

**Appleton Water Treatment Plant
Operations Synopsis
July, August, & September 2023**

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 Q3 of 2023 (Y/Y) average production increased by over 5.6%. Production increased by nearly 5.7% from Q2 of 2023.

Raw Water Quality. Average turbidity Y/Y levels increased by over 29% from Q3 2022.

Energy Efficiency. Applied electrical energy efficiency Y/Y increased by almost 2% from Q3 2022.

WATER PLANT PARAMETERS	Previous (Q2 2023)			Current (Q3 2023)		
	April	May	June	July	August	September
Water Treated						
Finished (million gallons), total	250.8	307.8	323.8	322.1	308.6	301.5
Finished (million gallons / day), average	8.4	9.9	10.8	10.4	10	10.1
Electrical Energy (WTF)						
Consumption (Megawatt-hours)	418.6	495.2	553.1	555.6	544.5	506.2
MWH / million gallons produced	1.7	1.6	1.7	1.7	1.8	1.7
Lake Turbidity (NTU), average	7.86	5.42	8.48	15.51	15.94	11.92
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)	44.42	56.7	70.93	75.78	74.26	69.21
Turbidity (NTU), average	0.05	0.04	0.04	0.04	0.04	0.04
%<0.15 NTU standard	100	100	100	100	100	100
pH (SU), average	8.4	8.4	8.3	8.1	8.0	8.0
Total Chlorine (mg/L)	2.18	2.08	2.13	2.12	2.09	1.96
Fluoride (mg/L)	0.68	0.69	0.71	0.71	0.67	0.69
Orthophosphate (mg/L)	0.76	0.69	0.75	0.76	0.73	0.74

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 Water Treatment Facility Safety programs by completing scheduled safety inspections, fire prevention inspections, and monthly meetings. No significant incidents to report.

Operations

- Operated two UV Disinfection Reactors continuously during the quarter.
- Maintained Main Pressure Zone pressure increases as recommended by Water Distribution System Master Plan.
- Membrane Wash Water tank being cleaned out.
- Corrosion Control Treatment construction project commenced.
- Lindbergh Standpipe cleaned & inspected.
- #3 Softener out of service for cleaning and inspection.
- Parking lot hardscape project completed.
- Air compressor replacement project ongoing.
- Second Raw water line piping project completed.

Staffing & Training

- Staffing levels fully staffed with the addition of one Water Plant Operator.
- Maintained operations schedules and maintenance work assignments.