

# 2018 Annual Drinking Water Quality Report

## Siasconset Water Department • Siasconset, Massachusetts

PWSID # 4197001

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is a snapshot of 2018's water quality. Included are details about from where your water comes, what it contains, and how it compares to standards set by regulatory agencies. Our goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to protect our water resources. We are committed to ensuring the quality of your water and to providing you with this information, because informed customers are our best allies.

### Public Water System Information

#### Siasconset Water Department

50 Main Street, Siasconset, MA 02564  
Mark J. Willett, Director/Certified Operator  
508-228-0022 • [mwillett@nantucket-ma.gov](mailto:mwillett@nantucket-ma.gov)

#### Siasconset Water Commission

Gerald Eldridge, Chair  
Robert Benchley III, Secretary  
John Pearl

### Water System Improvements

In 2018 the Siasconset Water Commission renewed the management agreement with Wannacomet Water Company whereby Wannacomet Water will provide administrative and operations services. 2018 marked the thirteenth year of such an agreement. The Water Commission also approved an article for the 2019 Annual Town Meeting that will merge the Siasconset Water Commission with the Nantucket Water Commission and make the Wannacomet Water Company the sole enterprise fund.

Our Water System is routinely inspected by the DEP for its technical, financial and managerial capacity to provide safe drinking water to you. Your water system is operated and managed by a certified drinking water system operator who oversees the routine operations. Your water commissioners have contracted with the Wannacomet Water Company to provide both a primary and secondary operator as well as all administrative, financial, and operational support services. While we plan for the future, we remain committed to our foremost goal of delivering safe clean drinking water and reliable fire protection.

### Opportunities for Public Participation

If you have any questions or comments, please feel free to contact the Wannacomet Water Company at (508) 228-0022. If you would like to participate in discussion regarding your water system, you may attend the Siasconset Water Commission meeting every second Tuesday of the month, at the offices of the Wannacomet Water Company, 1 Milestone Road, at 10:00 AM.

### Source Water Assessment (SWAP) Report

The SWAP report was compiled by the MassDEP with the assistance of the Wannacomet Water Department staff to inventory land uses with the Wellhead Protection District (WPD) and assess their potential to negatively impact the aquifer. The report is a useful planning tool to improve the water quality protection measures and programs. Based upon the inventory of land uses within the WPD the overall ranking of susceptibility is high, based on the presence of at least one high threat land use, residential fuel oil storage, within the WPD. Customers who wish to view the SWAP report can obtain a copy from the Siasconset Water Department or it can be viewed at the <http://www.mass.gov/eea/docs/dep/water/drinking/swap/sero/4197000.pdf>.

### Where Does My Water Come From?

Your water is provided by pumping groundwater from Nantucket's sole source aquifer from two well systems located on property owned and managed by the Siasconset Water Department.

GP Well No. 6	4197001-06G	Groundwater	319 Milestone Road
GP Well No. 7	4197001-07G	Groundwater	319 Milestone Road

All of our drinking water is pumped from these wells. Well #6 has a slightly acidic pH of 6.8 and is treated with phosphate for corrosion control. Well #7 has a pH of 7.1 which does not require any treatment. All of the water is pumped through approximately 20 miles of distribution piping as well as into the 400,000 gallon storage tank.

### Is My Water Treated?

Many drinking water sources in New England are naturally corrosive (i.e. they have a pH of less than 7.0). So the water they supply has a tendency to corrode and dissolve the metal piping it flows through. This not only damages pipes but can also add harmful metals, such as lead and copper, to the water. For this reason it is beneficial to add chemicals that provide a protective pipe coating, thus controlling metal loss in the piping and improving quality.

This is done by adding combinations of water treatment chemicals. The Siasconset Water Department adds Calciquest (a blended orthophosphate and polyphosphate product) only to the water that is pumped from Well #6. The polyphosphate component of the product sequesters iron that may be within the supply, while the orthophosphate component provides the protective coating. Testing throughout the system has shown that this treatment has been effective at reducing lead and copper concentrations.

All chemicals used for water treatment are approved by the National Sanitation Foundation International for use in water treatment. Chemicals also have to meet performance standards of the American Water Works Association.

The water quality of our system is constantly monitored by us and the Massachusetts Department of Environmental Protection (DEP) to determine the effectiveness of existing water treatment and to determine if any additional treatment is required.

### How Can I Use Water Responsibly?

We all have a responsibility to manage, conserve and protect our water supply. The Wannacomet Water Company provides a water calculator to assist you in monitoring your water consumption and offers conservation tips. We encourage you to visit their web site at [www.wannacomet.org](http://www.wannacomet.org).

### Important Drinking Water Contacts

Massachusetts Dept. of Environmental Protection (DEP)  
[www.state.ma.us/dep](http://www.state.ma.us/dep) • (617) 292-5500

Massachusetts Dept. of Public Health (DPH)  
[www.state.ma.us/dph](http://www.state.ma.us/dph) • (617) 624-6000

Town of Nantucket  
[www.nantucket-ma.gov](http://www.nantucket-ma.gov) • (508) 228-7255

US Centers for Disease Control and Prevention (CDC)  
[www.cdc.gov](http://www.cdc.gov) • (800) 311-3435

Environmental Protection Agency (EPA)  
[www.epa.gov](http://www.epa.gov) • (800) 426-4791

List of Certified Water Quality Testing Labs  
[www.mwra.state.ma.us](http://www.mwra.state.ma.us) • (617) 242-5323

# What The Environmental Protection Agency (EPA) Wants You to Know

## Contaminants in Bottled Water and Tap Water

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

In order to insure that tap water is safe to drink, Massachusetts DEP and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) and the Massachusetts Department of Public Health establish limits for contaminants in bottled water that must provide the same protection for public health.

## Contaminants

General 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 storm water 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 storm water 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 storm water runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

## Special Health Information

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. Environmental Protection Agency (EPA) and the Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

## Water Quality Monitoring

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The table below lists all the drinking water contaminants that we detected in the last round of sampling for the particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2018.**

## Important Drinking Water Definitions

**Not-Applicable (N/A)** – Information not applicable/not required for that particular water system or for that particular rule.

**Non-Detects (ND)** - Laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

**Parts per million (ppm) or Milligrams per liter (mg/L)** - One part per million corresponds to one minute in two years or a single penny in \$10,000.

**Parts per billion (ppb) or Micrograms per liter (ug/L)** - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Parts per trillion (ppt) or Nanograms per liter (nanograms/L)** - One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

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

**Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**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. MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

**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.

**Minimum Detection Level (MDL)** – The minimum detection level for a particular constituent in drinking water.

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

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

## Siasconset Water Quality Testing Results 2018

	Level	Unit of Detected	MCLG Measurement	MCL	Possible Source of Contamination
<b><i>Volatile Organic Compounds</i></b>					
<b>MTBE</b>	0	ppb	0	none set	Gasoline additive
Methyl Tertiary Butyl Ether				Guideline = 70	Leaching from gas storage tanks
<b>Tetrachloroethylene (PCE)</b>	0	ppb	0	5	Leaching from vinyl lined pipes, dry-cleaning operations & some degreasing agents
<b>Benzene</b>	0	ppb	0	5	Leaching from gas storage tanks & landfills
<b><i>Inorganic Contaminants</i></b>					
<b>Nitrate</b>	0.98	ppm	10	10	Runoff from fertilizer use, leaching from septic systems & erosion of natural deposits
<b>Mercury</b>	0	ppb	2	2	Leaching from municipal landfills and sewage, and metal refining
<b>Arsenic</b>	0	ppm	0	0.01	Erosion of natural deposits, run off from agricultural and industrial practices
<b>Cadmium</b>	0	ppm	0.005	0.005	Erosion of natural deposits & corrosion of galvanized pipe
<b><i>Perchlorate</i></b>					
<b>Perchlorate</b>	0	ppb	0	15	Propellant in rockets, missiles and fireworks
<b><i>Microbiological Contaminants</i></b>					
<b>Total Coliform Bacteria</b>	0	presence or absence	0	presence of coliform in 5% of monthly samples	Naturally present in environment Coliform bacteria are used as an indicator to the presence of other potentially harmful bacteria

**SMCL** = secondary maximum contaminant level. These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

**ORSG** = Massachusetts Office of Research and Standards guideline. This is the concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

# What MassDEP Wants You to Know About Lead In Drinking Water

The United States Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) set the **Lead Action Level<sup>1</sup> for lead in drinking water at 0.015 mg/l (or parts per million) and the Copper Action Level at 1.5 mg/l.** Because lead may pose serious health risks, the EPA and MassDEP also set a **Maximum Contaminant Level Goal (MCLG)<sup>2</sup> for lead of zero. The MCLG for copper is 1.3 mg/l.** Under EPA rules, Siasconset Water Department must test tap water from homes that are likely to have high lead levels. These are usually older homes that may have lead service lines or lead solder.

Lead and Copper sampling was performed by the Siasconset Water Department in June 2018. As shown in the table below some of the samples exceeded the Lead and Copper Action Levels. The water provided by Siasconset Water is lead-free when it leaves the well and/or water tank. Local distribution pipes that carry the water to your community are made mostly of iron and steel, and therefore do not add lead to water. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Our public water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. More information on lead in drinking water and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at: <http://water.epa.gov/drink/info/lead/index.cfm>

Lead is a common metal found in the environment. Common sources of lead exposure are lead-based paint, household dust, soil, and some plumbing materials including many faucets. Lead can also be found in other household items such as pottery, make-up, toys, and even food. Lead paint was outlawed in 1978, but dust from homes that still have lead paint is the most common source of exposure to lead. Therefore, make sure to wash your children's hands and toys often as they can come into contact with dirt and dust containing lead. **If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children.**

## Lead and Copper Test Results

### Lead and Copper

Contaminant	Sample Date	90 <sup>th</sup> Percent	Action Level	# of sites sampled	MCL	# of sites above Action Level	Likely Source of Contamination
Lead (ppb)	6/26/2018	0.0018	0.015	20	0	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppb)	6/26/2018	1.400	1.300	20	1.3	1	Corrosion of household plumbing systems, Erosion of natural deposits, leaching from wood preservatives

<sup>1</sup> The Action Level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

<sup>2</sup> The Maximum Contaminant Level Goal (MCLG) is 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.

## We recommend the following tips to keep any potential lead and copper out of the water you drink:

- Most importantly – Flushing your water is the simplest way to reduce exposure to lead. When your water has been sitting for several hours, flush the tap until the water feels cold before use.
- Consider using a filter: If your water contains lead, you may want to consider using a filter. Make sure the filter you are considering removes lead – not all filters do. Be sure to replace filters in accordance with manufacturer's instructions to protect water quality. Contact the National Sanitation Foundation at 1-800-NSF-8010 or [www.nsf.org](http://www.nsf.org) for more information on water filters.
- Never boil water to remove lead or copper. Boiling water for an extended time may make the lead or copper more concentrated.

## What is being done to control lead in the drinking water?

Siasconset Water is concerned about lead detected in some of the tap water samples. We have both an extensive testing program in place and will begin treating the water to make it less corrosive.