

**Appleton Water Treatment Plant
Operations Synopsis
January, February, March 2022**

Performance Summary

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

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

Water Production. Compared with Q4 of 2021 (Q/Q) average production increased by over 2%.

Raw Water Quality. Average Q/Q lake turbidity declined by over 84% consistent with seasonal change and ice cover.

Energy Efficiency. Applied electrical energy efficiency Q/Q increased by over 4%.

WATER PLANT PARAMETERS	Previous (Q4 2021)			Current (Q1 2022)		
	October	November	December	January	February	March
Water Treated						
Finished (million gallons), total	268.9	252.7	260.3	276.2	253.7	271.5
Finished (million gallons / day), average	8.7	8.4	8.4	8.9	9.1	8.8
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	511.5	486.7	498.4	514.8	458.9	489.8
MWH / million gallons produced	1.9	1.93	1.91	1.86	1.81	1.8
Lake Turbidity (NTU), average	9.12	18.84	13.47	2.44	1.68	2.35
Water System Microbial Quality						
Total Coliform Samples	81	81	81	81	81	81
Compliance with Standard	100%	100%	100%	100%	100%	100%
Finished Water Quality						
Water Temperature (Degrees F)	61.6	42.6	33.6	33.6	35.9	37.3
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	8.7	8.9	8.9	8.9	8.9	8.9
Total Chlorine (mg/L)	1.94	2.03	2.07	2.16	2.11	2
Fluoride (mg/L)	0.69	0.72	0.7	0.69	0.7	0.68
Orthophosphate (mg/L)	0.68	0.68	0.58	0.6	0.65	0.65

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.
- In support of OCCT demonstration project, completed daily samples and orthophosphate analyses along with stagnant / flowing samples and related water quality analyses.
- Quarterly disinfection by-product rule monitoring with wholesale water customers (DBPR-2). Preparation for second quarter DBPR-2 monitoring with wholesale customers

Safety

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

Operations

- Operated two UV Disinfection reactors continuously during the quarter.
- Maintained Main Pressure Zone pressure increases as recommended by Water Distribution System Master Plan.
- Completed cleaning #1 Softener.
- Completed cleaning North Sludge Pit.
- Continued cleaning #2 Softener.

Staffing & Training

- Staffing levels reduced by reassignment of one Water Plant Operator.
- Maintained normal staff schedules and work assignments.