

## **Notification Total Trihalomethanes**

**September 8, 2022**

**To: Customers/Residents of: Middlesex Water District #1**

**From: Town of Middlesex**

Required water quality tests conducted quarterly and averaged as a locational running annual average for the previous twelve months indicate the presence of total trihalomethanes at 87 micrograms per liter (ug/l), which is above the maximum contaminant level (MCL) allowed in a public water supply of 80 micrograms per liter (ug/l). This is a maximum contaminant level violation of the Code of Federal Regulations (CFR 141.64.) This violation requires public notice be provided to all customers on a quarterly basis for as long as the violation exists.

The New York State Department of Health sets drinking standards and has determined that the presence of total trihalomethanes is a possible health concern. Trihalomethanes are a group of chemicals that include chloroform, bromoform, bromodichloromethane, and chlorodibromomethane. Trihalomethanes are formed in drinking water during treatment by chlorine, which is the most commonly used disinfectant in New York State. Chlorine reacts with certain acids that are naturally-occurring in organic material ( e.g., decomposing vegetation such as tree leaves, algae or other aquatic plants) in surface water sources such as rivers and lakes. The amount of trihalomethanes formed in drinking water during disinfection can change from day to day, depending on the temperature, the amount of organic material in the water, the amount of chlorine added, and a variety of other factors. Drinking water is disinfected by public water suppliers to kill bacteria and viruses that could cause serious illnesses. For this reason, disinfection of drinking water by chlorination is beneficial to public health.

Some studies suggest that people who drink chlorinated water (which contains trihalomethanes) or water containing elevated levels of trihalomethanes for long periods of time may have an increased risk for certain health effects. For example, some studies of people who drank chlorinated drinking water for 20 to 30 years show that long exposure to disinfection by-products (including trihalomethanes) are associated with an increase risk for certain types of cancer. A few studies of women who drank water containing trihalomethanes during pregnancy show an association between exposure to elevated levels of trihalomethanes and small increased risks for low birth weights, miscarriages and birth defects. However, in each of the studies, how frequently people actually drank the water, as well as how much trihalomethanes the water contained is not known for certain. Therefore, we do not know for sure if the observed increases in the risk for cancer or other health effects are due to trihalomethanes or some other factor. The individual trihalomethanes chloroform, bromodichloromethane and dibromochloromethane cause cancer in laboratory animals exposed to high levels over their lifetimes. Chloroform, bromodichloromethane and dibromochloromethane are also known to cause effects in laboratory animals after high levels of exposure, primarily on the liver, kidney, nervous system and their ability to bear healthy offspring. Chemicals that cause adverse health effects in laboratory animals after high levels of exposure may pose a risk for adverse health effects in humans exposed to lower levels over long periods of time.

The following areas have been affected: **All water customers in the Water District.**

The following steps are being taken to correct the violation: **We have installed a second automatic flushing device on July 20, 2022 to better facilitate flushing of the mains. This should help bring our trihalomethanes down.**

At this time no additional precautions by customers/residents are necessary. If you any have questions please contact **New York State Department of Health at 315-789-3030 or Alan Williams, Water Superintendent 585-554-6952**