

# WATER RESOURCES SUMMARY

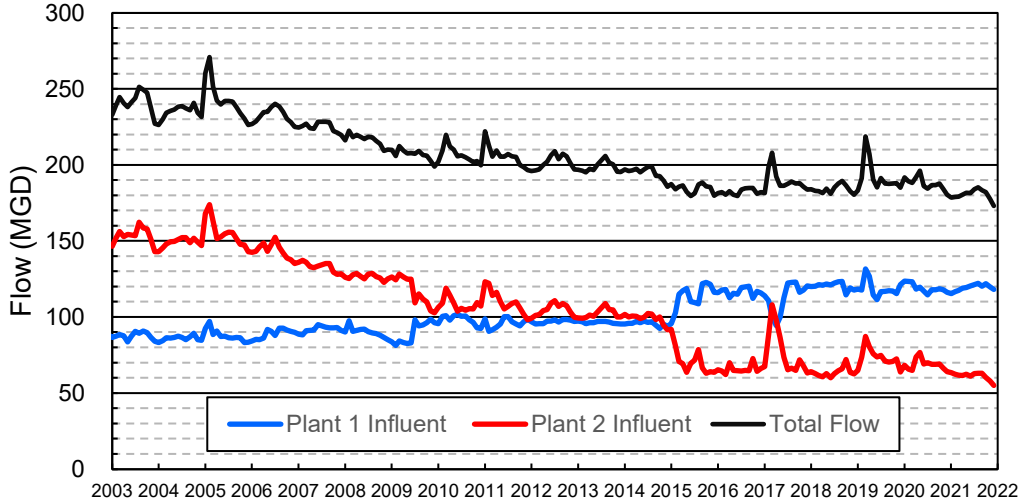
November 2021

INFLOWS & OUTFLOWS (acre-feet)	Total for Month	Year to Date - This Year    Last Year	
<b>BASIN SUPPLIES</b>			
Water Purchases from MWD (excludes In Lieu)	9,191	18,499	0
Water into MWD Storage Account (excludes In Lieu)	0	0	0
SAR & Santiago Creek Flows (accounts for storage to/from recharge facilities)	6,004	26,350	35,979
GWRS Water to Forebay	5,423	22,485	24,351
GWRS Water to Mid-Basin Injection Wells	729	3,270	4,792
GWRS Water to Talbert Barrier	2,170	11,071	12,131
OC-44 and F. Valley Water to Talbert Barrier	0	4	10
Alamitos Barrier Water	250	1,251	1,230
Incidental Recharge (estimated)	1,800	7,800	5,800
Evaporation from Recharge Basins	(157)	(1,100)	(1,657)
River Flow Lost to Ocean	<u>0</u>	<u>0</u>	<u>0</u>
Total Groundwater Recharge	25,411	89,630	82,637
<b>WATER PRODUCTION</b>			
Groundwater Production	19,961	113,082	131,877
MWD Storage Program Withdrawals	<u>0</u>	<u>0</u>	<u>0</u>
Total Groundwater Production	19,961	113,082	131,877
<b>BASIN BALANCE</b>			
Change in Groundwater Storage	5,450	(23,452)	(49,240)
Change in Groundwater Storage excluding MWD Stored Water	5,450	(23,452)	(49,240)
Accumulated Overdraft	-----	271,455	249,241
Accumulated Overdraft excluding MWD Storage	-----	271,455	249,241
<b>IN LIEU WATER</b>			
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
<b>OTHER KEY INFORMATION</b>			
1. MWD Water Deliveries to Producers	10,183	59,170	47,471
2. Basin Production Percentage	66.2%	65.6%	73.5%
3. Total Water Demand	31,640	180,352	187,279
4. Total GWRS Production	8,327	36,853	41,312
5. Green Acres Project Water	291	1,915	2,197
6. SAR Water Quality			
- Total Dissolved Solids (TDS) of SAR below Prado Dam (ppm)	474	-----	570
- Total Nitrogen of SAR below Prado Dam (ppm)	3.5	-----	5.0
7. Month-End Water Storage Behind Prado Dam	2	-----	2
8. Month-End Water Storage in Recharge Facilities	8,171	-----	8,402
9. Water Storage Change in Recharge Facilities	503	(489)	(7,337)
10. Total Artificial Recharge	23,611	81,829	76,837
11. Monthly Mean Temperature at Santa Ana Fire Station (°F)	66.7	-----	63.4
12. Rainfall at FHQ (inches)	0.00	0.87	0.23

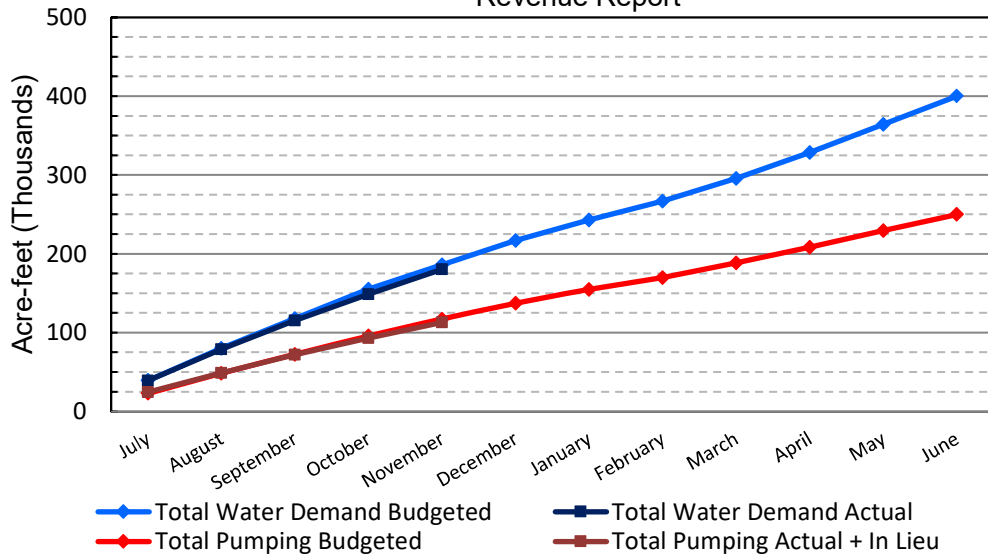
\*\*\* Note: Data are preliminary, subject to change

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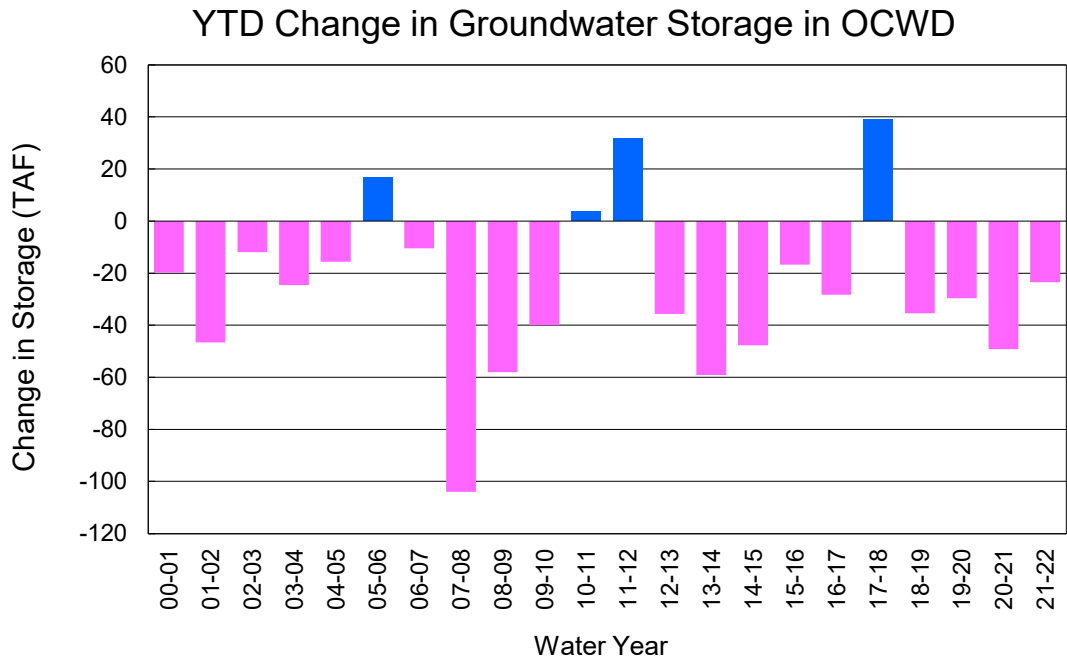
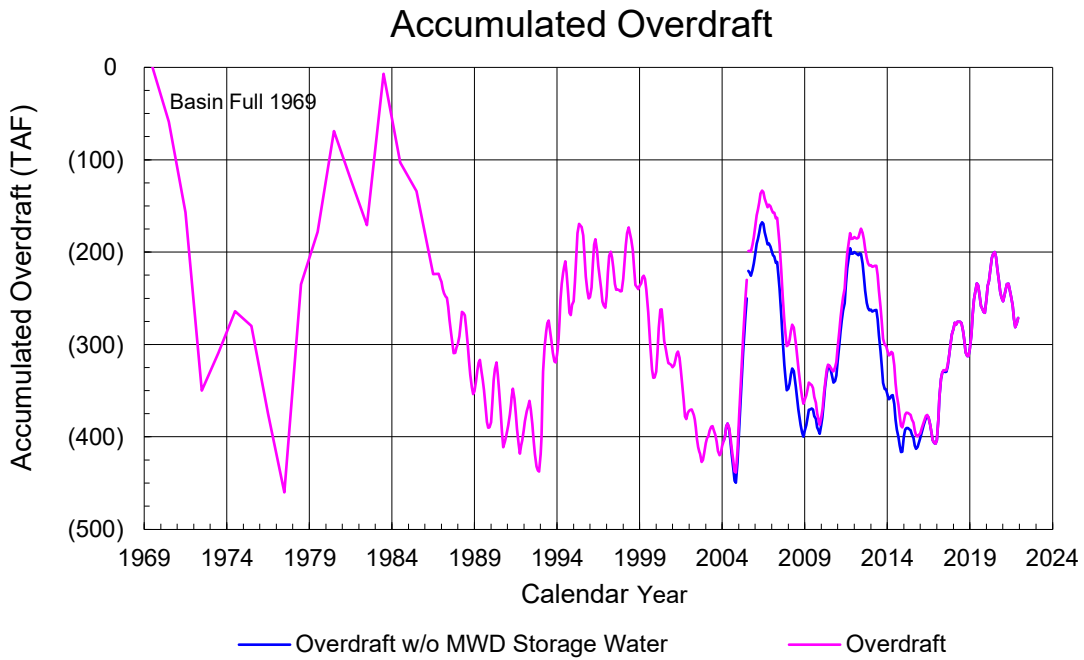
### Orange County Sanitation District Influent Flows Report



### 2021-22 Water Demands/Groundwater Pumping + In Lieu/RA Revenue Report



	Monthly		Accumulated Total for the Year			
	Budget	Actual	Budget	Actual	Difference	Percent
Total Water Demand	31,000	31,640	186,000	180,352	-5,648	96.96%
Total Pumping + In Lieu	20,800	19,961	116,900	113,082	-3,818	96.73%
RA Revenue	\$9,609,600	\$9,222,005	\$54,007,800	\$52,243,883	-\$1,763,917	96.73%



## PRODUCERS WATER USAGE SUMMARY

**November 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	NOV 2021 BPP	2021-22 YTD BPP	2020-21 YTD BPP
Anaheim	1,710	0	0	3,611	5,321	27,484	26,951	102%	32.1%	29.9%	26.8%
Buena Park	817	0	0	225	1,042	6,116	6,207	99%	78.4%	78.9%	87.0%
East Orange County	0	0	0	73	73	441	447	99%	0.4%	0.3%	0.3%
Fountain Valley	694	0	111	0	805	4,753	4,871	98%	100.0%	100.0%	100.0%
Fullerton	1,363	0	0	505	1,867	11,217	11,462	98%	73.0%	75.6%	73.9%
Garden Grove	1,640	0	0	124	1,764	10,098	10,530	96%	93.0%	80.8%	66.3%
Golden State	1,198	0	0	647	1,845	10,761	11,289	95%	64.9%	60.5%	71.2%
West OC System	1,119	-	-	3	1,122	6,447	6,655	97%	na	na	na
East OC System	80	-	-	644	724	4,314	4,634	93%	na	na	na
Huntington Beach	1,597	0	0	183	1,780	11,750	12,898	91%	89.7%	83.7%	77.8%
Irvine Ranch	3,946	0	1,269	27	5,242	28,072	28,568	98%	99.3%	98.3%	99.8%
DRWF Clear	2,381	-	-	-	2,381	13,119	14,229	92%	na	na	na
DRWF Color	550	-	-	-	550	2,919	3,476	84%	na	na	na
Laguna Beach	0	0	0	280	280	1,511	1,665	na	0.0%	0.0%	0.0%
La Palma	138	0	0	0	138	802	923	87%	100.0%	92.4%	100.0%
Mesa Water (MW)	1,264	0	60	0	1,324	8,037	8,078	99%	100.0%	97.2%	100.0%
MW Clear	1,172	-	-	-	1,172	5,533	5,365	103%	na	na	na
MW Amber	92	-	-	-	92	1,822	2,197	83%	na	na	na
Newport Beach	413	0	36	619	1,067	6,517	7,277	90%	40.0%	78.7%	94.1%
Orange	945	0	0	1,161	2,105	12,561	13,075	96%	44.9%	46.3%	73.0%
OCWD (GAP)	122	0	0	0	122	639	747	86%	100.0%	100.0%	100.0%
Santa Ana	2,025	0	20	601	2,646	14,882	15,706	95%	77.1%	76.6%	74.4%
Seal Beach	265	0	0	1	265	1,566	1,638	96%	99.8%	62.9%	47.3%
Serrano	0	0	0	240	240	1,359	1,377	99%	0.0%	0.0%	0.2%
Tustin	541	0	0	347	888	5,043	5,217	97%	60.9%	54.6%	95.9%
Westminster	869	0	0	0	869	4,901	4,961	99%	100.0%	100.0%	100.0%
Yorba Linda	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,528</u>	<u>1,528</u>	<u>9,407</u>	<u>9,953</u>	<u>95%</u>	<u>0.0%</u>	<u>0.5%</u>	<u>83.0%</u>
SUBTOTAL:	19,545	0	1,496	10,170	31,211	177,919	183,840	97%	66.2%	65.6%	73.5%
Other Producers (Est ~3% of Subtotal)	<u>416</u>	<u>0</u>	<u>0</u>	<u>13</u>	<u>429</u>	<u>2,433</u>	<u>3,439</u>	<u>71%</u>			
<b>TOTAL:</b>	<b>19,961</b>	<b>0</b>	<b>1,496</b>	<b>10,183</b>	<b>31,640</b>	<b>180,352</b>	<b>187,279</b>		<b>66.2%</b>	<b>65.6%</b>	<b>73.5%</b>
OCWD (Talbert Barrier)	0		2,170	0	2,170	11,075	12,141				
OCSA (GAP)	na		63	na	63	301	607				

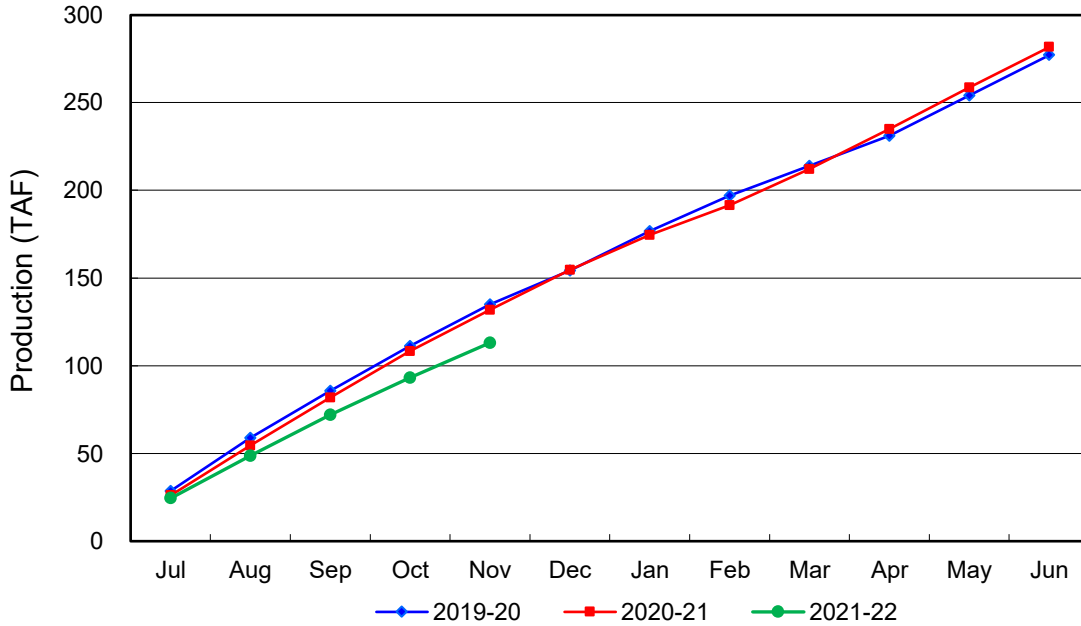
Estimated

(1) Excludes MWD CUP Withdrawals

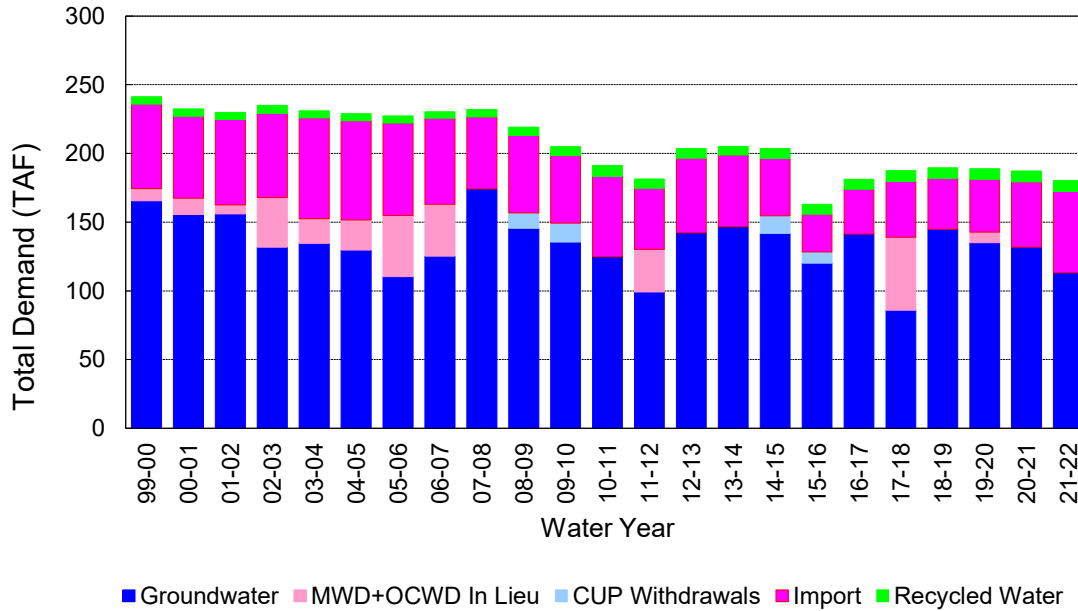
(2) Includes MWD CUP Withdrawals & In Lieu Water

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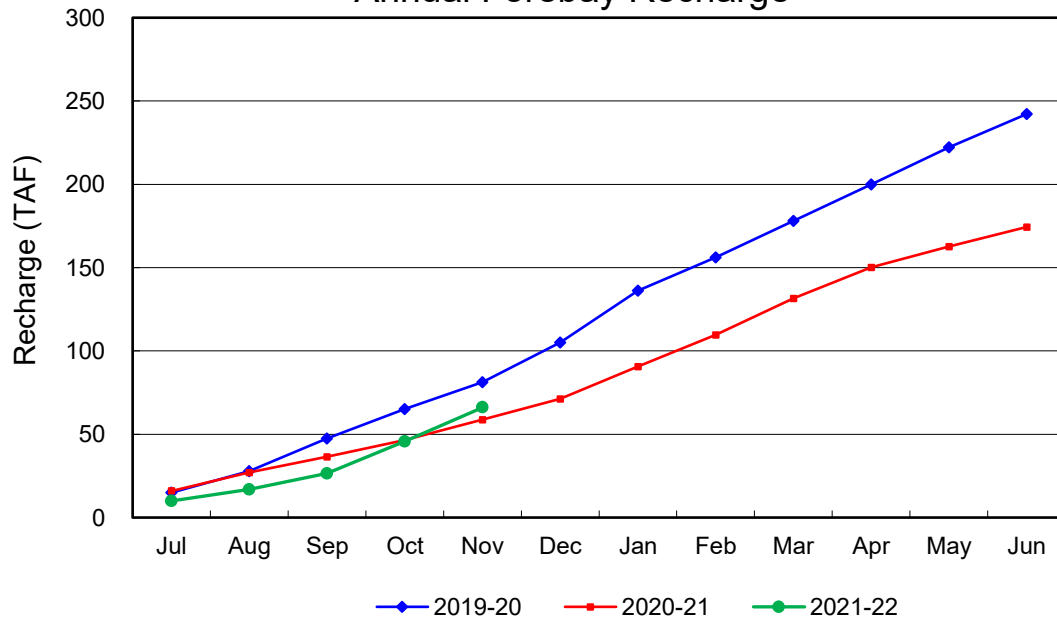
### Annual Groundwater Production



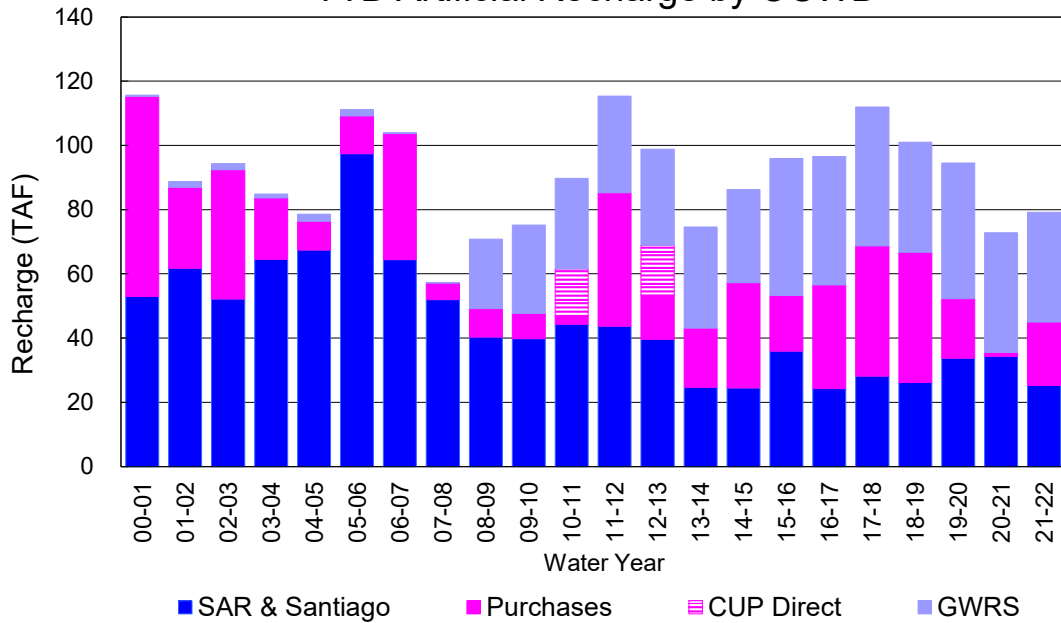
### YTD Total Demand in OCWD



### Annual Forebay Recharge



### YTD Artificial Recharge by OCWD



## RECHARGE AREAS REPORT

November 2021

	Percolation (AF)	Remarks
RIVER SYSTEM	4,755	80 cfs per day average perc
DESILTING SYSTEM	na	SAR
OFF-RIVER SYSTEM	374	SAR
WARNER SYSTEM	891	SAR
OLIVE BASIN	na	
ANAHEIM LAKE	1,889	Imported CRA Water
MINI-ANA LAKE	128	Imported CRA Water
MILLER BASIN	2,072	Imported CRA Water
KRAEMER BASIN	3,605	Imported CRA Water
LA PALMA BASIN	4,375	GWRS
MIRA LOMA	1,053	GWRS
LA JOLLA BASIN	1,090	Imported CRA Water
PLACENTIA BASIN	na	
RAYMOND BASIN	96	Imported CRA Water
FIVE COVES BASIN	na	
BURRIS BASIN	82	SAR
RIVER VIEW BASIN	0	
FLETCHER BASIN	0	
SANTIAGO BASINS	54	
SANTIAGO CREEK	0	
<b>TOTALS</b>	<b>20,464</b>	
<b>5-YR AVERAGE</b>	<b>17,831</b>	

FLOWS TO RECHARGE AREAS (AF)	
Imperial Headgates (estimated)	6,507
GWRS	5,425
OC-28 (MWD)	9,191
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
<b>TOTAL INFLOW</b>	<b>21,123</b>

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	3.46
Est'd evaporative losses	157
<b>TOTAL LOSSES</b>	<b>157</b>

STORAGE CHANGES (AF)			
Facility	Begin	End	Net
Deep basins	5,913	6,475	562
Santiago Pits	1,755	1,696	-59
River			
Off-river			
Irvine Lake			
<b>TOTAL</b>	<b>7,668</b>	<b>8,171</b>	<b>503</b>

SUMMARY (AF)	
TOTAL INFLOW	21,123
TOTAL LOSSES	157
STORAGE CHANGE	503
CALC'D PERCOLATION	20,464

## DEEP BASINS MONTHLY STATUS

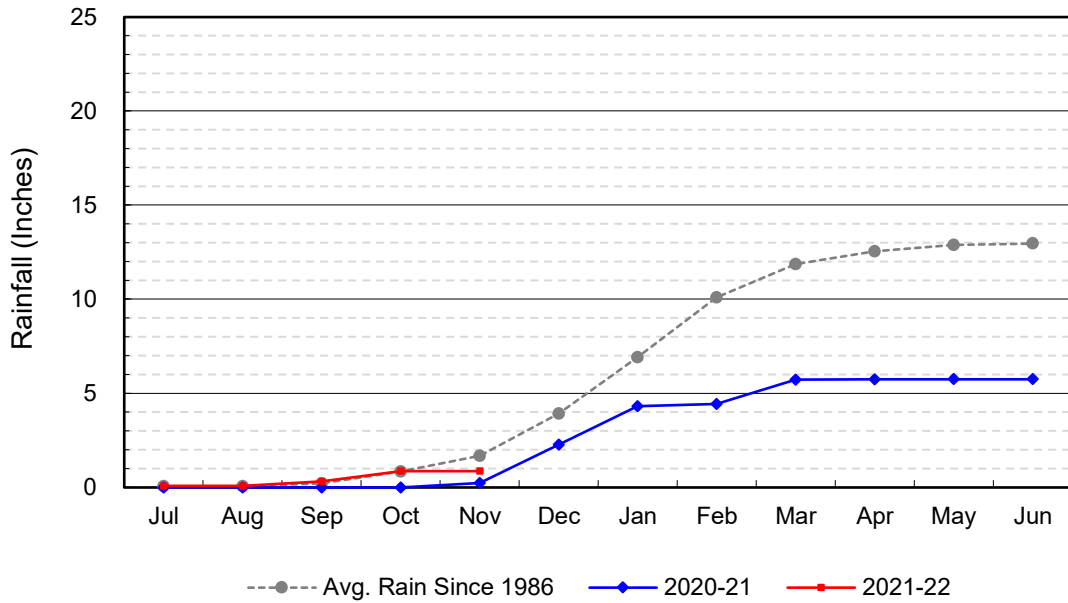
**November 2021**

(values in acre-feet)

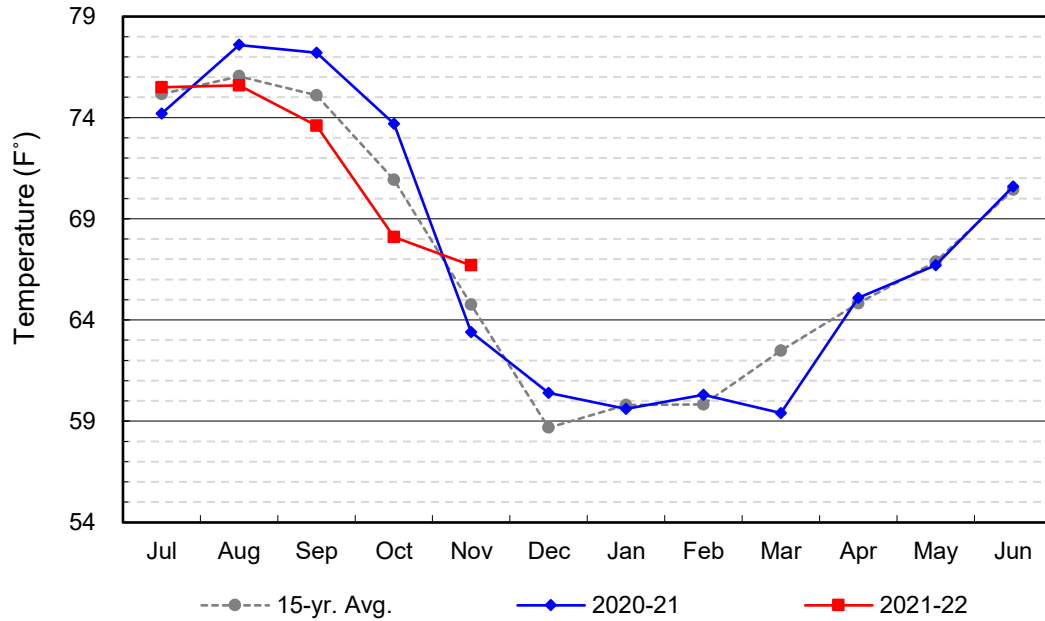
<i>Facility</i>	<i>Storage Start</i>	<i>Storage End</i>	<i>Maximum Storage</i>	<i>Total Perc</i>	<i>Max Perc</i>	<i>Avg Perc</i>	<i>Avg W.S. Elev</i>
Desilting Ponds	220	220	252	na	na	na	na
Fos-Huckleberry	469	525	628	na	na	na	na
Conrock Basin	551	552	661	na	na	na	na
Warner Basins	2,734	2,861	2,900	891	na	na	238
Olive Pit	7	7	95	na	na	na	196
Anaheim Lake	728	732	2,300	1,889	75	63	197
Mini-Anaheim Lk	5	0	10	128	14	4	221
Miller Basin	57	90	350	2,072	72	69	207
Kraemer Basin	210	524	1,055	3,605	136	120	190
La Palma Basin	16	12	101	4,375	162	146	213
Mira Loma	7	6	53	1,053	40	35	215
La Jolla Basin	3	17	20	1,090	42	36	203
Placentia Basin	0	0	200	na	na	na	na
Raymond Basin	50	0	200	96	na	na	na
Five Coves Basins	0	156	329	na	na	na	na
Burris Pit	856	773	2,500	82	6	3	153
River View Basin	0	0	8	0	0	0	187
Fletcher Basin	0	0	15	0	0	0	184
Santiago (Bond)	1,048	1,014	8,312	54	6	2	182
Santiago (Blu Dia)	707	682	5,259	-	-	-	-
<b>Totals</b>	<b>7,668</b>	<b>8,171</b>	<b>25,247</b>	<b>15,335</b>			
Prado Dam	2	2	25,000				



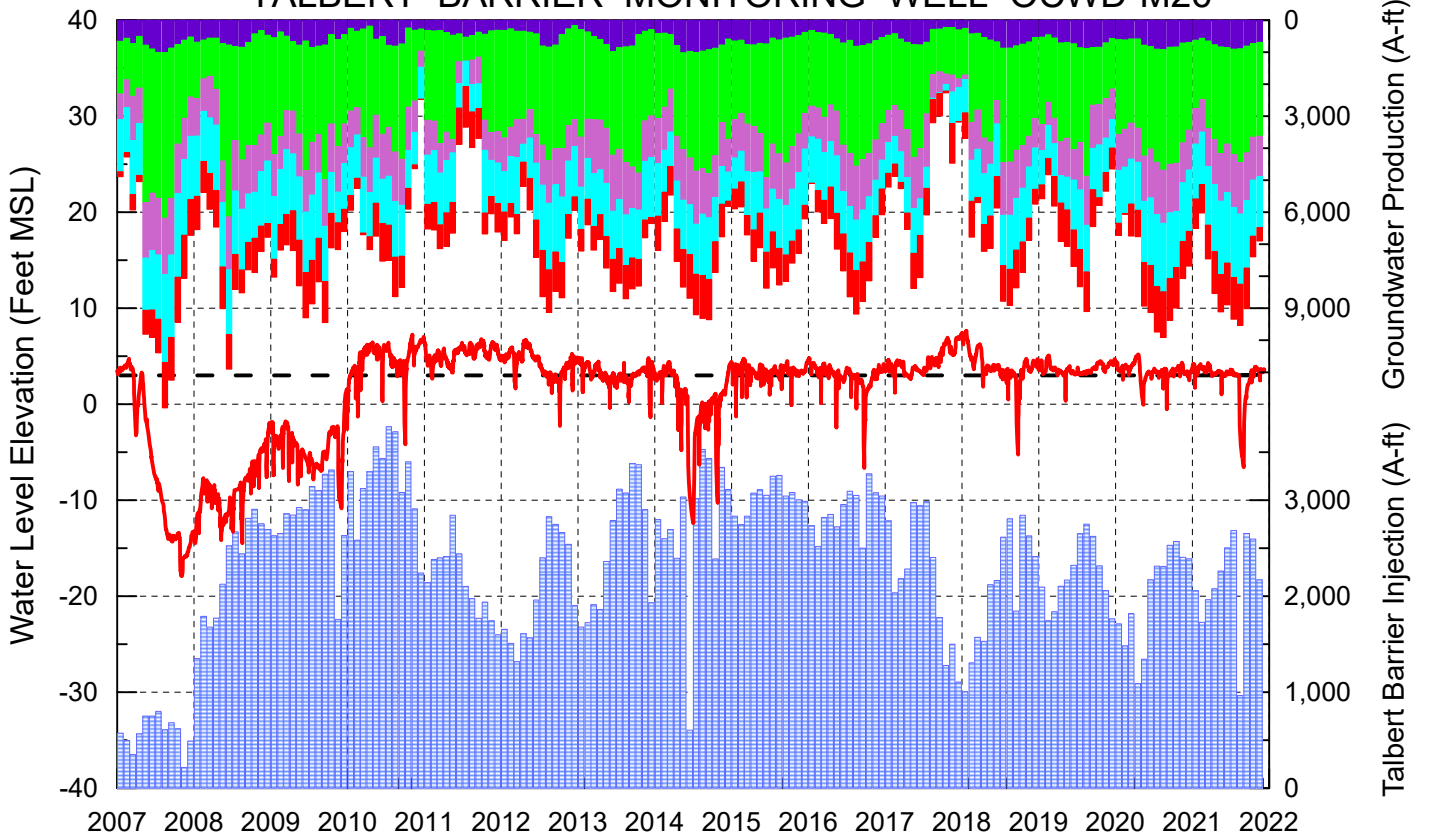
### Cumulative Anaheim Field HQ Rainfall



### Temperature at Santa Ana Fire Station



# TALBERT BARRIER MONITORING WELL OCWD-M26



- Talbert/Lambda Aquifer Mergence Zone Perforated Interval: 71 - 135 ft. bgs
- ▨ Talbert Barrier Injection
- - - Protective Level to Prevent Seawater Intrusion
- ▨ Fountain Valley Groundwater Production
- ▨ IRWD Groundwater Production
- ▨ Mesa Water Groundwater Production
- ▨ Huntington Beach Groundwater Production
- ▨ Newport Beach Groundwater Production

