

SANFORD WATER DISTRICT

2022 WATER QUALITY REPORT

www.sanfordwater.org



Last year, as in years past, your tap water met all EPA and State drinking water standards. We are proud to report that our system has not violated a maximum contaminant level or any other water health standard. This annual report meets state and federal requirements for annual customer notification regarding water quality. 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 show detectable levels during 2022 and the other important information regarding your drinking water.

PUBLIC MEETINGS

The Trustees of the Sanford Water District normally hold monthly meetings on the second Tuesday of the month at 4:00 p.m. Anyone interested in attending should call the District at 207-324-2312 or go to our website at www.sanfordwater.org/about 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 contact our office at 207-324-2312, or email at: information@sanfordwater.org. You may also contact the Maine Department of Health & Human Services Drinking Water Program at 207-287-2070.

FIND US

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

YEAR IN REVIEW

District Operations returned to mostly normal in 2022, following the pandemic. The District spent most of the 2022 construction season working on the City of Sanford's road construction projects, including the West Side Village project. We replaced service lines, valve boxes and water mains, updating District infrastructure alongside work being done by both the City of Sanford and the Sanford Sewerage District. These improvements not only prevent issues under the new City roads, but also improve water quality for the customers in those areas.

Water production and water sales continue to be flat for the District, adding to funding challenges. The District does anticipate a rate adjustment in 2023. Providing abundant, safe drinking water to our customers at an affordable cost is the mission of the District. Properly maintaining the water infrastructure is key to that mission. We appreciate how supportive our customers continue to be as we face challenges. The Sanford Water District is proud of the work we do and we take pride in the level of service we provide.



TREATMENT

The District continues to add hypochlorite at its sources of supply as well as seasonally at two of our standpipes to create chlorine residuals in sections of the distribution system. Fluorosilicic acid is added to all source water to promote dental health. Fluoride levels must be maintained between 0.5 and 1.2 mg/L, the target level being 0.7 mg/L. Sodium hydroxide is added to all sources to produce less corrosive water with a higher pH level. Phosphate would be added to Off-Line wells for iron and manganese chelation if utilized.

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 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*

THE SOURCES

The Sanford Water District has nine sources of water supply. All are groundwater sources that draw water from sand and gravel aquifers located in the City 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 City of Sanford Zoning Ordinance (Article 16 of Chapter 280-15-1) which is available at the Water District. The District pumps an average of 1.64 million gallons of water a day to meet the water needs of the community.

- **Main Pumping Station:** Naturally Developed Wells located on River Street (currently off-line)
- **Cobb I Well:** Gravel Pack Well located on Spartan Drive.
- **Cobb II Well:** Gravel Pack Well located on Spartan Drive.
- **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 (currently off-line)
- **Eagle Drive No. II Well:** Gravel Pack Well located on Eagle Drive
- **New Dam Well:** Gravel Pack Well located on New Dam Road (currently off-line)
- **Bernier Road Wells:** Gravel Pack Wells located on Bernier Road

SOURCE WATER ASSESSMENT

The Maine Department of Health and Human Services Drinking Water Program completed an assessment of the District's water supply sources as part of the Source Water Assessment Program (SWAP) 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, City office and the State Drinking Water Program.

Substance		SWD Highest Detected	SWD Range Detected	Units	Highest Allowed (MCL)	EPA Goal (MCLG)	Source
Microbiological	Total Coliform Bacteria	0	0	Positive	1	0	Naturally present in environment
Inorganics Fluoride Average 0.68	Arsenic	2.3	0 to 2.3	ug/l	10	0	Erosion of natural deposits
	Barium	0.021	0 to 0.021	mg/l	2	2	Erosion of natural deposits
	Fluoride	0.86	0.57 to 0.86	mg/l	4	4	Water additive to promote strong teeth
Per-and Polyfluoroalkyl Substance (PFAS)	Perfluoroheptanoic Acid (PFHPA)	3.2	0 to 3.2	ng/l	20	0	Discharges and emissions from industrial and manufacturing sources. (See per-and polyfluoroalkyl section)
	Perfluorohexane Sulfonic Acid (PFHXS)	4.0	0 to 4.0	ng/l	20	0	Discharges and emissions from industrial and manufacturing sources. (See per-and polyfluoroalkyl section)
	Perfluoronanoic Acid (PFNA)	1.8	0 to 1.8	ng/l	20	0	Discharges and emissions from industrial and manufacturing sources. (See per-and polyfluoroalkyl section)
	Perfluorooctane Sulfonic Acid (PFOS)	5.1	0 to 5.1	ng/l	20	0	Discharges and emissions from industrial and manufacturing sources. (See per-and polyfluoroalkyl section)
	Perfluorooctanoic Acid (PFOA)	5.0	0 to 5.0	ng/l	20	0	Discharges and emissions from industrial and manufacturing sources. (See per-and polyfluoroalkyl section)
	Radon (12-13-17)	930	*	pCi/l	4,000	4,000	*Erosion of natural deposits (See radon section)
Radionuclides	Radium 226 (06-17-20)	0.4	0 to 0.4	pCi/l	5 pCi/l	0 pCi/l	Erosion of natural deposits
	Radium 228 (06-17-20)	0.3	0 to 0.3	pCi/l	5 pCi/l	0 pCi/l	Erosion of natural deposits
	Combined Radium (06-17-20)	0.7	0 to 0.7	pCi/l	5 pCi/l	0 pCi/l	Erosion of natural deposits
	LRAA						
Disinfectants & Disinfection By-Products	Total Trhalomethanes	14.0	10 to 18	ug/l	80	0	By-product of drinking water chlorination-occurs when chlorine combines w/naturally occurring organic matter
	Total Haloacetic Acids	5.9	5.2 to 6.6	ug/l	60	0	
		RAA	MRDL	MRDG			
Disinfectants & Disinfection By-Products	Chlorine Residual	0.24	0 to 0.8	mg/l	4	4	By-product of drinking water chlorination
Number of Samples Over							
SWD 90th Percentile							
Lead & Copper 2020	Lead	4	0 of 30 samples taken	ug/l	15	0	Corrosion of household plumbing
	Copper	0.443	0 of 30 samples taken	mg/l	1.3	1.3	Corrosion of household plumbing

For Lead & Copper, 90% of samples must be below the action level.

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 100 contaminants.

Table Definitions

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.

LRAA (Locational Running Annual Average): A 12 month rolling average of all monthly or quarterly samples at specific sampling locations.

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.

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

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.

Per- and Polyfluoroalkyl Substances (PFAS) Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire-fighting foams.

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)** or at www.epa.gov/safewater.

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 EPA.

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. The Sanford Water District tested its sources in 2004 (2017 Bernier Road well as shown in *Detected Contaminants*), detecting a range from 743 to 2,352 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'.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Some people who drink water containing these PFAS in excess of the MCL may experience certain adverse effects. These could include effects on the liver, blood, immune system, thyroid, and fetal development. These PFAS may also elevate the risk of certain cancers.



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 EPA.

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. Iron and manganese (at the levels in our water) are considered to be aesthetic (non-health related) problems. To help minimize the buildup of iron and manganese in the distribution system, the District flushes the system through the fire hydrants each year.