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SEARSPORT WATER DISTRICT 2013 WATER QUALITY REPORT



Welcome to SWD's 2013 Water Quality Report

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 a safe and reliable supply of drinking water and the staff here at the Searsport Water District (SWD) are trained and dedicated in doing just that while also providing you, our customer, with the highest quality of service possible. We also monitor the water that you drink 24 hours a day and have your water tested by State operated and/or independent State certified testing laboratories each and every month. This is done as part of our assurance to you that your water is safe to drink each and every day.

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 comes 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. An active railway system and gravel pit as well as trucking traffic along Rte. 1A are the primary areas of concern. Signs with emergency call numbers have been installed throughout the watershed area for the purpose of providing immediate information should an accidental spill occur.

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)	2013	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)	5/20/2013	0.25 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.
Copper/Lead					
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 (4)	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	2013	RAA 0.47 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).

ppb = parts per billion = micrograms per liter (ug/l).

pCi/L = picocuries per liter (a measure of radioactivity).

pos = positive samples.

Notes:

- Total Coliform Bacteria: Reported as the highest monthly number of positive samples, for water systems that take less than 40 samples per month.
- 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.
- 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.

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: Violation Period: 2/1/2013 - 2/28/2013 Violation Type: 23 Violation—MONITORING (TCR)

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 2013, we did not test for, or failed to collect all necessary tests for Total Coliform Bacteria. However, on 3/4/2013 samples were taken and the test results were negative.

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 removal and pH adjustment, sodium silicate to control corrosion and sodium hypochlorite (bleach) 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 2013

To start 2013 off with a bang we were excited to learn that our application to the Maine Municipal Bond Bank (MMBB) for the purpose of refinancing the District's existing bonds was accepted and approved by MMBB. The exciting news is that the District's existing bonds with USDA Rural Development were refinanced at a much lower rate for a 20 year period versus the 30 to 40 year bonds with USDA. Although the annual savings only amounted to approximately \$4,000.00 per year the overall savings in interest over the length of the original notes was over \$600,000.00. An earlier bond payoff will allow the District to continue its efforts to make necessary improvements to the distribution system earlier than anticipated. This is important since much of the existing water main that is scheduled for replacement was installed in 1906.

Throughout the spring and into early summer we spent much of our time on completing necessary upgrades to portions of the distribution system in Stockton Springs. This was done in agreement with the Maine DOT in coordination with their sidewalk project along Main Street and Church Street. Those upgrades included new valves and tees at the intersection of Main Street and Church Street, One (1) fire hydrant removal, one (1) fire hydrant relocation, three (3) fire hydrant replacements as well as several service renewals and removals.

During the summer we installed two (2) new residential services and renewed two (2) services in Stockton Springs. We also replaced a fire hydrant on the Cape Jellison Road and repaired four (4) main breaks and three (3) service line leaks as well as replacing several service boxes and rods. We also started clearing a portion of the water main right of way that services the Harris Road area. New reflective locating markers have been installed on all fire hydrants to assure that they are more visible at night as well as during the winter months.

The PRV building in Stockton Springs was completely rebuilt along with new electrical systems. As part of this project the District purchased a new pump and Variable Frequency Drive (VFD) along with new meters and piping. In order to reduce costs these items were installed, very professionally I must add, by District personnel. At that same time we also purchased a new pump for our Interconnection Station, which will be installed by District personnel in the spring of 2014. The new pumps at the PRV and Interconnection Stations will increase our ability to pump water during emergency situations from the Belfast Water District's system to all areas of Searsport Water District's system. We can also provide water to the Belfast Water District system should they have an emergency as well.

In October the Searsport Water District hosted the Maine Water Utilities Association Bi-Monthly Meeting / Conference at the Searsport Lions Club building on Prospect Street in Searsport. Prior to the conference being held the District employees got together and cleaned and freshly painted the interior of the Lions Club as well as the front exterior of their building. This was our way of giving back to the community and providing our local Lions Club with some much needed help and support. The Lions Club members and Bay Area Lions were also able to raise additional money by providing and serving the food for conference attendees. They did a spectacular job and I would encourage anyone looking to plan a meeting or event of any type within the Searsport area to contact the Lions Club and find out how they may be able to serve you and your organization.

In the fall of 2013 the Trustees and Maine Drinking Water Program approved and authorized the purchase of a new single deep bubble aeration system which will replace three (3) older single purpose radon removal units. The new high tech system is designed to remove excessive dissolved carbon dioxide (CO₂) from the District's ground water. Removal of the excessive CO₂ has been proven, in most cases, to increase the pH by increasing the alkalinity. This is expected to allow the District to completely eliminate the need for adding Sodium Silicate, which was added to the drinking water for the past 18 years for the purpose of eliminating corrosion within the distribution and residential plumbing systems. Elimination of Sodium Silicate will reduce the District's treatment costs by approximately \$6,000.00 annually. Although Sodium Silicate is a very safe and reliable way to reduce corrosion, it's always a nice feeling when you can eliminate the need to add any additional chemicals to the water. This new system, which will go online in March 2014, will cost the District approximately \$80,000.00 for the complete installation but will pay for itself in approximately 13 years by eliminating the District's annual chemical costs for Sodium Silicate.

The final portion of wood harvesting took place on District owned property around the pump station with finalization of that project being completed when the ground freezes in the winter. The funds from the wood harvesting projects have been used to support upgrades that the District made to its facilities in 2013.

We continue to work on our meter replacement program by installing the new radio read meters in customer homes that have the older style pulse read meters. Several have been installed to date with great success and installation of the new meters has significantly reduced the time that it takes to read the meters each month. We will continue this program on an annual basis. The District appreciates its customer's patience and cooperation during this process.

In 2013, the District pumped a total of 93,911,000 gallons of water. This amount is down 17,057,000 gallons from 2012. Our daily average was 257,290 gallons per day or 179 gallons per minute. This amount is 40.42% of the total daily safe yield based on a safe yield of 636,500 gallons per day. Total metered customer usage during 2013 was 56,674,076 gallons. This amount is down 7,470,460 gallons from 2012 and is directly attributed to customer conservation and repairs to leaks after meters for our larger customers.

In closing, this year we hired Adam Clark as our new full-time Service Technician in August 2013. Adam was hired to replace long time employee Bruce Page, who retired from his position as Foreman on December 31, 2013. Bruce, who had worked for the District for nearly 29 years, began working for the District on March 21, 1985 and currently holds the rank of the longest working employee for the Searsport Water District. I'd like to personally thank Bruce for all of his hard work and dedication over the years and wish him the very best and many years to come.

On behalf of all of the employees we'd also like to thank the Trustees, for all of the hard work and dedication. Their commitment to providing us with the tools necessary for the purpose of continuously supplying all SWD customers with the best water possible makes our job a whole lot easier. As employees we are here to serve all of our customers 7 days a week 24 hours a day.

Should you, our customer, have any questions or concerns please call us at our 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. Should you have an emergency after hours please call 1-800-660-3398 and one of our on-call technicians will contact you as soon as possible. Thank you.



Many Thanks to
Robert "Bruce" Page
(YEARS OF SERVICE 3/21/85 TO 12/31/13)

For 29 years of dedicated service to the Searsport Water District and it's many customers. Your dedication and service at all hours of the day make you second to none.

All of us here at the Searsport Water District will miss you and wish you a many years of a long and well deserved retirement.

Current Contacts at the Searsport Water District

Trustees

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

Operators

Herbert Kronholm, Superintendent
R. Bruce Page, Foreman— Retired 12/31/13
Timothy Wilson, Service Tech.
Adam Clark, Service Tech.

Office Staff

Brenda Corbin, 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