Iowa Area Wide Optimization Program Optimized Performance Goals

The Iowa Area-Wide Optimization Program (AWOP) is a strategy for improving performances of surface water treatment facilities. AWOP focuses on particle removal and disinfection to maximize public health protection from microbial contaminants.

The Iowa Department of Natural Resources has adopted performance goals for all conventional treatment surface water and influenced groundwater treatment plants in the state.

AWOP Optimized Performance Goals

Sedimentation Goals

- ≤ 1 NTU in at least 95% of measurements (when calendar year avg. raw turbidity is ≤ 10 NTU)
- ≤ 2 NTU in at least 95% of measurements (when calendar year avg. raw turbidity is > 10 NTU)
- Based on maximum daily value of readings taken at least once every 4 hours from each basin

Individual FIlter Goals

- ≤ 0.10 NTU in at least 95% of measurements (over the course of the calendar year)
- Based on daily maximum readings recording at least once per minute
- Maximum individual filter turbidity must not exceed 0.30 NTU at any time
- For plants with filter-to-waste
    - Turbidity must not exceed 0.30 NTU during filter-to-waste and must return to service with a turbidity of ≤ 0.10 NTU
- For plants without filter-to-waste
    - Turbidity must not exceed 0.30 NTU following backwash and must return to service ≤ 0.10 NTU within 15 minutes of returning to service

Combined Filter Goals

- ≤ 0.10 NTU in at least 95% of measurements (over the course of the calendar year)
- Based on daily maximum readings recording at least once per minute
- Maximum combined filter turbidity must not exceed 0.30 NTU at any time

Disinfection Goal

- The calculated disinfection ratio ($CT_{measured}$ / $CT_{required}$) must be ≥ 1 every day over the course of the calendar year

Performance goals must be calculated using the AWOP OAS (Optimization Assessment Software) found online at:

www.iowadnr.gov/environmental-protection/water-quality/water-supply-engineering/optimization-program-awop