

# Tisbury Water Works

2016 Water Report - Distributed January 2017

PWS #4296000

## Water Quality Report

The Tisbury Water Works (TWW) is pleased to present a summary of the quality of the water provided to you during the past year. The Safe Drinking Water Act (SDWA) requires that utilities issue an annual "Consumer Confidence" report to customers in addition to other notices that may be required by law. This report details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. Tisbury Water Works is committed to providing you with the safest and most reliable water supply. A Sanitary Survey is performed periodically by the Massachusetts Department of Environmental Protection (MassDEP) and is available upon request. This survey or inspection is conducted to ensure the TWW is following guidelines, policies, and regulations as set forth by the MassDEP. Informed consumers are our best allies in maintaining safe drinking water.

### Where Does Our Water Comes From...

The Tisbury Water Works receives its water from three supply sources, the Sanborn Well, the Tashmoo Well, and the Manter Well. All sources are groundwater supplied from the Island's sole source aquifer.

An Aquifer is an underground layer of water-bearing permeable rock or unconsolidated materials (gravel, sand, silt, or clay) from which groundwater can be extracted. An aquifer is recharged from rainwater and snowmelt, and from lakes and rivers. Groundwater can easily be polluted by seepage from landfills, and septic tanks, from leaky underground fuel tanks, and sometimes from fertilizers or pesticides. Once polluted, the water becomes no longer safe to drink. By reducing sources of pollution, our groundwater will continue to be an important natural resource.

The Sanborn Well (Well #1), off Edgartown Road, is a 220 foot deep, gravel packed well, put into operation in 1952. It is currently capable of pumping 950 gallons per minute (gpm).

The Tashmoo Well (Well #2), on W. Spring Street, is a 219 foot deep, gravel packed well, put into operation in 1965.

It is currently capable of pumping 850 gallons per minute (gpm).

The Manter Well (Well #3), off Old Holmes Hole Rd, a 215 foot deep gravel packed well, was put on-line in 2004. It is capable of pumping 1000 gallons per minute.

There is an emergency interconnection with the Oak Bluffs Water District (OBWD) on Edgartown Rd. This allows TWW to get water from OBWD in an emergency, ensuring a constant supply of water to our customers.

### What Are We Doing to Improve Operations ?

We moved all the services, hydrants and side streets onto the 12-inch water main on Franklin Street and abandoned the older, smaller main from Fairfield Avenue to Bigelow Road. This will enhance water quality and fire flow to the West Chop area.

We will be continuing this program over the next several years.

Thank you,

Tisbury Water Works  
P.O. Box 84  
400 West Spring St.  
Tisbury, MA 02568  
(508) 693-3100  
(508) 693-3157 FAX  
e-mail: pdiamond@  
tisburywaterworks.org

**Contacts:**  
**Paul Wohler**  
Water Superintendent

**Office Hours:**  
8:00am-12:00noon  
12:30pm-4:00pm  
Monday - Friday

**Governing Board:**  
Tisbury Board of  
Water Commissioners

**David J. Schwab,**  
Chairman  
**Elmer Silva**  
**Roland Miller**

**Meeting Schedule:**

**Monthly Meetings-**  
First Tuesday each  
month at 4:00pm  
at the Water Works  
office

**Operational Meetings-**  
every Tuesday and  
Thursday, as needed.

All meetings are open  
to the public.

If you wish to speak at  
one of our meetings,  
please call the office  
in advance to be  
scheduled on our  
agenda.

# Water Quality Table

This table shows the results of our water quality analyses. Although we run well over 1000 different water quality tests throughout the year, the table below lists the only substances that we detected in the water, even in the most minute traces. They are all below the Maximum Contaminant Levels. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals of public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement. Definitions of MCL and MCLG are important.

## TISBURY WATER WORKS

### 2016 WATER QUALITY TESTING DATA PWSID #4296000

Contaminants	Date Tested	Units	MCL	MCLG	Detected Level	Range	Major Sources	Violation (Yes/No)
<b>Regulated Substances</b>								
<b>Inorganic Contaminants</b>								
Barium	2013	ppm	2	2	0.014	n/a	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits;	No
Nitrate	2015	ppm	10	10	0.73	0.22 - 0.73	Runoff from fertilizer use; leaching from septic tanks; sewerage; erosion of natural deposits	No
Asbestos	2013	MFL	7	0	4.00	n/a	Asbestos-cement water main pipe.	No
Sodium	2016	ppm	-	20	21.2	13.5 - 21.2	Road run-off and corrosion control chemicals; Naturally occurring in the environment	No
<b>Radioactive Contaminants</b>								
Gross Alpha Activity	2012	pCi/L	15	0	0.75	n/a	Erosion of natural deposits	No
Radium 226 & 228	2015	pCi/L	5	0	0.56	n/a	Erosion of natural deposits	No
<b>Synthetic Organic Contaminants</b>								
Di(2-Ethylhexyl)phthalate	2012	ppb	6	0	2.5	ND - 2.5	Discharge from rubber and chemical factories	No
<b>Volatile Organic Contaminants</b>								
Chloroform	2016	ppb			2.5	2.5	Erosion of natural deposits	No
Tetrachloroethylene (PCE)	2016	ppb	5	0	1.65	ND - 1.65	Lining of asbestos cement water mains	No

### Lead & Copper

Tap water samples were collected for lead and copper analysis from 31 homes throughout the service area.

	Date	Units	AL	90th Percentile	Range	Major Sources	Violation (Yes/No)
Lead	2015	ppm	0.015	0.007	ND - 0.081	Corrosion in household plumbing	No
Copper	2015	ppm	1.30	0.250	0.040 - 0.440	Corrosion in household plumbing	No

### Unregulated Substances

Contaminants	Date	Units	SMCL	Level	Range	Major Sources	Violation (Yes/No)
Sulfate	2016	ppm	250	5.1	3.6 - 5.1	Naturally occurring in the environment	No
Iron	2016	ppm	0.3	1	0.33 - 1.00	Naturally occurring in the environment	No
Manganese	2016	ppm	0.05	0.032	.018 - .032	Naturally occurring in the environment	No
Hardness	2016	ppm	n/a	14.4	8.8 - 14.4	As CaCO3	No
Alkalinity	2016	ppm	n/a	40.2	22.3 - 40.2	As CaCO3	No

### Unregulated Contaminants Monitoring Rule - 3

Chromium(Total)	2014	ppb		0.4	0.2 - 0.4	Naturally occurring element; used in making steel and other alloys; chromium-6 used in chrome plating, dyes and pigments, leather tanning and wood preservation.	No
Chromium (IV)	2014	ppb		0.17	0.12 - 0.17	Natural occurring element; used in cathode ray tube televisions	No
Strontium	2014	ppb		31.6	14.5 - 31.6	Natural occurring element; used in cathode ray tube televisions	No
Chlorate	2014	ppb		44	ND - 44	Agricultural defoliant or dessicant	No

Unregulated contaminants are those substances for which EPA has not established drinking water standards. The purpose of unregulated contaminants monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.

Microbial Contaminants	Highest # Positive in a Month	MCL	MCLG	Violation	Major Sources
Total Coliform	4	1	0	Yes	Naturally occurring in the environment
Fecal coliform - E-coli	0	0	0	No	Human and animal fecal waste

\* Compliance with the Fecal Coliform/E. Coli MCL is determined upon additional testing.

**Total Coliform:** Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments. During the past year we were required to conduct one Level 1 assessment. One Level 1 assessment was completed. In addition, we were required to take one corrective action and we completed this action. During the past year, two Level 2 assessments were required to be completed for our water system. Two Level 2 assessments were completed. In addition, we were required to take six corrective actions and we completed all six of these actions.

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in the water system.

**Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in the water system on multiple occasions.

## Key to Table

- ◆ ppm – Parts per million, corresponds to one penny in \$10,000
- ◆ ppb – Parts per billion, corresponds to one penny in \$10,000,000
- ◆ ND – Non-detect
- ◆ n/a - non applicable
- ◆ pCi/L – Picocuries per liter

## Health Information

### Source Waters and Their Potential Contaminants

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 and 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:

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

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

(E) 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, EPA prescribes regulations which limit the amount 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.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contamination. 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 at (1-800-426-4791).

### SOME TERMS DEFINED

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

**Maximum Contaminant Level Goal (MCLG):** *The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety*

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

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

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

**Total Coliform:** *A bacteria that indicates other potentially harmful bacteria may be present.*

**90<sup>th</sup> Percentile:** *Out of every 10 homes, 9 were at or below this level.*

The TWW promotes water conservation.



Water is a natural and precious resource.

Please protect our public water supplies.

### Lead in Your 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. **Tisbury Water Works** 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>.

# Tisbury Water Works

400 West Spring Street  
P.O. Box 84  
Tisbury, MA 02568

PRSR STD  
ECRWSS  
U.S. POSTAGE  
**PAID**  
EDDM Retail

ECRWSS

Local  
Postal Customer

## People at Risk

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone 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 are available from the Safe Drinking Water Hotline (800-426-4791)

## 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). 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 make the water neutral or slightly alkaline.

The Tisbury Water Works adds sodium hydroxide (25% NaOH) to its water to increase the pH levels and control corrosion. Testing throughout the water system has shown that this treatment has been effective at reducing lead and copper concentrations, and has helped to retard the corrosion of iron in our old cast iron mains.

## CROSS CONNECTION CONTROL



Typical HBVB

Tisbury Water Works recommends the installation of Hose Bibb type vacuum breakers on all outside faucets. This will protect all residents from the potential of backflow into their homes and the water system from a hose connection. Studies have shown that hoses are the most commonly unprotected cross connection.

## SWAP (Source Water Assessment and Protection)

The DEP has prepared a Source Water Assessment Program (SWAP) Report for The Tisbury Water Works. The report assesses the susceptibility of public water supplies to contamination and makes recommendations. This report is available on the Massachusetts Department of Environmental Protections (MassDEP) website: <http://www.mass.gov/dep/water/drinking/sourcewa.htm#reports>.

A susceptibility ranking of **high** was assigned to all wells in our system by the MassDEP based on the presence of one high threat land use within the water supply protection areas. However our wells and drinking water meets or exceeds all US Environmental Protection Agency (EPA) and MA DEP drinking water quality standards.

Be assured that the Tisbury Water Works is addressing concerns as stated in the SWAP Report and welcomes your input to our planning. If you have any questions, please contact our office at 508-693-3100.

## FOR YOUR 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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Where to go for more information ....

O relatorio contem informacoes importantes sobre a qualidade da agua da comunidade. Traduza-o ou peca ajuda de uma pessoa amiga para ajuda-lo a entener melhor.

In an effort to protect our drinking water supply we have posted signs like the one pictured on the right to advise people when they have entered the Zone 1 of one of our wells. Please use extra care when in these areas to ensure the protection of our precious resource.

