ONSET FIRE DISTRICT - WATER DEPARTMENT
PO BOX 171
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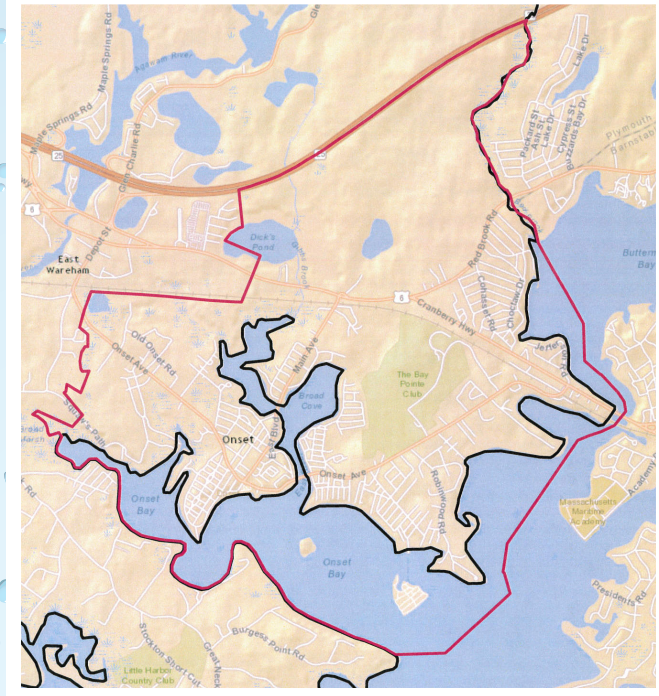
2020 Annual Drinking Water Quality Report

For

Onset Water District

Onset, Massachusetts

MASS DEP PWSID # 4310003



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This report is a snapshot of the drinking water quality that we provided last year. Included are details about where your water comes from, what it contains and how it compares to state and federal standards. Much of the text in this annual report is the same each year. We are committed to providing you; our customers with high quality drinking water that meets or exceeds state and federal standards for quality and safety and information because informed customers are our best allies.

I. PUBLIC WATER SYSTEM INFORMATION

Address: 15 Sand Pond Road, Onset, Massachusetts 02558

Contact Person: David Candeias, Water Superintendent

Telephone #: 508-295-0603 Fax #: 508-295-0606

Internet Address: www.onsetfiredistrict.org

Water System Improvements

Our water system is routinely inspected by the Department of Environmental Protection (DEP). The DEP 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 Massachusetts certified operators who oversee the routine operations of our system. As part of our ongoing commitment to you, last year we made the following improvements to our system:

Continued water meter recycle/replacement program
Continued water conservation program(s)
Exterior inspection of our present standpipe

Opportunities for Public Participation

If you would like to participate in discussions regarding your water quality, you may attend the following meetings or educational events:

The Onset Board of Water Commissioners meet at the Onset Water Department Office, 15 Sand Pond Road on the second and fourth Wednesdays of each month at 3:00 PM.

II. YOUR DRINKING WATER SOURCE

Where Does My Drinking Water Come From?

Your water is provided by the following sources listed below:

Source Name	DEP Source ID#	Source Type	Location of Source
Well # 3	4310003-02G	Groundwater	Off Red Brook Road
Well # 4	4310003-01G	Groundwater	Off Red Brook Road
Well # 5	4310003-03G	Groundwater	Off Sand Pond Road
Well # 6	4310003-04G	Groundwater	Off Sand Pond Road
Well # 7	4310003-05G	Groundwater	Off Access Road

Is My Water Treated?

Our water system makes every effort to provide you with safe and pure drinking water. We are pleased to report that your water only needs pH adjustment to meet these goals. The water quality of our system is constantly monitored by us and the DEP to determine if any future treatment may be required.
Many drinking water sources in New England are naturally corrosive (i.e. they have a pH of less than 7.0). Therefore, 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; the Onset Water Department adds caustic soda (sodium hydroxide 35%) to its water. Doing so adjusts the water to a non-corrosive pH. Testing throughout the water distribution system has shown that this treatment has been effective at reducing lead and copper concentrations.

How Are These Sources Protected?

The Department of Environmental Protection (DEP) has prepared a Source Water Assessment Program (SWAP) Report for the water supply source(s) serving this water system. The SWAP Report assesses the susceptibility of public water supplies.
The SWAP Report notes that residents and businesses need to properly handle industrial and household hazardous waste in the water supply protection area for our sources. The report commends our water system on the existing source protection measures.

What is My System's Ranking?

A susceptibility ranking of high was assigned to this system using the information collected during the assessment by the DEP.

What Can Be Done To Improve Protection?

The SWAP report recommends that all floor drains be connected to the sanitary sewer system and that catch basins not be used to dispose of pet waste, debris and hazardous chemicals.

Our public water system plans to address the protection recommendations by continuing to educate and work with our customers and local officials.
Residents can help protect our water supply by:

- Practicing good septic system maintenance
- Practice daily water conservation
- Supporting water supply protection initiatives at the next district / town meeting
- Taking hazardous household chemicals to hazardous materials collection days
- Contacting the water department or Board of Health to volunteer for monitoring or education outreach to schools
- Limiting pesticide and fertilizer use

Where Can I See The SWAP Report?

The complete SWAP report is available at the Onset Water Department Office and online at www.state.ma.us/dep/brp/dws/. For more information, call 508-295-0603.

III. SUBSTANCES FOUND IN TAP 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, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants -such as salts and metals 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 - 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 (DEP) 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).

IV. IMPORTANT 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 of expected risk to health.
MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

Units of Measure
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
N/A = Not Applicable
mrem/year = millimrems per year (a measure of radiation absorbed by the body)

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 health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

V. WATER QUALITY TESTING RESULTS

What Does This Data Represent?
The water quality information presented in the table(s) is from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the table(s).

	Date(s) Collected	90TH percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Possible Source of Contamination
Lead (ppb)	2020	0.004	0.015	0	22	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	2020	0.45	1.3	1.3	22	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

	Highest # Positive in a month	MCL	MCLG	Violation (Y/N)	Possible Source of Contamination
Total Coliform	30	1	0	Y	Naturally present in the environment

Regulated Contaminant	Date(s) Collected	Highest Detect	Range Detected	Highest Average	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Inorganic Contaminants								
Arsenic (ppb)	2020	ND	ND		0.0041	-----	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Nitrate (ppm)	2020	0.60	0.28 0.55 0.60		10	0.10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits

Volatile Organic Contaminants 2018	**20 Potential Contaminants tested, No Detection of any tested for.**
Synthetic Organic Contaminants 2020	**More than 40 potential contaminants tested, all results well below MCL, refer to website for individual contaminant results and readings.**

	Date Collected	Highest Detect	Range Detected	MCL	Sources
Tetrachloroethylene (PCE)	**2020**	**2.04 ug/L**	**ND – 2.04**	**5 ug/L**	**Used in dry cleaning of fabrics, and degreasing of metals, found in waste disposal sites**

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

Unregulated Contaminant	Date(s) Collected	Result or Range Detected	Average Detected	MCL	ORSG	Possible Source
Inorganic Contaminants						
Sodium (ppm)	2020	5.2 7.6 16 43		20	----	Natural sources; runoff from use as salt on roadways; by-product of treatment process

VI. COMPLIANCE WITH DRINKING WATER REGULATIONS

Does My Drinking Water Meet Current Health Standards?

The Onset Water Department vigilantly safeguards its water supplies. We are committed to providing you with the best water quality available. Last year we violated the drinking water standards regulated by the state. We routinely monitor for drinking water contaminants. We take twenty (20) samples monthly to test for the presence of coliform bacteria. During the months of February, November and December we exceeded the Maximum Contaminant Levels. The standard is that no more than one (1) sample per month may do so. Repeat sampling was performed and all samples were negative for the presence of coliform bacteria.

Is My System Exempt from Meeting Certain Requirements?

Variances and exemptions are temporary permissions granted either by MADEP or the EPA to not monitor or meet an MCL or Treatment Technique under certain conditions. Our system has been granted reduced monitoring for inorganic compounds (IOCs).

VII. EDUCATIONAL INFORMATON

Do I Need To Be Concerned About Certain Contaminants Detected In My Water?

The Onset Water Department continues to safeguard its water supplies. We are committed to providing you with the best quality water available. We are proud that these efforts allow us to meet all applicable health standards regulated by the state and federal government.

VIII. ADDITIONAL INFORMATON

The Onset Water Department conducts an ongoing well maintenance program to ensure the reliability and peak performance of its groundwater supply system. We also flush the distribution system to ensure an aesthetically pleasing product.

The Onset Water Department has a mandatory water conservation program in place. There is an outside water ban from May 1st to September 30th. Even numbered houses may water on even days and odd numbered houses may water on odd days. This water ban must be strictly adhered to.

What is a Cross - Connection

A cross connection is a connection between a drinking water pipe and a polluted source (e.g. a pipe with a contaminant). The pollution can come from your home. For instance, you're going to spray fertilizer on your lawn, you hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops (say because of fire hydrant use in the District) when the hose is connected to the fertilizer, the fertilizer may be sucked back into the drinking water pipes through the hose. Using an attachment on your hose called a backflow-prevention device can prevent this problem.

The Onset Water Department recommends the installation of backflow prevention devices, such as a low cost hose bib vacuum breaker, for all inside and outside hose connections. You can purchase this at a hardware store or plumbing supply store. This is a great way for you to help protect the water in your home as well as the drinking water system in your town! For additional information on cross connections and on the status of your water systems cross connection program, please contact The Onset Water Department.

Cross Connection Control

In accordance with the Drinking Water Regulations of Massachusetts, 310 CMR 22.22 Sec. 13 (D), all installations of reduced pressure principle backflow Preventer(s) shall be tested semi-annually by the water supplier. In addition, all double check valve assemblies shall be tested annually by the water supplier.

All tests must be conducted by a certified Massachusetts backflow prevention device tester in accordance with the regulated test procedures. The results of these tests must be recorded on the Massachusetts approved inspection and maintenance form. This form must be completely filled out (including the cross connection ID#), signed and dated by the owner and certified tester. A copy of the Inspection and Maintenance Report Form shall be maintained by the owner.

Devices failing a test or found defective shall be repaired or replaced by a licensed Massachusetts plumber or Massachusetts licensed fire sprinkler fitter/contractor. The owner of the device is responsible for obtaining the services for the repair of the device. The device must be repaired within 14 days calendar days of the failure test or from the discovery of the defect as required by the Massachusetts Drinking Water Regulations, 310 CMR 22.22(13)(b). The repaired device must be re-tested by a Massachusetts certified backflow prevention device tester.