Water Quality Report 2019

Sabattus Sanitary District
Water Division
2019 Water Quality Report

Introduction

The Sabattus Water Division is pleased to present our annual Water Quality Report. This annual report is intended to provide you with important information about your drinking water.

Contents of this Report

The Safe Drinking Water Act mandates the State of Maine, along with the Environmental Protection Agency (EPA), to establish and enforce minimum drinking water standards. These standards set limits on certain biological, radioactive, organic and inorganic substances sometimes found in drinking water. The limits set on these standards are known as MCLs, Maximum Contaminant Levels. Two types of standards have been established. Primary Standards set achievable levels of drinking water quality to protect your health. Secondary Standards provide guidelines regarding the taste, odor, color, and other aesthetic aspects of your drinking water, which do not present a health risk. Listed on the following pages are the results of the System's regular testing, which provide the test results for both Primary and Secondary Standards. In 2016, substances tested met both Primary and Secondary Standards within the levels established by the EPA and the State of Maine.

The 2019 test results indicate the Sabattus Water Division meets state and federal requirements.

Water Quality & Health Information

We ensure that your water is safe through regular monitoring and testing of water quality. These tests are conducted by Maine State Health and Environmental Testing Laboratory and A&L Laboratory of Auburn, certified testing laboratories. This report shows a comprehensive summary of the laboratory test results for the constituents we regularly monitor in your water supply. Responsibility for maintaining water quality resides with our staff of certified water treatment plant operators, licensed by the State of Maine Department of Human Services.

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. 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 storm water 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 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 runoff, and septic systems.
- **Radioactive Contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

However, 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 infants can be particularly at risk from infections. These people should seek some advice about drinking water from their health care providers. The EPA/CDC has guidelines on the appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants. More information about waterborne contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline at (1-800-426-4791).

In June of 2017, the Sabattus Water Division has been granted a variance to do Lead and Copper testing at a reduced level and once every three years because the results have been excellent, with none of our samples over the limit.

A 2017 waiver was granted for synthetic organics, allowing reduced testing. This is the result of past synthetic organic test results and participation in a wellhead protection program.

Testing for parameters required by the state was performed and all results were well below the states limits.

The District had one violation occuring in August of 2018 for coliform bacteria following its monthly sampling requirements. The District chlorinated the system, flushed the system and resampled the following month with no presence of coliform bacteria.

Water Supply / Source Information

The Sabattus Water Division uses ground water as its water source. There are two wells, one located at Riley Road and one at Marsh Road in Sabattus. The wells are 12-inch gravel wells with 40 ft of casing and 20 feet of screen for a total depth of 60 feet. There is some calcium in our water that a high temperature on boilers will aggravate. Recommended temperature for boilers is a low of 140 to a high of 180 in winter and a low of 120 to a high of 160 in summer. Our water hardness is 140 mg/l. While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Source Water Assessment Program

Sources of drinking water include rivers, lakes, ponds, and wells. As water flows either on the surface or through the ground, it dissolves naturally occurring minerals and radioactive material and can accumulate substances resulting from human and animal activity. The Maine Drinking Water Program (DWP) has evaluated all public water supplies as part of the Source Water Protection Program. The assessments included geology, hydrology, land uses, water testing information, and the extent of land ownership or protection by local ordinance to see how likely our drinking water source is being contaminated by human activities in the future. Assessment

results are available at public water suppliers, town offices, and the DWP. For more information on the SWAP, you may contact the DWP at telephone (207)287-2070.

Water Systems Data

Your water supply and distribution system includes over eight miles of water main. The system served 630 customers in 2019 and provides fire protection service through 59 hydrants. In the last twelve months, we have produced and delivered 51,580,000 gallons of water. That is an average of approximately 144,890 gallons each day. The system also maintains 450,000 gallons in our storage tank.

This storage allows us to meet peak system demand periods and maintain an adequate supply during fire fighting activities. We treat the water with Sodium Hypochlorite if needed; otherwise, our water is free from chemicals. There is no fluoride added to our water supply.

Highlights of 2019

The District has completed upgrading its pump and controls at the Riley Rd. pump house. The equipment was original (1969). New equipment that is more efficient has been added. The District is also adding and upgrading its SCADA (Supervisory Control And Data System) to better monitor the level controls at the reservoir storage tank and the pump control sequences. We plan to upgrade controls at the primary pump house (Marsh Rd.) this year. Oak Hill High School will be connecting to the water system this year adding 3100 feet of water main with several hydrants.

Lead and Copper Dangers

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. Sabattus Sanitary District Water Division 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 https://www.epa.gov/ground-water-and-drinking-water/basic-information-ab...

Other Important Information

If you have any questions about your water quality, the information contained in this report, or your water service in general, please call us during normal business hours. Board of Trustee Meetings, open to the public, is typically held the second Monday of the month at 5:00 PM at the Sanitary District office, 22 Lisbon Road. You may also direct questions to the Maine Department of Human Services Drinking Water Program at (207) 287-2070 or the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Green Living Tips

Do not use your toilet as a trash can. Every time you flush a cigarette, facial tissue or wipe, 5 to 7 gallons of water are wasted. In addition, it can damage and plug up grinder pumps.

Put food coloring in your toilet bowl tank. If it seeps into the bowl without flushing, you have a leak. Fixing it will save you up to 1000 gallons a month.

Watch the drain, anything that runs down your driveway and into a storm drain-pesticides and fertilizers, soaps and solvents, antifreeze, motor oil and animal waste eventually flows into your local waterways. Maybe even your favorite beach.

***If you are doing any home improvements this summer please call us to remove your water meter. Tampering with meters or remotes is illegal.

Primary Drinking Water Standards 2019

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
	Level Goal	Level	Test Results	Test Results
Parameter	**MCLG**	**MCL**	(Highest or Average, if appl.)	(Range)
Clarity *Sample date: 3-30-17				
Turbidity (NTU) (12) (TT)	n/a	5.0	<0.6	
Microbiological				
Total Coliform bacteria (<40 samples)	0	1	0	
% of samples positive (>40 samples)	0	5.0	0	
Organic Chemicals* *Sample date: 4-12-17				
Benzene (ppb)	5	5	NONE DETECTED	
Carbon Tetrachloride (ppb)	5	5	NONE DETECTED	
Chlorobenzene (ppb)	100	100	NONE DETECTED	
Dichlorobenzene (p-) (ppb)	75	75	NONE DETECTED	
Dichlorobenzene o-(Ortho-) (ppb)	600	600	NONE DETECTED	
Dichloroethane (1,2-) (ppb)	0	5	NONE DETECTED	
Dichloroethylene (1,1-) (ppb)	7	7	NONE DETECTED	
Dichloroethylene (Cis-1,2-) (ppb)	70	70	NONE DETECTED	

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
Dichloroethylene (Trans-1,2-) (ppb)	100	100	NONE DETECTED	
Dichloromethane	0	5	NONE DETECTED	
Dichloropropane (1,2-) (ppb)	0	5	NONE DETECTED	
Ethylbenzene (ppb)	700	700	NONE DETECTED	
Methyl-Tertiary-Butyl-Ether (MTBE) (13) (ppb)	35	35	NONE DETECTED	
Styrene (ppb)	100	100	NONE DETECTED	
Tetrachloroethylene (PCE) ppb	0	5	NONE DETECTED	
Toluene (ppm)	1	1	NONE DETECTED	
Total Trihalomethanes (TTHMs) (8) (ppb)	0	80	NONE DETECTED	
Trichlorobenzene (1,2,4) (ppb)	70	70	NONE DETECTED	
Trchloroethane (1,1,1-) (TCA) (ppb)	200	200	NONE DETECTED	
Trichloroethane (1,1,2-) (ppb)	3	5	NONE DETECTED	
Trichloroethylene (TCE) (ppb)	0	5	NONE DETECTED	
Vinyl Chloride (ppb)	0	2	NONE DETECTED	
Xylenes (ppm)	10	10	NONE DETECTED	
Definitions:				
Maximum Contaminant Level Goal (MCLG) established by EPA: The level of a contaminant in drinking water below which there is no known or expected risk to health.				
This is not the acceptable regulatory compliance limit				
Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in the drinking water. This is used to determine compliance				
Variance of Waiver: State or U.S. EPA permission not to meet MCL or treatment technique under certain conditions (e.g. waiver to filtration).				
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water (e.g. turbidity).				

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow (e.g. lead, copper).				
Concentrations: In this report, most of the quantities are expressed as ppm, ppb, ppt and pCi/l.				
These are measure of organics, inorganics or radiation activity per a fixed amount of water.				
Parts per Million (ppm): Is the equivalent of one drop of chemical per every 10 gallons.				
Parts per Billion (ppb): Is the equivalent of one drop of chemical per every 10,000 gallons.				
Parts per Trillion (ppt): Is the equivalent of one drop of chemical per every 10,000,000 gallons.				
Picocurries per Liter (pCi/l): Is a measure of the amount of naturally occuring radiation per liter of water.				
Nephelometric Turbidity Units (NTU): Turbidity Units are the measurement of cloudiness in the water.				
Primary Drinking Water Standards				
	(CONTINUED)			
	Maximum Contaminant	Maximum Contaminant	**Actual**	**Actual**
	Level Goal	Level	Test Results	Test Results
Parameter	**MCLG**	**MCL**	(Highest or Average, if appl.)	(Range)
Inorganic Chemicals *sample date: 3-30-17				
Antimony (ppb)	0	6	<0.5 ppb	
Arsenic (ppb)	0	10	3.5 ppb	
Barium (ppm)	2	2	0.0079ppm	
Beryllium (ppb)	4	4	<0.5 ppb	
Cadmium (ppb)	5	5	<0.5	
Calcium (ppm)			47 ppm	
Chromium (ppm)	0.1	0.1	0.0014 ppb	

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
Copper (6) (ppm) ***sample date: 6-22-17**	AL = 1.3	AL = 1.3	0.165 ppm	
Cyanide(ppb)	200	200	<0.2 ppb	
Fluoride (5) (ppm)	2	1.7 ppm	<0.1 ppm	
Lead (6) (ppb) ***sample date: 6-22-17**	0	AL = 0.015	0.0031 ppm	
Mercury (ppb)	2	2	<0.01 ppb	
Nitrate (ppm) ***sample date: 3-20-18**	10	10	2.66 ppm	
Nitrite (ppm)	1	1	<0.05 ppm	
Selenium (ppm)	0.05	0.05	<0.001 ppm	
Thallium (ppm)	0.002	0.002	< .0005 ppm	
Radionuclides				
Gross Alpha Activity (9) (pCi/l) ***sample date: 5-5-14**	0	15	3.26	
Radium 226/228 (Combined) (pCi/l) Rad-228 **4/17/12**	0	5	.421 pCi/L	
Uranium (9) **3-30-17**	0	30	4.5 ppb	
Radon (9) **3-25-04**	0	4000	1250 pcl.l	
Other				
Cryptosporidium/Giardia (11)	0	0	NONE DETECTED	
Water Hardness ***sample date: 3-30-17**			140 mg/L	
***Sample date: 3-30-17**	**Secondary Drinking Water Standards**			
Chemical Parameters (ppm)				
Chloride (ppm)	250	250	17 ppm	
Copper (ppm)	1.0	1.0	0.0032 ppm	

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
Foaming Agents (MBAS)	0.5	0.5	NONE DETECTED	
Iron (ppm)	0.05	0.05	0.015 ppm	
Manganese (ppm)	0.3	0.3	<0.0005 ppm	
Silver (ppm)	0.1	0.1	<0.0005 ppm	
Sulfate	250	250	19 ppm	
Total Dissolved Solids	500	500	102.8	
Zinc	2.0	2.0	<0.001 ppm	
Physical Parameters				
Color (units)	50.0	50.0	< 5	
pH	6.5-8.5	6.5-8.5	7.3	
Footnotes:				
(1) Dibromochloropropane - State wide waiver granted to Maine				
(2) Dioxin/Glyphosate - State wide waiver granted to Maine				
(3) Diquat/Endothall - Testing only required if potato growing occurs in watershed.				
(4) Ethylene Dibromide - Testing only required for ground water systems. State wide waiver for surface water systems in Maine.				
(5) Fluoride - Currently under review by EPA				
(6) Copper/Lead action levels are measured at consumer's tap. 90% of tests in water system must be equal to or below action level				
(7) Total Trihalomethanes - Sum of Bromodichloromethane, Bromoform, Chlorodibromomethane,				
and Chloroform, can not exceed 100 ppb.				
(8) Gross Alpha - Action level over 5pCi/l requires testing for Radium 226/228. Action level over 15pCi/l requires testing for Uranium				
(90) Uranium/Radon - Currently under review by EPA				
(10) Cryptosporidium, Giardia, Legionella - Surface Waters Only, Ground waters required to test or exempt before 1999.				
(11) Turbidity - Surface waters only; 1.49 NTU for Slow Sand or AFT				
Turbidity (continued) 0.549 NTU for Conventional or Direct Filtration; 5.0 ntu for unfiltered surface water systems.				

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
(12) MTBE - State only MCL. Set by DHE under State Statute to be promulgated before 2/98.				
(13) MFL is "Million Fibers per Liter"				
(14)* All contaminants screened were below minimum detection level				

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