

**Appleton Water Treatment Plant
Operations Synopsis
April, May, June 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 Q1 of 2022 (Q/Q) average production increased by over 2%.

Raw Water Quality. Average Q/Q lake turbidity nearly quadrupled consistent with seasonal change. Y/Y levels also increased but not outside the range expected.

Energy Efficiency. Applied electrical energy efficiency Q/Q increased by over 4% from Q1 2022.

WATER PLANT PARAMETERS	Previous (Q1 2022)			Current (Q2 2022)		
	January	February	March	April	May	June
Water Treated						
Finished (million gallons), total	276.2	253.7	271.5	259.4	300.5	294.1
Finished (million gallons / day), average	8.9	9.1	8.8	8.6	9.7	9.8
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	514.8	458.9	489.8	450.1	494.0	505.8
MWH / million gallons produced	1.86	1.81	1.8	1.7	1.6	1.7
Lake Turbidity (NTU), average	2.44	1.68	2.35	21.54	11.00	9.23
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)	33.6	35.9	37.3	40.7	57.3	70.6
Turbidity (NTU), average	0.02	0.02	0.02	0.01	0.01	0.04
%<0.15 NTU standard	100	100	100	100	100	100
pH (SU), average	8.9	8.9	8.9	8.9	8.7	8.6
Total Chlorine (mg/L)	2.16	2.11	2.00	2.01	1.92	1.86
Fluoride (mg/L)	0.69	0.7	0.68	0.69	0.67	0.67
Orthophosphate (mg/L)	0.6	0.65	0.65	0.63	0.66	0.69

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, all daily samples and orthophosphate analyses have ceased now that AWTP has received WI DNR approval.
- Quarterly disinfection by-product rule monitoring with wholesale water customers (DBPR-2) was completed.

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 verification of both plant discharge flow meters.
- Moved Orthophosphate injection point to CT basins inlets.
- Completed cleaning and inspecting North Reservoir.
- Completed cleaning #2 Softener and placed online.
- Drained and cleaned all tanks and lines that contained sodium hydroxide.
- New gas supply line to Lake Station successfully installed.

Staffing & Training

- Staffing levels at capacity with addition of new Water Plant Operator and new Relief Operator.
- Maintained normal staff schedules and work assignments.