

**Appleton Water Treatment Plant  
Operations Synopsis  
October, November, and December 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 Q4 of 2022 (Y/Y) average production increased by over 8.2%. Production decreased by nearly 10% from Q3 of 2023.

Raw Water Quality. Average turbidity Y/Y levels increased by over 6.6% from Q4 2022.

Energy Efficiency. Applied electrical energy efficiency Q/Q increased by nearly 15% from Q3 2023.

WATER PLANT PARAMETERS	Previous (Q3 2023)			Current (Q4 2023)		
	July	August	September	October	November	December
<b>Water Treated</b>						
Finished (million gallons), total	322.1	308.6	301.5	284.0	273.6	286.7
Finished (million gallons / day), average	10.4	10	10.1	9.2	9.1	9.3
<b>Electrical Energy (WTF)</b>						
Consumption (Megawatt-hours)	555.6	544.5	506.2	332.8	437.4	459.8
MWH / million gallons produced	1.7	1.8	1.7	1.2	1.6	1.6
<b>Lake Turbidity (NTU), average</b>	15.51	15.94	11.92	13.00	10.48	8.02
<b>Water System Microbial Quality</b>						
Total Coliform Samples	81	81	81	81	81	81
Compliance with Standard	100%	100%	100%	100%	100%	100%
<b>Finished Water Quality</b>						
Water Temperature (Degrees F)	75.78	74.26	69.21	57.90	44.65	35.55
Turbidity (NTU), average	0.04	0.04	0.04	0.04	0.04	0.04
%<0.15 NTU standard	100	100	100	100	100	100
pH (SU), average	8.1	8.0	8.0	8.2	8.3	8.4
Total Chlorine (mg/L)	2.12	2.09	1.96	2.00	2.00	1.97
Fluoride (mg/L)	0.71	0.67	0.69	0.66	0.66	0.74
Orthophosphate (mg/L)	0.76	0.73	0.74	0.74	0.68	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.
- 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 ongoing.
- Lindbergh Standpipe cleaned & inspected.
- #3 Softener cleaning completed.
- South Recarbonation Basin cleaning completed.
- Air compressor replacement completed.
- #2 and #3 Contactor wash water pumps replaced.
- Sodium Hypochlorite tank relining and repair work completed.

## **Staffing & Training**

- Staffing levels fully staffed.
- Maintained operation schedules and maintenance work assignments.