

Introduction

Last year, as in years past, the Sanford Water District strived to provide its customers with high quality water. We are proud of the product that we provide to our customers, and hope this report helps to communicate the care we take in order to ensure the quality of your drinking water.

This annual report meets state and federal requirements for annual customer notification regarding water quality. The direct mailing of this report provides the District a cost effective way to educate our customers about the quality of their drinking water and the standards we meet. It includes information on the location and source of the District's water supply, a summary of the water quality results that showed detectable levels during 2010 and other important and helpful information regarding your drinking water.

Public Meetings

The Trustees of the Sanford Water District hold monthly meetings on the second Tuesday of the month at 7:00pm. Anyone interested in attending should call the District at 324-2312 for the date and time of the next meeting.

Questions

If you have any questions or concerns pertaining to this pamphlet or anything else to do with the quality of your water, please call the Sanford Water District office at 324-2312, or we can be reached by e-mail at: information@sanfordwater.org.

The Sanford Water District is located at 243 River Street in Springvale, a quarter of a mile south of the intersection of Pleasant Street. **Our office hours are Monday through Friday 8:00 AM to 4:30 PM.**

Sanford Water District
P.O. Box 650
Sanford, ME 04073

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SANFORD WATER DISTRICT

2010 WATER QUALITY REPORT

SANFORD WATER
DISTRICT

P.O. Box 650
Sanford, ME 04073

Phone: 207-324-2312

Fax: 207-324-1267

E-mail: information@sanfordwater.org

Detected Contaminants

	Substance	SWD Highest Detected	SWD Range Detected	Units	Highest Allowed (MCL)	EPA Goal (MCLG)	Possible Source
Microbiological	Total Coliform Bacteria	0	-	Positive	3	0	Naturally present in the environment
Radionuclides	Radon (12/15/04)	2,352	743 to 2,352	pCi/l	4,000	N/A	Naturally present in gravel and bedrock
	Gross Alpha (8/29/06)	1.41	0.433 to 1.41	pCi/l	15	0	Naturally present in gravel and bedrock
	Uranium (3/25/09)	0.84	0 to 0.84	pCi/l	30	0	Naturally present in gravel and bedrock
Inorganic Chemicals	Arsenic	1	0 to 1	ug/l	10	0	Erosion of natural deposits
	Barium	0.013	0 to 0.013	mg/l	2	2	Erosion of natural deposits
	Chromium	1.3	0 to 1.3	ug/l	100	100	Erosion of natural deposits
	Fluoride Average - 1.25 Fluoride	1.50	1.0 to 1.50	mg/l	4	4	Added for dental protection
	Nitrate Nitrogen	0.63	0 to 0.63	Mg/L	10	10	Runoff from fertilizer use
Organic Chemicals	Di(2Ethylhexyl) Adipate (9/9/2008)	42	0 to 42	ug/l	400	400	Discharge from chemical factories
	Disinfection By-Products	RAA					
	Total Trihalomethanes	6.6	6.2 to 7	ug/l	80	0	By-product of chlorination
	Disinfectant				MRDL	MRDLG	
	Chlorine Residual	0.09	0 to 0.4	mg/l	4	4	Water additive to control microbes

		SWD 90%	Number of Samples Over Action Level		Action Level		
Lead & Copper (2008)	Lead	<5	1 of 32 samples taken	ug/l	15	0	Corrosion of household plumbing
	Copper	0.3	0 of 32 samples taken	mg/l	1.3	1.3	Corrosion of household plumbing

Note: The EPA requires monitoring of many drinking water contaminants. Those listed above are the only contaminants detected in your drinking water.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data reviewed for this report, though representative, is more than one year old (dates are noted in these cases). The District conducts sampling programs for over 80 contaminants.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

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

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water.

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.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. For Lead and Copper, 90% of samples must be below the Action Level.

ug/l: micrograms per liter (parts of contaminant per billion parts of water)

mg/l: milligrams per liter (parts of contaminant per million parts of water)

pCi/l: picocuries per liter, a measure of radioactivity

The Sources



The Sanford Water District has eight sources of water supply. All are groundwater sources that draw water from sand and gravel aquifers located in the town of Sanford. Each source has been delineated to show the area within the 200 day and 2,500 day travel times.

These areas are shown in the Town of Sanford Zoning Ordinance (Article 16 of Chapter 280-86) which is available at the Water District. The District pumps an average of 2.0 million gallons of water a day to meet the water needs of the community.

Main Pumping Station:

Gravel Developed Wells located on River Street

Cobb I Well:

Gravel Pack Well located on Sanford High Blvd.

Cobb II Well:

Gravel Pack Well located on Sanford High Blvd.

Country Club Road Well:

Gravel Pack Well located on Country Club #2 Road

Old Mill Road Well:

Gravel Pack Well located on Old Mill Road

Eagle Drive No. I Well:

Gravel Pack Well located on Eagle Drive

Eagle Drive No. II Well:

Gravel Pack Well located on Eagle Drive

New Dam Well:

Gravel Pack Well located on New Dam Road

Source Assessment

The Maine Department of Human Services Drinking Water Program completed an assessment of the water supply sources in 2003. The wells received a Moderate risk rating based on the well type and geology of the surficial aquifers. Based on land use, water tests, land ownership and protection by zoning ordinances, the rating for the existing protection from contamination is Low to Moderate. The future risk is rated Moderate to High. Where feasible, the District should consider additional land or easement acquisition of properties near the wells to reduce the future risk of contamination. The assessment is on file at the District office and Town office.

About Water



The sources of drinking water (both tap water and bottled water) include: rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water

travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. 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.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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. More information about contaminants and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline (1-800-426-4791)**.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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).

Treatment

The District continues to add hypochlorite at its pumping sites to create chlorine residuals in sections of the distribution system. Fluorosilicic acid is added to all source water to promote dental health. Sodium hydroxide is added to all sources to produce a less corrosive water with a higher pH level. Phosphate is added at the Main Station and New Dam Road Station to reduce discoloration caused by iron and manganese.



Water Quality Testing

Extensive sampling programs are implemented by the District including the following:

- *Weekly sampling of the distribution system for bacteria, fluoride and chlorine residual*
- *Periodic sampling for several organic and inorganic parameters at our source water wells*
- *Continuous monitoring of pH levels at the source pumping stations*
- *Daily monitoring of fluoride, iron, and chlorine residual concentrations at the source pumping stations*
- *Specific sampling schedules for radionuclides, copper, lead, and other parameters*



Lead

Pregnant women, infants and young children are typically more vulnerable to lead in drinking water than the general population. If present, elevated levels of lead can cause serious health problems. The lead levels in Sanford are in compliance with federal drinking water standards; however, the lead levels at your home may be higher than other homes in the community due to the materials used in your home's plumbing. 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 <http://www.epa.gov/safewater/lead>.

Iron and Manganese

Iron and manganese are common metallic elements (minerals) that are found in groundwater throughout the Northeast. Sanford is no exception. Iron in the water can at times tint the water a yellow or brown color potentially causing reddish-brown staining of laundry, porcelain, dishes, utensils and even glassware. Manganese acts similarly but may stain brownish-black. Iron and manganese may also affect the flavor of water, and create an objectionable odor. These are considered to be esthetic (non-health related) problems. To help minimize the build up of iron and manganese in the distribution system, the District flushes the system through the fire hydrants each year.

Radon

There is currently no federal regulation for radon levels in drinking water. The State of Maine adopted a Maximum Exposure Guideline (MEG) for Radon in drinking water at 4,000 pCi/L in 2007 and recommends follow-up action (or treatment) for levels in excess of 4,000 pCi/L. Radon is found in the soil and bedrock formations and is a by-product of Uranium. Only about 1-2 percent of Radon in air comes from drinking water. However breathing radon released to air from tap water increases the risk of lung cancer over the course of your lifetime. If you seek more information about Radon, please contact this office or the State Drinking Water Program and request a Radon 'Fact Sheet'.

Recent Improvements

The Sanford Water District constantly strives to improve water quality. In 2010 floating chlorinators were installed at our two above ground storage tanks to augment the mixing systems installed in 2009. The floating chlorinators are utilized during the spring, summer, and fall (during non-freezing months) to help create a more consistent chlorine residual in the tanks. Since the installation of mixing systems and the chlorinators, the Sanford Water District has not had a positive bacteria sample anywhere in its distribution system. This improvement may ultimately allow us to lower chlorination at our sources. Also in 2010 a new back up power generator went online at our Old Mill Well. This should help us to maintain water levels during emergency situations such as ice storms and hurricanes.

