

Forest View Acres Water District

Operations Report – May/June 2021

Prepared by Gabby Begeman -ORC Water Professionals

Arapahoe Water Plant

- The plant effectively produced 90% of demand for May
- No operational difficulties occurred in May

Booster Pump Station

- This facility has been operational without any issues.

Distribution

- Stainless Steel pilots and tubing have been installed on PRV's #1 and #7. Additional valve will be scheduled monthly or as schedules allow.
- Monthly routine bacteriological samples taken and were absent for bacteria.
- The map updates have been communicated and are currently taking place.
- The curb stop at 17280 Shilo Pines cannot be found. This is the only home that does not have a smart meter installed and was paying a surcharge for a manual meter reading. I propose installing a meter pit to facilitate the installation of a meter and shut off valve in the ROW of the home. An excavator will need to be utilized. An approximate estimate for the work is \$3-5000.

Surface Water Plant

- The plant produced an effective 10% of demand for May
- Additional turbidimeters have been ordered and we are awaiting delivery for install.
- Completed monthly MOR report for state with violations for turbidity. The facility's programming is intended to shut the facility down on high turbidity, however this function failed and the facility continued to operate until a manual shut down could occur. In an attempt to keep the plant producing water I was able to rig a relay from the Mission system to enable a remote shut down of the system in an attempt to reduce compliance issues. This method was not ideal as it resulted in a reduction of runtime.
- The facility did not run continuously due to the lack of remote control options for restart or other manual intervention. Typically the facility would fault after a backwash on high turbidity and could not be restarted until a physical site visit was made. This resulted in less utilization of the plant and mathematically created violations that would otherwise not exist due to statistical analysis.
- Browns Hill Engineering and Controls was onsite to review the controls and modify the settings to ensure the facility has adequate programming to cease operation if the plant is producing water outside of compliance standards. Many changes were made and additional controls installed to allow for a remote reset of the program after a fault to enable the facility to run more continuously, This was accomplished utilizing the Mission systems integrated relay systems and involved relatively minimal effort with huge results.

- The facility has had its annual backflow inspection and passed.
- Discussions are in the works to obtain a true estimate to replace the facility with another better suited means for filtration. During the controls reworking, the plant was tested and proved to be unsafe during the backwash procedures due to the rapid fluctuations of pressures within the piping systems.

Production Totals

Year	Month	SWTP Production -BW	% of Total	AWP Production	% of Total	Total Production	Total Water Sold	Percentage Discrepancy
2021	Jan	0	0%	1,790,658	100%	1,790,658	1,227,042	31.48%
	Feb	0	0%	1,548,535	100%	1,548,535	1,151,846	25.62%
	Mar	0	0%	1,492,529	100%	1,492,529	1,239,076	16.98%
	Apr	328,318	24%	1,036,751	76%	1,365,069	1,246,361	8.70%
	May	186,712	10%	1,716,955	90%	1,903,667	1,436,780	24.53%
	Jun							
	Jul							
	Aug							
	Sep							
	Oct							
	Nov							
	Dec							
Total		515,030	7%	7,585,428	93%	8,100,458	6,301,105	22.21%