



## 2015 DRINKING WATER QUALITY REPORT

The Edgartown Water Department is committed to providing our customers with water of the highest quality that meets or exceeds state and federal requirements. We are proud of the product and services we provide, and in accordance with federal drinking water regulations, we present this Water Quality Report (Consumer Confidence Report) to inform consumers about the quality of water provided over the past year. In addition to water quality information, this report includes information on the water production, treatment, storage and distribution system of the Edgartown Water Department.

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### YOUR DRINKING WATER SYSTEM

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The Edgartown Water Department is staffed and operated by a team of Massachusetts Certified Operators. To name a few, these Operators are tasked with the responsibilities of maintaining and operating the water system in a compliant manner, tending to necessary repairs and the oversight of daily operations. In addition, the water system is routinely inspected by the MassDEP to ensure that the system is compliant, free of potential hazards, financially sound and properly managed. These inspections have revealed no major deficiencies, compliance issues or issues with management / operational practices.

The Town of Edgartown is supplied with water of the highest quality from five groundwater supplies ranging in a depth of 60 to 120 feet. Each well is enclosed in a pumping station that also serves as a water treatment facility. Machacket Well (408900-04G) is located on Machacket Road. Lily Pond Well (4089000-05G) is located on Vineyard Haven Road. Wintucket (4089000-06G) and Quenomica Wells (4089000-07G) are located on Kavanagh Way and Nunnepog Well (4089000-08G) is located on Lovewell Way. These five sources all withdraw from the Martha's Vineyard Sole Source Aquifer.

During 2015, these five sources provided 398,964,000 gallons of potable water to 3,184 residential, commercial and municipal accounts. These five sources also supply water for fire protection to 319 fire hydrants.

The Town of Edgartown's water distribution system consists of approximately 70 miles of cast iron, PVC, ductile iron and asbestos cement water mains ranging from two to sixteen inches in diameter. The Town has one water storage facility – the Mill Hill Road Standpipe with a capacity of 2.2 million gallons.

While the Edgartown Water Department is considered an independent water system, there is an emergency interconnection with Oak Bluffs Water District that may be used, should either system experience a catastrophic failure. The interconnection was not utilized in 2015.

Currently, the Town of Edgartown is operating a full-scale corrosion control program at all of the active well sites. Sodium hydroxide is used to reduce the levels of lead and copper at the household tap by raising the pH of the raw water from approximately 6.0 to approximately 7.4.

## POTENTIAL SUBSTANCES FOUND IN TAP WATER

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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 may dissolve naturally-occurring minerals, as well as substances resulting from the presence of 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, or farming.

**Pesticides and herbicides** - which may come from a variety of sources such as agricultural, 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 Massachusetts Department of Environmental Protection (MassDEP) and United States Environmental Protection Agency (EPA) prescribes 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).

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 Edgartown Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in household 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>.

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## IMPORTANT DEFINITIONS

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**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.

**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 which 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.

**Part Per Million (ppm)** – This unit is equivalent to one milligram per liter (mg/L). One part per one million is equal to one minute in two years or one penny in \$10,000.

**Part Per Billion (ppb)** – This unit is equivalent to one microgram per liter ( $\mu\text{g/L}$ ). One part per one billion is equal to one minute in two thousand years or one penny in \$10,000,000.

**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.

**Non-Detect (ND)** – No trace of the contaminant was present.



EDGARTOWN WATER DEPARTMENT  
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PWS ID #4089000

**WATER QUALITY TESTING RESULTS**

The following tables list our 2015 or most recent water quality analysis. Every contaminant that was detected in the water, even in the most minute traces, is listed here. In total, more than 411 samples were collected and analyzed in 2015. The tables indicate the name of each contaminant detected, the highest allowable amount by regulation (MCL), the ideal goal for public health, the amount detected, the usual sources of the contaminant and footnotes. The presence of these contaminants in the water does not necessarily indicate that the water poses a health threat. ***In 2015, the water produced by Edgartown Water Department met or exceeded all state and federal requirements.*** Please note: As per MassDEP reporting regulations, the data in this table is from the most recent analysis of specific contaminants as dictated by our MassDEP Sampling Schedule.

<b>Contaminants REGULATED SUBSTANCES</b>								
<i>Inorganic Contaminants</i>	<b>Date Tested</b>	<b>Units of Measure</b>	<b>MCL</b>	<b>MCLG</b>	<b>Highest Level Detected</b>	<b>Range Detected</b>	<b>Possible Source(s) of Contamination</b>	<b>Violation YES / NO</b>
Nitrate	2015	ppm	10	10	0.86	0.16 – 0.86	Runoff from fertilizer use, leaching from septic tanks, sewerage, naturally present	NO
Perchlorate	2015	ppb	2	0	0.10 'J'	ND – 0.10 'J'	Rocket propellants, fireworks, munitions, flares, blasting agents	NO
Barium	2014	ppm	2	2	0.018	0.018	Discharge from drilling, metal refineries, Naturally present in the environment	NO
<i>Radioactive Contaminants</i>	<b>Date Tested</b>	<b>Units of Measure</b>	<b>MCL</b>	<b>MCLG</b>	<b>Highest Level Detected</b>	<b>Range Detected</b>	<b>Possible Source(s) of Contamination</b>	<b>Violation YES / NO</b>
Gross Alpha Activity	2012	pC/L	15	0	0.41	0.08 – 0.41	Erosion of natural deposits	NO
Radium 226 / 228	2012	pC/L	5	0	0.65	0 – 0.65	Erosion of natural deposits	NO
<i>Volatile Organic Contaminants</i>	<b>Date Tested</b>	<b>Units of Measure</b>	<b>MCL</b>	<b>MCLG</b>	<b>Highest Level Detected</b>	<b>Range Detected</b>	<b>Possible Source(s) of Contamination</b>	<b>Violation YES / NO</b>
Chloroform	2015	ppb	*	*	4.23	2.39 – 4.23	Erosion of natural deposits	NO
<b>UNREGULATED SUBSTANCES</b>	<b>Date Tested</b>	<b>Units of Measure</b>	<b>SMCL</b>	<b>ORSG</b>	<b>Highest Level Detected</b>	<b>Range Detected</b>	<b>Possible Source(s) of Contamination</b>	<b>Violation YES / NO</b>
Manganese	2015	ppm	0.05		0.088	0.008 – 0.088	Naturally present in the environment	NO
Iron – Production Wells	2015	ppm	0.3		0.34	ND – 0.34	Naturally present in the environment	NO
Sulfate	2015	ppm	250		6.6	4.4 – 6.6	Naturally present in the environment	NO
Sodium	2014	ppm	20 *	17.6	10.0 – 17.6	17.6		NO
<b>Lead / Copper **</b>	<b>Date Tested</b>	<b>Units of Measure</b>	<b>AL</b>		<b>90<sup>th</sup> Percentile</b>	<b>Range Detected</b>	<b>Possible Source(s) of Contamination</b>	<b>Violation YES / NO</b>
Lead **	2013	ppm	0.015	0	0.003	ND – 0.006	Corrosion of household plumbing	NO
Copper **	2013	ppm	1.30	1.30	0.290	.003 – .29	Corrosion of household plumbing	NO

\* MassDEP ORSG limit established

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

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SECONDARY CONTAMINANTS	Date Tested	Units of Measure	SMCL	MDL Mg / L	Highest Level Detected	Range Detected	Possible Source(s) of Contamination	Violation YES / NO
Iron	2015	mg/L	0.3	0.01	1.82***	0.09 – 1.82	Naturally present in the environment	NO
Manganese	2015	mg/L	0.05	0.008	0.087***	0.014 – 0.087	Naturally present in the environment	NO
Alkalinity	2015	mg/L	NONE	1.0	42.1	13.9 – 42.1	Naturally present in the environment	NO
Calcium	2015	mg/L	NONE	0.1	2.9	1.2 – 2.9	Naturally present in the environment	NO
Magnesium	2015	mg/L	NONE	0.1	3.2	1.2 – 3.2	Naturally present in the environment	NO
Hardness	2015	mg/L	NONE	3.0	20.4	7.9 – 20.4	Naturally present in the environment	NO
Potassium	2015	mg/L	NONE	0.1	1.3	0.8 – 1.3	Naturally present in the environment	NO
Chloride	2015	mg/L	250	3.0	26.5	13.9 – 26.5	Naturally present in the environment	NO
Copper	2015	mg/L	1.0	0.003	0.047	0.003 – 0.047	Naturally present in the environment	NO
Sulfate	2015	mg/L	250	3.0	6.6	4.4 – 6.6	Naturally present in the environment	NO
Conductance	2015	umhos/cm	500	5.0	152	88 – 152	Naturally present in the environment	NO
Zinc	2015	mg/L	5	0.004	0.028	0.019 – 0.028	Naturally present in the environment	NO
Turbidity	2015	mg/L	NONE	1.0	11	ND – 11	Naturally present in the environment	NO
Aluminum	2015	mg/L	0.2	0.010	0.029	ND – 0.029	Naturally present in the environment	NO
Silver	2015	mg/L	0.10	0.002	<0.002	ND - <0.002	Naturally present in the environment	NO

\*\*\* This sample was collected from a source that is reserved for emergency use only. The water from this source did not enter the distribution system at any time during 2015.

Unregulated contaminants are those for which there are no established drinking water standards. The purpose of unregulated contaminant monitoring is to assist regulatory agencies in determining their occurrence in drinking water and whether future regulation is warranted. In an attempt to further their research and establish a better understanding of unregulated substances, the Edgartown Water Department participated in the E.P.A.'s "Unregulated Contaminant Monitoring Regulation (3<sup>rd</sup> round). The analytical results are listed below.

Contaminants	Date Tested	Units of Measure	Detected Level	Range Detected	Major Sources
Vanadium	6/2015	ppb	0.5	ND – 0.5	Naturally present in the environment
Strontium	6/2015	ppb	40.0	16.0 – 40.0	Naturally present in the environment
Chromium	6/2015	ppb	0.5	ND – 0.5	Naturally present in the environment
Chromium 6	6/2015	ppb	0.40	0.07 – 0.40	Naturally present in the environment

**MCL Violations:**

All water contains a number of dissolved mineral and organic substances. The presence of contaminants in drinking water does not mean your water is not safe. Federal and state drinking water standards establish limits, or Maximum Contaminant Levels (MCLs), for substances that might affect health or aesthetic qualities of water.

On April 6, 2015, we collected routine samples for bacteriological analysis. One of the samples proved to show a presence of total coliform, but no E coli. Total coliform is an indicator and if present, suggests that other harmful bacteria may exist. Per regulation, the site was resampled, as well as up and downstream sites. The conformation samples all came back clean, suggesting that an actual problem did not exist and we were fully compliant.

***The Edgartown Water Department did not experience any MCL violations in 2015.***

**Cross Connection Program**

In addition to the obvious sources of contamination, a water system is also susceptible to cross connections. A cross connection is a direct or indirect connection of a hazardous or potentially hazardous substance with the potable water supply. Cross connections are not necessarily intended or malicious; they most often occur unintentionally, given the proper conditions. Should the proper conditions exist, there is a potential for contamination or contaminated water to backflow or back-siphon into the public water system. Examples of devices that should be isolated from the potable water supply may include lawn irrigation systems, fire protection systems, air conditioning or cooling systems, as well as high-pressure boilers. The Edgartown Water Department would like you to know that unprotected cross connections may contaminate the water in your home, as well as the municipal water system. The water system maintains a degree of protection by means of a check valve at the meter. However, this device does not provide adequate protection of the public water system from high hazard facilities or appliances and it provides no protection within your home. If you require additional information on this topic, please contact our office.

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CONSERVATION AND ENVIRONMENTAL EFFORTS

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**Voluntary Water Conservation Measures:**

Municipal water systems face many challenges such as meeting seasonal water demands, the acquisition of additional supplies to meet the demands of growth, resource protection, water conservation, environmental protection, and the increasingly more stringent regulations for water quality. Our sustainability, as it relates to water, is dependent on our ability to stay abreast of changing conditions and the implementation of future plans. Therefore, sound planning and management are crucial. Regardless of our future supply conditions, water conservation and prudent supply management will still be a main priority to ensure long-term availability of our water supplies. We are committed to conserving our water supplies and complying with regulatory requirements governing the operation of water systems. The implementation of Voluntary Water conservation Measures will achieve the two goals of regulatory compliance and water conservation. A conscientious effort on everyone's part is essential in making these conservation measures effective. Your efforts are most appreciated, as we must all work together to preserve this most valuable resource for generations to come. Municipal water systems are subject to fines, should water withdrawal limitations be exceeded. Consequently, the Edgartown Water Department has implemented the following Voluntary Water Conservation Measures to be effective from May through September:

- Watering of lawns is limited to odd / even days (based on house address) between the hours of 7:00 p.m. and 7:00 am.
- Washing of sidewalks, patios and driveways is prohibited (excluding businesses for health / safety reasons)
- Pistol-grip nozzles are to be used on all hoses used for washing cars and on hoses at dockside facilities.
- Restaurants may serve water upon request of the patron.

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**Leak Detection:**

The Edgartown Water Department is constantly trying to operate in a more fiscally responsible and environmentally friendly fashion. In addition, we strive to meet or exceed regulatory standards pertaining to water conservation. It is for these reasons that we conducted a complete leak detection survey in 2015. We intend to systematically proceed through the distribution system and check for leaks within our infrastructure on an annual basis. If leaks are detected, they will be repaired as soon as practical. By tightening up the distribution system, we will pump less water, minimize operational expenses and stay within our withdrawal limitations.

**Protection of Water Sources:**

The Edgartown Water Department has taken an active approach in protecting its five groundwater supply sources. In accordance with regulatory standards, the immediate and surrounding areas proximate to each source are monitored and controlled to minimize the exposure to potential threats and contaminants. In addition to the oversight of our personnel, the wells and their surrounding areas are routinely inspected by MassDEP.

**SWAP (Source Water Assessment and Protection):**

The MassDEP has prepared a Source Water Assessment Protection Report for the Edgartown Water Department. The report assesses the susceptibility of public water supplies to contamination and it makes recommendations based on the findings. The report is available on the MassDEP website at:  
<http://www.mass.gov/eea/docs/dep/water/drinking/swap/sero/4089000.pdf>.

**Hazardous Household Waste Disposal:**

The proper disposal of household products is important to keep water supplies and the environment contaminant free. The Martha's Vineyard Refuse Disposal & Resource Recovery District accepts many hazardous household products such as used motor oil, oil based paints, stains, thinners, and other hazardous waste. Products may be disposed of FREE OF CHARGE on May 21<sup>st</sup>, July 16<sup>th</sup>, September 10<sup>th</sup> and November 19<sup>th</sup> between the hours of 9:00 a.m. and 12:00 p.m.. They are located at 750 West Tisbury Road in Edgartown, MA. For additional information, please call the Martha's Vineyard Refuse Disposal & Resource Recovery District at (508) 627-4501 or consult their website at [mvrefusedistrict.com](http://mvrefusedistrict.com).

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ADDITIONAL INFORMATION / QUESTIONS

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Should you have any comments, questions or concerns with regard to this report, or the water system in general, please contact William R. Chapman at the Edgartown Water Department at (508) 627-4717 between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday or at:

Edgartown Water Department  
P.O. Box 238  
Edgartown, MA 02539

Additional information about the Edgartown Water Department may be obtained by consulting our website at <http://www.townofedgartown-ma.us>.

Water quality data for communities throughout the United States is also located at [www.waterdata.com](http://www.waterdata.com). The Public Water System Identification Number (PWSID) for the Edgartown Water Department is 4089000.

If you would like to participate in discussions regarding your water quality or the operations of the Edgartown Water Department, you may attend the monthly Board of Water Commissioners meetings. Regular Commissioner's meetings occur on the second Tuesday of every month at 3:00 p.m. at the Water Department office located at 58 Kavanagh Way. Public involvement and participation is encouraged and welcome.



**The 2015 Annual Water Quality Report of the Edgartown Water Department is dedicated to John S. Lovewell – Water Commissioner. In addition to serving the community in other capacities, Commissioner Lovewell served as a Water Commissioner for the Edgartown Water Department for 24 years. The efforts, tireless dedication and community involvement of Commissioner Lovewell will be appreciated and evident for many years to come.**

**We thank Commissioner Lovewell for his contributions and wish him well as he enjoys his retirement.**

*Respectfully,*

*The Commissioners and staff of the Edgartown Water Department*