IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Total Trihalomethanes (TTHM) MCL Violation for the Brunswick Consolidated Water District

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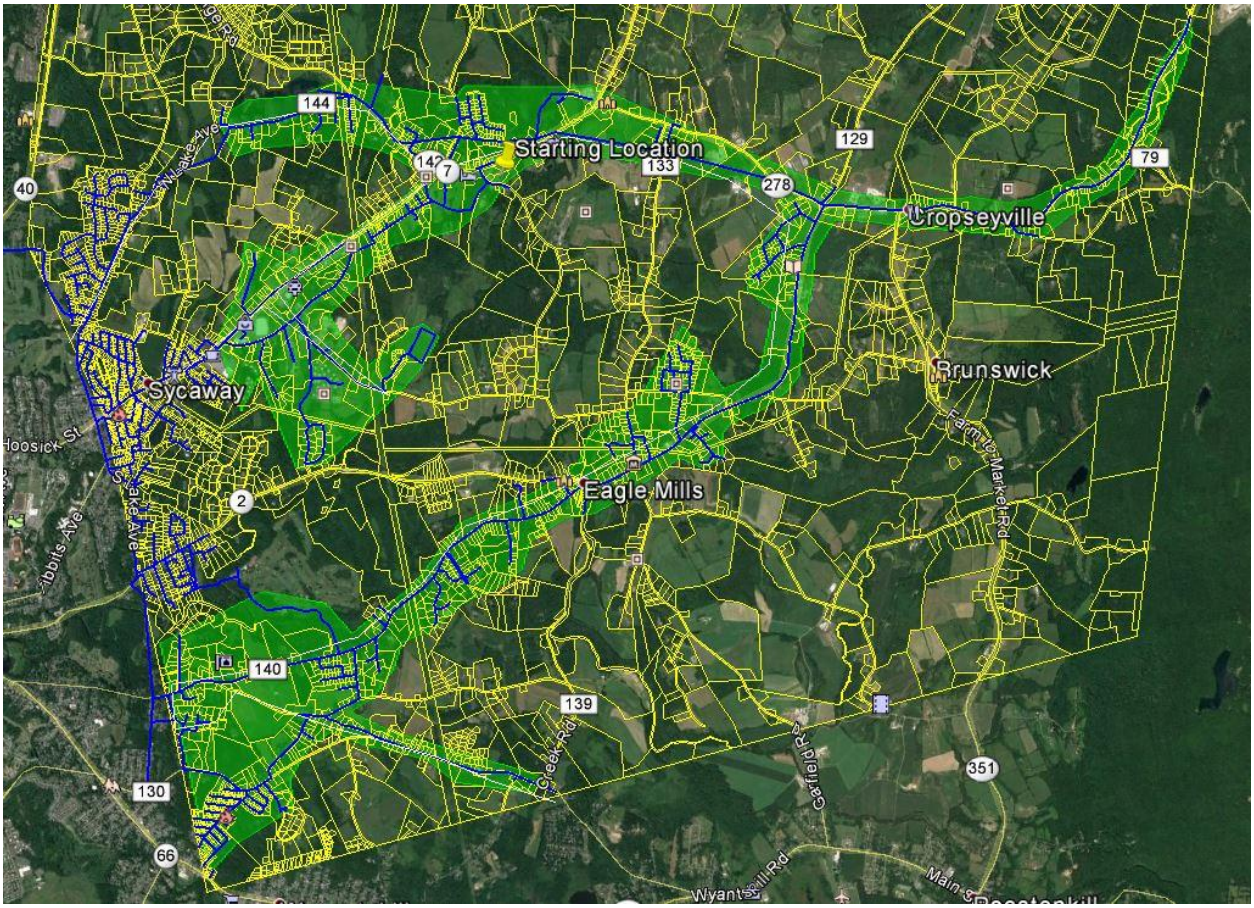
The Town of Brunswick Water Department wants the public to know about a recent violation of drinking water standards. THIS IS NOT AN EMERGENCY YOU CAN CONTINUE TO USE YOUR WATER. We believe that, as our water customers, you have a right to know all information related to your water quickly. The law requires that we notify the public within thirty days from the time we recieve notice of the violation.

After receiving the results of water samples from the first quarter of 2022. The Town of Brunswick running annual average for the Keyes Lane sample location exceeded the threshold of 80 parts per billion.

We routinely monitor for the presence of drinking water contaminants. Testing results from the second quarter of 2021 to the first quarter of 2022 show that our system exceeds the standard, or maximum contaminant level (MCL), for TTHM. The standard for TTHM is 80 ug/l (micrograms per liter or parts per billion). It is determined by averaging all the samples collected at each sampling location for the past 12 months. The level of TTHM averaged at one of our system's locations for these four quarters was 80.08 ug/l.

AFFECTED AREA IN GREEN



What are trihalomethanes?

Trihalomethanes are a group of chemicals that are formed in drinking water during disinfection when chlorine reacts with naturally occurring organic material (e.g., decomposing vegetation such as tree leaves, algae or other aquatic plants) in surface water sources such as rivers and lakes. They are disinfection byproducts and include the individual chemicals chloroform, bromoform, bromodichloromethane, and chlorodibromomethane. 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.

Disinfection of drinking water by chlorination is beneficial to public health. Drinking water is disinfected by public water suppliers to kill bacteria and viruses that could cause serious illnesses, and chlorine is the most commonly used disinfectant in New York State. All public water systems that use chlorine as a disinfectant contain trihalomethanes to some degree.

What are the health effects of trihalomethanes?

Some studies suggest that people who drank water containing trihalomethanes for long periods of time (e.g., 20 to 30 years) have an increased risk of certain health effects. These include an increased risk for cancer and for low birth weights, miscarriages and birth defects. The methods used by these studies could not rule out the role of other factors that could have resulted in the observed increased risks. In addition, other similar studies do not show an increased risk for these health effects. Therefore, the evidence from these studies is not strong enough to conclude that trihalomethanes were a major factor contributing to the observed increased risks for these health effects. Studies of laboratory animals show that some trihalomethanes can cause cancer and adverse reproductive and developmental effects, but at exposures much higher than exposures that could result through normal use of the water. The United States Environmental Protection Agency reviewed the information from the human and animal studies and concluded that while there is no causal link between disinfection byproducts (including trihalomethanes) and human health effects, the balance of the information warranted stronger regulations that limit the amount of trihalomethanes in drinking water, while still allowing for adequate disinfection. The risks for adverse health effects from trihalomethanes in drinking water are small compared to the risks for illness from drinking inadequately disinfected water.

What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.
- If you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.

What does this mean?

This is not an emergency. If it had been an emergency, you would have been notified within 24 hours. TTHM are four volatile organic chemicals which form when disinfectants react with natural organic matter in the water. 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. The risked is very low over the normal risk of getting cancer. See risk chart at end of this notice.

What is being done?

We are working to minimize the formation of TTHM's while ensuring we maintain an adequate level of disinfectant. We are taking steps to monitor and lower the Chlorine in our system while still maintaining the proper level for disinfection. The City of Troy our supplier of water is also working to reduce the natural organic matter, and thus reduce the precursors of TTHM formation. We will also increase flushing within the distribution system to reduce or avoid one of the mechanisms controlling their formation (water aging). We will be testing again after we initiate these practices to determine if our efforts were successful and following up with further actions as warranted.

For more information, please contact our The Town of Brunswick Water Department (518) 279-3461 Ext. 114 or write to the Town of Brunswick Water Department at 336 Town Office Road, Troy, NY 12180

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly. You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you US postal service. Brunswick Consolidated Water District

State Water System ID#: NY4110144.

Disinfection By-Products and the Safe Water System

In the early 1900's, chlorine began to be widely used as a disinfectant. Chlorine revolutionized water purification and dramatically reduced the incidence of waterborne diseases. The provision of safe drinking water has been hailed as the major public health achievement of the 20th century. Chlorine remains the most widely used chemical for water disinfection in the United States.

However, in 1974 it was discovered that chlorine reacts with organic matter and bromine naturally present in the water to create four compounds, which were collectively termed trihalomethanes (THMs). THMs are currently used as an indicator chemical for all potentially harmful compounds formed by the addition of chlorine to water. The following information is known about THMs:

· The WHO International Agency for Research on Cancer (IARC) reviews research conducted on potential cancer-causing agents. Based on research on animals, only two of the four THMs are considered potential human cancer-causing agents. None of the compounds is a proven human cancer-causing agent.

· The WHO has established guideline values for the concentration of the four THMs allowed in drinking water. These guideline values are conservative, as they are based on a maximum of 1 additional cancer in 100,000 people who drink 2 Liters of water every day for 70 years.

· More importantly, however, WHO specifically and repeatedly states in the Guidelines for drinking-water quality (1996): "Where local circumstances require that a choice must be made between meeting either microbiological guidelines or guidelines for disinfectants or disinfectant by-products, the microbiological quality must always take precedence, and where necessary, a chemical guideline value can be adopted corresponding to a higher level of risk. Efficient disinfection must never be compromised."

The addition of chlorine to water can lead to the formation of disinfection by-products (DBPs), such as trihalomethanes. A significant amount of energy and time has been invested in Europe and the United States to restructure water treatment processes to prevent DBP formation in order to minimize the slight risk of cancer from long-term exposure to DBPs. Diarrheal disease in developing countries is still a leading cause of infant and under-5 mortality and morbidity. The risk of death or delayed development in early childhood from diarrhea transmitted by contaminated water is far greater than the relatively small risk of cancer later in life from DBPs.

The Safe Water System (SWS) is a proven intervention that consistently reduces diarrheal disease incidence by about 50% in users in the developing world. This reduction of diarrhea morbidity leads to healthier children and adults. The SWS uses sodium hypochlorite, a chlorine compound, to inactivate the disease-causing organisms. There is a slight risk, measured in one additional cancer per 100,000 people after 70 years, to the ingestion of THMs at the WHO guideline value level. We are currently investigating THM concentrations formed in the SWS and strategies to mitigate THM production in the SWS. Although the risk from THMs is important to address, and to investigate, until centrally treated, piped water can be delivered to every family, the initial critical need is the provision of microbiologically safe drinking water that has been proven to reduce the incidence of diarrhea. If you have any questions or comments on this document or the Safe Water System, please visit http://www.cdc.gov/safewater or email safewater@cdc.gov.

Cause of Death	Lifetime Odds	Cause of Death	Lifetime Odds
Heart disease	1 in 7	Any force of nature	1 in 2,938
Cancer	1 in 7	Choking on food	1 in 3,461
Any injury	1 in 20	Bicycling	1 in 4,485
Chronic lung disease	1 in 28	Accidental gunshot	1 in 6,904
Any accident	1 in 30	Police/law enforcement	1 in 8,719
Stroke	1 in 30	Airplane and spaceship	1 in 9,820
Alzheimer's disease	1 in 43	Electricity/radiation/heat/pressure	1 in 15,210
Diabetes	1 in 53	Mass shooting	1 in 15,325
Influenza and pneumonia	1 in 73	Heat wave	1 in 16,581
Kidney disease	1 in 84	Sharp objects	1 in 38,168
Suicide	1 in 95	Venomous animal or plant	1 in 44,459
Poisoning	1 in 96	Foreign-born terrorist	1 in 45,808
Any motor vehicle incident	1 in 114	Tornado	1 in 60,000
Falling	1 in 127	Stinging by hornets, wasps, and bees	1 in 63,215
Murder	1 in 256	Cataclysmic storm	1 in 66,324
Assault by gun	1 in 370	Asteroid Strike(global impact)	1 in 75,000
Riding inside of car, van or truck	1 in 536	Bus, train, or streetcar	1 in 101,144
Suffocation	1 in 615	Dog attack	1 in 112,382
Pedestrian	1 in 646	Legal execution	1 in 118,933
Motorcycle	1 in 1,037	Earthquake	1 in 130,000
Drowning	1 in 1,188	Lighting	1 in 161,831
Fire or Smoke	1 in 1,498	Asteroid strike (regional impact)	1 in 1,600,000
Assault by sharp object	1 in 2,325	Shark attack	1 in 8,000,000
Note: Most Odds based on 2014 death, population, and life expectancy data. Gun death were counted as mass shootings when four or more victims were shot. Terrorism odds based on 41 year average (1975-2015			
Source: Nation safety council, National center for Health statistics, Alex Nowrasteh/Cato Institute, Stephen a Nelson/Tulane University, Natural Disaster/Patrick L Abbott, Gun Violence Archive, Business Insider			