A dynamic splash of clear water against a white background, with a thick stream of water falling from the top and splashing outwards, creating numerous droplets and ripples.

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019

Presented By



WATERTOWN FIRE DISTRICT
WATER • SEWER
Your Local Water Utility

Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2019. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.



Public Meetings

Please remember that we are always available to assist you should you ever have any questions or concerns about your water. We want you, our valued customers, to be informed about your water utility. You can attend the District Commission's regularly scheduled monthly meetings on the second Monday of each month at 7:00 p.m. at the district office, 24 DeForest Street.

Source Water Protection

Source water is untreated water from streams, rivers, lakes, or ground aquifers that is used to supply public drinking water. Preventing drinking water contamination at the source makes good public health sense, good economic sense, and good environmental sense.

You can be aware of the challenges of keeping drinking water safe and take an active role in protecting drinking water. There are lots of ways that you can get involved in drinking water protection activities to prevent contamination of groundwater sources. Dispose of household chemicals properly, help clean up the watershed that is the source of your community's water, and attend public meetings to ensure that the community's need for safe drinking water is considered in making decisions about land use.

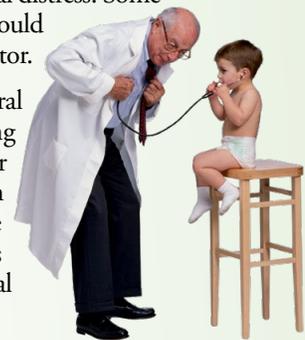
Contact the Watertown Fire District, (860) 274-6332, or the U.S. Environmental Protection Agency (U.S. EPA) at (800) 426-4791 for more information on source water protection. You may also find information on the U.S. EPA's website at www.epa.gov/sourcewaterprotection.

Important Health Information

Sources of lead in drinking water include corrosion of household plumbing systems and erosion of natural deposits. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Sources of copper in drinking water include corrosion of household plumbing systems, erosion of natural deposits, and leaching from wood preservatives. 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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.



Where Does My Water Come From?

The Watertown Fire District customers are fortunate because we enjoy an abundant water supply. Our water source is groundwater pumped by wells located along the Nonnewaug River in Woodbury. The district also owns and operates two surface reservoirs: Lockwood Reservoir, which is located in Bethlehem, and Judd Pond, which is located in Watertown. These reservoirs are used to augment the flow of water in the Nonnewaug River to replenish the groundwater removed by our wells.

Ground Water Sampling Update

On September 5, 2019, we were informed that one of our routine bacteria samples collected on September 3, 2019, was positive for total coliforms. As required by the Ground Water Rule, we collected three samples from Well #9 for fecal contamination analysis. The Well #9 sample was positive for fecal contamination (*E. coli*). In response, we sent notices to all of our customers within 24 hours of learning of this positive sample, and the well in question was immediately taken off line.

A visual inspection of the well's interior was conducted, and no contaminating substances were found. Further, the surrounding area suggested no elevated risks of introducing microbial pathogens. The well was properly disinfected and flushed. All mating surfaces were resealed, though no evidence of a faulty seal could be found. Our wells and their enclosures are monitored on a daily basis.

Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

FOG (fats, oils, and grease)

You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a wastebasket.

ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container, such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products, including nonbiodegradable wipes.

Water Treatment Processes

Water pumped from the district wells is treated with a disinfectant (chlorine) as a precaution to protect consumers from potentially harmful bacteria. We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste. The water is also treated with a small amount of sodium hydroxide to make it less corrosive. This is important in reducing the amounts of metals, such as copper and lead, that may be picked up from consumers' homes and businesses. This finished water is then pumped into our network of distribution pipes to reach our residential and business customers.



Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water 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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

We remain vigilant in delivering the best-quality drinking water

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

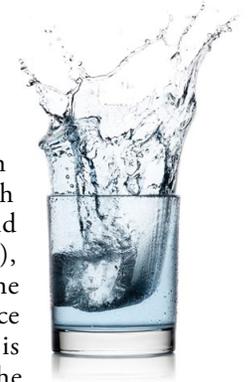
Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

The State of Connecticut Department of Public Health (DPH), in cooperation with the Department of Energy and Environmental Protection (DEEP), completed an assessment of the Hart Farm Well Field, a source of public drinking water that is maintained and operated by the Watertown Fire District Water Department. The assessment report can be found on the DPH website at www.dir.ct.gov/dph/Water/SWAP/Community/CT1530011.pdf.



This one-time assessment is part of a nationwide effort mandated by Congress under the Safe Drinking Water Act amendments of 1996. The assessment aims to evaluate the susceptibility of all public drinking water sources in Connecticut to potential sources of contamination. The assessment is intended to provide the Watertown Fire District Water Department consumers with information about where their public drinking water comes from, sources of potential contamination that could impact it, and what can be done to help protect it.

Based on a combination of current field and source water area conditions, existing potential contaminant sources, and level of source protection measures currently in place, the source water assessment for this well field indicates that it has an overall low risk of contamination from identified potential sources. For more information on the assessment report or to view a copy, contact the Watertown Fire District office by calling (860) 274-6332.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Michael Tanuis, Superintendent, at (860) 274-6332.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the fourth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2019	15	0	0.183	NA	No	Erosion of natural deposits
Barium (ppm)	2019	2	2	0.0247	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2019	[4]	[4]	0.95	0.75–1.20	No	Water additive used to control microbes
Combined Radium (pCi/L)	2019	5	0	0.545	NA	No	Erosion of natural deposits
Haloacetic Acids [HAAs] (ppb)	2019	60	NA	6.41	1.59–6.41	No	By-product of drinking water disinfection
Nitrate (ppm)	2019	10	10	0.518	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2019	80	NA	13.7	12.3–13.7	No	By-product of drinking water disinfection
Turbidity ¹ (NTU)	2019	TT	NA	1.60	ND–1.60	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2019	1.3	1.3	0.49	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2019	15	0	3.8	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2019	250	NA	28.6	NA	No	Runoff/leaching from natural deposits
Sulfate (ppm)	2019	250	NA	8.19	NA	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2019	26	NA	Naturally present in the environment; Added to adjust pH; Runoff from road salt

¹ Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of disinfectants.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90 percent of our lead and copper detections.

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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.

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 contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

SMCL (Secondary Maximum Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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