



Information on Disinfection Byproducts

Q: What is Done to Disinfect Drinking Water Supplies?

To protect drinking water from disease-causing organisms, or pathogens, water suppliers often add a disinfectant, such as chlorine, to drinking water. A chlorine disinfectant similar to bleach is used to disinfect the water in the Sugarloaf system.

Q: What are Disinfection Byproducts?

Disinfectants can react with naturally-occurring materials in the water to form other chemical compounds called "byproducts". Some of these byproducts may pose health risks. Disinfection byproducts are formed when disinfectants used in water treatment plants react with natural organic matter (i.e., such as vegetation) present in the source water.

Various disinfectants produce different types and amounts of disinfection byproducts. Disinfection byproducts have been identified in drinking water and are regulated by the Environmental Protection Agency (EPA). For chlorine based disinfectants the regulated byproducts include trihalomethanes and haloacetic acids. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Q. What are the Standards and Testing Requirements for Disinfection Byproducts?

Community water systems, such as ours, that treat water with a chemical disinfectant are subject to regulations under the EPA Safe Drinking Water Act for disinfection byproducts levels in drinking water, including trihalomethanes and haloacetic acids.

The maximum contaminant level (MCL) for trihalomethanes is 80 parts per billion parts of water (ppb) and for haloacetic acids, is 60 parts per billion (ppb). Compliance with the regulation is determined based on the running average of 12 months of the most recent quarterly test results.

Q. What levels of disinfection byproducts were detected in the Sugarloaf water system?

A water sample is collected every 90 days on West Mountain. Following the fourth quarter 2018 testing round, the running 12-month quarterly average for haloacetic acids was 93.4 parts per billion, which exceeds the MCL.

Q. Has the Sugarloaf water system ever exceeded the standard for Disinfection Byproducts?

No, although individual test results in the past have exceeded the MCL of 80 ppb for haloacetic acids, this is the first time that the running annual average for a 12 month period has exceeded the MCL.

Q. What is Sugarloaf Water Association doing to lower the level of Disinfection Byproducts?

As a first step, the Sugarloaf Water Association is working with Wright Pierce Engineering to increase the removal of naturally occurring organic matter from our source water during the treatment process.

Q. When will Sugarloaf Water test for Disinfection Byproducts next?

We will do the next round of compliance testing in March. In the meantime, we will do additional tests to insure that our chemical addition modifications are optimized.

Q. What do I need to do as a customer of the water utility?

Nothing at this time. It is our responsibility to notify you and to modify our treatment operations to comply with the standard. Disinfection byproducts do not cause acute or immediate health effects; rather they are a concern over a life time (70 years) of exposure at levels above the MCL.

For questions please contact:

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Additional information is also available on the EPA web site at www.epa.gov/safewater.