



November 20, 2024

Dear Water Customer,

This notification is required by the North Carolina Administrative Code, under the oversight of the North Carolina Department of Environmental Quality (NCDEQ), regarding **the 12-month average level of Haloacetic Acids (HAA5) and Trihalomethanes (THMs)**, as measured at a sampling point within the Town of Mount Pleasant Water System. It is required that this notification be provided to the public until the running 12-month averages for the disinfection byproducts (DBPs) of HAAs and THMs are in compliance. **It is anticipated that the implementation of engineering recommendations currently under development should significantly improve TOC, HAA5, and THM levels, and bring them into compliance. Engineering for corrective actions is still underway. These measures will be installed immediately after engineering is completed and approved by NCDEQ. The Town appreciates water customers' continued patience as it works diligently with engineers and NCDEQ to make these incremental corrections in the safest and most cost-effective manner possible.**

The following violations have been noted at a sampling site for the October 1, 2024 quarterly compliance period:

- HAA5 level of 0.103 mg/L, which exceeds the established MCL of 0.060mg/L
- TTHM level of 0.184 mg/L which exceeds the established MCL of 0.080 mg/L

The Town has been working closely with the North Carolina Department of Environmental Quality (NCDEQ) to bring disinfection byproduct (DBP) levels back into compliance. Thus far, the following actions have been taken to improve disinfectant byproduct levels:

1. Contracted engineering firm to develop strategies to reduce disinfection byproduct level and evaluate pre-treatment system. Final recommendations expected by end of 2024.
2. Conducted system-wide sample testing to determine disinfection byproduct levels at each stage of treatment, storage, and distribution to provide information to engineering firm.
3. Frequent flushing of the system at hydrants on the ends of distribution lines that have lower usage.
4. Moved chlorine injection points from top of filters to the filter effluent pipe, as recommended by NCDEQ. This reduces the amount of time that chlorine is in contact with organics in the system, which causes the reaction that creates disinfection byproducts.
5. Installed new turbidimeters to benchmark and record turbidity weekly. Turbidity is the measurement of suspended particles typically caused by soil erosion in the vicinity of the water source.
6. Conducted jar testing of coagulants to determine best media for carbon removal.
7. In the process of sourcing new filter media for water treatment plant.
8. In the process of sourcing maintenance and aeration for ground water storage.
9. Currently working with NCDEQ to update compliance monitoring plan.

TOWN OF MOUNT PLEASANT

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What is disinfection byproduct and what are the risks?

Chlorine disinfection of drinking water is one of the major public health advances in the 20th century. Disinfectants are added to water systems to kill potentially dangerous microorganisms, preventing typhoid and cholera epidemics that were common in American cities more than 100 years ago. However, **disinfectants can react with naturally occurring organic material in the water to form disinfection byproducts (DBPs), which may pose health risks if consumed at high levels over a lifetime.** The levels of these byproducts are averaged over a rolling four consecutive 3-month intervals in the compliance calculation for drinking water. Total Organic Carbon (TOC) has no health effects, however, it provides a medium for the formation of disinfection byproducts. These byproducts include Trihalomethanes (THMs) and Haloacetic Acids (HAA5). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increase risk of getting cancer. Because long-term exposures to these byproducts in water may result in adverse health effects, the Environmental Protection Agency (EPA) has established, maximum contaminant levels (MCLs). When tests exceed their respective MCLs in drinking water, your provider is required to notify customers. Notification is not intended to suggest that you or your family members will be harmed by the detected levels, but instead is meant to keep you informed. Exceedance of MCLs also informs the water supplier that action is warranted to reduce the concentrations of those byproducts in the water system. When EPA establishes the MCL for a chemical that is known or suspected to cause adverse health effects from long-term exposures, it assumes that the people who drink that water consume two liters (about half a gallon) of it every day for seventy years or roughly one lifetime. For chemicals that may cause cancer, EPA also considers what amount of the chemical would cause an increased risk of one (1) case in one million (1,000,000) people who are exposed over their lifetime. It is highly unlikely that the short amount of time (relative to seventy years) that customers will drink the water with elevated HAAs or THMs should cause any adverse effect on their health. The EPA has identified HAAs and THMs as a long-term health risk, not a short-term health risk. It would be much riskier to drink water that did not have enough chlorine than to drink water that has high levels of disinfection byproduct. With this information, **there is no imminent risk to the health of customers.**

If you have additional questions, please call Town Hall at 704-436-9800.