



Water Supply Report

October 1, 2021

WATER RESOURCES SUMMARY

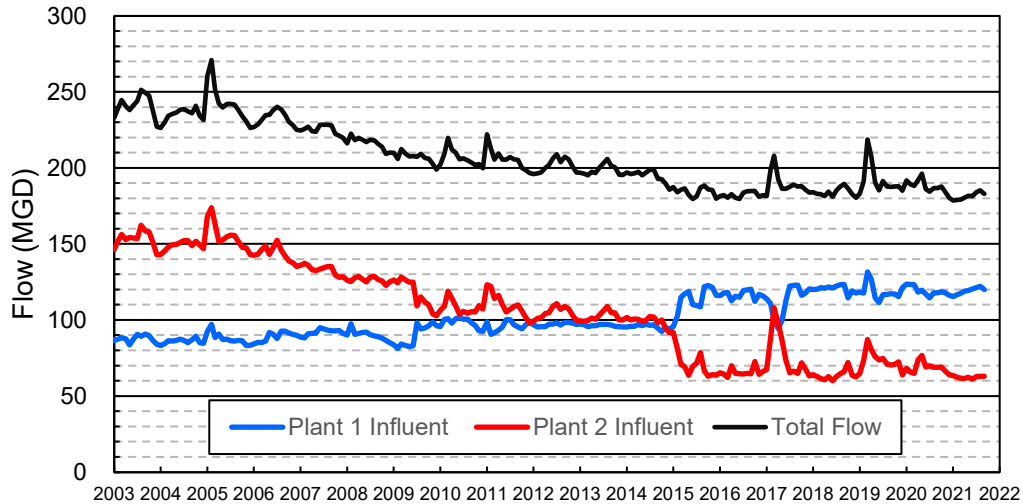
August 2021

INFLOWS & OUTFLOWS (acre-feet)		Total for Month	Year to Date - This Year Last Year	
BASIN SUPPLIES				
Water Purchases from MWD (excludes In Lieu)		0	0	0
Water into MWD Storage Account (excludes In Lieu)		0	0	0
SAR & Santiago Creek Flows		5,260	10,282	18,149
(accounts for storage to/from recharge facilities)				
GWRS Water to Forebay		1,943	7,210	9,853
GWRS Water to Mid-Basin Injection Wells		307	1,126	1,915
GWRS Water to Talbert Barrier		967	3,651	4,624
OC-44 Water to Talbert Barrier		0	0	9
Alamitos Barrier Water		250	519	436
Incidental Recharge (estimated)		1,000	2,000	2,300
Evaporation from Recharge Basins		(259)	(534)	(838)
River Flow Lost to Ocean		<u>0</u>	<u>0</u>	<u>0</u>
Total Groundwater Recharge		9,468	24,255	36,447
WATER PRODUCTION				
Groundwater Production		24,171	48,697	54,568
MWD Storage Program Withdrawals		<u>0</u>	<u>0</u>	<u>0</u>
Total Groundwater Production		24,171	48,697	54,568
BASIN BALANCE				
Change in Groundwater Storage		(14,703)	(24,442)	(18,121)
Change in Groundwater Storage excluding MWD Stored Water		(14,703)	(24,442)	(18,121)
Accumulated Overdraft		-----	272,443	218,121
Accumulated Overdraft excluding MWD Storage		-----	272,442	218,121
IN LIEU WATER				
OCWD In Lieu Purchases (MWD Cyclic Storage)		0	0	0
MWD In Lieu Storage		<u>0</u>	<u>0</u>	<u>0</u>
Total In Lieu		0	0	0
OTHER KEY INFORMATION				
1. MWD Water Deliveries to Producers		13,657	26,682	22,522
2. Basin Production Percentage		63.9%	64.6%	70.8%
3. Total Water Demand		39,494	78,766	80,480
4. Total GWRS Production		3,222	11,999	16,410
5. Green Acres Project Water		442	918	1,076
6. SAR Water Quality				
- Total Dissolved Solids (TDS) of SAR below Prado Dam (ppm)		678	-----	734
- Total Nitrogen of SAR below Prado Dam (ppm)		3.1	-----	4.2
7. Month-End Water Storage Behind Prado Dam		1	-----	0
8. Month-End Water Storage in Recharge Facilities		7,189	-----	9,588
9. Water Storage Change in Recharge Facilities		(839)	(1,471)	(6,151)
10. Total Artificial Recharge		8,468	22,255	34,147
11. Monthly Mean Temperature at Santa Ana Fire Station (°F)		75.6	-----	77.6
12. Rainfall at FHQ (inches)		0.00	0.08	0.00

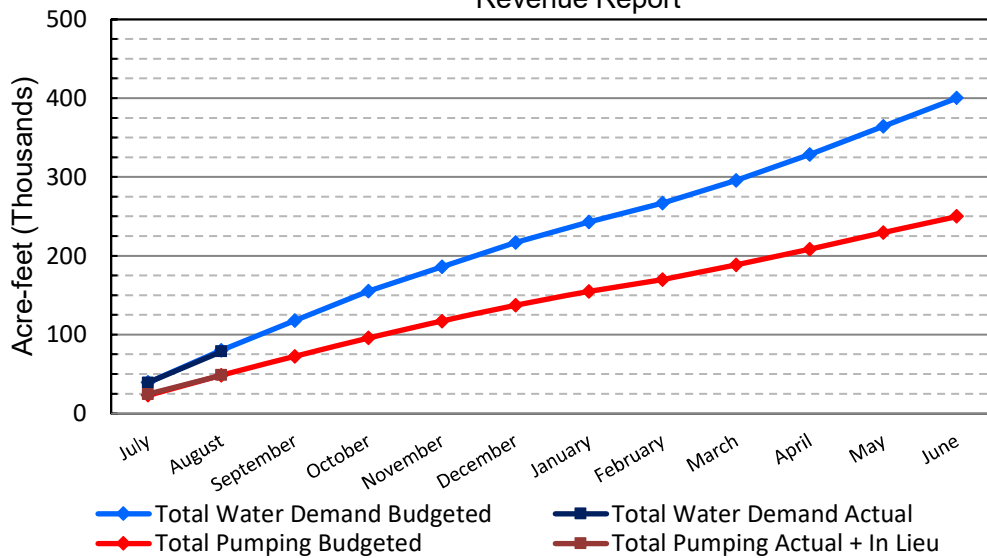
*** Note: Data are preliminary, subject to change

9/9/2021

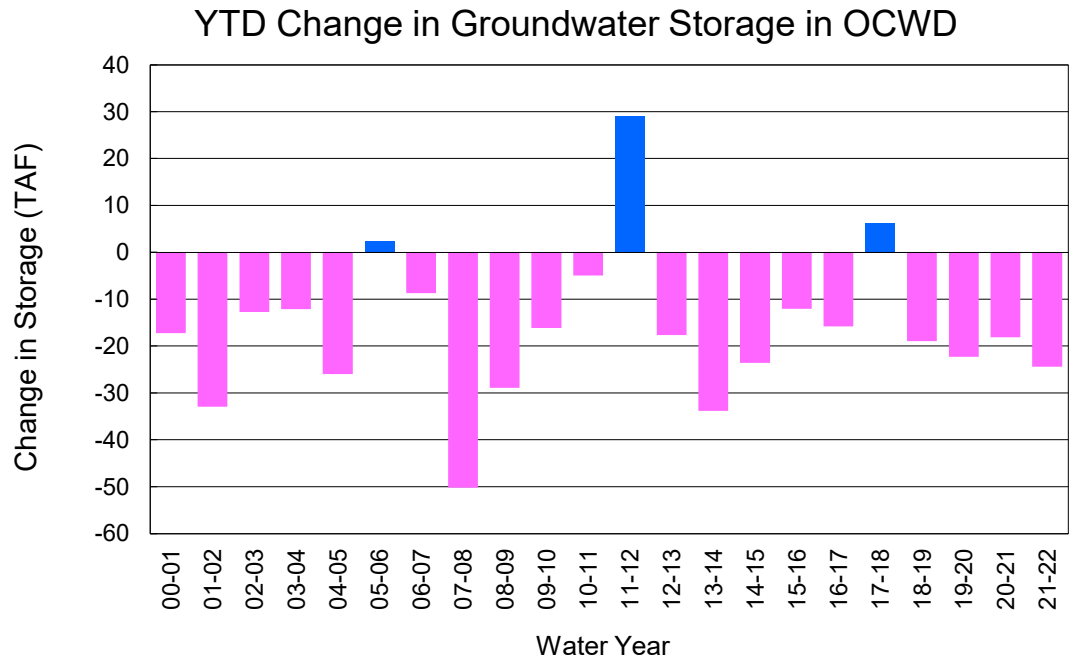
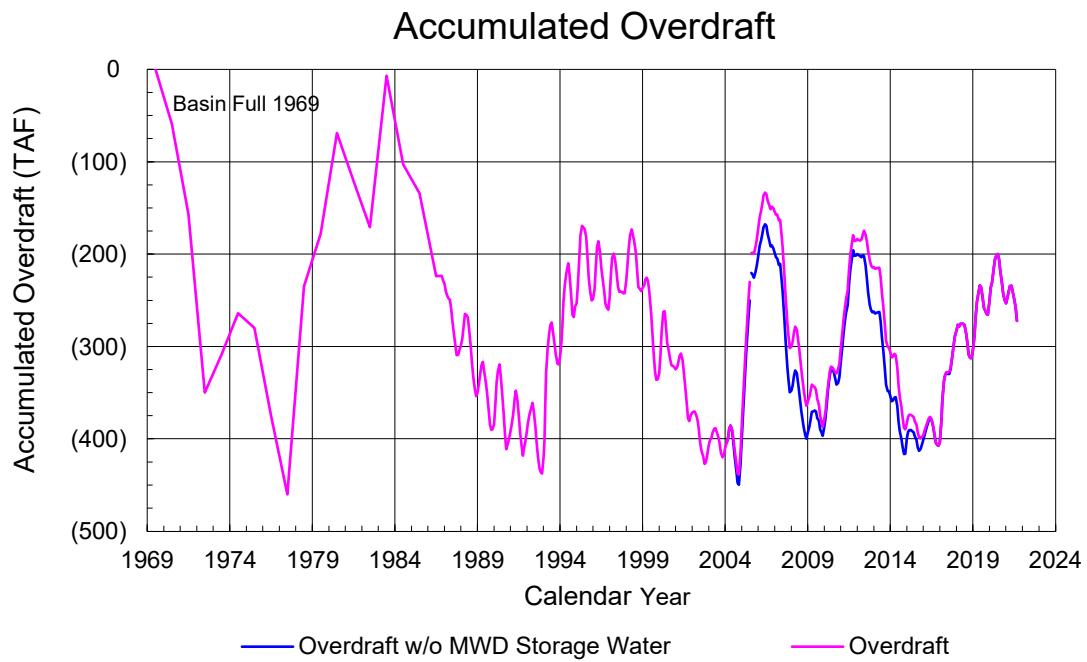
Orange County Sanitation District Influent Flows Report



2019-20 Water Demands/Groundwater Pumping + In Lieu/RA Revenue Report



	Monthly		Accumulated Total for the Year			
	Budget	Actual	Budget	Actual	Difference	Percent
Total Water Demand	40,500	39,494	79,900	78,766	-1,134	98.58%
Total Pumping + In Lieu	25,100	24,171	48,300	48,697	397	100.82%
RA Revenue	\$11,596,200	\$11,167,169	\$22,314,600	\$22,498,035	\$183,435	100.82%



PRODUCERS WATER USAGE SUMMARY

August 2021

(AF except BPP)

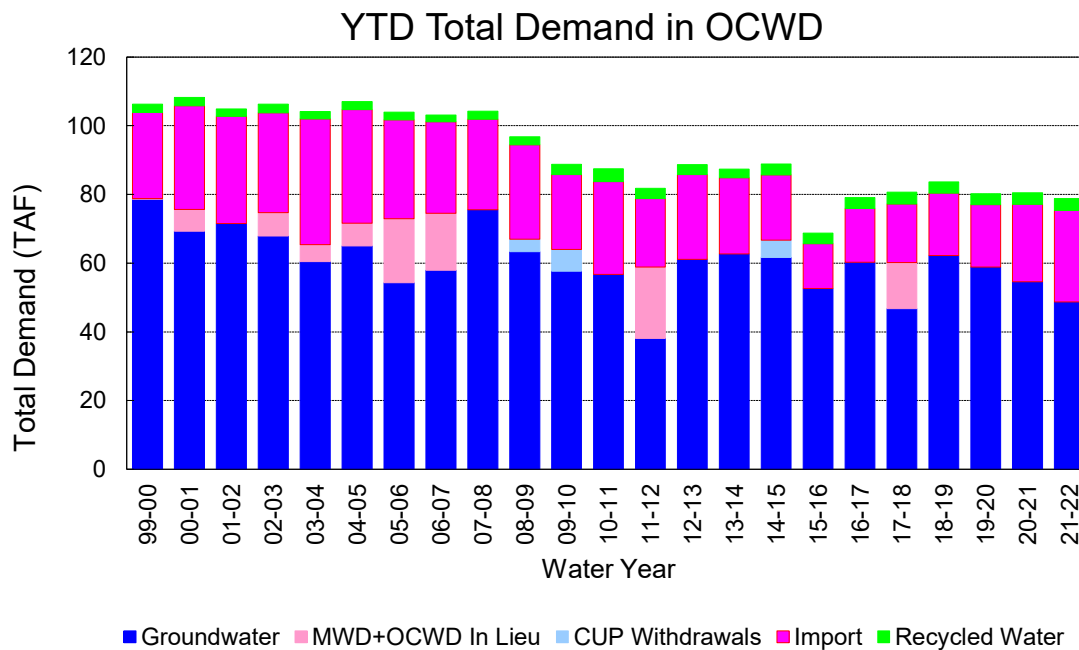
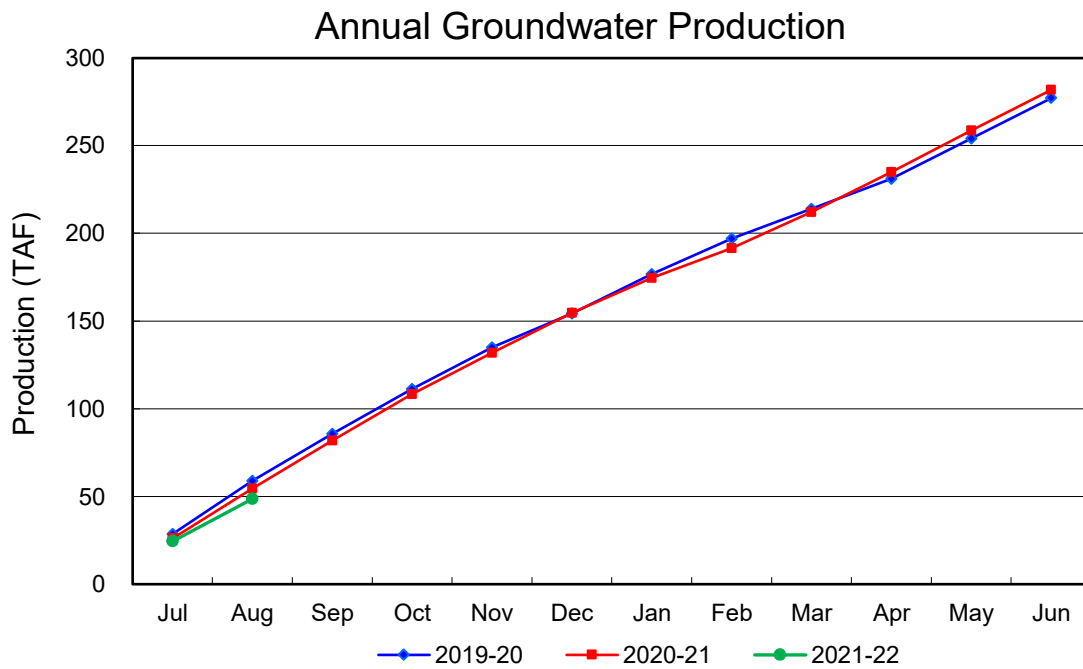
WATER AGENCY	Ground- water (1)	In Lieu	Reclaimed Water	Total Import (2)	Total Demand	2021-22 YTD Demand	2020-21 YTD Demand	YTD % Diff Demand	AUG 2021 BPP	2021-22 YTD BPP	2020-21 YTD BPP
Anaheim	1,699	0	0	4,233	5,933	11,462	11,313	101%	28.6%	28.6%	26.0%
Buena Park	1,039	0	0	301	1,340	2,696	2,711	99%	77.5%	81.3%	82.5%
East Orange County	0	0	0	102	103	203	189	107%	0.3%	0.2%	0.0%
Fountain Valley	889	0	155	0	1,044	2,126	2,162	98%	100.0%	100.0%	100.0%
Fullerton	1,986	0	0	561	2,547	5,058	5,043	100%	78.0%	78.1%	77.4%
Garden Grove	1,650	0	0	555	2,205	4,445	4,561	97%	74.8%	74.8%	52.5%
Golden State	1,342	0	0	1,060	2,402	4,792	4,901	98%	55.9%	57.2%	69.2%
West OC System	1,311	-	-	113	1,424	2,851	2,865	100%	na	na	na
East OC System	32	-	-	947	978	1,941	2,036	95%	na	na	na
Huntington Beach	2,195	0	0	450	2,645	5,317	5,587	95%	83.0%	82.4%	78.6%
Irvine Ranch	4,526	0	1,278	85	5,890	11,670	11,958	98%	98.2%	98.0%	99.6%
DRWF Clear	2,978	-	-	-	2,978	5,658	5,874	96%	na	na	na
DRWF Color	577	-	-	-	577	1,187	1,429	83%	na	na	na
Laguna Beach	0	0	0	325	325	655	716	na	0.0%	0.0%	0.0%
La Palma	115	0	0	58	173	352	397	89%	66.4%	83.5%	100.0%
Mesa Water (MW)	1,610	0	120	0	1,730	3,507	3,548	99%	100.0%	100.0%	100.0%
MW Clear	1,029	-	-	-	1,029	2,150	2,176	99%	na	na	na
MW Amber	581	-	-	-	581	1,108	1,115	99%	na	na	na
Newport Beach	1,292	0	75	179	1,546	3,201	3,218	99%	87.8%	85.1%	92.5%
Orange	1,208	0	0	1,537	2,745	5,540	5,650	98%	44.0%	45.2%	67.1%
OCWD (GAP)	161	0	0	0	161	295	354	83%	100.0%	100.0%	100.0%
Santa Ana	2,204	0	36	989	3,230	6,479	6,660	97%	69.0%	75.0%	65.5%
Seal Beach	133	0	0	225	358	712	743	96%	37.2%	18.7%	4.3%
Serrano	0	0	0	305	305	613	598	103%	0.0%	0.0%	0.1%
Tustin	561	0	0	554	1,115	2,216	2,242	99%	50.3%	48.9%	92.3%
Westminster	1,056	0	0	0	1,056	2,139	2,115	101%	100.0%	100.0%	100.0%
Yorba Linda	<u>0</u>	<u>0</u>	<u>0</u>	<u>2,120</u>	<u>2,120</u>	<u>4,235</u>	<u>4,386</u>	<u>97%</u>	<u>0.0%</u>	<u>0.0%</u>	<u>80.6%</u>
SUBTOTAL:	23,667	0	1,664	13,640	38,972	77,717	79,050	98%	63.9%	64.6%	70.8%
Other Producers (Est ~3% of Subtotal)	<u>504</u>	<u>0</u>	<u>0</u>	<u>17</u>	<u>521</u>	<u>1,049</u>	<u>1,430</u>	<u>73%</u>			
TOTAL:	24,171	0	1,664	13,657	39,493	78,766	80,480		63.9%	64.6%	70.8%
OCWD (Talbert Barrier)	0		967	0	967	3,651	4,633				
OCSD (GAP)	na		55	na	55	115	269				

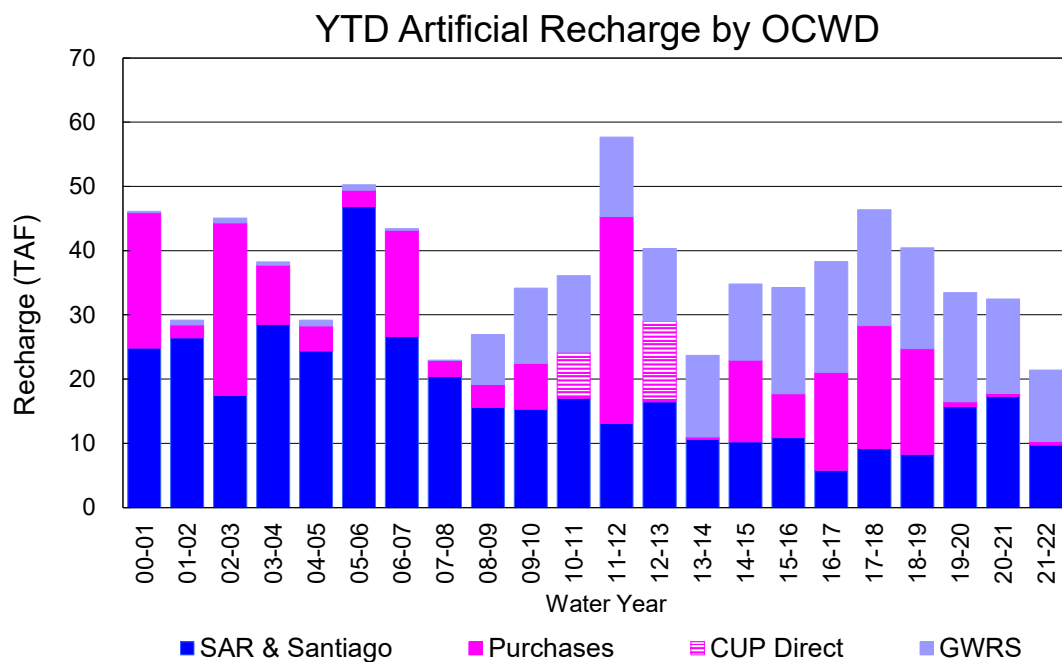
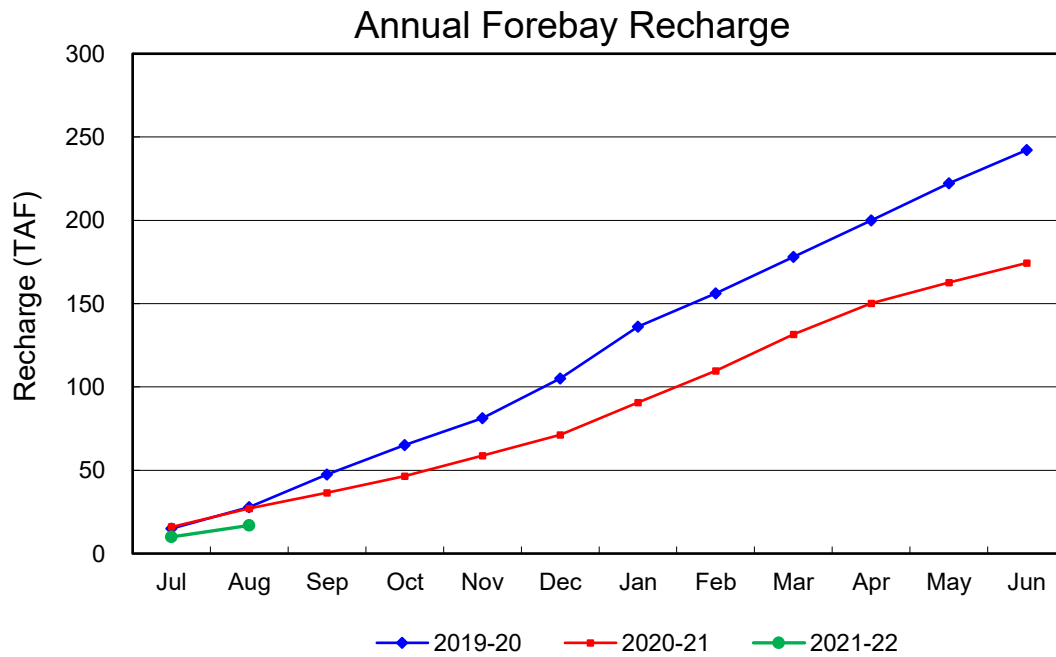
Estimated

(1) Excludes MWD CUP Withdrawals

(2) Includes MWD CUP Withdrawals & In Lieu Water

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RECHARGE AREAS REPORT

August 2021

	Percolation (AF)	Remarks
RIVER SYSTEM	3,284	53 cfs per day average perc
DESILTING SYSTEM	na	
OFF-RIVER SYSTEM	0	
WARNER SYSTEM	747	SAR
OLIVE BASIN	na	Passive System
ANAHEIM LAKE	51	SAR
MINI-ANA LAKE	0	
MILLER BASIN	802	GWRS
KRAEMER BASIN	0	
LA PALMA BASIN	430	GWRS
MIRA LOMA	863	GWRS
LA JOLLA BASIN	34	
PLACENTIA BASIN	na	
RAYMOND BASIN	335	Anaheim Lake pumped water
FIVE COVES BASIN	na	
BURRIS BASIN	320	SAR
RIVER VIEW BASIN	0	
FLETCHER BASIN	0	
SANTIAGO BASINS	79	
SANTIAGO CREEK	0	
TOTALS	6,945	
5-YR AVERAGE	13,435	

FLOWS TO RECHARGE AREAS (AF)	
Imperial Headgates (estimated)	4,421
GWRS	1,944
OC-28 (MWD)	0
OC-28a (MWD)	0
OC-59	0
Est'd local Forebay inflow below Imperial	0
Est'd local Santiago inflow (estimated)	0
Irvine lake releases (OC-13 MWD)	0
Villa Park Dam releases (estimated)	0
Precip at Warner Basin (inches)	0.00
Precip direct to open water surfaces	0
TOTAL INFLOW	6,365

LOSSES FROM RECHARGE AREAS (AF)	
Est'd SAR flow past Chapman Ave.	0
Est'd Santiago Cr. flow to SAR	0
Est'd flows past Raymond Basin	0
Calc'd evap (inches) Estimated	7.21
Est'd evaporative losses	259
TOTAL LOSSES	259

STORAGE CHANGES (AF)			
Facility	Begin	End	Net
Deep basins	6,119	5,354	-765
Santiago Pits	1,909	1,835	-74
River			
Off-river			
Irvine Lake			
TOTAL	8,028	7,189	-839

SUMMARY (AF)	
TOTAL INFLOW	6,365
TOTAL LOSSES	259
STORAGE CHANGE	-839
CALC'D PERCOLATION	6,945

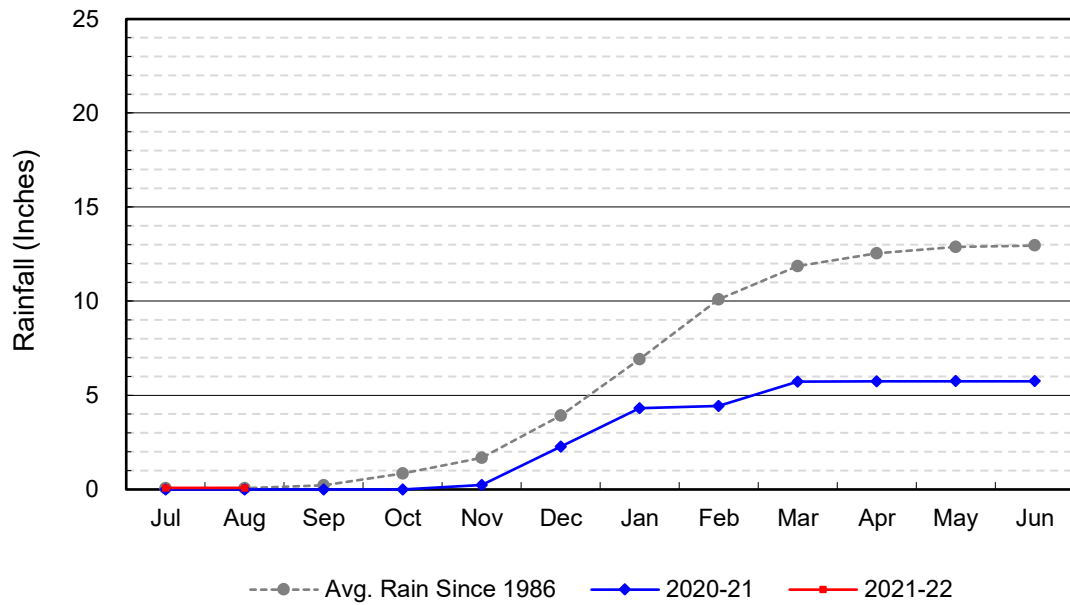
DEEP BASINS MONTHLY STATUS

August 2021

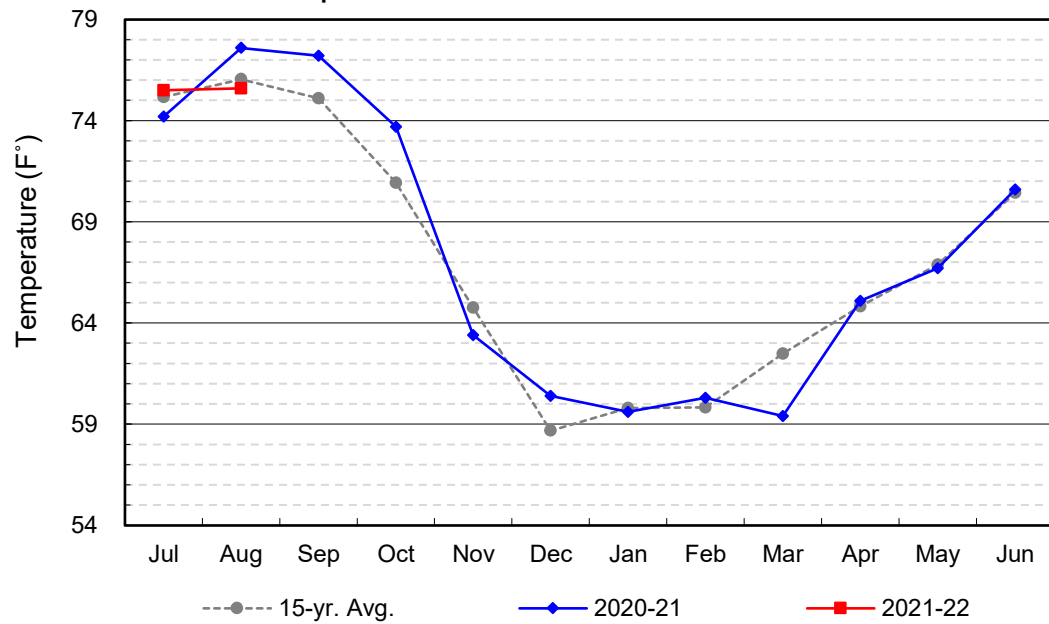
(values in acre-feet)

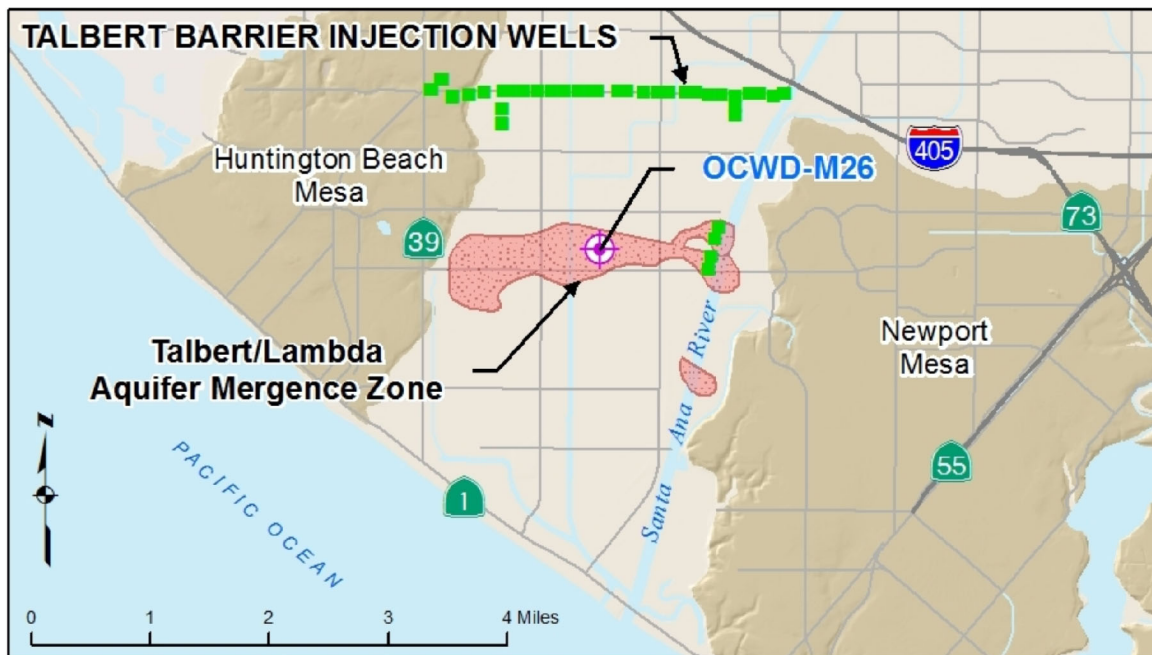
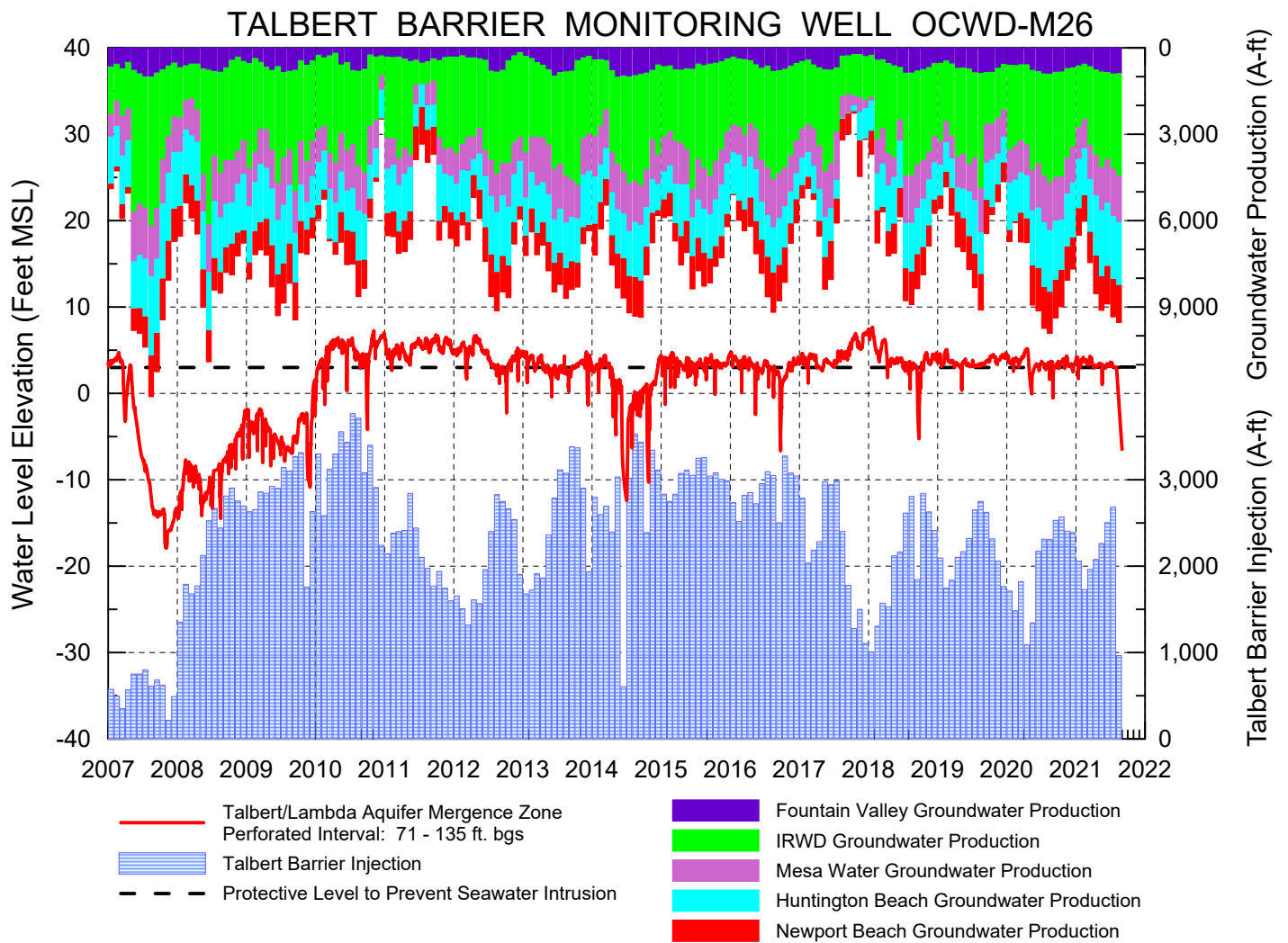
<i>Facility</i>	<i>Storage Start</i>	<i>Storage End</i>	<i>Maximum Storage</i>	<i>Total Perc</i>	<i>Max Perc</i>	<i>Avg Perc</i>	<i>Avg W.S. Elev</i>
Desilting Ponds	220	220	252	na	na	na	na
Fos-Huckleberry	536	524	628	na	na	na	na
Conrock Basin	568	551	661	na	na	na	na
Warner Basins	2,911	2,853	2,900	747	na	na	239
Olive Pit	3	19	95	na	na	na	200
Anaheim Lake	184	0	2,300	51	18	2	172
Mini-Anaheim Lk	0	0	10	0	0	0	220
Miller Basin	47	0	350	802	80	26	202
Kraemer Basin	0	0	1,055	0	0	0	164
La Palma Basin	56	0	101	430	40	14	212
Mira Loma	39	0	53	863	60	28	215
La Jolla Basin	1	0	20	34	24	1	199
Placentia Basin	0	0	200	na	na	na	na
Raymond Basin	60	20	200	335	na	na	na
Five Coves Basins	0	0	329	na	na	na	na
Burris Pit	1,494	1,167	2,500	320	14	10	159
River View Basin	0	0	8	0	0	0	187
Fletcher Basin	0	0	15	0	0	0	184
Santiago (Bond)	1,147	1,097	8,312	79	6	3	185
Santiago (Blu Dia)	762	738	5,259	-	-	-	-
Totals	8,028	7,189	25,247	3,661			
Prado Dam	1	1	25,000				

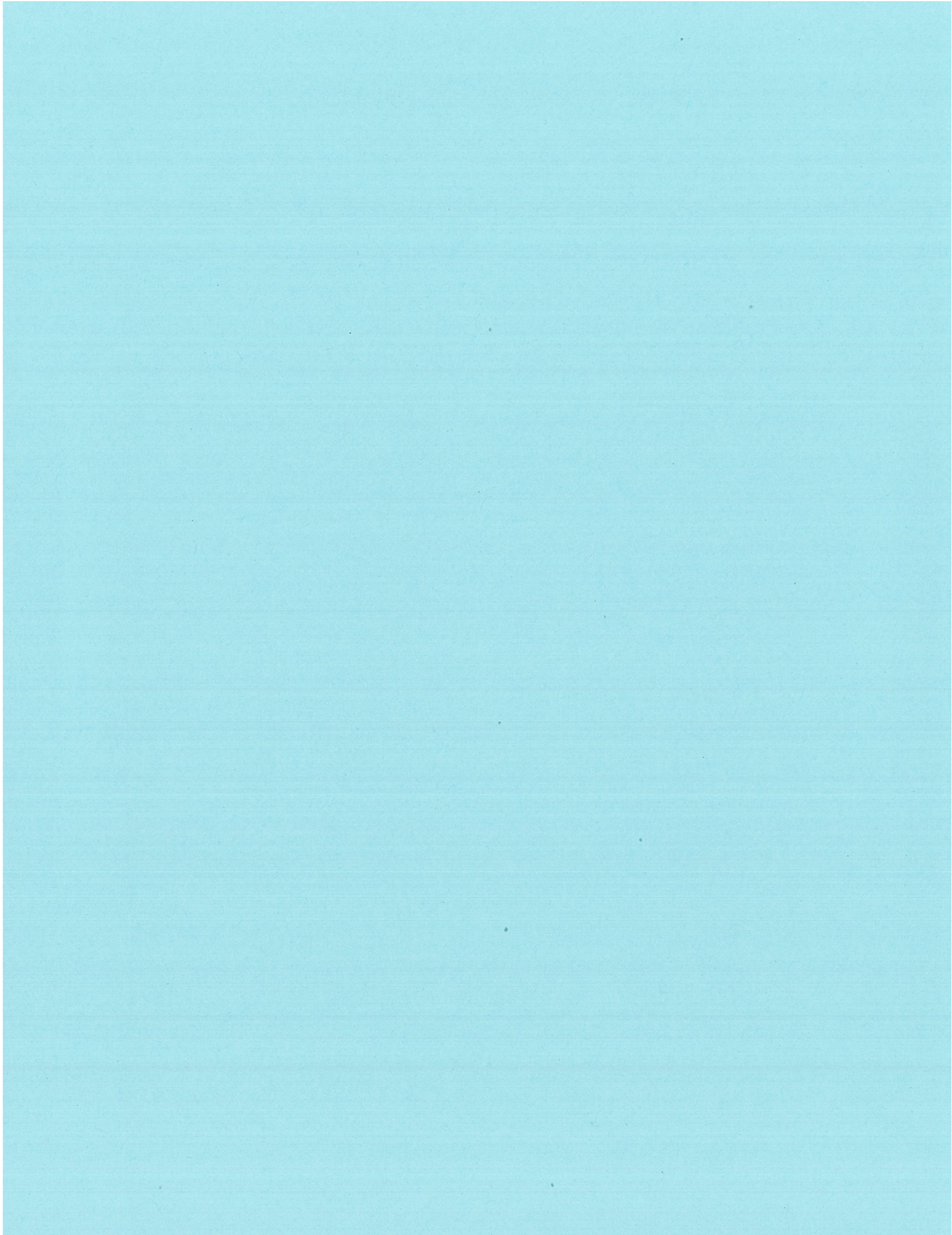
Cumulative Anaheim Field HQ Rainfall



Temperature at Santa Ana Fire Station







Daily Hydrologic and Climate Information Summary (09/27/2021)

Report generated: September 27, 2021 13:07

RESERVOIR STORAGE AS OF 09/26/2021 AT 11:59:59 PM							
RESERVOIR	RIVER	Storage (in Acre Feet)	% Capacity	% Average	Storage Year Ago This Date	% Capacity Year Ago This Date	% Average Year Ago This Date
Trinity Lake	Trinity	730,188	30	43	1,372,421	56	81
Shasta Lake	Sacramento	1,092,331	24	40	2,218,365	49	81
Lake Oroville	Feather	788,574	22	36	1,652,312	47	75
New Bullards Bar Res	Yuba	399,581	41	66	640,207	66	107
Folsom Lake	American	231,948	24	41	431,758	44	77
New Melones Res	Stanislaus	847,174	35	63	1,525,216	64	113
Don Pedro Res	Tuolumne	1,024,170	50	74	1,422,225	70	103
Lake McClure	Merced	214,540	21	45	449,017	44	94
Millerton Lake	San Joaquin	293,884	56	137	161,794	31	76
Pine Flat Res	Kings	199,548	20	58	206,423	21	60
San Luis Res	(Offstream)	254,862	12	27	970,089	48	103
Terminus	Kaweah	21,433	12	161	10,785	6	81
Success	Tule	7,998	10	61	6,806	8	52
Isabella	Kern	52,012	9	27	101,985	18	53

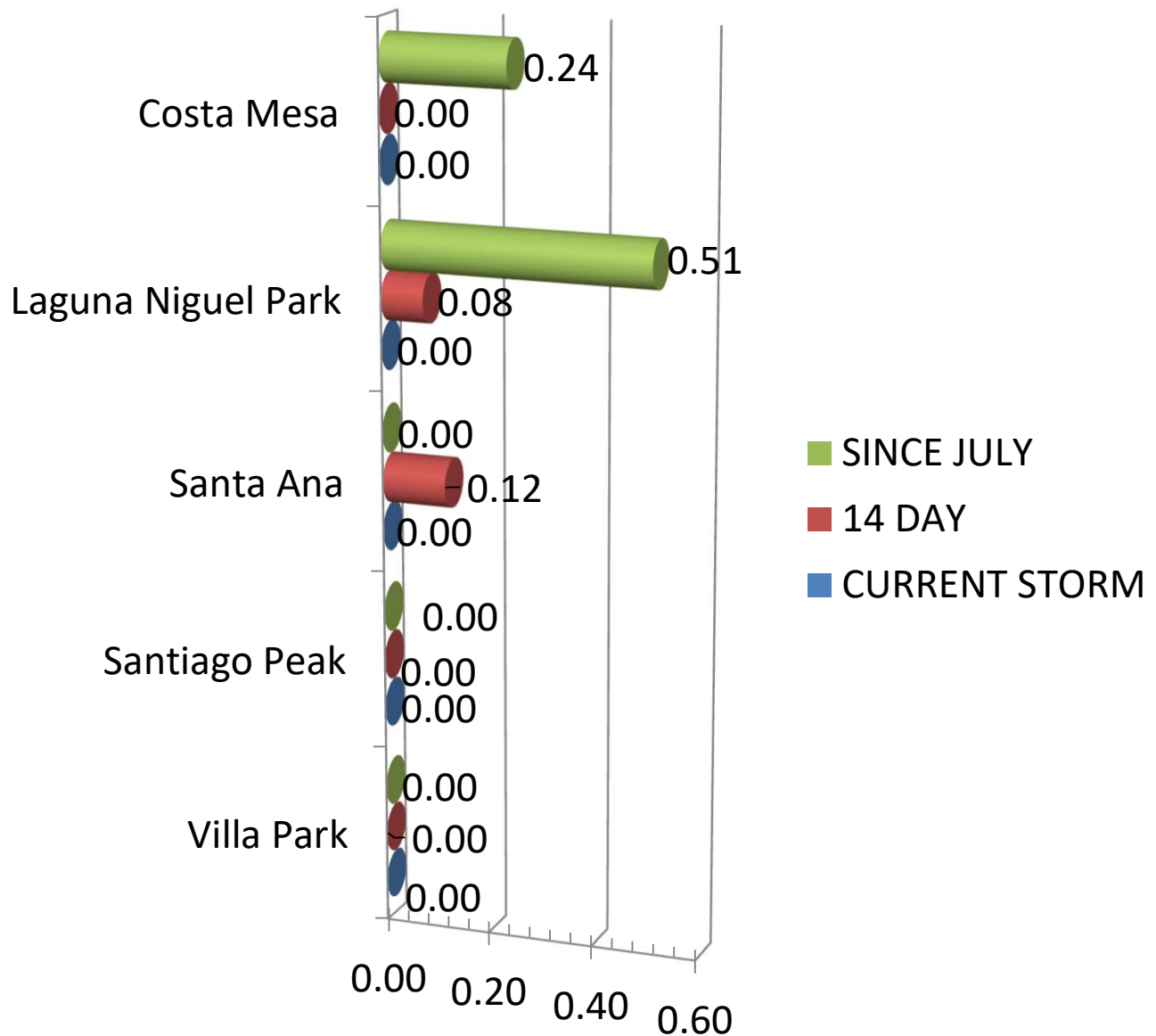
SNOWPACK WATER CONTENT AS OF 08/31/2021					
Region	Water Content (in inches)	% Average to Date	% of Apr 1 Average	Water Content (in inches) Last Year This Date	% Average Last Year This Date
Northern Sierra	0.00		0	-9999.00	-9,999
Central Sierra	0.00		0	-9999.00	-9,999
Southern Sierra	0.00		0	-9999.00	-9,999
Statewide	0.00		0	-9999.00	-9,999

PRECIPITATION INDEX ACCUMULATION AS OF 09/27/2021				
Index	Season to Date	% Average to Date	Season to Date Last Year	% Average Last Year
Northern Sierra	23.80		46	31.74
Southern Sierra	18.82		47	24.60
Tulare Basin	9.93		35	18.60

DAILY PRECIPITATION (IN INCHES) FOR SELECTED STATIONS AS OF 09/27/2021					
Station	Oct 1 to Date 2020-2021	% Average	Season to Date 2019-2020	% Average Last Year	% Average Oct 1 - Sep 30
Mount Shasta	15.20	35	22.53	52	35
Eureka	23.46	58	26.77	67	58
Redding	12.64	37	23.70	69	37
South Lake Tahoe	9.04	45	10.81	54	44
Sacramento Executive Airport	6.36	34	9.73	53	34
Santa Rosa (Sonoma Co AP)	11.03	31	19.34	54	30
San Francisco	8.44	36	12.03	51	36
Stockton	7.75	55	8.26	59	55
Yosemite	13.91	37	9.26	24	37
Monterey	7.21	45	18.48	115	45
Paso Robles	6.50	51	11.27	89	51
Fresno	6.04	53	7.37	64	53
Bakersfield	2.53	39	7.14	111	39
Death Valley	1.56	67	1.16	50	66
Los Angeles	5.76	39	14.86	100	39
Riverside	3.43	28	8.88	72	28
Palm Springs	1.29	23	5.37	94	22
San Diego	3.72	36	12.34	120	36

Orange County Rainfall Report

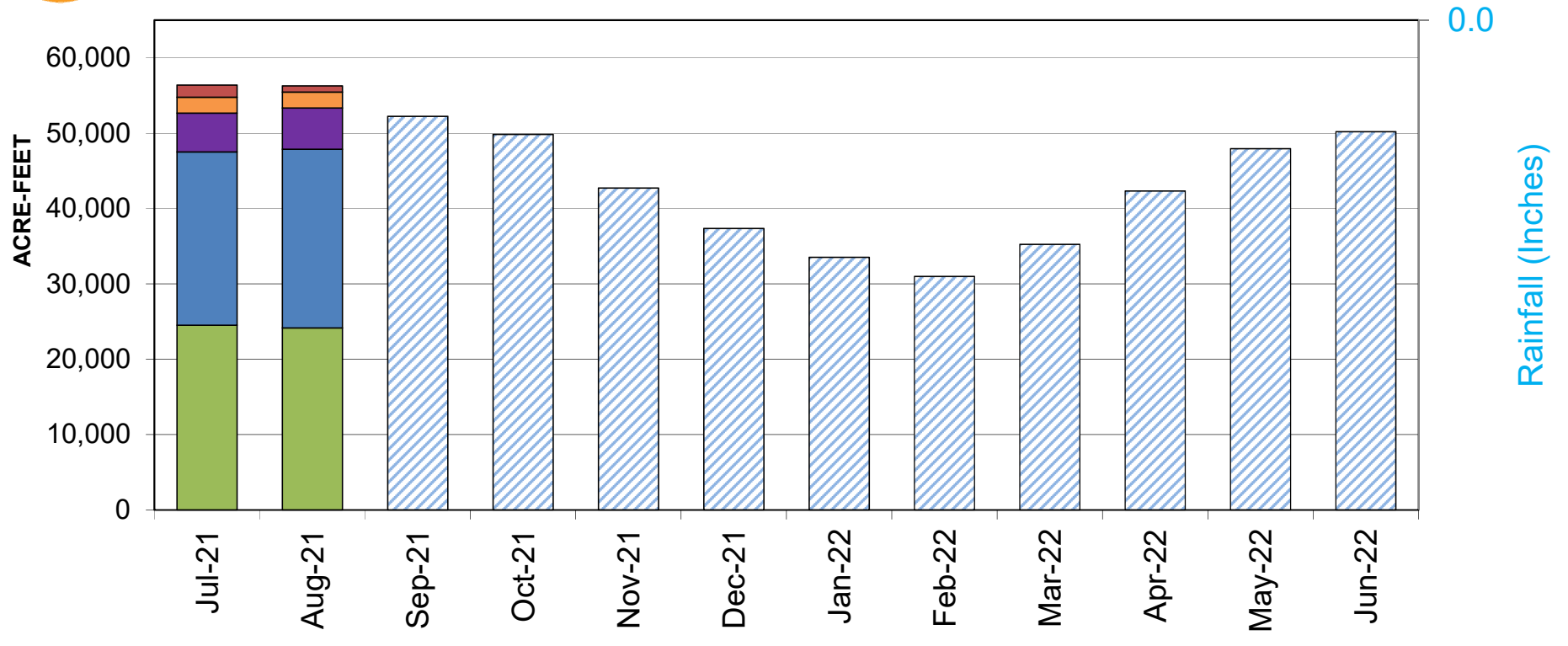
September 27, 2021



MWDOC WATER SUPPLY DATA



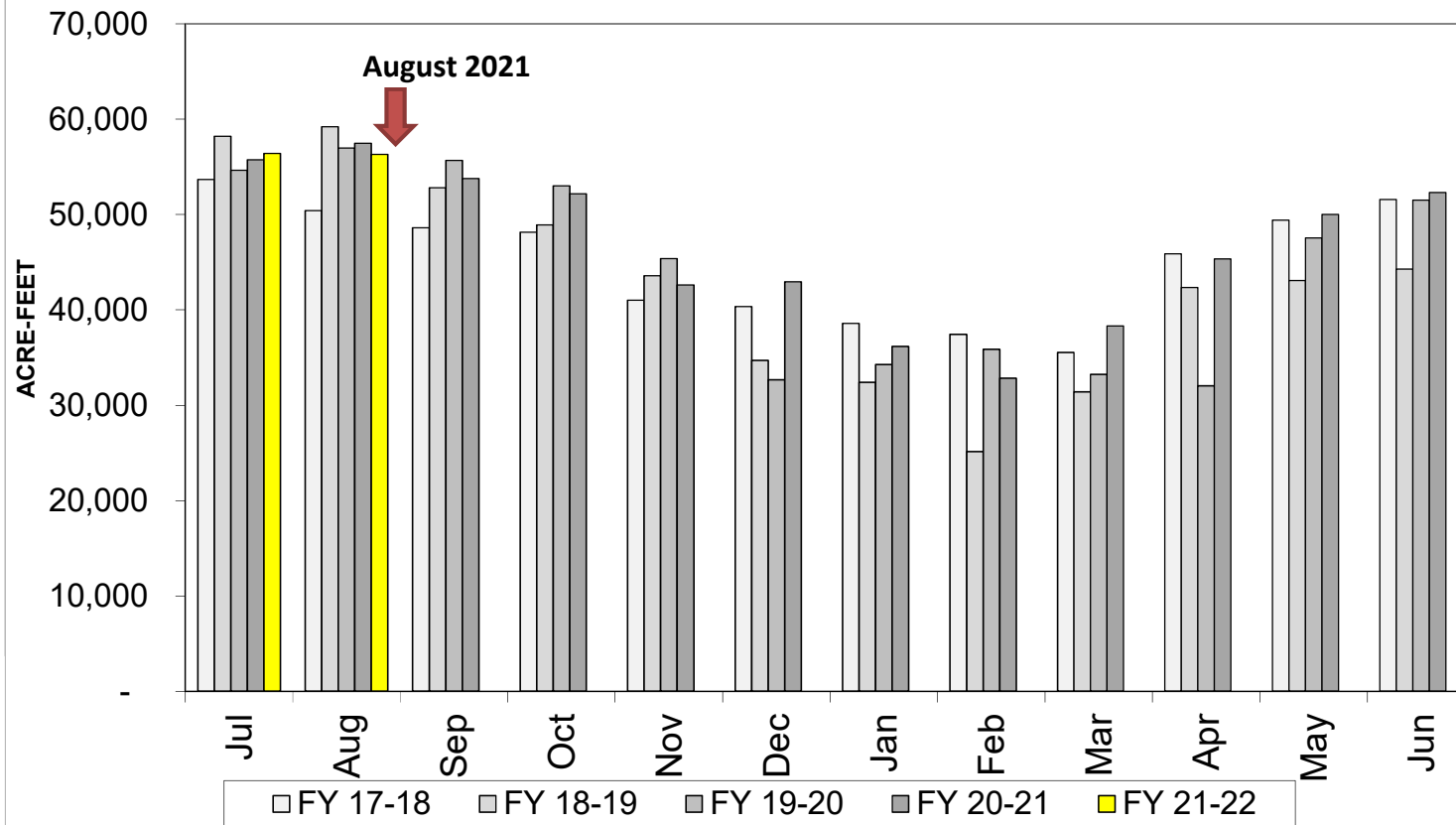
Fig. 1 OC Water Usage, Monthly by Supply with projection to end of fiscal year



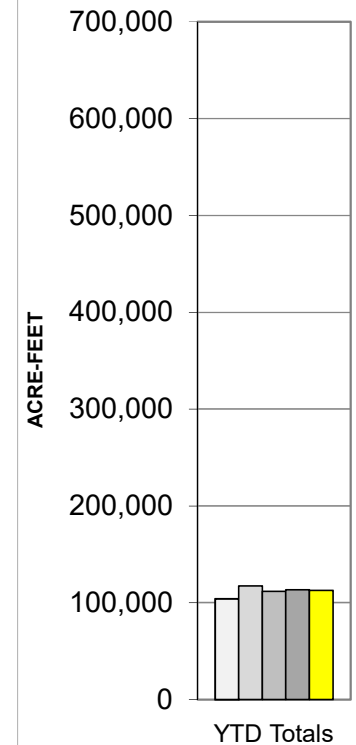
- [1] Imported water for consumptive use. Includes "In-Lieu" deliveries and CUP water extraction. Excludes "Direct Replenishment" deliveries of spreading water and deliveries into Irvine Lake.
- [2] GW for consumptive use only. Excludes In-Lieu water deliveries and CUP water extraction that are counted with Import. BPP in FY '21-22 is 77%.
- [3] MWDOC's estimate of monthly demand is based on the projected 5 Year historical retail water demand and historical monthly demand patterns.
- [4] Total water usage includes IRWD groundwater agricultural use and usage by non-retail water agencies.



Fig. 2 OC Monthly Water Usage [1]: Comparison to Last 4 Fiscal Years

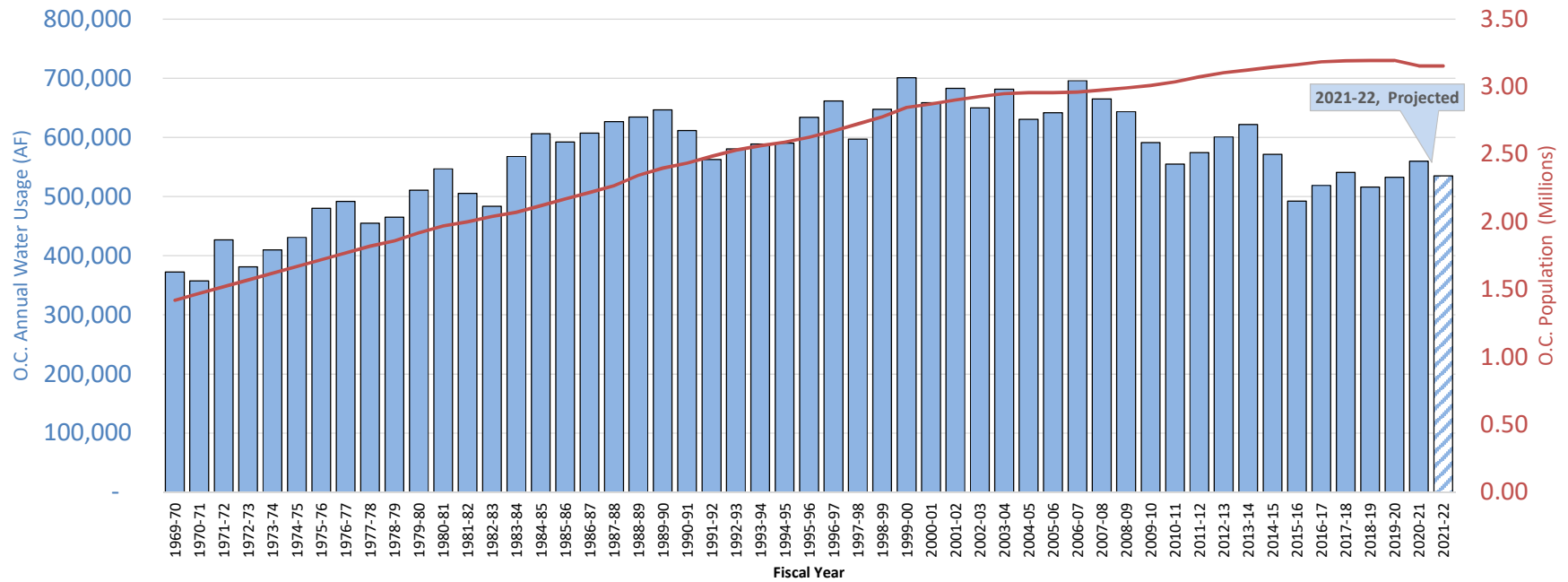


Partial Year Subtotals

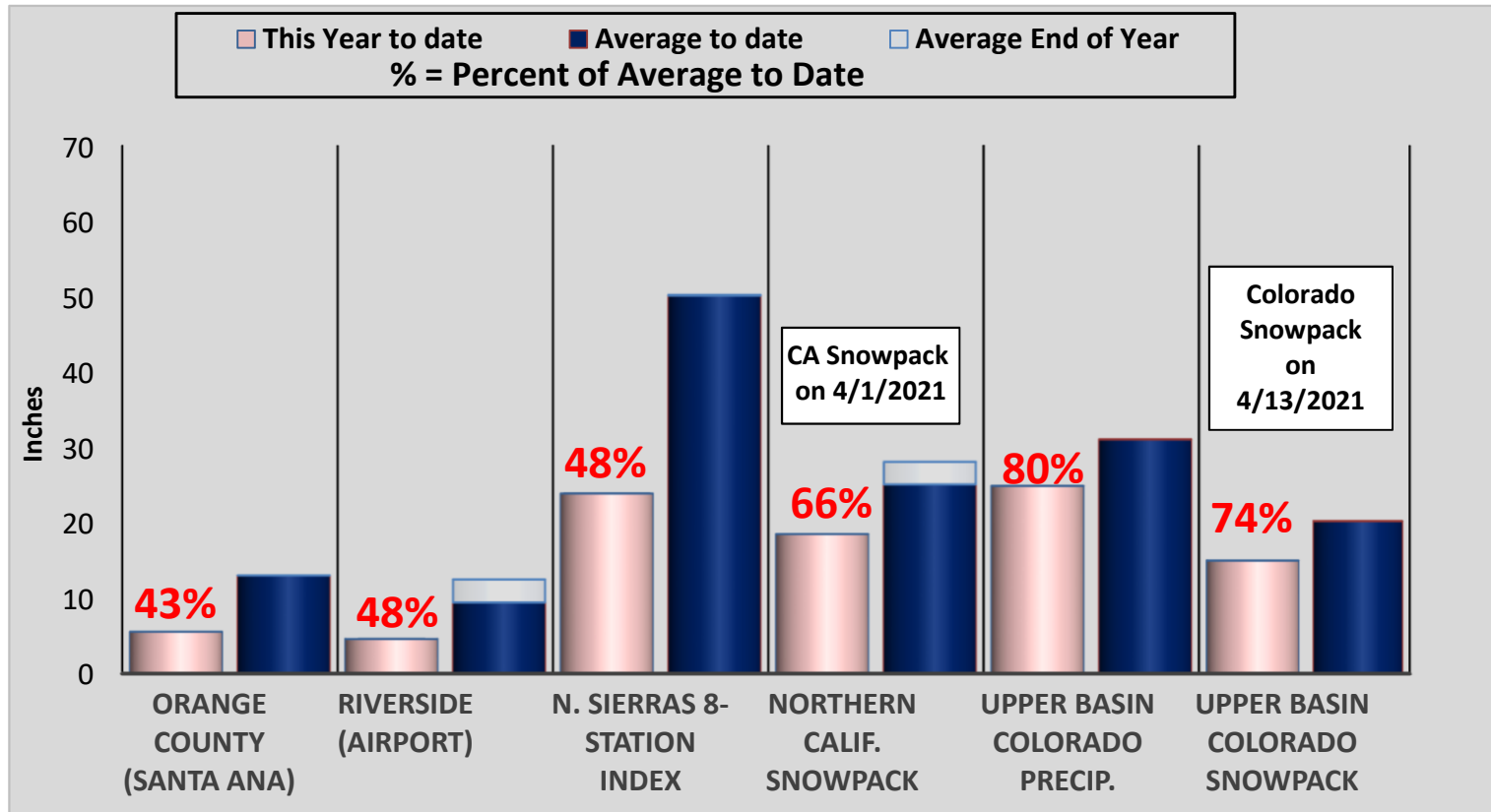


[1] Sum of Imported water for consumptive use (includes "In-Lieu" deliveries; excludes "Direct Replenishment" and "Barrier Replenishment") and Local water for consumptive use (includes recycled and non-potable water and excludes GWRS production) Recent months numbers include some estimation.

Orange County Annual M & I Water Usage



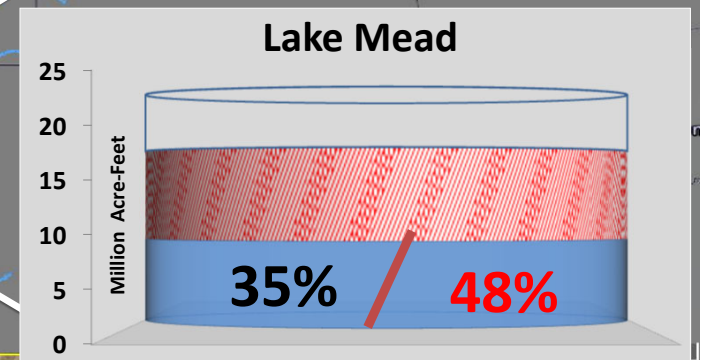
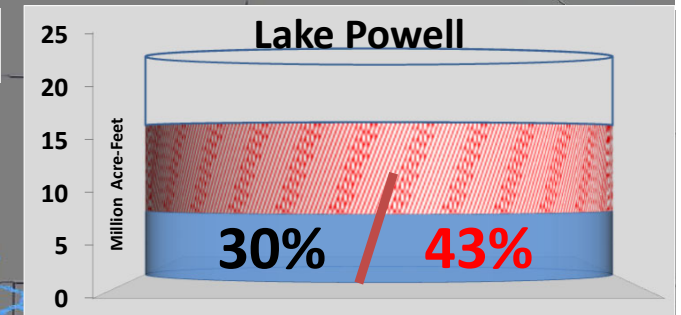
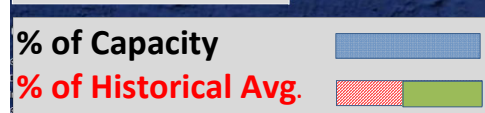
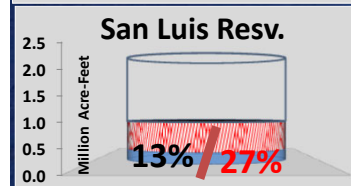
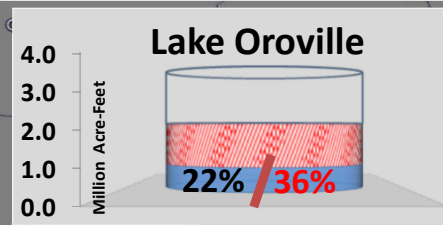
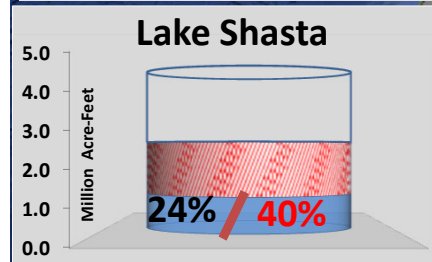
Accumulated Precipitation for the Oct.-Sep. water year, late September 2021



* The date of maximum snowpack accumulation (April 1st in Northern Calif. , April 15th in the Upper Colorado Basin) is used for year to year comparison.

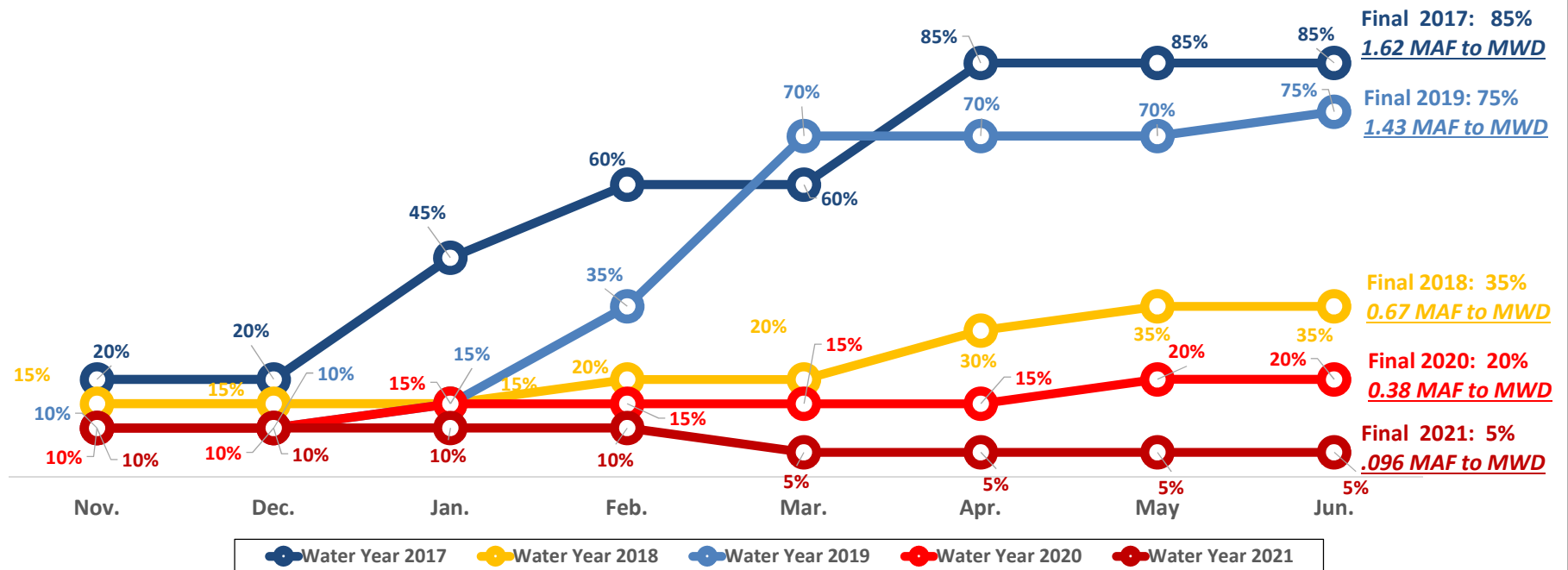
State Water Project, Colorado River, and MWD Reservoir Storage

as of September 27, 2021

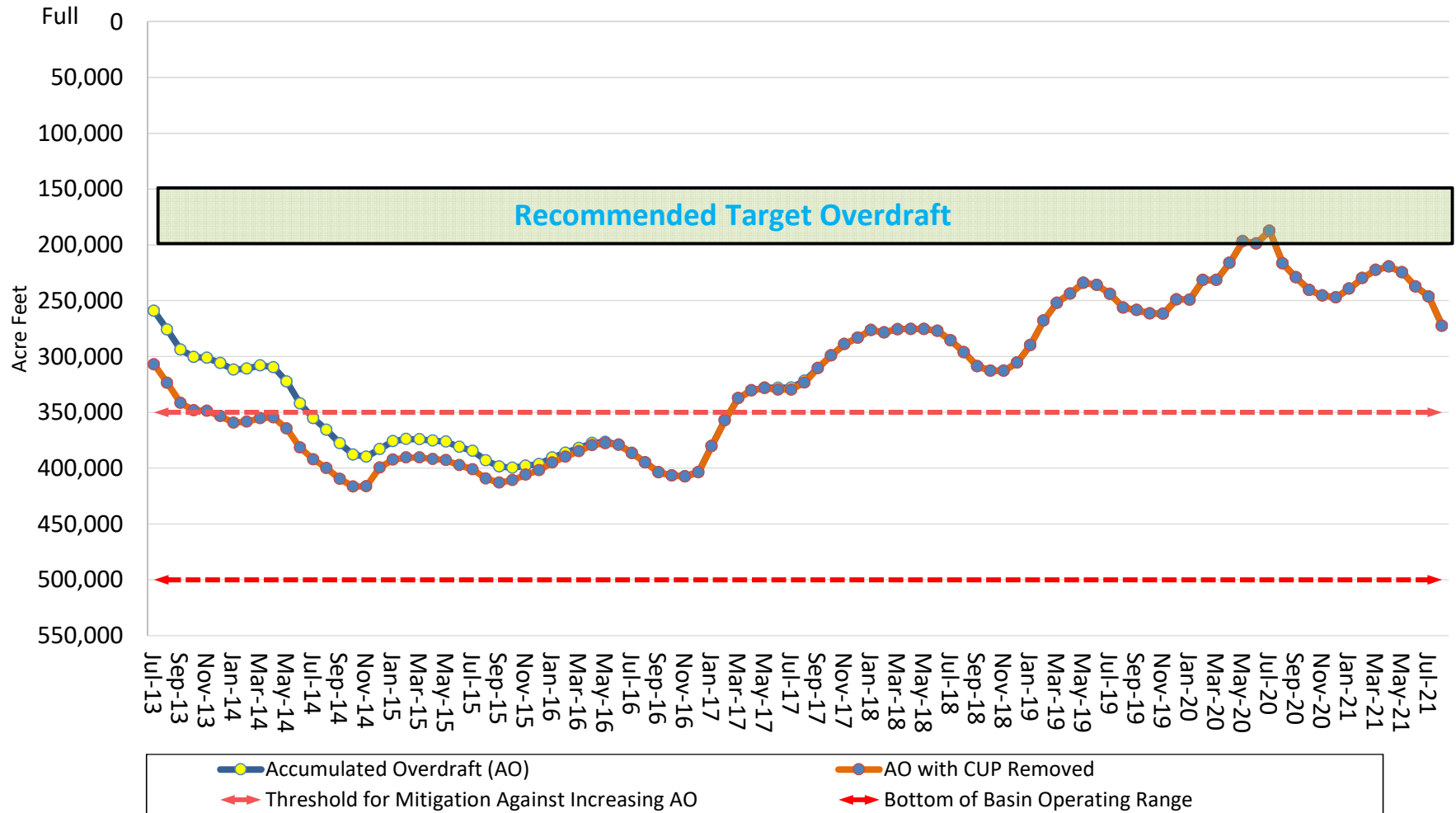


SWP TABLE A ALLOCATION

FOR STATE WATER PROJECT CONTRACTORS



Accumulated Overdraft of the OCWD Groundwater Basin as of August 2021

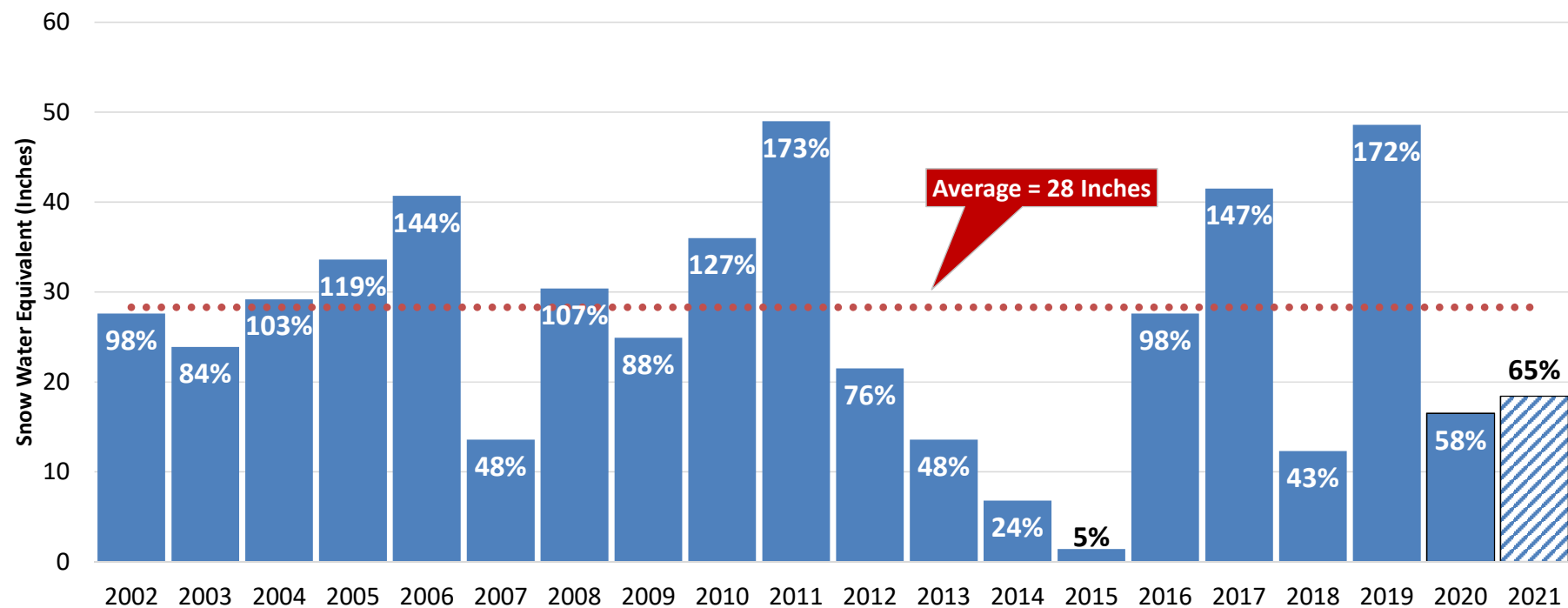


	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
AO (AF)	187,392	216,548	229,124	240,414	245,441	246,998	239,329	229,738	222,470	219,388	224,458	237,335
AO w/CUP removed (AF)	187,392	216,548	229,124	240,414	245,441	246,998	239,329	229,738	222,470	219,388	224,458	237,335
	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22
AO (AF)	246,350	272,443										
AO w/CUP removed (AF)	246,350	272,442										

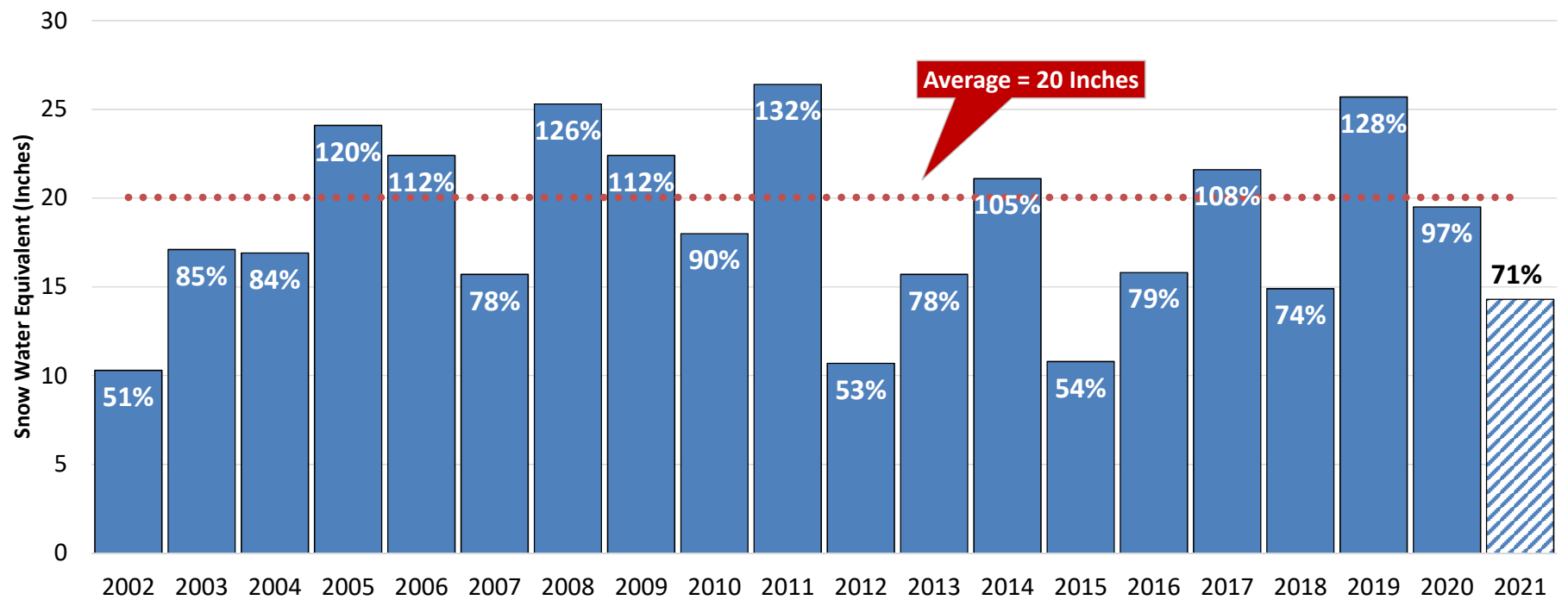
* Source ~ OCWD Monthly Board of Directors Packet, Water Resources Summary



Historical Northern California April 1st Peak Snow Water Equivalent

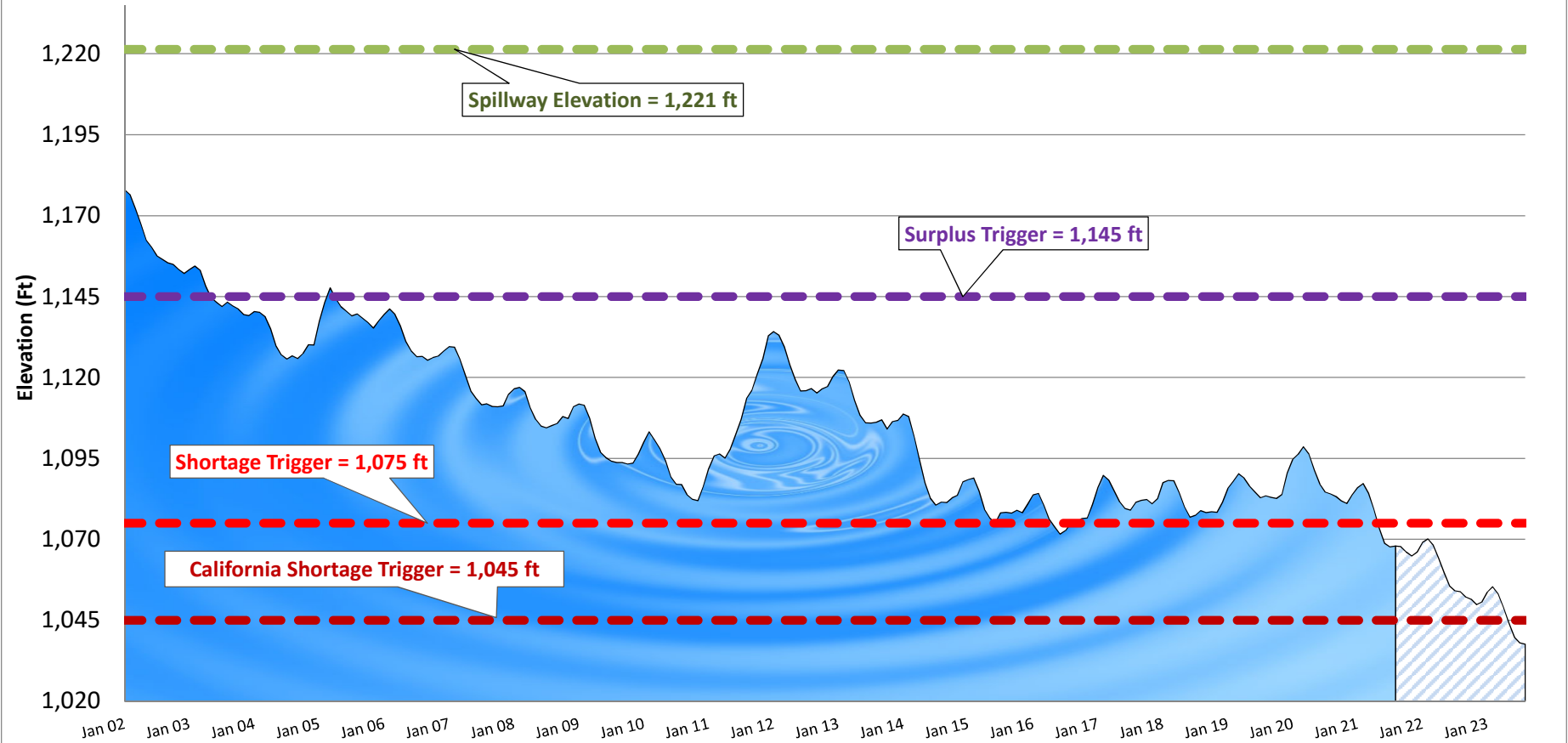


Historical Colorado Basin April 15th Peak Snow Water Equivalent



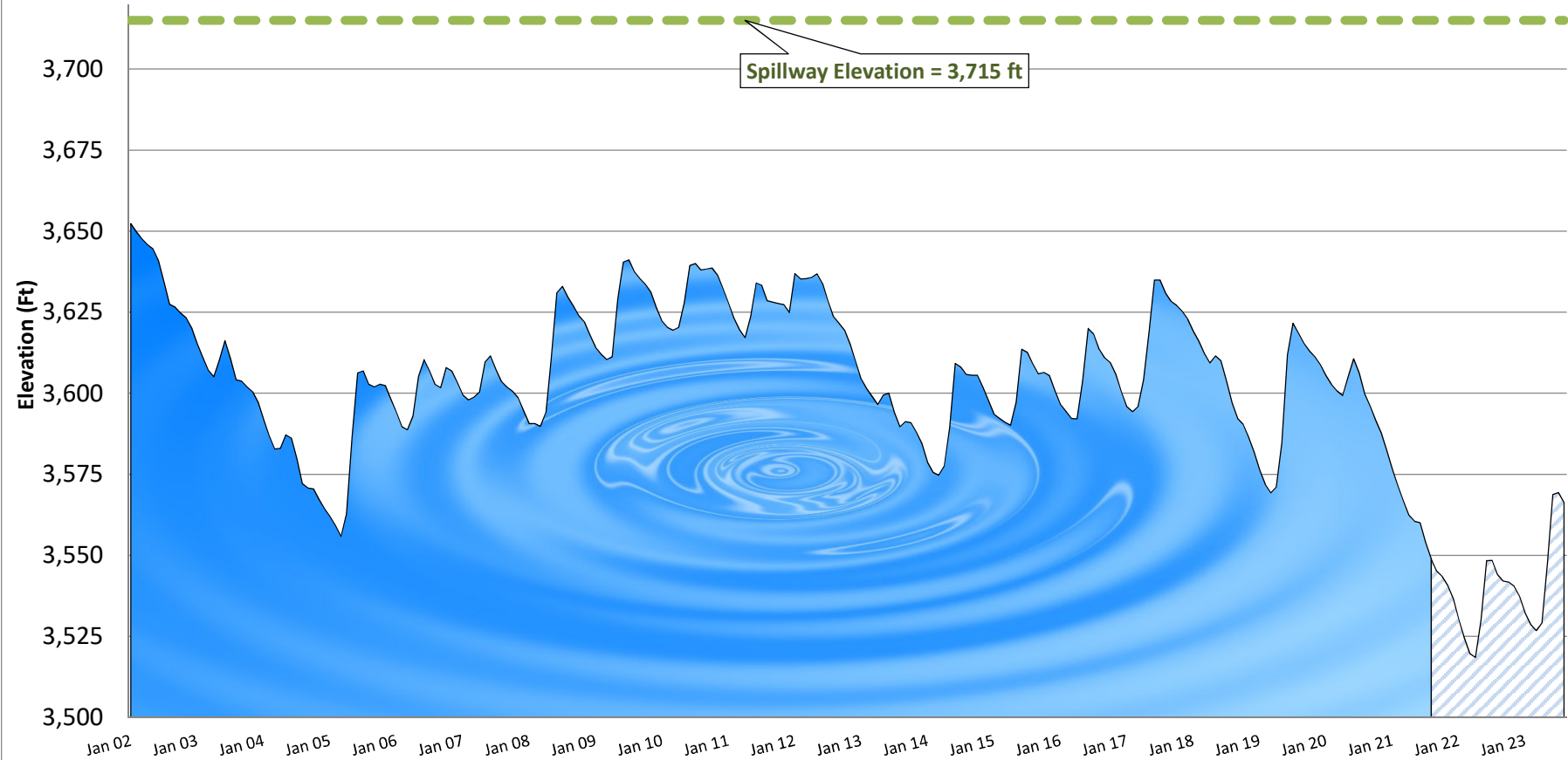
Lake Mead Levels: Historical and Projected projection per USBR 24-Month Study

Projected Historical
CA Shortage



Lake Powell Levels: Historical and Projected projection per USBR 24-Month Study

■ Historical □ Projected



Lake Mead Historical Water Elevation Level

