



CASITAS MUNICIPAL WATER DISTRICT

HYDROLOGY REPORT

WATER YEAR 2024

SEPTEMBER 2026

Prepared by Virgil Clary, PE, Senior Project Manager



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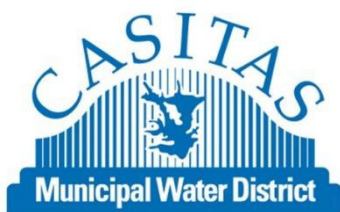
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1. INTRODUCTION

Casitas Municipal Water District (CMWD or Casitas), 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. Figure 1-1 shows the watershed boundaries, including drainage areas, stream gaging stations, and weather stations. The hydrology data is a valuable asset for developing an understanding of the water resources of the Ventura River system. Since 1981, CMWD has summarized this data in a series of annual reports. This report presents information and data for the 2023–2024 Water Year (WY 2024). Data is also presented for Calendar Year 2024 for comparison to historical records.,

Casitas acquired the Ojai Water System in June 2017, which serves a population of 6,801 as of December 31, 2020. The primary water source for this system is a wellfield that draws from the Ojai Valley Groundwater Basin (OVGB), located within the San Antonio Creek Watershed, a sub-basin to the Ventura River Watershed. The Ojai Water System is supplemented by surface water deliveries from Lake Casitas (also referred to as Casitas Reservoir herein), particularly in times of drought and/or high demand when aquifers are typically depleted and well production is reduced or limited.

The Ventura River watershed was extensively burned during the Thomas Fire in WY 2018, though post-fire hydrologic impacts have largely subsided in recent years.

WY 2023 marked the end of a prolonged drought period in Ventura County, with above-average precipitation replenishing groundwater supplies and increasing Lake Casitas water levels to their highest point since 2012. WY 2024 continued this trend of favorable hydrologic conditions, with seasonal precipitation sufficient to sustain stream flows and maintain elevated reservoir storage.

A notable event during WY 2024 was the spill of Lake Casitas; the most recent spill was in 1998. This occurred as a result of high inflows from a series of winter storms, which produced significant runoff in the watershed. Reservoir levels remained above historical averages for most of the year, and inflows contributed to both local water supply and groundwater recharge.

Data from an additional rainfall station located on Ojai’s East End and a San Antonio Creek gaging station are included in this report to reflect hydrologic conditions within the San Antonio Creek Watershed. Ojai Water System sources and deliveries are also included.

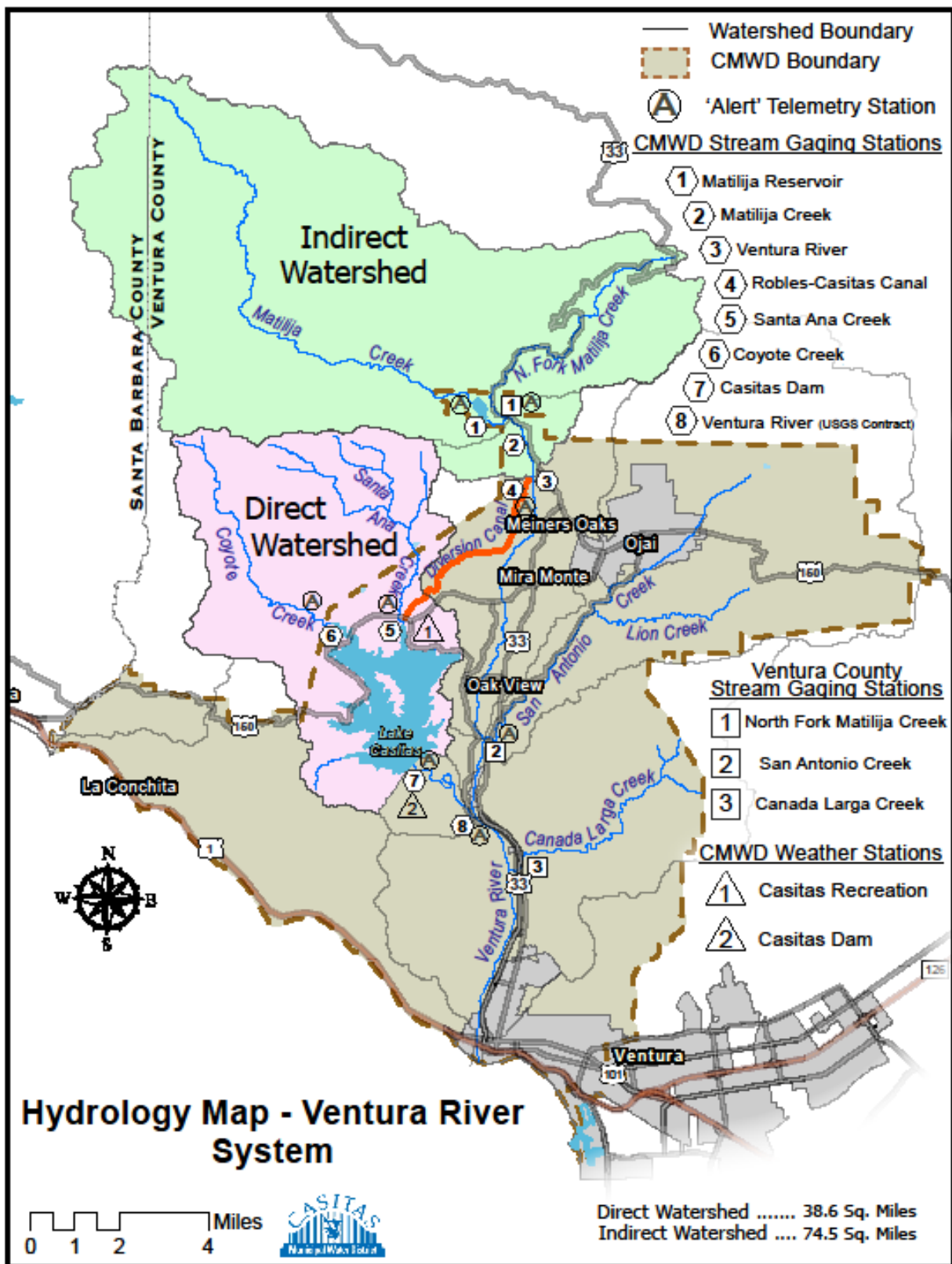


FIGURE 1-1 – Watershed of Lake Casitas

2. WATER YEAR 2024 SUMMARY

The Water Year (WY) is a standard used for reporting hydrological cycles. It begins on October 1 of the preceding year and ends September 30 of the named water year. For this report:

- WY 2024 began on October 1, 2023, and ended September 30, 2024

There are four key elements of collected data evaluated this report: 1) rainfall, 2) streamflow conditions, 3) lake storage and system deliveries and 4) ambient air temperatures. Each of these elements are monitored and recorded by CMWD on a daily basis. The following subsections are summaries of the hydrologic characteristics of WY 2024.

2.1.Rainfall

Rainfall and evaporation data are collected on a daily basis by Casitas at two stations, one at the Casitas Dam and one at the Lake Casitas Recreational Area (LCRA). The methods for data collection are standardized for consistency. Rainfall data for Matilija Dam and Thacher School are obtained from VCWPD. Raw data is provided in Appendix A.

2.1.1. WY 2024

The average of the four rainfall stations was 36.84 inches for WY 2024. This is above the long-term average of 24.40 inches. Casitas Dam received 39.02 inches, Lake Casitas Recreation received 35.76 inches, Matilija Dam received 42.24 inches, and Thacher School received 30.33 inches.

The bulk of precipitation at Casitas Dam fell in the months of December through March when cumulative monthly rainfall was 5.95, 2.57, 20.75, and 7.47 inches, respectively. The highest daily rainfall was recorded on February 5, 2024, with 7.00 inches of rainfall measured at Matilija Dam.

2.2.Streamflow Conditions

Streamflow conditions are assessed by collecting data at key points in the Ventura River system. Gage station locations are shown in Figure 1-1. Mean daily stream flow data is included in Appendix B.

2.2.1. WY 2024

Preliminary data provided by VCWPD indicates discharge from North Fork Matilija Creek totaled 66,894 acre-feet (AF) between October 1, 2023, and September 30, 2024. Discharge from Matilija Dam measured at the Matilija Hot Springs gage totaled 62,567 AF with a peak mean daily flow of approximately 1,920 cubic feet per second (cfs) on February 4, 2024¹.

Surface flow at the measurement weir at the Robles Diversion and Fish Passage Facility (Robles) was present the full water year, October 1, 2023, through September 30, 2024. During that period, 81,989 AF was released downstream².

¹ Matilija Dam measurement from data compiled by CMWD based on instantaneous readings shown as an average daily flow in Appendix B.

² Robles weir measurement from data compiled by CMWD based on instantaneous readings shown as an average daily flow in Appendix B.

Diversions to Lake Casitas began on December 20, 2023. Prior to December 20, 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 190 days and 35,873 AF was diverted during WY 2024 as shown in Table 2-1³.

Table 2-1
WY 2024 Diversions

Month	Days	Volume Diverted (AF)
October 2023	0	0
November 2023	0	0
December 2023	12	1,239
January 2024	20	358
February 2024	29	12,603
March 2024	31	12,314
April 2024	22	8,265
May 2024	10	200
June 2024	30	534
July 2024	31	350
August 2024	5	10
September 2024	0	0
TOTAL	190	35,873

There were seven (7) storm peaks that met the Biological Opinion parameters to initiate supplemental downstream releases for fish passage as shown in Table 2-2. 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 release⁴. More detailed information is available in the 2024 Robles Fish Passage Facility Progress Report.

Table 2-2
WY 2024 Storm Peaks

Date	Peak Storm Flow Rate (cfs)
February 1, 2024	1,300-1,400*
February 4, 2024	8,000-11,000*
February 19, 2024	4,500-5,500*
March 30, 2024	1,681
March 31, 2024	1,405
April 13, 2024	409
April 14, 2024	500

*Note: Flow estimated by Fisheries staff

Coyote Creek and Santa Ana Creek drainage areas contribute directly to Lake Casitas storage. Coyote Creek, and to a lesser extent Santa Ana Creek, gaging station continues to be impacted by sediment transport and re-channelization,

³ Robles canal measurement from data compiled by CMWD based on instantaneous readings shown as an average in Appendix B.

⁴ Storm peak flows can be found in Appendix C.

rendering poor quality flow data. Direct inflow into Lake Casitas, which is reported in the Casitas Reservoir Operation data (Appendix C), was used as a surrogate for Coyote and Santa Ana creeks as the major tributaries, but also accounts for other direct runoff including smaller tributaries such as Ayers, Chismahoo, Willow, and Poplin Creeks. Direct inflow is a zero-sum calculation and accounts for change in Lake Casitas storage not accounted for by precipitation, Ventura River Diversions, evaporation, and releases to the Marion Walker Water Treatment Plant. This value may be negative at times which is attributed to approximation in evaporation coefficients and water loss to infiltration. Only months with positive direct inflow values are considered as a surrogate for true direct inflow into Lake Casitas and totaled 32,920 AF for WY 2024 with February 2024 accounting for 19,707 AF of total direct inflow as shown in Table 2-3⁵.

Table 2-3
WY 2024 Casitas Reservoir Direct Inflow

Month	Direct Flow Volume (AF) ⁶
October 2023	N/A
November 2023	N/A
December 2023	903
January 2024	477
February 2024	19,707
March 2024	6,247
April 2024	3,135
May 2024	1,232
June 2024	860
July 2024	299
August 2024	N/A
September 2024	60
TOTAL	32,920

2.3.Lake Storage and System Deliveries

Water storage volumes for system reservoirs, Casitas Reservoir and Matilija Reservoir, were ascertained by the daily recording of the reservoir elevation and applying the elevation number to a storage table for each reservoir. Casitas Reservoir data is included in Appendix D and Matilija Reservoir Data is provided in Appendix E. Casitas did not exercise water rights to divert water released from Matilija Dam. System delivery data for Mira Monte Well and the Ojai Water System can be found in Appendix F.

2.3.1. WY 2024

Lake Casitas Reservoir had a net increase in water storage for WY 2024. Lake elevation was 539.80 feet above mean sea level (MSL) on October 1, 2023, and ended on September 30, 2024, at 564.16 feet above MSL, corresponding to 230,246 AF of storage in Lake Casitas at the end of the WY. The reservoir's 24.36-foot increase in elevation resulted in a net gain of 58,589 AF. Storage increased by 69,191 AF during a 180-day period from December 20, 2023, to June 17, 2024; net monthly storage losses occurred outside of that period.

⁵ Direct inflow into Lake Casitas is shown in Appendix D.

⁶ N/A indicates the month is not applicable because the value was negative.

A new Casitas Reservoir storage rating table was adopted after completion of a LIDAR and bathymetric study in 2017, resulting in a re-calculated reservoir capacity of 237,761 acre-feet (down from the original 254,000 acre-feet). This table was implemented on October 1, 2017 (start of WY 2018) and Casitas Reservoir storage reported from that date forward reflects this adjustment.

Water deliveries from the reservoir to the main conveyance system totaled 8,556 AF for the Calendar Year. This is up 52 percent from 2023 and down 22 percent from the average deliveries during the previous ten years. Mira Monte well production was 112 AF during WY 2024. Deliveries within the Ojai Water System totaled 1,492 AF during WY 2024; 1,491 AF of which was sourced from the Ojai Water System Wellfield with the additional 1 AF coming from Lake Casitas.

2.4.Ambient Air Temperatures

Data was recorded by CMWD staff at two locations, Casitas Dam and LCRA. These measurements are made on a daily basis and include the maximum and minimum ambient air temperatures. This data is included in Appendix G.

2.4.1. CY 2024

One temperature record of note occurred during the 2024 calendar year:

- Highest monthly maximum temperature (September for Lake Casitas Recreation Area) on record of 116 degrees Fahrenheit.

3. HYDROLOGY STATIONS

Table 3-1 shows responsible agencies for various hydrology stations throughout the watershed.

Table 3-1
Hydrology Stations

Type	Location	Agency
Reservoir	Casitas Dam	Casitas/VCWPD
Reservoir	Matilija Dam	VCWPD
Rainfall and Evaporation	LCRA	Casitas
Rainfall and Evaporation	Casitas Dam	Casitas
Rainfall	Matilija Dam	VCWPD
Rainfall	Thacher School	VCWPD
Streamflow	Matilija Creek at Matilija Hot Springs	Casitas/VCWPD
Streamflow	Ventura River Near Meiners Oaks	Casitas
Streamflow	Robles-Casitas Canal	Casitas
Streamflow	Ventura River near Ventura (Foster Park)	USGS
Streamflow	North Fork Matilija at Matilija Hot Springs	VCWPD
Streamflow	San Antonio Creek at Old Creek Road	VCWPD
Streamflow	Santa Ana Creek near Oak View	Casitas/VCWPD
Streamflow	Coyote Creek near Oak View	Casitas/VCWPD

3.1. Historical Hydrology Period 1959 through 2024

The historical data was updated for the reporting period and is presented in Figure 3-1 for the period from 1959 through 2024. The historical data includes summaries for the Casitas Reservoir operation, Robles Diversion, rainfall, and ambient air temperature. 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, LCRA, and Matilija Dam rain gages. Reservoir volume prior to 1970 (not shown) represents initial filling period after Casitas Dam completion in 1959⁷.

The change in Lake Casitas capacity was made due to performance of a bathymetric survey in 2017 which decreased the original volume of 254,000 AF to 237,761 AF. Calendar year 2024 provided a net increase in the storage volume as shown in Figure 3-1.

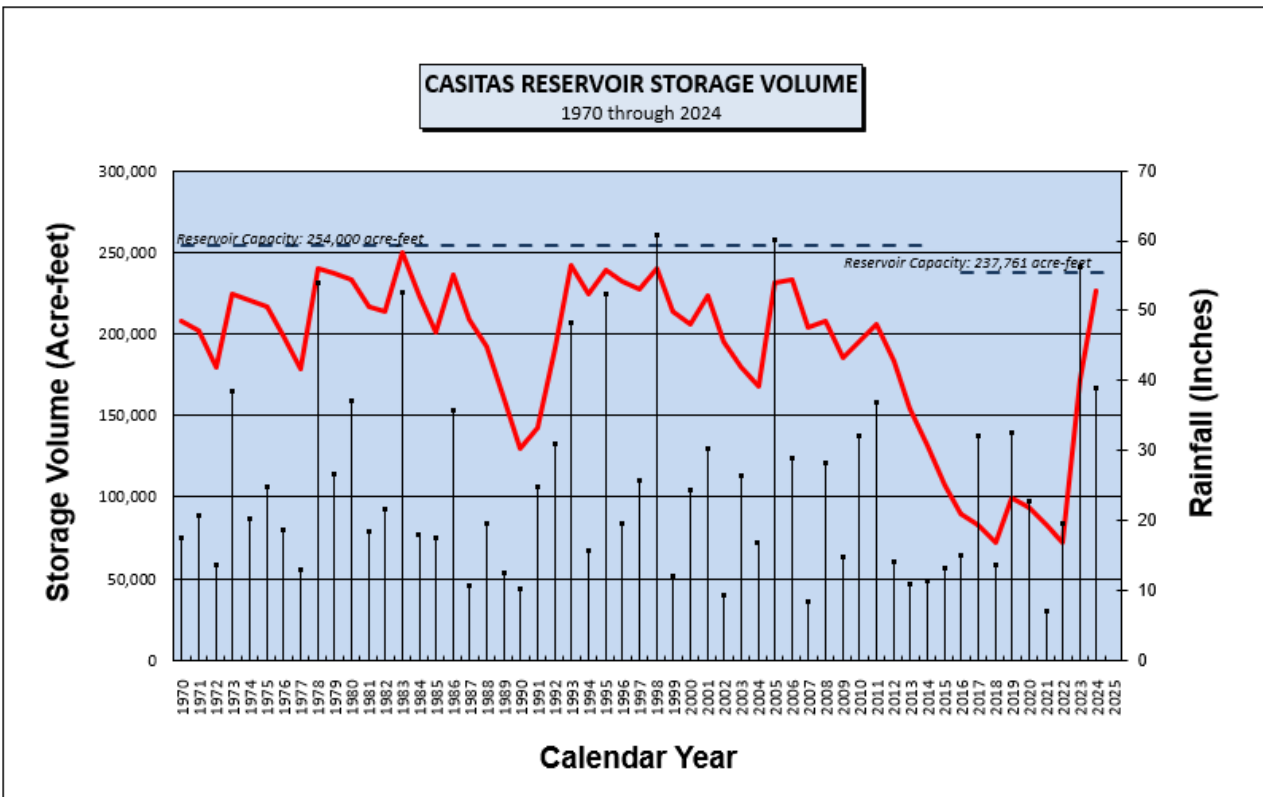


FIGURE 3-1 – Casitas Reservoir Storage Volume 1970-2024

3.2. Trends

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

⁷ Historical hydrology data is provided in Appendix H.

3.2.1. Ten-Year Moving Average of Mean Precipitation

The trend presented in Figure 3-2 is a ten-year moving average of precipitation from 1880 to present and was created by calculating an average of a water year's three-station average rainfall combined with the previous nine years. The ten-year moving average is represented by the solid line traversing across the overall average for the period (25.1 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. The trend has resulted in what appears to be a somewhat sinusoidal curve, illustrating reoccurring periods of wet and dry conditions.

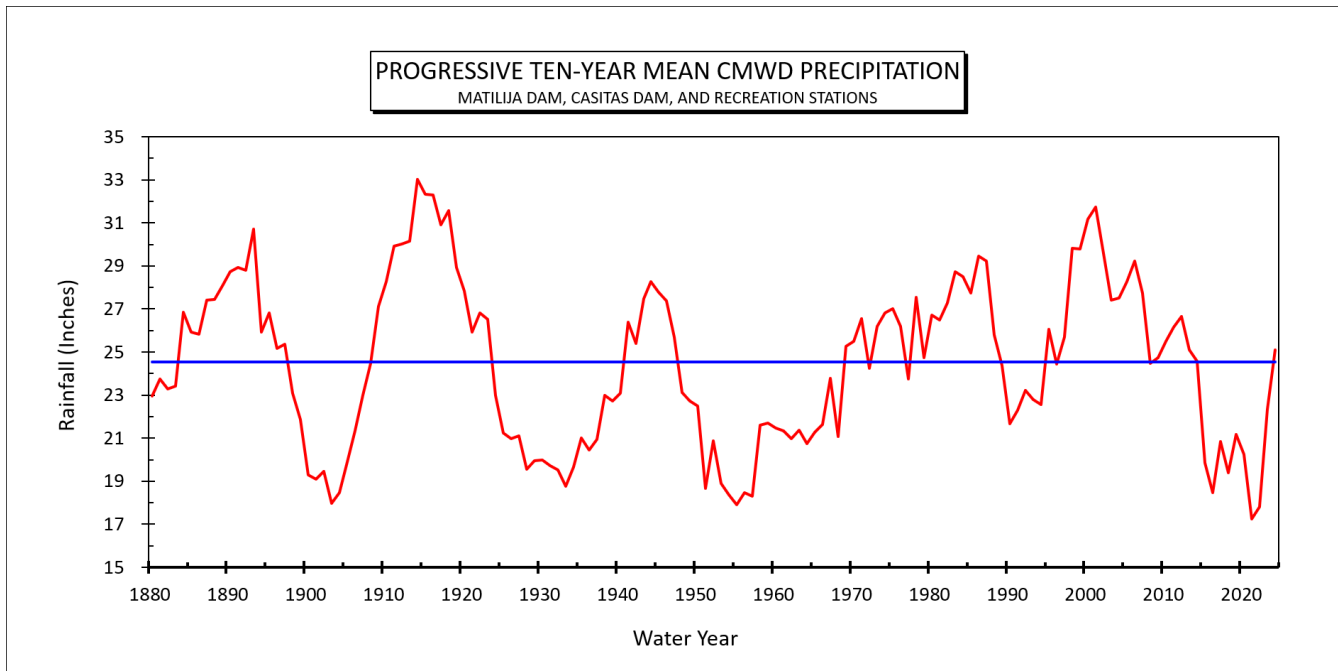


FIGURE 3-2 – Progressive Ten-Year Mean Precipitation

Appendix A

Rainfall Data

VENTURA COUNTY, CALIFORNIA
WATER SURVEY
DAILY RAINFALL RECORD

STATION: **Casitas Dam**
OBSERVER: CMWD Damtender
AUTHORITY: Casitas Municipal Water District
ADDRESS: P.O. Box 37, Oak View, CA 93022
COMPILED: V. Clary

NUMBER: 4
OBSER. TIME: 0800
LATITUDE: 34d22m
LONGITUDE: 119d20m
ELEV:

2023-2024

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01				3.25	0.02	0.26					
2					0.11	1.28			0.01			
3				0.29		0.41		0.02				
4				0.01	0.07		0.04					
5					5.83		0.20	0.04				
6					1.17	0.02	0.03					
7					0.18	1.14						
8					0.55							
9					0.02							
10												
11												
12												
13										0.03		
14							0.71			0.01		
15							0.39	0.01				0.02
16		0.34										
17												
18		0.06			0.07							
19		0.06	0.09		5.51							
20			1.22	0.46	3.69							
21			2.23	0.40	0.24							
22			1.59	1.12								
23			0.05	0.29		0.68	0.04					
24												
25						0.05						
26												
27					0.06							
28												
29												
30			0.75			2.77						
31			0.02			1.10						
Mo Total	0.01	0.46	5.95	2.57	20.75	7.47	1.67	0.07	0.01	0.04		0.02
Yr Total	0.01	0.47	6.42	8.99	29.74	37.21	38.88	38.95	38.96	39.00	39.00	39.02

Rainfall in inches

VENTURA COUNTY, CALIFORNIA
WATER SURVEY
DAILY RAINFALL RECORD

STATION: **Lake Casitas Recreation Area**
OBSERVER: CMWD Recreation staff
AUTHORITY: Casitas Municipal Water District
ADDRESS: P.O. Box 37, Oak View, CA 93022
COMPILED: V. Clary

NUMBER: 204
OBSER. TIME: 0800
LATITUDE: 34d25m
LONGITUDE: 119d20m
ELEV: 592

2023-2024

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					3.28		0.35					
2					1.30	0.95						
3				0.17		0.30						
4					0.15							
5					6.05			0.02				
6					0.80		0.25					
7					0.10	0.98						
8					0.60							
9												
10												
11												
12												
13												
14							0.90					
15							0.10					
16		0.38										
17					0.07							
18		0.05	0.20									
19		0.03	1.38		4.63							
20			2.20	0.27	2.22							
21			1.39	0.42	0.23							
22			0.05	1.25								
23				0.27		0.50	0.02					
24												
25												
26												
27					0.02							
28												
29			0.52									
30						2.35						
31						1.01						
Mo Total		0.46	5.74	2.38	19.45	6.09	1.62	0.02				
Yr Total		0.46	6.20	8.58	28.03	34.12	35.74	35.76	35.76	35.76	35.76	35.76

Rainfall in inches

VENTURA COUNTY, CALIFORNIA
WATER SURVEY
DAILY RAINFALL RECORD

STATION: **Matilija Dam**

OBSERVER: Automated

AUTHORITY: Ventura County Watershed Protection District

ADDRESS: 800 S. Victoria Ave, Ventura, CA 93009

COMPILED: Hydrologist

NUMBER: 134

OBSER. TIME: 0800

LATITUDE: 34°29' N

LONGITUDE: 119°18' W

ELEV: 1060 ft

2023-2024

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					3.22	0.01	0.15					
2					0.15	3.12	0.01					
3				0.19		0.52						
4					0.18		0.02					
5					7.00	0.01	0.26	0.07				
6					1.12		0.01					
7					0.21	0.82						
8					0.86							
9					0.03							
10												
11												
12												
13										0.01		
14							0.96					
15					0.01		1.04					
16		0.60										
17												
18		0.02			0.08							
19		0.03	0.36		5.41							
20			1.21	0.21	3.38							
21			2.25	0.53	0.13							
22			0.90	0.84	0.02							
23			0.01	1.03		0.41	0.02					
24				0.01		0.01						
25												
26												
27					0.06							
28					0.01							
29					0.01							
30			0.49			3.17						
31						1.06						
Mo Total		0.65	5.22	2.81	21.88	9.13	2.47	0.07		0.01		
Yr Total		0.65	5.87	8.68	30.56	39.69	42.16	42.23	42.23	42.24	42.24	42.24

Rainfall in inches

VENTURA COUNTY, CALIFORNIA
WATER SURVEY
DAILY RAINFALL RECORD

STATION: **Ojai - Thacher School**

NUMBER: 059

OBSERVER: Automated

OBSER. TIME: 0800

AUTHORITY: Ventura County Watershed Protection District

LATITUDE: 34°28' N

ADDRESS: 800 S. Victoria Ave, Ventura, CA 93009

LONGITUDE: 119°10' W

COMPILED: Hydrologist

ELEV: 1440 ft

2023-2024

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					1.95		0.15		0.01			
2	0.01				0.09	1.37			0.01			
3				0.16		0.33		0.01				
4					0.14		0.01	0.01	0.01			
5					4.48		0.22	0.19				
6					0.82		0.07					
7					0.37	0.58						
8					0.60	0.01			0.01			
9					0.02				0.02			
10									0.01			
11												
12								0.01				
13												
14							0.93					
15							0.66	0.02				
16		0.23						0.01				
17								0.01				
18		0.05			0.07			0.01				
19		0.09	0.33		2.82							
20		0.01	1.07	0.19	1.14	0.01						
21			2.74	0.69	0.53		0.01					
22			1.14	0.69								
23			0.02	0.97		0.49	0.09	0.03				
24							0.01					
25							0.05					
26												
27					0.05							
28												
29												
30		0.01	0.55			2.02		0.01				
31						0.91						
Mo Total	0.01	0.39	5.85	2.70	13.08	5.72	2.20	0.31	0.07			
Yr Total	0.01	0.40	6.25	8.95	22.03	27.75	29.95	30.26	30.33	30.33	30.33	30.33

Rainfall in inches

Appendix B
Streamflow Gaging Station Data

Matilija Creek at Matilija Hot Springs

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

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

WATER YEAR OCTOBER 2023 TO SEPTEMBER 2024
Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	8	8	21	329	247	429	93	42	25	13	10
2	10	7	8	21	138	316	342	90	41	25	13	9
3	10	7	8	21	92	285	294	88	41	25	13	9
4	10	7	8	20	1920	251	269	87	39	25	13	9
5	9	7	8	19	1510	231	251	86	38	25	12	8
6	9	7	8	18	667	243	230	81	38	25	12	8
7	9	7	8	18	511	233	218	78	38	24	12	8
8	8	7	8	18	411	214	202	75	38	24	12	8
9	8	8	8	17	331	203	190	73	37	24	12	8
10	9	8	8	17	281	194	181	71	37	22	12	8
11	9	8	8	17	245	186	173	70	36	20	12	8
12	9	8	8	17	217	178	167	70	34	20	11	8
13	8	7	8	16	195	171	206	68	33	20	12	9
14	8	7	8	16	167	164	245	65	32	20	11	9
15	8	9	8	15	147	157	207	63	30	19	11	9
16	8	11	8	15	138	152	172	60	30	18	11	9
17	8	10	8	15	130	146	157	59	31	17	12	9
18	8	9	8	14	136	141	150	57	30	17	13	9
19	8	9	12	14	1510	137	144	55	29	16	12	10
20	7	9	43	16	1130	132	137	54	29	16	11	10
21	7	9	514	18	660	128	131	52	28	16	13	10
22	8	8	150	39	501	124	127	51	28	15	13	9
23	8	8	66	49	415	128	123	51	28	15	12	9
24	8	8	48	37	358	120	119	50	26	15	11	9
25	8	8	45	27	318	114	116	49	25	14	11	9
26	8	8	37	25	289	109	111	48	24	14	10	8
27	8	8	28	24	264	106	106	47	24	14	10	8
28	8	8	25	22	243	103	103	45	24	14	10	8
29	8	8	24	21	226	113	99	44	26	14	10	8
30	8	8	28	21	----	443	96	43	24	14	10	8
31	8	----	23	20	----	633	----	43	----	14	10	----
TOTAL	258	245	1185	648	13479	6102	5495	1966	960	586	360	260
MEAN	8	8	38	21	465	197	183	63	32	18.90	12	9
MAX	10.0	11	514	49	1920	633	429	93	42	25	13	10
MIN	7	7	8	14	92	103	96	43	24	14	10	8
ACRE FT	511	485	2351	1285	26736	12103	10899	3900	1904	1162	714	516

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.

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 2023 TO SEPTEMBER 2024

Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	4.2	4	7	5	62	51	42	18	11	7	5
2	5.2	4.2	4	7	5	68	55	42	18	11	7	5
3	5.2	4.2	4	6	6	66	58	41	18	11	7	5
4	5.1	4.2	4	6	6	65	62	40	17	10	6	5
5	5.1	4.2	4	6	6	63	65	39	17	10	6	5
6	5.1	4.2	4	6	78	62	68	38	17	10	6	5
7	5.0	4	4	6	151	60	72	37	17	10	6	4
8	5.0	4	4	6	223	59	70	36	16	10	6	4
9	4.9	4	4	6	296	57	69	35	16	10	6	4
10	4.9	4	4	6	368	55	68	34	16	10	6	4
11	4.9	4	5	6	334	54	66	33	16	10	6	4
12	4.8	4	5	6	300	52	65	32	15	9	6	4
13	4.8	4.1	5	5	266	51	63	31	15	9	6	4
14	4.7	4.0	5	5	232	49	62	30	15	9	6	4
15	4.7	4.0	5	5	198	48	60	29	15	9	6	4
16	4.7	4.0	5	5	164	46	59	28	14	9	6	4
17	4.6	4.0	5	5	130	45	57	27	14	9	6	4
18	4.6	4.0	5	5	96	43	56	26	14	9	6	4
19	4.5	4.0	5	5	62	42	54	25	14	9	6	4
20	4.5	4.0	5	5	28	40	53	25	13	8	6	4
21	4.5	3.9	6	5	31	38	52	24	13	8	5	4
22	4.4	3.9	6	5	35	37	51	23	13	8	5	4
23	4.4	3.9	6	5	39	35	50	22	13	8	5	4
24	4.3	3.9	6	5	42	34	49	21	12	8	5	4
25	4.3	4	6	5	46	32	48	20	12	8	5	4
26	4.3	4	6	5	50	31	47	20	12	8	5	4
27	4.3	4	6	5	53	34	46	19	12	7	5	4
28	4.3	4	6	5	57	38	45	19	11	7	5	4
29	4.3	4	6	5	60	41	44	19	11	7	5	4
30	4.2	4	7	5	---	44	43	19	11	7	5	4
31	4.2	---	7	5	---	48	---	18	---	7	5	---
TOTAL	145	121	157	166	3366	1499	1708	894	435	275	177	122
MEAN	5	4	5	5	116	48	57	29	15	9	6	4
MAX	5	4	7	7	368	68	72	42	18	11	7	5
MIN	4.2	3.8	4	5	5	31	43	18	11	7	5	4
ACRE FT	288	239	310	330	6677	2973	3388	1773	863	546	351	241

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 2023 TO SEPTEMBER 2024

Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	10	10	23	1164	52	155	160	57	26	20	18
2	14	10	10	23	45	40	144	155	57	23	21	18
3	14	10	10	23	55	33	160	150	55	22	20	17
4	13	10	9	22	2883	33	84	146	53	22	20	16
5	12	10	8	22	1359	33	71	144	50	22	20	16
6	11	10	8	23	804	34	67	135	49	22	20	15
7	10	10	8	23	298	33	65	130	48	22	20	15
8	10	10	9	22	84	34	60	125	46	22	20	15
9	10	10	10	23	75	35	53	118	46	22	20	15
10	10	10	10	23	68	35	52	115	46	22	20	15
11	10	10	10	23	62	33	47	109	45	22	20	16
12	10	10	10	24	66	31	37	107	44	22	20	16
13	10	10	10	23	62	31	38	104	43	22	19	17
14	10	10	10	23	57	31	65	103	41	22	19	17
15	10	10	8	23	45	31	92	103	39	22	19	18
16	10	12	8	23	36	31	93	101	37	22	19	18
17	9	12	8	23	31	32	84	99	34	22	19	18
18	10	12	8	22	31	32	84	97	31	22	19	18
19	10	11	11	22	6187	32	85	93	31	22	19	18
20	10	11	19	24	4452	32	100	92	31	22	19	18
21	10	10	4357	23	1082	32	113	89	30	21	19	18
22	10	10	4013	24	258	32	170	90	30	21	19	18
23	10	10	23	23	146	32	224	78	30	21	19	17
24	11	10	21	23	95	32	215	66	30	21	19	17
25	11	10	22	23	83	32	209	68	30	21	19	16
26	11	11	21	24	74	31	199	63	30	21	19	16
27	11	10	21	24	68	31	192	64	30	20	18	16
28	11	10	21	24	63	31	184	64	30	20	18	16
29	11	11	22	24	67	45	174	63	30	20	18	16
30	11	11	22	25	---	312	167	60	30	20	18	15
31	11	---	22	26	---	549	---	57	---	20	18	---
TOTAL	334	311	8761	719	19801	1835	3482	3146	1181	669	597	500
MEAN	11	10	283	23	683	59	116	101	39	22	19	17
MAX	14	12	4357	26	6187	549	224	160	57	26	21	18
MIN	9	10	8	22	31	31	37	57	30	20	18	15
ACRE FT	662	617	17378	1426	39275	3639	6907	6239	2343	1326	1184	992

Data is provisional and subject to revision

Rating table not validated at high flows.

Data logger malfunctioning. Discharge estimated from staff gage and auxiliary / fishway flow data

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 2023 TO SEPTEMBER 2024
 Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				5	215	249	422		10	9	1	
2				4	127	385	308		10	11	1	
3				5	54	338	239		10	10	0.97	
4				4	62	280	253		9	10	0.79	
5				3	239	254	235		9	9	0.43	
6				3	154	269	202		9	8	0.11	
7				2	306	253	189		9	9		
8				2	338	228	178		10	8		
9					317	214	168		11	7		
10					254	201	156	0.75	10	7		
11					210	191	155		9	6		
12					168	185	158		9	6		
13					156	175	202		9	7		
14					141	169	271		9	8		
15					135	159	219		9	6		
16					130	155	166		9	5		
17					122	145	148		11	5		
18					124	139	134		13	4		
19					192	134	126		12	3		
20			13	0.22	118	128	105		11	4		
21			258	3	351	122	85		10	4		
22			151	35	466	118	40		10	3		
23			49	38	390	121		8	9	3		
24			30	24	341	112		16	8	2		
25			25	12	291	107		13	7	1		
26			19	10	259	96		14	7	2		
27			12	9	231	93		11	6	4		
28			9	8	214	90		9	6	5		
29			7	6	192	81		9	6	3		
30			12	5	---	415		9	5	3		
31		---	7	4	---	523	---	10	---	2		---
TOTAL			592	180	6297	6128	4160	101	269	176	5	
MEAN			19	6	218	198	139	3	9	6	0.15	
MAX			258	38	466	523	422	16	13	11	1	
MIN					54	81			5	1		
ACRE FT			1173	357	12490	12154	8252	200	534	350	9	

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 2023 TO SEPTEMBER 2024
 Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	17	15	53	724	188	305	166	78	37	30	21
2	24	17	15	52	163	409	238	164	79	34	29	21
3	23	17	15	53	141	348	209	163	77	33	29	20
4	23	17	15	51	2920	258	162	163	74	32	29	20
5	22	17	15	52	2920	217	152	161	70	32	29	20
6	22	17	15	53	1300	285	139	153	68	32	29	19
7	22	16	15	52	748	247	134	148	67	32	29	19
8	22	16	15	53	517	189	128	144	67	32	30	18
9	22	16	15	53	258	172	119	139	67	32	29	18
10	22	16	15	54	204	163	113	136	66	32	29	18
11	22	16	15	53	175	156	109	132	63	32	28	18
12	21	16	15	54	168	145	99	131	60	32	27	18
13	21	16	15	54	148	140	115	128	59	33	27	18
14	21	16	15	54	136	136	177	128	57	33	27	18
15	20	16	15	53	121	131	169	127	53	32	26	18
16	20	16	15	52	107	126	154	124	51	31	26	18
17	20	16	15	52	98	123	140	120	49	31	26	17
18	20	16	15	51	106	119	135	116	45	31	25	17
19	20	16	17	51	3760	117	135	114	44	31	25	17
20	19	16	24	54	2640	114	138	111	43	31	24	17
21	19	16	546	68	1210	111	146	107	41	31	24	17
22	19	15	130	155	621	110	168	107	40	30	24	17
23	19	15	71	86	426	127	209	101	38	30	24	17
24	19	15	61	69	307	113	204	88	37	29	23	17
25	19	15	57	64	258	109	201	89	37	30	23	17
26	19	16	55	62	227	106	195	85	37	29	23	17
27	19	15	53	61	205	103	188	83	37	30	22	17
28	19	15	52	59	182	103	180	83	37	30	22	17
29	18	15	52	58	170	117	175	82	38	29	22	17
30	18	15	61	58	---	596	171	80	38	29	22	17
31	18	---	54	58	---	656	---	78	---	29	22	---
TOTAL	634	481	1501	1848	20960	6034	4907	3751	1618	971	802	537
MEAN	20	16	48	60	723	195	164	121	54	31	26	18
MAX	24	17	546	155	3760	656	305	166	79	37	30	21
MIN	18	15	15	51	98	103	99	78	37	29	22	17
ACRE FT	1258	953	2977	3666	41574	11968	9734	7440	3210	1925	1592	1064

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 2023 THROUGH SEPTEMBER 2024 Daily Mean Discharge, cubic feet per second

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9	3	4	7	166	73	103	34	22	14	4	8
2	10	3	4	7	57	231	86	34	23	14	3	6
3	9	3	4	6	33	180	78	34	22	14	3	5
4	8	3	4	6	1110	112	78	35	21	14	3	5
5	8	3	4	6	892	91	78	34	22	14	4	3
6	7	3	5	5	106	103	76	32	22	13	3	2
7	7	2	5	5	90	91	75	31	21	14	3	2
8	7	3	5	5	81	76	71	30	23	13	3	2
9	7	3	6	5	61	70	68	29	23	14	4	1
10	6	3	6	5	48	66	66	29	22	13	4	2
11	6	3	6	5	39	60	66	29	20	14	2	2
12	7	3	5	6	32	59	67	29	18	13	1	3
13	6	3	5	5	28	60	76	29	18	13	0.92	2
14	6	3	5	6	27	58	78	29	18	12	0.99	2
15	5	4	5	5	21	58	61	29	17	12	0.91	3
16	5	4	5	5	20	56	51	29	17	12	0.50	2
17	5	3	5	6	18	55	50	28	16	11	0.01	2
18	5	3	6	6	21	52	47	27	16	11	0.16	2
19	5	4	11	7	1670	50	47	27	16	11	0.19	3
20	5	3	32	7	906	49	46	27	16	10	0.23	4
21	5	3	132	26	360	48	44	25	16	11	0.18	4
22	5	4	51	85	173	47	44	26	16	10	0.25	3
23	4	3	20	44	121	53	44	25	16	9	0.30	3
24	5	3	10	15	96	49	41	25	16	7	0.02	4
25	4	3	7	10	85	46	41	24	15	8	1	5
26	4	3	5	6	78	44	40	23	15	8	5	6
27	4	3	4	5	74	41	38	22	14	7	10	6
28	4	4	4	5	69	41	38	22	13	6	16	5
29	4	4	4	6	64	47	36	21	13	5	18	5
30	3	4	17	6	-----	229	35	21	14	5	19	4
31	4	-----	5	6	-----	169	-----	21	-----	4	13	-----
TOTAL	177	98	390	328	6546	2464	1769	860	541	337	122	102
MEAN	6	3	13	11	226	79	59	28	18	11	4	3
MAX	10	4	132	85	1670	231	103	35	23	14	19	8
MIN	3	2	4	5	18	41	35	21	13	4	0.01	1
ACRE FT	350	194	774	650	12984	4887	3509	1706	1073	667	242	203

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Appendix C

Fisheries Storm Peak Logs

Flow Assessment at Robles Diversion and Fish Passage Facility
Standard and Critical Drought Protection Measures (Stage 3-4, 100k - 65k af)

Date: 2-2-24 Time: 8:50 Prepared by: Scott Lewis

Storm Peak Discharge			
	date	time	cfs
North Fork Matilija Cr	2-1	6:50	7313 (error)
Matilija Cr above dam		6:35	457/422
Matilija Dam		8:10	13/1095.53
Matilija Cr at Hot Spr.		8:05	993
Robles Canal		8:30-9:00	≈ 400
Robles Weir			≈ 900
Total Robles Inflow	2-1	↓	≈ 1300-1400
BO Defined Storm Event: <u>Y</u> /N			
BO Defined Overlapping Event: Y/ <u>N</u>			

Current Discharge (Day 1 after peak)			
	time	cfs	
North Fork Matilija Cr	8:20	1892 (error)	
Matilija Cr above Reservoir	7:40	106/99	(VC/usgs)
Matilija Dam	8:25	0/1094.76	(Gfs/ft)
Matilija Cr at Hot Springs	8:20	184	
Robles Canal	8:50	150	
Robles Weir	8:50	32	
Total Robles Inflow	8:50	182	

VR - Foster, VC 9:00 1827
 VR - Foster, USGS 9:10 2080
 SANC 6:45 612

Date Matilija Reservoir Filled: NA
 Count of Days: NA

Lake Casitas volume 173,286; 72.8%

CDPM Method:

- ☐ <30 days - M4 - Modified Overlapping Release
☐ ≥30 days - M9 - Matilija Download with Initial Release
☒ Standard Release
☐ Back-to-Back Release

			M9 - Matilija Download				
Day	Date	Robles Release	Robles Inflow		Matilija Inflow	Matilija Outflow	Matilija Elevation
			Canal	Weir			
1	2-2	56					
2	2-3	56					
3	2-4	50					
4	2-5	↓					
5	2-6	↓					
6	2-7	↓					
7	2-8	↓					
8	2-9	↓					
9	2-10	↓					
10	2-11	50					
11	2-12	40					
12	2-13	30					
13							
14							
15							
16							
17							
18							

Initial Release			
Day After Release Peak	Release (cfs)	Determining Inflow (cfs)	
1	171	334	to 671
2	100	274	to 334
3	82	247	to 274
4	74	227	to 247
5	68	207	to 227
6	62	187	to 207
7	56	167	to 187
8	56	NA	
9	50	50	to 167
10	50	NA	
11	40	NA	
12	30	NA	

Back-to-Back Release			
Day After Release Peak	Release (cfs)	Determining Inflow (cfs)	
1	100	247	to 600
2	74	204	to 247
3	61	181	to 204
4	54	150	to 181
5	50		NA
6	50		NA
7	50		NA
8	50		NA
9	40		NA
10	30		NA

Comments:

Flow Assessment at Robles Diversion and Fish Passage Facility

Standard and Critical Drought Protection Measures (Stage 3-4, 100k - 65k af)

Date: 2-5-24 Time: 9:00 Prepared by: Scott Lewis

Storm Peak Discharge			
	date	time	cfs
North Fork Matilija Cr	2-4	19:15	31744/2562
Matilija Cr above dam		18:05	6225/6120*
Matilija Dam		19:45	8930/1100.17
Matilija Cr at Hot Spr.		-	error
Robles Canal		20:00	<20
Robles Weir		20:00	≈ 7000*
Total Robles Inflow			
2-4 ≈ 20:00 ≈ 8K-11K			
BO Defined Storm Event: ☒ N			
BO Defined Overlapping Event: Y/ ☒ N			

VR-Foster VC 20:55 11613
 VR-Foster us65 20:55 9650
 VR-OVSD 20:40 10263
 SANVC 21:00 3519

* = errors

Lake Casitas volume _____

Date Matilija Reservoir Filled: NA
 Count of Days: NA

CDPM Method:

- ☐ <30 days - M4 - Modified Overlapping Release
☐ ≥30 days - M9 - Matilija Download with Initial Release
☒ Standard Release
☐ Back-to-Back Release

Forebay peak 2-4 19:15 12.69ft

Current Discharge (Day 1 after peak)		
	time	cfs
North Fork Matilija Cr	7:20	6914/407
Matilija Cr above Reservoir	7:30	7/NA*
Matilija Dam	6:25	1893/1097.15
Matilija Cr at Hot Springs	6:30	1901
Robles Canal	8:00	398
Robles Weir	8:00	836* 1902 = 2300 - 398
Total Robles Inflow		
8:00 ≈ 2300		

VR-Foster VC 7:35 2844
 VR-Foster us65 7:15 3080
 VR-OVSD 7:35 2502
 SANVC 7:45 1054

(Rating/model)
 > ≈ 1900 + 400 = 2300

3080 - 1054 = 2026

M9 - Matilija Download

Day	Date	Robles Release	Robles Inflow	Matilija Inflow	Matilija Outflow	Matilija Elevation
1	2-5	7671	≈ 2300			
2	2-6	171	≈ 400-600			
3	2-7	100				
4	2-8	82				
5	2-9	74				
6	2-10	68				
7	2-11	62				
8	2-12	56				
9	2-13	50				
10	2-14	40				
11	2-15	30				
12	2-16					
13						
14						
15						
16						
17						
18						

Initial Release

Day After Release Peak	(cfs)	Determining Inflow (cfs)
1	171	334 to 671
2	100	274 to 334
3	82	247 to 274
4	74	227 to 247
5	68	207 to 227
6	62	187 to 207
7	56	167 to 187
8	56	NA
9	50	50 to 167
10	50	NA
11	40	NA
12	30	NA

Back-to-Back Release

Day After Release Peak	(cfs)	Determining Inflow (cfs)
1	100	247 to 600
2	74	204 to 247
3	61	181 to 204
4	54	150 to 181
5	50	NA
6	50	NA
7	50	NA
8	50	NA
9	40	NA
10	30	NA

Comments:

Flow Assessment at Robles Diversion and Fish Passage Facility

Standard and Critical Drought Protection Measures (Stage 3-4, 100k - 65k af)

Date: 2-20-24 Time: 9:30 Prepared by: Scott Lewis

Storm Peak Discharge			
	date	time	cfs
North Fork Matilija Cr	2-19	06:15	13800*/1366
Matilija Cr above dam		06:00	2*/1110
Matilija Dam		08:50	3034/1097.75
Matilija Cr at Hot Spr.		—	error
Robles Canal		08:45	230
Robles Weir		08:45	9k/5595
Total Robles Inflow			
2-19 ≈ 09:00 ≈ 4500-5500			
BO Defined Storm Event: <u>Y/N</u>			
BO Defined Overlapping Event: <u>Y/(N)</u>			

VR-Foster VC 08:35 7084
 VR-Foster USGS 09:05 5740
 SANC 08:05 3003

Current Discharge (Day 1 after peak)		
	time	cfs
North Fork Matilija Cr	07:35	6677*/347
Matilija Cr above Reservoir	07:40	2*/451
Matilija Dam	07:25	1476/1096.90
Matilija Cr at Hot Springs	—	error
Robles Canal	08:10	264
Robles Weir	08:10	4164/1888
Total Robles Inflow		
08:10 ≈ 1810-2150		

VR-Foster VC 08:00 2300
 VR-Foster USGS 07:15 2690
 SANC 08:15 899

* = errors

Lake Casitas volume 196,927 (82.7%)

CDPM Method:

- ☐ <30 days - M4 - Modified Overlapping Release
☐ ≥30 days - M9 - Matilija Download with Initial Release
☒ Standard Release
☐ Back-to-Back Release

Date Matilija Reservoir Filled: NA
 Count of Days: NA

M9 - Matilija Download						
Day	Date	Robles Release	Robles Inflow	Matilija Inflow	Matilija Outflow	Matilija Elevation
1	2-20	7671	≈ 1800-2150			
2	2-21	7671	≈ 1039 @ 08:30			
3	2-22	171	≈ 666 @ 09:45			
4	2-23	100				
5	2-24	82				
6	2-25	74				
7	2-26	68				
8	2-27	62				
9	2-28	56				
10	2-29	56				
11	3-1	40				
12	3-2	30				
13						
14						
15						
16						
17						
18						

Initial Release			
Day After Release Peak	(cfs)	Determining Inflow (cfs)	
1	171	334	to 671
2	100	274	to 334
3	82	247	to 274
4	74	227	to 247
5	68	207	to 227
6	62	187	to 207
7	56	167	to 187
8	56		NA
9	50	50	to 167
10	50		NA
11	40		NA
12	30		NA

Back-to-Back Release			
Day After Release Peak	(cfs)	Determining Inflow (cfs)	
1	100	247	to 600
2	74	204	to 247
3	61	181	to 204
4	54	150	to 181
5	50		NA
6	50		NA
7	50		NA
8	50		NA
9	40		NA
10	30		NA

Comments:

Flow Assessment at Robles Diversion and Fish Passage Facility
Standard and Critical Drought Protection Measures (Stage 3-4, 100k - 65k af)

Date: 3-31-24 Time: 08:00 Prepared by: Scott Lewis

Storm Peak Discharge			
Location	date	time	cfs
North Fork Matilija Cr	3-30	04:45	7376/971
Matilija Cr above dam		03:40	1142
Matilija Dam		04:55	469/1096.03
Matilija Cr at Hot Spr.		04:40	896
Robles Canal		05:00	498
Robles Weir			1183
↓ ↓			
Total Robles Inflow	3-30	05:00	1681

BO Defined Storm Event: (Y) N

VR-Foster VC 3-30 07:00 1533
 VR-Foster usgs 07:00 1600
 Sanc 05:35 638

Lake Casitas volume 222,008 ac-ft (93.3%)

Release/CDPM method:

- ☐ <30 days - M4 - Modified Overlapping Release
☐ ≥30 days - M9 - Matilija Download with Initial Release
☒ Standard Release: ≥ 150 cfs and 2x inflow of any 3 days before peak.
☐ Back-to-Back Release: ≥ 150 cfs and 2x largest flow of last 3 days before peak (days 6-12 only).

Current Discharge (Day 1 after peak)		
Location	time	cfs
North Fork Matilija Cr	07:35	3943*/283 (rating/mod)
Matilija Cr above Reservoir	07:40	940
Matilija Dam	07:25	325/1096.03 (cfs/ft)
Matilija Cr at Hot Springs	07:35	713
Robles Canal	07:45	514
Robles Weir	↓	484
↓		
Total Robles Inflow	07:45	1008

Date Matilija Res. filled: NA

Count of storage days: NA

M9 - Matilija Download							
Day	Date	Robles Release	Robles Inflow		Matilija	Matilija	Matilija
			Canal	Weir	Inflow	Outflow	Elevation
1	3-31	171	new storm peak on 3-31				
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							

Initial Release			
Day After Release Peak	(cfs)	Determining Inflow (cfs)	
1	171	334	to 671
2	100	274	to 334
3	82	247	to 274
4	74	227	to 247
5	68	207	to 227
6	62	187	to 207
7	56	167	to 187
8	56		NA
9	50	50	to 167
10	50		NA
11	40		NA
12	30		NA

Back-to-Back Release			
Day After Release Peak	(cfs)	Determining Inflow (cfs)	
1	100	247	to 600
2	74	204	to 247
3	61	181	to 204
4	54	150	to 181
5	50		NA
6	50		NA
7	50		NA
8	50		NA
9	40		NA
10	30		NA

Comments:

Flow Assessment at Robles Diversion and Fish Passage Facility
Standard and Critical Drought Protection Measures (Stage 3-4, 100k - 65k af)

Date: 4-1-24 Time: 08:30 Prepared by: Scott Lewis

Storm Peak Discharge			
Location	date	time	cfs
North Fork Matilija Cr	3-31	00:40	4349/334
Matilija Cr above dam		00:30	1183/1100
Matilija Dam		00:30	562/1096.23
Matilija Cr at Hot Spr.		01:40	928
Robles Canal		01:45	529
Robles Weir			876
↓ ↓			
Total Robles Inflow	3-31	01:45	1405
BO Defined Storm Event: (Y) N			

VR-Foster VC 3-31 04:00 981
 VR-Foster USGS ↓ 03:30 1050
 SANVC ↓ 15:50 426

Current Discharge (Day 1 after peak)		
Location	time	cfs
North Fork Matilija Cr	07:50	2925/177 (rating/model)
Matilija Cr above Reservoir	08:00	699/457 (VC/USGS)
Matilija Dam	07:20	202/1095.93 (cfs/ft)
Matilija Cr at Hot Springs	07:50	459
Robles Canal	08:30	451
Robles Weir		132
↓		
Total Robles Inflow	08:30	591

VR-Foster VC 08:30 314
 VR-Foster USGS ↓ 317
 SANVC ↓ 317

Lake Casitas volume 227,797 ac-ft (96.1%)

Release/CDPM method:

- ☐ <30 days - M4 - Modified Overlapping Release
☐ ≥30 days - M9 - Matilija Download with Initial Release
☒ Standard Release: ≥ 150 cfs and 2x inflow of any 3 days before peak.
☐ Back-to-Back Release: ≥ 150 cfs and 2x largest flow of last 3 days before peak (days 6-12 only).

Date Matilija Res. filled: NA
 Count of storage days: NA
*** errors**

M9 - Matilija Download						
Day	Date	Robles Release	Robles Inflow Canal	Robles Inflow Weir	Matilija Inflow	Matilija Outflow Elevation
1	4-1	171				
2	4-2	100				
3	4-3	82				
4	4-4	74				
5	4-5	68				
6	4-6	62				
7	4-7	56				
8	4-8	56				
9	4-9	50				
10	4-10	50				
11	4-11	40				
12	4-12	30				
13						
14						
15						
16						
17						
18						

Initial Release			
Day After Release Peak	(cfs)	Determining Inflow (cfs)	
1	171	334	to 671
2	100	274	to 334
3	82	247	to 274
4	74	227	to 247
5	68	207	to 227
6	62	187	to 207
7	56	167	to 187
8	56		NA
9	50	50	to 167
10	50		NA
11	40		NA
12	30		NA

Back-to-Back Release			
Day After Release Peak	(cfs)	Determining Inflow (cfs)	
1	100	247	to 600
2	74	204	to 247
3	61	181	to 204
4	54	150	to 181
5	50		NA
6	50		NA
7	50		NA
8	50		NA
9	40		NA
10	30		NA

Comments:

Flow Assessment at Robles Diversion and Fish Passage Facility

Standard and Critical Drought Protection Measures (Stage 3-4, 100k - 65k af)

Date: 4-14-24 Time: 09:50 Prepared by: Scott Lewis

Storm Peak Discharge			
Location	date	time	cfs
North Fork Matilija Cr	4-13	19:05	2894*
Matilija Cr above dam		18:15	602*/337
Matilija Dam		18:55	0/1093.28
Matilija Cr at Hot Spr.		19:55	353
Robles Canal		20:45	357
Robles Weir			52
↓ ↓			
Total Robles Inflow	4-13	20:45	409
BO Defined Storm Event: ☒ Y / ☐ N			

VR Foster VC 4-13 22:00 176
 VR Foster USGS ↓ 22:00 174
 SANC ↓ 18:00 312

Current Discharge (Day 1 after peak)		
Location	time	cfs
North Fork Matilija Cr	09:20	2178*
Matilija Cr above Reservoir	08:40	460*/193
Matilija Dam	09:25	0/1093.28
Matilija Cr at Hot Springs	09:20	230
Robles Canal	09:50	196
Robles Weir	↓	50
↓		
Total Robles Inflow	09:50	246

VR Foster VC 4-14
 VR Foster USGS ↓
 SANC

Lake Casitas volume 234,592 (98.6%)

Release/CDPM method:

- ☐ <30 days - M4 - Modified Overlapping Release
☐ ≥30 days - M9 - Matilija Download with Initial Release
☒ Standard Release: ≥ 150 cfs and 2x inflow of any 3 days before peak.
☐ Back-to-Back Release: ≥ 150 cfs and 2x largest flow of last 3 days before peak (days 6-12 only).

* errors

Date Matilija Res. filled: NA

Count of storage days: NA

M9 - Matilija Download						
Day	Date	Robles Release	Robles Inflow Canal	Robles Inflow Weir	Matilija Inflow	Matilija Outflow
1	4-14	74				
2	4-15	68				
3	4-16	62				
4	4-17	56				
5	4-18	56				
6	4-19	50				
7	4-20	50				
8	4-21	50				
9	4-22	50				
10	4-23	50				
11	4-24	40				
12	4-25	30				
13						
14						
15						
16						
17						
18						

Initial Release			
Day After Release Peak	(cfs)	Determining Inflow (cfs)	
1	171	334 to 671	
2	100	274 to 334	
3	82	247 to 274	
4	74	227 to 247	
5	68	207 to 227	
6	62	187 to 207	
7	56	167 to 187	
8	56	NA	
9	50	50 to 167	
10	50	NA	
11	40	NA	
12	30	NA	

Back-to-Back Release			
Day After Release Peak	(cfs)	Determining Inflow (cfs)	
1	100	247 to 600	
2	74	204 to 247	
3	61	181 to 204	
4	54	150 to 181	
5	50	NA	
6	50	NA	
7	50	NA	
8	50	NA	
9	40	NA	
10	30	NA	

Comments:

Flow Assessment at Robles Diversion and Fish Passage Facility

Standard and Critical Drought Protection Measures (Stage 3-4, 100k - 65k af)

Date: 4-15-24 Time: 08:00 Prepared by: Scott Lewis

Storm Peak Discharge			
Location	date	time	cfs
North Fork Matilija Cr	4-14	15:50	3502*
Matilija Cr above dam	↓	14:40	651*/397
Matilija Dam		16:05	0/1093.26
Matilija Cr at Hot Spr.		16:05	438
Robles Canal		16:45	423
Robles Weir		↓	79
Total Robles Inflow	4-14	16:45	500
BO Defined Storm Event: ☒ N			

VR Foster VC 4-14 17:00 271
 VR Foster usgs ↓ 16:50 265
 SANC ↓ 16:10 331

Current Discharge (Day 1 after peak)		
Location	time	cfs
North Fork Matilija Cr	07:35	2382*/62
Matilija Cr above Reservoir	07:10	517*/248
Matilija Dam	07:25	0/1093.29
Matilija Cr at Hot Springs	07:35	290
Robles Canal	08:17	236
Robles Weir	↓	81
Total Robles Inflow	08:17	317

VR Foster VC 4-13 200
 VR Foster usgs ↓ 176
 SANC ↓ 283

Lake Casitas volume 235,119 (98.8%)

Release/CDPM method:

- ☐ <30 days - M4 - Modified Overlapping Release
☐ ≥30 days - M9 - Matilija Download with Initial Release
☒ Standard Release: ≥ 150 cfs and 2x inflow of any 3 days before peak.
☐ Back-to-Back Release: ≥ 150 cfs and 2x largest flow of last 3 days before peak (days 6-12 only).

* errors

Date Matilija Res. filled: NA

Count of storage days: NA

M9 - Matilija Download							Initial Release		
Day	Date	Robles Release	Robles Inflow Canal	Robles Inflow Weir	Matilija Inflow	Matilija Outflow	Matilija Elevation	Day After Release Peak	Determining Inflow (cfs)
1	4-15	100						1	171
2	4-16	82						2	100
3	4-17	74						3	82
4	4-18	68						4	74
5	4-19	62						5	68
6	4-20	56						6	62
7	4-21	56						7	56
8	4-22	50						8	56
9	4-23	50						9	50
10	4-24	50						10	50
11	4-25	40						11	40
12	4-26	30						12	30
13									
14									
15									
16									
17									
18									

Day After Release Peak	(cfs)	Determining Inflow (cfs)
1	171	334 to 671
2	100	274 to 334
3	82	247 to 274
4	74	227 to 247
5	68	207 to 227
6	62	187 to 207
7	56	167 to 187
8	56	NA
9	50	50 to 167
10	50	NA
11	40	NA
12	30	NA

Back-to-Back Release

Day After Release Peak	(cfs)	Determining Inflow (cfs)
1	100	247 to 600
2	74	204 to 247
3	61	181 to 204
4	54	150 to 181
5	50	NA
6	50	NA
7	50	NA
8	50	NA
9	40	NA
10	30	NA

Comments:

Appendix D

Casitas Reservoir Operational Data

CASITAS RESERVOIR WATER INVENTORY SUMMARY
2023 - 2024 WATER YEAR

figures in acre-feet except where otherwise noted

MONTH	RESERVOIR (last of previous month)		RESERVOIR INFLOW				RESERVOIR RELEASES			
	ELEV (ft)	STORAGE	DIRECT	VENTURA RIVER DIVERSIONS	TOTAL	PRECIP	EVAP	TO MAIN SYSTEM	SPILL	CHANGE IN STORAGE
OCT 2023	539.82	171701	-166	0	-166	1	612	756	0	-1533
NOV 2023	539.12	170168	-125	0	-125	86	420	673	0	-1132
DEC 2023	538.60	169036	903	1239	2142	1092	198	445	0	2577
JAN 2024	539.78	171613	477	358	834	466	223	182	0	901
FEB 2024	540.19	172514	19707	12603	32310	3956	249	247	0	35397
MAR 2024	555.12	207344	6247	12314	18561	1468	504	264	0	18642
APR 2024	562.52	225986	3135	8265	11400	368	644	293	52	11828
MAY 2024	567.02	237814	1232	200	1433	10	725	472	251	-26
JUN 2024	567.01	237788	860	534	1394	1	1026	740	174	-535
JUL 2024	566.81	237253	299	350	649	5	1338	1318	0	-2002
AUG 2024	566.06	235251	-4	10	6	0	1335	1390	0	-2719
SEP 2024	565.03	232532	60	0	60	0	993	1353	0	-2286
OCT 2024	564.16	230246	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL			32627	35872	68499	7452	8267	8134	477	59112

reservoir capacity = 237,700 a.f. @ 567 ft.

Z:\Shared drives\Hydrology\Casitas Dam\Annual\[CasitasReservoir2024.xlsx]Wtr Yr. 2023-24

CASITAS RESERVOIR OPERATION
OCTOBER 2023

*figures in acre-feet except where otherwise noted

RESERVOIR (@ 0800 hrs.)				INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE
DATE	Elevation (ft MSL)	Sep 30 th 171701 Storage	Surface Area (acres)	Direct	Ventura River Divers'n	Total	Pan @Dam (in)	Pan @Rec (in)	Lake Total	at Dam (in)	at Rec (in)	Lake Total	To Main System	To River	Spill	
1	539.80	171657	2258	-16	0	-16	0.15	0.08	16	0.01	0	0.94	13	0	0	-44
2	539.77	171591	2256	-28	0	-28	0.07	0.19	18	0	0	0	19	0	0	-66
3	539.74	171525	2256	-25	0	-25	0.12	0.12	17	0	0	0	24	0	0	-66
4	539.72	171481	2256	18	0	18	0.14	0.21	25	0	0	0	38	0	0	-44
5	539.69	171415	2254	-4	0	-4	0.20	0.20	28	0	0	0	34	0	0	-66
6	539.67	171372	2254	15	0	15	0.25	0.15	28	0	0	0	29	0	0	-43
7	539.65	171328	2254	10	0	10	0.21	0.35	39	0	0	0	15	0	0	-44
8	539.63	171284	2254	2	0	2	0.26	0.18	31	0	0	0	15	0	0	-44
9	539.61	171240	2254	7	0	7	0.21	0.18	27	0	0	0	24	0	0	-44
10	539.59	171196	2253	-2	0	-2	0.14	0.14	20	0	0	0	22	0	0	-44
11	539.56	171131	2253	-25	0	-25	0.10	0.13	16	0	0	0	24	0	0	-65
12	539.54	171087	2253	7	0	7	0.19	0.22	29	0	0	0	23	0	0	-44
13	539.52	171043	2253	7	0	7	0.09	0.22	22	0	0	0	29	0	0	-44
14	539.50	170999	2253	-10	0	-10	0.20	0.05	18	0	0	0	16	0	0	-44
15	539.47	170933	2251	-25	0	-25	0.11	0.25	25	0	0	0	15	0	0	-66
16	539.45	170890	2251	10	0	10	0.19	0.16	25	0	0	0	29	0	0	-43
17	539.43	170846	2251	-1	0	-1	0.12	0.08	14	0	0	0	29	0	0	-44
18	539.42	170824	2251	10	0	10	0.01	0.13	10	0	0	0	22	0	0	-22
19	539.39	170758	2249	-2	0	-2	0.20	0.19	27	0	0	0	36	0	0	-66
20	539.37	170715	2249	-4	0	-4	0.01	0.04	4	0	0	0	36	0	0	-43
21	539.34	170649	2249	-17	0	-17	0.20	0.20	28	0	0	0	21	0	0	-66
22	539.32	170605	2249	-7	0	-7	0.16	0.16	22	0	0	0	15	0	0	-44
23	539.31	170584	2249	19	0	19	0.10	0.10	14	0	0	0	26	0	0	-21
24	539.30	170562	2249	23	0	23	0.02	0.15	12	0	0	0	33	0	0	-22
25	539.27	170496	2247	-31	0	-31	0.01	0.08	6	0	0	0	28	0	0	-66
26	539.25	170452	2247	-12	0	-12	0.01	0.06	5	0	0	0	27	0	0	-44
27	539.23	170409	2247	-10	0	-10	0.04	0.13	12	0	0	0	21	0	0	-43
28	539.20	170343	2247	-21	0	-21	0.27	0.10	26	0	0	0	19	0	0	-66
29	539.18	170299	2246	-3	0	-3	0.10	0.17	19	0	0	0	22	0	0	-44
30	539.16	170256	2246	-5	0	-5	0.12	0.08	14	0	0	0	24	0	0	-43
31	539.12	170168	2246	-45	0	-45	0.10	0.10	14	0	0	0	29	0	0	-88
TOTAL				-166	0	-166	4	5	612	0.01	0	0.94	756	0	0	-1533

Reservoir capacity = 237,761 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 2023

*figures in acre-feet except where otherwise noted

RESERVOIR (@ 0800 hrs.)				INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE
DATE	Elevation	Oct 31 st 170168	Surface Area	Ventura River			Pan @Dam	Pan @Rec	Lake	at Dam	at Rec	Lake	To Main System	To River	Spill	
	(ft MSL)	Storage	(acres)	Direct	Divers'n	Total	(in)	(in)	Total	(in)	(in)	Total				
1	539.10	170125	2246	6	0	6	0.11	0.28	26	0	0	0	22	0	0	-43
2	539.07	170059	2244	-14	0	-14	0.12	0.09	14	0	0	0	38	0	0	-66
3	539.05	170016	2244	11	0	11	0.15	0.16	21	0	0	0	34	0	0	-43
4	539.03	169972	2244	13	0	13	0.18	0.33	34	0	0	0	23	0	0	-44
5	539.00	169907	2244	-36	0	-36	0.10	0.10	13	0	0	0	16	0	0	-65
6	538.99	169885	2242	16	0	16	0.11	0.11	15	0	0	0	24	0	0	-22
7	538.98	169863	2242	26	0	26	0.08	0.08	11	0	0	0	37	0	0	-22
8	538.96	169819	2242	12	0	12	0.14	0.14	19	0	0	0	37	0	0	-44
9	538.91	169710	2242	-58	0	-58	0.11	0.17	19	0	0	0	33	0	0	-109
10	538.89	169667	2241	-13	0	-13	0.03	0.16	13	0	0	0	17	0	0	-43
11	538.86	169601	2241	-35	0	-35	0.06	0.11	11	0	0	0	20	0	0	-66
12	538.84	169558	2241	-8	0	-8	0.11	0.18	19	0	0	0	16	0	0	-43
13	538.83	169536	2241	31	0	31	0.27	0.14	28	0	0	0	25	0	0	-22
14	538.81	169493	2241	-11	0	-11	0.09	0.12	14	0	0	0	17	0	0	-43
15	538.79	169449	2239	-19	0	-19	0.03	0.12	10	0	0	0	14	0	0	-44
16	538.81	169493	2241	-12	0	-12	0	0	0	0.34	0.38	67	11	0	0	44
17	538.82	169514	2241	42	0	42	0.07	0.09	11	0	0	0	11	0	0	21
18	538.81	169493	2241	-21	0	-21	0	0	0	0.06	0.05	10	10	0	0	-21
19	538.81	169493	2241	4	0	4	0.02	0	1	0.06	0.03	8	12	0	0	0
20	538.79	169449	2239	-7	0	-7	0.09	0.18	18	0	0	0	19	0	0	-44
21	538.76	169384	2239	-27	0	-27	0.09	0.10	13	0	0	0	25	0	0	-65
22	538.74	169340	2239	-5	0	-5	0.02	0.13	10	0	0	0	28	0	0	-44
23	538.72	169297	2239	-15	0	-15	0.03	0.02	3	0	0	0	24	0	0	-43
24	538.70	169253	2239	-7	0	-7	0.07	0.19	17	0	0	0	20	0	0	-44
25	538.68	169209	2238	-24	0	-24	0.03	0.03	4	0	0	0	16	0	0	-44
26	538.67	169188	2238	13	0	13	0.13	0.13	17	0	0	0	17	0	0	-21
27	538.66	169166	2238	22	0	22	0.19	0.11	20	0	0	0	24	0	0	-22
28	538.64	169123	2238	9	0	9	0.11	0.16	18	0	0	0	34	0	0	-43
29	538.61	169057	2238	-32	0	-32	0.05	0.11	11	0	0	0	23	0	0	-66
30	538.60	169036	2238	13	0	13	0.05	0.07	8	0	0	0	26	0	0	-21
TOTAL				-125	0	-125	3	4	420	0.46	0.46	86	673	0	0	-1132

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 2023

*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	Ventura			Pan	Pan	Lake	at	at	Lake	To	To	Spill	
		169036	Area	River	@Dam	@Rec	Dam	Rec		Main	River					
		Storage	(acres)	Direct	Divers'n	Total	(in)	(in)	Total	(in)	(in)	Total	System			
1	538.57	168970	2236	-30	0	-30	0.07	0.10	10	0	0	0	25	0	0	-66
2	538.54	168905	2236	-33	0	-33	0.11	0.09	12	0	0	0	20	0	0	-65
3	538.54	168905	2236	24	0	24	0.06	0.09	9	0	0	0	15	0	0	0
4	538.52	168862	2236	-11	0	-11	0.03	0.05	5	0	0	0	27	0	0	-43
5	538.50	168818	2236	-11	0	-11	0.02	0.08	6	0	0	0	26	0	0	-44
6	538.49	168796	2234	11	0	11	0.03	0.10	8	0	0	0	25	0	0	-22
7	538.47	168753	2234	-14	0	-14	0.05	0.04	6	0	0	0	24	0	0	-43
8	538.45	168709	2234	1	0	1	0.06	0.17	14	0	0	0	31	0	0	-44
9	538.44	168688	2234	21	0	21	0.18	0.09	17	0	0	0	25	0	0	-21
10	538.42	168644	2234	-16	0	-16	0.06	0.08	9	0	0	0	19	0	0	-44
11	538.40	168601	2234	-11	0	-11	0.05	0.09	9	0	0	0	24	0	0	-43
12	538.39	168579	2233	12	0	12	0.06	0.12	11	0	0	0	23	0	0	-22
13	538.37	168536	2233	-9	0	-9	0.05	0.11	10	0	0	0	24	0	0	-43
14	538.36	168514	2233	10	0	10	0.04	0.10	9	0	0	0	23	0	0	-22
15	538.35	168492	2233	2	0	2	0.03	0.10	8	0	0	0	16	0	0	-22
16	538.33	168449	2233	-26	0	-26	0.07	0.07	9	0	0	0	9	0	0	-43
17	538.32	168427	2233	1	0	1	0.10	0.12	14	0	0	0	9	0	0	-22
18	538.32	168427	2233	15	0	15	0.10	0.00	6	0	0	0	9	0	0	0
19	538.32	168427	2233	-22	0	-22	0.00	0.00	0	0.09	0.2	27	5	0	0	0
20	538.41	168623	2234	-40	28	-13	0.00	0.00	0	1.22	1.38	242	6	0	0	196
21	538.76	169384	2239	326	548	874	0.00	0.00	0	2.23	2.2	413	5	0	0	761
22	539.41	170802	2251	596	309	904	0.00	0.00	0	1.59	1.39	279	6	0	0	1418
23	539.54	171087	2253	-26	102	76	0.00	0.02	1	0.05	0.05	9	5	0	0	285
24	539.58	171174	2253	-10	62	52	0.00	0.00	0	0	0	0	5	0	0	87
25	539.62	171262	2254	43	54	97	0.15	0.05	12	0	0	0	5	0	0	88
26	539.64	171306	2254	-4	40	36	0.00	0.00	0	0	0	0	5	0	0	44
27	539.68	171394	2254	59	24	83	0.02	0.07	6	0	0	0	5	0	0	88
28	539.71	171459	2256	47	18	65	0.00	0.01	1	0	0	0	6	0	0	65
29	539.72	171481	2256	11	14	25	0.03	0.00	2	0	0	0	5	0	0	22
30	539.76	171569	2256	-34	25	-9	0.00	0.10	6	0.75	0.52	119	5	0	0	88
31	539.78	171613	2256	22	15	37	0.00	0.00	0	0.02	0	2	5	0	0	44
TOTAL				903	1239	2142	1.37	1.85	198	5.95	5.74	1092	445	0	0	2577

Reservoir capacity = 237,761 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 2024

*figures in acre-feet except where otherwise noted

RESERVOIR (@ 0800 hrs.)				INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE
DATE	Elevation	Dec 31 st 171613	Surface Area	Direct	Ventura River Divers'n	Total	Pan @Dam	Pan @Rec	Lake Total	at Dam	at Rec	Lake Total	To Main System	To River	Spill	
	(ft MSL)	Storage	(acres)				(in)	(in)		(in)	(in)		(in)			
1	539.79	171635	2256	16	11	26	0	0	4	0.00	0.00	0	5	0	0	22
2	539.80	171657	2258	26	8	34	0.07	0	10	0.00	0.00	0	5	0	0	22
3	539.81	171679	2258	-24	9	-15	0	0	0	0.29	0.17	43	5	0	0	22
4	539.82	171701	2258	30	9	39	0.15	0.07	13	0.01	0.00	1	5	0	0	22
5	539.83	171723	2258	34	6	40	0	0	15	0.00	0.00	0	5	0	0	22
6	539.83	171723	2258	17	5	22	0.20	0	17	0.00	0.00	0	7	0	0	0
7	539.83	171723	2258	5	4	9	0.04	0	5	0	0	0	5	0	0	0
8	539.80	171657	2258	-58	3	-55	0	0	7	0.00	0.00	0	5	0	0	-66
9	539.79	171635	2256	-12	0	-12	0	0	8	0.00	0.00	0	5	0	0	-22
10	539.79	171635	2256	10	0	10	0	0	5	0.00	0.00	0	5	0	0	0
11	539.79	171635	2256	12	0	12	0.02	0.08	6	0.00	0.00	0	6	0	0	0
12	539.78	171613	2256	-7	0	-7	0.04	0.09	8	0	0	0	7	0	0	-22
13	539.77	171591	2256	-9	0	-9	0.08	0.02	6	0	0	0	7	0	0	-22
14	539.77	171591	2256	11	0	11	0	0	5	0.00	0.00	0	6	0	0	0
15	539.76	171569	2256	-10	0	-10	0	0	7	0.00	0.00	0	6	0	0	-22
16	539.76	171569	2256	13	0	13	0	0	7	0.00	0.00	0	6	0	0	0
17	539.76	171569	2256	17	0	17	0.12	0.06	11	0	0	0	6	0	0	0
18	539.76	171569	2256	9	0	9	0.00	0.02	1	0	0	0	8	0	0	0
19	539.75	171547	2256	-10	0	-10	0.03	0.06	5	0	0	0	7	0	0	-22
20	539.78	171613	2256	4	1	5	0.00	0.00	0	0	0	69	7	0	0	66
21	539.81	171679	2258	-5	5	0	0.00	0.00	0	0	0	77	7	0	0	66
22	539.92	171920	2259	20	69	89	0.00	0.00	0	1	1	223	7	0	0	241
23	540.06	172228	2261	193	75	268	0.00	0.00	0	0	0	53	7	0	0	308
24	540.10	172316	2263	32	47	78	0.08	0.13	13	0	0	0	6	0	0	88
25	540.11	172338	2263	-5	25	20	0.06	0.19	15	0	0	0	5	0	0	22
26	540.13	172382	2263	29	19	48	0.05	0.03	5	0	0	0	5	0	0	44
27	540.14	172404	2263	11	17	27	0.04	0.01	3	0	0	0	5	0	0	22
28	540.16	172448	2263	36	15	51	0.06	0.00	4	0	0	0	5	0	0	44
29	540.18	172492	2263	61	12	74	0.23	0.22	28	0	0	0	5	0	0	44
30	540.19	172514	2263	28	10	38	0	0	12	0.00	0.00	0	7	0	0	22
31	540.19	172514	2263	2	9	11	0	0.05	5	0.00	0.00	0	7	0	0	0
TOTAL				477	358	834	1.83	1.82	223	2.57	2.38	466	182	0	0	901

Reservoir capacity = 237,761 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 2024

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)			INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE
	Elevation (ft MSL)	Jan 31 st 172514	Surface Area	Ventura River			Pan @Dam	Pan @Rec	Lake	at Dam	at Rec	Lake	To Main	To River	Spill	
		Storage	(acres)	Direct	Divers'n	Total	(in)	(in)	Total	(in)	(in)	Total	System			
1	540.71	173661	2273	527	427	954	0.00	0.00	0	3.25	3.28	618	7	0	0	1147
2	541.21	174769	2281	554	251	805	0.00	0.00	0	0.11	1.30	134	7	0	0	1108
3	541.34	175058	2283	74	109	183	0.04	0.36	29	0	0	0	7	0	0	289
4	541.42	175236	2284	55	126	181	0.00	0.00	0	0.07	0.15	21	6	0	0	178
5	543.86	180718	2325	4212	480	4692	0.00	0.00	0	5.83	6.05	1151	7	0	0	5482
6	544.64	182494	2339	1111	309	1419	0.00	0.00	0	1.17	0.80	192	6	0	0	1776
7	545.07	183478	2346	655	608	1263	0.00	0.00	0	0.18	0.10	27	7	0	0	984
8	545.66	184833	2356	640	671	1312	0.00	0.00	0	0.55	0.60	113	6	0	0	1355
9	546.06	185755	2363	270	628	899	0.00	0.20	15	0.02	0	2	6	0	0	922
10	546.44	186634	2370	288	509	797	0.29	0.10	30	0	0	0	8	0	0	879
11	546.75	187352	2375	230	423	653	0.10	0.09	14	0	0	0	6	0	0	718
12	546.94	187793	2378	36	336	372	0.05	0.09	11	0	0	0	8	0	0	441
13	547.13	188234	2382	127	313	440	0.05	0.09	11	0	0	0	12	0	0	441
14	547.30	188630	2385	102	282	384	0.04	0.11	11	0	0	0	8	0	0	396
15	547.45	188979	2386	84	270	354	0.04	0.05	7	0	0	0	10	0	0	349
16	547.62	189376	2390	142	259	401	0.03	0.03	5	0	0	0	10	0	0	397
17	547.79	189773	2391	148	243	391	0.06	0.02	6	0	0.07	7	10	0	0	397
18	547.80	189796	2393	-215	247	33	0.03	0.03	5	0.07	0	7	8	0	0	23
19	549.26	193224	2418	2168	387	2555	0.00	0.00	0	5.51	4.63	1021	9	0	0	3428
20	551.70	199032	2459	4827	237	5064	0.00	0.00	0	3.69	2.22	606	11	0	0	5808
21	552.35	200597	2469	1289	702	1990	0.00	0.00	0	0.24	0.23	48	9	0	0	1565
22	552.92	201974	2479	689	924	1613	0.05	0.00	4	0	0	0	10	0	0	1377
23	553.43	203211	2488	342	788	1130	0.05	0.15	16	0	0	0	13	0	0	1237
24	553.88	204307	2495	346	681	1027	0.25	0.08	26	0	0	0	11	0	0	1096
25	554.26	205235	2501	274	588	862	0.10	0.11	17	0	0	0	10	0	0	928
26	554.56	205969	2506	170	524	694	0.12	0.08	16	0	0	0	9	0	0	734
27	554.86	206705	2511	213	471	684	0.00	0.00	0	0.06	0	8	9	0	0	736
28	555.12	207344	2516	189	431	620	0.04	0.10	11	0	0	0	9	0	0	639
29	555.35	207911	2519	159	382	541	0.09	0.09	15	0	0	0	8	0	0	567
TOTAL				19707	12603	32310	1.43	1.78	249	20.75	19.45	3956	247	0	0	35397

*Evaporation and Precipitation data from LCRA not logged; Casitas Dam data substituted

Reservoir capacity = 237,761 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 2024

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)			INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE
	Elevation	Feb 28 th 207344	Surface Area	Ventura River			Pan @Dam	Pan @Rec	Lake	at Dam	at Rec	Lake	To Main System	To River	Spill	
	(ft MSL)	Storage	(acres)	Direct	Divers'n	Total	(in)	(in)	Total	(in)	(in)	Total				
1	555.54	208379	2523	616	503	1118	0.01	0	3	0.02	0	2.10	10	0	0	1035
2	556.00	209516	2532	407	769	1176	0	0	0	1	1	235	8	0	0	1137
3	556.54	210854	2541	503	675	1178	0	0	0	0	0	75	9	0	0	1338
4	556.89	211724	2546	245	565	810	0.31	0.18	39	0	0	0	10	0	0	870
5	557.18	212446	2551	181	507	688	0	0	13	0	0	0	11	0	0	722
6	557.47	213170	2555	241	537	779	0.18	0.10	23	0.02	0	2.13	4	0	0	724
7	557.90	214245	2563	313	511	824	0	0	0	1	1	226	2	0	0	1075
8	558.20	214997	2568	268	462	730	0.25	0	20	0	0	0	7	0	0	752
9	558.44	215599	2571	164	429	592	0.09	0.11	16	0	0	0	7	0	0	602
10	558.65	216127	2575	131	386	518	0	0	26	0	0	0	6	0	0	528
11	558.86	216656	2578	178	389	567	0	0	29	0	0	0	7	0	0	529
12	559.04	217110	2582	94	374	468	0	0	22	0	0	0	7	0	0	454
13	559.23	217589	2585	124	353	477	0.05	0.10	12	0	0	0	7	0	0	479
14	559.38	217968	2587	42	340	381	0	0	10	0	0	0	6	0	0	379
15	559.56	218424	2590	156	323	479	0	0	33	0	0	0	6	0	0	456
16	559.72	218829	2593	126	308	434	0.29	0	37	0	0	0	6	0	0	405
17	559.86	219183	2595	86	294	380	0.15	0.26	34	0	0	0	6	0	0	354
18	559.98	219488	2596	44	282	326	0.11	0.21	26	0	0	0	7	0	0	305
19	560.10	219792	2600	44	269	313	0.17	0.00	14	0	0	0	8	0	0	304
20	560.23	220122	2602	87	258	345	0	0.05	13	0	0	0	12	0	0	330
21	560.34	220402	2603	46	247	292	0	0	12	0	0	0	13	0	0	280
22	560.45	220682	2605	56	239	295	0	0	9	0	0	0	14	0	0	280
23	560.63	221140	2609	101	249	350	0	0	0	0.68	0.50	128.27	9	0	0	458
24	560.73	221395	2611	47	227	274	0.04	0.30	28	0	0	0	13	0	0	255
25	560.80	221573	2612	-33	213	180	0	0.07	6	0	0	5	16	0	0	178
26	560.88	221777	2612	18	199	217	0.14	0.04	15	0	0	0	12	0	0	204
27	560.97	222007	2614	73	188	260	0.12	0.28	33	0	0	0	9	0	0	230
28	561.05	222211	2616	50	181	231	0.15	0.15	25	0	0	0	9	0	0	204
29	561.10	222339	2618	-39	166	127	0	0	6	0	0	0	7	0	0	128
30	561.77	224055	2628	999	827	1827	0	0	0	2.77	2.35	560.62	10	0	0	1716
31	562.52	225986	2642	879	1049	1928	0	0	0	1.10	1	232.23	7	0	0	1931
TOTAL				6247	12314	18561	3.16	2.99	504	7.47	6.09	1468	264	0	0	18642

Reservoir capacity = 237,761 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 2024

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)			INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE
	Elevation	Mar 31 st 225986 Storage	Surface Area	Ventura River			Pan @Dam	Pan @Rec	Lake	at Dam	at Rec	Lake	To Main System	To River	Spill	
	(ft MSL)		(acres)	Direct	Divers'n	Total	(in)	(in)	Total	(in)	(in)	Total				
1	563.22	227797	2653	704	836	1540	0.00	0.00	0	0.26	0.35	67	9	0	0	1811
2	563.60	228785	2660	191	611	802	0.24	0.10	30	0	0	0	9	0	0	988
3	563.89	229540	2663	190	473	663	0.23	0.11	30	0	0	0	15	0	0	755
4	564.14	230194	2667	221	502	722	0.12	0.23	31	0.04	0	4	13	0	0	654
5	564.36	230770	2670	68	468	537	0.00	0.06	5	0.2	0	22	11	0	0	576
6	564.56	231295	2673	41	414	455	0.03	0.00	3	0.03	0.25	31	13	0	0	525
7	564.76	231821	2676	167	383	550	0.24	0.20	39	0	0	0	16	0	0	526
8	564.94	232295	2679	136	353	488	0.13	0.18	28	0	0	0	17	0	0	474
9	565.09	232690	2680	77	334	411	0.19	0.02	19	0	0	0	16	0	0	395
10	565.24	233086	2683	119	310	429	0.04	0.38	38	0	0	0	19	0	0	396
11	565.37	233430	2684	70	169	238	0.12	0.17	26	0	0	0	10	0	0	344
12	565.50	233773	2687	203	445	648	0.15	0.08	21	0	0	0	8	0	0	343
13	565.65	234169	2688	-17	401	384	0.17	0.12	26	0	0	0	6	0	0	396
14	565.90	234829	2692	84	538	622	0.00	0.00	0	0.7	0.9	181	6	0	0	660
15	566.20	235621	2696	208	435	642	0.00	0.00	0	0.4	0.1	55	9	0	0	792
16	566.38	236096	2698	52	329	381	0.00	0.04	4	0	0	0	8	0	0	475
17	566.53	236491	2702	93	293	387	0.16	0.08	22	0	0	0	6	0	0	395
18	566.66	236853	2703	108	266	374	0.10	0.27	33	0	0	0	6	0	0	362
19	566.77	237146	2705	65	250	314	0.20	0.16	32	0	0	0	5	0	0	293
20	566.89	237467	2707	92	209	301	0.10	0.07	15	0	0	0	5	0	0	321
21	566.98	237707	2708	55	168	223	0.16	0.04	18	0	0	0	6	0	0	240
22	566.99	237734	2708	-113	79	-34	0.06	0.19	23	0	0	0	5	0	0	27
23	567.00	237761	2710	-44	0	-44	0.08	0.00	7	0.04	0.02	7	7	0	0	27
24	567.00	237761	2710	32	0	32	0.08	0.15	21	0	0	0	7	0	4	0
25	567.00	237761	2710	43	0	43	0.17	0.15	29	0	0	0	7	0	7	0
26	567.00	237761	2710	28	0	28	0.12	0.03	14	0	0	0	8	0	7	0
27	567.00	237761	2710	53	0	53	0.16	0.28	40	0	0	0	7	0	7	0
28	567.00	237761	2710	42	0	42	0.15	0.14	26	0	0	0	8	0	8	0
29	567.01	237788	2710	91	0	91	0.22	0.20	38	0	0	0	16	0	10	27
30	567.02	237814	2710	79	0	79	0.18	0.12	27	0	0	0	16	0	10	26
TOTAL				3135	8265	11400	3.60	3.57	644	1.67	1.62	368	293	0	52	11828

Reservoir capacity = 237,761 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 2024

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)			INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE
	Elevation (ft MSL)	Apr 30 th	Surface	Ventura			Pan	Pan	Lake	at	at	Lake	To	To	Spill	
		237814	Area	River	@Dam	@Rec	Dam	Rec		Main	River					
		Storage	(acres)	Direct	Divers'n	Total	(in)	(in)	Total	(in)	(in)	Total	System			
1	567.02	237814	2710	54	0	54	0.20	0.13	30	0	0	0	12	0	12	0
2	567.02	237814	2710	53	0	53	0.14	0.18	29	0	0	0	13	0	10	0
3	567.02	237814	2710	51	0	51	0.16	0.19	32	0.02	0	2	12	0	9	0
4	567.02	237814	2710	39	0	39	0.01	0.16	16	0	0	0	12	0	12	0
5	567.02	237814	2710	14	0	14	0	0	0	0.04	0.02	7	8	0	13	0
6	567.02	237814	2710	83	0	83	0.31	0.32	58	0	0	0	13	0	12	0
7	567.02	237814	2710	63	0	63	0.15	0.22	34	0	0	0	19	0	10	0
8	567.01	237788	2710	36	0	36	0.17	0.18	32	0	0	0	19	0	10	-26
9	567.01	237788	2710	68	0	68	0.25	0.20	41	0	0	0	18	0	9	0
10	567.01	237788	2710	48	1	49	0.07	0.19	24	0	0	0	16	0	8	0
11	567.01	237788	2710	54	0	54	0.29	0.07	33	0	0	0	15	0	8	0
12	567.01	237788	2710	54	0	54	0.20	0.15	32	0	0	0	14	0	8	0
13	567.00	237761	2710	22	0	22	0.15	0.15	27	0	0	0	14	0	8	-27
14	566.99	237734	2708	14	0	14	0.08	0.10	16	0	0	0	17	0	8	-27
15	566.99	237734	2708	26	0	26	0	0.05	5	0.01	0	1	15	0	8	0
16	566.99	237734	2708	38	0	38	0.15	0.04	17	0	0	0	14	0	7	0
17	566.98	237707	2708	8	0	8	0.07	0.11	16	0	0	0	14	0	5	-27
18	566.98	237707	2708	28	0	28	0.03	0.08	10	0	0	0	13	0	5	0
19	566.98	237707	2708	33	0	33	0.07	0.11	16	0	0	0	11	0	5	0
20	566.98	237707	2708	47	0	47	0.19	0.12	28	0	0	0	13	0	5	0
21	566.98	237707	2708	38	0	38	0.06	0.09	14	0	0	0	19	0	5	0
22	566.98	237707	2708	46	0	46	0.19	0.07	24	0	0	0	18	0	5	0
23	566.97	237681	2708	12	15	27	0.05	0.16	19	0	0	0	15	0	4	-26
24	566.98	237707	2708	32	32	64	0.01	0.02	3	0	0	0	13	0	5	26
25	566.99	237734	2708	47	25	72	0.19	0.16	32	0	0	0	14	0	7	27
26	567.00	237761	2710	43	28	72	0.11	0.08	17	0	0	0	16	0	8	27
27	567.01	237788	2710	44	23	67	0.13	0.13	24	0	0	0	13	0	9	27
28	567.01	237788	2710	32	18	50	0.08	0.21	27	0	0	0	19	0	9	0
29	567.01	237788	2710	47	18	65	0.28	0.10	35	0	0	0	21	0	9	0
30	567.01	237788	2710	29	19	48	0.10	0.11	19	0	0	0	19	0	9	0
31	567.01	237788	2710	27	21	48	0.02	0.14	15	0	0	0	22	0	9	0
TOTAL				1232	200	1433	3.91	4.02	725	0.07	0.02	10	472	0	251	-26

Reservoir capacity = 237,761 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 2024

*figures in acre-feet except where otherwise noted

RESERVOIR (@ 0800 hrs.)				INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE
DATE	Elevation (ft MSL)	May 31 st 237788	Surface Area	Ventura River			Pan @Dam	Pan @Rec	Lake	at Dam	at Rec	Lake	To Main System	To River	Spill	
		Storage	(acres)	Direct	Divers'n	Total	(in)	(in)	Total	(in)	(in)	Total				
1	567.01	237788	2710	25	20	45	0.13	0.08	19	0	0	0	17	0	9	0
2	567.01	237788	2710	29	20	49	0.19	0.06	23	0.01	0	1	18	0	9	0
3	567.01	237788	2710	32	19	51	0.13	0.12	23	0	0	0	19	0	9	0
4	567.02	237814	2710	63	19	81	0.13	0.15	26	0	0	0	20	0	10	26
5	567.02	237814	2710	22	18	40	0.08	0.07	14	0	0	0	16	0	10	0
6	567.02	237814	2710	51	18	69	0.25	0.16	38	0	0	0	20	0	10	0
7	567.02	237814	2710	50	18	67	0.16	0.22	35	0	0	0	22	0	10	0
8	567.02	237814	2710	35	20	55	0.13	0.15	26	0	0	0	16	0	10	0
9	567.02	237814	2710	15	22	37	0.06	0.06	11	0	0	0	14	0	10	0
10	567.02	237814	2710	29	19	49	0.19	0.05	22	0	0	0	18	0	10	0
11	567.02	237814	2710	41	18	59	0.16	0.15	29	0	0	0	21	0	10	0
12	567.01	237788	2710	3	18	21	0.03	0.17	19	0	0	0	20	0	9	-26
13	567.01	237788	2710	48	17	65	0.33	0.05	35	0	0	0	21	0	9	0
14	567.01	237788	2710	52	18	69	0.20	0.17	34	0	0	0	26	0	9	0
15	567.02	237814	2710	64	17	81	0.05	0.20	23	0	0	0	24	0	9	26
16	567.01	237788	2710	42	18	60	0.30	0.26	52	0	0	0	24	0	9	-26
17	567.00	237761	2710	41	22	63	0.26	0.23	45	0	0	0	33	0	8	-27
18	566.99	237734	2708	22	26	48	0.14	0.18	30	0	0	0	35	0	7	-27
19	566.97	237681	2708	-6	23	17	0.28	0.16	41	0	0	0	28	0	4	-53
20	566.96	237654	2708	-4	22	18	0.02	0.19	19	0	0	0	27	0	0	-27
21	566.95	237627	2708	10	20	30	0.13	0.19	30	0	0	0	29	0	0	-27
22	566.94	237601	2708	40	19	59	0.42	0.29	66	0	0	0	21	0	0	-26
23	566.94	237601	2708	49	17	66	0.23	0.29	48	0	0	0	20	0	0	0
24	566.93	237574	2708	36	16	52	0.22	0.26	44	0	0	0	35	0	0	-27
25	566.92	237547	2708	33	15	47	0.27	0.21	44	0	0	0	31	0	0	-27
26	566.90	237494	2708	29	13	42	0.30	0.33	58	0	0	0	39	0	0	-53
27	566.87	237414	2707	-21	11	-9	0.20	0.25	42	0	0	0	31	0	0	-80
28	566.84	237333	2707	-7	11	4	0.25	0.23	44	0	0	0	41	0	0	-81
29	566.83	237307	2707	38	11	50	0.39	0.10	45	0	0	0	30	0	0	-26
30	566.81	237253	2707	-1	10	9	0.23	0.20	40	0	0	0	25	0	0	-54
TOTAL				860	534.30	1394	5.86	5.23	1026	0.01	0.00	1	740	0	174	-535

Reservoir capacity = 237,761 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
JULY 2024

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)			INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE
	Elevation (ft MSL)	Jun 30 th 237253	Surface Area	Ventura River			Pan @Dam	Pan @Rec	Lake	at Dam	at Rec	Lake	To Main	To River	Spill	
		Storage	(acres)	Direct	Divers'n	Total	(in)	(in)	Total	(in)	(in)	Total	System			
1	566.80	237227	2707	43	18	61	0.19	0.33	48	0	0	0	39	0	0	-26
2	566.78	237173	2705	5	22	27	0.14	0.26	37	0	0	0	44	0	0	-54
3	566.75	237093	2705	7	20	27	0.39	0.25	58	0	0	0	49	0	0	-80
4	566.73	237040	2705	3	21	24	0.21	0.21	38	0	0	0	39	0	0	-53
5	566.70	236959	2705	-31	18	-13	0.10	0.23	30	0	0	0	38	0	0	-81
6	566.68	236906	2703	30	15	45	0.40	0.27	61	0	0	0	37	0	0	-53
7	566.67	236879	2703	32	17	50	0.25	0.24	45	0	0	0	32	0	0	-27
8	566.66	236853	2703	23	16	39	0.20	0.12	29	0	0	0	36	0	0	-26
9	566.64	236799	2703	21	14	35	0.21	0.23	40	0	0	0	49	0	0	-54
10	566.62	236746	2703	29	14	43	0.19	0.34	48	0	0	0	47	0	0	-53
11	566.60	236693	2703	4	13	16	0.17	0.13	27	0	0	0	42	0	0	-53
12	566.57	236596	2702	-32	12	-20	0.28	0.13	37	0	0	0	40	0	0	-97
13	566.55	236544	2702	-3	14	11	0.15	0.22	34	0	0	3	33	0	0	-52
14	566.54	236518	2702	21	15	36	0.10	0.24	31	0	0	1	32	0	0	-26
15	566.51	236439	2702	-16	13	-3	0.23	0.16	36	0	0	0	40	0	0	-79
16	566.48	236360	2700	2	10	12	0.32	0.13	41	0	0	0	50	0	0	-79
17	566.46	236307	2700	19	10	29	0.20	0.24	40	0	0	0	42	0	0	-53
18	566.45	236281	2700	53	9	62	0.10	0.33	39	0	0	0	49	0	0	-26
19	566.42	236202	2700	-5	7	2	0.30	0.17	43	0	0	0	39	0	0	-79
20	566.39	236123	2698	0	7	7	0.20	0.32	47	0	0	0	39	0	0	-79
21	566.36	236043	2698	-6	8	2	0.30	0.28	53	0	0	0	29	0	0	-80
22	566.34	235991	2698	43	7	49	0.30	0.30	55	0	0	0	47	0	0	-52
23	566.31	235911	2698	-7	6	-1	0.18	0.18	33	0	0	0	47	0	0	-80
24	566.29	235859	2696	24	4	28	0.14	0.14	25	0	0	0	55	0	0	-52
25	566.26	235779	2696	50	3	52	0.28	0.60	80	0	0	0	52	0	0	-80
26	566.22	235674	2696	-5	5	-1	0.45	0.19	58	0	0	0	46	0	0	-105
27	566.18	235568	2695	-26	7	-19	0.20	0.36	51	0	0	0	37	0	0	-106
28	566.15	235489	2695	-10	9	-1	0.15	0.25	36	0	0	0	42	0	0	-79
29	566.12	235410	2695	27	7	33	0.42	0.26	62	0	0	0	51	0	0	-79
30	566.09	235330	2693	3	6	9	0.23	0.16	35	0	0	0	53	0	0	-80
31	566.06	235251	2693	2	4	6	0.20	0.23	39	0	0	0	46	0	0	-79
TOTAL				299	350	649	7.18	7.50	1338	0.04	0.00	5	1318	0	0	-2002

*Evaporation and Precipitation data from LCRA not logged; Casitas Dam data substituted

Reservoir capacity = 237,761 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 2024

*figures in acre-feet except where otherwise noted

DATE	RESERVOIR (@ 0800 hrs.)			INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE
	Elevation (ft MSL)	Jul 31 st	Surface	Ventura			Pan	Pan	Lake	at	at	Lake	To	To	Spill	
		235251	Area	River	@Dam	@Rec	Dam	Rec		Main	River					
		Storage	(acres)	Direct	Divers'n	Total	(in)	(in)	Total	(in)	(in)	Total	System			
1	566.03	235172	2693	36	3	39	0.35	0.40	68	0.00	0	0	50	0	0	-79
2	566.00	235093	2693	9	2	11	0.20	0.22	38	0.00	0	0	52	0	0	-79
3	565.97	235014	2692	9	2	11	0.27	0.36	57	0.00	0	0	33	0	0	-79
4	565.94	234934	2692	-4	2	-2	0.23	0.22	41	0.00	0	0	37	0	0	-80
5	565.90	234829	2692	-17	1	-16	0.25	0.27	47	0.00	0	0	42	0	0	-105
6	565.86	234723	2690	-14	0	-14	0.08	0.30	35	0.00	0	0	58	0	0	-106
7	565.83	234644	2690	9	0	9	0.21	0.17	35	0.00	0	0	54	0	0	-79
8	565.80	234565	2690	30	0	30	0.31	0.32	57	0.00	0	0	52	0	0	-79
9	565.76	234459	2689	-32	0	-32	0.15	0.16	28	0.00	0	0	46	0	0	-106
10	565.73	234380	2689	10	0	10	0.30	0.22	47	0.00	0	0	42	0	0	-79
11	565.70	234301	2689	7	0	7	0.30	0.35	59	0.00	0	0	27	0	0	-79
12	565.66	234195	2688	-7	0	-7	0.28	0.26	49	0.00	0	0	50	0	0	-106
13	565.63	234116	2688	22	0	22	0.27	0.27	49	0.00	0	0	52	0	0	-79
14	565.60	234037	2688	22	0	22	0.23	0.26	44	0.00	0	0	56	0	0	-79
15	565.57	233958	2687	10	0	10	0.20	0.36	51	0.00	0	0	39	0	0	-79
16	565.55	233905	2687	18	0	18	0.17	0.10	24	0.00	0	0	46	0	0	-53
17	565.50	233773	2687	-54	0	-54	0.38	0.07	41	0.00	0	0	37	0	0	-132
18	565.47	233693	2685	0	0	0	0.21	0.27	44	0.00	0	0	37	0	0	-80
19	565.44	233614	2685	13	0	13	0.23	0.23	42	0.00	0	0	50	0	0	-79
20	565.40	233509	2685	-6	0	-6	0.24	0.29	48	0.00	0	0	51	0	0	-105
21	565.37	233430	2684	24	0	24	0.27	0.30	52	0.00	0	0	51	0	0	-79
22	565.34	233350	2684	3	0	3	0.20	0.15	32	0.00	0	0	51	0	0	-80
23	565.30	233245	2684	-13	0	-13	0.15	0.34	44	0.00	0	0	48	0	0	-105
24	565.26	233139	2683	-36	0	-36	0.32	0.08	36	0.00	0	0	34	0	0	-106
25	565.23	233060	2683	4	0	4	0.20	0.33	48	0.00	0	0	35	0	0	-79
26	565.20	232981	2683	21	0	21	0.22	0.34	51	0.00	0	0	50	0	0	-79
27	565.16	232875	2681	-19	0	-19	0.20	0.20	36	0.00	0	0	51	0	0	-106
28	565.13	232796	2681	3	0	3	0.20	0.12	29	0.00	0	0	53	0	0	-79
29	565.10	232717	2681	-9	0	-9	0.19	0.19	34	0.00	0	0	36	0	0	-79
30	565.06	232611	2680	-46	0	-46	0.00	0.21	19	0.00	0	0	41	0	0	-106
31	565.03	232532	2680	0	0	0	0.35	0.20	50	0.00	0	0	30	0	0	-79
TOTAL				-4	10	6	7.16	7.56	1335	0.00	0.00	0	1390	0	0	-2719

Reservoir capacity = 237,761 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 2024

*figures in acre-feet except where otherwise noted

RESERVOIR (@ 0800 hrs.)				INFLOW			EVAPORATION			PRECIPITATION			RELEASES			STORAGE CHANGE
DATE	Elevation	Aug 30 th 232532	Surface Area	Ventura River			Pan @Dam	Pan @Rec	Lake	at Dam	at Rec	Lake	To Main	To River	Spill	
	(ft MSL)	Storage	(acres)	Direct	Divers'n	Total	(in)	(in)	Total	(in)	(in)	Total	System			
1	565.00	232453	2680	26	0	26	0.55	0.27	70	0	0	0	35	0	0	-79
2	564.98	232400	2679	30	0	30	0.20	0.27	40	0	0	0	43	0	0	-53
3	564.96	232347	2679	36	0	36	0.20	0.21	35	0	0	0	54	0	0	-53
4	564.94	232295	2679	57	0	57	0.30	0.28	49	0	0	0	60	0	0	-52
5	564.90	232189	2679	-8	0	-8	0.22	0.21	36	0	0	0	61	0	0	-106
6	564.86	232084	2677	7	0	7	0.26	0.27	45	0	0	0	67	0	0	-105
7	564.82	231979	2677	-11	0	-11	0.25	0.16	35	0	0	0	60	0	0	-105
8	564.80	231926	2677	65	0	65	0.35	0.43	66	0	0	0	52	0	0	-53
9	564.75	231794	2676	-14	0	-14	0.10	0.59	58	0	0	0	59	0	0	-132
10	564.70	231663	2676	-23	0	-23	0.25	0.34	50	0	0	0	58	0	0	-131
11	564.66	231557	2674	-8	0	-8	0.22	0.27	41	0	0	0	57	0	0	-106
12	564.61	231426	2674	-50	0	-50	0.13	0.18	26	0	0	0	55	0	0	-131
13	564.58	231347	2673	12	0	12	0.31	0.19	42	0	0	0	49	0	0	-79
14	564.56	231295	2673	6	0	6	0.16	0.06	19	0	0	0	39	0	0	-52
15	564.54	231242	2673	4	0	4	0.10	0.06	14	0	0	0	44	0	0	-53
16	564.50	231137	2673	-41	0	-41	0.04	0.08	10	0	0	0	54	0	0	-105
17	564.47	231058	2672	-26	0	-26	0.21	0.18	33	0	0	0	20	0	0	-79
18	564.44	230979	2672	-54	0	-54	0.13	0.17	25	0	0	0	0	0	0	-79
19	564.43	230953	2672	44	0	44	0.13	0.21	29	0	0	0	41	0	0	-26
20	564.41	230901	2672	15	0	15	0.07	0.15	19	0	0	0	48	0	0	-52
21	564.38	230822	2670	-16	0	-16	0.08	0.24	27	0	0	0	36	0	0	-79
22	564.35	230744	2670	-26	0	-26	0.13	0.11	20	0	0	0	32	0	0	-78
23	564.34	230717	2670	40	0	40	0.22	0.05	23	0	0	0	44	0	0	-27
24	564.32	230665	2670	35	0	35	0.17	0.23	34	0	0	0	53	0	0	-52
25	564.28	230560	2669	-36	0	-36	0.18	0.16	29	0	0	0	40	0	0	-105
26	564.26	230508	2669	13	0	13	0.13	0.12	21	0	0	0	44	0	0	-52
27	564.22	230403	2669	-50	0	-50	0.12	0.06	15	0	0	0	40	0	0	-105
28	564.20	230351	2669	14	0	14	0.17	0.23	34	0	0	0	32	0	0	-52
29	564.18	230298	2667	4	0	4	0.13	0.18	26	0	0	0	31	0	0	-53
30	564.16	230246	2667	15	0	15	0.13	0.13	22	0	0	0	45	0	0	-52
TOTAL				60	0	60	6	6	993	0	0	0	1353	0	0	-2286

Reservoir capacity = 237,761 acre-feet at 567 ft. elevation.

e = estimate

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

Appendix E

Reservoir Elevation Data

Matilija Reservoir Lake Elevation

WATER YEAR OCTOBER 2023 THROUGH SEPTEMBER 2024

Daily mean elevation, feet above mean sea level

SPILL OVER DAM @ 1095.35 ELEVATION

	2023			2024								
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1092.5	1092.5	1092.5	1094.7	1094.7	1090.2	1095.8	1093.1	1093.1	1093.0	1093.0	1092.9
2	1092.5	1092.5	1092.5	1094.7	1094.7	1082.3	1095.4	1093.1	1093.1	1093.0	1093.0	1092.9
3	1092.4	1092.5	1092.5	1094.7	1094.7	1082.3	1095.1	1093.1	1093.1	1093.0	1093.0	1092.9
4	1092.4	1092.5	1092.5	1094.7	1094.7	1090.6	1095.0	1093.1	1093.1	1093.0	1093.0	1093.0
5	1092.4	1092.5	1092.5	1094.7	1094.7	1095.5	1094.6	1093.1	1093.0	1092.9	1093.0	1093.0
6	1092.4	1092.5	1092.5	1094.7	1094.7	1095.5	1093.4	1093.2	1093.0	1092.9	1093.0	1093.0
7	1092.4	1092.5	1092.5	1094.7	1094.7	1095.6	1093.4	1093.1	1093.0	1092.9	1093.0	1093.0
8	1092.4	1092.5	1092.5	1094.7	1094.7	1095.5	1093.3	1093.1	1093.0	1092.9	1093.0	1093.0
9	1092.4	1092.5	1092.5	1094.7	1094.7	1095.5	1093.3	1093.1	1093.0	1092.9	1093.0	1093.0
10	1092.4	1092.5	1092.5	1094.7	1094.7	1095.4	1093.3	1093.1	1093.0	1092.9	1093.0	1093.0
11	1092.4	1092.5	1092.5	1094.7	1094.7	1095.3	1093.3	1093.1	1093.0	1092.9	1093.0	1093.0
12	1092.4	1092.5	1092.5	1094.7	1094.7	1095.3	1093.3	1093.1	1093.0	1092.9	1093.0	1093.0
13	1092.4	1092.5	1092.5	1094.7	1094.7	1095.4	1093.3	1093.1	1093.0	1092.9	1093.0	1093.0
14	1092.5	1092.5	1092.5	1094.7	1094.7	1095.3	1093.3	1093.1	1093.0	1092.9	1093.0	1092.9
15	1092.4	1092.5	1092.5	1094.7	1094.7	1095.3	1093.3	1093.1	1093.0	1092.9	1093.0	1092.9
16	1092.4	1092.5	1092.5	1094.7	1094.7	1095.3	1093.2	1093.1	1093.0	1092.9	1093.0	1092.9
17	1092.4	1092.5	1092.5	1094.7	1094.7	1095.3	1093.2	1093.1	1093.0	1092.9	1093.0	1093.0
18	1092.4	1092.5	1092.5	1094.7	1094.7	1095.3	1093.2	1093.1	1093.0	1092.9	1093.0	1093.0
19	1092.4	1092.5	1092.5	1094.7	1094.7	1095.2	1093.2	1093.1	1093.0	1092.9	1093.0	1092.9
20	1092.4	1092.5	1092.6	1094.7	1094.7	1095.2	1093.2	1093.1	1093.0	1093.0	1093.0	1092.9
21	1092.4	1092.5	1094.7	1094.7	1094.7	1095.2	1093.2	1093.2	1093.0	1093.0	1093.0	1092.9
22	1092.4	1092.5	1094.7	1094.7	1094.7	1095.2	1093.1	1093.1	1093.0	1093.0	1093.0	1092.9
23	1092.4	1092.5	1094.7	1094.7	1094.7	1095.2	1093.2	1093.1	1093.0	1093.0	1093.0	1092.9
24	1092.4	1092.5	1094.7	1094.7	1094.7	1095.2	1093.2	1093.1	1093.0	1093.0	1093.0	1093.0
25	1092.4	1092.5	1094.7	1094.7	1094.7	1095.2	1093.2	1093.1	1093.0	1093.0	1093.0	1092.9
26	1092.4	1092.5	1094.7	1094.7	1094.7	1095.2	1093.2	1093.1	1093.0	1093.0	1093.0	1093.0
27	1092.5	1092.5	1094.7	1094.7	1094.7	1095.1	1093.1	1093.1	1093.0	1093.0	1093.0	1093.0
28	1092.4	1092.5	1094.7	1094.7	1094.7	1095.1	1093.1	1093.1	1093.0	1093.0	1093.0	1093.0
29	1092.5	1092.5	1094.7	1094.7	1094.7	1095.1	1093.1	1093.1	1093.0	1093.0	1092.9	1093.0
30	1092.5	1092.5	1094.7	1094.7	---	1095.7	1093.1	1093.1	1093.0	1093.0	1092.9	1093.0
31	1092.5	---	1094.7	1094.7	---	1096.0	---	1093.1	---	1093.0	1092.9	---

Data is provisional and subject to revision.

Appendix F

System Delivery Data for Mire Monte Well and Ojai Water System

Mira Monte Well

Calendar Year 2024

Month	Acre Feet
Jan – 24	2.82
Feb – 24	2.83
Mar – 24	1.86
Apr – 24	3.88
May – 24	8.66
Jun – 24	12.28
Jul – 24	17.78
Aug – 24	18.07
Sep – 24	14.89
Oct – 24	14.97
Nov – 24	10.19
Dec – 24	10.02
Total:	118.25 AF

Mira Monte Well

Water Year 2023 – 2024

Month	Acre Feet
Oct – 23	13.10
Nov – 23	9.38
Dec – 23	6.21
Jan – 24	2.82
Feb – 24	2.83
Mar – 24	1.86
Apr – 24	3.88
May – 24	8.66
Jun – 24	12.28
Jul – 24	17.78
Aug – 24	18.07
Sep – 24	14.89
Total:	111.76 AF

OJAI WATER SYSTEM SOURCES AND DELIVERIES

2023 - 2024 WATER YEAR

figures in acre-feet except where otherwise noted

MONTH	YEAR	SYSTEM DELIVERIES	SOURCE	
			WELL - FIELD PRODUCTION	SURFACE WATER
OCT	2023	156	156	0
NOV	2023	133	133	0
DEC	2023	111	111	0
JAN	2024	78	78	0
FEB	2024	64	64	0
MAR	2024	78	78	0.1
APR	2024	85	84	0.1
MAY	2024	115	115	0
JUN	2024	136	136	0
JUL	2024	172	172	0
AUG	2024	187	187	0.2
SEP	2024	178	177	0.9
TOTAL		1492	1491	1

Appendix G

Ambient Air Temperature Data

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

YEAR	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER			OCTOBER			NOVEMBER			DECEMBER		
	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg			
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	65	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	66	84	35	66	87	42	61	94	45	67	95	48	62	100	44	66	99	44	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	40	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	99	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	37	61	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	66	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	45	66	98	46	67	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	68	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	92	46	66	106	45	67	94	46	68	108	43	70	92	43	65	92	30	54	77	20	49
1979	70	24	49	77	28	55	86	32	55	81	34	58	97	38	62	104	44	67	99	46	67	92	44	68	109	47	72	86	38	64	84	27	57	89	26	55
1980	79	30	55	84	32	57	80	29	54	86	36	58	82	36	58	97	42	64	94	47	68	95	48	69	95	44	64	95	36	64	88	29	57	88	31	56
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	85	34	56	92	39	62	82	47	64	101	48	70	105	49	74	106	51	73	97	45	68	90	29	57	76	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	51
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	95	35	62	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	69	105	36	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	46	65	90	34	59	78	27	50
1993	80	28	52	76	36	52	85	36	59	89	41	61	92	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	98	45	68	84	50	67	99																	

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	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	max	min	avg	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	89	26	54	85	30	54	83	31	54	100	39	59	87	37	58	112	41	62	103	49	72	100	48	72	102	44	66	106	35	64	91	30	55	80	31	51
1962	88	24	50	75	25	50	79	28	50	92	34	60	87	39	58	94	43	63	95	45	67	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	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	57	10	42	62	97	46	70	94	46	69	98	41	66	100	43	62	85	27	54	75	25	52
1965	82	28	52	84	25	51	77	31	52	89	30	54	92	28	58	91	38	58	96	41	66	102	47	71	93	40	62	97	37	61	84	33	56	83	26	50
1966	80	26	49	76	28	48	95	27	55	92	37	59	85	41	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	96	36	60	87	38	60	92	49	70	105	54	75	96	50	70	97	41	65	91	33	60	79	25	49
1968	80	25	50	85	35	56	84	32	56	86	31	57	99	34	60	93	35	62	95	36	72	96	42	62	98	38	62	96	40	62	87	27	56	87	21	48
1969	84	26	50	67	29	49	85	28	52	81	31	56	86	38	60	90	45	61	92	46	68	101	43	71	92	41	62	87	32	59	88	31	58	79	23	52
1970	68	20	52	76	32	50	79	31	56	87	30	47	96	35	60	97	44	67	100	48	71	102	42	69	102	42	66	99	34	62	86	33	55	76	29	49
1971	90	24	51	87	28	52	85	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	62	93	38	65	100	40	71	103	44	71	95	32	67	92	33	60	83	33	55	80	23	51
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	79	32	51	82	28	54	86	35	54	94	43	61	104	42	67	96	49	67	102	49	67	92	50	69	94	36	63	95	28	59	82	27	52
1977	82	23	51	86	32	NA	78	28	50	84	32	57	81	39	57	85	39	63	100	47	69	94	49	70	96	44	65	90	38	62	92	31	58	78	33	56
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	35	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	25	54
1980	76	31	54	82	30	56	76	34	54	91	36	58	89	34	58	95	42	65	110	49	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	73	95	48	68	93	34	60	89	34	58	84	25	54
1982	80	26	51	83	31	56	76	32	52	85	31	57	83	38	60	87	42	61	95	47	70	104	48	72	106	46	69	94	36	63	84	34	56	75	28	52
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	103	41	72	93	33	62	86	NA	NA	75	NA	67
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	88	39	59	88	49	65	89	50	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	47	63	94	44	68	101	45	68	102	48	66	83	28	55	74	20	47
1988	80	26	50	80	28	54	93	30	57	89	34	58	94	36	61	87	40	64	91	52	70	92	49	68	104	44	66	96	41	63	86	28	55	82	26	50
1989	80	24	48	80	27	50	82	30	56	96	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	50	81	20	50	86	31	54	86	39	59	98	37	58	110	41	67	98	48	71	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	22	50
1992	80	24	50	82	30	53	76	32	53	90	36	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	98	50	73	NA	NA	NA	97	44	64	87	31	57	74	23	48
1993	79	24	49	78	31	50	81	32	56	84	38	59	NA	NA	NA	102	40	66	95	50	66	90	50	70	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																										

Appendix H

Historical Hydrology Data

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	32	999	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	21,439	36,718	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	3,015	7,235	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	4,482	18,023	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	12,091	21,473	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	9,927	25,397	18,325	-	18,325	-	8,753	5,538	231,071	203,595
2009	548.89	207,574	-580	506	-74	17,259	-	17,259	-	8,025	3,646	207,719	185,543
2010	539.59	185,881	12,419	10,926	23,345	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	3,547	829	4,376	11,633	-	11,633	-	5,242	1,859	85,050	72,255
2019	481.10	72,278	15,366	21,230	36,596	7,668	-	7,668	-	5,434	4,023	107,663	72,149
2020	501.48	99,795	3,288	5,478	8,766	10,820	-	10,820	-	6,201	1,763	107,237	93,316
2021	497.29	93,449	2,766	2,034	4,800	12,468	-	12,468	-	5,704	2,407	93,434	76,737
2022	489.48	82,583	3,022	522	3,544	9,118	-	9,118	-	5,398	469	83,661	70,717
2023	480.93	72,079	51,751	53,313	105,064	5,612	-	5,612	-	7,237	7,286	176,417	73,519
2024	539.78	171,613	31,385	34,633	66,018	8,557	-	8,557	477	8,321	6,403	237,814	171,547
2025	562.57	226,115											
AVG:	522.03	165,535	12,339	11,329	23,668	14,672	77	14,750	1,735	7,651	4,124	184,771	155,459
MAX:	524.63	249,931	55,379	53,313	105,728	26,180	2,677	26,253	34,907	11,062	12,632	267,542	239,122
MIN:	350.00		-1,810		-1,810	586		658		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**

	CASITAS	CASITAS	MATILIJA	3 - STATION	THACHER
WATER YEAR	DAM	RECREATION	DAM	MEAN	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	N/A
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
17-18	11.49	12.09	17.03	13.54	13.60
18-19	29.49	28.63	39.75	32.62	28.10
19-20	19.30	18.70	29.91	22.64	19.41
2020-21	7.07	7.22	6.48	6.92	5.82
21-22	19.33	17.15	22.19	19.56	16.15
22-23	53.63	49.14	65.97	56.25	45.86
23-24	39.02	35.76	42.24	39.01	30.33
AVERAGE	23.88	22.97	28.63	25.16	21.87
MAXIMUM	59.54	58.78	74.44	60.86	52.90
MINIMUM	7.07	7.15	6.48	6.92	0.00

*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

HISTORICAL MONTHLY RAINFALL LAKE CASITAS DAM

Note: This data is in combination with VCWPD data and may differ from what is reported for annual averages

W. YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1959/1960	0	0	1.18	5.61	4.78	0.65	3.57	0	0	0	0	0	15.79
1961	0.01	5.27	0.45	2.06	0	0.79	0.16	0	0	0	0	0.03	8.77
1962	0	5.62	1.89	3.07	25.49	1.61	0	0.07	0	0	0	0	37.75
1963	0.70	0.01	0.09	1.09	7.78	4.08	2.75	0.15	0.63	0	0	1.42	18.70
1964	0.73	4.83	0	3.11	0	2.50	2.10	0.07	0.18	0	0.10	0	13.62
1965	0.82	2.46	8.65	0.60	0.31	1.45	8.36	0.02	0	0	0	0.59	23.26
1966	0	14.37	7.04	2.43	1.19	0.12	0	0.03	0	0	0	0.05	25.23
1967	0	4.36	10.18	9.29	0.24	3.87	6.35	0	0	0	0	0.14	34.43
1968	0	5.62	1.40	1.75	1.68	5.01	1.13	0	0	0	0.02	0	16.61
1969	1.09	0.91	2.29	26.59	12.12	1.24	2.12	0	0	0.21	0	0	46.57
1969/1970	0	3.77	0.15	3.50	3.45	5.83	0	0	0	0	0	0	16.70
1971	0.03	7.74	6.18	1.56	1.31	0.99	0.83	1.08	0	0	0	0	19.72
1972	0.10	0.43	10.46	0.31	0.38	0	0.19	0.02	0	0	0	0.05	11.94
1973	0.27	6.31	1.23	8.94	14.86	3.17	0.01	0	0	0	0	0	34.79
1974	0.52	2.44	2.04	9.82	0	4.87	0.20	0	0	0	0	0	19.89
1975	0.74	0.15	10.00	0	4.95	6.50	1.48	0	0	0	0	0.01	23.83
1976	0.19	0	0.08	0	6.99	2.05	0.70	0	0.15	0.15	0	7.59	17.90
1977	0	0.53	0.95	6.11	0.25	1.93	0	2.70	0	0	0.43	0	12.90
1978	0	0.14	6.41	10.35	11.55	16.55	2.86	0	0	0	0.02	1.17	49.05
1979	0.06	2.77	2.28	5.86	5.35	8.39	0	0	0.01	0	0	0.63	25.35
1979/1980	0.61	1.10	2.02	8.89	15.92	4.62	0.62	0.22	0	0	0	0.06	34.06
1981	0.02	0	2.10	3.67	2.06	7.87	0.52	0	0	0	0	0	16.24
1982	0.59	2.99	0.76	3.38	1.03	6.74	2.86	0.02	0	0	0	0.98	19.35
1983	0.76	6.63	5.44	13.62	8.92	8.47	5.40	0.21	0	0	1.08	0.60	51.13
1984	4.94	6.02	4.85	0.12	0.01	0.49	0.08	0	0	0.25	0.13	1.06	17.95
1985	0.49	4.72	7.18	1.13	1.87	1.85	0	0	0	0.02	0	0.04	17.30
1986	0.64	7.00	0.99	3.51	10.71	6.96	1.96	0	0	0	0	1.33	33.10
1987	0	1.92	0.50	2.58	2.23	3.50	0.11	0	0.02	0.02	0	0	10.88
1988	1.50	1.48	4.05	3.60	2.57	1.45	3.82	0	0.15	0	0	0	18.62
1989	0	1.24	4.40	0.74	3.92	0.90	0.25	0.18	0	0	0	0.10	11.73
1989/1990	0.52	0.31	0	3.85	3.59	0.02	0.13	1.02	0	0	0	0.01	9.45
1991	0	0.33	0	2.10	3.50	18.30	0	0	0.18	0.01	0.01	0	24.43
1992	0.58	0.23	4.89	3.33	11.54	5.90	0.07	0.49	0	0.37	0	0	27.40
1993	1.43	0	6.91	14.02	11.59	6.44	0	0.17	0.64	0	0	0	41.20
1994	0.09	1.32	2.03	0.75	8.58	2.04	0.53	0.24	0	0	0	0.08	15.66
1995	0.90	1.81	1.22	29.05	2.17	12.30	0.44	1.47	0.48	0	0	0	49.84
1996	0	0.19	3.19	1.67	10.34	1.96	1.14	0.31	0	0	0	0	18.80
1997	4.58	3.04	9.13	7.54	0.08	0	0	0	0.12	0	0	0	24.49
1998	0.01	3.42	7.09	4.48	31.14	6.58	2.59	3.83	0.08	0	0	0.33	59.55
1999	0	1.36	0.86	2.77	1.12	3.46	2.49	0	0.15	0	0	0.18	12.39
1999/2000	0	1.17	0	2.77	12.27	3.77	4.22	0	0	0	0	0.09	24.29
2001	2.85	0	0.05	8.59	7.66	8.58	1.61	0	0	0.02	0	0	29.36
2002	0.42	4.18	2.22	1.15	0.44	0.49	0.08	0.19	0	0	0	0.11	9.28
2003	0	6.17	6.12	0	4.31	4.43	1.79	2.49	0.14	0	0	0	25.45
2004	0	3.40	2.96	0.96	9.07	0.64	0	0	0	0	0	0	17.03
2005	6.98	0.06	10.68	20.41	9.84	4.70	0.75	0.91	0	0	0	0.33	54.66
2006	0.95	0.78	1.46	5.46	3.51	4.52	8.51	1.33	0	0	0	0	26.52
2007	0.12	0.27	1.28	3.54	2.07	0.03	0.82	0	0	0	0	0.47	8.60
2008	0.51	0.09	4.46	18.24	2.74	0	0.06	0.03	0	0	0.06	0	26.19
2009	0.15	3.12	3.37	0.64	6.13	1.16	0.21	0	0.04	0	0	0	14.82
2009/2010	6.00	0	5.33	8.88	6.45	0.49	3.76	0.22	0	0	0	0	31.13
2011	2.25	1.91	15.79	0.79	5.40	8.39	0.04	1.21	0.21	0	0	0	35.99
2012	1.90	3.10	0.30	1.88	0.07	4.60	3.21	0	0	0.02	0.01	0.02	15.11
2013	0.06	3.50	3.86	2.07	0.28	1.22	0	0	0	0	0	0	10.99
2014	0.09	0.90	0.63	0	4.56	3.17	0.48	0.01	0	0	0.06	0	9.90
2015	0	1.28	5.51	2.12	0.77	0.46	0.38	0.25	0.19	0.37	0	0.32	11.65
2016	0.41	0.09	0.40	7.20	2.18	3.77	0.53	0.06	0	0	0	0	14.64
2017	0.71	0.83	4.15	10.88	12.91	1.27	0.53	0.14	0	0	0	0.11	31.53
2018	0	0.03	0	2.83	0.14	8.43	0.02	0.04	0	0	0	0	11.49
2019	0.14	3.11	1.16	9.07	9.56	4.37	0.06	2.02	0	0	0	0	29.49
2019/2020	0	1.86	6.93	0.82	0.17	4.97	4.46	0.08	0.01	0	0	0	19.30
2021	0.01	0.19	1.69	3.99	0	1.29	0	0.02	0	0	0	0	7.19
2022	1.96	0.05	14.30	0.13	0	2.61	0.23	0	0	0	0	0.05	19.33
2023	0.02	1.67	7.59	20.73	6.93	14.34	0.01	1.05	0.17	0	1.06	0.06	53.63
2024	0.01	0.46	5.95	2.57	20.75	7.47	1.67	0.07	0.01	0.04	0	0	39.00
AVG	0.75	2.32	3.80	5.36	5.60	4.10	1.37	0.34	0.05	0.02	0.05	0.28	24.05
MAX	6.98	14.37	15.79	29.05	31.14	18.30	8.51	3.83	0.64	0.37	1.08	7.59	59.55
MIN	0	0	0	0	0	0	0	0	0	0	0	0	7.19

Rainfall in inches, water year October 1 through September 30

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

W. YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
1959/1960	0	0	1.25	5.40	4.29	0.78	2.98	0	0	0	0	0	14.70
1961	0	5.08	0.48	1.90	0	0.63	0.23	0.06	0	0	0	0.04	8.42
1962	0	5.47	1.78	2.56	22.65	1.45	0	0.05	0	0	0	0	33.96
1963	0.49	0.01	0.05	1.35	6.85	3.59	2.61	0.39	0.51	0	0	1.69	17.54
1964	0.48	4.57	0	2.53	0	1.84	2.17	0.11	0.13	0	0.21	0	12.04
1965	0.84	3.39	8.33	0.67	0.38	1.59	7.29	0.01	0.01	0	0	0.26	22.77
1966	0	14.19	7.07	2.51	1.11	0.04	0	0.10	0	0	0	0.21	25.23
1967	0.02	4.80	9.71	7.80	0.27	3.53	5.82	0	0	0	0	0.35	32.30
1968	0	5.03	1.15	1.53	1.51	4.76	1.13	0	0	0	0	0	15.11
1969	1.23	0.91	2.62	26.58	12.81	1.26	2.01	0.01	0	0.12	0	0	47.55
1969/1970	0	3.52	0.19	3.68	3.70	5.43	0	0	0	0	0	0	16.52
1971	0	6.36	6.94	1.51	0	0.71	0.55	0.03	0	0	0	0	16.10
1972	0.15	0.62	11.02	0.33	0.58	0	0.16	0	0.02	0	0	0.14	13.02
1973	0.13	6.75	1.20	9.14	14.17	3.16	0	0	0	0	0	0	34.55
1974	0.65	1.94	1.43	9.40	0	4.82	0.09	0	0	0	0	0	18.33
1975	0.67	0.12	10.26	0	4.96	6.50	1.54	0	0	0	0	0	24.05
1976	0.23	0	0.13	0	6.43	2.10	0.71	0	0.25	0	0.06	7.32	17.23
1977	0.01	0.63	0.71	4.96	0.25	2.27	0	2.76	0	0	0.39	0	11.98
1978	0.02	0.09	6.57	11.35	13.04	14.71	2.53	0	0	0	0	1.35	49.66
1979	0	2.57	2.48	6.00	5.90	7.83	0	0	0	0	0	0.86	25.64
1979/1980	0.64	0.95	1.96	9.56	16.93	4.04	0.75	0.32	0	0	0	0	35.15
1981	0	0	2.21	4.59	2.15	7.45	0.59	0	0	0	0	0	16.99
1982	0.67	2.64	0.78	4.20	0.90	6.85	2.81	0	0	0	0	1.49	20.34
1983	0.71	5.87	4.60	12.59	8.48	9.13	4.86	0.18	0	0	1.18	0.62	48.22
1984	4.88	5.57	5.14	0.09	0	0.55	0.05	0	0	0	0.08	1.06	17.42
1985	0.41	4.21	6.91	1.42	1.71	1.62	0.02	0	0	0	0	0	16.30
1986	0.55	6.28	1.15	3.97	11.09	6.26	1.74	0	0	0	0	1.25	32.29
1987	0	1.66	0.49	2.16	2.06	3.32	0.12	0	0.03	0	0	0	9.84
1988	1.52	1.14	4.10	3.53	2.63	1.75	3.08	0	0	0	0	0.07	17.82
1989	0	1.18	3.91	0.48	4.74	0.87	0.34	0.22	0	0	0	0.11	11.85
1989/1990	0.61	0.47	0	3.67	2.92	0.01	0.18	0.93	0.03	0	0	0.04	8.86
1991	0	0.36	0	2.03	3.85	17.19	0	0	0.16	0	0	0	23.59
1992	0.62	0.25	4.52	2.90	13.83	5.79	0.05	0.32	0	0.25	0	0	28.53
1993	1.53	0	7.58	14.97	11.88	6.22	0	0.19	0.94	0	0	0	43.31
1994	0.08	1.27	1.69	0.69	8.14	2.02	0.48	0.27	0	0	0	0.05	14.69
1995	0.69	1.48	0.96	27.61	2.29	14.03	0.29	1.29	0.40	0	0	0	49.04
1996	0.11	2.49	1.92	9.37	1.54	1.03	0.45	0	0	0	0	0	16.91
1997	4.06	2.92	7.99	10.21	0.09	0	0	0	0	0	0	0	25.27
1998	0	3.59	8.32	4.59	30.12	6.54	2.19	3.21	0.06	0	0	0.16	58.78
1999	0	1.27	0.84	2.74	0.81	2.38	2.19	0	0.17	0	0	0.27	10.67
1999/2000	0	1.00	0	2.34	11.96	3.24	3.28	0	0	0	0	0.12	21.94
2001	2.75	0	0.03	8.48	7.02	8.02	1.56	0	0	0	0	0	27.86
2002	0.41	4.37	1.60	1.10	0.36	0.53	0.08	0.23	0	0	0	0.02	8.70
2003	0	5.63	5.10	0	3.97	4.98	1.27	2.74	0	0	0	0	23.69
2004	0.05	2.68	2.13	0.79	8.08	0.60	0	0	0	0	0	0	14.33
2005	7.09	0.02	10.37	17.30	10.22	4.47	0.90	0.60	0	0	0	0.31	51.28
2006	0.97	0.87	0.79	4.93	3.73	4.87	8.21	1.47	0	0	0	0	25.84
2007	0.22	0.10	1.03	2.68	1.66	0.10	1.01	0	0	0	0	0.35	7.15
2008	0.46	0.04	3.40	17.93	2.49	0	0.09	0.06	0	0	0.11	0	24.58
2009	0.16	3.19	2.64	0.43	5.43	0.84	0.19	0	0	0	0	0	12.88
2009/2010	6.91	0	4.33	8.71	5.47	0.37	2.39	0.30	0	0	0	0	28.48
2011	2.14	1.91	13.09	0.90	5.32	9.42	0.11	0.94	0.21	0	0	0	34.04
2012	1.69	2.64	0.30	1.22	0.27	3.89	3.16	0	0	0	0	0.01	13.18
2013	0.15	3.74	3.15	1.91	0.10	0.81	0.25	0	0	0	0	0	10.11
2014	0.03	0.77	0.44	0	4.31	3.49	0.42	0	0	0	0.06	0	9.52
2015	0	0.96	5.41	1.44	0.82	0.25	0.2	0.3	0.14	0.32	0	0.22	10.06
2016	0.40	0	0.36	6.72	2.35	4.00	0.50	0	0	0	0	0	14.33
2017	0.71	1	3.79	10.45	11.75	1.30	0.48	0	0	0	0	0	29.56
2018	0	0.05	0	4.14	0.07	7.67	0.02	0.14	0	0	0	0	12.09
2019	0.11	2.47	1.73	8.12	10.64	3.66	0.02	1.88	0	0	0	0	28.63
2019/2020	0	1.59	6.07	0.57	0.67	5.25	4.46	0.08	0.01	0	0	0	18.70
2021	0	0.19	2.65	3.20	0.03	1.15	0	0	0	0	0	0	7.22
2022	1.50	0	13.50	0.07	0.03	1.90	0	0	0	0	0	0.15	17.15
2023	0.01	1.44	5.81	18.45	7.55	14.45	0	0.12	0.17	0	1.14	0	49.14
2024	0	0.46	5.74	2.38	19.45	6.09	1.62	0.02	0	0	0	0	35.76
AVG	0.73	2.22	3.57	5.31	5.37	3.93	1.23	0.30	0.05	0.01	0.05	0.29	23.06
MAX	7.09	14.19	13.50	27.61	30.12	17.19	8.21	3.21	0.94	0.32	1.18	7.32	58.78
MIN	0	0	0	0	0	0	0	0	0	0	0	0	7.15

Rainfall in inches, water year October 1 through September 30

Surrogate data used from Casitas Dam due missing data

ROBLES-CASITAS CANAL MONTHLY DIVERSIONS

	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		TOTAL			
YEAR	days	a.f.	days	a.f.	days	a.f.	days	a.f.	days	a.f.	days	a.f.	days	a.f.	days	a.f.	days	a.f.	days	a.f.	days	a.f.	days	a.f.	days	a.f.	Avg. Rain	
1959	26	374			21	3645	23	928	3	158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	5105	12.89	
1960	0	0	2	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	24	14.98	
1961	1	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	23	2	32	10.14	
1962	0	0	20	13564	31	6882	30	1438	5	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	21915	36.97	
1963	0	0	23	2043	11	896	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	2939	18.77	
1964	2	10	0	0	0	0	1	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	176	5	354	13.93	
1965	0	0	0	0	0	0	29	4955	4	79	0	0	0	0	0	0	0	0	0	0	14	11676	28	4729	75	21439	22.95	
1966	31	11440	28	3754	12	418	0	0	0	0	0	0	0	0	0	0	0	0	3	821	2	108	28	8782	104	25323	26.92	
1967	20	6284	16	1170	23	5023	30	10488	31	8909	30	1571	15	478	0	0	0	0	4	454	9	291	18	504	196	35172	37.17	
1968	0	0	1	16	24	339	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	715	0	0	29	1070	16.08	
1969	7	4924	20	11902	31	16623	30	8654	31	2685	30	1507	31	2710	5	360	0	0	0	0	5	76	10	908	200	50349	54.69	
1970	13	312	14	988	31	7347	11	404	0	0	0	0	0	0	0	0	3	365	0	0	1	575	19	5868	92	15859	17.40	
1971	31	3460	24	2011	3	24	0	0	0	0	9	861	0	0	0	0	0	0	0	0	4	550	7	4051	78	10957	20.69	
1972	20	1093	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	620	0	0	1	5	0	0	25	1718	13.72	
1973	15	3445	28	15331	31	14219	30	4274	23	1435	0	0	0	0	0	0	0	0	0	0	5	884	0	0	132	39588	38.42	
1974	23	6431	8	501	19	2437	4	539	0	0	0	0	0	0	0	0	0	0	0	0	3	397	3	1427	60	11732	20.18	
1975	0	0	7	1090	21	8876	17	1826	3	686	0	0	0	0	0	0	0	0	0	0	3	510	0	0	51	12988	24.90	
1976	0	0	9	2855	0	0	0	0	0	0	0	0	0	0	0	0	2	583	0	0	0	0	0	0	11	3438	18.66	
1977	0	0	0	0	0	0	0	0	1	50	0	0	0	0	0	0	0	0	0	0	0	0	4	1044	5	1094	12.88	
1978	24	7290	28	13204	17	7034	0	0	0	0	4	1167	0	0	0	0	0	0	0	0	0	0	0	0	73	28695	53.92	
1979	0	0	26	4712	16	1796	0	0	3	670	0	0	5	1667	0	0	0	0	0	0	0	0	0	0	50	8845	26.70	
1980	20	1456	15	1127	2	134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	2717	37.21	
1981	4	203	0	0	31	5018	2	551	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	5772	18.37	
1982	3	599	0	0	11	1492	25	3582	28	494	15	74	0	0	0	0	0	0	0	0	7	657	14	3035	103	9933	21.68	
1983	10	8994	28	8791	0	0	0	0	0	0	17	1138	20	1430	4	218	11	536	0	0	0	0	14	1024	104	22131	52.67	
1984	0	0	8	1130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	957	17	2087	17.96
1985	3	528	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1522	9	964	19	3015	17.41	
1986	2	1385	28	14926	31	14415	30	5430	22	1418	27	1742	0	0	0	0	0	0	0	0	0	0	0	0	140	39316	35.67	
1987	0	0	0	0	10	1034	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	580	12	1614	10.71	
1988	10	1368	4	1533	15	4725	11	885	3	643	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	9154	19.53	
1989	0	0	7	524	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	524	12.41	
1990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.27	
1991	0	0	1	367	18	11776	30	4186	12	925	0	0	0	0	0	0	0	0	0	0	0	0	2	366	63	17620	24.68	
1992	5	1026	23	14826	31	15898	30	7228	31	2460	9	413	0	0	4	504	0	0	0	0	0	0	6	1847	139	44202	30.85	
1993	27	21012	16	10886	0	0	0	0	7	963	5	1039	4	785	0	0	0	0	0	0	0	0	0	0	59	34685	48.30	
1994	0	0	13	1645	7	932	0	0	6	927	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	3504	15.68	
1995	3	1323	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1323	52.35	
1996	0	0	0	0	6	1291	0	0	4	371	0	0	0	0	0	0	0	0	0	0	2	354	9	3355	21	5371	19.50	
1997	18	7134	6	1843	4	917	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2002	32	11896	25.81	
1998	5	1366	6	4972	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	6338	60.86	
1999	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.97	
2000	0	0	4	1459	10	3023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	4482	24.36	
2001	2	451	13	2140	28	11786	14	1039	1	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58	15527	30.22	
2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.38	
2003	0	0	0	0	5	982	5	264	5	325	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	1571	26.37	
2004	0	0	3	1010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1843	10	2853	16.73
2005	31	12925	28	9297	22	4568	0	0	2	116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	26906	60.13	
2006	7	444	1	246	22	1283	30	8525	31	1593	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91	12091	28.98	
2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.33	
2008	16	4137	29	4707	31	1083	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	9927	28.13		
2009	0	0	11	365	3	127	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	1	6	16	506	14.76	
2010	13	3461	28	1954	31	685	18	368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	4459	103	10926	32.05	
2011	31	1739	26	714	31	8151	30	5548	31	1546	13	149	0	0	0	0	0	0	0	0	0	0	0	0	162	17847	36.77	
2012	0	0	0	0	1	12	2	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	87	14.17	
2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.98	
2014	0	0	1	307	3	649	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	62	6	1018	11.39	
2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.09	
2016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15.06	
2017	4	578	21	4482	27	1031	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	6091	32.18	
2018	0	0	0	0	5	638	0	0	0	0	0	0	0	0	0	0	0	0	0	2	141	1	50	8	829	13.53		
2019	19	1751	26	8506	31	8122	30	1523	30	788	1	1	0	0</														