SEARSPORT WATER DISTRICT

PUBLISH DATE
APRIL 30, 2024

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2023 WATER QUALITY REPORT

Welcome to SWD's 2023 Water Quality Report

(This report covers the calendar year between January 1 thru December 31, 2023)

This report provides you with information regarding the quality of your drinking water. We know that you count on us each and every day for safe and reliable water and the staff here at the Searsport Water District (SWD) are trained and dedicated in doing just that. Our state of the art inline analyzers monitor the water 24 hours a day to assure its safety. In order to further assure that your water is free of any potential contaminants we collect samples throughout the system each and every month and send those samples to a State certified testing laboratory. We believe that we have some of the best drinking water in the State of Maine, and we take our jobs very seriously when it comes to protecting it.

Where Does Your Water Come From?

The primary water supply for the Searsport Water District is from a single gravel packed well located along Rte. 1A in Prospect, Maine. This well receives its water primarily in the form of precipitation, which is stored naturally in a large underground aquifer within the communities of Prospect and Stockton Springs. Much of the area surrounding the well is currently undeveloped and is owned by the Searsport Water District. We also own and maintain a smaller backup well and share an emergency interconnection with the Belfast Water District. These backups assure that we can provide water to all of our customers without interruption in service. The emergency interconnection enables both utilities to provide water to each other in the event of an emergency or during times when routine maintenance is necessary.

Source Water Assessment

The sources of drinking water include rivers, lakes, ponds, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from human or animal activity. The Maine Drinking Water Program (DWP) has evaluated all public water supplies as part of the Source Water Assessment Program (SWAP). 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 to being contaminated by human activities in the future. Assessment results are available at town offices and public water systems.

ABOUT THE REGULATIONS

The Safe Drinking Water Act directs the State, along with the Environmental Protection Agency (EPA), to establish and enforce minimum drinking water standards. These standards set limits on certain biological, radioactive, organic substances sometimes found in drinking water. Two types of standards have been established. Primary drinking water standards are achievable levels of drinking water quality to protect your health. Secondary drinking water standards provide guidelines regarding taste, odor, color, and other aesthetic aspects of your drinking water which do not present a health risk.

Water Meter Replacement Program

The Searsport Water District has currently replaced more than 50% of the older water meters throughout the system. Above is a photo showing the installation of the new radio read water meter complete with new ball valves and a backflow preventer. At the time of the meter installation we will gladly install new valves and a backflow preventer if necessary. Current customers will be required to pay for the new valves, backflow preventer and any other parts necessary to complete the upgrade. The water meter and labor are free.

Note: This does not apply to new construction.

Water Test Results

CONTAMINANT	DATE	RESULTS	MCL	MCLG	Possible Sources of Contamination
Microbiological					
Coliform (TCR) (1)	2023	0 pos	1 pos/month or 5%	0 pos	Naturally present in the environment.
Inorganics					
Barium	4/4/2022	0.0031 ppm	2 ppm	2 ppm	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
Fluoride (3)	4/4/2022	0.2 ppm	4 ppm	4 ppm	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
Nitrate (5)	4/4/2023	0.27 ppm	10 ppm	10 ppm	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
Radionuclides					
Combined Radium (-226 & -228)	12/20/2022	0.363 pCi/l	5 pCi/l	0 pCi/l	Erosion of natural deposits.
Combined Uranium	4/4/2022	6.6 ppb	30 ppb	0 ppb	Erosion of natural deposits.
Radium-228	12/20/2022	0.363 pCi/l	5 pCi/l	0 pCi/l	Erosion of natural deposits. Erosion of natural deposits.
Lead/Copper					
Copper 90th% Value (4)	1/1/2019 — 12/31/2021	0.2 ppm	AL=1.3 ppm	1.3 ppm	Corrosion of household plumbing systems.
Lead 90th% Value (3)	1/1/2019 — 12/31/2021	6 ppb	AL=15 ppb	0 ppb	Corrosion of household plumbing systems.
Disinfectants and Disinfection Byproducts.					
Total Haloacetic Acids (HAA5) (9)	LRAA 8/23/2023	2.6 ppb	60 ppb	0 ppb	By-product of drinking water chlorination.
Total Trihalomethane (TTHM) (9)	LRAA 8/23/2023	10 ppb	80 ppb	0 ppb	By-product of drinking water chlorination.
CHLORINE RESIDUAL	2023	Range (0..72 - 1.24)	MRDL=4 ppm	MRDLG = 4 ppm	By-Product of drinking water chlorination

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water.
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health.
Secondary Maximum Contaminant Level (SMCL)
Running Annual Average (RAA): A 12 month rolling average of all monthly or quarterly samples at all locations. Calculation of the RAA may contain data from the previous year.
Locational Running Annual Average (LRAA): A 12 month rolling average of all monthly or quarterly samples at specific sampling locations. Calculation of the LRAA may contain data from the previous year.
Action Level (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

UNITS

ppm = parts per million or milligrams per liter (mg/L). **pCi/L** = picocuries per liter (a measure of radioactivity).
ppb = parts per billion = micrograms per liter (ug/l). **pos** = positive samples. **MFL** = million fibers per liter.

Notes:

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 with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.
3) Fluoride: For those systems that fluoridate, fluoride levels must be maintained between 0.5 to 1.2 ppm. The optimum level is 0.7 ppm.
4) Lead/Copper: Action levels (AL) are measured at consumer's tap. 90% of the test must be equal to or below the action level.
5) Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health provider.
6) Arsenic: While your drinking water may meet EPA's standard for Arsenic, if it contains between 5 and 10 ppb you should know that the standard balances the current understanding of arsenic's possible health effects against the costs 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.
7) Gross Alpha: Action level over 5 pCi/L requires testing for Radium 226 and 228. Action level over 15 pCi/L requires testing for Uranium. Compliance is based on Gross alpha results minus Uranium results = Net Gross Alpha.
8) Radon: The State of Maine adopted a Maximum Exposure Guideline (MEG) for Radon in drinking water at 4000 pCi/L, effective 1/1/07. If Radon exceeds the MEG in water, treatment is recommended. It is also advisable to test indoor air for Radon.
9) TTHM/HAA5: Total Trihalomethanes and Haloacetic Acids (TTHM and HAA5) are formed as a by-product of drinking water chlorination. This chemical reaction occurs when chlorine combines with naturally occurring organic matter in water. Compliance is based on running annual average.
10) PFAS: The degree of risk depends on the level of chemicals and duration of exposure. Laboratory 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 still relatively new, and more needs to be done to fully assess exposure on the human body.

Secondary Contaminants: We are not required to list these but choose to do so for those who are monitoring sodium levels.

CHLORIDE:	**10**	**ppm**	**4/4/2022**	**SULFATE:**	**5.0**	**ppm**	**4/4/2022**
MAGNESIUM:	**3.6**	**ppm**	**4/4/2022**	**ZINC:**	**0.004**	**ppm**	**4/4/2022**
SODIUM:	**6.9**	**ppm**	**4/4/2022**	**IRON:**	**0.092**	**ppm**	**4/4/2022**

All other regulated drinking water contaminants were below detection levels.

Health Information

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

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/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 (1-800-426-4791) or at the following link: **https://www.epa.gov/ccr/forms/contact-us-about-consumer-confidence-reports**

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. Searsport Water District 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 the following link: **http://www.epa.gov/safewater/lead**

Violations in 2023:

Violation Period	Violation Type
1/1/2015 - 12/31/2023	03 Violation - MONITORING, ROUTINE MAJOR DIQUAT TREAT PT 2
1/1/2015 - 12/31/2023	03 Violation - MONITORING, ROUTINE MAJOR ENDOTHALL TREAT PT 2
1/1/2015 - 12/31/2023	03 Violation - MONITORING, ROUTINE MAJOR TOXAPHENE, CHLORADANE TREAT PT 2
1/1/2015 - 12/31/2023	03 Violation - MONITORING, ROUTINE MAJOR REG HERBICIDES SCREEN TREAT PT 2
1/1/2015 - 12/31/2023	03 Violation - MONITORING, ROUTINE MAJOR REG CARBAMATES TREAT PT 2
1/1/2015 - 12/31/2023	03 Violation - MONITORING, ROUTINE MAJOR REG PESTICIDE SCREEN TREAT PT 2

We are required to monitor our drinking water for specific contaminants on a regular basis. Results of regular monitoring indicate whether or not our drinking water meets health standards. During 2023, we did not test for, or failed to collect all necessary tests for Diquat, Endothall, Toxaphene, Chloradane, PCB's, Herbicides, Carbamates, and Pesticides, OR our results were not reported to the DWP on time (indicated as a Reporting violation above).

We are pleased to announce that the Searsport Water District immediately completed all testing requirements on April 1, 2024 after being notified by MDWP on March 18, 2024 that the above test were missed. The test results were received by the District on April 15, 2024 and showed **NO** detection of any of the above contaminants within the Searsport Water District's water supply system. Also, **NO** PFAS Chemicals have been detected in our groundwater supply as well.

Water System Data & Treatment

The Searsport Water District provides drinking water and fire protection to approximately 1157 customers via 32 +/- miles of water mains. We also maintain three (3) in-ground concrete reservoirs which have a combined storage capacity of 1.7 million gallons of treated water. Our treatment process is simple yet effective. It includes aeration for Radon and CO2 removal and the addition of Sodium Hypochlorite (bleach) for disinfection. Removal of CO2 increases the pH of our drinking water thus significantly reducing corrosion within the distribution system. This is all necessary to maintain the quality of your water while meeting, and in most cases, exceeding all EPA standards. As mentioned earlier, we are fortunate to have an interconnection with the Belfast Water District. This interconnection allows both utilities to provide safe drinking water to each other in the event of an emergency.

Where Can You Get More Information? - This report is only a summary of activities during the past year. If you have any questions about your water quality, please call the Searsport Water District Office at (207) 548-2910 during business hours (Mon – Fri between 7:30 a.m. and 3:30 p.m.). For additional information, contact the Maine Department of Human Services Drinking Water Program at (207) 287-2070, the EPA's Safe Drinking Water Hotline At 1-800-426-4791, the National Center for Disease Control (CDC) at (404) 639-3311, or visit one of the following web sites. USEPA: www.epa.gov/safewater – AWWA: www.awwa.org – Maine DWP: www.medwp.com

DISTRICT OPERATIONS FOR THE YEAR 2023

Construction: In 2023 water main replacement projects were completed in the following areas: **Searsport** - Savage Road, Water Street, Howard Street, Leach Street, Park Street, Elm Street, and Navy Street. **Stockton Springs** - Cape Jellison Road (Easterly Side). All streets received new hydrants for flushing and/or fire fighting purposes. All customers within the water main construction areas also received new water service lines from the new water main to the SWD owned curb stop. Total quantity of new mains installed in 2023 was 9,005 feet and was all 8" diameter cement lined ductile iron pipe which replaced water pipes ranging from 1" to 6" in diameter. At present approximately 90% of the water mains in Searsport and approximately 20% of the water mains in Stockton Springs have been replaced over the past 30 years. Within the next 9-years, as bonds mature and are paid off, the focus of replacing water mains will be in the Stockton Springs area and on Nichols Street and West Main Street in Searsport.

The MDOT road re-construction project began in August of 2023 and has demanded much of our attention as well. One caveat is that we have replaced all of the water mains within the MDOT construction area thus making the MDOT project much easier than it may have been. During the MDOT construction project all water main gate valve boxes needed to be lowered during excavation and then raised again to accommodate the paving project. Once completed all water main gate valves will be level with the final grade of the paved surface.

Source Water Protection: In 2023 the district acquired an additional 35 +/- acres of land surrounding the district's existing groundwater supply and another 4-acre parcel is set to be purchased in 2024. The district received $40,000.00 in grant/forgiveness funds from the Maine Drinking Water Program (DWP) towards the purchase of these source water protection properties through their Land Acquisition Program. Protecting the sand and gravel aquifer is critical and we here at the Searsport Water District fully understand the best way to protect the aquifer from future development and threats from contamination is to own the property surrounding this aquifer. We also fully understand that owning all the property within the district's wellhead protection area is both financially and economically impossible, therefore the district continues to work with local communities to assure the aquifer remains protected for future years to come. This is done by limiting development within the groundwater protection area to projects that will have little to no impact on the environment and pose no risk of contamination to the municipal groundwater supply.

Operations: In 2023, the district pumped a total of 114,496,000 gallons of water. This amount is an increase of 4,685,000 gallons from the previous year. The major contributor to the increase in usage was due to the new water main installation projects as this process takes large volumes of water to complete. First the new mains must be completely flushed, disinfected, flushed again, then sampled to assure they pass all drinking water standards prior to be putting them into service. The daily average pumping rate was 313,688 gallons per day or 218 gallons per minute. This amount is 49.28% of the total daily safe yield based on our calculated safe yield of 636,500 gallons per day or 232,322,500 gallons per year. Total water sold in 2023 was 69,353,064 gallons. This amount is a decrease of 706,860 gallons as compared to the 70,059,924 gallons sold in 2022.

In 2023 the district purchased a new trailer mounted vacuum unit which replaced the used trailer mounted unit we purchased from the Belfast Water District several years ago. The purchase of the new vacuum unit was made possible via funds provided by the Maine Drinking Water Program (MDWP) via the EPA's Lead Service Line Inventory Program. The total cost of the new vacuum unit was $160,000 less grants from MDWP totaling $88,000.00. The remaining $72,000.00 was financed through the Maine Municipal Bond Bank (MMBB) for 10-years at a 0% interest rate.

We here at the Searsport Water District strive to provide you, our customers, with the best water possible and we do it proudly. This is done through our continuous efforts to protect our groundwater source of supply by purchasing and protecting land within our watershed areas. We also flush the entire water system on a semi-annual basis to maintain the high quality of water that you deserve and to assure all fire hydrants are in top operational condition. We patrol and inspect each of our 6 pumping stations, 3 concrete water storage tanks, and 34 +/- miles of water mains on a regular basis. Water quality controls and SCADA systems are in place to assure the system is fully monitored and protected every single minute.

Administration: The information in this report is a clear indicator that the Searsport Water District is committed with making much needed upgrades to the system. We are also committed to protecting the sand and gravel aquifer that serves over 1,150 residential, commercial, and industrial customers together with the schools and health centers within the towns of Searsport and Stockton Springs. Our commitment to protecting the aquifer also assures the safety of the private wells located within the district's watershed protection aquifer.

Over the past 30 +/- years the district has invested approximately $28 million into system upgrades with more than half of those funds coming in the form of federal and state grants and forgiveness together with other private investments. Currently the Board of Trustees and staff agree that it is time to take a break to keep water rates affordable. We will not begin any new large scale water main replacement projects until the next major bond is paid off in 2033. However, we will continue to make necessary improvements as needed to assure the safety and reliability throughout our entire system.

We thank you all of our customers for your support over the years and are proud to be able to provide you with some of the best drinking water in the State of Maine. Should you need emergency assistance after hours please call the emergency number at 207-338-2040. You can reach us Monday - Friday at (207) 548-2910 between the hours of 7:30 a.m. to 3:30 p.m. or email us at info@searsportwater.org should you have any questions or concerns. You can also find us on the web at www.searsportwater.org or like us on Facebook @ Searsport Water District.

Herb Kronholm, Superintendent

Current Contacts at the Searsport Water District

Trustees	Operators	Office Staff
William Shorey, Chairman	Herbert Kronholm, Superintendent	Brenda Storey, Office Mgr.
Bruce Mills, Treasurer	Timothy Wilson, Foreman	Kyle Anne Manzie, Office Asst.
Larry Clark, Clerk	Harold Porter, Service Technician	

Phone: (207) 548-2910 Fax: (207) 548-6719 Business hours are Monday – Friday 7:30 a.m. to 3:30 p.m.

email: info@searsportwater.org Visit our website: www.searsportwater.org Like us on Facebook: Searsport Water District

In case of an emergency during non business hours please call the Waldo County Dispatch Center @ 1-800-660-3398