South Berwick WATER DISTRICT

2023 Consumer Confidence Report

Water Quality Report

Welcome to the annual Water Quality Report for customers of the South Berwick Water District. It provides important information about our drinking water, it's quality and service.

The District is a quasi-municipal utility providing clean, safe drinking water and fire protection services 24 hours a day, 365 days a year, to the citizens of South Berwick and 10 residences in Berwick Maine.

The South Berwick Water District uses multiple groundwater sources consisting of 7 well points, 1 gravel packed well and 5 bedrock wells to meet the water needs of customers. The wells are located in four separate well areas; with three in the town of South Berwick and 1 in Berwick. A new bedrock well in an existing well field is currently in the investigative/development stage and an additional bedrock well site in a new area located off Route 4, continues to be under development for future use.

For 2023, the average monthly system water demand was nearly 7.5 million gallons of water with an annual total of 89.5 million gallons delivered to the system. This equates to an average daily water demand of 245,165 gallons or 0.245 million gallons per day (MGD). The maximum day water demand in 2023 was 0.379 MGD occurring in August. This is more than 150% of the average day system demand and is typical of increased summer usage.

Clean water is a routine feature of our daily lives. The tasks of locating, collecting, treating, and distributing that water; testing constantly to ensure its quality and safety; and monitoring environmental measures requires complex equipment and talented employees with diverse skills in management, finance, engineering, and chemistry.

Our Mission:

Our mission is to assure an adequate supply of high quality water to the residents and businesses of South Berwick. We provide water for domestic, commercial, industrial, municipal, conservation, sanitary and fire protection services.

LEAD AND COPPER SERVICE LINE INVENTORY

The Environmental Protection Agency has revised its Lead and Copper Rule to better protect children and communities from the risks of lead exposure by accelerating the process of getting the lead out of our nation's drinking water, and empowering communities through information and education.

Improvements under the rule include:

> Using science-based testing protocols to find more sources of lead in drinking water,

> Establishing a trigger level to jump start reduction earlier and in more communities,

> Identifying and prioritizing more lead service line replacements, and

> Requiring water systems to identify and publish the locations of known lead service lines.

Providing the highest drinking water possible at the most reasonable cost is top priority of the South Berwick Water District. Although there has been no lead detected in the district's treated sources of drinking water and the high quality of water has allowed us to avoid implementing additional lead and copper treatment, lead can enter drinking water when pipe plumbing material in the home that contains lead corrode. *The most common sources of lead in drinking water are lead pipes, faucets, and fixtures.* Lead pipes installed before 1986 could be present that connect the home to the water main. These lead services lines are typically the most significant source of lead in drinking water. As a homeowner, it is important to know what type of pipe material delivers water to your home on the water district side and the side owned by you. According to the EPA, lead pipes are most likely to be found in older cities and homes built before 1986, since lead free material requirements were implemented in 1986. Among homes without lead service lines, the most common problem is with brass or chrome-plated brass faucets and plumbing with lead solder.

The new provision to this new rule focuses on identifying and inventorying existing pipe materials on both the water district and consumer owned (your) sides.

Under the new EPA rule, the district is preparing and will maintain an inventory list of what materials water service lines are made of, particularly if lead or thought to be lead. Fortunately, the district has been adding and replacing water services since the 1930's with copper pipe and our employees have never encountered a lead service line in our distribution system and believe there is none, but we cannot be one hundred percent certain at this point. The district will complete a list of water pipes that are known to be lead, those that are not lead, those that are unknown, and those unlikely to be lead (installed after 1986). This list will be completed and posted on the district website by October 1, 2024.

PET WASTE PROBLEMS CONTINUE TO PLAGUE WILLOW DRIVE WELL SITE

Pet feces and public water supplies don't mix. District property at Willow Drive is often found littered with pet droppings. This continues to be a serious problem as reported last year. Pet waste carries bacteria and can carry parasites, and other diseases that can be transmitted to humans and under extreme conditions can contaminate a water supply.

The district cannot stress enough that pet feces must be picked up promptly after pets have defecated and that it must be disposed of properly, not left on district property in the well protection area for one of our staff to deal with. This practice has become so widespread at Willow Drive that we are disheartened that we must consider shutting down access through district private property if this does not improve.

We recognize that the majority of people using district property are very respectful and ask you to help us by continuing to be the hero your pet thinks you are by cleaning up after them, but also please let your fellow hiker know, not doing so, is unacceptable behavior.

LEAKING TOILETS AND WATER SERVICE LINES

As a courtesy to our customers, the district notifies a customer if their quarterly bill is significantly higher than normal. We know that a small leak can lead to significant water loss and a big water bill. Many times, customers do not notice or even believe there could be a problem. We ask that you don't wait until your next bill to follow up as our staff cannot remember a single instance in recent memory where the increase has been the result of an inaccurate meter. Customer follow-ups have found leaking toilets and even one had a broken pipe, all of which were originally considered by the homeowners as very unlikely.

Toilet flushes account for nearly 30 percent of a customer's average usage per day. For our customers we have found that small toilet leaks have led to several hundred gallons per day loss and can be relatively silent, making quick identification essential. Larger leaks might be heard as a hissing or a bumping leak. Toilets are most often the culprits, likely due to an old or worn-out flapper valve or poorly calibrated tank overflow which can be easily fixed.

<u>Simple tricks for finding a leak include</u>:

> Turn off toilet water for 30 minutes, use no water, and see if the water meter is going up.
> Take off the toilet tank top for 30 minutes and see if the water level continues to rise going out the tank overflow, or if level slowly decreases, indicative of leaking by the flapper valve.
> Use a toilet tank dye available at any hardware store to clearly see water leaking by.
> Look for unusual and persistent drips or moisture in showers and outside spigots.

WATER USE EFFICIENCY

The district is keenly aware of the burden that rising costs place on our customers and employees. We want to help you minimize the impact of rising costs by providing water-saving tips on how you can be as efficient as possible. Water consumption is an area that you have some control over, so we have provided possible tools for water use efficiency and conservation, here and on our website. You may also call and talk with one of our operators.

> Never pour water down the drain. Use it to water plants.
> Repair dripping faucets by replacing a washer.
> Retrofit household faucets by installing low-flow aerators.
> Choose more energy and water efficient appliances.
> Purchase a low-volume toilet.
> Install a toilet displacement device to cut down on volume.
> Replace your showerhead with an ultra-low-flow version.
> Avoid flushing the toilet unnecessarily. Dispose of tissues, insects, and other similar waste in the trash.
> Avoid taking baths—take short showers—turn on water only to get wet and lather and then again to rinse off.
> Avoid letting the water run while brushing your teeth, washing your face, or shaving.
> Operate automatic dishwashers only when they are fully loaded. Use the "light wash" feature, if available.
> Clean vegetables in a pan filled with water.
> Avoid wasting water waiting for it to get hot. Capture it for other uses.
> Avoid rinsing dishes before placing them in the dishwasher; just remove large particles of food.
> Operate automatic clothes washers only when fully loaded or set the water level for the size of your load.
> Use mulch to retain soil moisture. Mulch also helps control weeds that compete with landscape plants for water.
> Use a commercial car wash that recycles water. If you wash your own car, park on the grass and water it.
> Avoid over watering your lawn. A heavy rain eliminates the need for watering for up to two weeks.
> Position and check that sprinklers so water lands on the lawn and shrubs and not on paved areas.

PAYMENT PLANS

Sometimes life throws a curve-ball and it may take a little time to get back up to the plate. We understand that water is an essential service and will work with you to make a payment arrangement at any time.

Please contact our office during business hours and we will set up a payment arrangement that is agreeable to both parties.

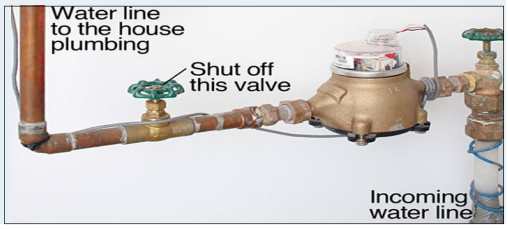
JUNCTION ROAD PUMP STATION TREATMENT MEADIA REPLACEMENT

In 2023 the district hired AdEdge Water Technologies to replace the nearly used up treatment material in our three Junction Road Pump Station eight-foot round, twelve feet tall, treatment vessels. This is the same company who provided the arsenic water treatment system with specialty arsenic treatment material in 2017. Untreated water entering the top of the vessels is treated as it flows down through the adsorption material that chemically removes arsenic. Treated water is withdrawn from the bottom of the vessel. Arsenic adheres so strongly to the treatment material; the old material is discarded as non-hazardous solid waste. The treatment process is simple, reliable, effective, and even relatively low maintenance. The district produced nearly 100 million gallons of treated water before the material required replacement.

KNOW WHERE YOUR SHUT-OFF VALVE IS AND KEEP YOUR METER WARM

When water is leaking in your house, you need to react quickly. The longer it takes for you to find it or move things to get access to it, the more damage you will have to your property. You should have quick access to the Water Shut Off Valve next to your water meter. Make sure the area is kept free, don't hide it in a cabinet, and show all family members where it is and how to turn water off. Operate the shut off to ensure its working. Repair it if necessary.

A frozen meter will flood your home. Remember that it is your responsibility to keep the water meter from freezing and that prevention is much cheaper than the alternative. Keep the area around the meter warm and free of drafts in the area. If the meter is in a closet or cabinet, keep the doors open in cold weather so warm air can circulate. When doing remodeling projects, be mindful of the water meter and how it will be affected by the project.



Please update your contact information as needed so that we may contact you in case of an emergency. You may write this information on your payment slip or just call our office.

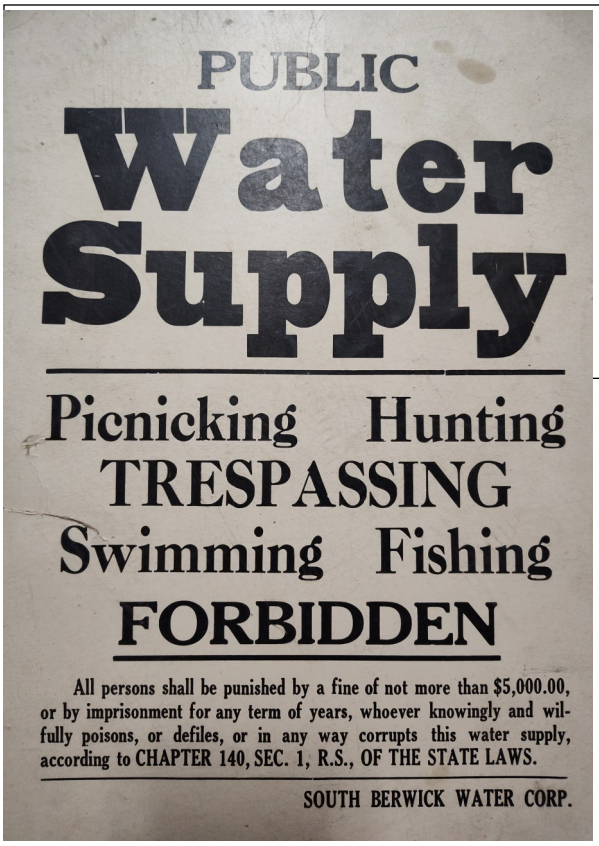
WATER METER CHANGE OUT PROGRAM

The Water District changes out water meters each year targeting the oldest meters in the system, which are 15 to 20 years old. This is the typical design life of a meter.

You might receive a letter requesting that you contact us to make an appointment to change your water meter. Please contact us as soon as possible to make an appointment that is convenient for you.

We will need access to the water meter, which is usually located in the basement of your home. Please be sure the area is clear of belongings so that the technician has room to work in that area.

The water will be shut off for a few minutes while the technician removes the old water meter and installs a new one. This process takes about 15 minutes provided there are no issues. We appreciate your cooperation and quick response to our request!



Water Supply Sign- Circa 1950s

DIG SAFE!

Before doing any type of earth work, from landscaping to major construction, please contact the South Berwick Water District to mark out your water line.

Maine law requires that all utility companies be notified of any excavation by means of motorized equipment (such as rototillers, tractors, sod cutters, etc). This is to avoid the headaches and inconvenience of damaging underground utility lines and water pipes when you dig.

Most small local utilities, like us, do not belong to the Dig Safe system due to the high cost of being a member.

Water Loss in Gallons

Leak this Size	Loss Per Day	Loss Per Month	Leak this Size	Loss Per Day	Loss Per Month
.	120	3,600	●	6,640	199,520
•	300	10,800	●	6,964	209,520
•	693	20,790	●	8,424	252,720
•	1,200	36,000	●	9,585	296,640
•	1,920	57,600	●	11,324	339,720
•	3,095	92,880	●	12,750	361,600
•	4,295	128,880	●	14,952	448,560

2023 Consumer Confidence Report

SOUTH BERWICK WATER DISTRICT

PWSID ME0091470

General Information

Water System Contact Name: **Ryan Lynch, Superintendent**

Address: **80 Berwick Road**
South Berwick, ME 03908

Telephone #: **207-384-2257** Fax#: **207-384-2762** Email: **info@sbwd.org**

Report Covering Calendar Year: Jan 1 - Dec 31, 2023

Upcoming Regularly Scheduled Meetings: 1st & 3rd Tuesday of every Month

Source Water Information

Description of Water Source: Wells 8

Source Water consists of 6 Bedrock wells, 1-Gravel Pack, and Shallow Well Points

Water Treatment & Filtration Information:

Iron and manganese filtration removal system at Willow Drive Pump Station. Arsenic filtration removal and pH adjustment at Junction Road Pump Station. Disinfection at all water sources.

Source Water Assessment:

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 or 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 and public water systems.

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water.
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health.
Secondary Maximum Contaminant Level (SMCL).
Running Annual Average (RAA): A 12 month rolling average of all monthly or quarterly samples at all locations. Calculation of the RAA may contain data from the previous year.
Locational Running Annual Average (LRAA): A 12 month rolling average of all monthly or quarterly samples at specific sampling locations. Calculation of the RAA may contain data from the previous year.
Action Level (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
Maximum Residual Disinfectant Level (MRDL): 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.
Maximum Residual Disinfectant Level Goal (MRDLG): 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.
Treatment Technique (TT): 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 or micrograms per liter (µg/L) pos = positive samples. MFL = million fibers per liter

Water Test Results

Contaminant	*Date*	*Results*	*MCL*	*MCLG*	*Possible Sources of Contamination*
Microbiological					
COLIFORM (TCR) (1)	2023	**0 pos**	1 pos/mo or 5%	0 pos	Naturally present in the environment.
Inorganics					
ARSENIC (6)	8/7/2023	**12.2 ppb**	10 ppb	0 ppb	Erosion of natural deposits. Runoff from orchards, glass and electronics production wastes.
BARIUM	6/5/2023	**0.047 ppm**	2 ppm	2 ppm	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
FLUORIDE (3)	6/5/2023	**0.32 ppm**	4 ppm	4 ppm	Erosion of natural deposits. Water additive which promotes strong teeth. Discharge from fertilizer and aluminum factories.
Radionuclides					
COMBINED RADIUM (-226 & -228)	8/18/2020	**1.285 pCi/l**	5 pCi/l	0 pCi/l	Erosion of natural deposits.
RADIUM-226	8/18/2020	**0.473 pCi/l**	5 pCi/l	0 pCi/l	Erosion of natural deposits.
RADIUM-228	8/18/2020	**0.91 pCi/l**	5 pCi/l	0 pCi/l	Erosion of natural deposits.
RADON (8)	9/9/2021	**950 pCi/l**	4,000 pCi/l	4,000 pCi/l	Erosion of natural deposits.
Disinfectants and Disinfection ByProducts					
TOTAL HALOACETIC ACIDS (HAA5) (9)	9/20/2023	**4.8 ppb**	60 ppb	0 ppb	By-product of drinking water chlorination
TOTAL TRIHALOMETHANE (TTHM) (9)	9/20/2023	**16 ppb**	80 ppb	0 ppb	By-product of drinking water chlorination
Lead/Copper					
LEAD 90TH% VALUE (4)	1/1/2021 - 6/1/2021	**1 ppb**	AL = 15 ppb	0 ppb	Corrosion of household plumbing systems
		Range (0-8 ppb)			
COPPER 90TH% VALUE (4)	1/1/2021 - 6/1/2021	**0.2 ppm**	AL = 1.3 ppm	1.3 ppm	Corrosion of household plumbing systems
		Range (0.019-0.359 ppb)			
Chlorine Residual					
CHLORINE RESIDUAL		**Range (0.2 - 1.5 ppm)**	MRDL=4 ppm	MRDLG= 4 ppm	By-product of drinking water chlorination.

Notes:

1) Total Coliform Bacteria: Reported as the highest monthly number of positive samples, for water systems that take less than 40 samples per month.
2) E. Coli: E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.
3) 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.
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) Arsenic: While your drinking water may meet EPA's standard for Arsenic, if it contains between 5 to 10 ppb you should know that the standard balances the current understanding of arsenic's possible health effects against the costs of removing it from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. Quarterly compliance is based on running annual average.
7) Gross Alpha: Action level over 5 pCi/L requires testing for Radium 226 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.
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.
9) 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.
10) PFAS: The degree of risk depends on the level of chemicals and duration of exposure. Laboratory studies of animals exposed to high doses of PFAS have shown numerous negative effects such as issues with reproduction, growth and development, thyroid function, immune system, neurology, as well as injury to the liver. Research is still relatively new, and more needs to be done to fully assess exposure effects on the human body.

All other regulated drinking water contaminants were below detection levels.

Secondary Contaminants:

ZINC	0.015 ppm	6/5/2023
CHLORIDE	32 ppm	6/5/2023
MAGNESIUM	1.79 ppm	6/5/2023
NICKEL	0.002 ppm	6/5/2023
MANGANESE	0.053 ppm	6/5/2023
SODIUM	14 ppm	9/9/2021
SULFATE	78 ppm	6/5/2023

Unregulated Contaminants Monitoring

Unregulated contaminants are those for which U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of these contaminants in drinking water and whether future regulation is warranted. In 2023 we participated in the fifth round of the Unregulated Contaminant Monitoring Rule (UCMR 5). We had no detections of any of the contaminants in this round of testing.

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 production 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. 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) or at the following link:

https://www.epa.gov/ccr/forms/contact-us-about-consumer-confidence-reports

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. South Berwick 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 Hotline or at the following link:

http://www.epa.gov/safewater/lead

Violations

No Violations in 2023

Waiver Information

In 2023, 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, 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(s).

Questions, Comments and Further Information

We are proud of the work we do for you and to be your source for all your water services. If you have any questions, comments or concerns about your water quality or service, please call the South Berwick Water District at (207) 384-2257 during business hours.

The Board of Trustees meet on the first and third Tuesday of each month. The annual meeting is the first Monday of March. These meetings are open to the public and you are welcome to attend.

IN CASE OF AN AFTER HOURS EMERGENCY
please call South Berwick Dispatch at 207-384-2254 Option 1
Dispatch will contact a Water District Employee to assist with your emergency.

South Berwick Water District

80 Berwick Rd.
South Berwick, ME 03908

Phone: 207-384-2257
Fax: 207-384-2762
Email: info@sbwd.org

Board of Trustees

Douglas Letelllier, Chairman
Dennis Fontaine, Treasurer
Robert Landry, Clerk
Henry Miller, Trustee
Mark Ouellette, Trustee

Staff

Ryan Lynch, Superintendent
Dana Curtis, Operations Foreman
Katie Ouellette, Office Manager
John Leach, Technical Manager

Business Hours

Monday—Friday 8:00am—12:00pm 1:00pm—4:30pm