

Water Treatment System Information

Quick Facts

- The City of Aurora's water was deemed "Best in the County" in the 2016 Kane County Water Association's Taste Contest.
- The City's Water Treatment Plant earned the President's Award from the Partnership for Safe Water in 2014 and 2015.
- City water has an average pH range of 8.9 - 9.2.
- The fluoride concentration of City of Aurora tap water varies within a range of 0.6 - 0.8 mg/L (ppm) as regulated by the Illinois Department of Public Health.
- City water has an average hardness of 120 - 140 mg/L which is equivalent to 7 - 8 grains per gallon.
- Sources of raw water for the Water Treatment Plant include surface water from the Fox River and groundwater from both deep and shallow aquifers.
- Water Conservation Ordinance: Customers are permitted to water lawns between the hours of 6am to 9am and 6pm to 9pm on the standard odd/even protocol based on the last digit of their street address.
- The WPD Laboratory collects 132 monthly samples from the distribution system to insure water is bacteriologically safe to drink.
- The Water Treatment Plant has over 86 online analyzers which function 24/7 to insure regulatory compliance and operational efficiency.
- The Water Treatment Plant average daily flow = 15.8 million gallons per day
- The city of Aurora is a promotional partner of the USEPA's Water Sense program.

Claricone Reactors

- Four 60-ft diameter 7.0 MGD and one 69-ft diameter 8.5 MGD units operate in parallel
- Lime is added to increase pH
- Lime is added to reduce:
 - hardness
 - radium
 - turbidity
 - iron
 - manganese
 - color
 - odor
- Chlorine is added at the top of the cone

Head Tanks

- Head tank for river water
- Head tank for well water
- Aerator optimized by variable speed blower
- Reduces:
 - Carbon Dioxide
 - Hydrogen Sulfide
 - Radon Gas
- Helps to oxidize iron

Activated Carbon & Sand Filters

- Eight 3.5 MGD and four 3.75 MGD parallel dual media filters
- Remove last traces of turbidity
- Filter media consists of 12" support gravel, 24" sand, and 60" granular activated carbon
- Chlorine is added to filter effluent

Wet Well & Pump Station

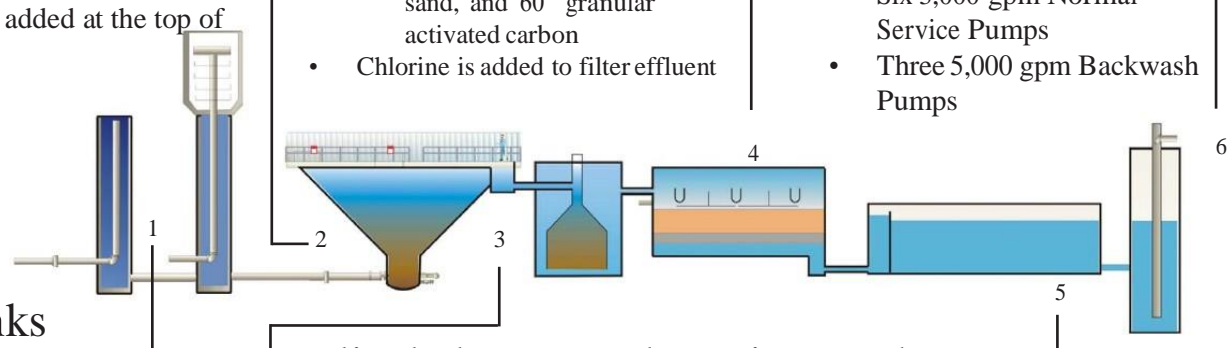
- Three 1,250 gpm High Service Pumps
- Six 3,000 gpm Normal Service Pumps
- Three 5,000 gpm Backwash Pumps

Helical Flow Recarbonation Tanks

- Three 14 MGD units
- Carbon Dioxide is added
- Stabilizes the water
- Lowers the pH
- Fluoride is also added here for dental health

Wet Well Reservoir

- One 4MG underground reservoir and two 1.13 MG Clearwells
- Provides:
 - Disinfectant contact time
 - Water storage
- Allows water to flow through plant at constant rate



Abbreviations used:
 MGD = million gallons per day
 MG = Million Gallons
 gpm = gallons per minute
 " = inches