



2020 Water Quality Report

PWS ID No. 1276000

Maintaining High Standards

The Southamptton Water Department has prepared this water quality report to provide information on the source and contents of our water and related health risks associated with any detected contaminants. This report covers testing completed from January 1 through December 31, 2020.

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (MassDEP). MassDEP inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. Recommendations provided during our last MassDEP Sanitary Survey, conducted in October 2020 have been or will soon be addressed. To ensure that we provide the highest quality of water available, your water system is operated by a Massachusetts certified operator who oversees the routine operations of our system.

In 2020, the Water Department successfully completed construction of the \$1,700,000 pumping station and permanent interconnection with the City of Easthampton's water system. We also completed design and bid of the Route 10 Manhan River Water Main project. Construction is anticipated to start in Spring 2021. Most of the costs for this project will be funded through a FEMA Hazard Mitigation Grant that exceeds \$500,000.

We remain committed to providing high quality, safe drinking water meeting federal and state standards while being fiscally prudent and responsible. We encourage you to contact us on the information contained in this report should you have any questions. For more information about this report or questions related to your drinking water please contact the Water Department at 413-532-4249 or watersuper@townofsouthampton.org.

For after-hours emergencies, call the Police Dispatcher at 413-527-1124.

Where does my water come from?

Southampton has one source of drinking water, now designated by MassDEP as the Glendale Well #2. The Town Well, located near the intersection of Glendale Road and College Highway. This well draws water from the Barnes Aquifer, an extensive sand and gravel aquifer. The water from this well is currently chlorinated in compliance with the requirements of the MassDEP. During periods of high water demand, the Town Well water is supplemented by water from Easthampton through a metered pump station located on Main Street in Easthampton. The Town's water is stored in a 744,000 gallon tank located on Little Mountain, near Wolcott Road.

Source Water Assessment

The MassDEP conducted assessments of our drinking water sources in 2004 through the Source Water Assessment Program (SWAP). The Town Well is located in an aquifer with a high vulnerability to contamination due to the absence of a continuous hydrogeologic barrier that can prevent contaminant migration from the ground surface. The assessment susceptibility for the Town Well was reported to be high, based on the presence of at least one high-threat land use within our protective area. The SWAP report may be viewed on-line at: <http://www.mass.gov/eea/docs/dep/water/drinking/swap/wero/1276000.pdf>

Water Conservation

Please work with us to conserve water! We need your help, especially in the summer when many people water their lawns and fill their swimming pools. Please use this valuable resource responsibly and be conscious of the amount of water your household uses.

- **During the summer, it is suggested to limit lawn watering to two days per week and only water outside the hours of 9AM to 5PM.**
- Check every faucet in your home for leaks.
- Check your toilets for leaks by putting a few drops of food coloring in the tank or request a brochure containing dye tablets from the Water Department. If you see colored water show up in the bowl after a few minutes, your toilet is leaking. Water Conservation Tips can be found at: https://www3.epa.gov/region1/eco/drinkwater/water_conservation_residents.html

Substances that Could be in Water

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, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

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

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and 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 can also come from gas stations, urban stormwater runoff, and septic systems.

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

In order to ensure that tap water is safe to drink, the MassDEP and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All 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 some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Lead and Drinking Water

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. The Southampton Water Department is responsible for providing high quality drinking water but 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 2 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 or at <http://www.epa.gov/safewater/lead>

Other Information

MassDEP has reduced the monitoring requirements for inorganic contaminants and synthetic organic contaminants (SOCs) because the source is not at risk of contamination. The last sample collected for these contaminants was taken in 2012 and was found to meet all applicable US EPA and MassDEP standards.

Each month the Southampton Water Department samples for bacteria and residual chlorine at the Town Well and five locations around the water system. All samples taken in 2020 were absent of bacteria, meeting all applicable US EPA and MassDEP standards.

Water Quality Testing Results

Definitions

Maximum Contaminant Level (MCL) – 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.

Maximum Contaminant Level Goal (MCLG) – 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.

Maximum Residual Disinfectant Level (MRDL) -- The highest level of a disinfectant (chlorine, chloramines, chlorine dioxide) allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) -- The level of a drinking water disinfectant (chlorine, chloramines, chlorine dioxide) below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

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

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

90th Percentile – Out of every 10 homes sampled, 9 were at or below this level.

Variations and Exemptions – State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

ppm = parts per million, or milligrams per liter (mg/l)

ppb = parts per billion, or micrograms per liter (ug/l)

ppt = parts per trillion, or nanograms per liter

pCi/l = picocuries per liter (a measure of radioactivity)

NTU = Nephelometric Turbidity Units

ND = Not Detected

NA = Not Applicable

mrem/year = millirem per year (a measure of radiation absorbed by the body)

The water quality information presented in the table(s) is from the most recent testing done in accordance with the regulations. Apart from those compounds noted on the tables below, all other compounds in the testing panels reported undetectable levels including: Bacteria testing conducted monthly; Iron and Manganese tested on 5/5/2020; Nitrite tested on 11/8/2017; VOC panel tested on 5/5/2020; Perchlorate tested on 7/7/2020; Total Trihalomethanes (THM's) and Haloacetic Acids (HAA5) tested on 8/13/2019; Per- and Polyfluoroalkyl Substances (PFAS) tested on 11/12/2020.

REGULATED SUBSTANCES

Substance (Unit of Measure)	Date Collected	Highest Monthly Average	Range Detected	MCL [MRDL]	MCLG [MRDLG]	Violation	Possible Source
Nitrate (ppm)	12/17/2019	1.08	----	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	11/9/2017	6.53	----		ORSG-20		Natural sources and road run off
Chlorine (ppm) (Monthly Average)	Monthly	0.21	0.03 – 0.27	[4]	[4]	No	Water additive used to control microbes
Radium 226 & 228 combined (pCi/l)	7/6/2015	0.66	-----	5	0	No	Erosion of natural deposits
Gross Alpha (pCi/l)	7/6/2015	0.108	-----	15	0	No	Erosion of natural deposits

LEAD AND COPPER

Substance (Unit of Measure)	Dates Collected	90 th Percentile	Action Level	MCLG	# of Sites Sampled	# of Sites above Action Level	Possible Source
Lead (ppb)	Q2 2020	3.7	15	0	40	1	Corrosion of household plumbing systems, Erosion of natural deposits
	Q4 2020	3.1			40	0	
Copper (ppm)	Q2 2020	1.31	1.3	1.3	40	5	Corrosion of household plumbing systems, Erosion of natural deposits, Leaching from wood preservatives
	Q4 2020	1.35			40	5	

Lead and Copper tap water samples collected from sites throughout the community during the 2nd and 4th quarters of 2020. We have increased the frequency and number of samples taken for Lead and Copper and continue to monitor the situation with assistance from MassDEP personnel. 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.

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.

SECONDARY AND NOT REGULATED SUBSTANCES

Substance (Unit of Measure)	Date Collected	Result or Range Detected	Average	SMCL	Possible Source
pH	6/2/2020	7.05 – 7.22	7.13	6.5 – 8.5	Runoff and leaching from natural deposits
Alkalinity (ppm)	6/2/2020	32.5 - 40	34	None	Runoff and leaching from natural deposits
Calcium (ppm)	6/2/2020	14.6 – 15.7	15	None	Runoff and leaching from natural deposits
Magnesium (ppm)	6/2/2020	2.71 – 2.74	2.7	None	Runoff and leaching from natural deposits
Hardness (ppm)	6/2/2020	47.7 – 49.9	49	None	Runoff and leaching from natural deposits

Cross-Connection Prevention – You Can Help!

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure in the drinking water line or when the pressure in the drinking water line drops due to fairly routine occurrences such as main breaks or heavy water demand.

Everyone must exercise care and be good stewards of our shared drinking water. Water contamination occurs easily. Houses should be protected by anti-siphon devices on their outside faucets, and backflow preventers on automatic in-ground sprinkler systems, especially those with chemical herbicide, pesticide, and fertilizer feed systems. Because of the danger or potential of accidentally polluting the public water supply, the Water Department strongly recommends against the use of automatic lawn care chemical feed systems. Other ways you can help:

- **It is very Important that there are no Interconnections between Public and Private Sources of Water**
- Install hose bib vacuum breakers on your outside tap before the garden hose.
- Keep your garden hose off of the ground.
- Do not allow the garden hose to become submerged in a swimming pool.
- Do not connect fertilizer sprayers to your garden hose.

Thank you for your help in protecting our water system!

Help Protect Our Water System - Report Suspicious Activity

The Southampton Water Department is dedicated to ensuring our customers are provided safe, clean and reliable drinking water. That is compromised when water is illegally taken from fire hydrants. Fire hydrants are directly connected to your drinking water supply. Our water system is vulnerable to contamination through the unauthorized use of fire hydrants from a variety of sources, including but not limited to:

- hydro-seed companies,
- street sweepers, and
- swimming pool fill trucks.

Illegal and careless connections carry the risk of contaminating our water supply and can lower pressure required for fire protection. If for example the water pressure should drop during an illegal connection, contaminants could be sucked backwards through the hydrant and into the water supply.

Only authorized users can connect to fire hydrants, and include: Town of Southampton Fire Department personnel, Town Water Department Employees, and Town Highway Department Street Sweepers. Unauthorized connection to a fire hydrant is subject to a fine.

Help protect our water system. If you see illegal water use, please call the Police Department at (413) 527-1124 to report this illegal activity. Please obtain as much information, as safely as possible, regarding the incident as you can. It can be as simple as taking a picture of the event in progress or recording critical details such as the time and location. Please note vehicle type and license plate, company name/emblem on the vehicle.