL)	Mar 31 st Surface Area (acres)	Direct	Ventura River		Pan @Dam (in)	Pan @Rec (in)	Lake Total	at Dam (in)	at Rec (in)	Lake Total	To Main System	To River	To Spill		
				Divers'n	Total											
1	501.00	111512	1604	5	0	5	0.13	0.16	16	0	0	0	22	0	0	-32
2	500.98	111479	1602	3	0	3	0.30	0.07	20	0	0	0	16	0	0	-33
3	500.96	111447	1602	21	0	21	0.19	0.07	14	0	0	0	39	0	0	-32
4	500.94	111416	1602	19	0	19	0.11	0.07	10	0	0	0	41	0	0	-32
5	500.91	111368	1602	-12	0	-12	0.09	0.07	9	0	0	0	27	0	0	-48
6	500.88	111321	1602	-9	0	-9	0.13	0.06	10	0	0	0	27	0	0	-47
7	500.85	111273	1601	-4	0	-4	0.21	0.06	14	0	0	0	29	0	0	-48
8	500.86	111289	1601	-6	0	-6	0.00	0.00	0	0.38	0.33	47	26	0	0	16
9	500.83	111241	1601	-10	0	-10	0.21	0.06	14	0	0	0	24	0	0	-48
10	500.81	111209	1601	14	0	14	0.12	0.00	6	0	0	0	40	0	0	-32
11	500.77	111144	1599	-10	0	-10	0.23	0.04	14	0	0	0	40	0	0	-65
12	500.74	111097	1599	-3	0	-3	0.10	0.04	7	0	0	0	37	0	0	-48
13	500.72	111065	1599	10	0	10	0.12	0.06	10	0	0	0	33	0	0	-32
14	500.68	111002	1598	-2	0	-2	0.19	0.06	13	0	0	0	48	0	0	-63
15	500.65	110954	1598	-14	0	-14	0.03	0.05	4	0	0	0	30	0	0	-48
16	500.62	110906	1598	5	0	5	0.29	0.05	18	0	0	0	34	0	0	-48
17	500.60	110874	1598	16	0	16	0.24	0.05	15	0	0	0	33	0	0	-32
18	500.58	110842	1596	16	0	16	0.07	0.07	7	0	0	0	41	0	0	-32
19	500.56	110810	1596	-15	0	-15	0.00	0.08	4	0.15	0.15	20	33	0	0	-32
20	500.54	110778	1596	34	0	34	0.28	0.06	18	0	0	0	48	0	0	-32
21	500.50	110714	1596	-15	0	-15	0.19	0.08	14	0	0	0	35	0	0	-64
22	500.47	110665	1594	15	0	15	0.24	0.24	26	0	0	0	38	0	0	-49
23	500.44	110618	1594	15	0	15	0.40	0.40	43	0	0	0	20	0	0	-48
24	500.43	110602	1594	25	0	25	0.13	0.13	14	0	0	0	27	0	0	-16
25	500.38	110523	1593	-12	0	-12	0.18	0.18	19	0	0	0	47	0	0	-79
26	500.34	110459	1593	-2	0	-2	0.23	0.23	24	0	0	0	37	0	0	-64
27	500.30	110395	1593	-3	0	-3	0.18	0.18	19	0	0	0	41	0	0	-64
28	500.23	110283	1591	-30	0	-30	0.34	0.34	36	0	0	0	46	0	0	-112
29	500.19	110220	1590	-7	0	-7	0.21	0.21	22	0	0	0	33	0	0	-63
30	500.15	110156	1590	17	0	17	0.46	0.46	49	0	0	0	32	0	0	-64
TOTAL				61	0	61	5.60	3.63	491	0.53	0.48	67	1026	0	0	-1388

Evaporation at Recreation unavailable. Estimated as equal to evaporation at dam.

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)

Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients: Jan=0.65, Feb=0.77, Mar=0.76, Apr=0.80, May=0.81, Jun=0.82, Jul= Aug=0.81, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

CASITAS RESERVOIR OPERATION
MAY 2017

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)		INFLOW		EVAPORATION			PRECIPITATION			RELEASES			
	Elevation (ft MSL)	Apr 30 th Storage	Direct	Ventura River Diversh	Pan @Dam (in)	Pan @Rec (in)	Lake Total	Dam (in)	at Rec (in)	Lake Total	Main System	To River	Spill	STORAGE CHANGE
1	500.13	110124	30	0	0.21	0.21	23	0	0	0	40	0	0	-32
2	500.09	110058	-16	0	0.15	0.05	11	0	0	0	39	0	0	-66
3	500.05	109995	8	0	0.20	0.22	23	0	0	0	49	0	0	-63
4	500.01	109932	11	0	0.29	0.35	34	0	0	0	40	0	0	-63
5	499.97	109869	-12	0	0.16	0.09	13	0	0	0	37	0	0	-63
6	499.94	109821	0	0	0.26	0.15	22	0	0	0	25	0	0	-47
7	499.92	109790	-21	0	0.14	0.02	9	0.06	0.12	12	13	0	0	-32
8	499.90	109758	-7	0	0.05	0.17	12	0.08	0.03	7	20	0	0	-32
9	499.87	109711	-4	0	0.06	0.04	5	0	0	0	38	0	0	-47
10	499.84	109663	10	0	0.22	0.14	19	0	0	0	38	0	0	-47
11	499.80	109600	-1	0	0.17	0.12	16	0	0	0	47	0	0	-63
12	499.76	109537	-13	0	0.10	0.22	17	0	0	0	33	0	0	-63
13	499.73	109489	-8	0	0.07	0.13	11	0	0	0	29	0	0	-47
14	499.70	109442	4	0	0.35	0.16	27	0	0	0	24	0	0	-47
15	499.67	109395	14	0	0.20	0.17	20	0	0	0	41	0	0	-47
16	499.63	109331	4	0	0.23	0.15	20	0	0	0	47	0	0	-63
17	499.59	109267	6	0	0.19	0.22	22	0	0	0	48	0	0	-64
18	499.54	109189	-1	0	0.19	0.38	30	0	0	0	47	0	0	-79
19	499.51	109142	20	0	0.18	0.24	22	0	0	0	45	0	0	-47
20	499.47	109080	2	0	0.29	0.26	29	0	0	0	35	0	0	-62
21	499.42	109001	-11	0	0.26	0.27	28	0	0	0	40	0	0	-79
22	499.39	108953	32	0	0.39	0.25	34	0	0	0	45	0	0	-47
23	499.34	108874	-3	0	0.08	0.27	19	0	0	0	57	0	0	-79
24	499.32	108843	68	0	0.48	0.24	38	0	0	0	62	0	0	-32
25	499.27	108764	-26	0	0.17	0.19	19	0.00	0.02	1	35	0	0	-79
26	499.24	108716	16	0	0.05	0.27	17	0	0	0	47	0	0	-47
27	499.20	108653	-7	0	0.19	0.29	25	0	0	0	31	0	0	-63
28	499.17	108606	0	0	0.23	0.19	22	0	0	0	26	0	0	-47
29	499.14	108558	7	0	0.23	0.14	20	0	0	0	34	0	0	-47
30	499.10	108495	4	0	0.20	0.29	26	0	0	0	42	0	0	-63
31	499.06	108431	-4	0	0.17	0.13	16	0	0	0	45	0	0	-64
TOTAL			105	0	6.16	6.02	649	0.14	0.17	20	1202	0	0	-1725

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)
Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients: Jan=0.65, Feb=0.77, Mar=0.76, Apr=0.80, May=0.81, Jun=0.82, Jul= Aug=0.81, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

CASITAS RESERVOIR OPERATION
JUNE 2017

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)		INFLOW		EVAPORATION		PRECIPITATION		RELEASES		STORAGE CHANGE			
	Elevation (ft.MSL)	May 31 st Storage (acres)	Direct	Ventura River Divers'h Total	Pan @Dam (in)	Pan @Rec (in)	Lake Total (in)	Dam (in)	at Rec (in)	Lake Total		Main System	To River Spill	
1	499.02	108368	7	0	0.26	0.17	23	0	0	0	47	0	0	-62
2	498.98	108306	1	0	0.04	0.20	13	0	0	0	51	0	0	-62
3	498.93	108228	-5	0	0.29	0.19	26	0	0	0	47	0	0	-78
4	498.89	108165	-9	0	0.21	0.23	24	0	0	0	30	0	0	-62
5	498.85	108103	5	0	0.29	0.20	26	0	0	0	42	0	0	-62
6	498.81	108041	19	0	0.29	0.26	29	0	0	0	52	0	0	-62
7	498.78	107995	14	0	0.21	0.12	18	0	0	0	43	0	0	-46
8	498.74	107932	-11	0	0.14	0.13	14	0	0	0	37	0	0	-63
9	498.72	107900	27	0	0.17	0.12	16	0	0	0	42	0	0	-31
10	498.68	107837	-25	0	0.20	0.12	17	0	0	0	22	0	0	-64
11	498.66	107806	4	0	0.12	0.12	13	0	0	0	23	0	0	-31
12	498.63	107759	11	0	0.19	0.16	19	0	0	0	39	0	0	-47
13	498.59	107696	9	0	0.25	0.28	28	0	0	0	43	0	0	-62
14	498.55	107634	10	0	0.23	0.16	21	0	0	0	52	0	0	-62
15	498.49	107540	-6	0	0.27	0.24	27	0	0	0	60	0	0	-94
16	498.43	107447	-18	0	0.27	0.24	27	0	0	0	49	0	0	-94
17	498.39	107384	-6	0	0.29	0.22	27	0	0	0	29	0	0	-62
18	498.36	107338	5	0	0.20	0.22	22	0	0	0	29	0	0	-47
19	498.33	107291	31	0	0.31	0.29	32	0	0	0	46	0	0	-47
20	498.29	107228	32	0	0.49	0.28	41	0	0	0	53	0	0	-62
21	498.24	107150	17	0	0.36	0.29	35	0	0	0	60	0	0	-78
22	498.18	107057	5	0	0.40	0.27	36	0	0	0	63	0	0	-94
23	498.12	106963	-36	0	0.06	0.23	15	0	0	0	42	0	0	-94
24	498.06	106868	-23	0	0.43	0.20	33	0	0	0	38	0	0	-95
25	498.04	106838	11	0	0.05	0.20	13	0	0	0	29	0	0	-31
26	497.99	106762	11	0	0.34	0.30	34	0	0	0	54	0	0	-76
27	497.94	106684	1	0	0.26	0.28	29	0	0	0	50	0	0	-78
28	497.88	106591	-2	0	0.24	0.36	32	0	0	0	59	0	0	-93
29	497.82	106498	-10	0	0.34	0.20	29	0	0	0	55	0	0	-93
30	497.77	106420	4	0	0.27	0.26	28	0	0	0	54	0	0	-78
TOTAL			74	0	7.47	6.54	746	0.00	0.00	0	1339	0	0	-2011

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)

Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients: Jan=0.65, Feb=0.77, Mar=0.77, Apr=0.80, May=0.81, Jun=0.81, Jul= Aug=0.82, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

CASITAS RESERVOIR OPERATION
JULY 2017

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)		INFLOW		EVAPORATION			PRECIPITATION			RELEASES			
	Elevation (ft MSL)	Jun 30 th Surface Area (acres)	Direct	Ventura River Divers'n	Pan @ Dam (in)	Pan @ Rec (in)	Lake Total	Dam (in)	at Rec (in)	Lake Total	Main System	To River	Spill	STORAGE CHANGE
1	497.73	106358	-5	0	0.23	0.12	18	0	0	0	38	0	0	-62
2	497.69	106297	10	0	0.49	0.31	42	0	0	0	30	0	0	-62
3	497.65	106235	12	0	0.33	0.18	27	0	0	0	47	0	0	-62
4	497.60	106158	-23	0	0.16	0.16	17	0	0	0	38	0	0	-77
5	497.56	106097	13	0	0.20	0.30	26	0	0	0	48	0	0	-61
6	497.51	106020	3	0	0.23	0.18	21	0	0	0	59	0	0	-78
7	497.48	105973	45	0	0.44	0.23	35	0	0	0	57	0	0	-47
8	497.44	105911	21	0	0.32	0.32	33	0	0	0	50	0	0	-62
9	497.40	105849	6	0	0.24	0.35	31	0	0	0	37	0	0	-62
10	497.36	105786	18	0	0.29	0.27	29	0	0	0	52	0	0	-63
11	497.31	105709	10	0	0.15	0.30	23	0	0	0	64	0	0	-77
12	497.24	105602	-14	0	0.35	0.24	31	0	0	0	63	0	0	-108
13	497.16	105479	-35	0	0.40	0.23	33	0	0	0	55	0	0	-123
14	497.09	105369	-32	0	0.29	0.16	23	0	0	0	55	0	0	-110
15	497.01	105246	-64	0	0.20	0.25	23	0	0	0	35	0	0	-122
16	496.95	105155	-36	0	0.19	0.24	22	0	0	0	34	0	0	-92
17	496.89	105063	-9	0	0.34	0.33	35	0	0	0	48	0	0	-92
18	496.83	104971	-22	0	0.13	0.21	18	0	0	0	53	0	0	-92
19	496.77	104879	1	0	0.38	0.27	34	0	0	0	60	0	0	-92
20	496.71	104787	-6	0	0.34	0.25	31	0	0	0	55	0	0	-92
21	496.68	104741	30	0	0.19	0.21	21	0	0	0	55	0	0	-46
22	496.65	104696	17	0	0.20	0.25	23	0	0	0	40	0	0	-46
23	496.60	104619	-19	0	0.31	0.24	28	0	0	0	30	0	0	-77
24	496.57	104572	34	0	0.36	0.22	30	0	0	0	51	0	0	-47
25	496.51	104481	-16	0	0.18	0.23	21	0	0	0	54	0	0	-91
26	496.46	104406	3	0	0.20	0.20	21	0	0	0	58	0	0	-75
27	496.40	104314	-14	0	0.25	0.26	26	0	0	0	52	0	0	-92
28	496.35	104238	8	0	0.47	0.31	40	0	0	0	45	0	0	-77
29	496.30	104161	-17	0	0.16	0.25	21	0	0	0	39	0	0	-77
30	496.27	104115	8	0	0.33	0.22	28	0	0	0	26	0	0	-46
31	496.23	104054	11	0	0.39	0.22	31	0	0	0	41	0	0	-61
TOTAL			-61	0	8.74	7.51	842	0.00	0.00	0	1463	0	0	-2366

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)

Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients: Jan=0.65, Feb=0.77, Mar=0.76, Apr=0.80, May=0.81, Jun=0.82, Jul= Aug=0.81, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

CASITAS RESERVOIR OPERATION
August 2017

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)		INFLOW		EVAPORATION			PRECIPITATION			RELEASES			
	Elevation (ft MSL)	Jul 31 st Surface Area (acres)	Direct	Ventura River Divers'n Total	Pan @Dam (in)	Pan @Rec (in)	Lake Total	Dam (in)	at Rec (in)	Lake Total	Main System	To River	Spill	STORAGE CHANGE
1	495.18	103977	-4	0	0.19	0.25	23	0	0	0	50	0	0	-77
2	495.13	103901	-9	0	0.11	0.22	17	0	0.02	1	52	0	0	-77
3	496.08	103823	6	0	0.24	0.21	23	0	0	0	61	0	0	-78
4	496.03	103747	9	0	0.31	0.25	29	0	0	0	56	0	0	-76
5	495.98	103672	-5	0	0.20	0.21	21	0	0	0	50	0	0	-76
6	495.93	103596	-30	0	0.16	0.18	17	0	0	0	28	0	0	-76
7	495.88	103521	4	0	0.26	0.33	30	0	0	0	50	0	0	-76
8	495.83	103445	-8	0	0.19	0.21	20	0	0	0	47	0	0	-76
9	495.78	103370	17	0	0.37	0.25	32	0	0	0	61	0	0	-76
10	495.73	103294	-6	0	0.14	0.24	19	0	0	0	50	0	0	-76
11	495.68	103220	2	0	0.30	0.24	28	0	0	0	49	0	0	-75
12	495.63	103144	-32	0	0.09	0.17	13	0	0	0	31	0	0	-76
13	495.59	103082	-3	0	0.32	0.26	30	0	0	0	29	0	0	-62
14	495.55	103022	5	0	0.23	0.24	24	0	0	0	41	0	0	-60
15	495.51	102961	0	0	0.16	0.15	16	0	0	0	44	0	0	-60
16	495.47	102901	4	0	0.19	0.18	19	0	0	0	46	0	0	-60
17	495.43	102840	6	0	0.24	0.12	18	0	0	0	48	0	0	-60
18	495.39	102780	5	0	0.23	0.14	19	0	0	0	47	0	0	-60
19	495.34	102704	-26	0	0.15	0.19	17	0	0	0	32	0	0	-76
20	495.30	102644	-11	0	0.21	0.20	21	0	0	0	29	0	0	-60
21	495.26	102584	1	0	0.26	0.23	25	0	0	0	36	0	0	-60
22	495.22	102523	13	0	0.19	0.22	21	0	0	0	53	0	0	-60
23	495.17	102448	-2	0	0.17	0.19	18	0	0	0	55	0	0	-76
24	495.12	102372	-3	0	0.25	0.21	23	0	0	0	49	0	0	-76
25	495.07	102295	-7	0	0.40	0.13	27	0	0	0	43	0	0	-77
26	495.03	102236	-7	0	0.18	0.25	22	0	0	0	31	0	0	-60
27	494.99	102177	-3	0	0.20	0.23	22	0	0	0	34	0	0	-59
28	494.94	102102	5	0	0.37	0.21	29	0	0	0	51	0	0	-75
29	494.89	102027	-1	0	0.20	0.29	25	0	0	0	49	0	0	-75
30	494.84	101952	5	0	0.23	0.25	24	0	0	0	56	0	0	-75
31	494.79	101876	9	0	0.26	0.33	30	0	0	0	55	0	0	-76
TOTAL			-65	0	7.00	6.78	702	0.00	0.02	1	1412	0	0	-2178

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)

Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients:

Jan=0.65, Feb=0.77, Mar=0.76, Apr=0.80, May=0.81, Jun=0.82, Jul= Aug=0.81, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

CASITAS RESERVOIR OPERATION
 SEPTEMBER 2017

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)		INFLOW		EVAPORATION			PRECIPITATION			RELEASES			
	Elevation (ft MSL)	Aug 30 th Surface Area (acres)	Direct	Ventura River	Pan @ Dam (in)	Pan @ Rec (in)	Lake Total	Dam (in)	at Rec (in)	Lake Total	Main System	To River	Spill	STORAGE CHANGE
1	494.74	101802	14	0	0.41	0.27	32	0	0	0	56	0	0	-75
2	494.69	101727	13	0	0.15	0.33	23	0	0	0	65	0	0	-75
3	494.63	101638	-36	0	0.19	0.32	24	0.04	0.00	2	32	0	0	-89
4	494.59	101579	8	0	0.32	0.16	23	0.00	0.05	3	47	0	0	-59
5	494.55	101519	2	0	0.16	0.15	15	0	0	0	47	0	0	-60
6	494.51	101459	17	0	0.12	0.19	15	0	0	0	62	0	0	-60
7	494.45	101369	-9	0	0.34	0.21	26	0	0	0	55	0	0	-90
8	494.40	101294	-12	0	0.17	0.22	18	0	0	0	45	0	0	-75
9	494.36	101233	-16	0	0.20	0.12	15	0	0	0	29	0	0	-61
10	494.32	101174	-7	0	0.22	0.25	22	0.04	0.00	2	33	0	0	-60
11	494.29	101129	21	0	0.38	0.13	24	0.00	0.10	6	47	0	0	-45
12	494.24	101055	-7	0	0.11	0.20	15	0	0	0	53	0	0	-75
13	494.19	100981	-2	0	0.09	0.21	14	0.01	0.00	1	58	0	0	-74
14	494.13	100891	-18	0	0.27	0.21	23	0	0	0	49	0	0	-90
15	494.09	100829	-15	0	0.13	0.03	8	0	0	0	39	0	0	-62
16	494.05	100770	-13	0	0.13	0.15	13	0	0	0	33	0	0	-59
17	494.00	100696	-40	0	0.15	0.13	13	0	0	0	21	0	0	-74
18	493.96	100637	-5	0	0.15	0.10	12	0.01	0.00	1	43	0	0	-59
19	493.93	100592	4	0	0.15	0.11	12	0.01	0.00	1	36	0	0	-44
20	493.89	100533	-3	0	0.12	0.11	11	0	0	0	45	0	0	-59
21	493.84	100459	-19	0	0.22	0.14	17	0	0	0	38	0	0	-74
22	493.81	100415	2	0	0.16	0.06	10	0	0	0	36	0	0	-44
23	493.78	100370	12	0	0.30	0.30	28	0	0	0	29	0	0	-44
24	493.74	100311	-3	0	0.41	0.24	31	0	0	0	26	0	0	-59
25	493.69	100237	-11	0	0.20	0.22	20	0	0	0	44	0	0	-74
26	493.64	100163	-2	0	0.20	0.20	19	0	0	0	53	0	0	-74
27	493.58	100074	-14	0	0.21	0.21	20	0	0	0	56	0	0	-90
28	493.52	99985	-10	0	0.33	0.33	31	0	0	0	47	0	0	-88
29	493.47	99913	-2	0	0.17	0.17	16	0	0	0	55	0	0	-73
30	493.43	99853	-12	0	0.13	0.13	12	0	0	0	35	0	0	-59
TOTAL			-166	0	-166	6.29	5.60	560	0.11	0.15	16	1313	0	-2023

Recreation evaporation equipment broken. Estimated as equal to evaporation at dam.

Reservoir capacity = 254,000 acre-feet at 567 ft. elevation.

Direct reservoir inflow values may be negative due to inaccuracies of the evaporation coefficients (supplied by the USBR)

Evaporation and precipitation readings taken at approximately 8 a.m.

Monthly Evaporation Coefficients: Jan=0.65, Feb=0.77, Mar=0.76, Apr=0.80, May=0.81, Jun=0.82, Jul= Aug=0.81, Sep=0.76, Oct=0.75, Nov=0.72, Dec=0.66

Mira Monte Well Water Production

Mira Monte Well

Water Year 2016 – 2017

Month	Acre Feet
Oct – 16	12.67
Nov – 16	14.31
Dec – 16	9.57
Jan – 17	3.08
Feb – 17	3.24
Mar – 17	5.14
Apr – 17	9.51
May – 17	13.65
Jun – 17	22.69
Jul – 17	19.07
Aug – 17	25.28
Sep – 17	18.43
Total:	156.64 AF

Ojai System Sources and Deliveries

OJAI SYSTEM SOURCES AND DELIVERIES

2016 - 2017 WATER YEAR

figures in acre-feet except where otherwise noted

MONTH	YEAR	SYSTEM DELIVERIES	SOURCE	
			WELL - FIELD PRODUCTION	SURFACE WATER
OCT	2016	182	67	115
NOV	2016	72	67	5
DEC	2016	81	67	14
JAN	2017	74	71	3
FEB	2017	72	71	1
MAR	2017	72	71	1
APR	2017	140	139	1
MAY	2017	159	139	20
JUN	2017	149	139	10
JUL	2017	190	154	36
AUG	2017	192	155	37
SEP	2017	181	142	39
TOTAL		1563	1281	282

Well production only available for three-month summary periods prior to CMWD acquisition of the "Ojai System". Monthly well production estimated as 1/3 of three-month total.

Lake Matilija Water Surface Elevation

Matilija Reservoir Lake Elevation

WATER YEAR OCTOBER 2016 THROUGH SEPTEMBER 2017

Daily mean elevation, feet above mean sea level

SPILL OVER DAM @ 1095.35 ELEVATION

Day	2016												2017											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1094.61	1094.58	1094.79	1095.47	1095.64	1095.81	1095.62	1095.56	1095.55	1095.49	1095.46	1095.46	1094.79	1094.58	1094.79	1095.47	1095.64	1095.81	1095.62	1095.56	1095.55	1095.49	1095.46	1095.46
2	1094.60	1094.58	1094.80	1095.47	1095.64	1095.80	1095.62	1095.56	1095.55	1095.49	1095.46	1095.47	1094.80	1094.58	1094.80	1095.47	1095.64	1095.80	1095.62	1095.56	1095.55	1095.49	1095.47	1095.47
3	1094.58	1094.58	1094.81	1095.48	1095.67	1095.79	1095.62	1095.56	1095.54	1095.49	1095.46	1095.47	1094.81	1094.58	1094.81	1095.48	1095.67	1095.79	1095.62	1095.56	1095.54	1095.49	1095.47	1095.47
4	1094.57	1094.58	1094.82	1095.49	1095.66	1095.78	1095.62	1095.56	1095.54	1095.49	1095.46	1095.47	1094.82	1094.58	1094.82	1095.49	1095.66	1095.78	1095.62	1095.56	1095.54	1095.49	1095.46	1095.47
5	1094.57	1094.58	1094.84	1095.48	1095.65	1095.78	1095.61	1095.56	1095.54	1095.49	1095.46	1095.47	1094.84	1094.58	1094.84	1095.48	1095.65	1095.78	1095.61	1095.56	1095.54	1095.49	1095.46	1095.48
6	1094.56	1094.58	1094.85	1095.48	1095.78	1095.77	1095.61	1095.57	1095.54	1095.48	1095.46	1095.47	1094.85	1094.58	1094.85	1095.48	1095.78	1095.77	1095.61	1095.57	1095.54	1095.48	1095.46	1095.48
7	1094.54	1094.59	1094.86	1095.49	1095.81	1095.77	1095.61	1095.57	1095.54	1095.48	1095.46	1095.47	1094.86	1094.59	1094.86	1095.49	1095.81	1095.77	1095.61	1095.57	1095.54	1095.48	1095.46	1095.48
8	1094.53	1094.59	1094.87	1095.50	1095.76	1095.76	1095.61	1095.57	1095.54	1095.48	1095.46	1095.47	1094.87	1094.59	1094.87	1095.50	1095.76	1095.76	1095.61	1095.57	1095.54	1095.48	1095.46	1095.48
9	1094.52	1094.59	1094.88	1095.49	1095.73	1095.75	1095.61	1095.57	1095.54	1095.48	1095.46	1095.47	1094.88	1094.59	1094.88	1095.49	1095.73	1095.75	1095.61	1095.57	1095.54	1095.48	1095.46	1095.49
10	1094.51	1094.60	1094.89	1095.49	1095.73	1095.75	1095.60	1095.57	1095.55	1095.47	1095.46	1095.47	1094.89	1094.60	1094.89	1095.49	1095.73	1095.75	1095.60	1095.57	1095.55	1095.47	1095.46	1095.49
11	1094.50	1094.60	1094.90	1095.50	1095.74	1095.74	1095.60	1095.57	1095.55	1095.47	1095.46	1095.47	1094.90	1094.60	1094.90	1095.50	1095.74	1095.74	1095.60	1095.57	1095.55	1095.47	1095.46	1095.49
12	1094.50	1094.60	1094.92	1095.49	1095.73	1095.74	1095.60	1095.56	1095.54	1095.47	1095.46	1095.48	1094.92	1094.60	1094.92	1095.49	1095.73	1095.74	1095.60	1095.56	1095.54	1095.47	1095.46	1095.48
13	1094.50	1094.60	1094.93	1095.49	1095.71	1095.73	1095.60	1095.56	1095.54	1095.47	1095.46	1095.48	1094.93	1094.60	1094.93	1095.49	1095.71	1095.73	1095.60	1095.56	1095.54	1095.47	1095.46	1095.48
14	1094.50	1094.61	1094.94	1095.49	1095.70	1095.73	1095.59	1095.56	1095.54	1095.47	1095.46	1095.49	1094.94	1094.61	1094.94	1095.49	1095.70	1095.73	1095.59	1095.56	1095.54	1095.47	1095.46	1095.49
15	1094.50	1094.61	1094.95	1095.49	1095.70	1095.72	1095.60	1095.56	1095.54	1095.47	1095.46	1095.49	1094.95	1094.61	1094.95	1095.49	1095.70	1095.72	1095.60	1095.56	1095.54	1095.47	1095.46	1095.49
16	1094.50	1094.61	1095.38	1095.49	1095.69	1095.72	1095.59	1095.56	1095.53	1095.47	1095.47	1095.49	1095.38	1094.61	1095.38	1095.49	1095.69	1095.72	1095.59	1095.56	1095.53	1095.47	1095.47	1095.49
17	1094.52	1094.62	1095.25	1095.49	1096.54	1095.71	1095.59	1095.56	1095.53	1095.47	1095.47	1095.49	1095.25	1094.62	1095.25	1095.49	1096.54	1095.71	1095.59	1095.56	1095.53	1095.47	1095.47	1095.49
18	1094.51	1094.63	1095.25	1095.51	1096.88	1095.71	1095.60	1095.56	1095.53	1095.47	1095.47	1095.49	1095.25	1094.63	1095.25	1095.51	1096.88	1095.71	1095.60	1095.56	1095.53	1095.47	1095.47	1095.50
19	1094.50	1094.64	1095.26	1096.27	1096.24	1095.70	1095.59	1095.55	1095.52	1095.47	1095.47	1095.50	1095.26	1094.64	1095.26	1096.27	1096.24	1095.70	1095.59	1095.55	1095.52	1095.47	1095.47	1095.50
20	1094.49	1094.66	1095.27	1096.26	1096.10	1095.70	1095.57	1095.55	1095.52	1095.47	1095.47	1095.51	1095.27	1094.66	1095.27	1096.26	1096.10	1095.70	1095.57	1095.55	1095.52	1095.47	1095.47	1095.51
21	1094.48	1094.67	1095.27	1096.34	1096.02	1095.73	1095.58	1095.55	1095.52	1095.47	1095.47	1095.51	1095.27	1094.67	1095.27	1096.34	1096.02	1095.73	1095.58	1095.55	1095.52	1095.47	1095.47	1095.51
22	1094.48	1094.68	1095.34	1096.45	1095.96	1095.71	1095.58	1095.54	1095.51	1095.47	1095.47	1095.50	1095.34	1094.68	1095.34	1096.45	1095.96	1095.71	1095.58	1095.54	1095.51	1095.47	1095.47	1095.50
23	1094.47	1094.69	1095.48	1096.58	1095.92	1095.70	1095.58	1095.54	1095.51	1095.47	1095.47	1095.50	1095.48	1094.69	1095.48	1096.58	1095.92	1095.70	1095.58	1095.54	1095.51	1095.47	1095.47	1095.50
24	1094.47	1094.70	1095.50	1096.44	1095.90	1095.70	1095.57	1095.54	1095.50	1095.47	1095.47	1095.50	1095.50	1094.70	1095.50	1096.44	1095.90	1095.70	1095.57	1095.54	1095.50	1095.47	1095.47	1095.50
25	1094.47	1094.71	1095.48	1096.36	1095.88	1095.69	1095.55	1095.55	1095.50	1095.47	1095.47	1095.50	1095.48	1094.71	1095.48	1096.36	1095.88	1095.69	1095.55	1095.55	1095.50	1095.47	1095.47	1095.49
26	1094.47	1094.72	1095.47	1096.32	1095.87	1095.69	1095.56	1095.55	1095.49	1095.47	1095.47	1095.50	1095.47	1094.72	1095.47	1096.32	1095.87	1095.69	1095.56	1095.55	1095.49	1095.47	1095.47	1095.50
27	1094.47	1094.74	1095.47	1096.30	1095.84	1095.67	1095.55	1095.55	1095.49	1095.47	1095.47	1095.50	1095.47	1094.74	1095.47	1096.30	1095.84	1095.67	1095.55	1095.55	1095.49	1095.47	1095.47	1095.50
28	1094.51	1094.75	1095.47	1096.28	1095.82	1095.67	1095.55	1095.55	1095.49	1095.47	1095.47	1095.50	1095.47	1094.75	1095.47	1096.28	1095.82	1095.67	1095.55	1095.55	1095.49	1095.47	1095.47	1095.50
29	1094.53	1094.76	1095.47	1096.29	---	---	---	---	---	---	---	---	1095.47	1094.76	1095.47	1096.29	---	---	---	---	---	---	---	---
30	1094.55	1094.77	1095.47	1095.99	---	---	---	---	---	---	---	---	1095.47	1094.77	1095.47	1095.99	---	---	---	---	---	---	---	---
31	1094.57	---	1095.47	1095.64	---	1095.62	---	1095.55	---	---	---	---	1095.47	---	1095.47	1095.64	---	1095.62	---	1095.55	---	---	---	---

Data is provisional and subject to revision.

Data logger malfunctioning. Data estimated using downstream gage and observational measurements.

Rainfall Stations

VENTURA COUNTY, CALIFORNIA
WATER SURVEY
DAILY RAINFALL RECORD

STATION:	Matilija Dam	NUMBER:	134
OBSERVER:	Automated	OBSER. TIME:	0800
AUTHORITY:	Ventura County Watershed Protection District	LATITUDE:	34°29' N
ADDRESS:	800 S. Victoria Ave, Ventura, CA 93009	LONGITUDE:	119°18' W
COMPILED:	Bill Carey/Hydrologist	ELEV:	1060 ft

2016-17

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0.26								
2												
3					0.54							
4					0.96							0.02
5				0.67								
6					2.22	0.25						
7				0.75	0.54			0.16				
8				0.20	0.29		0.13	0.04				
9				1.06	0.01							
10					0.01							
11				0.83	0.81							0.06
12				0.55	0.11							
13				0.46								
14							0.02					
15												
16			2.41									
17	0.15				0.45							
18					5.55							
19				1.22	0.13		0.20					
20				0.75	0.55							
21		0.38		2.26	0.19	0.39						
22			0.07	0.78	0.09	0.82						
23				4.24								
24			2.21	0.04								
25			0.01	0.01		0.01						
26					0.24							
27		0.34			0.01							
28	0.50	0.01										
29												
30	0.11		0.15									
31	0.20		0.02								0.02	
Mo Total	0.96	0.73	4.87	14.08	12.70	1.47	0.35	0.20	0.00	0.00	0.02	0.08
Yr Total	0.96	1.69	6.56	20.64	33.34	34.81	35.16	35.36	35.36	35.36	35.38	35.46

Rainfall in inches

**Data is preliminary and subject to revision - VCWPD*

VENTURA COUNTY, CALIFORNIA
WATER SURVEY
DAILY RAINFALL RECORD

STATION: Lake Casitas Recreation Area
OBSERVER: CMWD Recreation staff
AUTHORITY: Casitas Municipal Water District
ADDRESS: 1055 Ventura Ave, Oak View, CA 93022
COMPILED: J. Switzer

NUMBER: 204
OBSER. TIME: 0800
LATITUDE: 34°25' N
LONGITUDE: 119°20' W
ELEV: 592 ft

2016-17

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2											0.02	
3					0.35							
4												0.05
5				0.90								
6					2.00	0.40						
7				0.50	1.00			0.12				
8					0.10		0.33	0.03				
9				1.10								
10												
11				0.65	0.55							0.10
12												
13												
14												
15												
16			1.91									
17	0.07				0.35							
18					6.25							
19				1.50			0.15					
20					0.65							
21		0.40		2.10	0.25	0.33						
22			0.04	1.00	0.25	0.57						
23				2.70								
24			1.50									
25								0.02				
26												
27		0.34										
28	0.45											
29												
30			0.14									
31	0.19		0.20									
Mo Total	0.71	0.74	3.79	10.45	11.75	1.30	0.48	0.17	0.00	0.00	0.02	0.15
Yr Total	0.71	1.45	5.24	15.69	27.44	28.74	29.22	29.39	29.39	29.39	29.41	29.56

Rainfall in inches

VENTURA COUNTY, CALIFORNIA
WATER SURVEY
DAILY RAINFALL RECORD

STATION:	Casitas Dam	NUMBER:	004
OBSERVER:	CMWD Damtender	OBSER. TIME:	0800
AUTHORITY:	Casitas Municipal Water District	LATITUDE:	34°22' N
ADDRESS:	1055 Ventura Ave, Oak View, CA 93022	LONGITUDE:	119°20' W
COMPILED:	J. Switzer	ELEV:	400 ft

2016-17

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												
2												
3					0.21							0.04
4					0.17							
5												
6				1.14	2.46	0.18						
7				0.02	0.29			0.06				
8				0.39	0.43		0.38	0.08				
9				0.17	0.08							
10			0.01	1.10	0.03							0.04
11					0.47							
12				0.87	0.03							
13				0.09								0.01
14				0.35								
15												
16			1.93									
17	0.22				0.28							
18					7.04							0.01
19				1.16	0.07		0.15					0.01
20				0.58	0.67							
21		0.35		1.93	0.26	0.39						
22			0.06	0.83	0.19	0.68						
23				2.22								
24			1.76	0.03								
25						0.02						
26					0.22							
27		0.48			0.01							
28	0.26											
29	0.06											
30	0.08		0.17									
31	0.09		0.22									
Mo Total	0.71	0.83	4.15	10.88	12.91	1.27	0.53	0.14	0.00	0.00	0.00	0.11
Yr Total	0.71	1.54	5.69	16.57	29.48	30.75	31.28	31.42	31.42	31.42	31.42	31.53

Rainfall in inches

VENTURA COUNTY, CALIFORNIA
WATER SURVEY
DAILY RAINFALL RECORD

STATION: **Ojai - Thacher School**
 OBSERVER: Automated
 AUTHORITY: Ventura County Watershed Protection District
 ADDRESS: 800 S. Victoria Ave, Ventura, CA 93009
 COMPILED:

NUMBER: 059
 OBSER. TIME: 0800
 LATITUDE: 34°28' N
 LONGITUDE: 119°10' W
 ELEV: 1440 ft

2016-17

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				0.36								
2												
3					0.08							
4					0.15							0.04
5				0.48	0.01							
6				0.01	1.88	0.22		0.07				
7				0.46	0.37			0.33				
8				0.16	0.13		0.31	0.04				
9				1.03								
10					0.02							
11				0.98	0.71				0.02			0.03
12				0.18	0.01							
13				0.52	0.01		0.02					
14												
15												
16			1.90									
17	0.09				0.52							
18	0.01				5.98							
19				0.92	0.04		0.15					
20				0.55	0.38							
21		0.28		1.45	0.11	0.32						
22			0.02	0.62	0.09	0.59						
23				2.39								
24			1.54	0.03								
25						0.01		0.01				
26					0.25							
27		0.35										
28	0.37	0.02										
29	0.01											
30	0.12		0.31									
31	0.40		0.04									
Mo Total	1.00	0.65	3.81	10.14	10.74	1.14	0.48	0.45	0.02	0.00	0.00	0.07
Yr Total	1.00	1.65	5.46	15.60	26.34	27.48	27.96	28.41	28.43	28.43	28.43	28.50

Rainfall in inches

**Data is preliminary and subject to revision - VCWPD*

Streamflow Gaging Stations

Matilija Creek at Matilija Hot Springs

USGS #: 11115500
 VCWPD #: 602
 DATE INSTALLED: 10/1927
 MAINTAINED BY: CMWD

LATITUDE: 34°28'58" N
 LONGITUDE: 119°18'7" W
 ELEVATION: 900 ft
 DRAINAGE AREA: 54 sq mi

WATER YEAR OCTOBER 2016 TO SEPTEMBER 2017

Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.5	0.6	0.8	2	24	99	29	15	11	5	3	2
2	0.4	0.6	0.8	2	22	93	28	15	10	5	2	2
3	0.4	0.6	0.8	1	30	87	28	15	10	5	2	2
4	0.4	0.6	0.8	2	26	82	27	15	10	4	3	3
5	0.4	0.6	0.8	4	23	80	26	15	9	4	3	3
6	0.4	0.6	0.9	2	117	74	26	16	11	3	2	3
7	0.4	0.6	0.9	3	104	70	26	17	9	3	2	3
8	0.4	0.6	0.8	3	77	66	27	17	10	3	2	2
9	0.3	0.5	0.8	4	64	63	25	16	10	3	2	2
10	0.4	0.5	0.8	3	60	61	24	16	10	3	2	3
11	0.4	0.6	0.8	4	66	58	23	16	11	3	2	3
12	0.4	0.6	0.8	5	59	55	23	15	10	2	2	3
13	0.4	0.6	0.8	4	54	53	23	14	9	2	2	3
14	0.4	0.6	0.8	3	50	51	22	14	9	2	2	3
15	0.4	0.5	0.9	3	46	49	22	15	9	2	2	3
16	0.4	0.5	1	3	44	48	21	15	8	2	3	3
17	0.5	0.5	0.5	3	1337	46	21	14	9	2	2	3
18	0.4	0.5	0.5	3	1264	44	22	14	9	2	2	3
19	0.4	0.5	0.5	7	456	43	21	13	10	2	2	3
20	0.4	0.6	0.6	46	321	42	20	13	9	2	2	3
21	0.4	0.7	0.6	45	257	53	19	12	9	1	2	2
22	0.4	0.6	0.9	256	213	49	19	12	8	1	2	2
23	0.4	0.6	3	258	181	43	18	12	7	2	2	2
24	0.4	0.6	5	109	157	40	18	12	7	2	3	3
25	0.5	0.6	2	69	141	39	18	12	7	2	3	3
26	0.5	0.7	2	52	132	37	18	12	7	3	3	2
27	0.5	0.7	2	42	119	36	17	12	7	3	3	2
28	0.6	0.8	2	36	109	34	17	12	6	3	3	2
29	0.5	0.8	2	32	---	33	16	11	6	3	3	2
30	0.6	0.8	2	29	---	32	16	11	6	4	3	2
31	0.6	---	2	26	---	30	---	11	---	3	3	---
TOTAL	13	18	36	1060	5553	1691	661	425	261	85	76	76
MEAN	0.4	0.6	1.2	34	198	55	22	14	8.7	2.7	2.4	2.5
MAX	0.6	0.8	4.6	258	1337	99	29	17	11	5.3	3.3	3.1
MIN	0.3	0.5	0.5	1.4	22	30	16	11	5.6	1.4	2.1	1.8
ACRE FT	27	36	71	2103	11015	3355	1311	843	518	169	150	151

Data is provisional and subject to revision

North Fork Matilija Creek at Matilija Hot Springs

USGS #: 11116000
 VCWPD #: 604
 DATE INSTALLED: 01/1934
 MAINTAINED BY: VCWPD

LATITUDE: 34°29'34" N
 LONGITUDE: 119°18'23" W
 ELEVATION: 1142 ft
 DRAINAGE AREA: 15.8 sq mi

WATER YEAR OCTOBER 2016 TO SEPTEMBER 2017

Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.1	0.2	0.3	2	8	17	5	3	2	1	0.5	M
2	0.1	0.2	0.3	2	8	16	5	3	2	1	0.4	M
3	0.1	0.2	0.3	2	10	15	5	3	2	1	0.4	M
4	0.1	0.2	0.3	2	10	15	5	3	2	0.9	0.4	M
5	0.1	0.2	0.3	2	10	15	5	3	2	0.9	M	M
6	0.1	0.2	0.3	2	39	15	5	3	2	0.9	M	M
7	0.1	0.2	0.3	3	18	14	5	3	2	0.9	M	M
8	0.1	0.2	0.3	2	13	13	5	3	2	0.9	M	M
9	0.1	0.2	0.3	4	11	12	4	3	2	0.9	M	M
10	0.1	0.3	0.3	3	11	11	4	3	2	0.8	M	M
11	0.1	0.3	0.3	3	12	11	4	3	2	0.8	M	M
12	0.1	0.3	0.3	3	12	11	4	3	2	0.8	M	M
13	0.1	0.3	0.3	3	11	11	4	3	2	0.8	M	M
14	0.1	0.3	0.3	3	10	10	4	3	2	0.8	M	M
15	0.1	0.3	0.3	3	9	10	4	3	2	0.7	M	M
16	0.1	0.3	2	2	9	10	4	3	2	0.7	M	M
17	0.1	0.3	2	2	435	9	4	3	2	0.7	M	M
18	0.1	0.3	1	2	372	9	4	3	2	0.7	M	M
19	0.1	0.3	1	4	116	9	4	2	1	0.7	M	M
20	0.1	0.3	1	40	82	9	3	2	1	0.7	M	M
21	0.2	0.3	1	11	63	9	3	2	1	0.6	M	M
22	0.2	0.3	1	170	49	8	3	2	1	0.6	M	M
23	0.2	0.3	3	70	41	7	3	2	1	0.6	M	M
24	0.2	0.3	3	25	34	7	3	2	1	0.6	M	M
25	0.2	0.3	2	13	29	7	3	2	1	0.6	M	M
26	0.2	0.3	2	10	25	6	3	2	1	0.6	M	M
27	0.2	0.3	2	9	22	6	3	2	1	0.5	M	M
28	0.2	0.3	2	8	19	6	3	2	1	0.5	M	M
29	0.2	0.3	2	8	---	6	3	2	1	0.5	M	M
30	0.2	0.3	2	8	---	5	3	2	1	0.5	M	M
31	0.2	---	2	8	---	5	---	2	---	0.5	M	---
TOTAL	3.8	7.8	32	427	1489	315	118	80	44	23	1.7	---
MEAN	0.1	0.3	1.0	14	53	10	3.9	2.6	1.5	0.7	0.4	---
MAX	0.2	0.3	3.1	170	435	17	5	3.3	2.0	1.0	0.5	---
MIN	0.1	0.2	0.3	1.6	8.2	5.2	3.0	2.0	1.0	0.5	0.4	---
ACREFT	7.6	15	64	848	2953	624	234	159	87	45	---	---

Estimated daily data

These data are preliminary and subject to change until checked and evaluated by Ventura County. Unverified data may contain errors that have not been checked by Hydrology staff. Ventura County does not guarantee the accuracy of these data; please note that flows may vary considerably during each day and from day to day.

Ventura River near Meiners Oaks (Robles)

USGS #: 11116550
 VCWPD #: 607
 DATE INSTALLED: 05/1959
 MAINTAINED BY: CMWD

LATITUDE: 34°27'49" N
 LONGITUDE: 119°17'26" W
 ELEVATION: 740 ft
 DRAINAGE AREA: 74 sq mi

WATER YEAR OCTOBER 2016 TO SEPTEMBER 2017

Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	26	32	28	13	3.9	0	0	0
2	0	0	0	0	24	31	27	12	1.2	0	0	0
3	0	0	0	0	28	31	27	27	2.6	0	0	0
4	0	0	0	0	27	31	26	11	1.8	0	0	0
5	0	0	0	0	24	30	25	11	4.0	0	0	0
6	0	0	0	0	34	31	24	11	5.1	0	0	0
7	0	0	0	0	42	31	25	11	3.2	0	0	0
8	0	0	0	0.3	50	31	26	10	1.4	0	0	0
9	0	0	0	3.9	50	32	24	10	1.0	0	0	0
10	0	0	0	1.1	50	32	24	11	1.0	0	0	0
11	0	0	0	1.8	49	32	23	11	0.7	0	0	0
12	0	0	0	3.9	51	31	23	11	0.8	0	0	0
13	0	0	0	3.2	51	31	23	10	1.0	0	0	0
14	0	0	0	1.2	49	32	23	8.6	0.7	0	0	0
15	0	0	0	0.9	46	32	22	8.2	0.1	0	0	0
16	0	0	0	0.6	44	32	22	6.8	0.0	0	0	0
17	0	0	0	0.2	2300	32	21	6.5	0.1	0	0	0
18	0	0	0	0.4	2800	31	22	7.1	0.0	0	0	0
19	0	0	0	7.0	136	32	22	6.3	0.1	0	0	0
20	0	0	0	93	83	32	20	7.5	0.1	0	0	0
21	0	0	0	64	66	33	19	7.5	0	0	0	0
22	0	0	0	592	59	32	18	6.6	0	0	0	0
23	0	0	0	150	53	32	18	5.4	0	0	0	0
24	0	0	1.0	117	49	32	16	3.7	0	0	0	0
25	0	0	0	80	49	32	16	6.0	0	0	0	0
26	0	0	0	55	42	32	15	5.1	0	0	0	0
27	0	0	0	43	34	32	15	4.3	0	0	0	0
28	0	0	0	37	32	32	14	4.0	0	0	0	0
29	0	0	0	32	---	31	14	4.1	0	0	0	0
30	0	0	0	31	---	30	13	5.1	0	0	0	0
31	0	---	0	28	---	29	---	3.9	---	0	0	---
TOTAL	0	0	1.0	1344	6347	973	636	251	29	0	0	0
MEAN	0	0	0.0	43	227	31	21	8	1	0	0	0
MAX	0	0	1.0	592	2800	33	28	13	5	0	0	0
MIN	0	0	0	0	24	29	13	4	0	0	0	0
ACRE FT	0	0	2	2666	12590	1929	1262	497	57	0	0	0

Data is provisional and subject to revision

Flow over cut-off wall not measured by VRNMO. Rating table not validated at high flows.
 Data logger malfunctioning. Discharge estimated from staff gage and auxiliary / fishway flow-meters

Robles-Casitas Canal (First Bridge)

USGS #: N/A
 VCWPD #: N/A
 DATE INSTALLED: 1958
 MAINTAINED BY: CMWD

LATITUDE: 34°27'43" N
 LONGITUDE: 119°17'34" W
 ELEVATION: 770 ft
 DRAINAGE AREA: N/A

WATER YEAR OCTOBER 2016 TO SEPTEMBER 2017

Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	56	0	0	0	0	0	0
2	0	0	0	0	0	51	0	0	0	0	0	0
3	0	0	0	0	0	45	0	0	0	0	0	0
4	0	0	0	0	0	42	0	0	0	0	0	0
5	0	0	0	0	0	42	0	0	0	0	0	0
6	0	0	0	0	98	35	0	0	0	0	0	0
7	0	0	0	0	62	30	0	0	0	0	0	0
8	0	0	0	0	23	27	0	0	0	0	0	0
9	0	0	0	0	8	23	0	0	0	0	0	0
10	0	0	0	0	2	21	0	0	0	0	0	0
11	0	0	0	0	16	19	0	0	0	0	0	0
12	0	0	0	0	7	16	0	0	0	0	0	0
13	0	0	0	0	3	14	0	0	0	0	0	0
14	0	0	0	0	0	12	0	0	0	0	0	0
15	0	0	0	0	0	11	0	0	0	0	0	0
16	0	0	0	0	0	10	0	0	0	0	0	0
17	0	0	0	0	61	9	0	0	0	0	0	0
18	0	0	0	0	316	7	0	0	0	0	0	0
19	0	0	0	0	441	6	0	0	0	0	0	0
20	0	0	0	0	287	5	0	0	0	0	0	0
21	0	0	0	0	218	13	0	0	0	0	0	0
22	0	0	0	77	166	12	0	0	0	0	0	0
23	0	0	0	199	129	6	0	0	0	0	0	0
24	0	0	0	14	105	4	0	0	0	0	0	0
25	0	0	0	1	86	3	0	0	0	0	0	0
26	0	0	0	0	85	1	0	0	0	0	0	0
27	0	0	0	0	78	1	0	0	0	0	0	0
28	0	0	0	0	67	0	0	0	0	0	0	0
29	0	0	0	0	---	0	0	0	0	0	0	0
30	0	0	0	0	---	0	0	0	0	0	0	0
31	0	---	0	0	---	0	---	0	---	0	0	---
TOTAL	0.0	0.0	0.0	291	2259	520	0.0	0.0	0.0	0.0	0.0	0.0
MEAN	0.0	0.0	0.0	9.4	80.7	16.8	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.0	0.0	0.0	199	441	56	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACRE FT	0	0	0	578	4482	1032	0	0	0	0	0	0

Data is provisional and subject to revision.

Ventura River near Ventura (Foster Park)

USGS #: 11118500
 VCWPD #: 608
 DATE INSTALLED: 10/1929
 MAINTAINED BY: USGS, Water Resources Division

LATITUDE: 34°21'09" N
 LONGITUDE: 119°18'29" W
 ELEVATION: 205 ft
 DRAINAGE AREA: 187 sq mi

WATER YEAR OCTOBER 2016 TO SEPTEMBER 2017

Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	17	54	28	20	9	7	7	3
2	0	0	0	0	16	52	28	19	8	8	6	3
3	0	0	0	0	18	50	26	20	8	7	5	3
4	0	0	0	0	18	49	24	18	8	6	5	4
5	0	0	0	0	20	49	26	18	7	6	6	4
6	0	0	0	0	503	46	28	18	7	5	7	4
7	0	0	0	0	86	45	28	18	7	4	7	4
8	0	0	0	0	64	43	30	17	6	4	6	4
9	0	0	0	0	56	43	29	15	6	4	8	3
10	0	0	0	0	58	42	28	16	6	4	13	3
11	0	0	0	0	64	41	27	16	6	5	7	2
12	0	0	0	0	54	41	25	16	6	4	6	2
13	0	0	0	0	52	39	26	15	6	5	6	2
14	0	0	0	0	49	38	22	15	5	5	6	2
15	0	0	0	0	46	38	17	15	5	5	5	2
16	0	0	0.1	0	48	37	16	14	6	5	5	2
17	0	0	0	0	4580	37	16	14	5	5	4	2
18	0	0	0	0	3760	36	16	14	5	5	4	2
19	0	0	0	0.1	404	36	15	14	6	5	4	2
20	0	0	0	467	274	35	17	13	6	5	4	2
21	0	0	0	37	199	49	17	13	6	6	4	2
22	0	0	0	1870	161	45	17	12	6	5	4	2
23	0	0	0	526	130	38	18	12	6	6	4	2
24	0	0	0.1	130	108	35	18	12	6	7	4	2
25	0	0	0	59	97	36	18	12	5	7	4	2
26	0	0	0	35	93	35	19	12	5	7	4	2
27	0	0	0	24	71	34	19	11	5	7	4	2
28	0	0	0	18	60	32	19	11	5	7	4	2
29	0	0	0	17	---	32	19	10	6	7	4	2
30	0	0	0	16	---	31	19	10	6	7	3	2
31	0	---	0	17	---	29	---	9	---	7	3	---
TOTAL	0	0	0.2	3215	11104	1248	656	448	184	180	163	83
MEAN	0	0	0	104	397	40	22	14	6	6	5	3
MAX	0	0	0.1	1870	4580	54	30	20	9	8	13	4
MIN	0	0	0	0	16	29	15	9	5	4	3	2
ACRE FT	0	0	0.4	6377	22024	2475	1301	889	365	356	323	164

Data is provisional and subject to revision

Santa Ana Creek, near Oak View

USGS #: 11117800
 VCWPD #: 606
 DATE INSTALLED: 10/1958
 MAINTAINED BY: CMWD

LATITUDE: 34°25'24" N
 LONGITUDE: 119°20'28" W
 ELEVATION: 630 ft
 DRAINAGE AREA: 9 sq mi

WATER YEAR OCTOBER 2016 THROUGH SEPTEMBER 2017

Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	6	23	3	0.7	0.1	0.6	0	0
2	0	0	0	0	5	20	3	0.7	0	0.6	0	0
3	0	0	0	0	6	19	3	0.7	0	0.6	0	0
4	0	0	0	0	5	18	3	0.7	0	0.5	0	0
5	0	0	0	0	5	19	2	0.7	0	0.5	0	0
6	0	0	0	0	73	17	2	0.9	0	0.4	0	0
7	0	0	0	0	43	15	2	1.0	0	0.4	0	0
8	0	0	0	0	32	14	2	0.9	0	0.3	0	0
9	0	0	0	0	22	13	2	0.8	0	0.3	0	0
10	0	0	0	0	20	9	2	0.8	0	0.2	0	0
11	0	0	0	0	23	7	2	0.8	0	0.1	0	0
12	0	0	0	0.7	18	6	2	0.7	0	0.1	0	0
13	0	0	0	3	14	6	2	0.6	0	0	0	0
14	0	0	0	2	11	5	2	0.6	0.6	0	0	0
15	0	0	0	2	11	5	2	0.6	1	0	0	0
16	0	0	0	2	11	5	2	0.7	1	0	0	0
17	0	0	0	2	650	5	2	0.6	0.9	0	0	0
18	0	0	0	2	391	3	2	0.6	0.9	0	0	0
19	0	0	0	4	117	3	2	0.5	0.9	0	0	0
20	0	0	0	80	93	3	1	0.4	0.8	0	0	0
21	0	0	0	16	77	7	1	0.4	0.8	0	0	0
22	0	0	0	168	65	6	1	0.4	0.8	0	0	0
23	0	0	0	72	53	3	1	0.3	0.8	0	0	0
24	0	0	0	27	44	2	1	0.3	0.8	0	0	0
25	0	0	0	15	37	3	1	0.3	0.7	0	0	0
26	0	0	0	11	35	4	0.9	0.3	0.6	0	0	0
27	0	0	0	10	30	4	0.9	0.2	0.6	0	0	0
28	0	0	0	8	26	4	0.8	0.1	0.6	0	0	0
29	0	0	0	7	---	3	0.7	0	0.6	0	0	0
30	0	0	0	7	---	3	0.8	0.1	0.6	0	0	0
31	0	---	0	6	---	3	---	0	---	0	0	---
TOTAL	0	0	0	444	1925	258	52	17	13	5	0	0
MEAN	0	0	0	14	69	8	2	0.5	0.4	0.2	0	0
MAX	0	0	0	168	650	23	3	1	1	0.6	0	0
MIN	0	0	0	0	5	2	0.7	0	0	0	0	0
ACRE FT	0	0	0	880	3818	512	103	33	26	9	0	0

Data is provisional and subject to revision

Discharges are based on previous gage's rating curve. Values will be updated when a new curve is available.

Coyote Creek, near Oak View

USGS #: 11117600
 VCWPD #: 600
 DATE INSTALLED: 10/1958
 MAINTAINED BY: CMWD

LATITUDE: 34°25'01" N
 LONGITUDE: 119°22'17" W
 ELEVATION: 630 ft
 DRAINAGE AREA: 13.1 sq mi

WATER YEAR OCTOBER 2016 TO SEPTEMBER 2017

Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0.2	0.2	5	8	30	8	5	5	4	0.8	0.5
2	0	0.1	0.2	5	7	27	8	5	5	4	0.8	0.5
3	0	0.2	0.2	5	8	24	8	5	5	3	0.7	0.5
4	0	0.2	0.2	5	7	23	8	5	5	3	0.7	0.7
5	0	0.2	0.2	6	7	23	8	5	5	3	0.8	0.8
6	0	0.2	0.2	5	177	20	7	6	5	3	0.8	0.8
7	0	0.2	0.2	6	63	19	7	6	5	2	0.8	0.7
8	0	0.2	0.2	5	43	17	8	5	5	2	0.8	0.7
9	0	0.1	0.1	11	32	16	8	6	5	2	0.7	0.8
10	0	0.1	0.1	12	31	15	7	6	5	2	0.7	0.7
11	0	0.1	0.2	41	41	15	7	6	5	2	0.7	0.8
12	0	0.1	0.1	24	29	14	7	5	5	2	0.7	0.8
13	0.1	0.1	0.2	21	24	13	7	5	5	2	0.7	0.8
14	0.1	0.1	0.2	20	20	12	7	5	5	2	0.8	0.9
15	0.1	0.2	1	17	17	11	7	5	5	2	0.9	1.0
16	0.1	0.2	8	13	15	11	7	6	6	1	0.9	1.0
17	0.1	0.2	6	14	908	11	7	5	6	1	0.9	1.1
18	0.1	0.3	6	16	812	11	7	5	6	1	0.8	1.1
19	0.0	0.3	6	27	206	10	7	5	6	1	0.8	1.1
20	0.1	0.3	5	363	175	10	7	5	6	2	0.8	1.2
21	0.1	0.3	5	52	132	18	6	5	6	1	0.9	1.1
22	0.1	0.2	5	384	100	16	6	5	5	1	0.8	1.0
23	0.1	0.3	9	184	76	12	6	5	5	1	0.8	1.1
24	0.1	0.2	10	48	61	11	6	5	5	1	0.8	1.0
25	0.1	0.2	7	26	50	11	6	5	4	2	0.8	0.9
26	0.1	0.2	6	19	47	10	6	5	4	1	0.8	0.9
27	0.1	0.1	5	15	39	10	5	5	4	1	0.7	0.8
28	0.2	0.1	6	13	34	9	5	5	4	1	0.7	0.8
29	0.1	0.1	6	11	---	9	5	5	4	0.8	0.6	0.8
30	0.2	0.1	7	10	---	9	5	5	4	0.8	0.6	0.8
31	0.2	---	6	9	---	8	---	5	---	0.8	0.6	---
TOTAL	2.4	5.4	108	1390	3169	453	204	161	151	56	24	26
MEAN	0.1	0.2	3.5	45	113	15	6.8	5.2	5.0	1.8	0.8	0.9
MAX	0.2	0.3	9.5	384	908	30	8.3	5.7	6.5	3.7	0.9	1.2
MIN	0.0	0.1	0.1	4.8	6.8	8.3	5.5	4.5	3.9	0.8	0.6	0.5
ACRE FT	5	11	215	2757	6285	898	405	320	300	112	47	51

Data is provisional and subject to revision

Peak stage height exceeded current rating table.

San Antonio Creek at Old Creek Rd

USGS #: 11117500
 VCWPD #: 605A
 DATE INSTALLED: 10/1949
 MAINTAINED BY: VCWPD

LATITUDE: 34°22'57" N
 LONGITUDE: 119°18'10" W
 ELEVATION: 312 ft
 DRAINAGE AREA: 51.2 sq mi

WATER YEAR OCTOBER 2016 THROUGH SEPTEMBER 2017

Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	18	17	0.2	2	M	M	M	M
2	0	0	0	0	18	14	0.1	1	M	M	M	M
3	0	0	0	0	18	13	0	0.7	M	M	M	M
4	0	0	0	0	18	12	0	M	M	M	M	M
5	0	0	0	0	18	11	0	M	M	M	M	M
6	0	0	0	0	151	10	0	M	M	M	M	M
7	0	0	0	0	80	8	0	M	M	M	M	M
8	0	0	0	0	48	8	0	M	M	M	M	M
9	0	0	0	12	33	7	0	M	M	M	M	M
10	0	0	0	0	34	5	0	M	M	M	M	M
11	0	0	0	4	42	4	0	M	M	M	M	M
12	0	0	0	4	27	4	0	M	M	M	M	M
13	0	0	0	1	24	3	0	M	M	M	M	M
14	0	0	0	0.5	22	2	0	M	M	M	M	M
15	0	0	0	0.4	22	2	0	M	M	M	M	M
16	0	0	0	0.4	22	2	0	M	M	M	M	M
17	0	0	0	0.4	863	1	0	M	M	M	M	M
18	0	0	0	0.5	428	0.8	0	M	M	M	M	M
19	0	0	0	12	118	0.4	0	M	M	M	M	M
20	0	0	0	173	89	0.2	0	M	M	M	M	M
21	0	0	0	65	64	3	0	M	M	M	M	M
22	0	0	0	298	56	3	0	M	M	M	M	M
23	0	0	3	209	39	2	0	M	M	M	M	M
24	0	0	4	99	28	2	0	M	M	M	M	M
25	0	0	0	59	23	1	0.2	M	M	M	M	M
26	0	0	0	31	23	1	0.5	M	M	M	M	M
27	0	0	0	23	20	0.8	0.6	M	M	M	M	M
28	0	0	0	22	18	0.7	0.6	M	M	M	M	M
29	0	0	0	20	---	0.5	0.9	M	M	M	M	M
30	0	0	0	20	---	0.4	1	M	M	M	M	M
31	0	---	0	19	---	0.2	---	M	---	M	M	---
TOTAL	0	0	6.80	1073.51	2364.00	137.89	4.54	3.44	0	0	0	0
MEAN	0	0	0	35	84	4	0	1.1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
MAX	0	0	4	298	863	17	1	2	0	0.0	0	0
MIN	0	0	0	0	18	0	0.0	1	0	0	0	0
ACRE FT	0	0	13	2129	4689	274	9	7	0	0	0	0
M	Missing Data											

These data are preliminary and subject to change until checked and evaluated by Ventura County. Unverified data may contain errors that have not been checked by Hydrology Staff. Ventura

HISTORICAL HYDROLOGY DATA

Casitas Reservoir Inventory Annual Summary

- Calendar Year 1959 – Present

Annual Rainfall (Water Year 1959 – Present):

- Matilija Dam
- Lake Casitas (upper) Recreation Area
- Casitas Dam
- Ojai – Thacher School

Monthly Rainfall (Water Year 1960 – Present):

- Lake Casitas (upper) Recreation Area

Ambient Air Temperatures (Calendar Year 1960 – Present):

- Lake Casitas (upper) Recreation Area
- Casitas Dam

Robles – Casitas Canal Monthly Diversions

- Calendar Year 1959 – Present

CASITAS RESERVOIR INVENTORY ANNUAL SUMMARY

(CALENDAR YEAR - ALL VALUES IN ACRE-FEET UNLESS OTHERWISE NOTED)

YEAR	RESERVOIR DATA (START OF YEAR-Last Day of Previous Month)		INFLOW FOR YEAR			RELEASES FOR YEAR			SPILL FOR YEAR	EVAP FOR YEAR	RAINFALL ON LAKE SURFACE	STORAGE VOLUME	
	ELEVATION (FT ABOVE MSL)	STORAGE	DIRECT	VENTURA RIVER DIVERSION	TOTAL	TO CONV. SYSTEM	DOWN RIVER	TOTAL				MAXIMUM FOR YEAR	MINIMUM FOR YEAR
1959	350.00	-	2,305	5,105	7,410	586	72	658	-	728	59	7,022	574
1960	366.66	5,908	1,322	24	1,346	1,277	80	1,357	-	1,068	372	6,846	5,201
1961	363.28	5,201	967	33	1,000	1,625	18	1,643	-	819	133	5,201	3,642
1962	355.46	3,870	26,428	21,915	48,343	1,988	55	2,043	-	3,505	1,014	51,977	3,845
1963	477.68	47,679	2,114	2,939	5,053	4,445	72	4,517	-	3,498	1,664	51,524	46,381
1964	446.13	46,381	1,841	354	2,195	6,024	72	6,096	-	3,406	1,293	46,381	38,606
1965	438.57	40,373	15,279	21,438	36,717	7,631	72	7,703	-	2,957	2,421	68,851	39,718
1966	469.42	68,851	11,941	25,323	37,264	7,162	73	7,235	-	5,030	1,915	95,765	70,068
1967	490.62	95,765	12,961	35,172	48,133	8,759	72	8,831	-	6,214	3,840	138,996	108,511
1968	513.22	132,333	1,677	1,070	2,747	13,729	74	13,803	-	6,593	2,133	132,549	116,818
1969	504.25	116,818	55,379	50,349	105,728	14,040	73	14,113	-	8,413	7,625	216,790	116,418
1970	548.94	207,694	7,112	15,859	22,971	16,417	72	16,489	-	9,841	5,395	217,656	207,214
1971	549.78	207,729	3,758	10,957	14,715	16,392	24	16,416	-	9,552	3,433	214,692	193,686
1972	546.52	201,908	813	1,718	2,531	17,878	73	17,951	-	8,758	1,706	202,690	179,435
1973	536.70	179,435	22,262	39,588	61,850	13,963	33	13,996	-	8,937	4,520	239,330	224,519
1974	555.75	224,519	5,240	11,732	16,972	17,400	23	17,423	-	9,394	5,423	238,096	217,063
1975	553.99	220,096	5,352	12,988	18,340	15,937	73	16,010	-	8,870	2,813	235,437	216,370
1976	552.49	216,370	3,031	3,438	6,469	18,371	104	18,475	-	9,142	3,782	219,324	198,885
1977	545.29	199,003	1,590	1,094	2,684	18,035	70	18,105	-	8,821	3,352	200,062	175,359
1978	536.10	178,113	49,376	28,695	78,071	12,390	2,677	15,067	1,572	9,622	9,879	255,307	178,025
1979	561.68	239,802	7,584	8,845	16,429	13,072	32	13,104	1,193	9,963	5,395	255,116	237,183
1980	560.75	237,365	28,923	2,717	31,640	16,283	73	16,356	16,855	9,900	7,393	260,034	233,286
1981	559.18	233,286	3,112	5,772	8,884	20,242	73	20,315	-	9,412	4,002	240,222	216,395
1982	552.52	216,444	5,206	9,933	15,139	14,739	73	14,812	-	8,339	5,645	223,208	206,564
1983	551.56	214,078	44,548	22,131	66,679	15,757	73	15,830	17,877	8,844	11,699	259,264	213,562
1984	565.49	249,931	2,878	2,087	4,965	23,007	73	23,080	-	10,637	2,924	249,958	220,748
1985	555.15	223,006	4,220	3,014	7,234	20,219	73	20,292	-	9,149	2,637	223,208	196,404
1986	545.97	200,605	18,711	39,316	58,027	17,797	73	17,870	742	9,700	5,589	254,926	200,558
1987	560.16	235,828	-988	1,614	626	21,775	73	21,848	-	9,117	3,142	236,063	208,711
1988	549.35	208,687	1,431	9,154	10,585	21,974	73	22,047	-	9,005	3,715	216,543	191,890
1989	542.25	191,936	1,086	524	1,610	26,180	73	26,253	-	9,010	1,399	192,259	159,729
1990	527.43	159,688	-1,115	-	-1,115	21,494	73	21,567	-	8,353	1,447	159,688	130,141
1991	511.99	130,141	12,114	17,620	29,734	15,416	73	15,489	-	7,481	4,496	156,765	127,786
1992	518.58	142,203	20,483	44,202	64,685	12,042	73	12,114	-	8,704	5,620	201,197	142,203
1993	542.12	191,637	43,435	34,685	78,120	11,990	73	12,063	13,395	10,054	7,849	258,362	191,637
1994	562.58	242,177	1,806	3,504	5,310	16,345	73	16,418	-	10,347	3,458	245,810	224,141
1995	555.60	224,141	52,239	1,323	53,562	11,621	72	11,693	27,499	10,287	10,895	262,625	239,122
1996	561.42	239,122	6,883	5,371	12,254	15,902	23	15,925	-	10,489	6,897	244,346	224,898
1997	558.63	231,866	11,745	11,896	23,641	20,482	-	20,482	-	11,062	4,304	248,616	223,132
1998	557.06	227,839	51,727	6,338	58,065	13,411	-	13,411	34,907	9,503	12,632	267,542	227,743
1999	561.85	240,250	1,313	-	1,313	20,121	-	20,121	-	10,224	2,295	240,205	213,513
2000	551.33	213,513	13,541	4,483	18,024	21,506	-	21,506	-	9,801	5,134	227,132	205,434
2001	548.00	205,434	21,919	15,527	37,446	17,809	-	17,809	-	8,379	6,693	242,359	204,837
2002	555.24	223,233	-403	-	-403	22,092	-	22,092	-	8,286	2,718	223,183	194,359
2003	543.65	195,172	3,429	1,571	5,000	16,571	-	16,571	-	7,985	3,583	197,199	178,563
2004	536.62	179,219	9,006	2,853	11,859	20,214	-	20,214	-	7,783	4,897	182,113	157,595
2005	531.47	167,988	53,115	26,906	80,021	17,673	-	17,673	-	7,242	7,798	250,736	169,160
2006	558.25	230,891	9,382	12,070	21,452	17,253	-	17,253	-	7,649	5,534	252,651	231,585
2007	559.06	232,975	-1,450	-	-1,450	21,326	-	21,326	-	8,571	2,253	232,950	203,810
2008	547.35	203,882	15,470	9,916	25,386	18,325	-	18,325	-	8,753	5,538	231,071	203,595
2009	548.89	207,574	-580	504	-76	17,259	-	17,259	-	8,025	3,646	207,719	185,543
2010	539.59	185,881	12,419	10,915	23,334	14,637	-	14,637	-	6,898	7,051	199,945	182,049
2011	543.46	194,731	11,054	17,847	28,901	14,841	-	14,841	-	7,576	4,267	221,751	194,731
2012	548.02	205,482	-837	87	-750	16,244	-	16,244	-	8,263	3,165	205,482	183,746
2013	538.48	183,389	-1,649	-	-1,649	20,402	-	20,402	-	7,858	1,021	183,389	154,501
2014	524.88	154,501	217	1,018	1,235	18,811	-	18,811	-	7,678	2,353	154,501	131,511
2015	512.81	131,600	-1,810	-	-1,810	17,246	-	17,246	-	6,162	736	131,600	107,119
2016	498.22	107,119	-1,707	-	-1,707	14,151	-	14,151	-	4,311	2,394	107,759	89,317
2017	486.02	89,344	14,074	6,091	20,165	12,214	-	12,214	-	5,435	3,020	111,640	82,919
2018	489.74	82,919	-	-	-	-	-	-	-	-	-	-	-
AVG:	524.30	172,712	11,920	10,672	22,592	15,296	87	15,383	1,933	7,820	4,203	191,587	163,221
MAX:	565.49	249,931	55,379	50,349	105,728	26,180	2,677	26,253	34,907	11,062	12,632	267,542	239,122
MIN:	350.00	-	-1,810	0	-1,810	586	0	658	0	728	59	5,201	574

*Total water supply delivered to Casitas System during 1991 includes 1240 a.f. state project water into system and 450 a.f. delivered to Santa Barbara out of system.

Reservoir storage rating table updated and adopted 01 Oct, 2017. Storage volumes after this date reported using 2017 Rating Table.

**HISTORICAL RAINFALL
CASITAS MUNICIPAL WATER DISTRICT**

WATER YEAR	CASITAS DAM	CASITAS RECREATION	MATILIJA DAM	3 - STATION MEAN	THACHER SCHOOL
1958-59	10.22	11.84	16.62	12.89	11.34
59-60	15.79	14.70	14.45	14.98	13.26
1960-61	8.77	8.42	13.24	10.14	9.48
61-62	37.75	33.96	39.21	36.97	28.74
62-63	18.70	17.54	20.07	18.77	16.87
63-64	13.62	12.04	16.13	13.93	12.79
64-65	23.26	22.77	22.83	22.95	17.42
65-66	25.23	25.23	30.30	26.92	24.59
66-67	34.43	32.30	44.78	37.17	31.14
67-68	16.61	16.44	15.20	16.08	12.62
68-69	46.57	47.55	69.94	54.69	46.93
69-70	16.70	16.52	18.98	17.40	3.88
1970-71	19.72	19.71	22.65	20.69	20.72
71-72	11.94	13.72	15.49	13.72	10.83
72-73	34.79	34.56	45.91	38.42	30.14
73-74	19.95	18.43	22.16	20.18	18.91
74-75	23.83	24.05	26.83	24.90	22.37
75-76	17.90	17.23	20.85	18.66	15.24
76-77	12.90	11.98	13.75	12.88	11.42
77-78	49.05	49.66	63.04	53.92	50.04
78-79	25.80	25.64	28.66	26.70	25.45
79-80	34.06	35.15	42.43	37.21	30.58
1980-81	16.24	16.99	21.88	18.37	15.53
81-82	19.35	20.34	25.35	21.68	21.44
82-83	51.14	48.22	58.65	52.67	52.17
83-84	17.91	16.63	19.34	17.96	14.83
84-85	17.30	15.93	19.00	17.41	12.68
85-86	33.49	32.20	41.32	35.67	27.27
86-87	10.86	9.83	11.44	10.71	9.01
87-88	18.62	18.40	21.58	19.53	20.87
88-89	11.73	11.85	13.65	12.41	12.27
89-90	9.46	8.86	12.48	10.27	8.61
1990-91	24.43	23.59	26.01	24.68	21.78
91-92	29.75	28.53	34.27	30.85	34.25
92-93	41.20	43.31	60.38	48.30	45.71
93-94	16.08	14.69	16.27	15.68	15.60
94-95	49.84	49.04	58.17	52.35	46.89
95-96	18.80	16.91	22.78	19.50	17.71
96-97	24.37	25.27	27.80	25.81	22.12
97-98	59.54	58.78	64.27	60.86	52.29
98-99	12.68	10.67	12.56	11.97	12.92
99-00	24.35	21.94	26.79	24.36	19.73
2000-01	29.36	27.86	33.45	30.22	30.55
01-02	9.28	8.77	10.10	9.38	8.27
02-03	24.83	23.69	30.58	26.37	21.35
03-04	17.03	14.33	18.84	16.73	13.04
04-05	54.66	51.28	74.44	60.13	52.90
05-06	26.52	25.84	34.58	28.98	26.00
06-07	8.60	7.15	9.23	8.33	7.65
07-08	26.19	24.58	33.62	28.13	23.89
08-09	14.82	12.91	16.56	14.76	13.62
09-10	31.13	28.48	36.54	32.05	24.35
2010-11	35.99	34.04	40.28	36.77	31.18
11-12	15.11	13.18	14.21	14.17	12.09
12-13	10.99	10.11	11.85	10.98	9.11
13-14	9.90	9.52	14.76	11.39	11.30
14-15	11.65	10.06	17.57	13.09	14.91
15-16	14.64	14.33	16.20	15.06	11.07
16-17	31.53	29.56	35.46	32.18	28.50
AVERAGE	23.68	22.83	28.23	24.91	21.83
MAXIMUM	59.54	58.78	74.44	60.86	52.90
MINIMUM	8.60	7.15	9.23	8.33	3.88

*RAINFALL IN INCHES, WATER YEAR OCTOBER 1 THRU SEPTEMBER 30
BOLD NUMBERS INDICATE RECORD MAX/MIN RAINFALL AMOUNTS FOR THE PERIOD

NOTE: Matilija Dam Rainfall records after 2005-06 season obtained from the Ventura County Watershed Protection District

HISTORICAL MONTHLY RAINFALL
LAKE CASITAS RECREATION AREA (STA #204)
(WATER YEAR)

W. YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1960	0.00	0.00	1.25	5.40	4.29	0.78	2.98	0.00	0.00	0.00	0.00	0.00	14.70
1961	0.00	5.08	0.48	1.90	0.00	0.63	0.23	0.06	0.00	0.00	0.00	0.00	8.42
1962	0.00	5.47	1.78	2.56	22.65	1.45	0.00	0.05	0.00	0.00	0.00	0.00	33.96
1963	0.49	0.01	0.05	1.35	6.85	3.59	2.61	0.39	0.51	0.00	0.00	1.69	17.54
1964	0.48	4.57	0.00	2.53	0.00	1.84	2.17	0.11	0.13	0.00	0.21	0.00	12.04
1965	0.84	3.39	8.33	0.67	0.38	1.59	7.29	0.01	0.01	0.00	0.00	0.26	22.77
1966	0.00	14.19	7.07	2.51	1.11	0.04	0.00	0.10	0.00	0.00	0.00	0.21	25.23
1967	0.02	4.80	9.71	7.80	0.27	3.53	5.82	0.00	0.00	0.00	0.00	0.35	32.30
1968	0.00	5.03	1.15	1.53	1.51	4.76	1.13	0.00	0.00	0.00	0.00	0.00	15.11
1969	1.23	0.91	2.62	26.58	12.81	1.26	2.01	0.01	0.00	0.12	0.00	0.00	47.55
1970	0.00	3.52	0.19	3.68	3.70	5.43	0.00	0.00	0.00	0.00	0.00	0.00	16.52
1971	0.00	6.36	6.94	1.51	0.00	0.71	0.55	0.03	0.00	0.00	0.00	0.00	16.10
1972	0.15	0.62	11.02	0.33	0.58	0.00	0.16	0.00	0.02	0.00	0.00	0.14	13.02
1973	0.13	6.75	1.20	9.14	14.17	3.16	0.00	0.00	0.00	0.00	0.00	0.00	34.55
1974	0.65	1.94	1.43	9.40	0.00	4.82	0.09	0.00	0.00	0.00	0.00	0.00	18.33
1975	0.67	0.12	10.26	0.00	4.96	6.50	1.54	0.00	0.00	0.00	0.00	0.00	24.05
1976	0.23	0.00	0.13	0.00	6.43	2.10	0.71	0.00	0.25	0.00	0.06	7.32	17.23
1977	0.01	0.63	0.71	4.96	0.25	2.27	0.00	2.76	0.00	0.00	0.39	0.00	11.98
1978	0.02	0.09	6.57	11.35	13.04	14.71	2.53	0.00	0.00	0.00	0.00	1.35	49.66
1979	0.00	2.57	2.48	6.00	5.90	7.83	0.00	0.00	0.00	0.00	0.00	0.00	25.64
1980	0.64	0.95	1.96	9.56	16.93	4.04	0.75	0.32	0.00	0.00	0.00	0.00	35.15
1981	0.00	0.00	2.21	4.59	2.15	7.45	0.59	0.00	0.00	0.00	0.00	0.00	16.99
1982	0.67	2.64	0.78	4.20	0.90	6.85	2.81	0.00	0.00	0.00	0.00	1.49	20.34
1983	0.71	5.87	4.60	12.59	8.48	9.13	4.86	0.18	0.00	0.00	1.18	0.62	48.22
1984	4.88	5.57	5.14	0.09	0.00	0.55	0.05	0.00	0.00	0.00	0.08	1.06	17.42
1985	0.41	4.21	6.91	1.42	1.71	1.62	1.02	0.00	0.00	0.00	0.00	0.00	16.30
1986	0.55	6.28	1.15	3.97	11.09	6.26	1.74	0.00	0.00	0.00	0.00	1.25	32.29
1987	0.00	1.66	0.49	2.16	2.06	3.32	0.12	0.00	0.03	0.00	0.00	0.00	9.84
1988	1.52	1.14	4.10	3.53	2.63	1.75	3.08	0.00	0.00	0.00	0.00	0.07	17.82
1989	0.00	1.18	3.91	0.48	4.74	0.87	0.34	0.22	0.00	0.00	0.00	0.11	11.85
1990	0.61	0.47	0.00	3.67	2.92	0.01	0.18	0.93	0.03	0.00	0.00	0.04	8.86
1991	0.00	0.36	0.00	2.03	3.85	17.19	0.00	0.00	0.16	0.00	0.00	0.00	23.59
1992	0.62	0.25	4.52	2.90	13.83	5.79	0.05	0.32	0.00	0.25	0.00	0.00	28.53
1993	1.53	0.00	7.58	14.97	11.88	6.22	0.00	0.19	0.94	0.00	0.00	0.00	43.31
1994	0.08	1.27	1.69	0.69	8.14	2.02	0.48	0.27	0.00	0.00	0.00	0.05	14.69
1995	0.69	1.48	0.96	27.61	2.29	14.03	0.29	1.29	0.40	0.00	0.00	0.00	49.04
1996	0.11	2.49	1.92	9.37	1.54	1.03	0.45	0.00	0.00	0.00	0.00	0.00	16.91
1997	4.06	2.92	7.99	10.21	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.27
1998	0.00	3.59	8.32	4.59	30.12	6.54	2.19	3.21	0.06	0.00	0.00	0.16	58.78
1999	0.00	1.27	0.84	2.74	0.81	2.38	2.19	0.00	0.17	0.00	0.00	0.27	10.67
2000	0.00	1.00	0.00	2.34	11.96	3.24	3.28	0.00	0.00	0.00	0.00	0.12	21.94
2001	2.75	0.00	0.03	8.48	7.02	8.02	1.56	0.00	0.00	0.00	0.00	0.00	27.86
2002	0.41	4.37	1.60	1.10	0.36	0.53	0.08	0.23	0.00	0.00	0.00	0.02	8.70
2003	0.00	5.63	5.10	0.00	3.97	4.98	1.27	2.74	0.00	0.00	0.00	0.00	23.69
2004	0.05	2.68	2.13	0.79	8.08	0.60	0.00	0.00	0.00	0.00	0.00	0.00	14.33
2005	7.09	0.02	10.37	17.30	10.22	4.47	0.90	0.60	0.00	0.00	0.00	0.31	51.28
2006	0.97	0.87	0.79	4.93	3.73	4.87	8.21	1.47	0.00	0.00	0.00	0.00	25.84
2007	0.22	0.10	1.03	2.68	1.66	0.10	1.01	0.00	0.00	0.00	0.00	0.35	7.15
2008	0.46	0.04	3.40	17.93	2.49	0.00	0.09	0.06	0.00	0.00	0.11	0.00	24.58
2009	0.16	3.19	2.64	0.43	5.43	0.84	0.19	0.00	0.00	0.00	0.00	0.00	12.88
2010	6.91	0.00	4.33	8.71	5.47	0.37	2.39	0.30	0.00	0.00	0.00	0.00	28.48
2011	2.14	1.91	13.09	0.90	5.32	9.42	0.11	0.94	0.21	0.00	0.00	0.00	34.04
2012	1.69	2.64	0.30	1.22	0.27	3.89	3.16	0.00	0.00	0.00	0.00	0.01	13.18
2013	0.15	3.74	3.15	1.91	0.10	0.81	0.25	0.00	0.00	0.00	0.00	0.00	10.11
2014	0.03	0.77	0.44	0.00	4.31	3.49	0.42	0.00	0.00	0.00	0.06	0.00	9.52
2015	0.00	0.96	5.41	1.44	0.82	0.25	0.20	0.30	0.14	0.32	0.00	0.22	10.06
2016	0.40	0.00	0.36	6.72	2.35	4.00	0.50	0.00	0.00	0.00	0.00	0.00	14.33
2017	0.71	0.83	4.15	10.88	12.91	1.27	0.53	0.14	0.00	0.00	0.00	0.11	31.53
AVG	0.80	2.39	3.39	5.32	5.37	3.71	1.28	0.30	0.05	0.01	0.04	0.32	22.97
MAX	7.09	14.19	13.09	27.61	30.12	17.19	8.21	3.21	0.94	0.94	1.18	7.32	58.78
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.15

HISTORICAL TEMPERATURES
CMWD CASITAS RECREATION AREA WEATHER STATION
 (Degrees F.)

YEAR	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER																
	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	avg														
1960	75	22	48	73	29	51	84	34	56	89	33	59	92	35	62	99	43	66	107	46	72	98	44	69	107	41	71	92	35	62	84	33	56	81	27	52			
1961	88	26	54	85	30	54	83	31	54	100	39	59	87	37	58	112	41	62	103	49	72	100	48	72	100	48	72	102	44	66	106	35	64	91	30	55	80	31	51
1962	88	24	50	75	25	50	78	28	50	92	34	60	87	39	58	94	43	63	103	45	72	101	45	72	101	45	72	99	43	68	96	40	61	87	31	57	84	19	53
1963	78	16	48	88	37	58	85	29	52	78	33	53	84	39	58	89	42	62	95	46	69	99	46	70	94	46	69	107	52	74	89	41	64	88	31	56	82	27	53
1964	80	25	49	82	27	50	82	27	49	83	32	54	82	34	51	10	42	62	92	46	70	94	46	69	98	41	66	100	43	62	85	27	54	75	25	52			
1965	82	25	42	84	25	51	77	31	52	89	30	54	82	28	58	91	38	58	96	41	66	102	47	71	98	40	62	97	37	61	84	33	56	83	26	50			
1966	80	26	49	76	28	48	95	27	55	92	32	59	85	34	60	96	42	65	93	41	68	94	50	72	97	42	62	96	37	64	95	32	56	79	25	52			
1967	79	25	50	82	28	53	80	30	52	69	32	54	95	36	60	87	38	60	92	49	70	105	54	70	105	54	70	97	41	65	91	33	60	79	25	49			
1968	84	25	50	85	35	56	84	32	56	86	31	57	99	34	60	93	35	62	95	36	72	96	42	62	96	42	62	98	38	62	87	27	56	87	21	48			
1969	80	26	50	87	29	49	85	28	52	81	31	56	86	38	60	90	45	61	92	46	68	101	43	71	92	41	62	97	32	59	88	31	58	79	23	52			
1970	88	20	52	76	32	50	79	31	56	87	30	47	96	35	60	90	47	67	100	48	71	102	42	69	102	42	66	99	34	62	86	33	55	76	29	49			
1971	90	24	43	82	26	54	82	25	52	88	33	54	81	38	56	88	40	62	95	48	68	98	49	72	109	42	68	99	26	60	86	30	44	68	22	46			
1972	77	24	43	82	26	54	90	30	58	85	30	58	96	31	57	83	38	65	100	40	71	103	44	71	95	32	67	92	33	60	83	30	44	68	22	46			
1973	80	20	47	75	32	53	69	30	50	79	35	56	96	38	61	101	42	68	94	48	67	96	44	69	95	40	64	92	40	63	81	31	53	81	28	53			
1974	75	23	49	79	28	51	78	32	54	87	35	56	97	35	58	96	41	65	95	48	70	89	46	68	95	45	68	97	41	60	90	30	56	79	24	49			
1975	86	24	52	77	29	51	74	31	53	78	30	52	85	35	58	83	44	62	95	45	68	96	42	68	100	47	70	95	35	61	85	27	54	83	25	53			
1976	87	21	53	86	32	54	78	28	50	84	32	57	81	39	57	85	39	63	100	47	69	102	49	67	92	49	67	94	36	63	95	28	59	82	27	52			
1977	82	23	51	86	32	54	78	28	50	84	32	57	81	39	57	85	39	63	100	47	69	102	49	67	92	49	67	94	36	63	95	28	59	82	27	52			
1978	74	28	51	88	30	54	88	37	57	75	33	55	99	40	63	90	42	66	109	48	69	96	47	67	109	41	69	96	42	65	86	29	53	76	22	49			
1979	69	26	48	76	28	50	84	36	54	79	35	57	95	40	60	102	44	66	98	45	69	89	48	68	105	44	72	90	37	63	82	25	56	87	23	54			
1980	76	31	54	82	30	56	76	34	54	91	36	58	85	38	57	98	42	66	105	33	73	96	49	70	104	36	66	104	37	64	90	28	58	89	30	56			
1981	82	33	56	88	30	57	79	36	55	94	36	59	88	40	62	102	42	72	93	49	71	102	47	70	104	36	66	104	37	64	90	28	58	89	30	56			
1982	80	26	51	83	31	56	76	32	52	85	31	57	83	38	60	94	43	61	104	42	67	102	47	70	104	36	66	104	37	64	90	28	58	89	30	56			
1983	90	29	55	79	32	55	82	31	55	79	32	55	89	21	59	86	39	64	96	43	68	99	40	73	100	47	70	104	36	66	104	37	64	90	28	58	89	30	56
1984	80	30	53	80	28	52	81	34	56	86	34	57	100	40	65	94	48	65	96	52	73	94	52	72	101	50	74	90	37	60	78	30	53	71	28	50			
1985	72	27	48	85	25	51	80	30	51	87	38	58	85	38	57	98	42	66	105	33	73	100	50	69	91	42	65	96	42	61	84	30	53	84	26	53			
1986	84	33	57	85	30	55	82	38	57	87	35	57	87	35	57	88	39	65	99	45	68	94	53	71	87	42	61	88	38	61	86	33	59	76	28	52			
1987	75	22	48	80	28	52	78	31	53	88	34	60	91	40	63	89	48	65	91	42	63	94	53	71	87	42	61	88	38	61	86	33	59	76	28	52			
1988	80	26	50	80	28	54	93	30	57	89	34	58	94	36	61	94	46	64	91	52	70	92	49	68	104	44	66	96	41	63	86	28	55	74	20	47			
1989	80	24	48	80	27	50	82	30	56	86	36	61	86	40	59	94	46	64	102	38	69	90	46	67	102	45	67	95	34	61	91	27	58	90	27	51			
1990	84	24	48	81	20	50	86	31	54	86	39	58	98	37	58	110	41	67	99	48	67	96	44	69	99	46	68	92	38	62	89	25	56	82	8	45			
1991	78	24	49	82	29	56	80	28	49	84	32	56	90	33	57	90	40	61	95	46	66	96	44	67	90	44	68	101	30	65	90	30	57	78	23	48			
1992	80	24	50	82	30	53	76	32	53	80	36	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	98	50	73	100	46	70	97	42	66	90	34	58	85	30	54			
1993	79	24	49	78	31	50	81	32	56	84	38	59	NA	NA	NA	NA	NA	NA	NA	NA	NA	98	50	73	100	46	70	97	42	66	90	34	58	85	30	54			
1994	89	32	56	82	30	52	87	35	59	82	39	59	86	43	61	100	48	68	96	52	70	100	53	75	92	46	70	95	40	64	88	30	55	85	28	54			
1995	78	33	53	92	40	61	78	34	56	87	40	60	83	40	61	91	39	65	104	51	71	97	50	75	100	48	71	NA	NA	NA	87	42	62	84	36	56			
1996	90	29	55	NA	NA	NA	84	33	57	92	41	62	92	46	64	96	48	67	97	54	73	99	52	74	92	49	69	99	38	64	95	38	60	71	43	57			
1997	82	32	54	86	34	57	94	34	59	92	41	62	92	46	64	96	48	67	97	54	73	99	52	74	92	49	69	99	38	64	95	38	60	71	43	57			
1998	83	31	54	72	37	51	83	35	56	84	36	55	77	38	58	81	40	61	94	43	69	105	44	75	105	45	68	89	40	62	81	35	56	85	22	52			
1999	81	30	55	78	27	53	81	33	52	88	36	56	86	38	56	86	38	56	86	38	56	86	38	56	86	38	56	86	38	56	86	38	56	86	38	56	86	38	56
2000	79	30	54	79	35	53	81	33	55	84	39	59	89	40	64	91	48	68	96	48	69	98	51	72	104	47	67	88	41	61	86	30	54	81	31	55			
2001	82	28	49	89	30	49	82	35	56	78	36	55	90	42	64	92	48	67	89	50	69	95	51	70	96	46	68	99	43	64	80	32	59	81	31	52			
2002	81	24	50	72	35	54	80	30	53	90	38	61	90	43	64	94	49	69	94	49	69	96	48	68	101	44	72	97	40	61	89	38	59	71	29	51			
2003	84	32	57	81	28	52	87	31	55	86	31	53	92	39	60	62	38	61	96	43	72	98	50	71	99	38	69	99	43	67	82	28	53	78	24	51			
2004	78	28	49	71	29	49	90																																

**HISTORICAL TEMPERATURES
CMWD CASITAS DAM WEATHER STATION
(Degrees F.)**

YEAR	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER													
	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min										
1960	77	24	48	75	29	52	85	35	56	90	37	59	88	35	61	93	45	63	106	46	69	95	44	66	102	44	69	93	37	62	82	31	55	83	25	51
1961	88	26	54	85	30	54	84	31	54	99	33	52	88	35	57	104	40	62	97	47	68	95	39	68	99	37	65	103	37	62	90	31	55	81	30	52
1962	89	25	52	74	31	50	80	29	50	91	37	60	90	38	57	82	42	62	89	47	68	92	47	68	100	45	65	93	41	62	89	32	56	87	22	54
1963	78	16	50	90	39	60	84	30	54	83	33	54	78	39	60	85	42	62	87	45	66	91	44	68	109	48	72	90	43	65	88	33	58	85	30	54
1964	82	28	50	82	29	50	85	32	50	94	34	65	86	32	56	87	42	61	94	45	68	95	48	62	100	44	66	99	40	66	88	28	54	77	28	53
1965	82	29	54	85	29	68	81	35	54	92	31	57	88	37	59	83	40	61	90	47	65	103	49	70	95	45	65	99	44	66	83	34	58	80	28	51
1966	79	28	50	78	30	48	88	29	56	96	38	60	81	43	60	88	42	65	89	46	66	94	49	70	98	44	68	98	39	66	96	34	58	78	27	53
1967	81	29	52	86	30	55	79	31	54	71	33	50	98	37	61	88	39	61	93	52	68	108	54	74	98	51	70	98	40	65	88	33	60	80	26	50
1968	82	27	51	84	36	57	90	35	58	85	34	56	102	37	60	88	42	62	97	48	68	90	46	65	102	40	67	85	32	58	98	42	64	81	20	49
1969	86	28	52	71	30	49	86	31	53	83	36	58	87	42	60	90	42	62	90	49	67	104	47	70	96	48	67	91	37	62	91	33	58	80	24	54
1970	70	24	53	81	34	51	81	33	58	87	32	55	89	37	61	100	45	64	103	48	68	97	48	68	102	43	65	102	35	61	82	35	56	78	30	50
1971	87	23	52	91	30	53	80	24	54	90	35	55	85	38	57	91	39	62	99	48	68	98	50	72	111	41	68	103	25	60	89	31	54	71	24	46
1972	78	23	49	81	25	53	92	30	57	84	31	56	97	31	56	90	45	63	104	47	70	106	48	70	99	43	67	96	30	61	85	32	55	81	22	49
1973	79	24	48	75	33	53	73	31	51	81	36	56	94	39	61	104	42	66	96	44	68	98	46	67	99	45	64	96	39	63	81	31	54	82	30	53
1974	75	24	49	81	30	51	78	32	53	85	35	57	97	34	58	98	46	64	94	46	69	84	46	66	94	46	69	103	39	62	92	31	56	79	23	51
1975	86	31	52	79	27	51	74	31	52	79	32	52	78	35	58	88	42	61	91	45	66	94	45	66	104	46	66	98	35	72	92	25	55	90	23	52
1976	90	23	54	86	31	53	85	29	55	89	33	54	89	42	60	104	43	66	90	48	68	102	47	68	92	50	68	97	37	65	97	26	60	83	29	53
1977	80	29	52	88	30	56	80	29	51	87	34	58	77	37	57	88	43	64	104	64	68	90	49	70	94	43	66	92	38	62	94	32	61	83	32	56
1978	76	29	54	82	31	53	88	35	57	78	34	55	99	39	64	102	46	66	106	45	67	94	46	68	108	43	70	92	43	65	92	30	54	77	20	49
1979	79	30	55	84	32	57	80	29	54	86	36	58	92	36	58	97	42	64	94	47	68	95	48	69	95	44	64	95	36	64	88	29	57	89	26	55
1980	82	32	55	88	29	56	80	35	54	94	36	59	87	41	62	105	50	70	99	47	70	104	47	70	95	45	67	95	32	60	91	33	58	81	32	55
1981	82	32	55	88	29	56	80	35	54	94	36	59	87	41	62	105	50	70	99	47	70	104	47	70	95	45	67	95	32	60	91	33	58	81	32	55
1982	78	26	50	85	33	56	76	31	53	85	32	57	80	41	60	78	40	61	94	47	68	102	47	70	101	41	67	95	41	64	85	32	55	74	27	51
1983	89	28	54	81	32	54	85	35	56	84	34	56	92	39	62	82	47	64	101	48	70	105	49	74	106	51	77	91	39	63	82	32	55	74	29	53
1984	84	31	56	83	31	55	88	35	59	94	34	59	105	41	67	94	46	60	98	52	74	96	53	74	108	51	77	91	39	63	82	32	55	74	29	53
1985	76	28	51	88	26	54	84	31	55	91	40	61	85	38	57	98	44	67	105	52	73	101	49	71	94	40	68	99	34	65	88	30	55	82	25	55
1986	85	35	57	90	31	57	88	38	58	92	38	59	88	41	61	92	47	65	89	49	68	103	50	70	86	41	63	92	40	63	89	36	61	80	32	54
1987	82	24	50	82	29	54	81	30	56	93	38	62	92	42	64	91	47	65	92	46	66	101	47	69	101	49	69	107	49	68	87	31	57	80	24	50
1988	82	29	53	87	30	57	97	33	60	92	38	59	96	39	62	91	40	64	93	51	71	92	48	69	108	46	67	102	42	65	88	31	57	86	26	52
1989	84	26	51	86	28	51	89	32	59	103	38	63	84	40	61	99	46	66	100	50	70	93	48	68	100	46	68	100	46	68	94	29	60	87	28	55
1990	84	27	52	84	23	52	91	30	56	89	42	61	102	39	61	106	45	68	104	50	73	96	49	71	97	50	69	96	42	65	94	30	60	85	15	50
1991	83	28	54	85	35	58	77	31	52	88	37	59	91	40	59	83	44	62	85	50	67	96	48	68	95	48	68	95	30	66	93	33	60	79	28	53
1992	84	31	54	87	35	57	81	39	57	91	44	64	81	49	65	87	45	66	97	49	71	101	50	73	98	50	69	95	36	66	93	33	60	79	28	53
1993	80	28	52	76	36	52	85	36	59	89	41	61	82	40	63	94	43	67	89	52	68	93	52	70	103	45	68	100	44	65	95	32	57	81	29	52
1994	86	30	54	79	29	52	89	36	58	89	40	59	84	43	61	102	48	68	96	52	68	102	51	73	95	46	69	97	39	63	82	28	52	78	26	52
1995	83	32	53	91	41	61	82	36	58	89	38	59	78	40	59	90	43	65	106	50	70	103	47	71	101	46	70	97	40	65	88	40	61	81	34	56
1996	86	28	54	87	30	57	84	34	58	94	40	63	89	44	64	102	47	67	103	52	71	101	50	72	93	47	69	84	34	62	93	34	59	75	33	54
1997	80	33	54	87	35	56	95	33	60	94	36	61	88	45	68	84	50	67	99	50	70	110	51	74	104	50	75	102	37	66	100	40	61	81	26	52
1998	76	29	54	75	35	52	85	33	57	86	36	57	80	43	60	82	46	65	96	51	71	108	51	75	106	48	69	93	38	63	82	35	56	84	23	51
1999	81	30	54	83	29	55	82	34	54	93	30	57	89	40	61	84	42	67	95	48	71	98	47	69	103	43	67	100	43	68	88	33	59	85	31	56
2000	79	28	55	81	36	54	84	34	57	89	40	62	90	43	65	91	46	69	104	49	70	97	52	72	103	45	71	89	40	62	81	30	53	81	30	55
2001	67	35	51	64	39	52	71	46	58	71	44	57	77	55	66	82	54	68	82	56	69	85	55	70	85	54	70	79	51	65	69	46	58	65	37	51
2002	80	28	51	90	27	56	84	31	55	87	38	58	94	40	61	90	45	66	98	51	70	93	49	69	109	46	70	99	41	61	91	39	58	72	33	52
2003	91	34	59	76	30	54	90	36	59	87	37	63	95	43	62	87	49	65	97	50	73	101	37	74	101	50	69	100	45	68	83	30	55	76	27	51
2004	79	25	52	75	31	52	94	37	63	102	37	62	102	44	65	84	46	64	94																	

