

# 2017 Water Quality Report Southampton Water Department

PWS ID No. 1276000



## Maintaining High Standards

The Southampton 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, 2017.

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. 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.

A Water System Master Plan completed in 2016 recommended an improved interconnection with the City of Easthampton to provide another reliable source of water and steps were taken in 2017 to achieve this goal. Also in 2017 we were able to replace nearly 3000 linear feet of water main along College Highway. We remain committed to providing high quality, safe drinking water meeting federal and state standards while being fiscally prudent and responsible. Recommendations provided during our last DEP Sanitary Survey, conducted on 5/18/2017 are addressed on an ongoing basis (or have been addressed.)

We encourage you to contact us on the information contained in this report should you have any questions.

For more information about this report, to participate, or for any questions related to your drinking water please contact Thomas Gaughan, Superintendent at (413) 532-4249 or [watersuper@townofsouthampton.org](mailto: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, designated by DEP as [01G and 02G], the Town Well, located near the intersection of Glendale Road and the 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 Mass. Dept. of Environmental Protection. During periods of high water demand in the summer, the Town Well water is supplemented by water from Easthampton through an interconnection located on the east side of Town. The Town's water is stored in a 700,000 gallon tank located on Little Mountain, near Wolcott Road.

## Source Water Assessment

The Mass. Dept. of Environmental Protection 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 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, limit lawn water to every other day; Odd house numbers water on odd numbered days and even house numbers water on even numbered days.
- 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 Department. If you see colored water show up in the bowl after a few minutes, your toilet is leaking.

## 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 Department of Environmental Protection (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 2017 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.

**90<sup>th</sup> 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. Bacteria testing is conducted monthly; Iron and Manganese testing was conducted on 4/6/2017; Nitrite testing was conducted on 11/8/2017; a Full VOC panel was conducted on 4/6/2017. Perchlorate was conducted on 7/11/2017. Total Trihalomethanes (THM's) and Haloacetic Acids (HAA5) were conducted on 8/9/2016.

REGULATED SUBSTANCES							
Substance (Unit of Measure)	Date Collected	Highest Detected Value	Range Detected	MCL [MRDL]	MCLG [MRDLG]	Violation	Possible Source
Nitrate (ppm)	11/8/2017	1.00	----	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) (highest month average)	Monthly January	0.40	0 – 0.40	[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)	Amount Detected (90th%tile)	Action Level	# of Sites Sampled	Violation	# of Sites above Action Level	Possible Source	
Lead (ppb)	17.3	15	20	No	3	Corrosion of household plumbing systems, Erosion of natural deposits	
Copper (ppm)	1.1	1.3	20	No	1	Corrosion of household plumbing systems, Erosion of natural deposits, Leaching from wood preservatives	
Tap water samples collected from sites throughout the community during the 3 <sup>rd</sup> quarter of 2017. We have increased the frequency and number of samples taken for Lead and Copper and continue to monitor the situation with assistance from MA DEP personnel.							

## 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:

- 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.