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SEARSPORT WATER DISTRICT 2011 WATER QUALITY REPORT



Welcome to SWD's 2011 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 per 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 owned by the Searsport Water District and is currently sparsely developed. An active railway system and gravel pit to the south and east and trucking traffic along 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)	2011	0 pos	1 pos/month or 5%	0 pos	Naturally present in the environment.
Inorganics					
Barium (ppm)	08/31/2010	0.0031 ppm	2 ppm	2 ppm	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
Chromium	08/31/2010	1.8 ppb	100 ppb	100 ppb	Discharge from steel and pulp mills. Erosion of natural deposits.
Copper 90th% Value (4)	1/1/2008-12/31/2010	0.14 ppm	AL = 1.3 ppm	1.3 ppm	Corrosion of household plumbing systems.
Fluoride	8/31/2010	0.2 ppm	4 ppm	4 ppm	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
Lead 90th% Value (4)	1/1/2008-12/31/2010	2.9 ppb	AL = 15 ppb	0 ppb	Corrosion of household plumbing systems.
Nitrate	5/31/2011	0.24 ppm	10 ppm	10 ppm	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
Radionuclides					
Uranium-238 (7)	8/31/2010	5.7 pCi/l	15 pCi/l	0 pCi/l	Erosion of natural deposits.
Disinfectants and Disinfection ByProducts.					
TTHM (9)	RAA (2010)	5.2 ppb	80 ppb	0 ppb	By-product of drinking water chlorination.
Chlorine Residual	2011	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.

WAIVER INFORMATION—In 2010, our system was granted a “Synthetic Organics Waiver”. This is a three year exemption from the monitoring/reporting requirements for pesticides, herbicides, fungicides and other industrial chemicals. This waiver was granted due to the absence of these potential sources of contamination within a half mile radius of the water source.

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.

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>

NOTES:

1. Total Coliform Bacteria: Reported as the highest monthly number of positive samples, for water systems that take < 40 samples per month.
2. Arsenic: The U.S. EPA adopted the new MCL standard in October 2001. Water systems must meet this new standard by January 2006.
3. Fluoride: Fluoride levels must be maintained between 1-2 ppm, for those water systems that fluoridate the water.
4. Lead/Copper: Action levels (AL) are measured at consumer's tap. 90% of the tests 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. Gross Alpha: Action level over 5 pCi/L requires testing for Radium. Action level over 15 pCi/L requires testing for Radon and Uranium.
7. Uranium: The U.S. EPA adopted the new MCL standard of 30 ug/L(ppb), in December 2000. Water systems must meet this new standard after December 2003.
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. The U.S.EPA is proposing setting federal standards for Radon in public drinking water.
9. TTHM/HAA5: Total Trihalomethanes (TTHM) and Haloacetic Acids (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.



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, 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 that have a total combined holding capacity of 1.7 million gallons. This is enough water to provide 2000 gallons per minute for 14 hours in the event of a major fire. This amount of storage will also serve our system for nearly 5 days should we suffer

problems with our well and/or our pumping station. We also have an emergency interconnection with the Belfast Water District whereas we can supply each other with up to 504,000 gallons per day 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 (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 2011

Our main focus in 2011 was replacing a significant portion of the old 8" 1907 era water main along the Route 1 Corridor between Church Street in Stockton Springs and Station Avenue in Searsport. This project included the installation of a new 12" water main extending from the old Sylvan Street crossing, which is near Church Street in Stockton Springs, south along Route 1 to the Stockton Springs / Searsport Town Line. This also included replacing a 1" main on Harris Road and Harris Road Extension in Stockton Springs with a new 8" main and replacing the old 6" main on Lower Sylvan Street in Stockton Springs with a new 12" main. We then skipped over a 1.5 mile section and started at the intersection of Pendleton Road and headed south connecting the new 12" main into the existing 10" main in front of the Maritime Farms/Irving gas station facility. This portion of the main replacement project included a new 8" main along Pendleton Road as well as connections to the existing mains at Kidder Point Road, Sears Island Road, Station Avenue and the Old Bangor Road North and South intersections. A new emergency booster station was also included with these projects to provide the District with the ability to pump water during emergency situations from the Belfast Water District's system to the SWD reservoirs in Stockton Springs.

Additional work will be completed in the spring of 2012 as bids for the original project were lower than anticipated thus providing us with additional funds to replace an additional 1,700 feet of water main. The total project costs are \$2,518,597.00, which has been funded by the Maine Drinking Water Program's Revolving Loan Fund. The District was fortunate to receive \$1,133,369.00 in grant funds for these projects and the remaining \$1,385,228.00 was received in the form of a loan with an interest rate of 0% and will be paid back over the next 30 years. Once the project is completed in the spring and the loans have been finalized it will be necessary to increase the water rates by approximately 7.5% in order to pay for these upgrades.

With the elimination of portions of the old 8" water main it appears that we eliminated a leak and/or leaks totaling approximately 40 gallons per minute. The leak and/or leaks, that went undetected, appear to have been located near and/or under stream beds thus making it nearly impossible for us to find. One problem with finding leaks on the old 8" line along the Route 1 corridor is that Route 1 was rebuilt back in the 1950's. During the rebuilding phase of Route 1 much of the road was raised as much as 2 to 3 feet in some areas. Leaks in the old main find their way to the under drain system which redirects the water, in some cases, several hundred feet from the leak location to a drainage area and/or stream. We anticipate that the new main will last for several decades, however should a leak develop, the design of the new water main with its many inline gate valves will eliminate most of the difficulties that we presently have.

In 2011, the District pumped a total of 143,387,000 gallons of water. This amount is up 23,193,000 from 2010. This increased pumping rate was directly attributed to leaks that were repaired and/or eliminated during the year 2011 as well as water needed to flush and disinfect the new water mains. Our daily average was 392,841 gallons per day or 273 gallons per minute. This amount is 61.72% of the total daily safe yield based on a safe yield of 636,500 gallons per day.

We, the employees and Trustees of the District, are available 24 hours a day, 7 days a week, 365 days a year to assure that the each and every one of our 1,100 +/- customers are provided with a water supply that not only is safe and reliable but is excellent in quality as well.

For more information regarding district activities please feel free to contact the Searsport Water District office and/or visit our website at www.searsportwater.org.

Current Contacts at the Searsport Water District

Trustees

William Shorey, Chairman

Bruce Mills, Treasurer

Larry Clark, Clerk

Licensed Operators

Herbert Kronholm, Superintendent

R. Bruce Page, Foreman/Service Tech.

Stephen Sherer, Service Tech.

Office Staff

Brenda Corbin, Office Mgr.

Linda Kinney, 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