

# Water Quality Report 2023

## Sabattus Sanitary District Water Division 2023 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 2022, substances tested met both Primary and Secondary Standards within the levels established by the EPA and the State of Maine.

The 2023 test results indicate the Sabattus Water Division meet 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 2020, 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 2020 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 Level 1 assessment in March of 2023 for coliform bacteria following its monthly sampling requirements. The District chlorinated the system, flushed the system and conducted assessments to look for potential sources of contamination and has resolved any issues it encountered.

## **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.

### **Total Coliform Bacteria Level 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. We found coliforms, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any issues that were found during these assessments.

A Level 1 Assessment is an investigation of the water system designed to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system. During the past year, we triggered Level One assessment(s) that was/were escalated to a level Two assessment, (see below)

A Level 2 Assessment is a more detailed investigation of the water system designed to identify potential problems and determine (if possible) why any E. coli MCL violation had occurred or why our water system continues to show total coliform bacteria on multiple occasions even after completing a Level 1 Assessment. During the past year, we were required to conduct one Level 2 Assessment. We completed one Level 2 Assessment. Based on the assessment, we were required to take one corrective action and we completed one of these actions.

### **Water Systems Data**

Your water supply and distribution system includes over eight miles of water main. The system served 681 customers in 2023 and provides fire protection service through 64 hydrants. In the last twelve months, we have produced and delivered 49,150,000 gallons of water. That is an average of approximately 135,000 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.

**Lead and Copper Service Line Inventory:** In December of 2021, the EPA passed 40 CFR 141.80 for lead and copper service line inventories for public water systems to conduct an inventory on all service lines throughout the country by October 2024. The District will be collecting information to meet those requirements.

**PFAS Testing:** The District participated in sampling both wells for PFAS (Polyfluoroalkyl) substances as required by the State Drinking Water Program. In 2021, Maine became one of only a dozen states to proactively address PFAS in drinking water by establishing, in state law, an interim standard for PFAS. The interim standard of 20 ppt for a combination of 6 PFAS compounds with a requirement to set a standard by 2024. The district results on both wells were <2.00 ppt, well below the standard.

### **Highlights of 2023 and plan**

The District will be adding and upgrading its SCADA (Supervisory Control and Data System) and communication system for pump operations and reservoir storage tank levels to radio frequency transmission. The cell phone modems have proven to have issues with signals and overloading of devices and not very dependable at this point. We have installed security cameras at all of our locations and the cost will be paid for by grants from the federal government.

**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/safewater/lead>

**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.

Water and sewer payments should be made at the Town Office during their regular business hours.

**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.

\*\*Please winterize your water lines and meters to prevent from freezing. Check heat tape every fall to assure it is working properly and pipes and meter is insulated properly.

Visit us at the Town of Sabattus website to voice any concerns that you might have. Go to the Sabattus Sanitary District line and tap on.

**Primary Drinking Water Standards 2023**

	<b>Maximum Contaminant</b>	<b>Maximum Contaminant</b>	<b>Actual</b>	<b>Actual</b>
	Level Goal	Level	Test Results	Test Results
<b><u>Parameter</u></b>	<b><u>MCLG</u></b>	<b><u>MCL</u></b>	(Highest or Average, if appl.)	(Range)

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
<b>Clarity *Sample date: 4-01-20</b>				
Turbidity (NTU) (12) (TT)	n/a	5.0	<0.5	
<b>Microbiological</b>				
Total Coliform bacteria (<40 samples)	0	1	2	
% of samples positive (>40 samples)	0	5.0	0	
<b>Organic Chemicals* *Sample date: 4-01-20</b>				
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	
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)	130	130	102	
Styrene (ppb)	100	100	NONE DETECTED	

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
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	
Trichloroethane (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 (ppb)	10	10000	NONE DETECTED	
<b>Definitions:</b>				
<u>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.</u>				
This is not the acceptable regulatory compliance limit				
<u>Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in the drinking water. This is used to determine compliance</u>				
<u>Variance of Waiver: State or U.S. EPA permission not to meet MCL or treatment technique under certain conditions (e.g. waiver to filtration).</u>				
<u>Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water (e.g. turbidity).</u>				
<u>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).</u>				
<b>Concentrations:</b> 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.				
<u>Parts per Million (ppm): Is the equivalent of one drop of chemical per every 10 gallons.</u>				
<u>Parts per Billion (ppb): Is the equivalent of one drop of chemical per every 10,000 gallons.</u>				

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
<u>Parts per Trillion (ppt): Is the equivalent of one drop of chemical per every 10,000,000 gallons.</u>				
<u>Picocuries per Liter (pCi/l): Is a measure of the amount of naturally occurring radiation per liter of water.</u>				
<u>Nephelometric Turbidity Units (NTU): Turbidity Units are the measurement of cloudiness in the water.</u>				
<b><u>Primary Drinking Water Standards</u></b>				
	(CONTINUED)			
	Maximum Contaminant	Maximum Contaminant	Actual	Actual
	Level Goal	Level	Test Results	Test Results
<b><u>Parameter</u></b>	<b><u>MCLG</u></b>	<b><u>MCL</u></b>	(Highest or Average, if appl.)	(Range)
<b><u>Inorganic Chemicals</u></b> <b><u>*sample date: 3-21-23</u></b>				
Antimony (ppb)	0	<.006 ppm	<0.001 ppm	
Arsenic (ppb)	0	0.01	0.0032 ppm	erosion of natural runoffs
Barium (ppm)	2	2	0.0091 ppm	erosion of natural deposits
Beryllium (ppb)	4	0.004	<0.001 ppm	
Cadmium (ppb)	5	0.005	<0.001 ppm	
Calcium (ppm)		no limit	50.3 ppm	
Chromium (ppm)	0.1	0.1	0.0017 ppm	erosion of natural deposits
Copper 90th% (4) (ppm) <b>*sample date: 6-23-23</b>	AL = 1.3	AL = 1.3	0.223 ppm	
Cyanide(ppb) <b>*sample date: 4-12-17</b>	200	200	<0.2 ppb	
Fluoride (3) (ppm)	2	4.0 ppm	<0.2 ppm	

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
Lead 90th% (4) (ppb) *sample date: 6-23-23	0	AL = 0.015	0.0021 ppm	
Mercury (ppb)	2	0.002	<0.0001 ppm	
Nitrate (ppm) (7) *sample date: 3-16-23	10	10	2.66 ppm	erosion from natural deposits
Nitrite (ppm) *sample date: 3-16-23	1	1	<0.2 ppm	
Selenium (ppm)	0.05	0.05	<0.001 ppm	
<b><u>Radionuclides</u></b>				
Gross Alpha Activity (6) (pCi/l) *sample date: 7-14-23	0	no limit	4.7pCi/L	
Radium 226/228 (Combined) (pCi/l) (6) Rad-228 3-17-21	0	5	1.4 pCi/L	erosion of natural deposits
Combined Uranium (6) 7-14-23	0	30 ppb	4.3 ppm	erosion of natural deposits
Radon (6) 3-25-04	0	4000	1250 pCi/L	
Radium -226(6) 3-17-21	0	5	1.4 pCi/L	erosion of natural deposits
<b><u>Other</u></b>				
Cryptosporidium/Giardia (11)	0	0	NONE DETECTED	
Water Hardness *sample date: 3-20-23			146 mg/L	
*Sample date: 3-21-23	<b><u>Secondary Drinking Water Standards</u></b>			
<b><u>Chemical Parameters (ppm)</u></b>				
Chloride (ppm)	250	250	20 ppm	
Copper (ppm)	0.0	1.3 ppm	0.0029 ppm	

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
Sodium			10.4 ppm	
Iron (ppm)	0.3	0.3	<0.01 ppm	
Manganese (ppm)	0.05	0.05	<0.001 ppm	
Silver (ppm)	0.1	0.1	<0.001 ppm	
Sulfate	250	250	18 ppm	
Total Dissolved Solids	500	500	102.8	
Zinc	5.0	5.0	<0.001 ppm	
Magnesium			5.0 ppm	
<b><u>Physical Parameters</u></b>				
Color (units)	50.0	50.0	< 5	
pH	6.5-8.5	6.5-8.5	7.7	
<b>Footnotes:</b>				
(1) Total Coliform Bacteria- Reported as the highest monthly number of positive samples, for water systems that take less than 40 samples per month.				
(2) E.Coli- E.Coli are bacteria whose presence indicates that the water may be contaminated by human or animal wastes.				
(3) Fluoride - Currently under review by EPA				
(4) Copper/Lead action levels are measured at consumer's tap. 90% of tests in water system must be equal to or below action level				
(5) Total Trihalomethanes - Sum of Bromodichloromethane, Bromoform, Chlorodibromomethane. These are formed as a byproduct of drinking water chlorination. Chlorine reacts with organic matter in water and creates TTHM/HAA5.				
(6) Gross Alpha - Action level over 5pCi/l requires testing for Radium 226/228. Action level over 15pCi/l requires testing for Uranium				
(7) Uranium/Radon - Currently under review by EPA				
(8) Nitrate- Nitrate in drinking water at levels above 10ppm is a healthy risk for infants 6 months of age or less, High levels of Nitrate in				

	Maximum Contaminant	Maximum Contaminant	Actual	Actual
<p>infants can cause blue baby syndrome. Nitrate levels may rise quickly for short periods due to rainfall or agricultural activity. If you are caring for an infant you should seed advise from a health care provider.</p>				
<p>(9) Arsenic- While your drinking water may meet EPA's standards for Arsenic, if it contains between 5 to 10 ppb you should know the standard balances and the current understanding of Arsenic's possible health effects against the cost of removing it from the 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. Quarterly compliance is based on running annual average.</p>				
<p>(10) PFAS- The degree of risk depends on the level of chemicals and duration of exposure. Laboratory test and studies of animals exposed to high doses of PFAS have shown numerous negative effects such as issues with reproduction, growth and development, thyroid function, immune system, neurology, as well as injury to the liver. Research is relatively new and more needs to be done to fully assess exposure effects on the human body.</p>				

Source URL:<https://www.sabattus.org/sanitarywater-district/pages/water-quality-report-2023>