

RESPONSE FROM THE CITY OF NEWARK WATER DEPARTMENT
REMEDIAL ACTION PLAN FOR REDUCTION OF DISINFECTION BY-PRODUCTS (DBP's)
IMPACTING THE BLOOMFIELD WATER SYSTEM

9/28/18

In response to Bloomfield's concerns regarding DBP's (Haloacetic Acids and Trihalomethanes) the City of Newark has submitted the following measures to the New Jersey Department of Environmental Protection to reduce these contaminants within the water supply:

The City has developed the following plan to minimize and ultimately eliminate HAA5 exceedances:

- It has been determined that the pre-chlorination leg of the treatment train is not adding a significant benefit to the CT and microbial inactivation. Therefore, effective as of this writing the City will be reducing pre-chlorine dosages to 2017 levels. This should reduce the HAA5 formation potential and HAA5 levels in the City's distribution system while still meeting stringent CT requirements.
- The City has performed jar tests using potassium permanganate (KMnO₄) as a primary oxidant instead of pre-chlorine at the head of the plant. Results show a significant reduction in HAA5's. The City will be requesting authorization from the DEP to conduct a plant scale test at the Pequannock Water Treatment Plant (PWTP) within the next several weeks. The plant scale test will use potassium permanganate in pretreatment as the primary initial oxidant, followed by a low dosage of chlorine fed on to the filters, and then chlorine will be fed in the post position leaving the plant.
 - Should plant scale testing of KMnO₄ not show system-wide HAA5 reductions expected, the City will test other oxidants including chlorine dioxide and ozone to achieve further reductions
- The City has determined that it can reduce HAA5's further by moving its first official customer further downstream of the plant. This will allow the plant to get the benefit of additional detention time in the pipeline, reduce post chlorine dosages and hence lower HAA5s and still meet CT.

The above measures were established by the City of Newark in their report to the NJDEP. These measures are to be implemented by the City of Newark since they are responsible for treatment of Bloomfield's water. The Bloomfield Water Department will continue to monitor the source water and provide all information to the City of Newark related to the levels of DBP's.

Any specific questions related to treatment of water should be directed to the City of Newark Water Department.