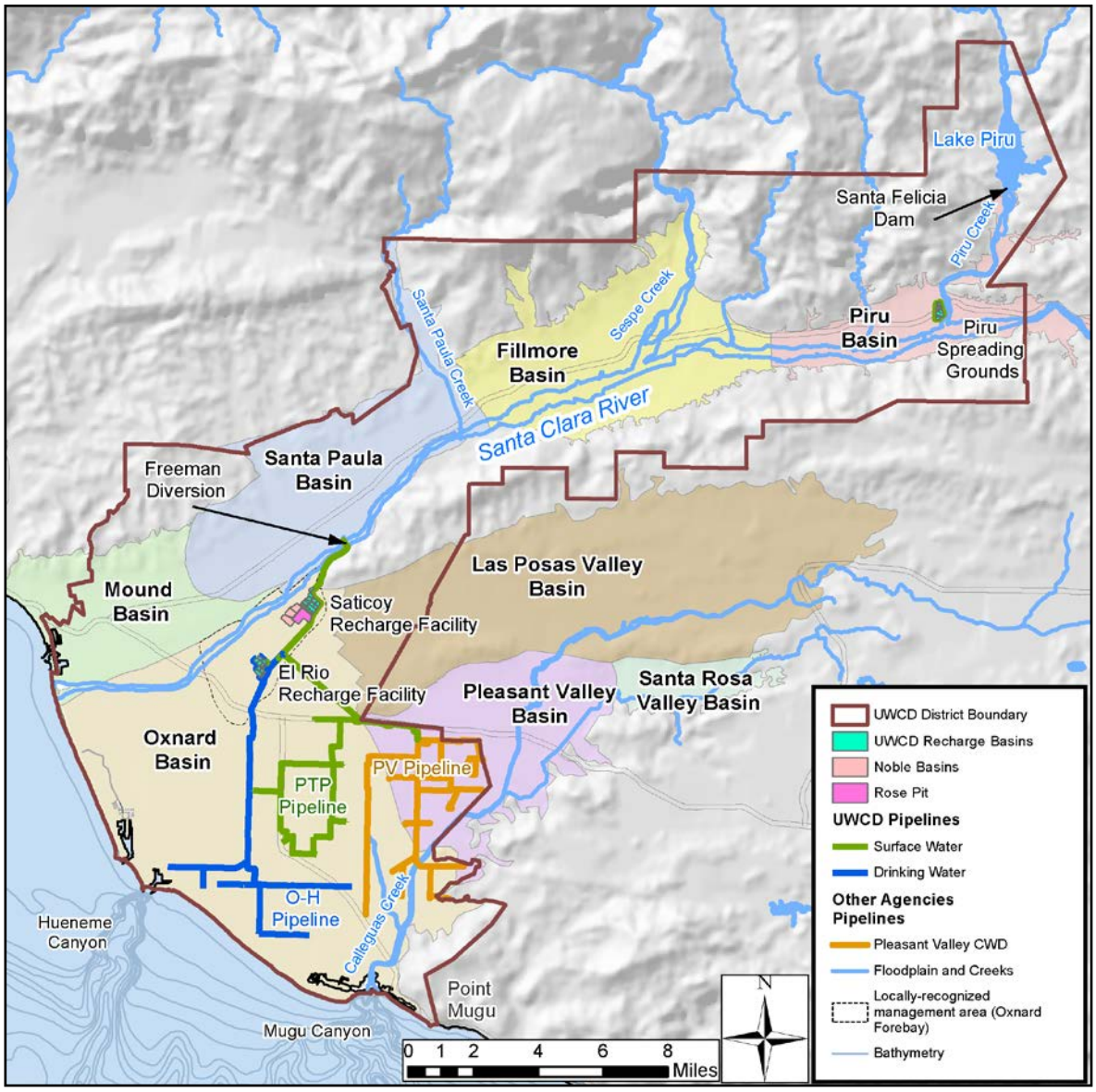
United Water CONSERVATION DISTRICT

August 2022 Hydrologic Conditions Report
2021/22 Water Year

September 7, 2022



Note: This report may contain provisional data until final review at the end of the water year.

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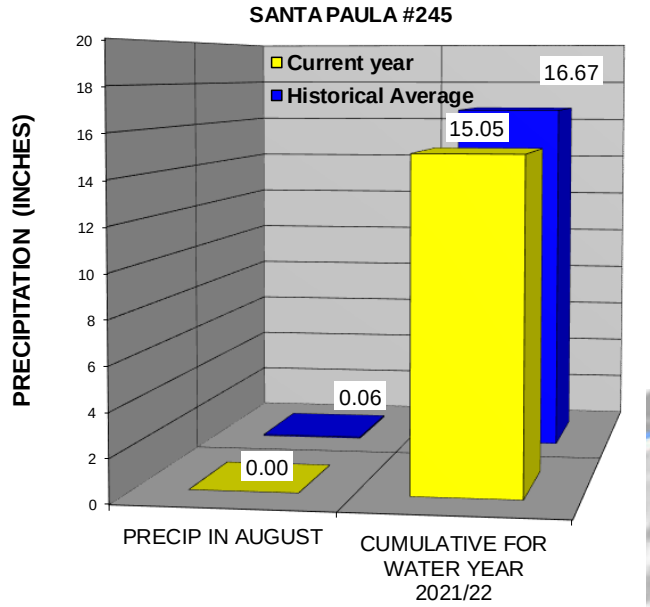
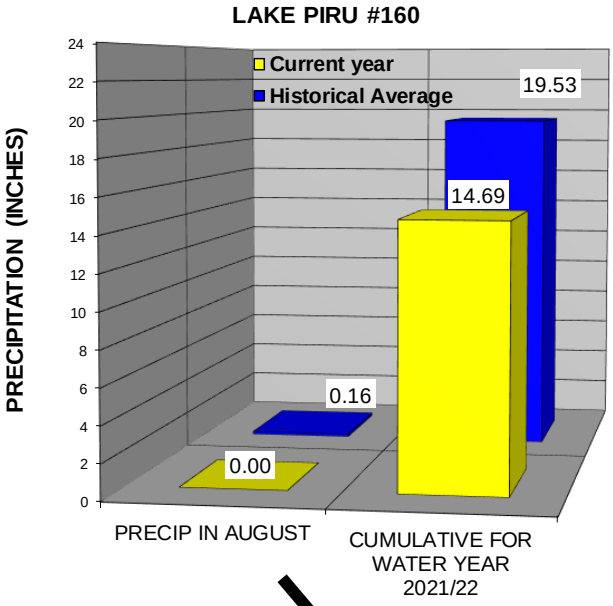
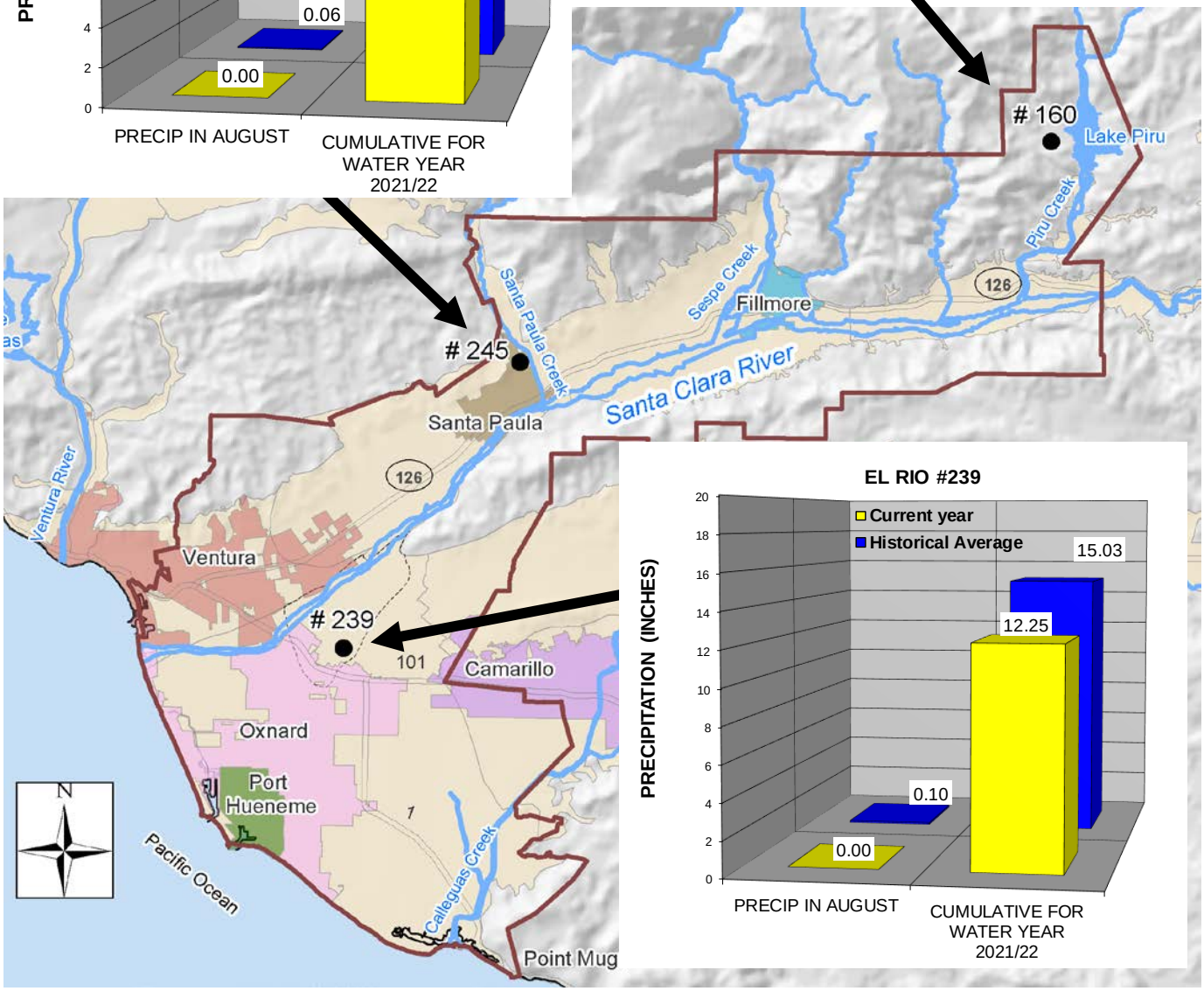
Precipitation

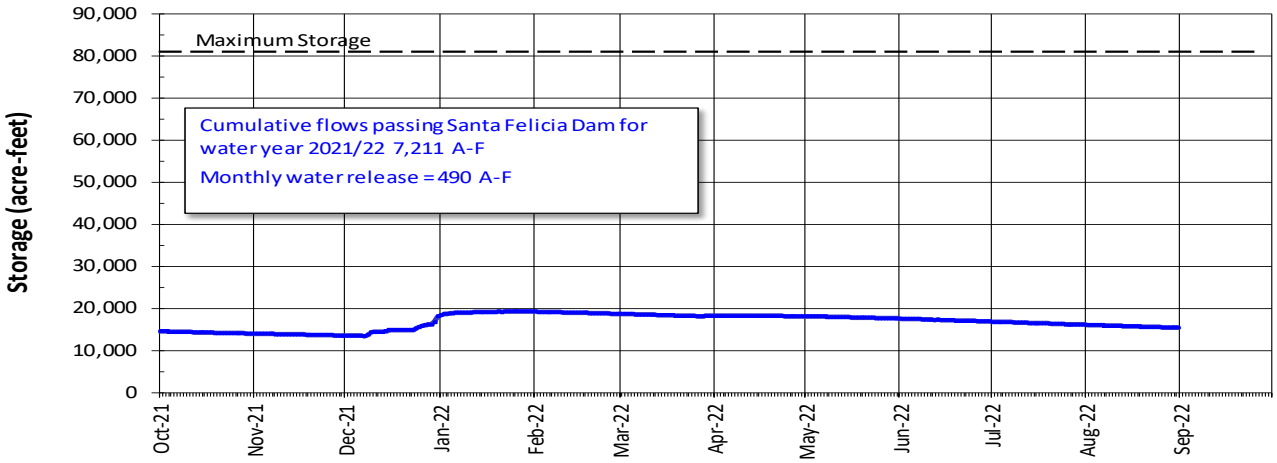






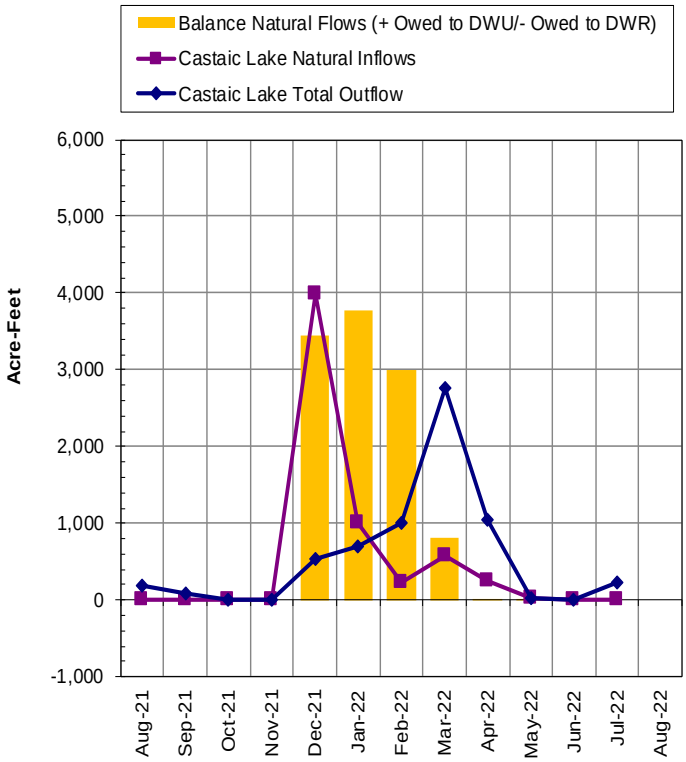
District-wide percent of normal precipitation = 82%

Lake Piru Storage and Outflow

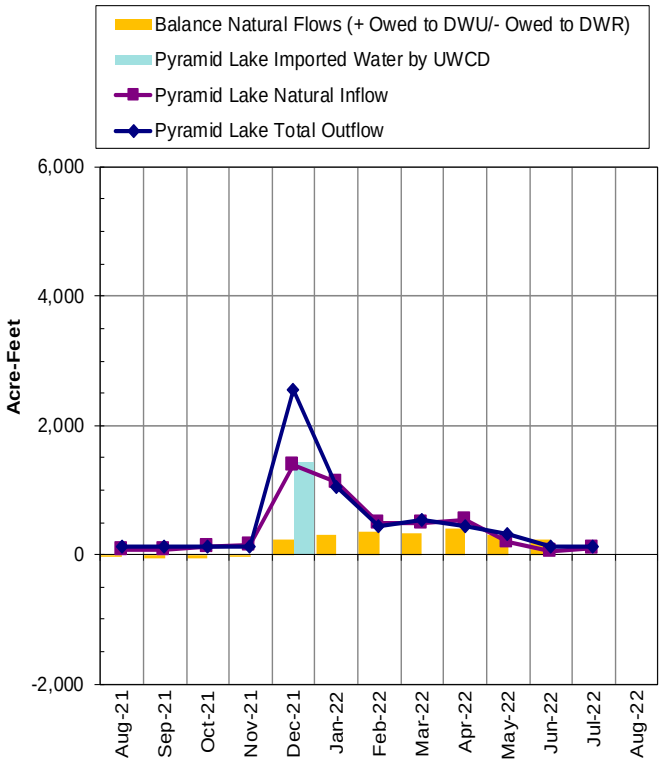


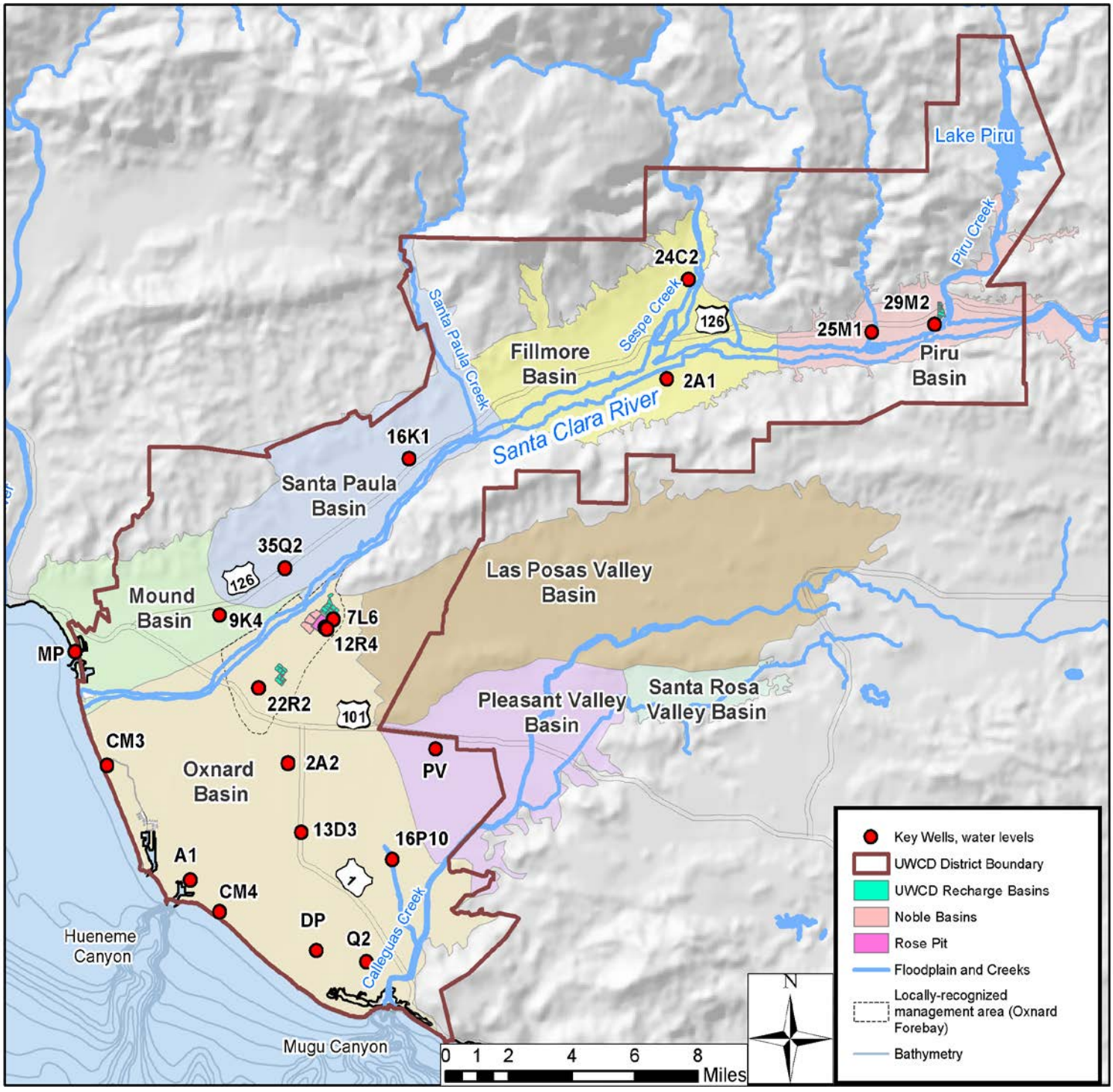
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Hydro Plant Outflow (Acre-Feet)	0	0	0	0	0	0	0	0	0	0	0	
Cumulative Hydro Plant Outflow (A-F)	0	0	0	0	0	0	0	0	0	0	0	

Castaic Lake releases to downstream water users (DWU)



Pyramid Lake releases to UWCD

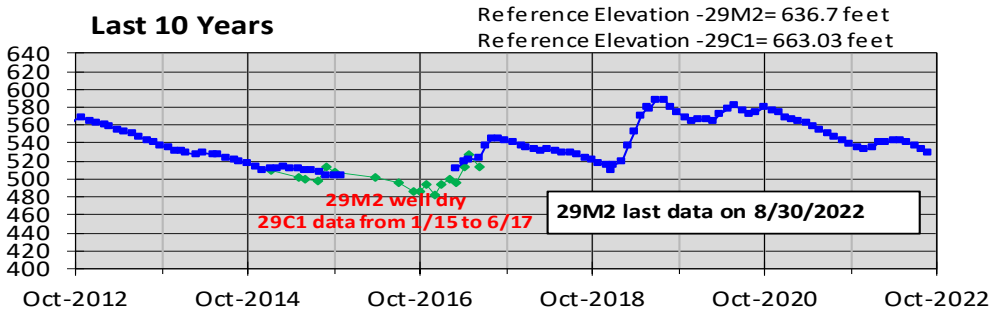


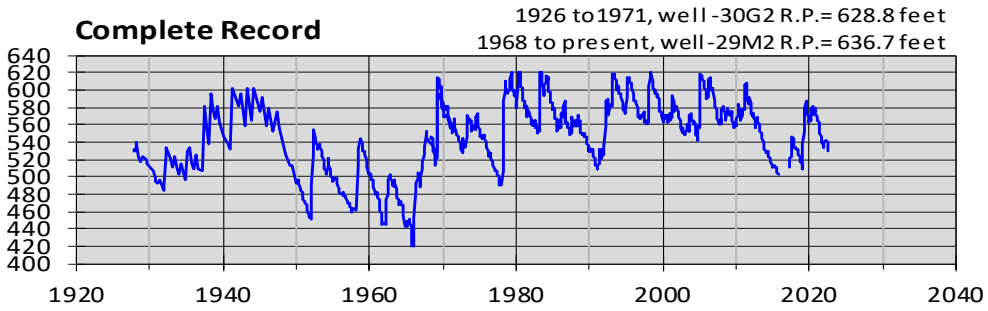


Locations of Key Wells, Monthly Groundwater Elevation Monitoring

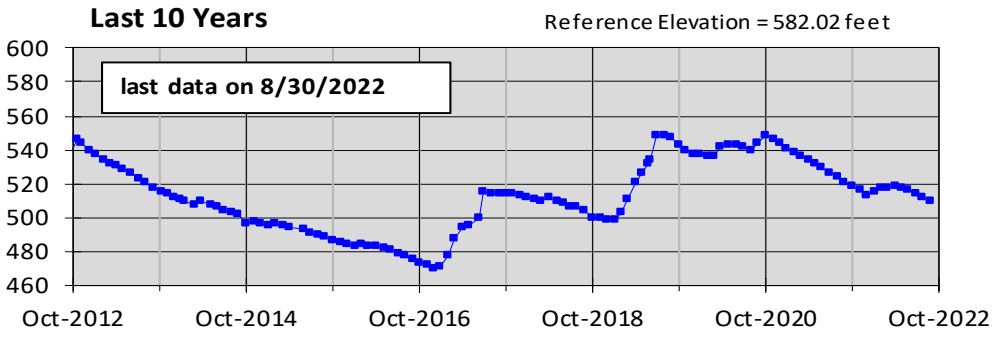
Groundwater Elevation Records – Piru Basin

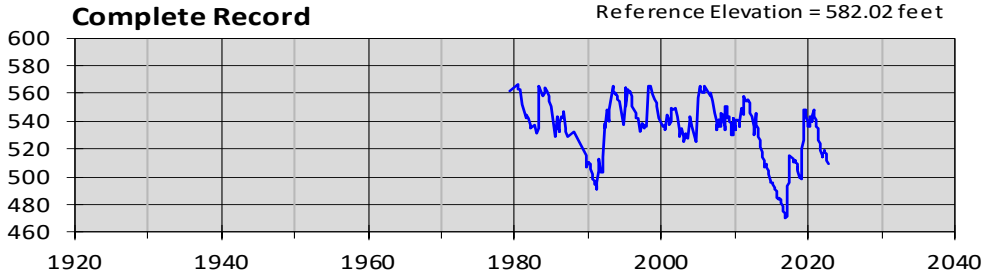
Well 04N18W29M02S (29M2)





Well 04N19W25M01S (25M1)

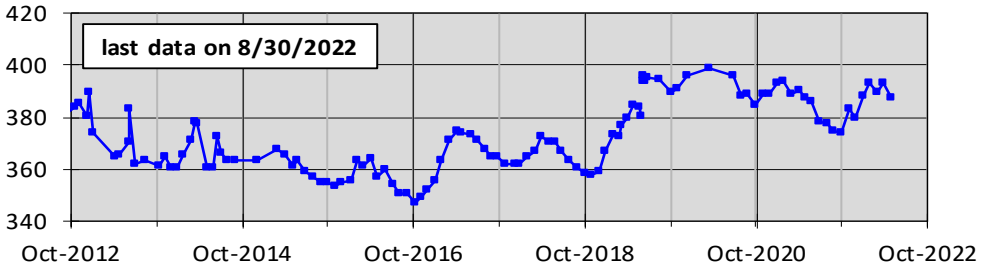




Groundwater Elevation Records – Fillmore Basin

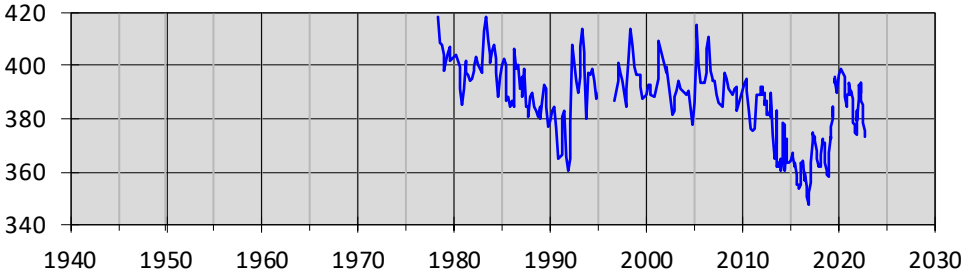
Well 04N20W24C02S (24C2)

Last 10 Years



Complete Record

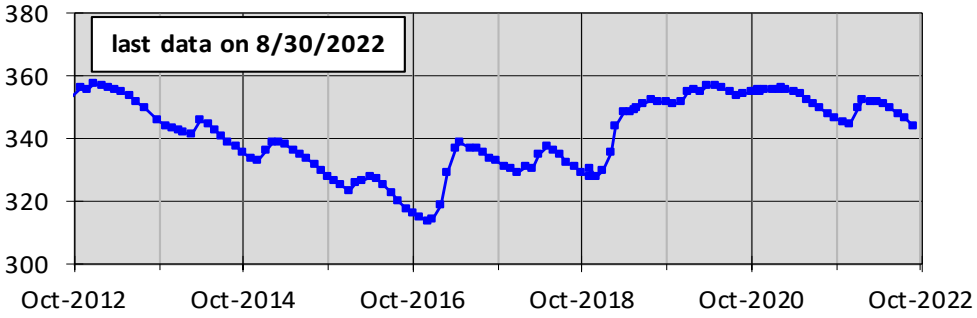
1978 to 2014, well 23Q2, R.P. = 513.99 feet
2015 to 2019, well 23N1, R.P. = 559.00 feet
2019 to present, well 24C2, R.P. = 497.02 feet



Well 03N20W02A01S (2A1)

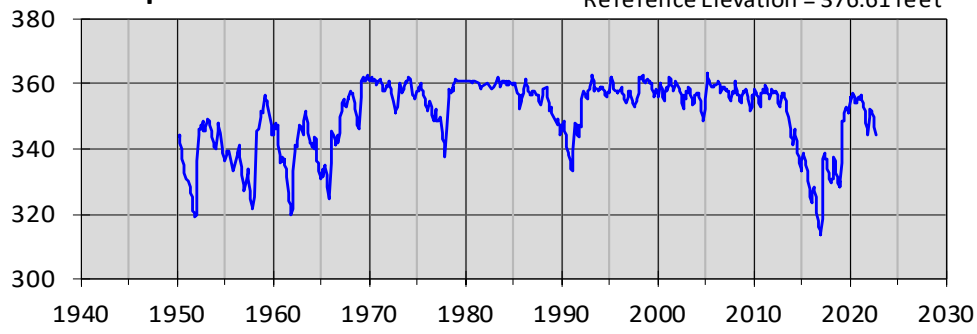
Last 10 Years

Reference Elevation = 376.61 feet

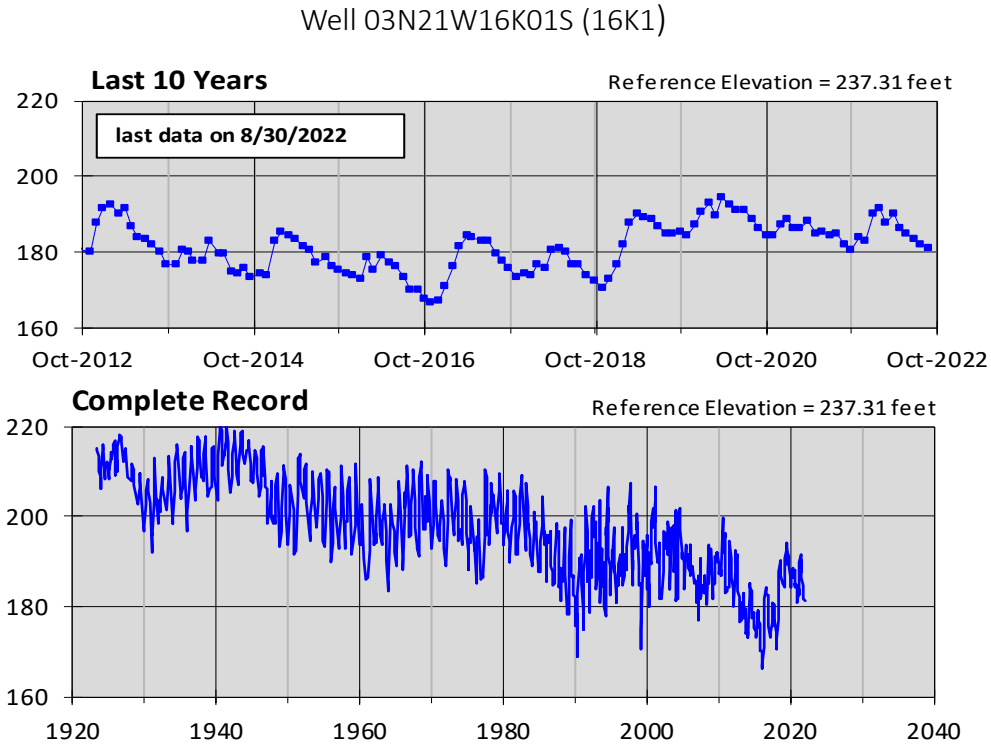


Complete Record

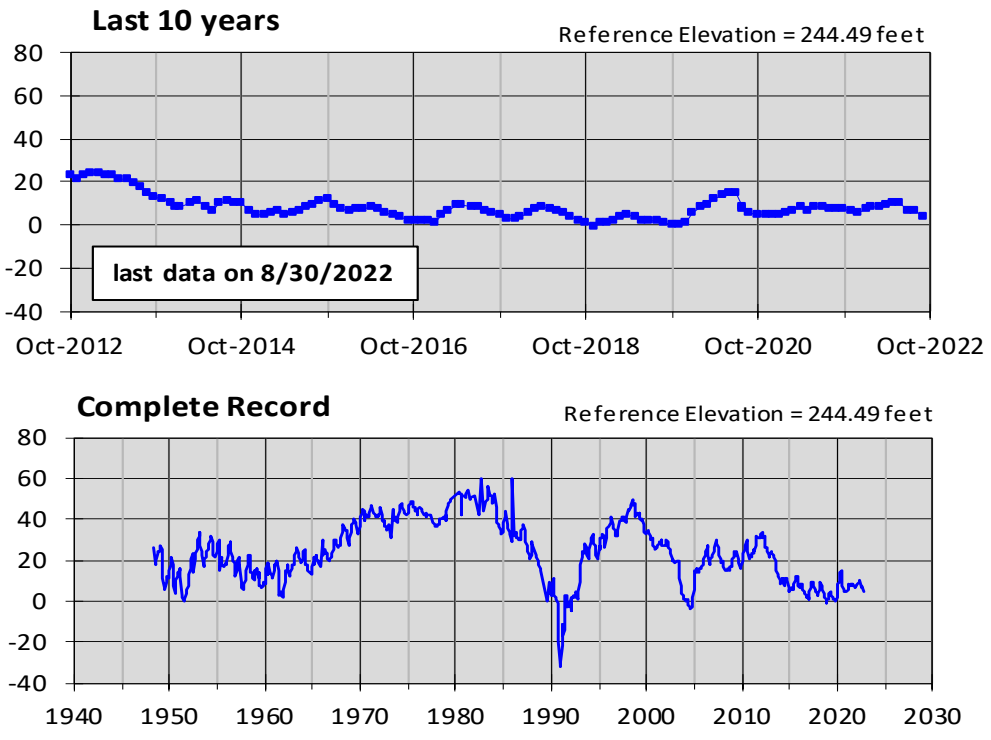
Reference Elevation = 376.61 feet



Groundwater Elevation Records – Santa Paula Basin

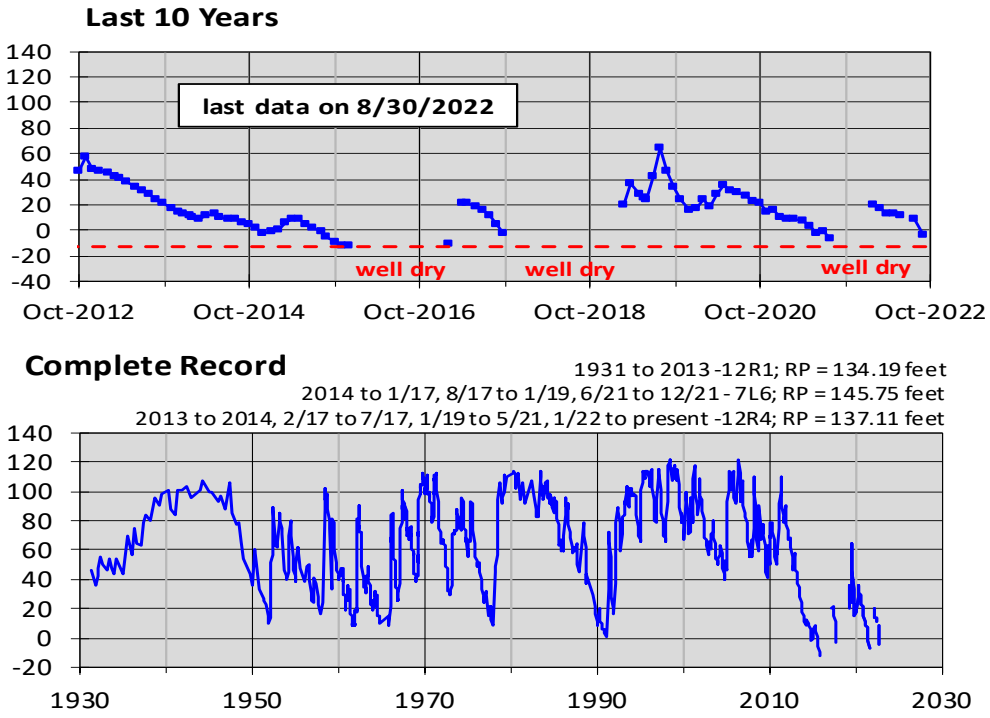


Groundwater Elevation Records – Mound Basin

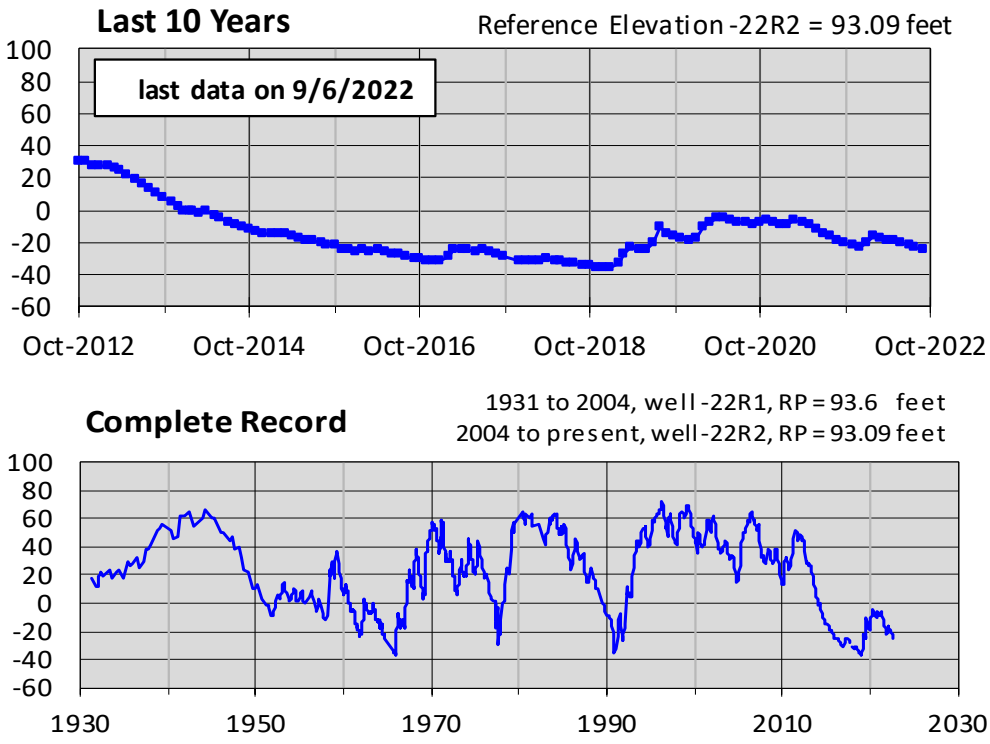


Groundwater Elevation Records – Oxnard Basin, Forebay

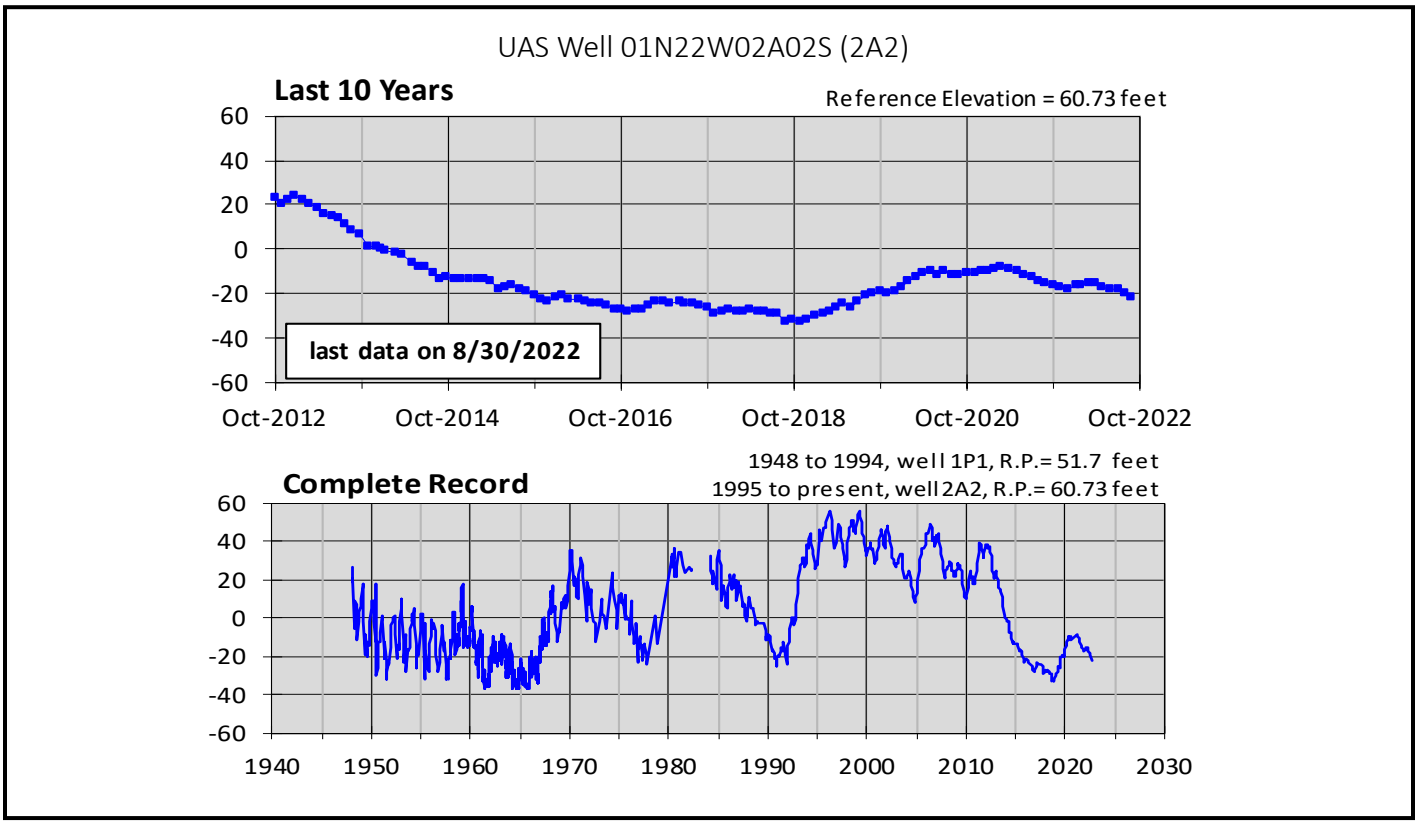
Wells 02N22W12R04S (12R4) and 02N21W07L06S (7L6)

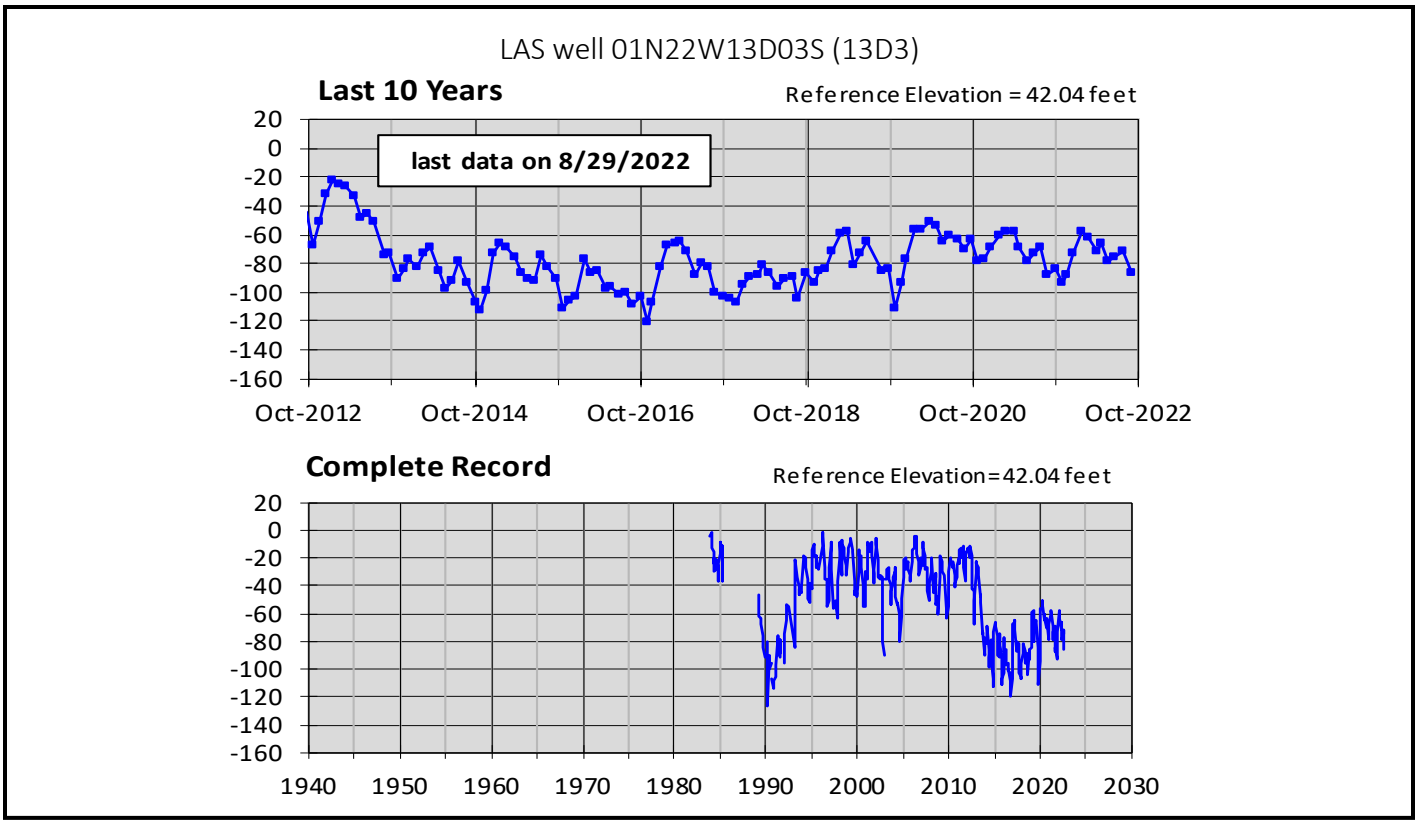


Well 02N22W22R02S (22R2)

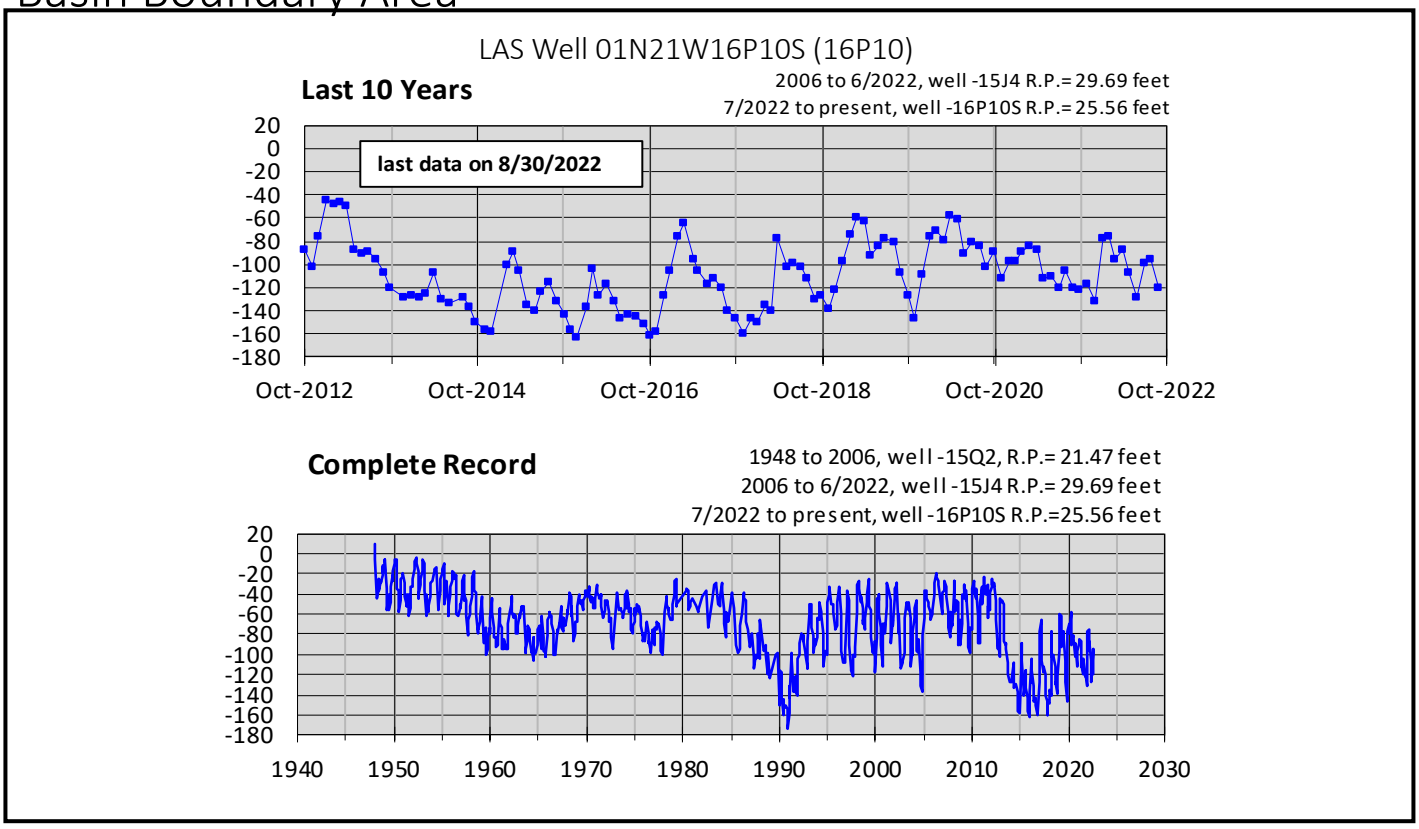


Groundwater Elevation Records – Oxnard Basin

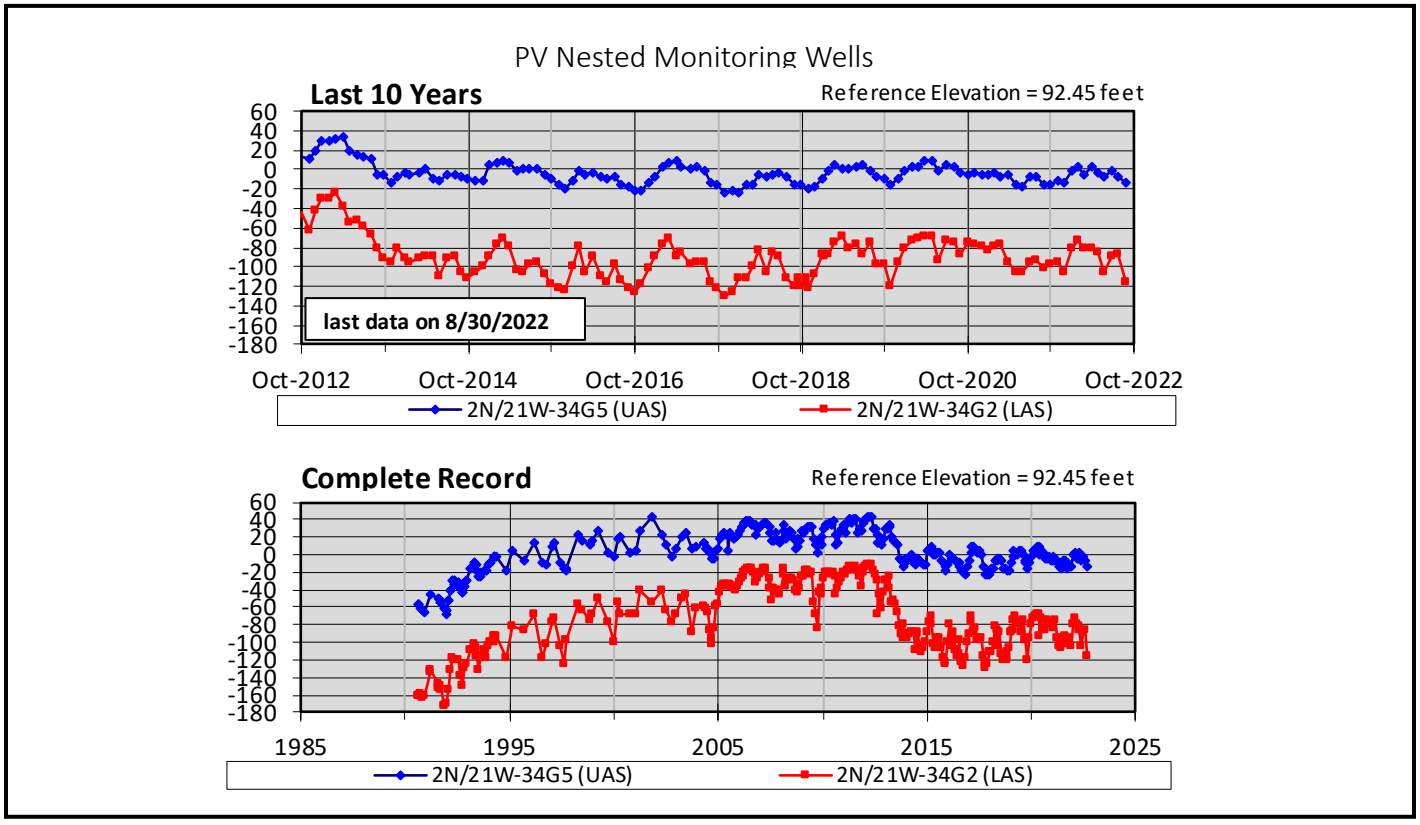




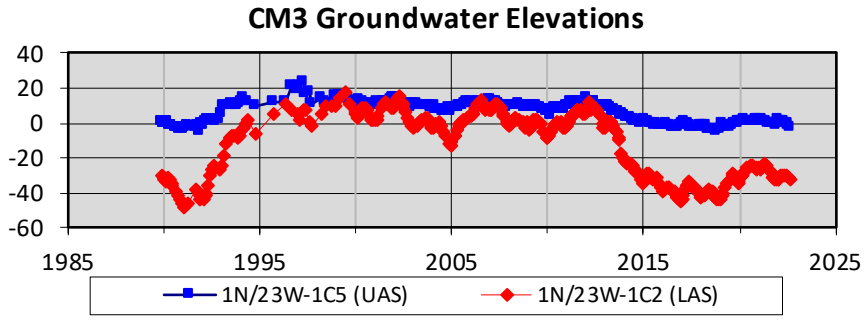
Groundwater Elevation Records – eastern Oxnard/Pleasant Valley Basin Boundary Area

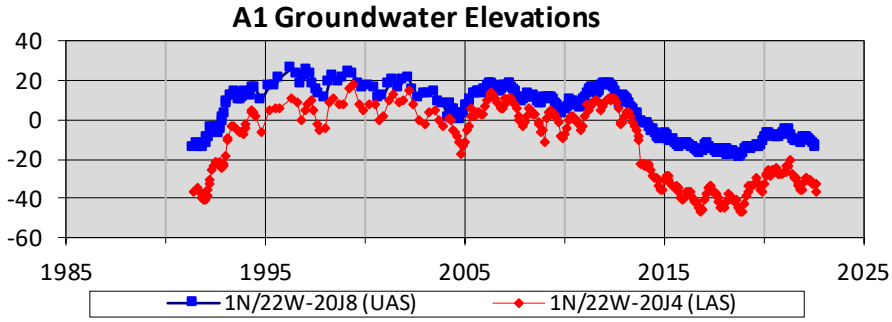


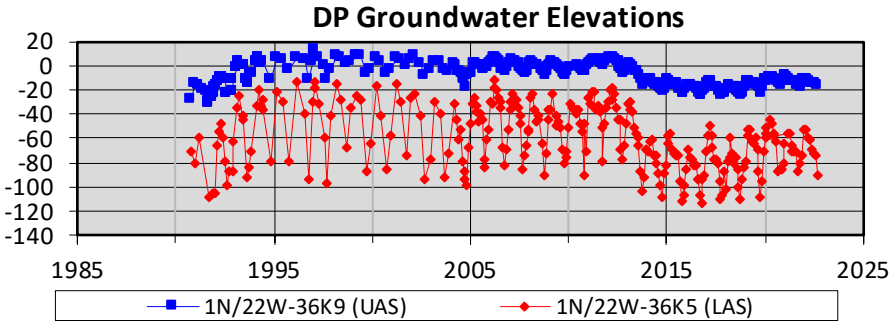
Groundwater Elevation Records – Pleasant Valley Basin

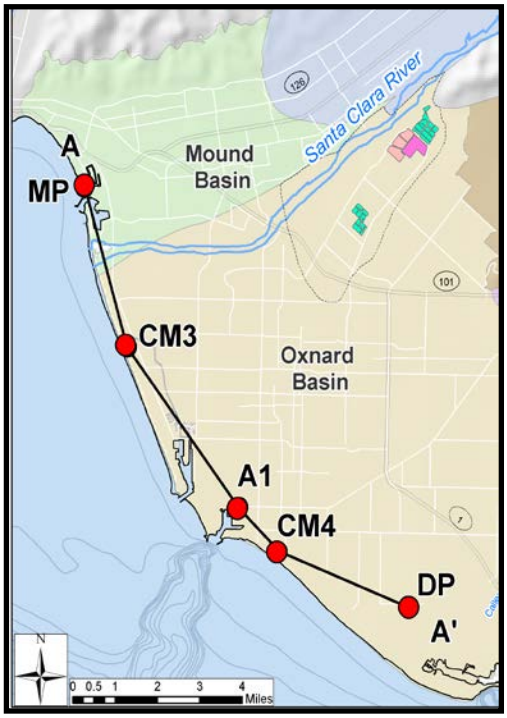


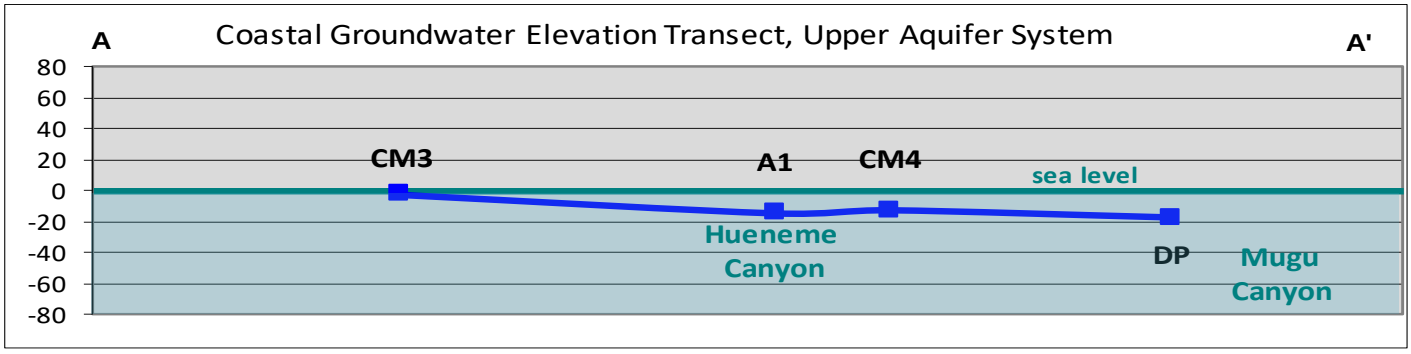
Groundwater Elevation Records – Coastal Nested Monitoring Wells

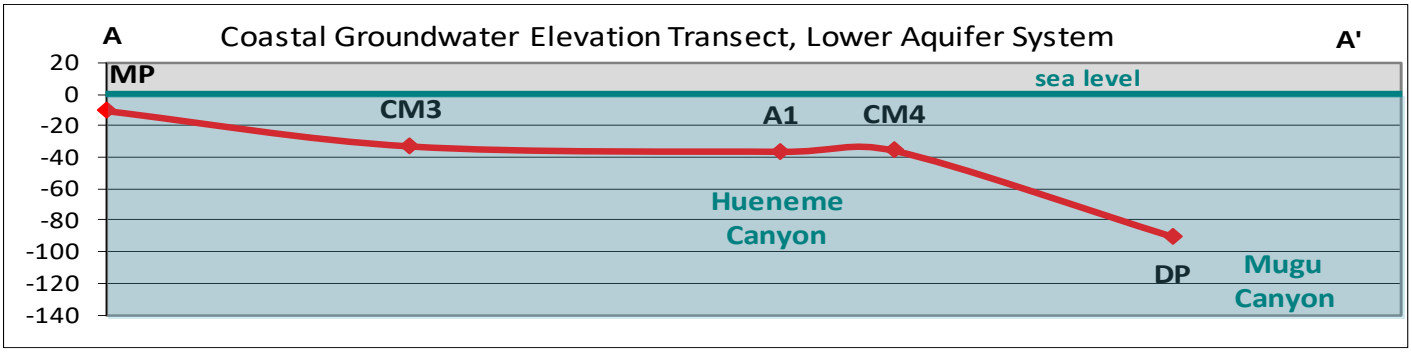










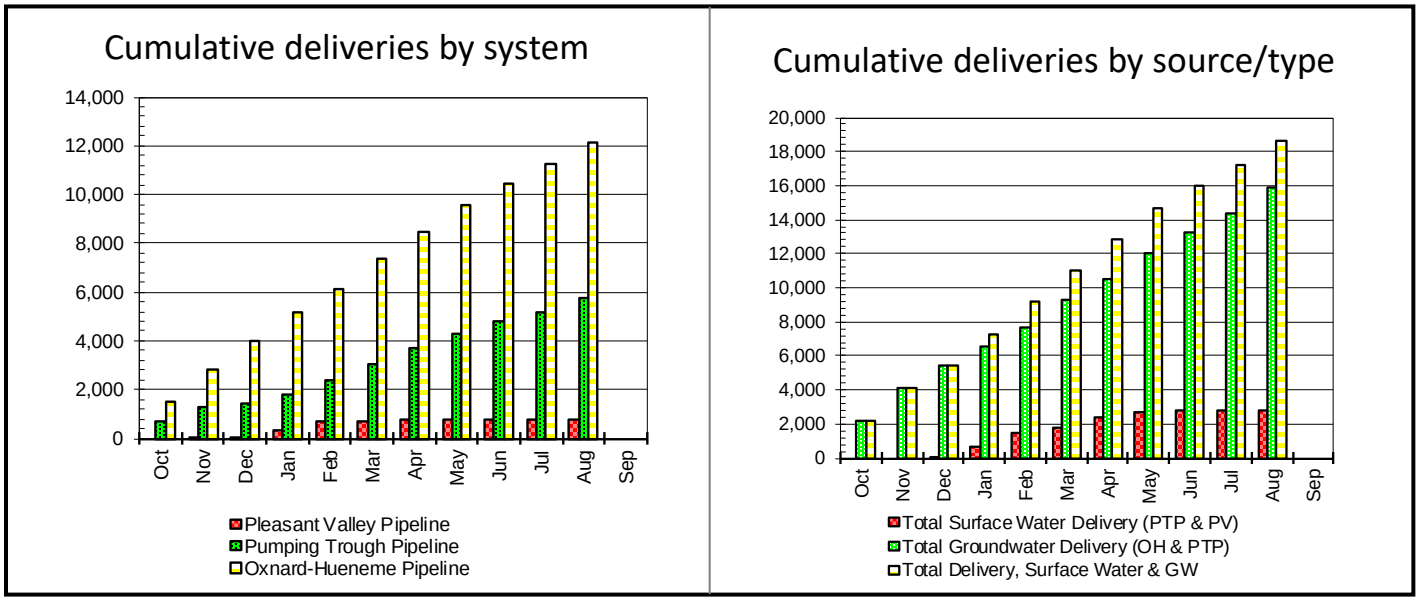


Monthly Water Deliveries, acre-feet (Water Year 2021/22)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
PV Pipeline (surface water)	0.0	0.0	15.2	342.3	304.9	0.0	99.4	8.2	15.9	0.0	0.0	
PV Pipeline (saticoy well field)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total to Pleasant Valley Pipeline	0.0	0.1	15.2	342.3	304.9	0.0	99.4	8.2	15.9	0.0	0.0	
Saticoy Well Field	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PTP (surface water)	0.0	0.0	37.3	296.5	501.0	301.9	459.3	300.2	131.3	0.0	0.0	
PTP (groundwater)	695.3	557.9	139.7	36.7	123.4	342.6	186.6	347.0	364.6	312.7	598.5	
PTP (Saticoy well field)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total PTP	695.3	557.9	177.0	333.2	624.4	644.5	645.9	647.2	495.9	312.7	598.5	
O-H Pipeline (groundwater)	1,497.9	1,346.1	1,161.3	1,148.7	993.9	1,210.7	1,074.2	1,130.6	864.2	813.1	892.8	
Total Surface Water Delivery (PTP & PV)	0.0	0.0	52.5	638.8	805.9	301.9	558.7	308.4	147.2	0.0	0.0	
Total Groundwater Delivery (OH & PTP)	2,193.2	1,904.0	1,301.0	1,185.4	1,117.3	1,553.3	1,260.8	1,477.6	1,228.8	1,125.8	1,491.3	
Total Delivery, Surface Water & GW	2,193.2	1,904.0	1,353.5	1,824.2	1,923.2	1,855.2	1,819.5	1,786.0	1,376.0	1,125.8	1,491.3	

Cumulative Water Deliveries, acre-feet (Water Year 2021/22)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
PV Pipeline (surface water)	0.0	0.0	15.2	357.5	662.4	662.4	761.8	770.0	785.9	785.9	785.9	
PV Pipeline (saticoy well field)	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Total to Pleasant Valley Pipeline	0.0	0.1	15.3	357.6	662.5	662.5	761.9	770.1	786.0	786.0	786.0	
Saticoy Well Field	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PTP (surface water)	0.0	0.0	37.3	333.8	834.8	1,136.7	1,596.0	1,896.2	2,027.5	2,027.5	2,027.5	
PTP (groundwater)	695.3	1,253.2	1,392.9	1,429.5	1,552.9	1,895.5	2,082.1	2,429.1	2,793.7	3,106.4	3,704.9	
PTP (Saticoy well field)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total PTP	695.3	1,253.2	1,430.2	1,763.3	2,387.7	3,032.2	3,678.1	4,325.3	4,821.2	5,133.9	5,732.4	
O-H Pipeline (groundwater)	1,497.9	2,844.0	4,005.3	5,154.0	6,147.9	7,358.6	8,432.8	9,563.4	10,427.6	11,240.7	12,133.5	
Total Surface Water Delivery (PTP & PV)	0.0	0.0	52.5	691.3	1,497.2	1,799.1	2,357.8	2,666.2	2,813.4	2,813.4	2,813.4	
Total Groundwater Delivery (OH & PTP)	2,193.2	4,097.2	5,398.2	6,583.5	7,700.8	9,254.1	10,514.9	11,992.5	13,221.3	14,347.1	15,838.4	
Total Delivery, Surface Water & GW	2,193.2	4,097.2	5,450.7	7,274.8	9,198.0	11,053.2	12,872.7	14,658.7	16,034.7	17,160.5	18,651.8	



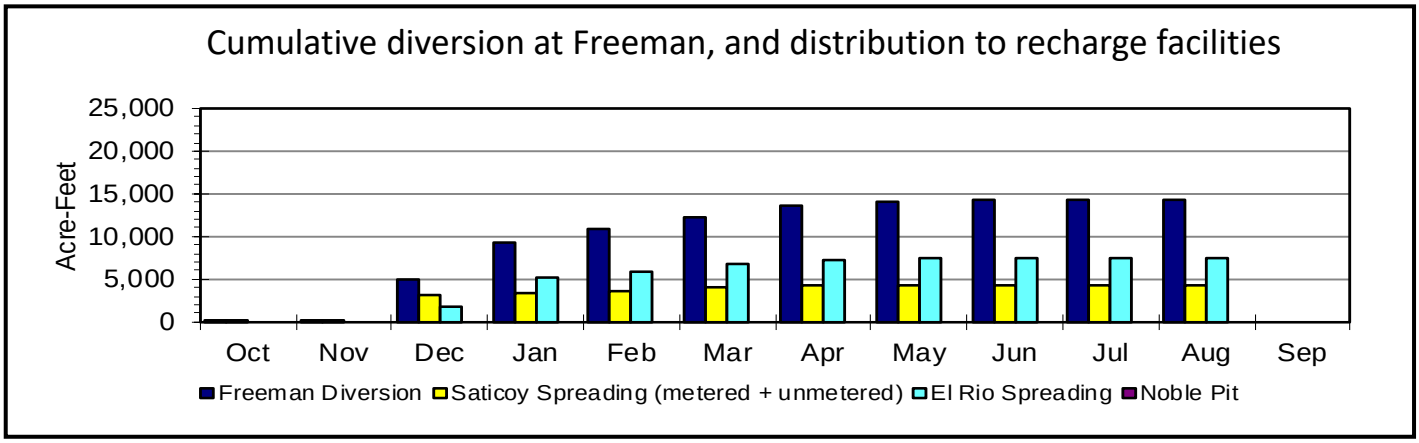
Monthly diversion and recharge totals by facility, 2021/22, in acre-feet

Month	Piru Spreading	Freeman Diversion	Saticoy Spreading (metered + unmetered)	El Rio Spreading	Noble Pit	LBMWC Water Use
Oct	0	2	2	0	0	0
Nov	0	76	76	0	0	0
Dec	0	4,936	3,037	1,860	0	0
Jan	0	4,168	371	3,262	0	15
Feb	0	1,702	204	807	0	37
Mar	0	1,445	439	744	0	29
Apr	0	1,337	255	621	0	15
May	0	428	-137*	223	0	34
Jun	0	209	41	21	0	NA**
Jul	0	0	0	0	0	0
Aug	0	0	0	0	0	0
Sep						

*Water delivered from desilting basin. ** LBMWC Water Use in June not available (NA) and assumed to be zero.

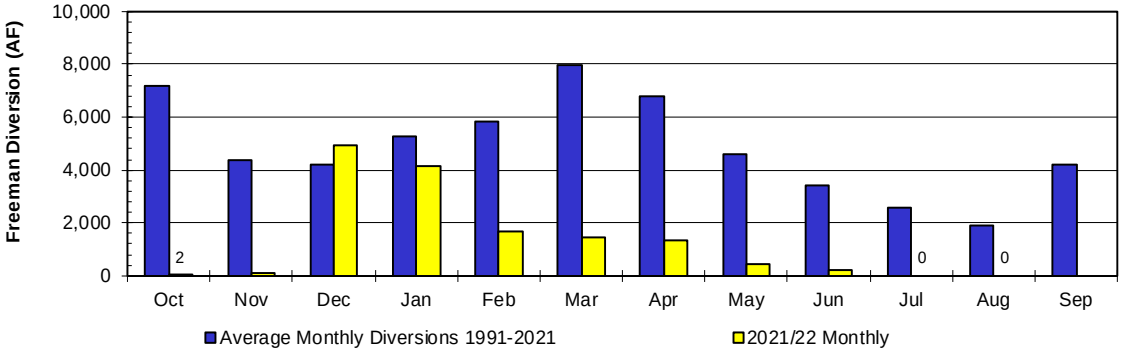
Cumulative diversion and recharge totals by facility, 2021/22, in acre-feet

Month	Piru Spreading	Freeman Diversion	Saticoy Spreading (metered + unmetered)	El Rio Spreading	Noble Pit	LBMWC Water Use
Oct	0	2	2	0	0	0
Nov	0	78	78	0	0	0
Dec	0	5,014	3,115	1,860	0	0
Jan	0	9,182	3,486	5,122	0	15
Feb	0	10,884	3,690	5,929	0	52
Mar	0	12,329	4,129	6,673	0	81
Apr	0	13,666	4,383	7,294	0	96
May	0	14,094	4,246	7,517	0	130
Jun	0	14,303	4,287	7,538	0	130
Jul	0	14,303	4,287	7,538	0	130
Aug	0	14,303	4,287	7,538	0	130
Sep						

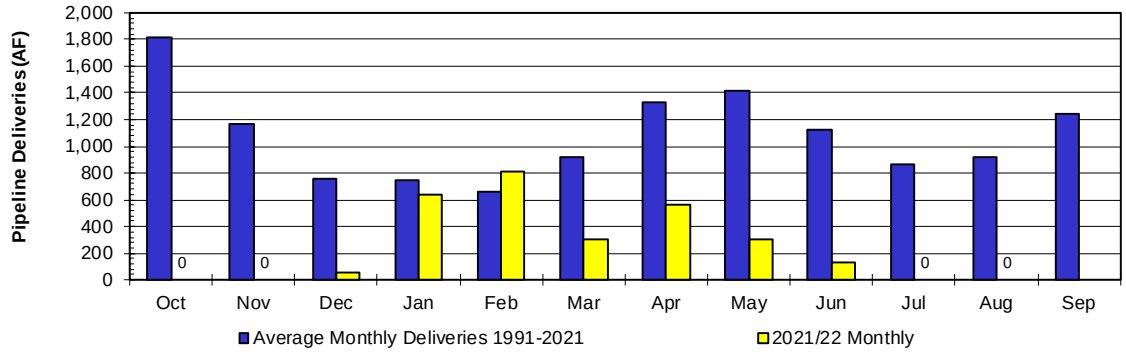


Cumulative diversions to Piru Spreading Grounds, 2021/22 = 0 AF

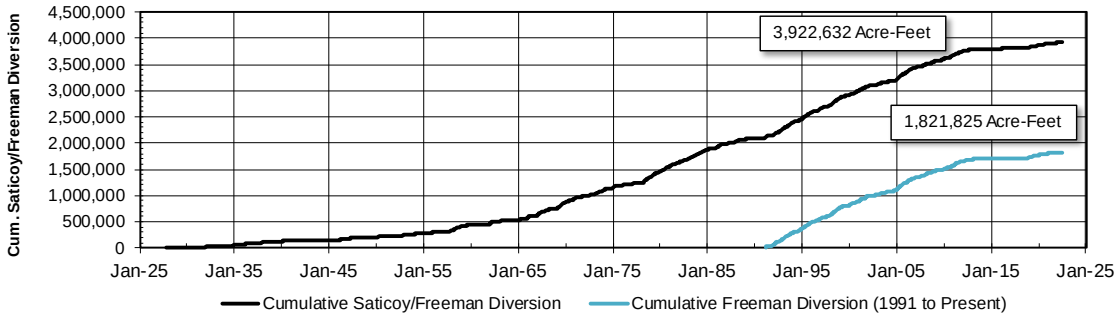
Monthly 2021/22 diversion at Freeman, compared to average monthly diversions (1991-2021)



Monthly 2021/22 pipeline deliveries (surface water deliveries), compared to average monthly pipeline deliveries (1991-2021)

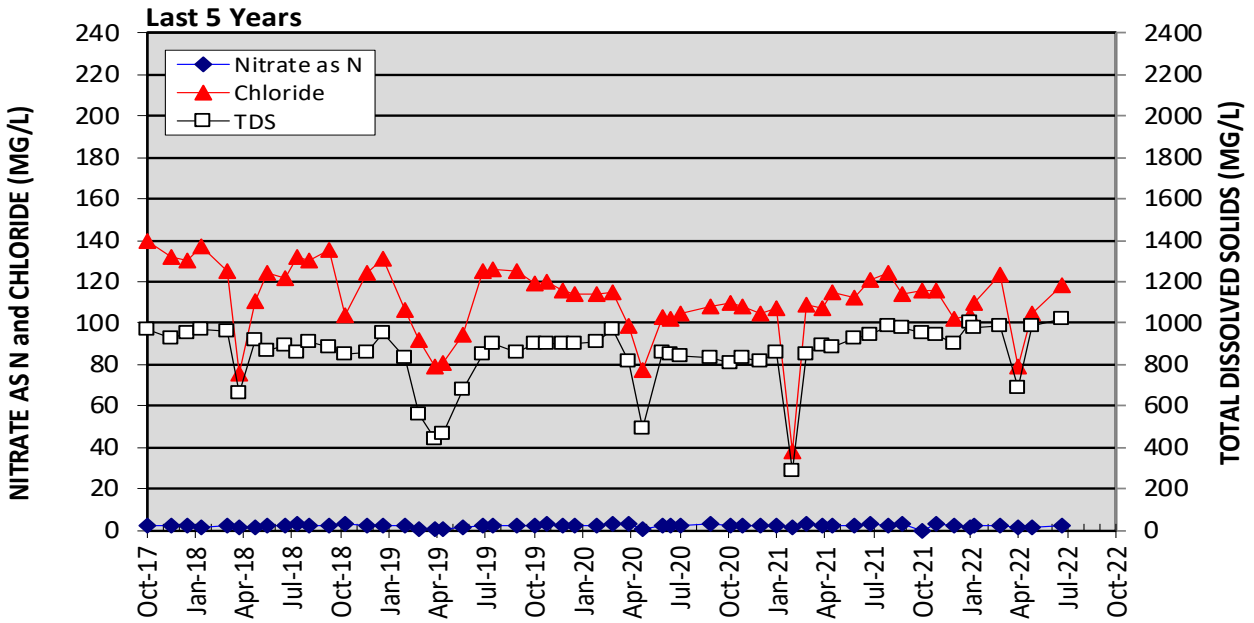


Cumulative diversion at Saticoy and Freeman Diversion, in acre-feet

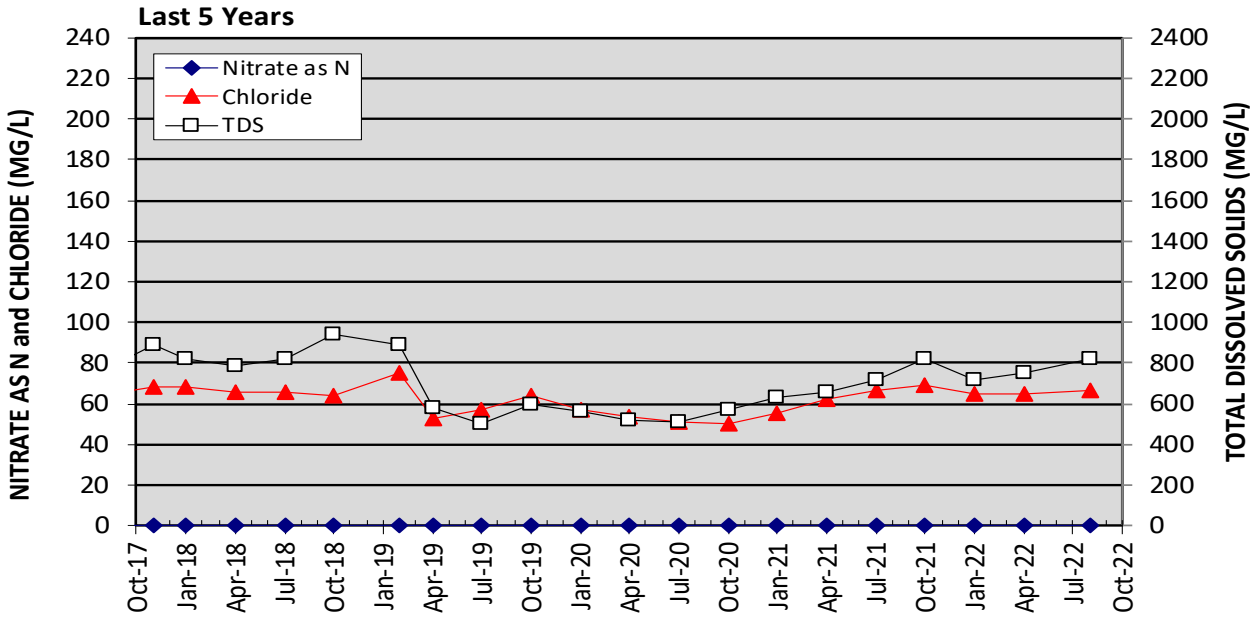


Water Quality

Santa Clara River water quality near Los Angeles/Ventura County line

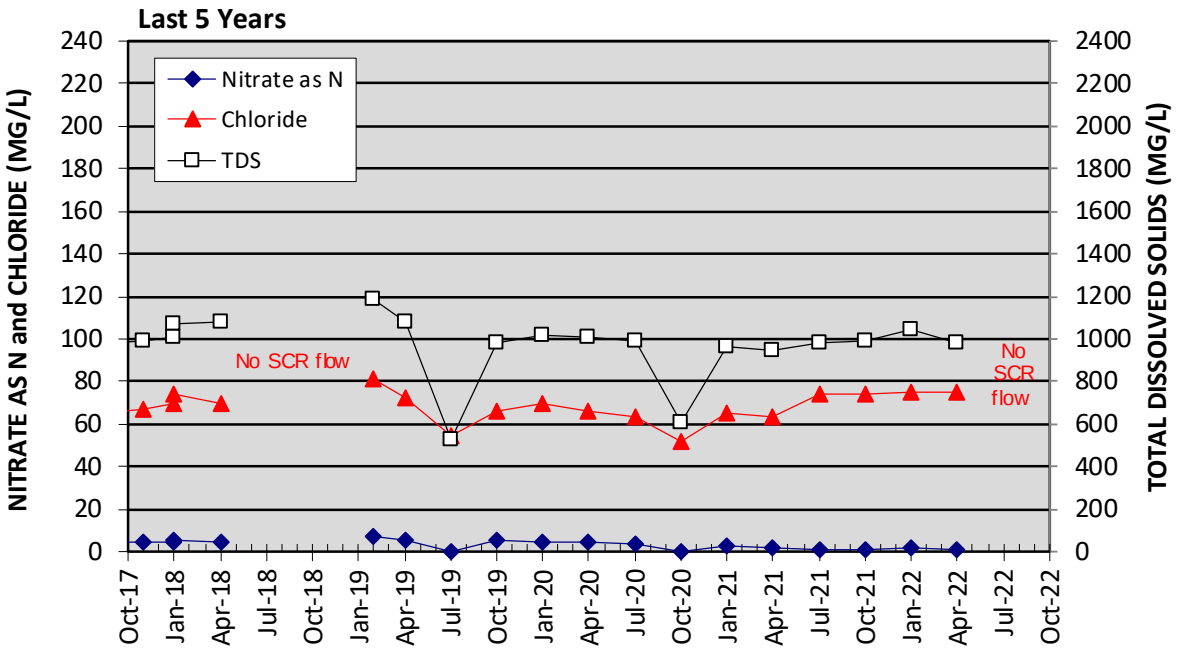


Piru Creek water quality below Santa Felicia Dam

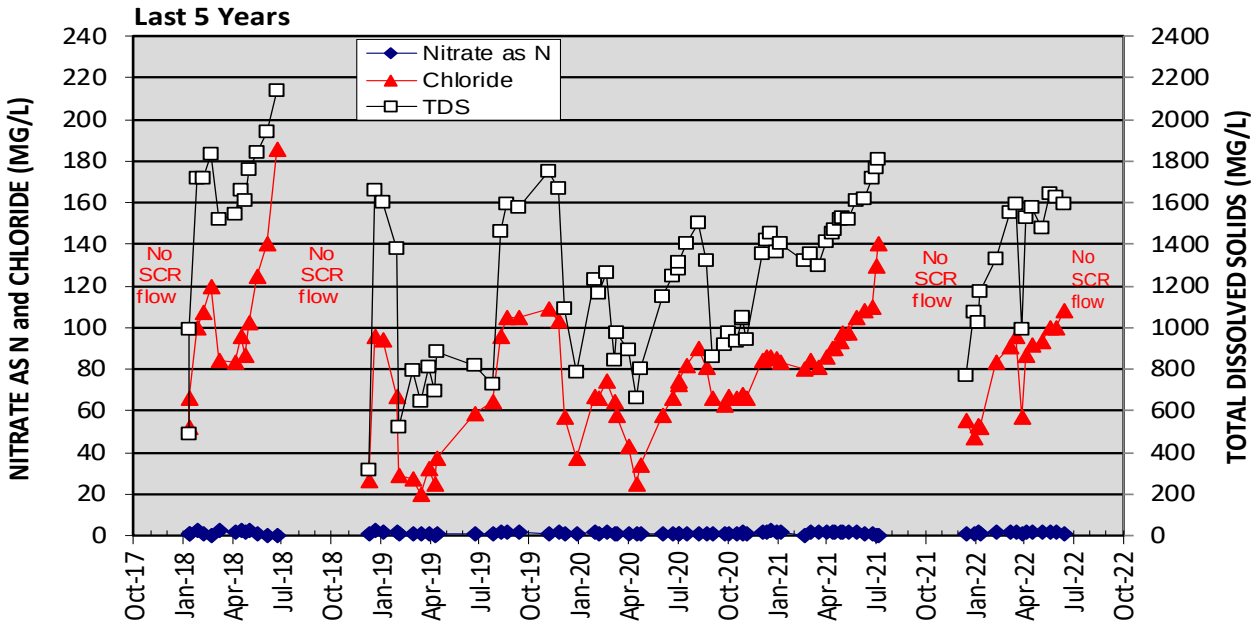


Water Quality

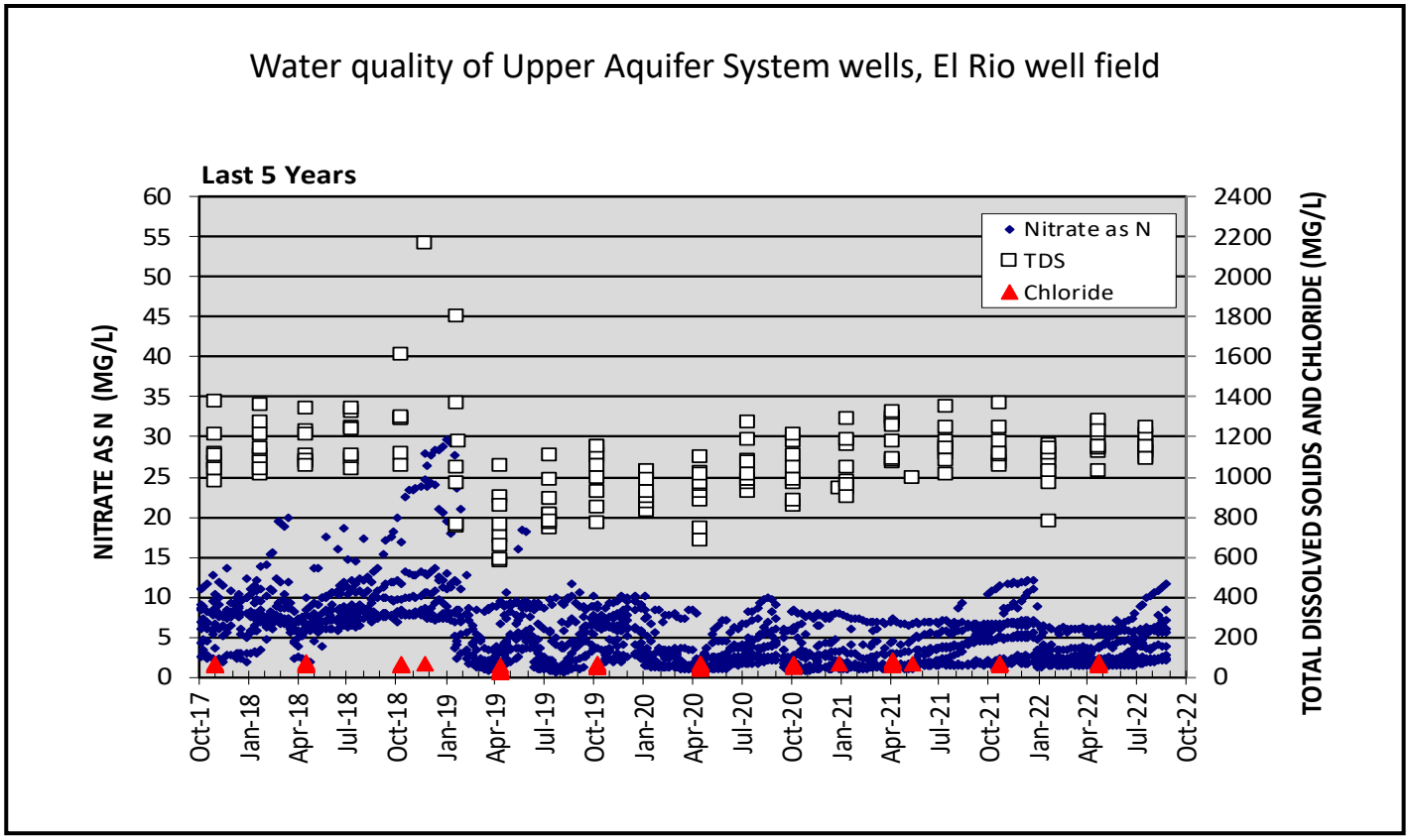
Santa Clara River water quality near Fillmore Fish Hatchery

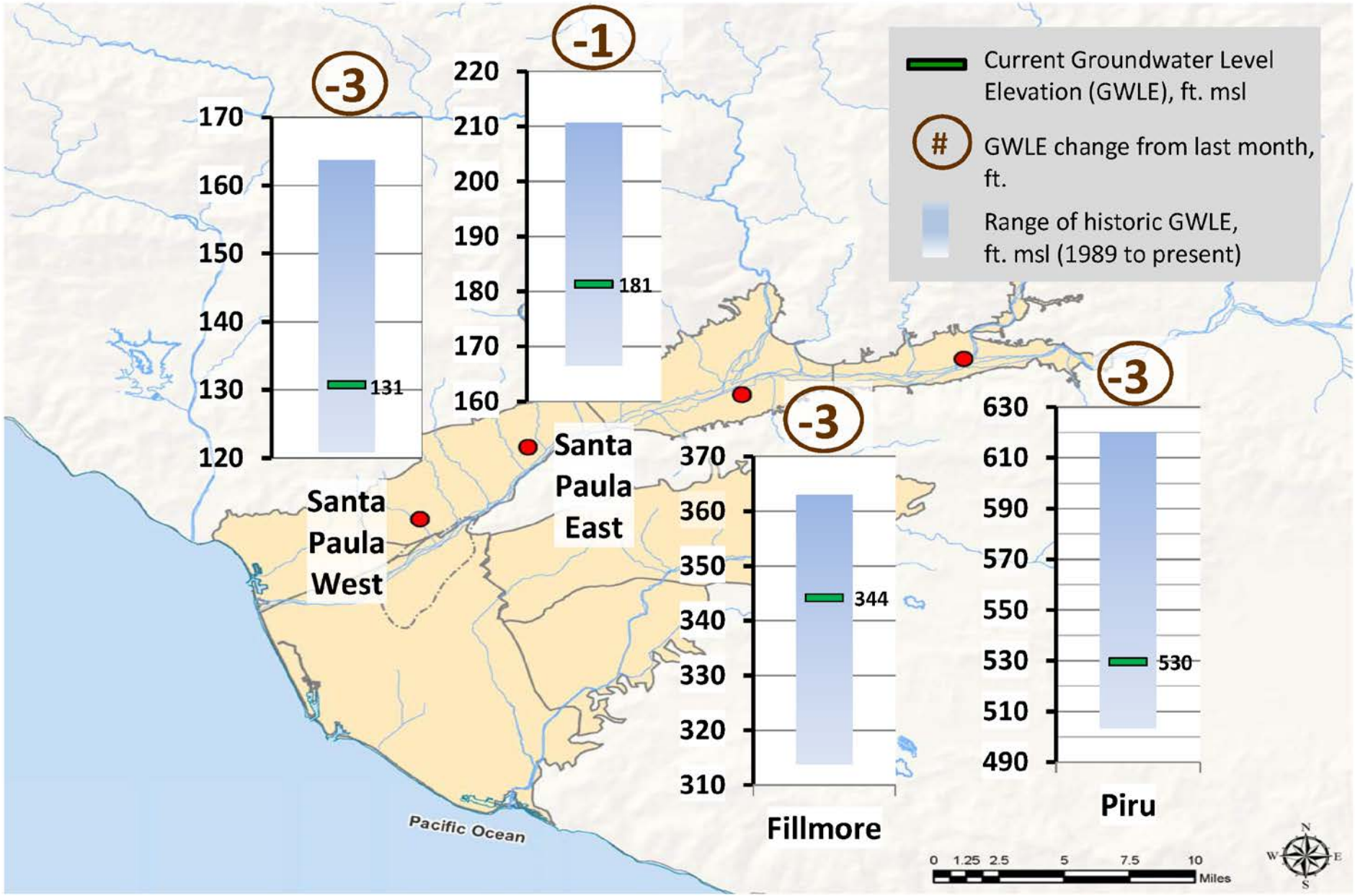


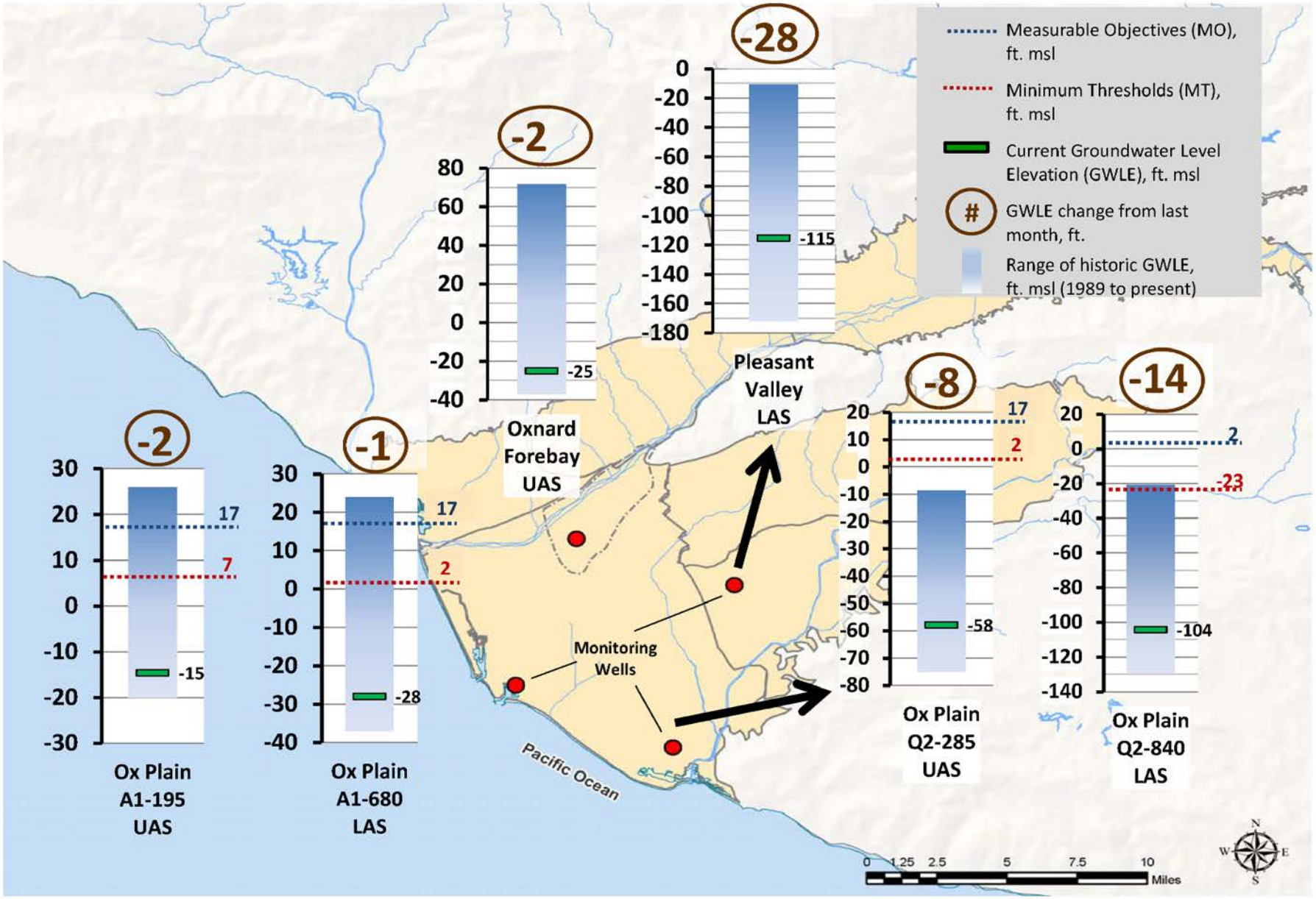
Santa Clara River water quality at Freeman Diversion

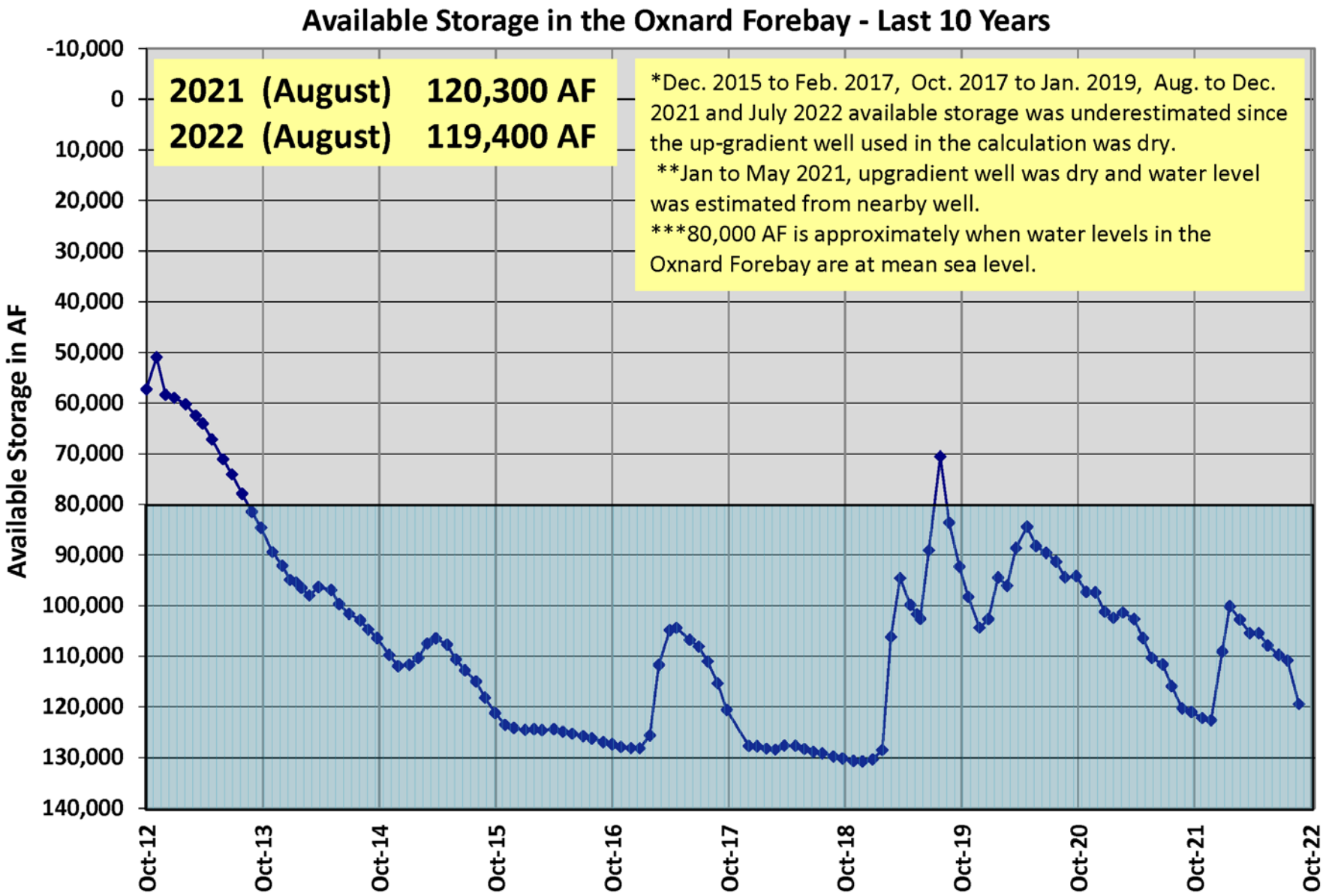


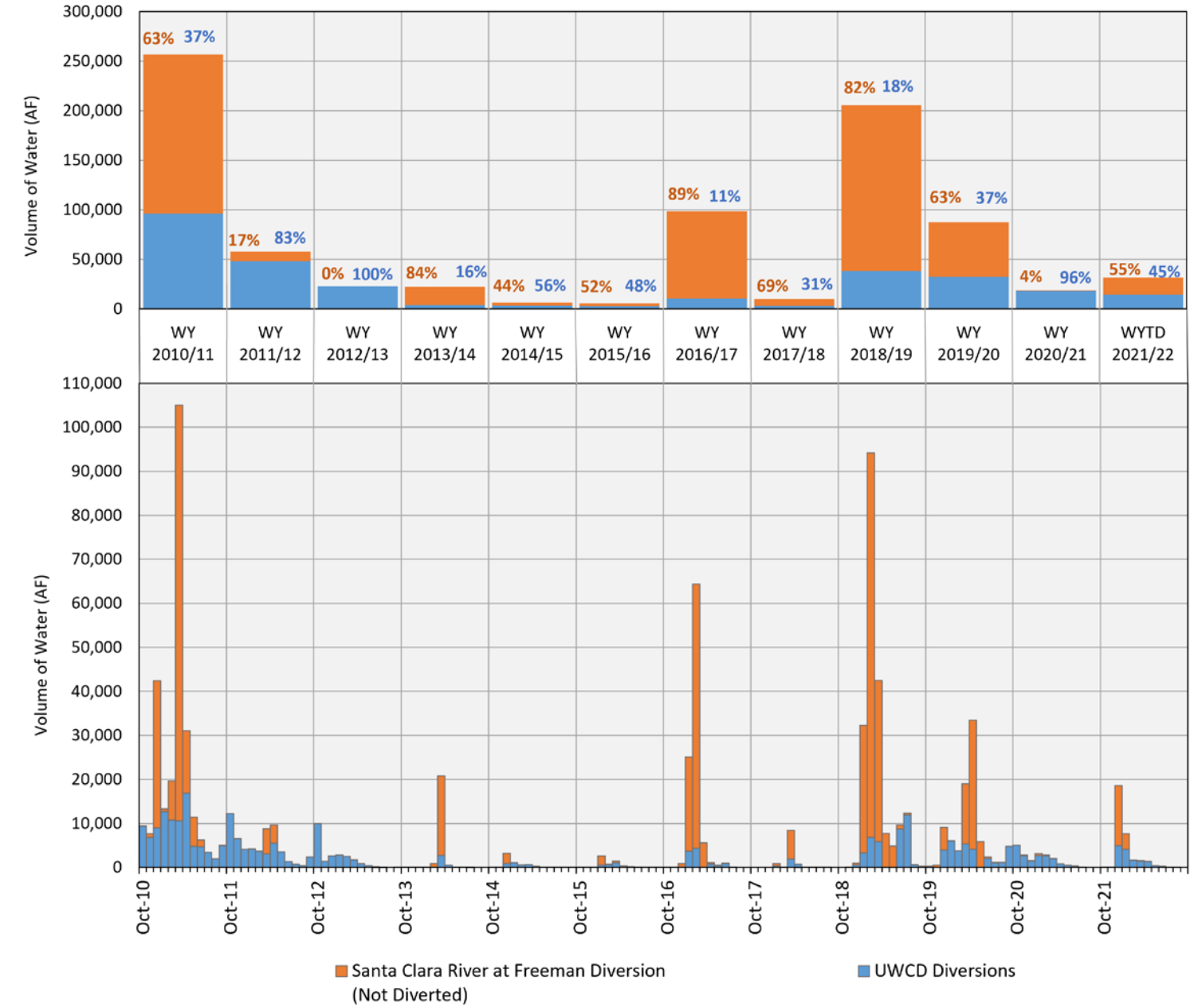
Water Quality




Current Groundwater Level Elevation (GWLE), ft. msl
#
GWLE change from last month, ft.
Range of historic GWLE, ft. msl (1989 to present)
-3
170
160
150
140
130
120
131
-1
220
210
200
190
180
170
160
181
-3
370
360
350
340
330
320
310
344
-3
630
610
590
570
550
530
510
490
530
Santa Paula West
Santa Paula East
Fillmore
Piru
Pacific Ocean
0 1.25 2.5 5 7.5 10
Miles
N
W
E
S


Measurable Objectives (MO), ft. msl
Minimum Thresholds (MT), ft. msl
Current Groundwater Level Elevation (GWLE), ft. msl
GWLE change from last month, ft.
Range of historic GWLE, ft. msl (1989 to present)
-2
-25
Oxnard Forebay UAS
-28
-115
Pleasant Valley LAS
-2
17
7
-15
Ox Plain A1-195 UAS
-1
17
2
-28
Ox Plain A1-680 LAS
Monitoring Wells
Pacific Ocean
-8
17
2
-58
Ox Plain Q2-285 UAS
-14
2
-23
-104
Ox Plain Q2-840 LAS
0 1.25 2.5 5 7.5 10
Miles
N
W
E
S


Available Storage in the Oxnard Forebay - Last 10 Years
2021 (August) 120,300 AF
2022 (August) 119,400 AF
*Dec. 2015 to Feb. 2017, Oct. 2017 to Jan. 2019, Aug. to Dec. 2021 and July 2022 available storage was underestimated since the up-gradient well used in the calculation was dry.
**Jan to May 2021, upgradient well was dry and water level was estimated from nearby well.
***80,000 AF is approximately when water levels in the Oxnard Forebay are at mean sea level.
Available Storage in AF
-10,000
0
10,000
20,000
30,000
40,000
50,000
60,000
70,000
80,000
90,000
100,000
110,000
120,000
130,000
140,000
Oct-12
Oct-13
Oct-14
Oct-15
Oct-16
Oct-17
Oct-18
Oct-19
Oct-20
Oct-21
Oct-22



Water Year (WY) = October 1 to September 30; WYTD = Water Year To Date