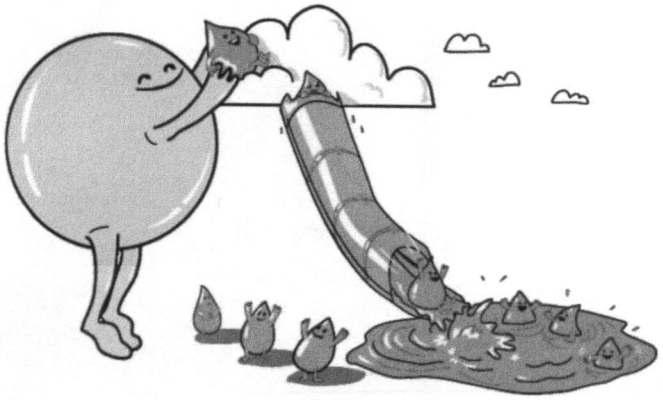
BOGUE BANKS WATER NEWS

We hope you have all had a pleasant Spring and are looking forward to another busy summer season here on the beach! With the summer crowds and the warmer temperatures comes increased water usage and a threat of hurricanes.

Irrigation During peak months

A vibrant green lawn is often a staple of warm weather and relaxing days outside. However, it can take a large amount of water to maintain these lawns, and drinking water is an extremely limited resource. Please keep this in mind when designing your new home, or redesigning your existing yard. A recent survey of homes with irrigation meters showed that the average home uses 76% of their water on the lawn. Roughly 1 in 4 homes in the BBWC service area has an irrigation system using public water. We are asking everyone using BBWC water for irrigation to turn-off their irrigation systems during the weekends. Saturday and Sunday are always our peak production days, often increasing by upwards of 1 million gallons per day. By not irrigating your lawns during these 2 days, we can significantly cut back that increase on the weekends. This will result in less water being pumped out of the aquifer over time, will help keep it sustainable for a longer period of time, and may prevent the need for future irrigation use restrictions. Please help to conserve water by doing your part!

the Water Cycle



Hurricane Preparedness

The hurricane season is already upon us. NOAA has predicted an above normal season for the eastern seaboard with1 13-19 named storms, 6-10 hurricanes, and 3-6 of them being classified as major. When making final preparations prior to storm impact, remember to turn off your water at the customer valve (green box) before leaving the island. If you are not leaving then make sure to know the location of your shut-off valve, that it works, and is easily accessible in an emergency. After the storm passes refrain from using water to wash off your house, driveway, etc. There are usually dozens, if not hundreds of small to medium sized leaks. The leaks add up in volume and it can be a struggle on the system to provide enough water to keep the lines pressurized. BBWC will issue a 'Resume normal use' bulletin on our website once most leaks are identified.

TTHM's and Future Treatment Plants

As you will see in the attached notice of violation, we exceed the allowance of TTHM's (Total Trihalomethanes) in the water for the Locational Running Annual Average at one of our 2 sample sites. One is near the point on Coast Guard Rd and the other on the eastern end of the area near Timber Trail. The latter is the site that exceeded the MCL (Maximum Contaminant Level). The western site near the point remains well below the MCL. TTHM's are byproducts of using Chlorine as a disinfectant. Water age and treatment techniques greatly effect TTHM development. Your water is still safe to consume, and we have been implementing various new equipment to help bring the levels of TTHM's back down. The western end of the systems levels are so low due to the RO treatment plant (Reverse Osmosis). It removes everything from the water prior to disinfectant thus eliminating the problem before it can happen.

We have been working towards a second RO plant for some time now. We are getting closer to that goal as we secure the additional sources of water needed to supply the plant. Once built, the new plant should double our production capacity for RO treated water all year long.

NOTICE TO THE PUBLIC

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
BOGUE BANKS WATER CORPORATION HAS LEVELS OF TOTAL TRIHALOMETHANES ABOVE DRINKING WATER STANDARDS

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Monitoring results for water samples collected during the annual period ending June 30, 2020 show that the contaminant concentration from one or more sampling locations in our water system exceeds the standard, or maximum contaminant level (MCL), for Total Trihalomethanes (TTHM). The standard for TTHM is 0.080 mg/L. Over the referenced compliance period, the sample location with the highest average level of TTHM had a concentration of 0.086 mg/L.

What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor. 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, you would have been notified within 24 hours. TTHMs are four volatile organic chemicals which form when disinfectants react with natural organic material in the water. 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 is being done?

TTHM's are a byproduct of using Chlorine as a disinfectant. Higher amounts of natural organics and a higher water age lead to increased TTHM's. We have installed active mixers in our water towers to help reduce water age and we will be installing power vents in the towers as well in the upcoming weeks to assist with TTHM removal as it naturally releases into the air from the mixing. Additional flushing will be completed on a regular basis on the effected eastern end of the system. We anticipate resolving the problem within the next few months.

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.

For more information, please contact:

Responsible Person **Roy T Cannon Jr**	System Name **Bogue Banks Water Corp**	System Address (Street) **7412 Emerald Dr**
Phone Number **(252)515-6353**	System Number: **NC0416028**	System Address (City, State, Zip) **Emerald Isle, NC 28594**

Notice of Violation Date: May 18th

Date Notice Distributed: June 1, 2020 Method of Distribution: US Mail

Public Notification Certification:

The public water system named above hereby affirms that public notification has been provided to its consumer in accordance with all delivery, content, format, and deadline requirements specified in 15A NCAC 18C .1523.

Owner/Operator: Seola Hill Seola Hill May 18, 2020

(Signature) (Print Name) (Date)

TTHM in Drinking Water: Information for Consumers

Information about Total Trihalomethanes in Drinking Water (Rev. Jan. 2018) from Mass.gov

What are TTHM?

Total trihalomethanes (TTHM) are a group of disinfection byproducts that form when chlorine compounds that are used to disinfect water react with other naturally occurring chemicals in the water. They are colorless and will evaporate out of the water into the air. There are four significant TTHM potentially found in disinfected drinking water and their combined concentration is referred to as total TTHM.

Levels of TTHM generally increase in the summer months due to the warmer temperatures but can also be affected by seasonal changes in source water quality or by changing amounts of disinfection added. Water systems often can experience temporary increases in TTHM 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, or when there is a potential microbial (example: bacteria) problem or threat.

All water systems that use chlorine to disinfect the water are required by federal and state law to sample for TTHM on a regular basis (quarterly, or once every three months).

Why is chlorine added?

Chlorine is used to disinfect drinking water. Disinfection of water supplies is necessary to prevent illness from waterborne disease-causing bacteria; it is a federal and state requirement. The practice of disinfection has nearly eliminated most acute waterborne diseases in the United States.

Disinfection of the water first kills any microorganisms that it may contain. Then, a small amount of disinfectant is needed in the water as it travels through the pipes in the distribution system. This prevents regrowth of microorganisms, or contamination from an outside source, such as during a water main break.

What is the Drinking Water Standard for TTHM and how is compliance determined?

Drinking water standards are called maximum contaminant level (MCLs). MCLs are set to limit risks to people from chemicals in drinking water. Some MCLs limit the daily amount consumed (for chemicals that pose an immediate risk), and some limit the amount averaged over a long period of time (for chemicals that pose a long-term risk). The TTHM MCL is set at a level that balances the immediate risk of bacterial contamination should the water not be adequately disinfected and the long-term risk of health effects, such as cancer, potentially associated with long term exposures to TTHM. The USEPA and MassDEP have set an MCL for TTHM of 80 parts per billion (ppb) or micrograms per liter (ug/L) as an annual average. Federal and state compliance with the MCL requires that the running annual average of four samples (i.e., quarterly, or once every three months over a year) not exceed the MCL at each sampling location.

How can consumers be exposed to TTHM in drinking water?

People may be exposed to TTHM in drinking water from ingestion (i.e., drinking the water and ingesting it in foods and/or ice prepared with the water). In addition, TTHM vaporize readily into the air so inhalation exposure to TTHM can be significant, especially when showering and bathing, as can exposure from absorption through the skin.

What are the health risks associated with using water containing TTHM?

The MCL for TTHM is based on potential cancer risks following a lifetime of drinking the water. TTHM are considered to be possibly carcinogenic to humans by USEPA because of evidence of carcinogenicity in

experimental laboratory animals and limited evidence in people. Some of the individual chemicals that comprise TTHM have also caused other effects in experimental laboratory animals following high levels of exposure, including toxicity to the liver, kidneys, neurological and reproductive systems. Various adverse reproductive and developmental effects have been observed in experimental laboratory animals following exposure to disinfection byproducts (which include TTHM). In some, but not all, studies in people, similar effects have also been reported. 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. More research is being conducted to better understand the potential risks from using water containing TTHM.

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. 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. 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.

If you are concerned and would like to reduce your exposure to TTHM, what can you do?

If you are concerned about TTHM and want to reduce your exposure, you can do the following:

- Use bottled water. Bottle water sold in Massachusetts must meet all federal drinking water quality standards and, if originating in Massachusetts, must also meet state drinking water quality requirements. Or
- Use water filters (e.g., a pitcher style or a point of use treatment filter that can be mounted to the faucet, under the sink or on the countertop) or install a point-of-entry whole-house filtration system. Any filter that is purchased should be certified by National Sanitation Foundation (NSF), Underwriters Laboratories (UL) or the Water Quality Association (WQA) to remove TTHM (look for the seals on the box. For information on selecting a water treatment system that's right for you, visit NSF international at www.nsf.org or call their hotline at 1-800-673-8010.
- To reduce overall TTHM exposure risk:
    - Ventilate the bathroom when bathing or showering.
    - Operate room exhaust fans or ventilate room (open window) when boiling water, washing with hot water, or running the dishwasher.
    - Reduce the length of showers and baths.
    - Reduce the temperature on hot water heaters.
    - Limit time spent in or around chlorinated pools or hot tubs.

Where can I get additional information?

If you have concerns about your exposure, particularly pregnant women and women of child-bearing age who may be at increased risk, you may wish to seek the advice of your health care provider.