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Onset Fire District – Water Department
Consumer Confidence Report
2024

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2024 Annual Drinking Water Quality Report
For
Onset Water District

Onset, Massachusetts

MASS DEP PWSID # 4310003

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, 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 Email: Clerk@onsetwater.com

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 replacement program
Continued hydrant replacement program
Continues replacement of water service valves

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 currently meets at the Onset Water Department Office, 15 Sand Pond Road on the second and fourth Monday of each month at 6:00 PM. Please contact the office to verify dates and times. 508-295-0603

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	Located
Well # 3	4310003-02G	Groundwater	Off Red Brook Rd.
Well # 4	4310003-01G	Groundwater	Off Red Brook Rd.
Well # 5	4310003-03G	Groundwater	Off Sand Pond Rd.
Well # 6	4310003-04G	Groundwater	Off Sand Pond Rd.
Well # 7	4310003-05G	Groundwater	Off Sand Pond Rd.

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 routinely monitored by Water Dept. staff 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 piping 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 storm water 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 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.

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.

MDL - Method Detection Limit.

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

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 our water system.

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 our water system on multiple occasions.

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

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)	2023	3	15	0	21	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	2023	0.15	1.3	1.3	21	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Bacteria	MCL/TT	MCLG	Value	Date	TT Violation	Possible Source of Contamination
Total Coliform Bacteria	N/A	0	Positive	06/04/2024	N	Human and animal fecal waste

	Quarterly in (year)	Highest quarterly running annual average	Range	MCL or MRDL	Detection limit	Byproduct of drinking water chlorination
Total Trihalomethanes (TTHMs) (ppb)	2023		7.3 - 11.0	80	0.05	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	2023		ND - 3.4	60	2.00	Byproduct of drinking water disinfection

Regulated Contaminant	Dates Collected	Highest Result Detected	Range Detected	MCL	Violation	Possible Sources
PFAS6 (ppt)	2024	6.9	ND – 6.9	20	N	Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil-resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire-fighting foams.

Inorganic Contaminants

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
Arsenic (ppb)	2024	ND	ND		10	N/A	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Nitrate (ppm)	2024	0.51	ND - 0.51		10	10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Nitrite (ppm)	2024	ND			1	1	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits

Regulated Contaminant	Date(s) Collected	Range Detected		MCL or MRDL	MCLG OR MRDLG	Violation (Y/N)	Possible source(s) of contamination
Perchlorate (ppb)	2023	0.06 - 0.13		2	N/A	N	Rocket propellants, fireworks, munitions, flares, blasting agents
Volatile Organic Contaminants							
	Date	**Highest detect / Range**		**MCL**	**ORSG**	**Possible Source**	
Tetrachloroethylene (PCE) (ppb)	2024	ND		5	0	Discharge from factories and dry cleaners; residual of vinyl-lined water mains	
Unregulated Contaminants							
	Date	**Result**	**AVG.**	**SMCL**	**ORSG**	**Possible Source**	
Sodium (ppm)	2023	13.8 - 43.9		------	20	Natural sources; runoff from use as salt on roadways; by-product of treatment process	
Manganese	2023	0.03 – 0.06	0.045	0.05		Erosion of natural deposits	

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.

Radioactive Contaminants							
	Date	**Results**		**MCL**	**MCLG**		
Gross Alpha (pCi/l) (minus uranium)	2022	**<** 1.44		15	0		Erosion of natural deposits
Radium 226 & 228 (pCi/L) (combined values)	2022	**<** *0.42*		5	0		Erosion of natural deposits

< = Less Than

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. We routinely monitor for drinking water contaminants.

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.

Sodium

Sodium sensitive individuals, such as those experiencing hypertension, kidney failure, or congestive heart failure, should be aware of the sodium levels where exposures are being carefully controlled.

VIII. ADDITIONAL INFORMATON

Cross-Connection Control and Backflow Prevention

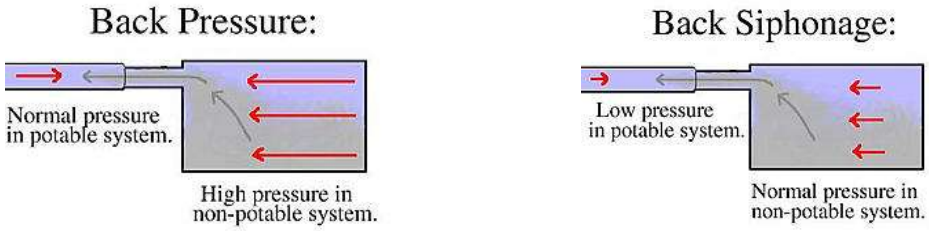
The Onset Water Department makes every effort to ensure that the water delivered to your home and business is clean, safe and free of contamination. Our staff works very hard to protect the quality of the water delivered to our customers from the time the water is extracted via deep wells from underground aquifers or withdrawal point from a surface water source, throughout the entire treatment and distribution system. But what happens when the water reaches your home or business? Is there still a need to protect the water quality from contamination caused by a cross-connection? If so, how?

What is a cross-connection?

A cross-connection occurs whenever the drinking water supply is or could be in contact with potential sources of pollution or contamination. Cross-connections exist in piping arrangements or equipment that allows the drinking water to come in contact with non-potable liquids, solids, or gases (hazardous to humans) in event of a backflow.

What is a backflow?

Backflow is the undesired reverse of the water flow in the drinking water distribution lines. This backward flow of water can occur when the pressure created by equipment or a system such as a boiler or air-conditioning is higher than the water pressure inside the water distribution line (back pressure), or when the pressure in the distribution line drops due to routine occurrences such as water main breaks or heavy water demand causing the water to flow backward inside the water distribution system (back siphonage). Backflow is a problem that many water consumers are unaware of, a problem that each and every water customer has a responsibility to help prevent.



What can I do to help prevent a cross-connection?

Without the proper protection something as simple as a garden hose has the potential to contaminate or pollute the drinking water lines in your house. In fact over half of the country's cross-connection incidents involve unprotected garden hoses. There are very simple steps that you as a drinking water user can take to prevent such hazards, they are:

- NEVER submerge a hose in soapy water buckets, pet watering containers, pool, tubs, sinks, drains, or chemicals.
- NEVER attached a hose to a garden sprayer without the proper backflow preventer.
- Buy and install a hose bibb vacuum breaker in any threaded water fixture. The installation can be as easy as attaching a garden hose to a spigot. This inexpensive device is available at most hardware stores and home-improvement centers.
- Identify and be aware of potential cross-connections to your water line.
- Buy appliances and equipment with backflow preventers.
- Buy and install backflow prevention devices or assemblies for all high and moderate hazard connections.

If you are the owner or manager of a property that is being used as a commercial, industrial, or institutional facility you must have your property's plumbing system surveyed for cross-connection by your water purveyor.

If your property has NOT been surveyed for cross-connection, contact your water department to schedule a cross-connection survey.

Help Us Protect Your Water System - Adopt a Hydrant

* **Keep 3 to 4 feet of clearance around your hydrants throughout the year.**
* **Do not plant shrubbery or vegetation around or near hydrants.**
* **Report: Blocked, Open, or Broken Hydrants to the Water Department.**
  - **Office: 508-295-0603**