



Water Treatment Plant Summary

(April 2023 – June 2023)

Public Works Commission Meeting – September 14, 2023



Raw Water Quality (April 2023 – June 2023)

Hollywood Basin

C.B.

Water Quality Constituents	Units	MCL or SMCL	Well 2	Well 4	Well 5	Well 6	Maple 1	Maple 2	LCW-1
Total Dissolved Solids (TDS)	ppm	1000	540 -850	600	540 - 560	540 - 560	900 - 950	940 - 980	630 - 650
Iron	ppm	0.3	ND - 32	31 - 38	68 - 110	170 - 210	ND	ND	ND
Manganese	ppb	50	ND – 9.3	28 - 31	24 - 53	140	51 - 96	170 - 180	13 - 14
Color	ACU	15	5 – 7.5	3	ND	3 - 4	ND	ND	ND
Odor	TON	3	4	4 - 8	4 - 10	ND - 12	ND	ND	ND - 14
Arsenic (P)	ppb	10	1.7 – 2.9	4.6 – 5.2	0.75 – 5.2	2.4 – 3.2	1.3 - 1.6	1.3 – 1.6	ND

Note: P – health related water quality constituents. All others are aesthetic related.



Finished Water Quality (April - June 2023)

Plant Effluent	Units	MWD	MCL or SMCL	April	May	June
TDS	ppm	599 - 609	1000	410	340	350
Turbidity	NTU	0.04		ND	ND - 0.15	ND - 0.15
Color	ACU	1 - 2	15	ND	ND	ND
Odor	TON	1	3	ND	ND	ND
Iron	ppm	NA	0.3	ND	ND	ND
Manganese	ppb	NA	50	ND	ND	ND
Total Sulfides	ppm	NA		ND	ND	ND
Arsenic (P)	ppb	NA	10	ND - 0.60	ND - 0.79	0.51-0.57



OMF / RO Operation & Performance

- Oxidant Media Filters removed iron & manganese & sulfides to Non-Detect levels
- Arsenic levels of finished water after blending with RO permeate below MCL of 10 ppb (ND to 0.81ppb)
- Iron & Manganese levels of finished water removed to ND levels

OMF
(Greensand
Filters)

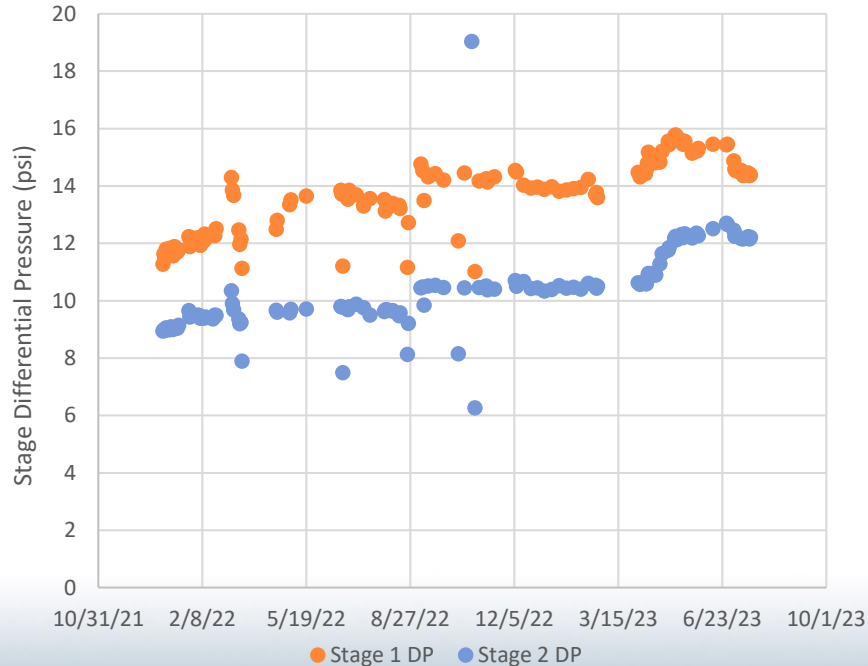


Reverse
Osmosis





RO Operation



- Minimal accumulation in differential pressure
 - Clean in Place to be Scheduled Q3 2023
- Silt Density Index
 - Target: < 3 mg/L
 - Actual: <1 mg/L
- Average: 80% recovery rate

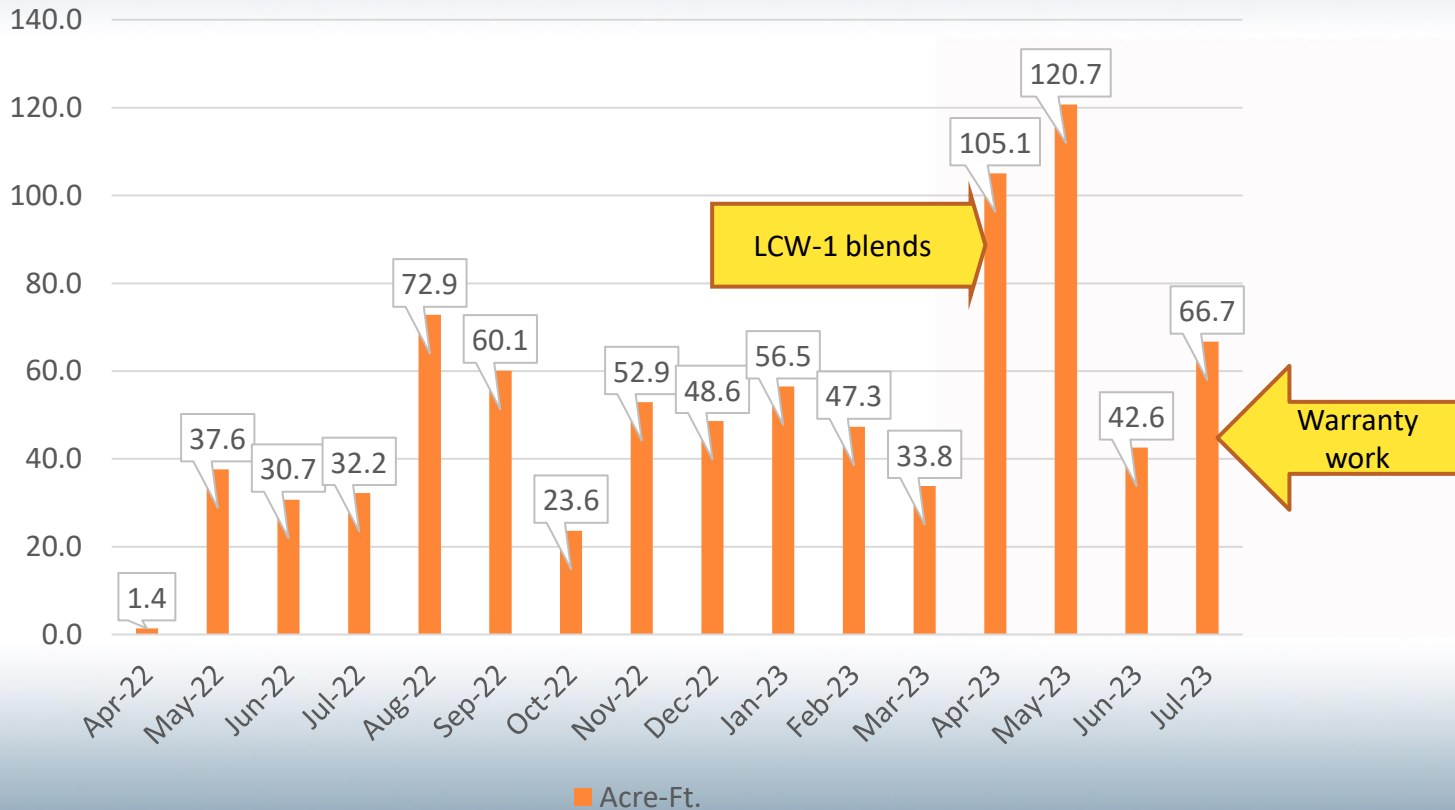


WTP Activities & Next Steps

- Combination of continuous running / resting wells from two basins
- Declining water table with minimal recharge in HW Basin
- Equipment & Warranty Planned Work
 - Replacement & retrofitting of chemical feed equipment
 - WTP shut down on July 24, 2023
 - Substantial completion in Sept. 2023
 - WTP restarted and re-distributed treated groundwater on 9/12/23



WTP Production



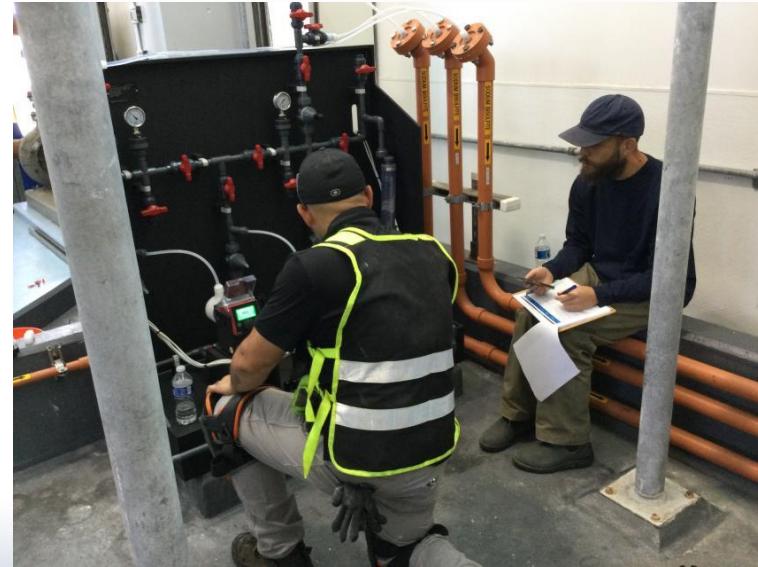


Chemical Feed System Retrofit/Replacement

- Replacement of 4 complete skids (chlorine, sodium bisulfite, ammonia, and caustic)
- Retrofit of remaining 13 chemical pump skid systems
- Mechanical / Electrical Testing – Dry & wet testing
- SCADA testing & integration
- Startup testing and sampling
- Permitting



WTP Chemical Feed System



New Sodium Bisulfite Skid Installation and testing



WTP Chemical Feed System



Retrofit of Existing Ferric Sulfate Chemical Feed Skid with new pumps

Questions

