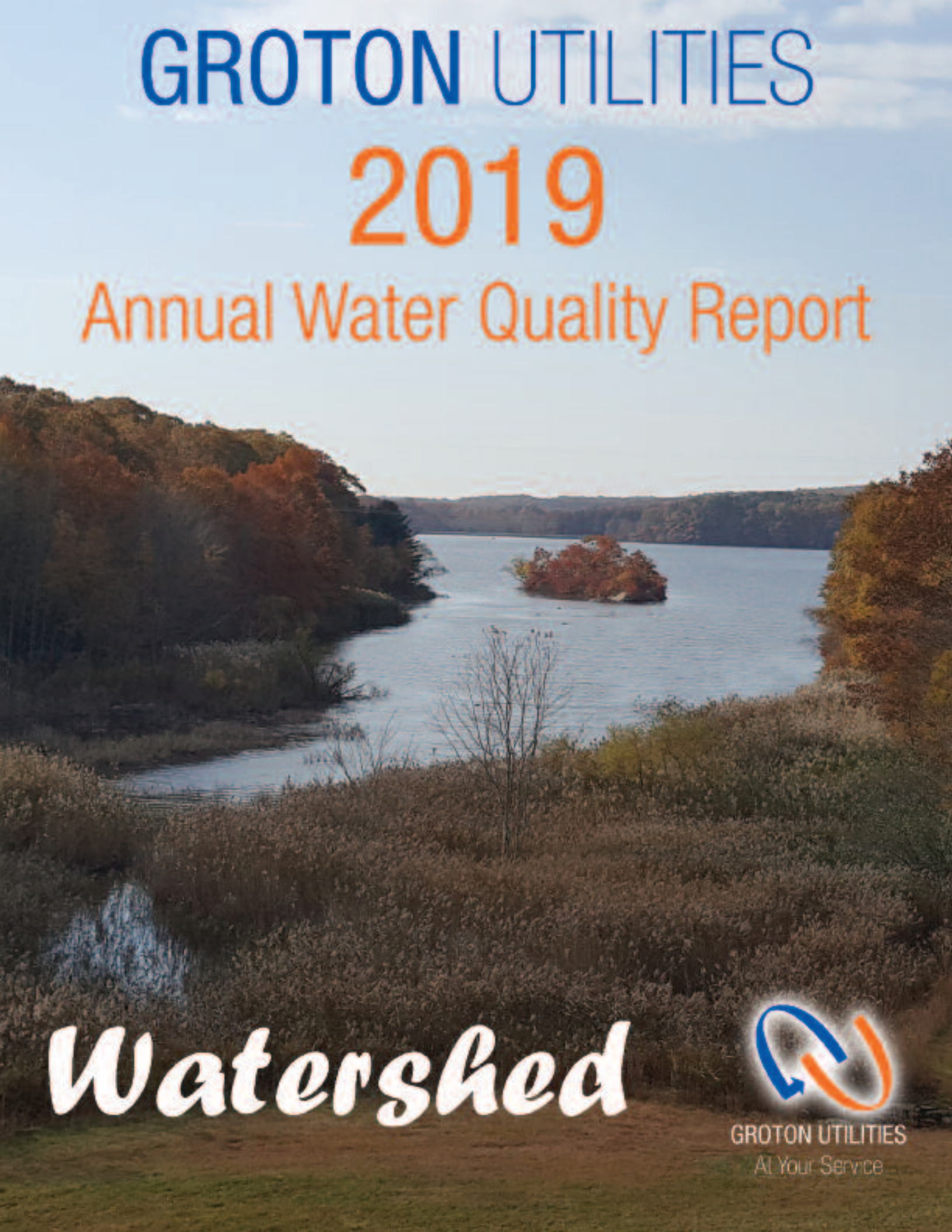
GROTON UTILITIES

2019

Annual Water Quality Report



Watershed

GROTON UTILITIES

At Your Service

Important Information About Your Drinking Water

Groton Utilities is proud to report that the water we supply **meets all established Federal and State drinking water standards.** During 2019 we received **NO** violations for water quality. We did receive one violation for failure to monitor and report turbidity for one of our filters (filter #6) for an overnight time period in June 2019. We have more information about that later in this Water Quality report.

This **22nd Annual Water Quality Report** contains important information about the source and treatment of your water, lists the results of our 2019 testing, and includes some of the improvements we are making to enhance the quality of your drinking water. The Report also contains information about what you can do to conserve and protect your valuable water supply.

Our Watershed

This year's theme and cover highlights the Groton Utilities watershed. The watershed is the area surrounding the streams and reservoirs which spans 15.6 square miles. Groton Utilities water is supplied by surface water from a series of interconnected reservoirs. Four reservoirs – Morgan, Ledyard, Poheganut and Smith Lake flow into Poquonnock, our terminal reservoir. To protect the water as it flows within the watershed, Groton Utilities takes source water protection measures to help ensure the highest quality source water. These protection measures aid the processes in the water treatment plant and ultimately our goal of providing safe, clean drinking water to our valued customers. Source protection measures include forestry management, land protection partnerships, watershed surveillance, emergency response capacity and eel abatement project.

For more information concerning Forestry, PFAS, Land Protection, Eel Abatement Program, and Emergency Response programs, visit the Groton Utilities website at www.grotonutilities.com > Our Company > Water Operations.

The graphic design for this Water Quality Report was done by Jesse Carbone – Carbone Graphics.

Forestry

Watershed land owned by GU surrounding the reservoirs is made up of forests and wetlands. Forests are one of the first and best defense mechanisms to achieve high water quality filtering and purifying the water. These areas improve water quality through water filtration, reduction of stormwater run-off and natural removal of contaminants. Healthy diverse forests provide important water treatment services even before the water reaches the water treatment

(Photo by Julie DuPont-Woody)

plant. To ensure the continued production of clean water, GU worked with a Certified Connecticut Forester to develop a long term Forestry Management Plan in 2019. Having diverse and healthy stands of trees makes the forest more resilient and better able to continue acting as a filter for our reservoirs. Properly managing forests for water quality also helps prevent damage from insect pests, invasive species and limits vulnerability to fire and other disturbances.

Land Protection

Groton Utilities works with local and state environmental and conservation groups in support of their efforts of watershed land and aquifer protection with the aim of protecting water quality, preserving forest land and wildlife habitat, and allowing for open space activities.

In 2019, Groton Utilities partnered with to Avalonia Land Conservancy in the group's protection and purchase of watershed land in Ledyard. Avalonia's new property, Atkinson-Dirlam Preserve on Long Cove Road, protects critical watershed land and wetlands that provide water treatment services. Additionally, Groton Utilities is working in partnership with Avalonia to provide watershed access and education through hikes on this newly acquired property.

Watershed Protection

Watershed and reservoir security is a key element of the Groton Utilities goal to provide clean potable water to customers and the region. The sources of our water include streams, ponds, springs, wells and of course our reservoirs. There are many key elements for this goal including flow control, inspections, sampling, surveillance and patrol. To maintain this protection program, our employees and vehicles clearly marked Groton Utilities can be seen in all areas of the watershed.

PFAS

As concern about PFAS (per- and polyfluoroalkyl substances) in source water and drinking water around Connecticut has increased, Groton Utilities has proactively begun sampling in our terminal reservoir (Poquonnock Reservoir), at our Point of Entry (the treated water leaving the water plant to go to our customers), and within our watershed. Even though there is no current Maximum Contaminant Level (MCL) established (work is underway at the EPA to make a science-based evaluation to determine an MCL for the PFAS compounds of greatest concern), the Connecticut Department of Public Health has established a Health Advisory for five PFAS compounds, not

(Photo by Julie DuPont-Woody)

to exceed 70 parts per trillion, individually or combined. Our testing so far has shown that all Groton Utilities drinking water is safe in relation to state and federal guidelines. For more on PFAS, check our online platforms, where we will soon be posting further information.

Emergency Response

Groton Utilities maintains an emergency response trailer stocked with absorbent materials and spill containment equipment. A team of employees have been recently re-certified to respond in case of emergency to assist first responders. Protocol and mutual aid agreements are in place with local fire and emergency services and a collaborative of Connecticut's Water/Wastewater Agency Response Network – CtWARN. Groton Utilities maintains an oil boom and turbidity curtains in key locations in reservoirs as part of water quality control for turbidity and spill protection.

Eel Abatement Program

Groton Utilities has entered a partnership with Connecticut Department of Energy and Environmental Protection and the United States Geological Survey. The purpose of this program is to collect live eels from our reservoir system during their migration period each season from fresh water to the ocean and to the Sargasso Sea where they spawn. Without the collection system there is risk of eels swimming into the Water Treatment Plant intake piping or facing the challenge of swimming downstream at a time in the season when natural flows are low and without overflow from our reservoirs to the Poquonnock River. For more information, visit the Groton Utilities website at www.grotonutilities.com.

More Examples of Watershed Surveillance and Protection Measures

In addition to all the projects above, Groton Utilities also conducts many different routine programs to protect the watershed. Just to mention a few are:

- Watershed Patrol & Surveillance Division performs daily water level reads in many places all throughout the watershed and reservoir system. The daily water level reads are used to measure storage and maintain flow data throughout the entire reservoir system including flow into the Poquonnock River and Poquonnock Estuary then eventually into the Thames River.

- Groton Utilities has an extensive Sampling Program performed by Laboratory, Meters Services and Watershed Patrol & Surveillance divisions taking samples in many locations throughout the watershed to maintain local and state regulators sampling regulations.

- Groton Utilities is a licensed NOAA Weather Station tracking daily participation both at the Water Treatment Plant and at the Ledyard Reservoir.

Source Water

Groton Utilities' water is supplied by surface water from a series of five interconnected reservoirs covering a watershed of 15.6 miles, and also includes three wells. Four reservoirs – Morgan, Ledyard, Poheganut, and Smith Lake flow into Poquonnock, our terminal reservoir. When full, all five reservoirs have a combined capacity of 2.5 billion gallons of water. Planning for the future, we invested funds in 2014 to secure water rights from Haley's Brook in Groton, and have advised local and state agencies to ensure that the immediate watershed area will receive protection status. Our staff includes reservoir patrol staff who, with local and state police, maintain a high level of security, monitor the watershed for potential sources of contamination, and routinely collect water samples for laboratory analysis. We also have a spill response team and trailer to assist emergency responders with any threat of contamination that could impact our water supply. Maintaining the security of our water supply is everyone's responsibility. Please advise us of any suspicious activity by calling us at (860) 446-4000.

Source Water Assessment

The State of Connecticut Department of Public Health has performed an assessment of our drinking water sources. It was found that Groton Utilities' drinking water sources have an overall low susceptibility to potential sources of contamination. The completed report is available for access on the Drinking Water Division's website: https://portal.ct.gov/dph. Click on Topics A-Z, Drinking Water, Drinking Water Topics A-Z, and then Source Water Assessment Program.

How You Can Help to Protect Your Source Water Quality

- Don't flush medications or over-the-counter products down the toilet or sink. Put them in the trash (and not in the recycling bin). For information on safely disposing them in the trash, visit the CT DEEP's website at www.ct.gov/deep. Under Environmental Quality, click on Pollution Prevention; and then Proper Medication Disposal.

(Photo by Julie DuPont-Woody)

- Go Green – Seek alternatives to caustic household cleaners, pesticides, paint removers, and other products containing toxic chemicals. Go to the CT DEEP's website at www.ct.gov/deep. Under Environmental Quality, click on Pollution Prevention; and then Reducing Toxic Products in the Home. Alternative "recipes" (as well as other helpful tips) are given for many toxic products commonly used in the house and garden.
- Properly dispose of paints, motor oil, pesticides and other hazardous household waste by bringing it to a household hazardous waste collection site. Visit http://scrrra.org and under Discover SCRRRA (left column) click on "Household Hazardous Waste" for a complete list of Household Hazardous Waste collection days in 2020.

Water Treatment

Our certified water treatment plant operators are responsible for producing water that meets all State and Federal drinking water requirements. In addition to routine plant operations, they also maintain and repair the numerous pumps and valves in the plant and the five pumping stations located in the distribution system. Cleaning sedimentation basins, and maintaining on-line monitoring equipment and the operational readiness of the emergency generators, are just a few examples of duties routinely performed.

(Photo by Julie DuPont-Woody)

Our water plant was constructed in 1939 and has been periodically upgraded to meet regulatory requirements. The water is treated through a process termed "conventional treatment" which consists of coagulation, flocculation, sedimentation and filtration. Chlorine dioxide may be added during the summer months to help remove iron and manganese. Lime and phosphate are added to inhibit corrosion of plumbing. Chlorine is added for disinfection and to maintain the quality of water as it travels throughout the piping network to your home. Fluoride is added to reduce the formation of cavities, as required by State of Connecticut Public Health regulations. In 2019, the water treatment plant produced an average of 4.7 million gallons a day and delivered water to approximately 44,000 customers in the City and Town of Groton, Noank, Groton Long Point, and parts of Ledyard, Montville, and Mystic.

Distribution Operations

Our certified water distribution operators are responsible for maintaining and servicing over 100 miles of water mains in Groton. One of their duties is fire hydrant maintenance, which ensures an adequate supply of water in the event of a fire. They also exercise valves, repair and replace mains to ensure an adequate supply of water to your home or business, and flush hydrants. Hydrants are flushed in the spring and summer months to maintain water quality and remove any rust or sediments which have accumulated throughout the year. **If discoloration occurs, run the cold water for 15 or 20 minutes until it clears. If it persists, call us at (860) 446-4000.**

Did you know that?

All of our operators have the highest grade of certification possible, as required by the CT Department of Public Health. They are also required to take continuing education courses to maintain their certification.

Project Management

Our project managers' responsibilities include overseeing new main construction and repair, as well as water treatment plant modifications. They also maintain all records digitally, pertaining to the location, type, and age of all pipes, valves, and equipment in the distribution system. This data is used to update the Groton Utilities asset management plan; Call Before You Dig is also an important function of Project Management.

Did you know that you should Call Before You Dig (811 or 1-800-922-4455) at least two full working days prior to any home improvement project requiring digging? You will get your underground utilities marked out for free, avoiding possible physical harm, fines, and repair costs for any damaged utility line. Visit their website at https://www.cbyd.com for more information.

Customer Service

Our customer service representatives are dedicated to provide you with personalized customer service. Call them at (860) 446-4000 or stop in at the office, located at 295 Meridian Street. Whether by telephone or in person, they will assist you with your service needs, answer questions, and respond to problems or concerns that you may have. *During the COVID-19 pandemic the office is closed to customer visits, so please call ahead to see if our office will be open to customer traffic.* Office Hours of operation (when open to the public) are: Monday through Wednesday and Friday from 8:00 AM to 5:00 PM; Thursday from 8:00 AM to 7:00 PM and Saturday from 8:00 AM to noon. The office is closed on holidays. Emergency or after hour calls are also answered at (860) 446-4000.

Water Quality / System Improvements

As noted in our introduction, after years of planning and preparation, we are upgrading our water treatment plant. But we will also continue to work to improve the water quality and reliability of our water supply prior to treatment and after the water enters the

distribution system. This includes water main replacement where needed, and upgrades to our standpipe operations to maintain the freshness of our water, as well as hydrant flushing and other routine maintenance operations.

Regional Water

Groton Utilities continues to improve its services to ensure the best water quality and required quantity of water be delivered to our customers in Groton, Mystic, Ledyard, Noank, Groton Long Point, Montville, Mohegan Tribe, and available for other regional interconnected customers — New London, East Lyme, Waterford, and Norwich.

Community Involvement

Groton Utilities conducts water plant tours to educate students and the public about our operations, water conservation, and source water protection. Additionally, classroom presentations, mentoring, job shadowing, and internship opportunities are made available. We also conduct escorted tours in the watershed for various groups for educational, environmental and other supervised activities. These groups include, but are not limited to Ledyard and Groton residents, the Audubon Society for its annual bird count, Denison Pequotsepos Nature Center, GOSA and local schools for research purposes. Groton Utilities is also a member of the Greater Mystic Chamber of Commerce and the Eastern Connecticut Chamber of Commerce. *Tours and interactive activities have been curtailed during the COVID-19 pandemic.*

Water Quality Testing

Groton Utilities maintains a State-certified laboratory (CT License #PH-0409) where the majority of our water analyses are conducted. During the year, samples are collected from the source water before treatment, during the various stages in the treatment process, and throughout the distribution system. Tests for bacteria, physical qualities, various organic and inorganic compounds, and pesticides and herbicides are conducted.

To ensure that tap water is safe to drink, EPA prescribes limits on the amounts of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

(Photo by Julie DuPont-Woody)

The table on the last page of this report lists only the contaminants that were found in our drinking water in 2019. All levels found were less than the maximum level allowed by the EPA and CT Department of Public Health. The table does not list the more than 60 contaminants that were tested for, but were not present in our water. You will also note that some of the results, though representative, were from samples collected prior to 2019. That is because the CT Department of Public Health allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Any water quality concerns, questions or requests for more information can be phoned in directly to our lab at (860) 446-4135 during normal business hours (Monday – Friday, 7:00 am – 3:00 pm). For emergency or after hour calls, please call (860) 446-4000.

Sources of Drinking Water Contaminants

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Following are some examples of such contaminants:

- Microbiological contaminants such as viruses and bacteria, which may come from septic systems, agriculture and livestock operations, and wildlife;

GU emergency response trailer.

- Inorganic contaminants, such as salts and metals that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, or farming;

- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;

- Organic chemicals, including synthetic and volatile organic compounds which are byproducts of industrial processes, and can come from gas stations, urban storm water runoff, and septic systems;

- Radioactive contaminants that can be naturally occurring.

Health Effects Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800) 426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800) 426-4791.

Corrosion Control in Drinking Water

As one of the many things we do to provide you with the best drinking water quality possible, we add a corrosion inhibitor to the drinking water. The purpose is to keep lead and copper in one's household plumbing from dissolving into the tap water when water is not in use (overnight, or during other extended periods of non-use). We use a blended phosphate – an ortho phosphate and a polyphosphate: the ortho phosphate keeps the lead and copper from coming into solution in household piping, and the poly phosphate acts to bind with minerals such as iron and manganese that may be in the water, to prevent "red water" issues. To be clear, there is no lead or copper in the water coming from our reservoirs, the purpose of the corrosion inhibitor is just to restrict the natural tendency of water (known as the "universal solvent") to dissolve metal plumbing materials into the tap water. As with all the treatment in use at our water treatment plant, this blended phosphate is approved specifically for use in potable water, in a dosage approved by the Connecticut Department of Public Health, Drinking Water Section.

Important Information about Lead and Copper in Drinking Water

Due to watershed protection measures and an active program to control corrosion in water pipes, our water system has remained in compliance with drinking water regulations. However, it is possible that lead or copper levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Infants and children who drink water containing lead in excess of the action level could

Poquonnock Reservoir Spillway

experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink water containing lead in excess of the action level over many years could develop kidney problems or high blood pressure.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Lead and copper in drinking water is primarily from materials and components associated with service lines and home plumbing. Groton Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

Following are steps that can be taken to minimize potential exposure to lead:

✓ **If the water has sat unused in your pipes for more than several hours, flush your cold water tap for a few minutes (or until it gets cold) before using for drinking, cooking or making baby formula.**

✓ **Use cold water (not water from the hot water tap) for drinking, cooking, making formula, hot cocoa, tea, instant foods, etc.**

✓ **Periodically remove and clean the aerator or screen from the end of each faucet and rinse to remove any debris.**

✓ **Ensure that any updates to household plumbing are done with lead-free solder and fixtures.**

If you are concerned about lead or copper in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

Unregulated Contaminant Monitoring Rule (UCMR4) Results

In 2019 Groton Utilities began 4 quarters of monitoring required for this drinking water regulation. We were required to test for 6 different groups of analytes, some in our Point of Entry (a sample faucet after full treatment, but before our first customer), some in Poquonnock Reservoir, and some in the distribution system. Two items, Total Organic Carbon (TOC) and 5 Haloacetic Acids (HAA5) are currently regulated, the remainder are unregulated,

GROTON UTILITIES UCMR4 DATA

(Unregulated Contaminants Monitoring Rule 4)

Location	Analyte	Average	Range	Source
Point of Entry	Manganese	20.3	10.7 - 35.1	Naturally Occurring
Poquonnock Reservoir	Bromide	26	21 - 29	Naturally Occurring
Poquonnock Reservoir	TOC	3533	3510 - 3560	A measurement of naturally occurring organics
Distribution System	HAA5	26.4	11.7 - 52.7	By-products occurring from the reaction between disinfectants and organic matter
Distribution System	HAA6Br	9	5.9 - 12.9	
Distribution System	HAA9	34.8	17.2 - 65	

All results are reported in parts per billion.
TOC = Total Organic Carbon
HAA = Haloacetic Acid

meaning there are no regulatory standards for any of these contaminants. The purpose of this monitoring is to assist the EPA in determining the occurrence of these contaminants in U.S. water supplies and whether or not to establish standards. Above are the results of this monitoring.

Water Conservation Tips

- Fix leaky faucets, showerheads and toilets.
- Consider replacing older toilets with a WaterSense labeled high efficiency toilet. These must pass rigorous performance criteria and can't use more than 1.28 gallons per flush in order to earn the WaterSense label (older toilets can use up to four times more water than WaterSense toilets).
- Install aerators on your faucets. They reduce the flow and use air to maintain good water pressure (and remember to periodically remove and clean faucet aerators because they can trap debris).
- Take shorter showers. High efficiency WaterSense showerheads automatically use less water without compromising the quality of your shower.
- Consider replacing your old washing machine with a high-efficiency Energy Star labeled model, which uses up to 50% less water and electricity.
- Run the dishwasher and washing machine only when full.
- Don't over-water your lawn or garden – use a timer, and water early in the morning or at night to avoid excess evaporation.
- Clean your sidewalk or driveway with a broom instead of a hose.

There is a strong commitment by Groton Utilities, the local community, state regulators, and public health professionals to protect Connecticut's drinking water supplies and inform consumers about water quality issues.

For more information, call us at (860) 446-4000. We provide 24 hour a day service and emergency response.

The Utility Commission, our policy making body, meets regularly at 10:30 AM on the 3rd Wednesday of each month in Council Chambers at 295 Meridian Street, Groton. *During the COVID-19 pandemic, all meetings are virtual.*

Learn more about the Groton Utilities water system at:
www.grotonutilities.com

PUBLIC NOTIFICATION

Important Information About Your Drinking Water

Monitoring and Reporting Violation

Este informe contiene informacion importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Date: **January 24, 2020**

To the Customers of: **Groton Utilities** PWSID: **CT0590011**

Regulations of Connecticut State Agencies (RCSA) Section 19-13-B102 requires that supplies of public water must conduct or have specific laboratory tests to monitor the water quality of their water supply to insure that it meets with the current drinking water standards. Failure to conduct timely monitoring and/or report results of such monitoring to the State Department of Public Health Drinking Water Section constitutes a failure of the RCSA. As your public water supplier, we must formally notify customers of all monitoring violations, or face additional RCSA violations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards, **We did not monitor or test or did not complete all of the monitoring or testing** for the requirement(s) listed below and therefore cannot be sure of the quality of our drinking water during that time.

Analyte: #6 filter effluent turbidity monitoring. Poquonnock Treatment Plant (WSF_ID: 97; Monitoring Period: June 1, 2019 to June 30, 2019)

#6 filter effluent turbidimeter was not reading accurately for 21 hours during June 18-19, 2019 while filter was in operation, so continuous turbidity monitoring of filter #6 effluent turbidity was not maintained.

The combined filter effluent turbidimeter was operating normally and showed that the turbidity of the water from all filter effluents (combined) met drinking water standards, but we do not know what the turbidity from filter #6 was during that time period.

What should I do?

This is not an emergency. If it had been, you would have been notified within 24 hours. 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.

What is being done?

The condition which caused #6 filter effluent turbidimeter to read erroneously was found and corrected on June 19, 2019 and continuous turbidity monitoring was restored. No further action was needed, and #6 filter effluent turbidimeter has operated successfully since then.

We expect to return to compliance or resolve the situation by: **June 19, 2019**

If you have any questions please contact **Steve Dietrich** by phone at **860-446-4080** or at the following address: **Groton Utilities 295 Meridian St. Groton, CT 06340**

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.

GROTON UTILITIES 2019 ANNUAL WATER QUALITY DATA

Regulated Contaminants **Highest Level Allowed** **Groton Water**

Parameter	Units	MCL	MCLG	Highest Detected Level	Range **(a)**	Major Source	Meets Standards?
Barium	ppm	2	2	0.009	———	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	YES
Chloride	ppm	250	N/A	44	17 - 44	Stormwater runoff containing road salt, erosion of natural deposits	YES
Fluoride	ppm	4	4	0.94	0.23 - 0.94	Erosion of natural deposits; water additive which promotes strong teeth	YES
Nitrate	ppm	10	10	0.16	0.02 - 0.16	Runoff from fertilizer use, leachate from septic tanks; sewage, erosion of natural deposits	YES
Total Coliform Bacteria	P/A	Presence not to exceed 5% of monthly samples	0%	0.0%	0.0%	Naturally present in the environment	YES
Parameter	Units	TT	MCLG	Lowest RAA	Range	Major Source	
Total Organic Carbon	N/A	Removal ratio must be >=1.00	N/A	1.6	1.4 - 1.9	Naturally present in the environment	YES
Parameter	Units	TT	MCLG	Highest Detected Level	Lowest % of samples meeting limit	Major Source	
Turbidity (NTU)	**(b)**	95% of samples must be <=0.3 NTU	N/A	0.36	99%	Soil runoff	YES
Parameter	Units	Action Level	MCLG	90th percentile **(c)**	# of sites above AL	Major Source	
Lead	ppb	15	0	9	4 of 64	Corrosion of household plumbing systems; erosion of natural deposits	YES
Copper	ppm	1.3	1.3	0.10	0 of 64	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	YES
Parameter	Units	MCL	MCLG	Highest LRAA **(d)**	Range	Major Source	
Haloacetic Acids	ppb	60	N/A	26.7	15.2 - 48.3	By-product of drinking water disinfection	YES
Total Trihalomethanes	ppb	80	N/A	65.0	23.2 - 102.0	By-product of drinking water disinfection	YES
Parameter	Units	MRDL	MRDLG	Highest RAA	Range	Major Source	
Chlorine	ppm	4	4	1.34	0.21 - 1.96	Water additive used to control microbes	YES
Parameter	Units	MCL	MCLG	Highest Monthly Average	Range	Major Source	
Chlorite	ppm	1	0.8	0.15	0.02 - 0.15	By-product of chlorine dioxide, which is used to remove Manganese	YES

Unregulated Contaminants **(e)**

Parameter	Units	MCL	MCLG	Average	Range	Major Source	Meets Standards?
Sodium	ppm	Notification level = 28	None	20	17 - 25	Stormwater runoff containing road salt, erosion of natural deposits	N/A
Sulfate	ppm	None	None	6	4 - 7	Naturally occurring	N/A

Notes

Only detected contaminants are listed in this table. Analyses were performed in 2019 unless noted otherwise.

(**a**) A range of values is not presented for those parameters which were measured only once in 2019.

(**b**) Turbidity is a measure of the cloudiness of water and is a good indicator of the effectiveness of our filtration system. Turbidity cannot exceed 1 NTU.

(**c**) Of the 64 homes tested in 2019, 90% had lead levels below 9 ppb, and 90% had copper below 0.10 ppm; since these values are below their respective Action Levels, our system is in compliance. Next analysis is due in 2020.

(**d**) Highest Locational Running Annual Average (LRAA) of samples taken in the distribution system. Values in the range are individual sample results.

(**e**) EPA has not established drinking water standards for unregulated contaminants. We are required to monitor for them to assist the EPA in determining their occurrence and whether future regulation is warranted.

Key to Table

AL = Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL = Maximum Contaminant Level: the highest level of a contaminant that is allowed in drinking water.

MCLG = Maximum Contaminant Level Goal: the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. (MCLs are set as close to the MCLGs as feasible using best available technology.)

MRDL = Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG = Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

N/A = Not Applicable

ND = Not Detected

NTU = Nephelometric Turbidity Units

< = Less than

> = Greater than

ppm = parts per million

ppb = parts per billion

pCi/L = picoCuries per liter

P/A = presence / absence

RAA = Running Annual Average

TT = Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.