

**Additional Information regarding
Total Trihalomethanes in the Narragansett Point Judith Water System
10/22/2020**

Total trihalomethanes (TTHM) are a group of disinfection byproducts that form when chlorine compounds that are used to disinfect drinking water react with naturally occurring organic material that is found in source water. They are colorless, and will evaporate out of the water into the air. Levels of TTHMs generally increase in the summer months due to the warmer temperatures, but can also be effected by seasonal changes in source water quality or by changing amounts of disinfection chemicals that are added to the water. Water systems often can experience temporary increases in TTHMs due to short-term increases in chlorine disinfection. Chlorine disinfection increases can occur when there is a water main break, when water systems are under repair, when changes occur in source water quality, or when there is a potential microbial (bacteria) problem or threat, such as the September 2018 bacterial contamination in the Suez water system, and resulting boil water advisory and increased chlorine disinfection chemical application.

We are required by federal and state law to sample for TTHMs on a quarterly basis (once every three months) within the water distribution system because we use chlorine to disinfect the water. Drinking water standards are set to protect against potential negative health effects from drinking water containing certain chemicals and Maximum Contaminant Levels (MCL) in drinking water are set so that the amount consumed does not exceed safe levels. Some MCLs address the daily amount consumed (for chemicals that pose an immediate risk), and others address the amount averaged over a long period of time (for chemicals that pose a long-term risk). Control of TTHM levels must be maintained while also applying appropriate levels of disinfectant in the water necessary to treat the water for contaminants and avoid bacterial issues. The United States Environmental Protection Agency and RI Department of Health have set an MCL for TTHMs of 0.080 parts per million (ppm) or milligrams per liter (mg/L) as a running annual average. The TTHM MCL is set at a level to balance the immediate risk of bacterial contamination and the long-term risk of health effects such as cancer.

Based on the available information, long term consumption of TTHM in drinking water above the MCL may increase the risk of certain types of cancer (e.g., bladder, colon, and rectal) and other adverse effects in some people. The degree of risk for these effects will depend on the TTHM level and the duration of exposure. In general, young children may be more susceptible to the effects from any chemical exposure, such as TTHM, because their ability to metabolize chemicals is not mature and because their exposures may be greater for their size than in adults. Because some data indicate that disinfection byproducts may increase the risk of developmental effects, women who are pregnant or may become pregnant may wish to avoid consuming water containing TTHM and other disinfection byproducts exceeding the drinking water standard. **The MCL for TTHM is based on potential cancer risks following a lifetime of drinking the water. Consumption of water with TTHM levels somewhat above the MCL for limited durations, for example, while corrective actions are being taken to lower the levels, is not likely to significantly increase risks of adverse health effects for most people.**

If you are concerned about TTHM consumption and want to reduce your exposure further, you can use bottled water or employ point-of-use home water treatment systems on delivery lines in the house (faucet mount, pour-through pitcher style, or plumbed-in filter units). Any filter used should be certified by National Sanitation Foundation (NSF), Underwriters Laboratories (UL) or the Water Quality Association (WQA) to remove TTHMs (look for the seals on the box). Information on selecting a water treatment system that is right for you can be obtained from NSF International at www.nsf.org or 1-800-673-8010.