

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### **Drinking Water Contains High Levels of Disinfection By-Products NOTICE OF STANDARD MAXIMUM CONTAMINANT LEVEL ("MCL") VIOLATIONS**

The New Castle water system recently violated drinking water standards. Although this is not an emergency, as our customers in the area of the violation, you have a right to know what happened, what you should do, and what we are doing to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. The standard for Total Trihalomethanes (TTHMs) is 0.080 mg/L. The standard for Haloacetic Acids is 0.060 mg/L. Testing results for the fourth quarter sampling in 2017 showed the Town system's 12-month rolling average exceeded the maximum contaminant level for TTHMs at one of the two required sample locations. This site is located at the New Castle School. The 12-month running average level of TTHMs at this site is 0.097 mg/L. The 4<sup>th</sup> Quarter test exceeded maximum contaminant level at two test locations; 110 ppb at the New Castle school and 89 ppb at the Shapleigh Island meter pit.

#### **What does this mean?**

**This is not an emergency.** If it had been you would have been notified immediately. However, *some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.*

#### **What should I do?**

It is not necessary to use alternate water; however, if you have specific health concerns, please contact your health care professional. General health related questions may be directed to Dave Gordon of the DES Environmental Health Program at (603) 271-4608.

#### **What Caused this Violation?**

The New Castle Water system receives all its water from the Portsmouth Water Division. The last two quarterly tests done on water entering the New Castle system at the Shapleigh Island meter pit from the Portsmouth Water Division exceeded the maximum contaminant level for TTHMs. It is unclear as to the cause, however unusually warm weather and temperature variations occurred over the summer and fall of 2017 which can attribute to higher than normal organics in the surface water supplying Portsmouth's Madbury Water Treatment system. Organics, mixing with chlorinated water are what cause TTHMs to form in drinking water systems. TTHM levels have decreased to 89ppb and 110ppb in the fourth quarter testing from 114ppb and 143ppb in the 3<sup>rd</sup> quarter at the Shapleigh meter pit and the New Castle School respectively. It is important to note that violations are based on a rolling four quarter average. Therefore, even if quarterly testing results are below the maximum contaminant levels, the New Castle system may still be in violation going forward due to these high readings.



### Steps We Are Taking:

New Castle hired Underwood Engineers, Inc. to analyze and address the issue. The consulting firm provided an evaluation including additional testing, alternatives for treatment, and recommendations to address the elevated TTHM levels in the Town's water distribution system. A technical memo outlining the work and recommended actions was reviewed and accepted by NHDES on March 31, 2017. Implementation is on-going including such things as bi-annual unidirectional flushing with increased flushing in warmer months. In the NHDES letter to the Town date April 24, 2017, approving the technical memo, NHDES acknowledges that the Town system receives all of its water from the City of Portsmouth and as recommended in the memo the long-term solution is for the Town of New Castle to rely on the City to implement a capital improvement project (aeration of the Newington Booster Tank). The Town has and continues to request assistance from Portsmouth given 100% of water entering the system is from their system and has been tested to contain higher levels of contaminants. The quarterly tests in July and October of 2017 showed TTHM levels at the point of entry to the Town system (Shapleigh) of 114ppb and 89ppb respectively. Although improving, both tests show TTHM levels exceeding the maximum contaminant levels accentuating the need for New Castle to work with Portsmouth to achieve better water quality. Portsmouth is continuing to address improving water quality. The Portsmouth 2013 Water System Master Plan recommended aeration of the Newington Booster Tank to treat for this parameter. A consultant was hired by the City in 2014 to perform preliminary design of that system and to also assist the water operations staff with optimizing treatment system operations to lower the levels of TTHMs. NHDES noted in its letter that its staff confirmed the Portsmouth project is planned to be bid Summer of 2017 with construction starting late Fall 2017 and completion estimated for Fall of 2018. The letter also requests an update be provided to them in January 2018 on the status of the long-term solution (aeration of the Newington Booster Tank).

Stephen Tabbutt of Town of New Castle at (603) 431-6710  
49 Main Street, New Castle, NH 03854

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

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