

Somerset Water Department

2018 Drinking Water Quality Report

THE QUALITY OF YOUR DRINKING WATER

We are pleased to present to you this year’s Annual Drinking Water Quality Report. This report is designed to inform you about the water quality and services that we, the Somerset Water Department (SWD), delivered to you in 2018. Included are details about where your water comes from, 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.

If you have any questions about this report or concerning your water utility, please contact Christopher E. Wickman, Chief Operator and Plant Manager at (508) 674-4215. Furthermore, The Board of Water and Sewer Commissioners meets every other Tuesday at 4:00 PM at 3249 County Street and you are always welcome to attend. You can also visit our website at <https://www.townofsomerset.org/water-department>.

Portuguese Language Statement

IMPORTANTE!!

Este relatorio contem informaco Importante acerca da sua propria parabeber. Agua prta-vel se nao compreendo que o relatorio contem por favor contacte alguem que o possa ajudar a traducao.

THE SOURCE OF YOUR DRINKING WATER

Somerset Water Department services the Town of Somerset, a very small area of Dighton, MA and a few homes located in Swansea. The majority of our community is serviced by the Somerset Reservoir and its treatment plant. Water to fill the Somerset Reservoir comes from both rainfall and the stream flow of the Labor in Vain Brook and is also pumped from a river station on the Segregansett River in Dighton, MA. A small percent of our customers are serviced by a well in Dighton, MA.

Land around both the well field and Somerset Reservoir is protected by regulations in both communities from possible contamination. Testing the quality and quantity of our source water and monitoring land development around our sources ensures these supplies are safe and viable. The Massachusetts Department of Environmental Protection (MADEP) has prepared a Source Water Assessment Program (SWAP) Report for our water supply sources and has ranked the Dighton well as Moderate and the Somerset Reservoir as High susceptibility public water supplies. The complete report is available at our web site or by calling our office.

To improve the quality of the water delivered to you and meet state and federal requirements, we filter it to remove small particles and organisms and adjust pH to reduce corrosion to household plumbing. Then we disinfect the water to protect against microbial contaminants and add fluoride to promote strong teeth and prevent dental decay. In 2018 we performed over 1400 tests to ensure the water delivered to you meets regulatory standards and is safe and pure.

The following pages summarize the regulatory standards, contaminants detected during our testing in 2018 and our programs and accomplishments in the past year. Thank you for your cooperation and support in approving and funding our efforts. Please contact us if you have any questions related to this report.

SUBSTANCES THAT WE TEST FOR INCLUDE:

MICROBIAL - such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

INORGANIC - 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 & HERBICIDES - which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

ORGANIC CHEMICAL - 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 - which can be naturally occurring or the result of oil and gas production and mining activities.

REGULATORY LIMITS

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 (EPA) Safe Drinking Water Hotline (800-426-4791).

In order to ensure that tap water is safe to drink, EPA and the MADEP prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. EPA and DEP set limits or Maximum Contaminant Levels (MCLs) for over 133 contaminants. 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.

The sources of drinking water (both tap 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.

MCL's are set at very stringent levels. The Maximum Contaminant Level Goal (MCLG) is set at a level where no health effects would be expected, and the MCL is set as close to that as possible, considering available technology and cost of treatment. A person would have to drink 2 liters of water every day, as recommended by health professionals, at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

IMPORTANT INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. EPA and the Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Testing showed the amount of lead in our drinking water is below EPA allowed levels. 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.

Somerset Water Department 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>.

2018 TEST RESULTS-SOMERSET WATER DEPARTMENT

The table below lists all the drinking water contaminants that were detected during the 2018 calendar year from over 1400 samples. The state requires us to monitor certain contaminants less than once per year because the concentration these contaminants are not expected to vary significantly from year to year. In this case, the most recent testing data is noted. The presence of these contaminants in the water does not necessarily indicate a health risk.

Contaminants	Violation Y/N	Level Detected		Unit Measurement	MCLG	MCL	Likely Source of Contamination
		Highest	Range				
Chlorine	N	1.61	0.50-1.61	ppm	MRDLG =4	MRDL=4	Water additive used to control microbes
Fluoride	N	1.3	0.4-1.3	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth
Nitrate (as Nitrogen)	N	2.15	0.11-2.15	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	N	33.4	18.4-33.4	ppm	NA	NA	Road salt, natural deposits
Turbidity-Daily Monthly Compliance†	N N	0.18 NA	Lowest Mo %: 100	NTU %	NA NA	5 ≥95%	Soil runoff

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. †Monthly turbidity compliance is related to a specific treatment technique (TT). Our system filters water so at least 95% of our monthly samples are below the regulatory turbidity limit.

Haloacetic Acids (HAA)	N	Highest LRAA 33 Range: 2-55		ppb	NA	60	Byproduct of water chlorination
Total Trihalomethanes (TTHMs)*	N	Highest LRAA 80 Range: 39-94		ppb	0	80	Byproduct of water chlorination

*Some people who drink water containing TTHMs in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous systems and may have an increase risk of getting cancer.

Contaminants	Violation Y/N	90th Percentile	Number of Sites/ Number Exceeding AL	Unit	MCLG	Action Level	Likely Source of Contamination
Copper** (2017)	N	0.495	30/0	ppm	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits
Lead** (2017)	N	0.006	30/1	ppb	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Unregulated Contaminant Results

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 2014 we tested for 21 contaminants. All results were undetected except for the following:

Contaminants	Unit	Average	Range	ORSG	Likely Source
Chlorate	ppb	18.83	ND-67	210	Agricultural defoliant, disinfection byproduct
Chromium-6	ppb	0.029	ND-0.08	NA	Discharge from steel and pulp mills; Erosion of natural deposits
Cobalt	ppb	0.100	ND-1.1	70	Naturally occurring element
Strontium	ppb	51.25	40.3-69.4	1500	Naturally-occurring element; historically used in TVs
Vanadium	ppb	0.015	ND-0.2	21	Naturally occurring element

NOTES, UNITS & DEFINITIONS

**Reported results are the 90th percentile value (90% of all samples are less than the AL).

LRAA (Locational Running Annual Average) is the average of all quarterly samples for the last year at each sample location.

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 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.

ND - Not detected **NA** - Not applicable **ORSG** - Drinking Water Guideline

Action Level (AL) - The concentration of a contaminant which if exceeded, triggers treatment or other requirements which a water system must follow. A violation will occur only if the supplier fails to take corrective action.

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

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

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

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.

BACTERIA ASSESSMENTS

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. During one round of our routine weekly testing, we found coliforms indicating the need to look for potential problems in water treatment or distribution. As a result, we were required to conduct one Level 1 Assessment involving eight corrective actions. One Level 1 Assessment and all corrective actions have been completed and all further testing was negative for coliforms indicating the water is safe.

Somerset Water Department

3249 County Street
Somerset, MA 02726

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SYSTEM UPGRADES AND IMPROVEMENTS

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (MADEP). MADEP 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 oversees the routine operations of our system. As part of our ongoing commitment to you, last year we upgraded the treatment system at our well, made improvements to the distribution system to reduce water age, repaired our reservoir water intake structure and began our water meter replacement program.

CROSS CONNECTION CONTROL

Somerset Water Department maintains a program to control cross connections in an effort to protect water quality. Please see our website for more information on this program.

PLEASE PASS IT ON

We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please share this report with all of the other people who drink this water, especially those who may not have received this notice directly. You can do this by posting this notice in a public place or distributing copies by hand or mail.