

**Appleton Water Treatment Plant
Operations Synopsis
January, February, and March 2021**

Performance Summary

The table below presents selected water production and quality performance metrics for the current and previous reporting periods.

Treated Water Quality. All compliance parameters met or exceeded regulatory requirements.

Water Production. Compared with Q4 of 2020 (Q/Q) and Q1 of 2020 (Y/Y), average water production levels were essentially unchanged.

Raw Water Quality. Average Q/Q lake turbidity declined to relatively low levels consistent with winter season levels, and Y/Y levels were essentially unchanged.

Energy Efficiency. Applied electrical energy Q/Q and Y/Y efficiencies were essentially unchanged as well.

WATER PLANT PARAMETERS	Previous (Q4 2020)			Current (Q1 2021)		
	October	November	December	January	February	March
Water Treated						
Finished (million gallons), total	262.2	262.2	259.9	259.5	241.9	265.4
Finished (million gallons / day), average	8.5	8.4	8.4	8.4	8.6	8.6
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	473.6	454.1	481.1	475.7	442.1	484.2
MWH / million gallons produced	1.81	1.80	1.85	1.83	1.83	1.82
Lake Turbidity (NTU), average	13.9	30.87	5.63	2.21	1.43	4.70
Water System Microbial Quality						
Total Coliform Samples	82	82	81	81	81	81
Compliance with Standard	100%	100%	100%	100%	100%	100%
Finished Water Quality						
Water Temperature (Degrees F)	51.7	41.2	34.6	34.2	35.6	37.4
Turbidity (NTU), average	0.02	0.02	0.02	0.02	0.02	0.02
%<0.15 NTU standard	100	100	100	100	100	100
pH (SU), average	8.8	8.7	8.8	8.9	8.8	8.9
Total Chlorine (mg/L)	2.01	2.01	1.99	1.96	1.97	1.99
Fluoride (mg/L)	0.75	0.69	0.73	0.72	0.71	0.69
Orthophosphate (mg/L)	0.82	0.60	0.63	0.60	0.63	0.60

Laboratory

- In support of plant operations, staff conducted analyses according to method protocols for pH, turbidity, alkalinity, hardness, free/total chlorine, ammonia, phosphorus, potassium permanganate, and fluoride.
- In support of distribution operations, staff performed required 81+ monthly Coliform bacteria analyses along with heterotrophic plate count (HPC) testing.
- Staff collected and processed raw and finished water samples to comply with Disinfection By-Products Rule (DBPR) sampling requirements. Provided support to consecutive customers with shipping of DBPR2 samples.
- In support of OCCT demonstration project, completed daily samples and orthophosphate analyses along with stagnant / flowing samples and related water quality analyses.

Safety

- Maintained WTF Safety programs by completing scheduled safety inspections, fire prevention inspections, and monthly meetings. No significant incidents to report.
- Maintained appropriate COVID-19 countermeasures as directed by city policy.

Operations

- Operated two UV Disinfection reactors continuously during the quarter.
- Continued construction phase for the Lake Station mechanical/electrical rehabilitation. Major work completed includes installation of #2 Traveling Screen and the new fine screening system and associated controls; MCC and VFD replacements; and HVAC equipment installation.
- Continued the testing phase for Optimized Corrosion Control Treatment (OCCT) pipe loop testing apparatus.
- Continued pause for the winter months of gradual Main Pressure Zone pressure increases as recommended by Water Distribution System Master Plan.
- Continued cleaning #3 Softener.
- Completed repair of the Fluoride day tank.
- Successfully completed annual WPPI electrical generator capacity testing.

Staffing & Training

- Maintained staff schedules and work areas to limit group sizes and face-to-face contact among employees.
- Completed required CPR/First Aid training for staff Confined Space Entry qualification.