



Water Supply Report

November 4, 2022

WATER RESOURCES SUMMARY

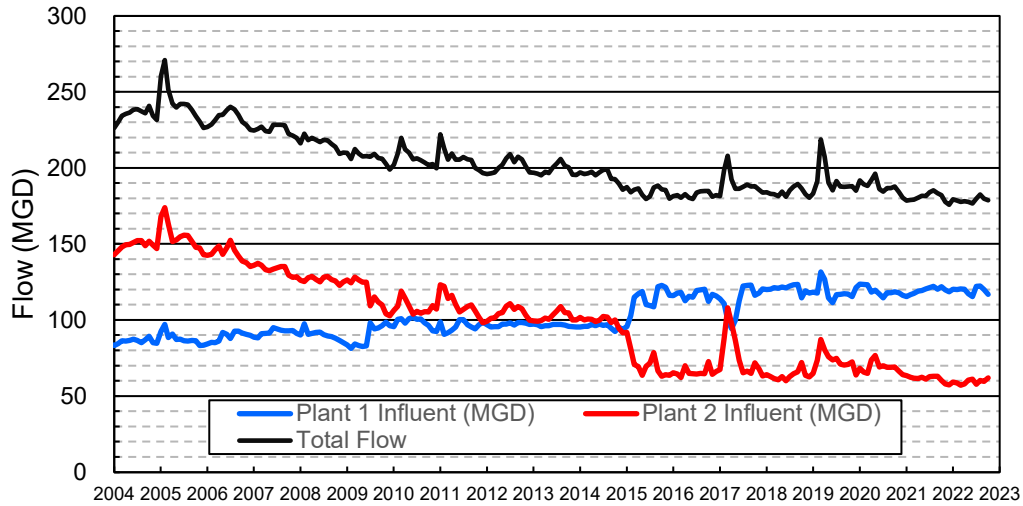
September 2022

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	5,289	14,203	15,385
(accounts for storage to/from recharge facilities)			
GWRS Water to Forebay	4,678	15,327	11,873
GWRS Water to Mid-Basin Injection Wells	649	2,016	1,622
GWRS Water to Talbert Barrier	2,107	6,617	6,306
OC-44 and F. Valley Water to Talbert Barrier	6	6	0
Alamitos Barrier Water	230	726	739
Incidental Recharge (estimated)	1,200	3,500	3,500
Evaporation from Recharge Basins	(197)	(682)	(735)
River Flow Lost to Ocean	<u>0</u>	<u>0</u>	<u>0</u>
Total Groundwater Recharge	13,961	41,713	38,689
WATER PRODUCTION			
Groundwater Production	23,194	70,699	72,511
MWD Storage Program Withdrawals	<u>0</u>	<u>0</u>	<u>0</u>
Total Groundwater Production	23,194	70,699	72,511
BASIN BALANCE			
Change in Groundwater Storage	(9,233)	(28,986)	(33,822)
Change in Groundwater Storage excluding MWD Stored Water	(9,233)	(28,986)	(33,822)
Accumulated Overdraft	-----	286,988	281,824
Accumulated Overdraft excluding MWD Storage	-----	286,988	281,824
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	9,934	32,996	38,218
2. Basin Production Percentage	70.0%	68.2%	65.5%
3. Total Water Demand	34,715	108,468	115,782
4. Total GWRS Production	7,445	23,993	19,818
5. Green Acres Project Water	391	1,398	1,333
6. SAR Water Quality			
- Total Dissolved Solids (TDS) of SAR below Prado Dam (ppm)	508	-----	696
- Total Nitrogen of SAR below Prado Dam (ppm)	2.2	-----	4.5
7. Month-End Water Storage Behind Prado Dam	0	-----	1
8. Month-End Water Storage in Recharge Facilities	7,749	-----	6,664
9. Water Storage Change in Recharge Facilities	(477)	(3,127)	(1,996)
10. Total Artificial Recharge	12,761	38,213	35,189
11. Monthly Mean Temperature at Santa Ana Fire Station (°F)	79.2	-----	73.6
12. Rainfall at FHQ (inches)	0.29	0.29	0.32

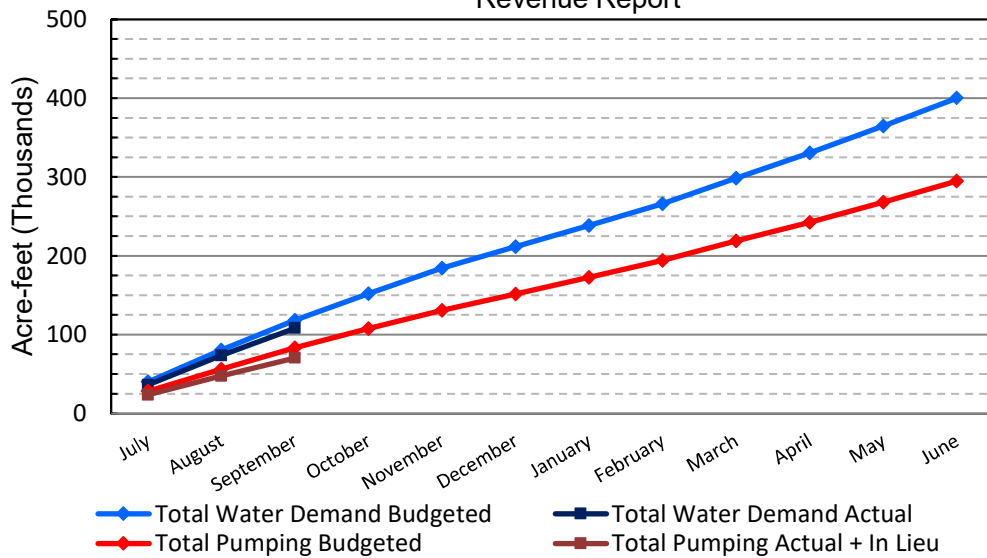
*** Note: Data are preliminary, subject to change

10/13/2022

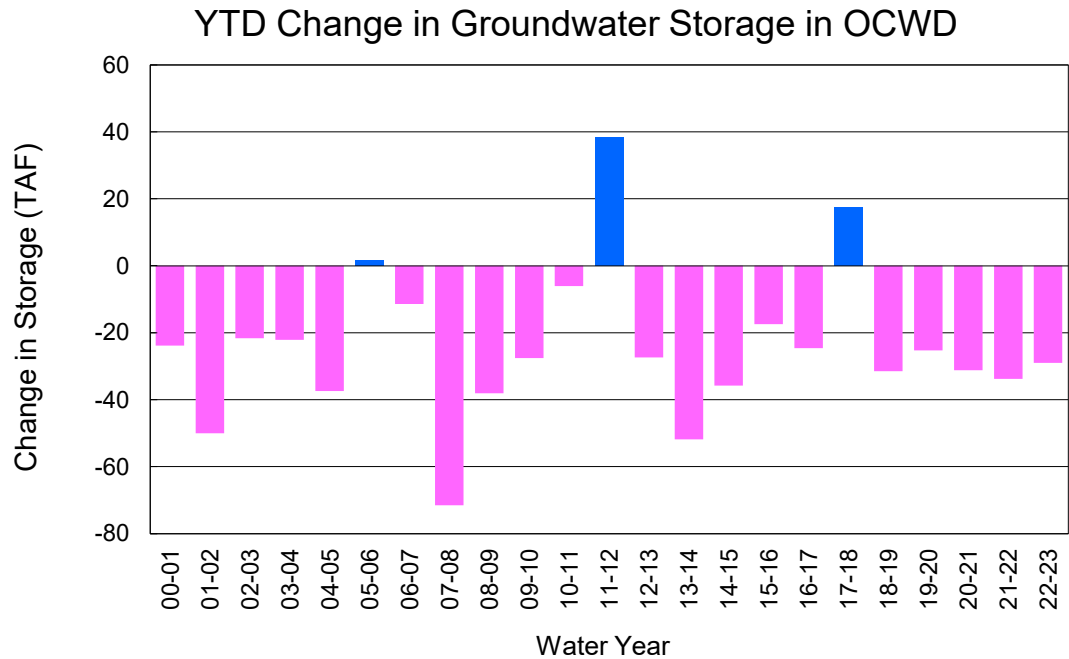
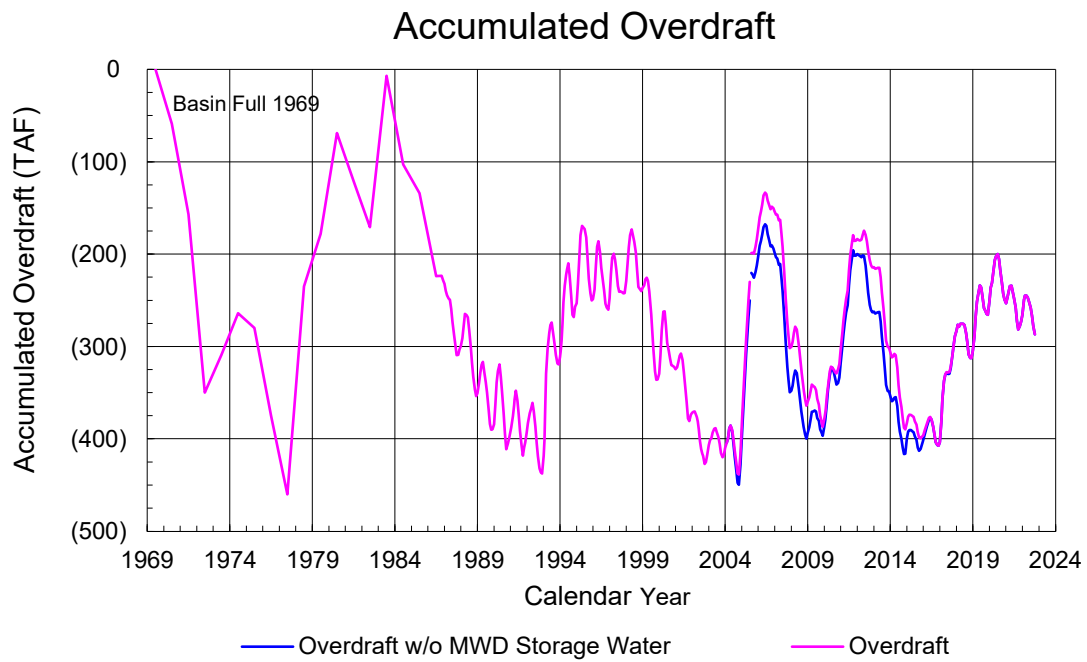
Orange County Sanitation District Influent Flows Report



2022-23 Water Demands/Groundwater Pumping + In Lieu/RA Revenue Report



	Monthly		Accumulated Total for the Year			
	Budget	Actual	Budget	Actual	Difference	Percent
Total Water Demand	37,400	34,715	118,000	108,468	-9,532	91.92%
Total Pumping + In Lieu	27,100	23,194	83,400	70,699	-12,701	84.77%
RA Revenue	\$12,520,200	\$10,715,594	\$38,530,800	\$32,662,929	-\$5,867,871	84.77%



PRODUCERS WATER USAGE SUMMARY

September 2022

(AF except BPP)

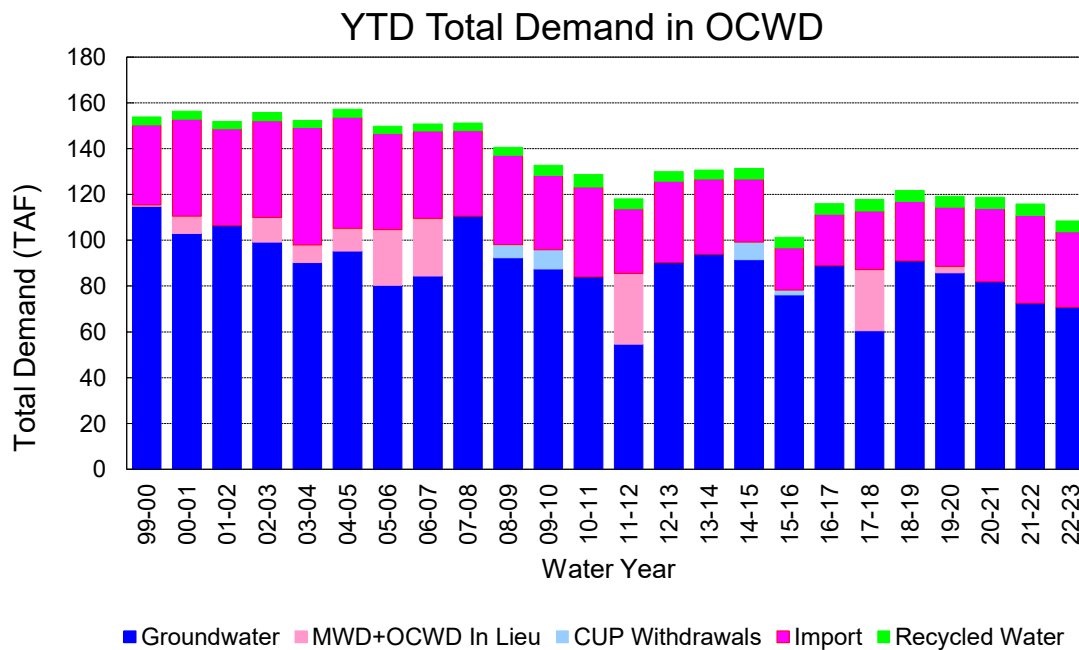
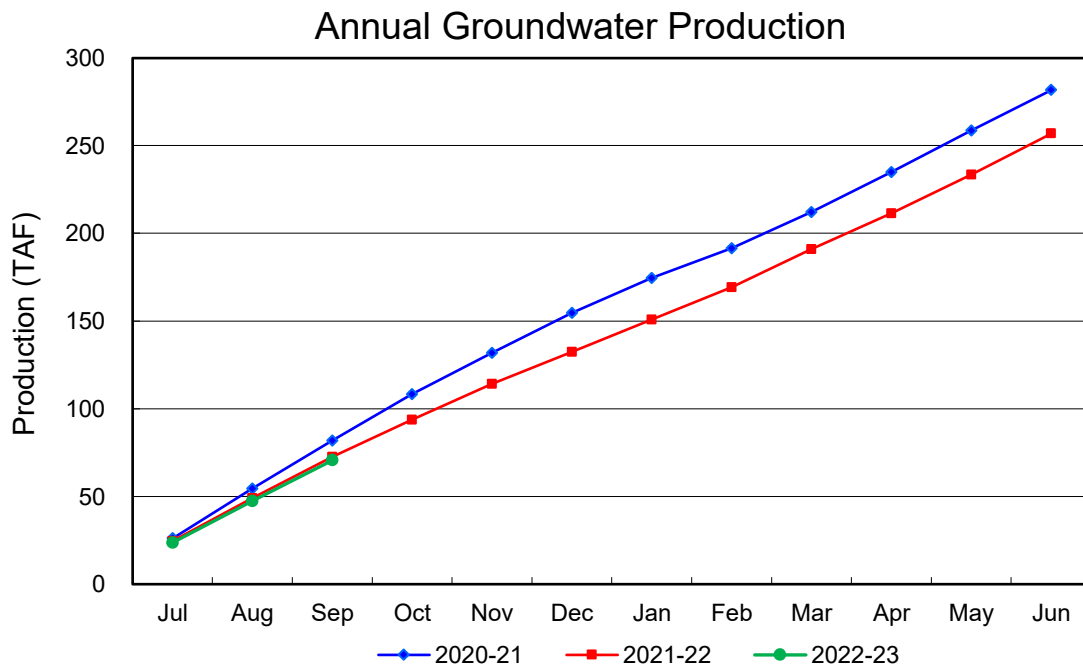
WATER AGENCY	Ground- water (1)	In Lieu	Reclaimed Water	Total Import (2)	Total Demand	2022-23 YTD Demand	2021-22 YTD Demand	YTD % Diff Demand	SEPT 2022 BPP	2022-23 YTD BPP	2021-22 YTD BPP
Anaheim	1,366	0	0	3,776	5,142	15,871	16,895	94%	26.6%	27.3%	29.0%
Buena Park	971	0	0	205	1,176	3,775	3,952	96%	82.6%	82.1%	79.9%
East Orange County	0	0	0	81	81	253	292	87%	0.1%	0.2%	0.3%
Fountain Valley	776	0	121	0	897	2,876	3,092	93%	100.0%	100.0%	100.0%
Fullerton	1,667	0	0	531	2,199	6,878	7,364	93%	75.8%	75.5%	76.8%
Garden Grove	1,314	0	0	637	1,951	6,111	6,455	95%	67.4%	63.9%	75.3%
Golden State	1,290	0	0	747	2,038	6,366	6,952	92%	63.3%	62.8%	58.2%
West OC System	1,221	-	-	2	1,223	3,806	4,132	92%	na	na	na
East OC System	70	-	-	745	815	2,560	2,820	91%	na	na	na
Huntington Beach	1,519	0	0	753	2,272	7,168	7,748	93%	66.9%	60.4%	83.7%
Irvine Ranch	3,988	0	1,278	23	5,289	16,320	17,372	94%	99.4%	99.4%	98.0%
DRWF Clear	2,640	-	-	-	2,640	8,063	8,514	95%	na	na	na
DRWF Color	686	-	-	-	686	2,132	1,671	128%	na	na	na
Laguna Beach	0	0	0	287	287	947	958	na	0.0%	0.0%	0.0%
La Palma	157	0	0	0	157	497	455	109%	100.0%	99.3%	87.2%
Mesa Water (MW)	1,463	0	88	0	1,551	4,881	5,104	96%	100.0%	100.0%	100.0%
MW Clear	830	-	-	-	830	2,796	3,234	86%	na	na	na
MW Amber	633	-	-	-	633	1,740	1,518	115%	na	na	na
Newport Beach	1,185	0	68	69	1,322	4,388	4,531	97%	94.5%	91.0%	89.3%
Orange	1,561	0	0	867	2,428	7,430	8,187	91%	64.3%	55.0%	46.0%
OCWD (GAP)	127	0	0	0	127	408	420	97%	100.0%	100.0%	100.0%
Santa Ana	1,828	0	33	1,054	2,915	9,071	9,499	95%	63.4%	63.8%	76.3%
Seal Beach	263	0	0	7	270	854	1,024	83%	97.5%	30.9%	43.4%
Serrano	238	0	0	18	255	827	875	95%	93.1%	90.5%	0.0%
Tustin	470	0	0	514	984	3,081	3,238	95%	47.8%	47.8%	50.8%
Westminster	971	0	0	0	971	2,900	3,126	93%	100.0%	100.0%	100.0%
Yorba Linda	<u>1,525</u>	<u>0</u>	<u>0</u>	<u>351</u>	<u>1,876</u>	<u>5,954</u>	<u>6,222</u>	<u>96%</u>	<u>81.3%</u>	<u>81.1%</u>	<u>0.8%</u>
SUBTOTAL:	22,679	0	1,587	9,921	34,187	106,856	113,763	94%	70.0%	68.2%	65.5%
Other Producers (Est ~3% of Subtotal)	<u>515</u>	<u>0</u>	<u>0</u>	<u>13</u>	<u>528</u>	<u>1,612</u>	<u>2,019</u>	<u>80%</u>			
TOTAL:	23,194	0	1,587	9,934	34,715	108,468	115,782		70.0%	68.2%	65.5%
OCWD (Talbert Barrier)	0		2,107	3	2,110	6,623	6,306				
OCSD (GAP)	na		81	na	81	236	176				

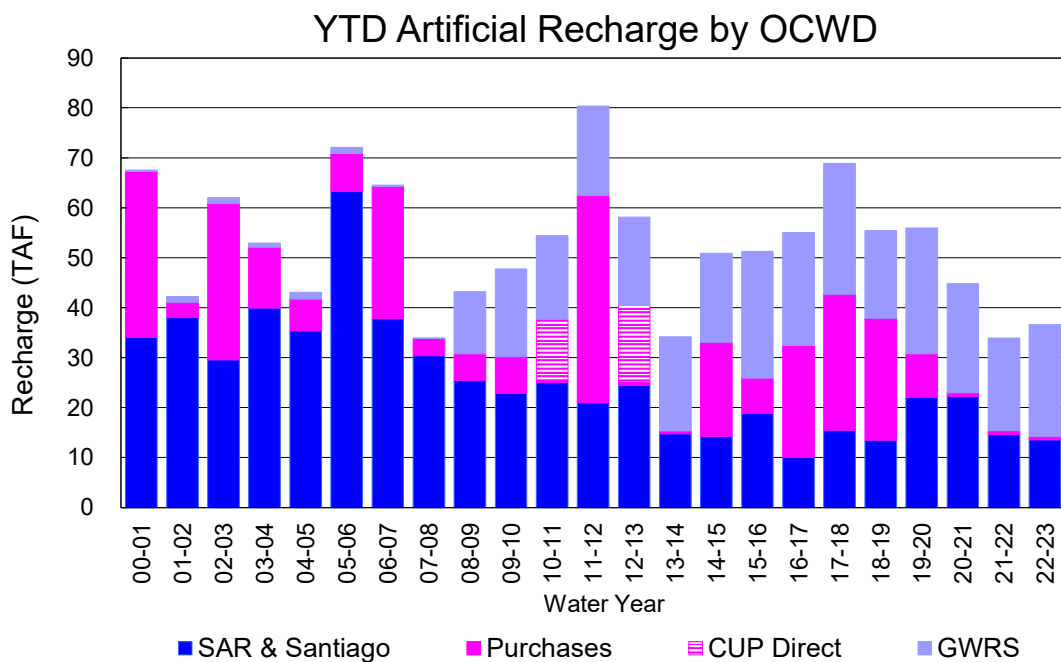
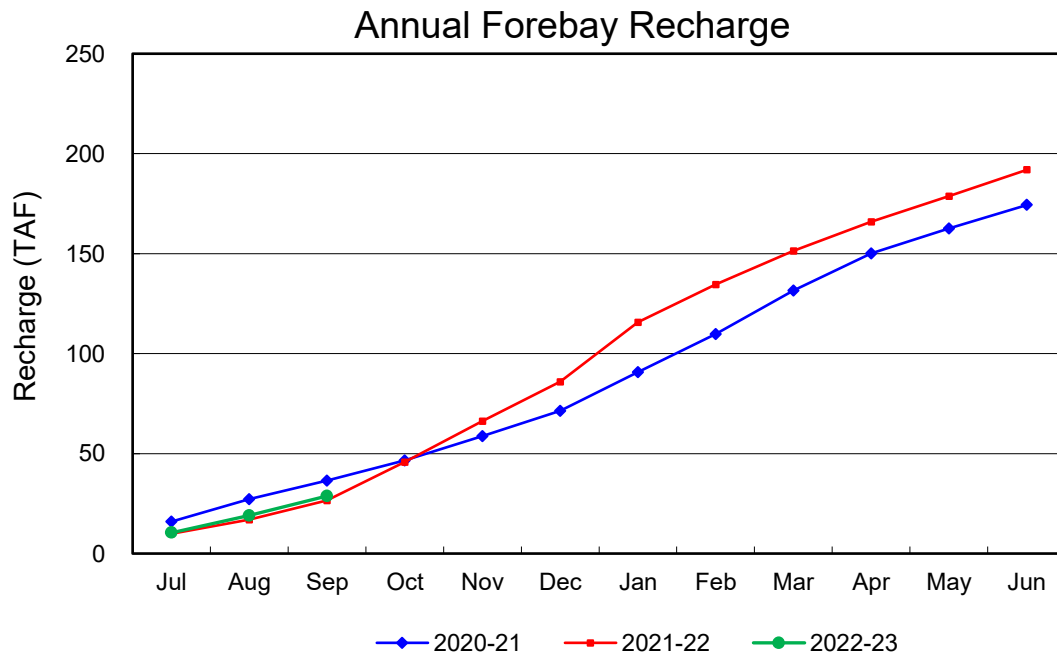
Estimated

(1) Excludes MWD CUP Withdrawals

(2) Includes MWD CUP Withdrawals & In Lieu Water

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RECHARGE AREAS REPORT

September 2022

	Percolation (AF)	Remarks
RIVER SYSTEM	3,064	52 cfs per day average perc
DESILTING SYSTEM	na	SAR
OFF-RIVER SYSTEM	190	SAR
WARNER SYSTEM	1,380	SAR
OLIVE BASIN	na	Passive System
ANAHEIM LAKE	19	SAR
MINI-ANA LAKE	0	
MILLER BASIN	1,004	GWRS
KRAEMER BASIN	0	
LA PALMA BASIN	2,677	GWRS
MIRA LOMA	1,016	GWRS
LA JOLLA BASIN	0	
PLACENTIA BASIN	na	
RAYMOND BASIN	0	
FIVE COVES BASIN	na	
BURRIS BASIN	162	SAR
RIVER VIEW BASIN	0	
FLETCHER BASIN	0	
SANTIAGO BASINS	259	SAR
SANTIAGO CREEK	0	
TOTALS	9,771	
5-YR AVERAGE	12,276	

FLOWS TO RECHARGE AREAS (AF)	
Imperial Headgates (estimated)	4,774
GWRS	4,679
OC-28 (MWD)	0
OC-28a (MWD)	0
OC-59	0
Est'd local Forebay inflow below Imperial	28
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)	0.29
Precip direct to open water surfaces	10
TOTAL INFLOW	9,491

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	5.92
Est'd evaporative losses	197
TOTAL LOSSES	197

STORAGE CHANGES (AF)			
Facility	Begin	End	Net
Deep basins	5,105	4,887	-218
Santiago Pits	3,121	2,862	-259
River			
Off-river			
Irvine Lake			
TOTAL	8,226	7,749	-477

SUMMARY (AF)	
TOTAL INFLOW	9,491
TOTAL LOSSES	197
STORAGE CHANGE	-477
CALC'D PERCOLATION	9,771

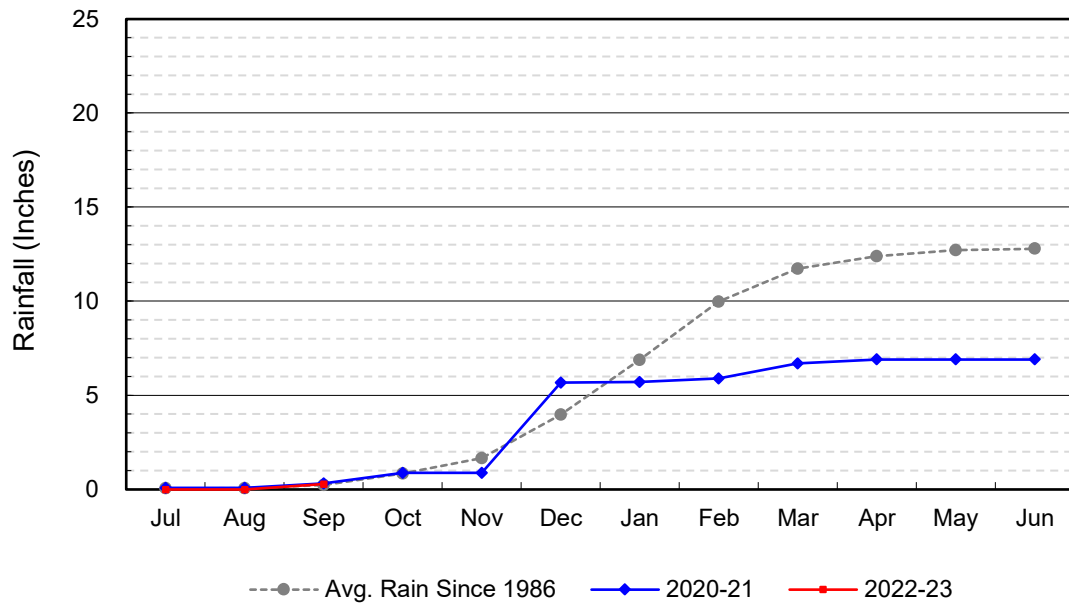
DEEP BASINS MONTHLY STATUS

September 2022

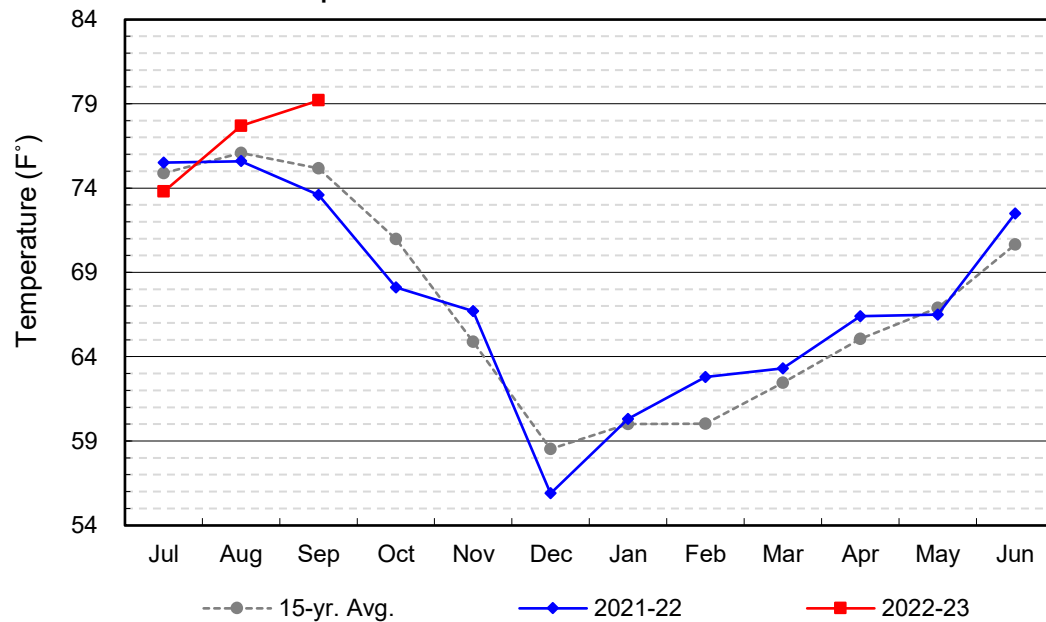
(values in acre-feet)

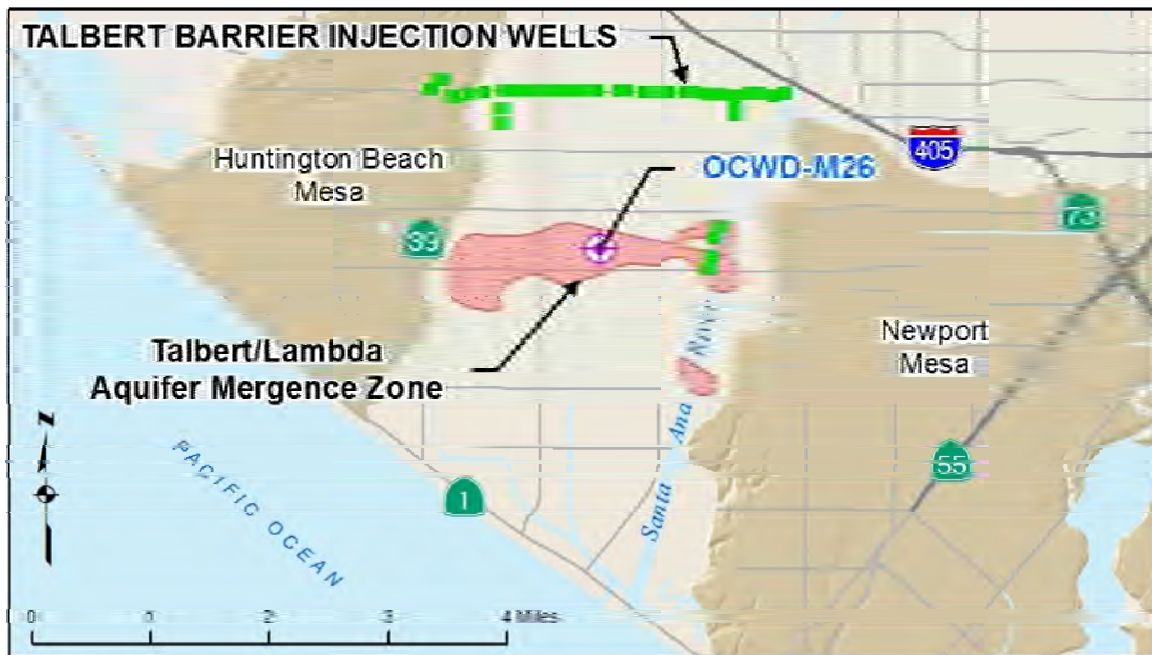
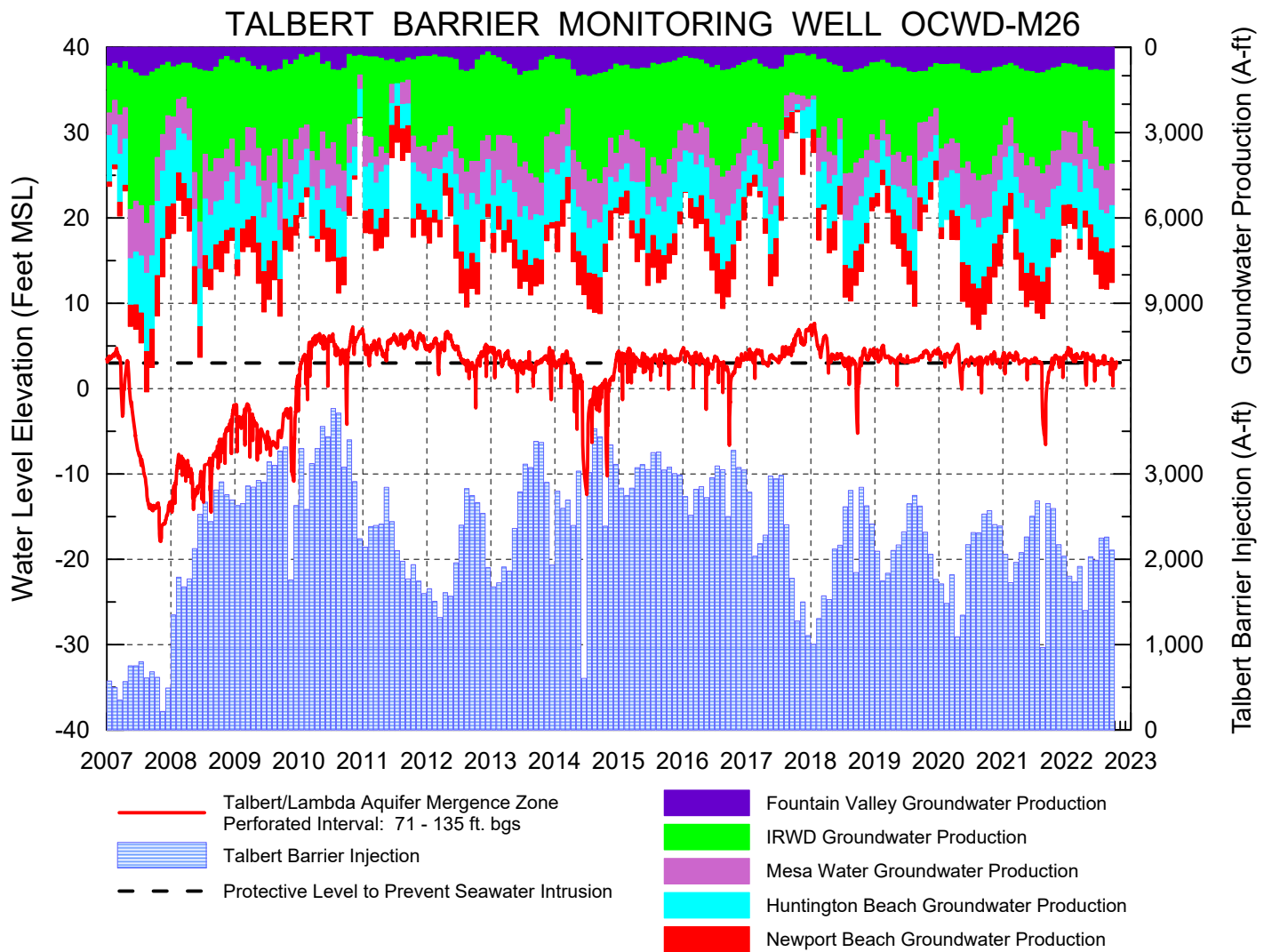
<i>Facility</i>	<i>Storage Start</i>	<i>Storage End</i>	<i>Maximum Storage</i>	<i>Total Perc</i>	<i>Max Perc</i>	<i>Avg Perc</i>	<i>Avg W.S. Elev</i>
Desilting Ponds	220	210	252	na	na	na	na
Fos-Huckleberry	530	526	628	na	na	na	na
Conrock Basin	552	536	661	na	na	na	na
Warner Basins	2,726	2,706	2,900	1,380	na	na	237
Olive Pit	0	3	95	na	na	na	192
Anaheim Lake	0	9	2,300	19	7	1	168
Mini-Anaheim Lk	0	0	10	0	0	0	220
Miller Basin	5	1	350	1,004	117	33	205
Kraemer Basin	0	0	1,055	0	0	0	164
La Palma Basin	42	27	101	2,677	136	89	215
Mira Loma	35	35	53	1,016	56	34	218
La Jolla Basin	0	0	20	0	0	0	199
Placentia Basin	0	0	200	na	na	na	na
Raymond Basin	0	0	200	0	na	na	na
Five Coves Basins	0	0	329	na	na	na	na
Burris Pit	995	834	2,500	162	7	5	154
River View Basin	0	0	8	0	0	0	187
Fletcher Basin	0	0	15	0	0	0	184
Santiago (Bond)	2,369	2,133	8,312	259	16	9	206
Santiago (Blu Dia)	752	729	5,259	-	-	-	-
Totals	8,226	7,749	25,247	6,517			
Prado Dam	0	0	20,000				

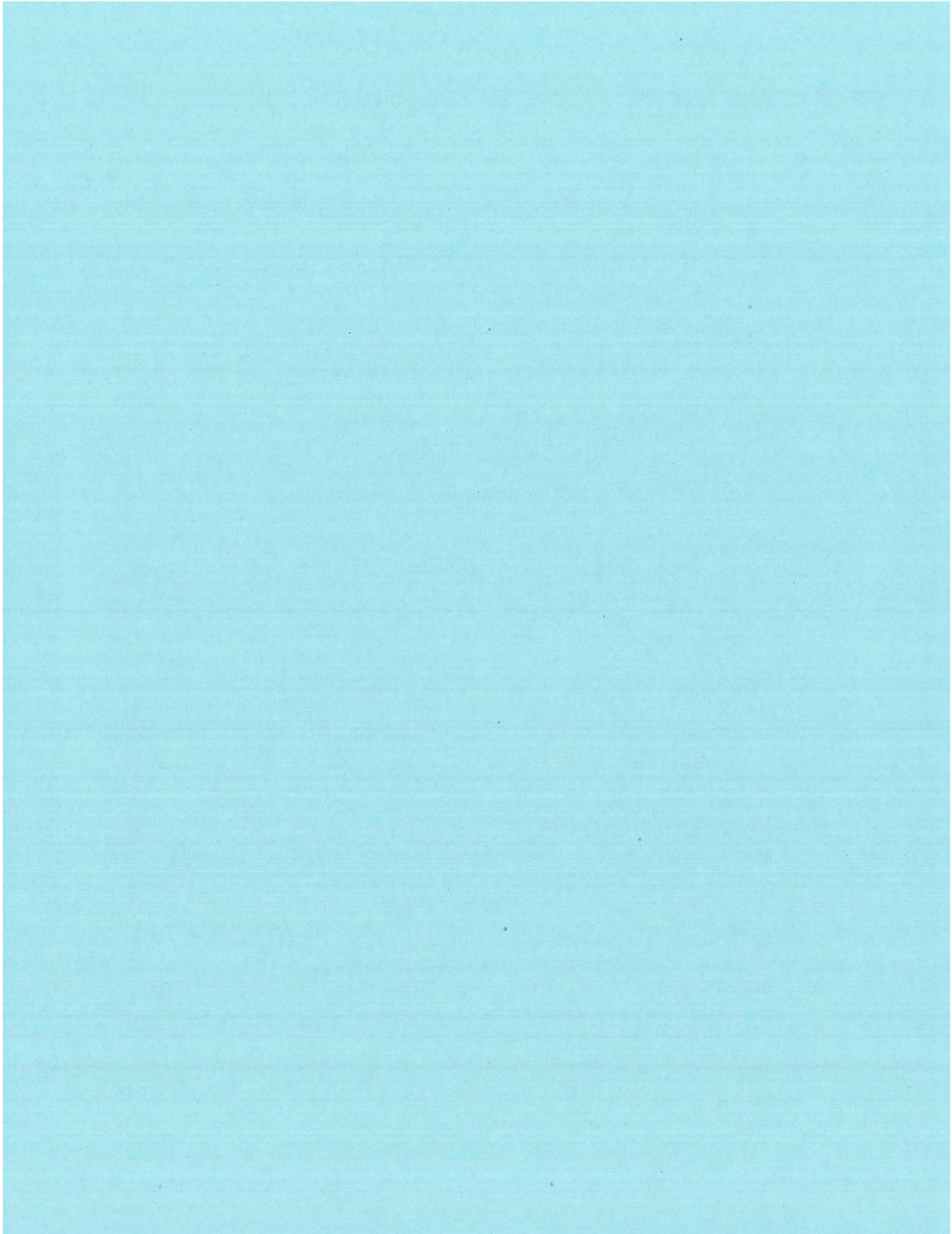
Cumulative Anaheim Field HQ Rainfall



Temperature at Santa Ana Fire Station









Daily Hydrologic and Climate Information Summary (10/31/2022)

Report generated: October 31, 2022 12:08

RESERVOIR STORAGE AS OF 10/30/2022 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	534,886	22	38	668,445	27	47
Shasta Lake	Sacramento	1,417,653	31	58	1,005,125	22	41
Lake Oroville	Feather	1,107,220	31	61	977,444	28	54
New Bullards Bar Res	Yuba	596,129	62	103	423,918	44	73
Folsom Lake	American	291,083	30	69	314,614	32	74
New Melones Res	Stanislaus	584,182	24	45	828,234	35	64
Don Pedro Res	Tuolumne	1,004,223	49	75	994,320	49	75
Lake McClure	Merced	184,060	18	42	196,930	19	45
Millerton Lake	San Joaquin	326,369	63	145	301,835	58	134
Pine Flat Res	Kings	156,177	16	56	206,120	21	74
San Luis Res	(Offstream)	501,838	25	55	271,078	13	30
Terminus	Kaweah	10,534	6	91	22,373	12	194
Success	Tule	4,890	6	76	8,088	10	125
Isabella	Kern	36,409	6	25	50,738	9	35

SNOWPACK WATER CONTENT AS OF 06/13/2022

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	0.40	16	2	-9999.00	-9,999
Central Sierra	0.00	0	0	-9999.00	-9,999
Southern Sierra	0.00	0	0	-9999.00	-9,999
Statewide	0.10	0	0	-9999.00	-9,999

PRECIPITATION INDEX ACCUMULATION AS OF 10/31/2022

Index	Season to Date	% Average to Date	Season to Date Last Year	% Average Last Year
Northern Sierra	0.01	0	12.62	464
Southern Sierra	0.03	1	6.61	327
Tulare Basin	0.00	0	2.61	221

DAILY PRECIPITATION (IN INCHES) FOR SELECTED STATIONS AS OF 10/31/2022

Station	Oct 1 to Date 2021-2022	% Average	Season to Date 2020-2021	% Average Last Year	% Average Oct 1 - Sep 30
Mount Shasta	0.08	4	5.92	274	0
Eureka	0.10	5	3.86	183	0
Redding	0.00	0	5.70	286	0
South Lake Tahoe	0.06	3	8.09	468	0
Sacramento Executive Airport	0.00	0	6.71	746	0
Santa Rosa (Sonoma Co AP)	0.01	1	10.61	553	0
San Francisco	0.00	0	7.04	670	0
Stockton	0.00	0	3.86	501	0
Yosemite					
Monterey	0.00	0	2.34	266	0
Paso Robles	0.00	0	1.56	264	0
Fresno	0.00	0	1.27	212	0
Bakersfield	0.00	0	0.99	354	0
Death Valley	0.00	0	0.30	429	0
Los Angeles	0.01	2	0.71	113	0
Riverside	0.20	77	0.29	112	2
Palm Springs	0.11	26	0.09	21	2
San Diego	0.08	15	1.01	187	1

Orange County Rainfall Report

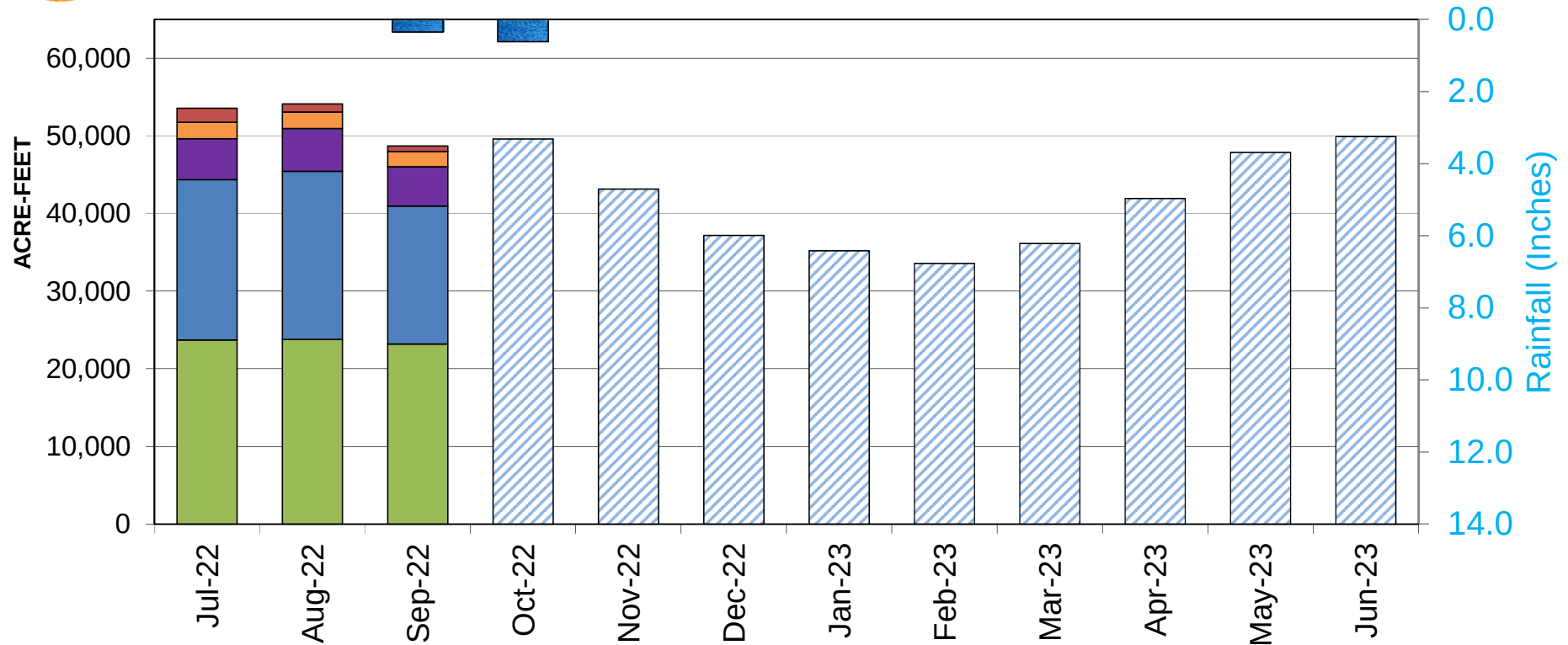
October 31, 2022



MWDOC WATER SUPPLY DATA



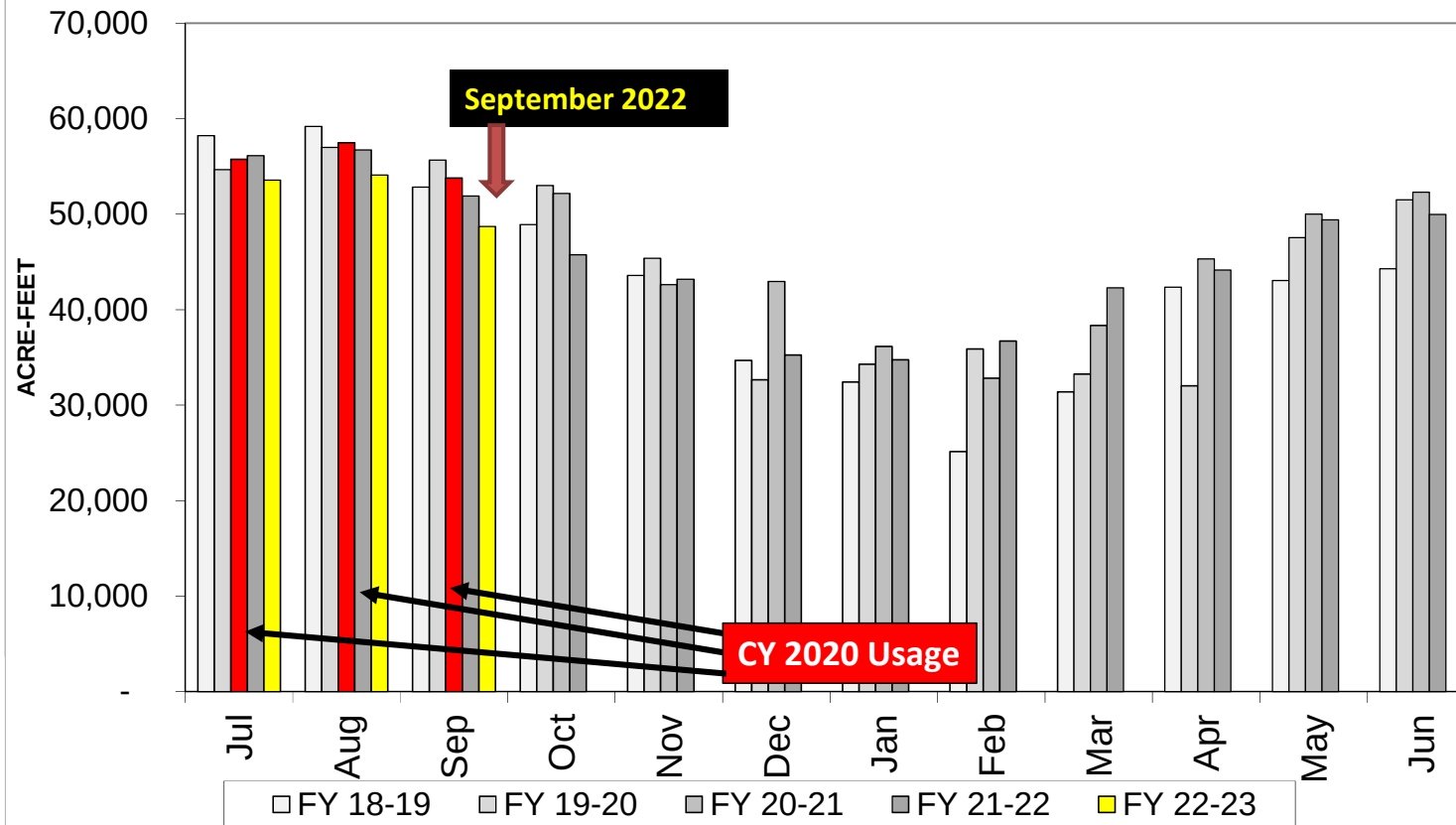
Fig. 1 OC Water Usage, Monthly by Supply with projection to end of fiscal year



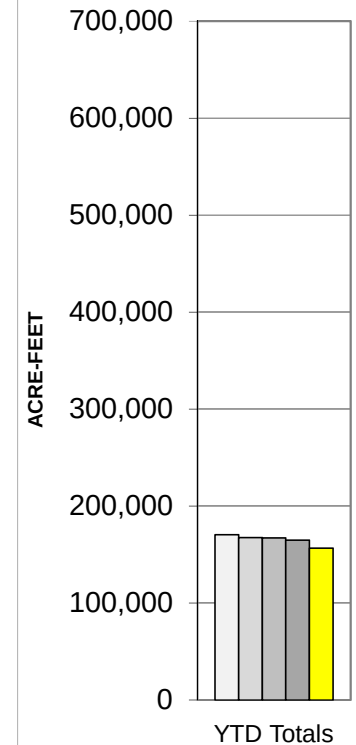
- [1] Imported water for consumptive use. Includes "In-Lieu" deliveries and CUP water extraction. Excludes "Direct Replenishment" deliveries of spreading water and deliveries into Irvine Lake.
- [2] GW for consumptive use only. Excludes In-Lieu water deliveries and CUP water extraction that are counted with Import. BPP in FY '22-23 is 77%.
- [3] MWD OC'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

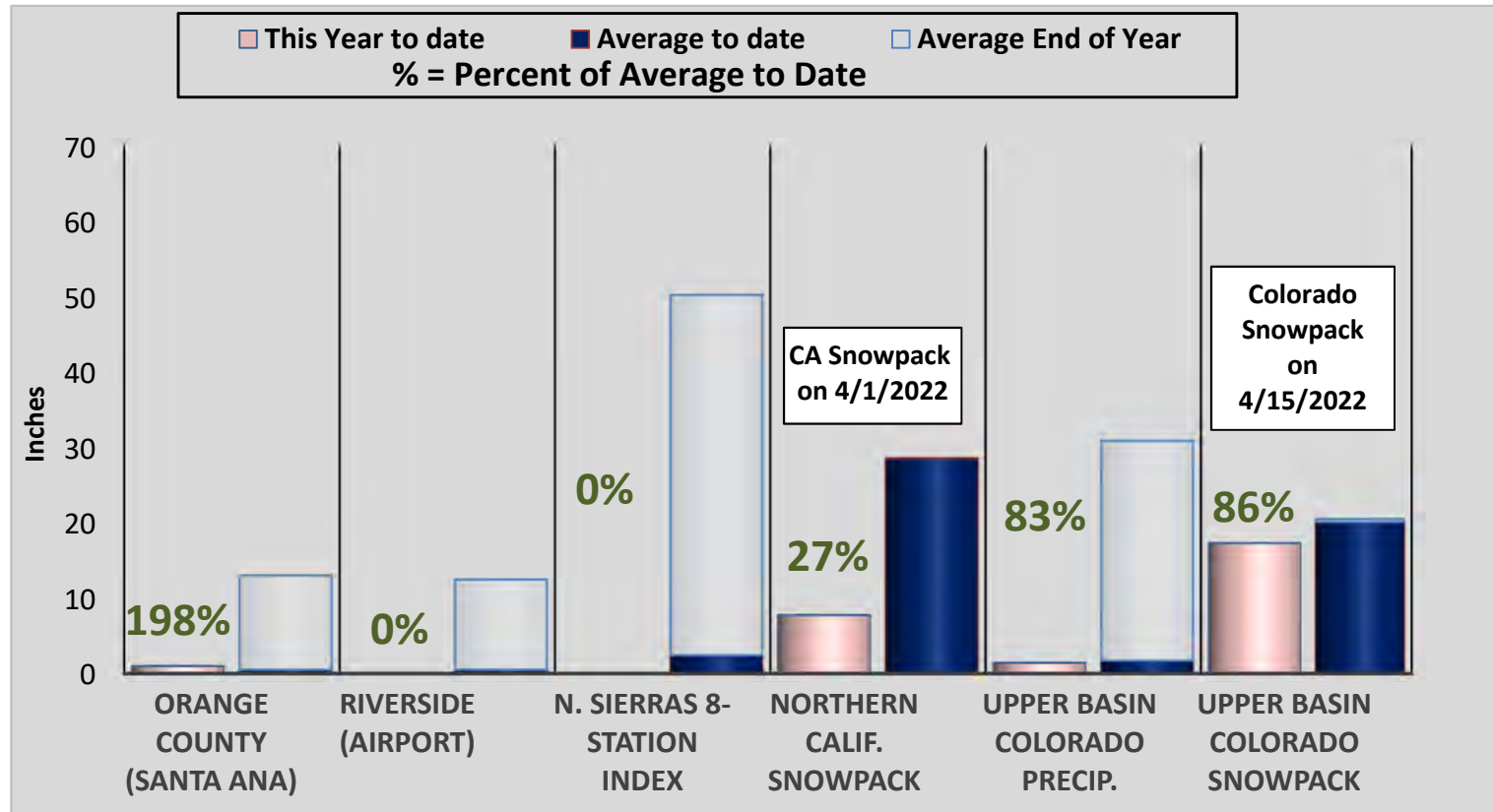


Partial Year Subtotals



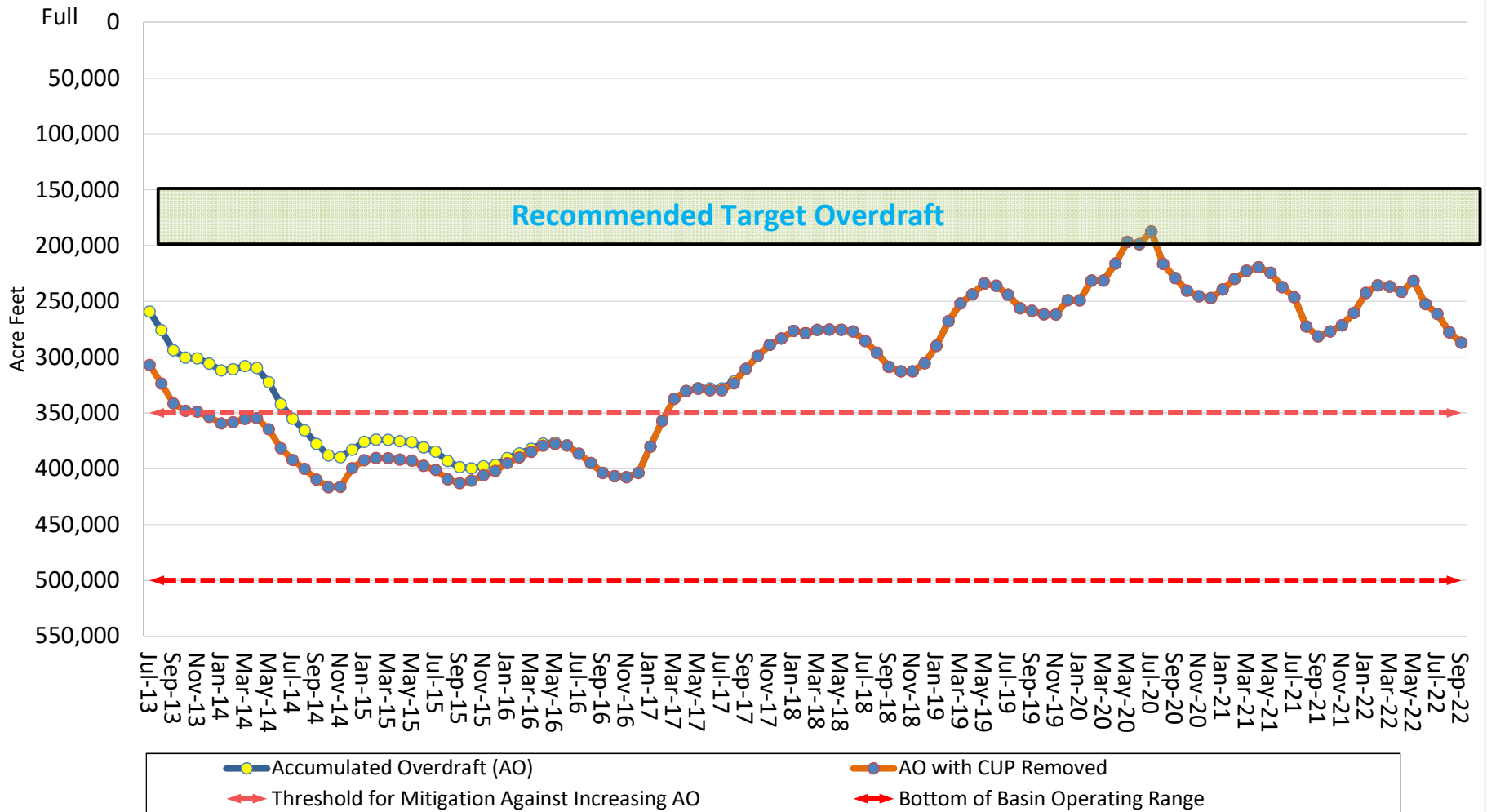
[1] Sum of Imported water for consumptive use (includes "In-Lieu" deliveries; excludes "Direct Replenishment "and "Barrier Replenishment") and Local water for consumptive use (includes recycled and non-potable water and excludes GWRS production) Recent months numbers include some estimation.

Accumulated Precipitation for the Oct.-Sep. water year, late of October 2022



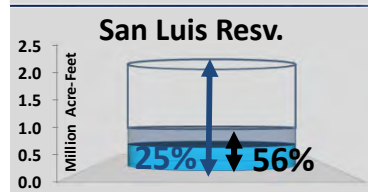
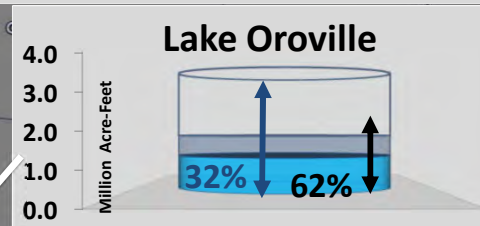
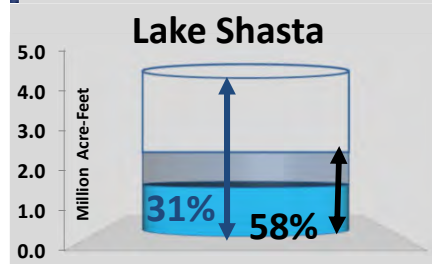
* The date of maximum snowpack accumulation (April 1st in Northern Calif. , April 15th in the Upper Colorado Basin) is used for year to year comparison.

Accumulated Overdraft of the OCWD Groundwater Basin as of September 2022



State Water Project, Colorado River, and MWD Reservoir Storage

as of October 26, 2022

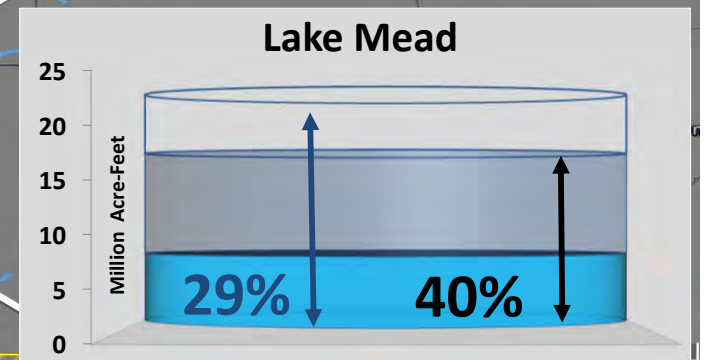
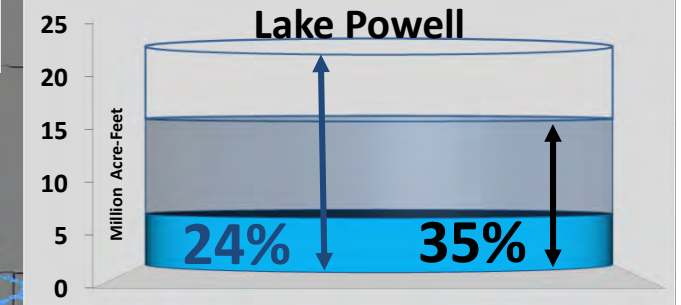


Reservoir Storage
Historical Reservoir Storage

SWP Take Capacity = 0.185 MAF
CRA Take Capacity = 0.121 MAF
In Region Take Capacity = 0.437 MAF

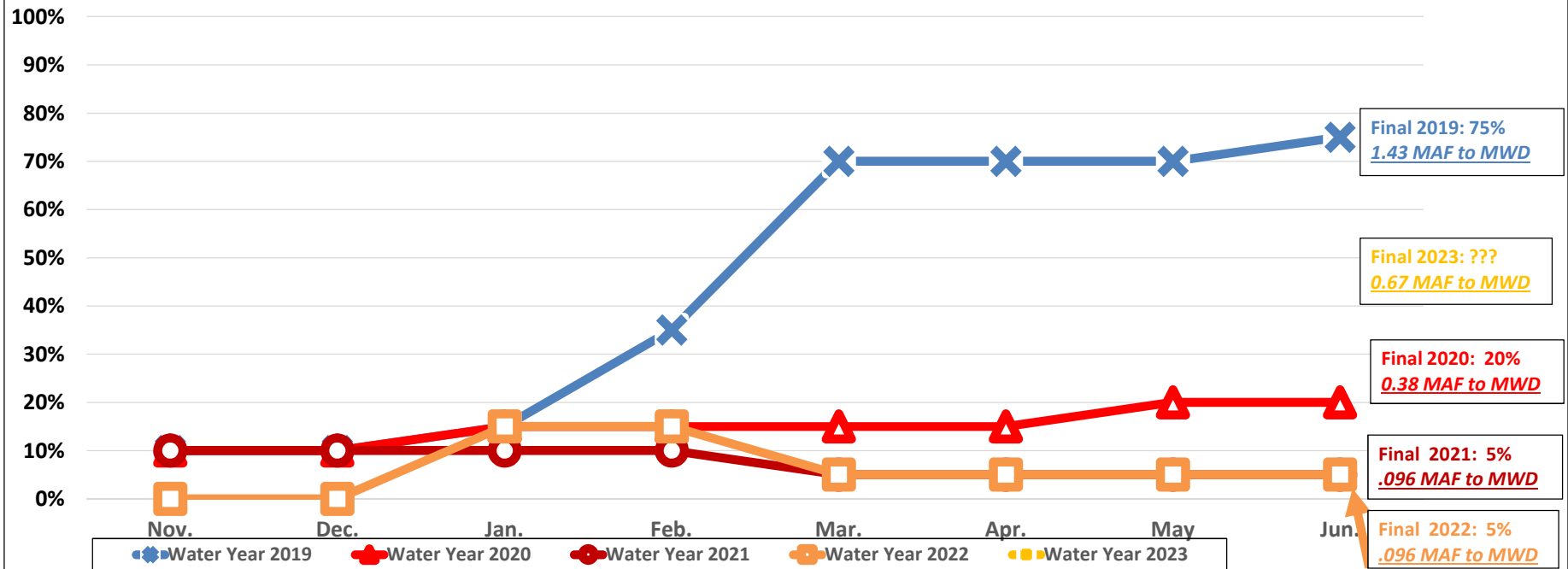


prepared by the Municipal Water District of Orange County
*Number are Subject to Change

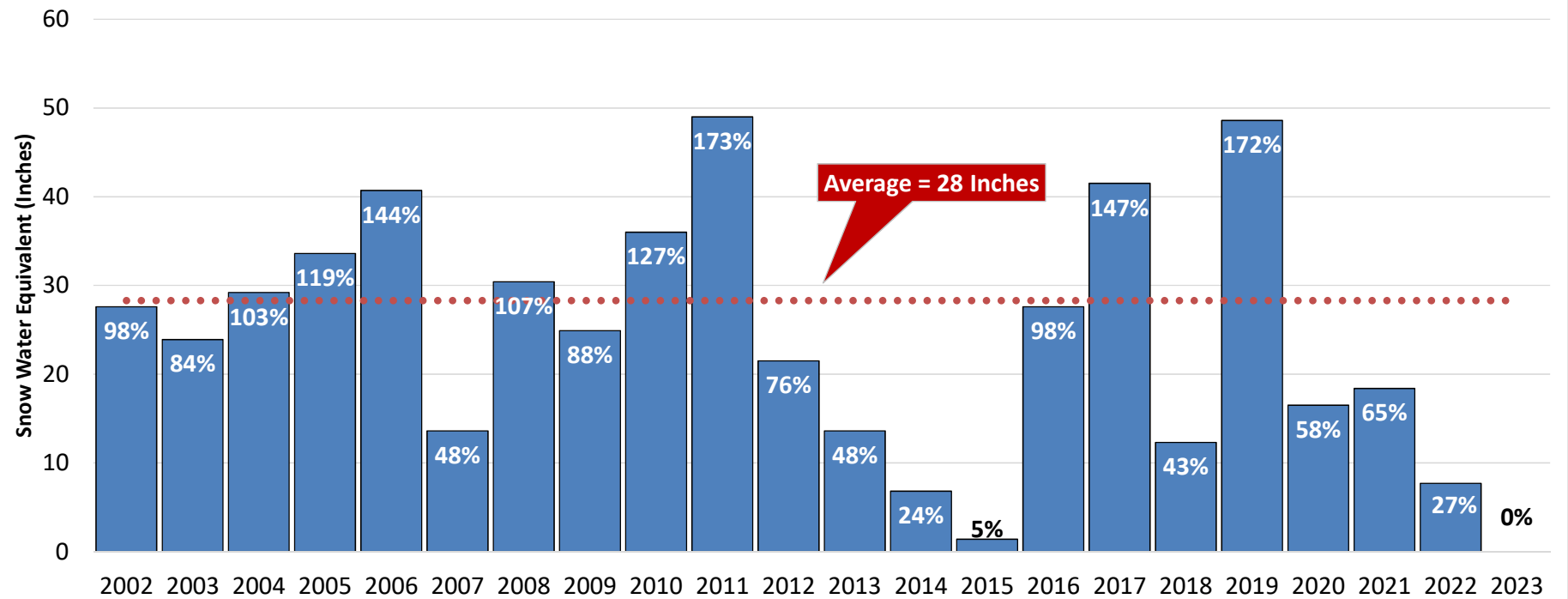


SWP TABLE A ALLOCATION PERCENTAGE

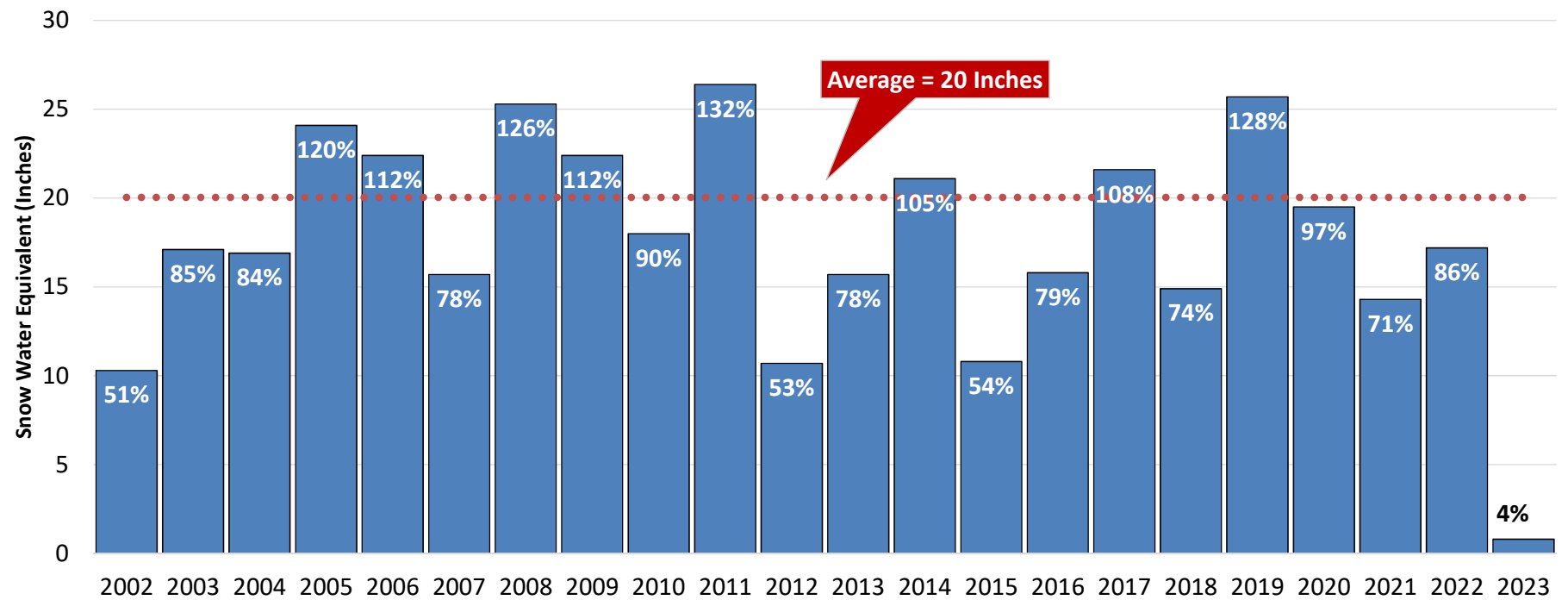
FOR STATE WATER PROJECT CONTRACTORS



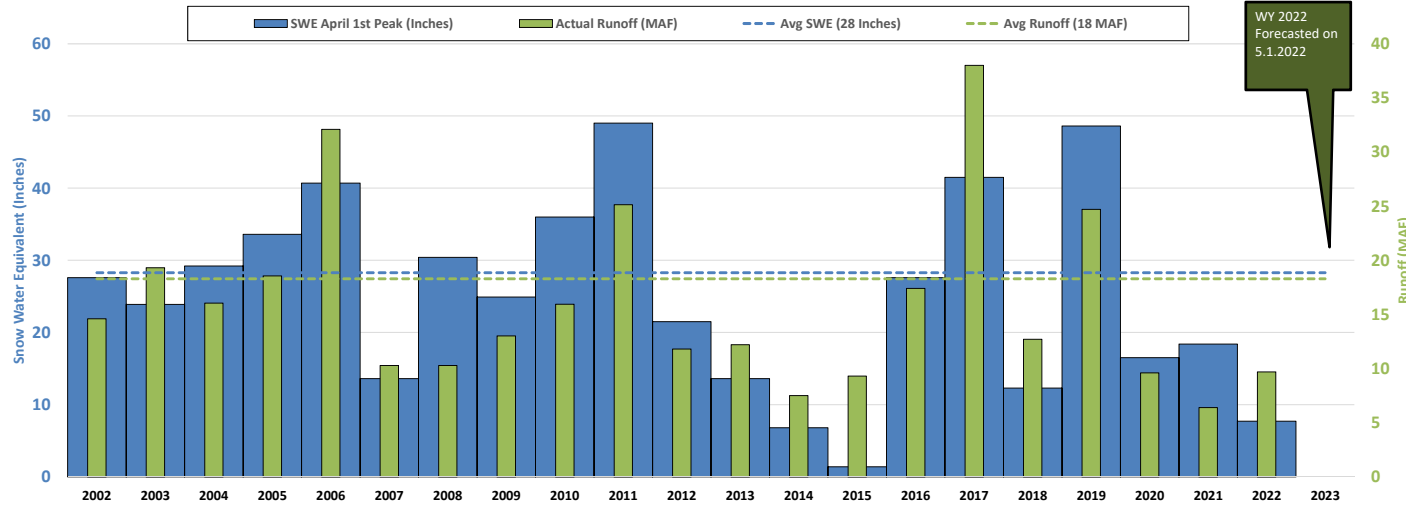
Historical Northern California April 1st Peak Snow Water Equivalent



Historical Colorado Basin April 15th Peak Snow Water Equivalent



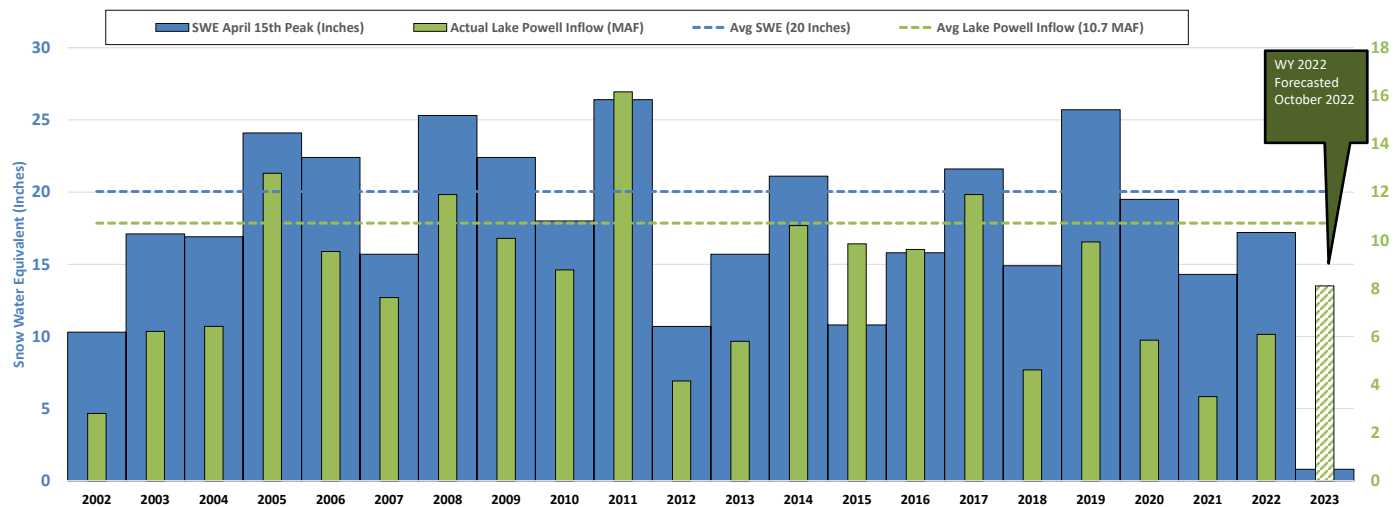
Northern California Historical Snow Water Equivalent (Inches) Vs Runoff (Million AF)



Sacramento River Basin



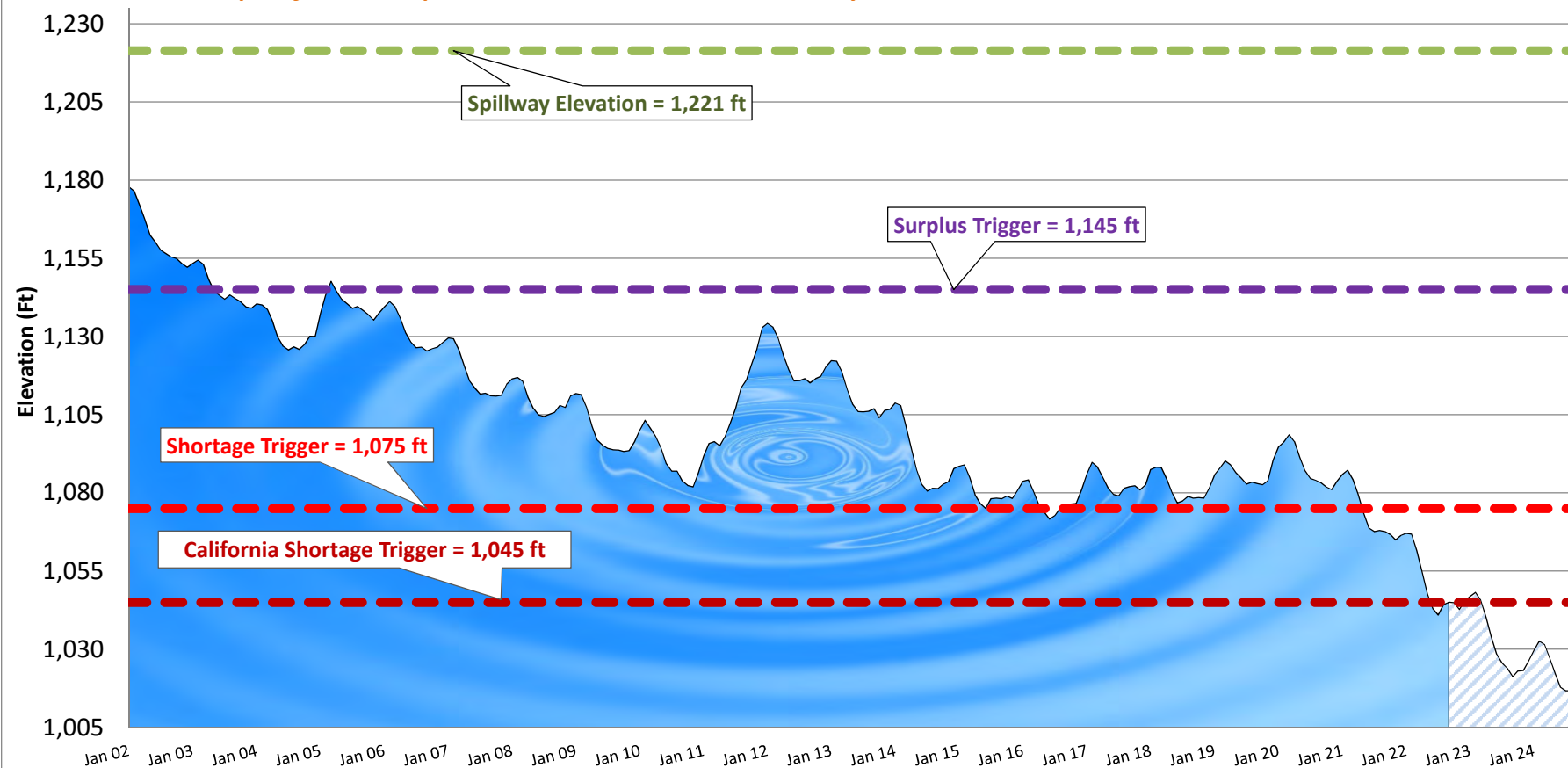
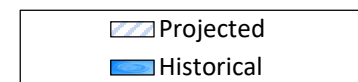
Upper Colorado Historical Snow Water Equivalent (Inches) Vs Runoff (Million AF)



Colorado River Basin

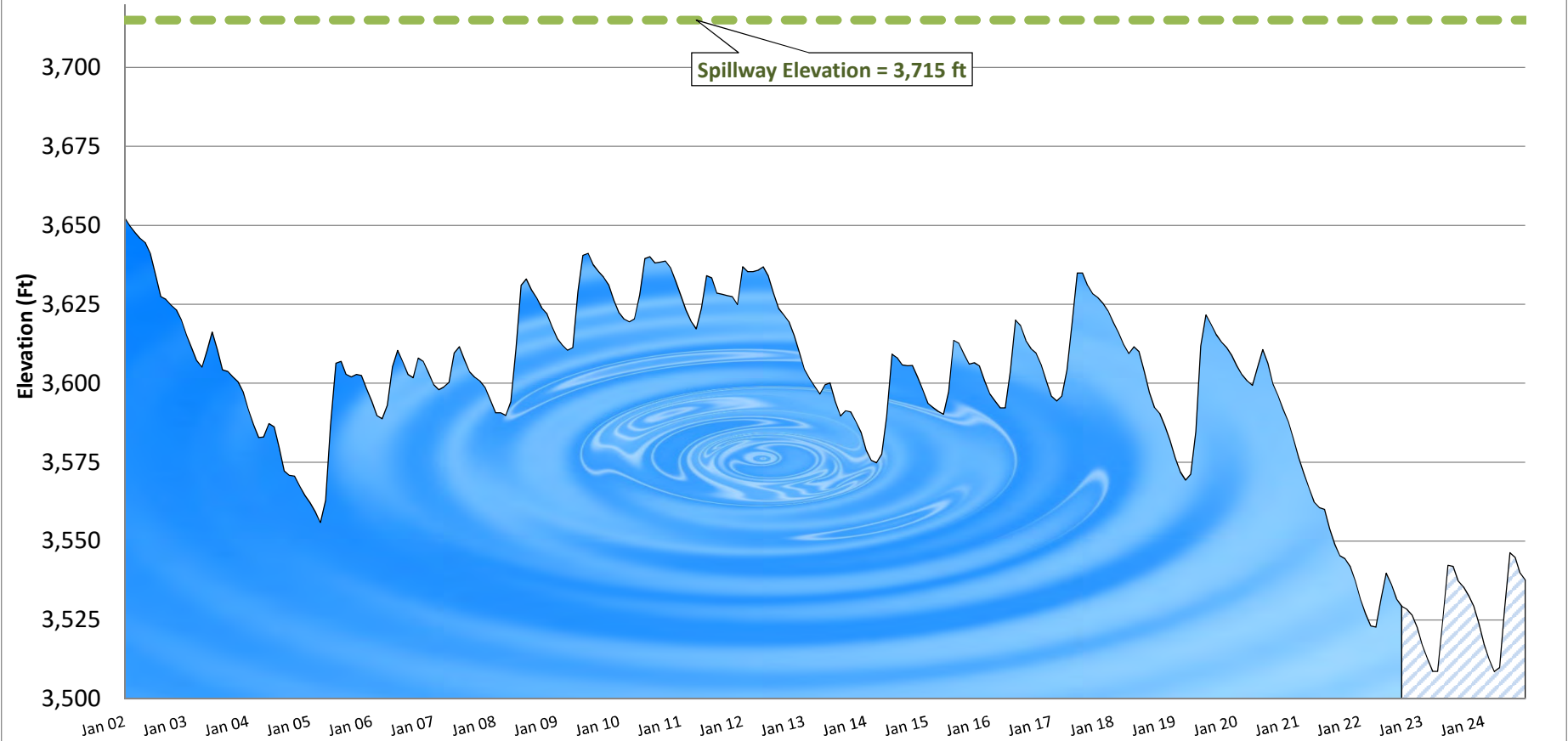


Lake Mead Levels: Historical and Projected projection per USBR 24-Month Study

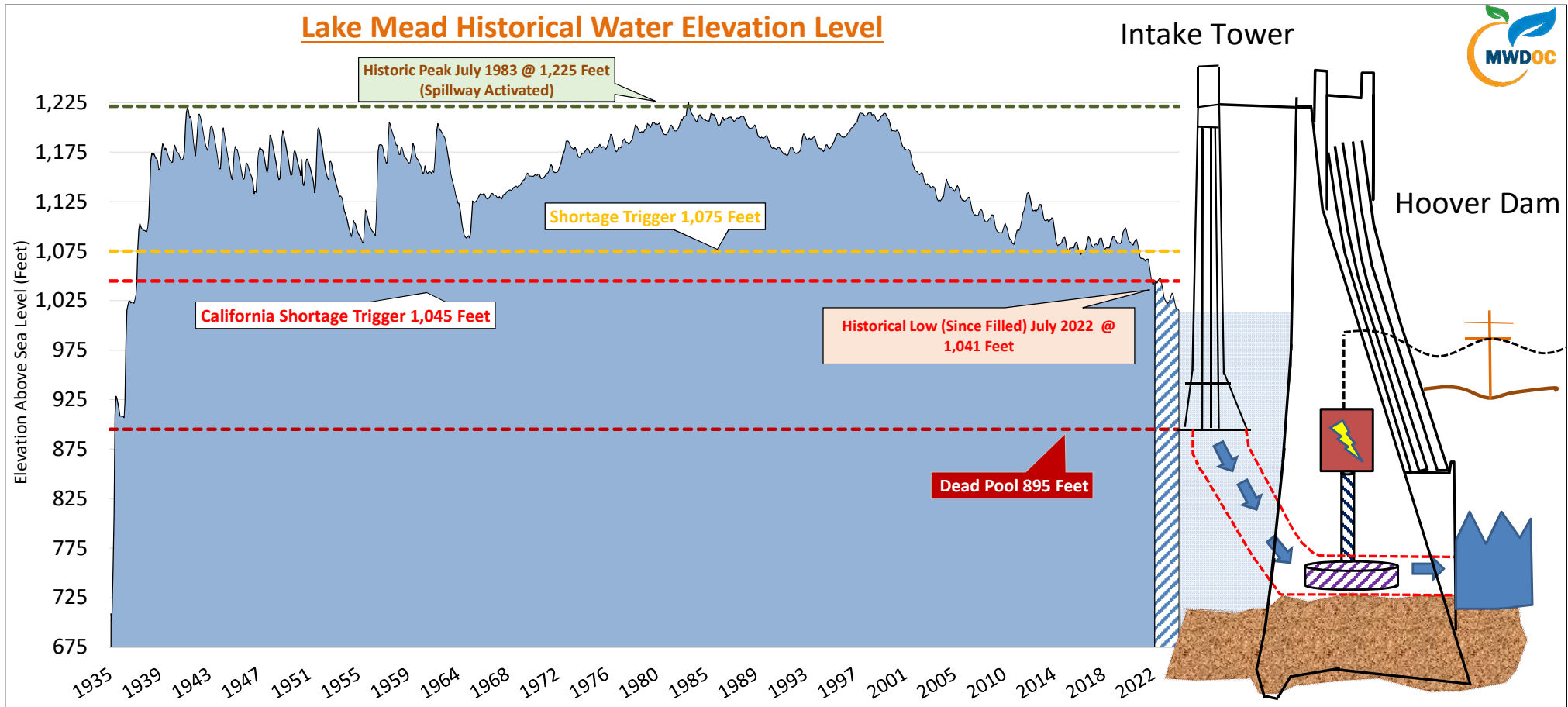


Lake Powell Levels: Historical and Projected projection per USBR 24-Month Study

■ Historical □ Projected



Lake Mead Historical Water Elevation Level



Lake Mead Storage Level

