SEARSPORT WATER DISTRICT

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2014 WATER QUALITY REPORT

Welcome to SWD's 2014 Water Quality Report

(This report covers the calendar year between January 1 thru December 31, 2014)

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.

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, public water suppliers, and the DWP. For more information about the SWAP, please contact the DWP at telephone (207) 287-2070.

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.

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 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 each utility the ability provide each other with water in the event of an emergency or during times of routine maintenance.

The EPA requires that we test several parameters. Here are just a few.

Water Test Results After Treatment

Although many regulated Organic and Inorganic Chemicals were not found, here is a list of chemicals that were detected in the water after treatment.

CONTAMINANT	DATE	RESULTS	MCL	MCLG	SOURCE
Microbiological					
Coliform (TCR) (1)	2014	**0 pos**	1 pos/month or 5%	0 pos	Naturally present in the environment.
Inorganics					
Barium (ppm)	5/20/2013	**0.0027 ppm**	2 ppm	2 ppm	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
Chromium	5/20/2013	**1.3 ppb**	100 ppb	100 ppb	Discharge from steel and pulp mills. Erosion of natural deposits.
Fluoride (2)	5/20/2013	**0.2 ppm**	4 ppm	4 ppm	Erosion of natural deposits. Water additive which promotes strong teet. Discharge from fertilizer and aluminum factories.
Nitrate (4)	5/5/2014	**0.34 ppm**	10 ppm	10 ppm	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
Radionuclides					
Gross Alpha (5)	5/9/2012	**4.93 pCi/l**	15 pCi/l	0 pCi/l	Erosion of natural deposits.
Radium-228	3/4/2013	**0.518 pCi/l**	5 pCi/l	0 pCi/l	Erosion of natural deposits.
Uranium-238	5/20/2013	**5.8 ppb**	30 ppb	0 ppb	Erosion of natural deposits.
Lead/Copper					
Copper 90th% Value (3)	1/1/2011—12/31/2013	**0.14 ppm**	AL=1.3 ppm	1.3 ppm	Corrosion of household plumbing systems.
Lead 90th% Value (3)	1/1/2011—12/31/2013	**1 ppb**	AL=15 ppb	0 ppb	Corrosion of household plumbing systems.
Disinfectants and Disinfection ByProducts.					
TOTAL TRIHALOMETHANE TTHM (9)	9/4/2013	**7.6 ppb**	80 ppb	0 ppb	By-product of drinking water chlorination.
Chlorine Residual	2014	**RAA 0.38 ppm**	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.
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.

Notes:

1) Total Coloform Bacteria: Reported as the highest monthly number of positive samples, for water systems that take less than 40 samples per month.
2) 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.
3) Lead/Copper: Action levels (AL) are measured at consumer's tap. 90% of the test must be equal to or below the action level.
4) 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.
5) 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.
6) 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.
7) 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 but choose to do so for those who are monitoring sodium levels.

SODIUM:	**8.1**	**ppm**	**5/20/2013**	**MAGNESIUM:**	**3.4**	**ppm**	**5/20/2013**
SULFATE:	**4.0**	**ppm**	**5/20/2013**	**ZINC:**	**0.0029**	**ppm**	**5/20/2013**
CHLORIDE:	**8.0**	**ppm**	**5/20/2013**				

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. Guidelines, jointly developed by the EPA and the CDC, on appropriate means to lessen the risk of infection by cryptosporidium are available from the Safe Drinking Water Hotline (1-800-426-4791).

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 Act Hotline or at: **http://www.epa.gov/safewater/lead**

WAIVER INFORMATION—In 2013, 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. 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 2014.

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 water distribution system includes approximately 32 +/- miles of water mains serving nearly 1,100 customers. Our treatment process includes aeration for radon and CO2 removal. 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 also maintain 3 in ground concrete reservoirs with a total combined holding capacity of 1.7 million gallons. The Searsport Water District and the Belfast Water District can also provide water to each other in the event of an emergency.

DISTRICT OPERATIONS FOR THE YEAR 2014

The new deep bubble aeration unit was put into service at the pump station in April with a flawless startup. As explained in last year's report the purpose of this new unit is to significantly reduce and/or eliminate the dissolved carbon dioxide (CO2) from the water as it is pumped through our treatment plant and into the distribution system. This process increases the pH of our water thus making it less corrosive on the systems piping as well as plumbing fixtures within our customers' homes and businesses. This aeration process removes radon as well. During the initial startup of this aeration unit we reduced the amount of Sodium Silicate that we were adding at our treatment plant and were able to totally eliminate its use in November 2014. During this same time we finalized the overhaul of our PRV station and put our new emergency booster pump into operation as well. This pump is necessary and will be used whenever we must take our well offline for any reason.

The wood harvesting project was completed around the pump station in early 2014. Wood harvesting projects help assure a healthy forest as well as provide much needed revenue which the water district uses in the maintenance and replacing of equipment. The District will perform future harvesting projects on a 15 to 20 year cycle.

Throughout the year we continue to work on our meter replacement program. This program has been very successful and has allowed several of our customers to switch from a quarterly billing cycle to a monthly billing cycle. The change to a monthly billing cycle allows our customers to more closely monitor their water consumption and has prevented several of our customers from incurring higher water bills by detecting and fixing plumbing leaks early.

All of the hydrants were marked and painted to provide better visibility to the fire department and public. We also marked the water main along Route 1 in Searsport in preparation of the MDOT paving project. All gate valves within this area were adjusted and repaired and raised as necessary to match the level of the new pavement. Several other gate valves and service boxes were repaired throughout the system as well.

In July 2014 we completed our new Terms and Conditions, which were approved by the Maine Public Utilities Commission (MPUC). These Terms and Conditions contain operation policies and rules that the District and its customers must follow. Copies of our Terms and Conditions are available online at www.searsportwater.org or by contacting our office at (207) 548-2910.

During the year we worked very closely with the Waldo County EMA office and Waldo County Communications Center in search of a more reliable site to meet their emergency communication needs. After many discussions a site on Searsport Water District property in Stockton Springs was chosen and will be the home of a new 125' radio communications tower. The new tower will provide long term emergency radio system operations for many communities within Waldo County. It will also have much better access than their existing tower rental space on Mt. Ephraim in Searsport. A 50 year operations contract between the Waldo County Communications Center and the Searsport Water District is in place and the tower is expected to be in full operation in early 2015.

Due to declining consumption and revenue it was necessary to request a rate increase from the Maine Public Utilities Commission. Notification of this increase was sent to all customers which was followed by a public hearing whereas there was no opposition to the rate increase request. New rates were approved by the MPUC and went into effect on January 1, 2015.

In 2014, the District pumped a total of 102,390,000 gallons of water. This amount is an increase of 8,479,000 gallons over 2013. Our daily average was 280,521 gallons per day or 195 gallons per minute. This amount is 44.07% 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 2014 was 60,953,316 gallons. This amount is an increase of 4,279,240 gallons over 2013.

In closing the employees and Trustees of the Searsport Water District, will forever miss Robert "Bruce" Page. Bruce, as he preferred to be called, worked for the District from 3/21/1985 to 12/31/2013 as the District Foreman. Prior to his retirement Bruce was stricken with cancer but continued to work throughout treatment until realization set in that retirement would be his best option. Unfortunately, after treatment was no longer an option, Bruce lost a very courageous battle with cancer at the age of 64. Bruce, who was one of our key players, had a deep down dedication to his job that many will not fully realize. God Bless you our friend, we will miss you dearly.

Current Contacts at the Searsport Water District

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

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