

**Appleton Water Treatment Plant
Operations Synopsis
July, August, September 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 Q2 of 2022 (Q/Q) average production increased by over 2%.

Raw Water Quality. Average Q/Q lake turbidity declined nearly 20% from Q2 2022. Y/Y levels also decreased by over 50% from Q3 2021.

Energy Efficiency. Applied electrical energy efficiency Y/Y increased by over 7% from Q3 2021.

WATER PLANT PARAMETERS	Previous (Q2 2022)			Current (Q3 2022)		
	April	May	June	July	August	September
Water Treated						
Finished (million gallons), total	259.4	300.5	294.1	308.5	305.1	269.1
Finished (million gallons / day), average	8.6	9.7	9.8	9.9	9.8	9.0
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	450.1	494.0	505.8	527.8	522.8	461.1
MWH / million gallons produced	1.7	1.6	1.7	1.7	1.7	1.7
Lake Turbidity (NTU), average	21.54	11.00	9.23	10.19	12.71	10.54
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)	40.7	57.3	70.6	75.5	75.1	68.9
Turbidity (NTU), average	0.01	0.01	0.04	0.06	0.06	0.04
%<0.15 NTU standard	100	100	100	100	100	100
pH (SU), average	8.9	8.7	8.6	8.4	8.5	8.6
Total Chlorine (mg/L)	2.01	1.92	1.86	1.79	1.80	1.87
Fluoride (mg/L)	0.69	0.67	0.67	0.70	0.73	0.73
Orthophosphate (mg/L)	0.63	0.66	0.69	0.63	0.70	0.67

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.
- 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.
- Annual city-wide hearing and respirator tests held at Water Plant.

Operations

- Operated two UV Disinfection reactors continuously during the quarter.
- Maintained Main Pressure Zone pressure increases as recommended by Water Distribution System Master Plan.
- Nature's Way transmission line repaired.
- Emergency outdoor lighting installed at the Lake Station.
- Completed cleaning and inspecting Glendale Tower.
- Faith Technologies worked on fire alarm system upgrade.
- Drained and cleaned #2 Sodium Hypo tank in preparation for relining.
- Kickoff meeting held for air compressor replacement project.

Staffing & Training

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