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SEARSPORT WATER DISTRICT 2018 WATER QUALITY REPORT

Welcome to SWD's 2018 Water Quality Report *(This report covers the calendar year between January 1 thru December 31, 2018)*

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?

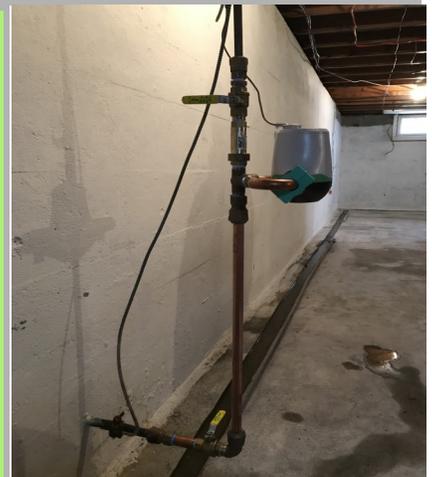
The primary water supply for the Searsport Water District is from a single gravel packed well located along Rte. 1A in Prospect, Maine. This well receives its water primarily in the form of precipitation, which is stored naturally in a large underground aquifer within the communities of Prospect and 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 back-up well and have 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 allows both utilities the ability provide each other with water in the event of an emergency or during times of routine maintenance.

Source Water Assessment (Drinking Water Program)

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 and 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, or 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

We here at the Searsport Water District continue the process of replacing the older water meters throughout the system. Above is a photo showing the installation of the new radio read water meters 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 they are needed. Our 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	SOURCE
Microbiological					
Coliform (TCR) (1)	2018	0 pos	1 pos/month or 5%	0 pos	Naturally present in the environment.
Inorganics					
Barium	6/7/2016	0.0027 ppm	2 ppm	2 ppm	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
Chromium	6/7/2016	1.4 ppb	100 ppb	100 ppb	Discharge from steel and pulp mills. Erosion of natural deposits.
Fluoride (3)	6/7/2016	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)	4/30/2018	0.26 ppm	10 ppm	10 ppm	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
Radionuclides					
Combined Uranium	5/1/2018	4.6 ppb	30 ppb	0 ppb	Erosion of natural deposits.
Gross Alpha (7)	5/1/2018	3.01 pCi/l	15 pCi/l	0 pCi/l	Erosion of natural deposits.
Lead/Copper					
Copper 90th% Value (4)	1/1/2016—12/31/2018	0.11 ppm	AL=1.3 ppm	1.3 ppm	Corrosion of household plumbing systems.
Lead 90th% Value (3)	1/1/2016—12/31/2018	1.1 ppb	AL=15 ppb	0 ppb	Corrosion of household plumbing systems.
Disinfectants and Disinfection Byproducts.					
Total Haloacetic Acids (HAA5) (9)	7/30/2018	1 ppb	60 ppb	0 ppb	By-product of drinking water chlorination.
TOTAL TRIHALOMETHANE (TTHM) (9)	7/30/2018	6 ppb	80 ppb	0 ppb	By-product of drinking water chlorination.
CHLORINE RESIDUAL	2018	Range (0.62-0.91)	MRDL = 4 ppm	MRDLG = 4 ppm	By-Product of drinking water chlorination

Definitions

MCL — Maximum Contaminant Level = The highest level of a contaminant that is allowed in drinking water.

MCLG — Maximum Contaminant Level Goal = The level of a contaminant in drinking water below which there is no known or expected risk to health.

RAA — Running Annual Average = The average of all monthly or quarterly samples for the last year at all sample locations.

LRAA — Locational Running Annual Average = 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.

AL — Action Level = The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

MRDL — Maximum Residual Disinfectant Level = 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.

MRDLG — Maximum Residual Disinfectant Level Goal = 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.

TT — Treatment Technique = 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:

- Total Coliform Bacteria: Reported as the highest monthly number of positive samples, for water systems that take less than 40 samples per month.
- 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.
- 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.
- Lead/Copper: Action levels (AL) are measured at consumer's tap. 90% of the test must be equal to or below the action level.
- 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.
- 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.
- Gross Alpha: Action level over 5 pCi/L requires testing for Radium226 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.
- 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.
- 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.

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

CHLORIDE:	8.0	ppm	6/7/2016	SULFATE:	5.0	ppm	6/7/2016
MAGNESIUM:	3.1	ppm	6/7/2016	ZINC:	0.0038	ppm	6/7/2016
SODIUM:	5.9	ppm	6/7/2016	IRON:	0.098	ppm	6/7/2016

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 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, persons 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>

WAIVER INFORMATION—In 2016, our system was granted a “Synthetic Organics Waiver”. This is a three year exemption from the monitoring/reporting requirements for the following industrial chemical(s): TOXAPHENE/CHLORDANE/PCB, HERBICIDES, CARBAMATE PESTICIDES, SEMIVOLATILE ORGANICS. This waiver was granted due to the absence of these potential sources of contamination within a half mile radius of the water source.

Violations: No Violations in 2018.

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 (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



Water System Data & Treatment

The Searsport Water District provides drinking water and fire protection to approximately 1157 customers via approximately 32 +/- miles of water mains. We also maintain 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). Removal of CO2 helps increase pH thus significantly reducing corrosion within the distribution system. Sodium hypochlorite (bleach) is also added for disinfection. This is all necessary to maintain the quality of your water while meeting all EPA standards. We are also fortunate to have a connection with the Belfast Water District. This interconnection provides both utilities with the ability to supply safe drinking water to each other in the event of an emergency.

DISTRICT OPERATIONS FOR THE YEAR 2018

In 2018 another milestone was achieved as the District made its last 1988 bond payment to the Maine Municipal Bond Bank (MMBB). Payment of this bond allowed the District to continue with its planned water main replacement projects without raising water rates. Therefore, 2018 was an extremely busy year for all of us here at the Searsport Water District. Construction included replacement of approximately 4,300 feet of old 8" unlined cast iron water main along East Main Street (Route 1) in Searsport which had been in service for the past 110 years. In its place a new 12" ductile iron water main was installed along with six (6) new fire hydrants. Installation of the new larger diameter water main increased fire flows throughout much of the Searsport portion of the system and eliminated several leaks along the old line that went undetected due to the location and depth of that water main. Three additional fire hydrants were installed along that section of water main to assure the distance between fire hydrants is no greater than 1,000 feet. This allows the District to provide optimum fire protection services to all businesses and residential homes within that area. The total budget for this project was \$1,325,120.00, however \$764,999.00 of this amount was awarded to the District in the form of Forgivenness/Grant monies through the Maine Drinking Water Programs State Revolving Fund (MDWP-SRF) program. The remaining \$560,121.00 was financed for 30 years through the Maine Municipal Bond Bank (MMBB) at an interest rate of 0.68%.

Thanks to funding from the Irving Oil Corporation a new 12" ductile iron water main was also installed along Station Avenue in Searsport to the Irving Oil Terminal property. This included the installation of three (3) new fire hydrants along Station Avenue and one (1) near the Irving Oil Terminal entrance. The new 12" water main replaced an old 6" cast iron water main that was originally installed in the early 1900's and in desperate need of replacement. This project was necessary in order to increase water flows to the Irving Oil Terminal facility for the purpose of meeting future fire flow demands for their new fire foam suppression system. Irving Oil is currently in the process of installing this system throughout their facility and will require up to 3,000 gallons per minute of water once it's in operation. After the installation of the new 12" water main the fire flows along Station Avenue increased from approximately 500 gallons per minute to nearly 3,000 gallons per minute. The total cost of this project was approximately \$520,000.00 and was funded entirely by Irving Oil Terminals. Final cleanup and paving by the contractor will be completed in the spring of 2019.

In February the District hired Harold Porter to fill an open position within the service department. Harold, who lives in the local area, comes to us with previous experience working for the Bangor Water District, the Castine Water Department, and for the former Verso Paper Mill in Bucksport.

During the year the crew was kept busy with many projects which included fire flow testing on several hydrants for ISO, which was completed in March. Other projects included the installation of seven (7) new water services for new and future property development projects with five (5) of those services being activated. We also continue with our water meter replacement program with 51 new meters being installed in 2018. Our daily operations and maintenance projects include six (6) pumping station and flow control buildings, three (3) reservoirs, the office and maintenance garage complex along with approximately 34 miles of water mains and 174 fire hydrants throughout the entire water system.

In 2018, the District pumped a total of 129,295,000 gallons of water. This amount is an increase of 5,583,000 gallons over 2017. Our daily average was 354,232 gallons per day or 246 gallons per minute. This amount is 55.65% of the total daily safe yield based on a calculated safe yield of 636,500 gallons per day. Total water sold to metered customers during 2018 was 64,647,396 gallons. This amount is a decrease of 2,484,856 gallons as compared to 2017.

In closing, I would like to thank all our customers for their continued support. I would also like to thank our entire staff for all their hard work, dedication and commitment in assuring that you, our customers, receive excellent service as well as some of the best drinking water in the State of Maine. Providing you with safe and reliable drinking water 24 hours per day is our number one priority. A special thank you also goes out to the Searsport Public Works Department for being there with the extra hands and equipment when we need it most.

Should you need emergency assistance after hours please call the emergency number listed below. You can also find us on the web at www.searsportwater.org. Should you have any other questions or concerns please call office at (207) 548-2910 between the hours of 7:30 a.m. to 3:30 p.m. or email us at info@searsportwater.org.

Sincerely,

Herb Kronholm

Herbert Kronholm, Superintendent
Searsport Water District

Current Contacts at the Searsport Water District

Trustees

William Shorey, Chairman
Bruce Mills, Treasurer
Larry Clark, Clerk

Operators

Herbert Kronholm, Superintendent
Timothy Wilson, Foreman
Harold Porter, Service Technician

Office Staff

Brenda Storey, Office Mgr.
Kyle Anne Benson, Office Asst.

Phone: (207) 548-2910 Fax: (207) 548-6719 email: info@searsportwater.org or visit our website: www.searsportwater.org

Business hours are Monday – Friday 7:30 a.m. to 3:30 p.m.

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