

2012 Annual Drinking Water Quality Report

Bowdoinham Water District

Serving the Communities of Bowdoinham and Bowdoin

Po Box 86, Bowdoinham, ME 04008

Phone: 737-4721 Fax: 737-2427

Email: bwd@myfairpoint.net

PWSID ME90210

Following is the Annual Drinking Water Quality Report, also known as the consumer confidence report for the Bowdoinham Water District (BWD). This report, a requirement of the 1996 amendments to the Safe Drinking Water Act, is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the high quality of your water.

WATER SOURCE

The original system was constructed for the Bowdoinham Water District in 1959. It consists of two gravel packed wells and a pump house on a 9-acre parcel of land owned by BWD adjacent to West McIver Road in Bowdoin. The original well, drilled in 1959, is 31 feet deep and the second well, which was drilled in 2009, is 40 feet deep. 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.

SOURCE WATER ASSESSMENT

The Maine Drinking Water Program (DWP) has evaluated all public water supplies as part of the Source Water Protection 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 the BWD office, Bowdoinham and Bowdoin town offices and the DWP. For more information on the SWAP, you may contact the DWP at (207) 287-2070.

TEST RESULTS

Unless otherwise noted, testing was done in 2011

Contaminant	Date	Results	MCL	MCLG	Likely Source of Contamination
Microbiological Contaminants					
Total Coliform Bacteria	2012	0 Positive	1 pos/mo or 5%	0 Positive	Naturally present in the environment
Inorganics					
Barium	3/1/2011	0.0066 ppm	2 ppm	2 ppm	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
Chromium	3/1/2011	0.65 ppb	100 ppb	100 ppb	Discharge from steel and pulp mills. Erosion of natural deposits.
Nitrate (5)	2/27/2012	2 ppm	10 ppm	10 ppm	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
Radionuclides					
Radon (8)	8/13/09	1540 pCi/l	4,000 pCi/l	4,000 pCi/l	Erosion of natural deposits.
Copper/Lead					
Copper 90 th % Value (4)	1/1/08-12/31/10	0.12 ppm	AL= 1.3 ppm	1.3 ppm	Corrosion of household plumbing systems.
Lead 90 th % Value (4)	1/1/08-12/31/10	2 ppb	AL = 15 ppb	0 ppb	Corrosion of household plumbing systems.
Disinfectants and Disinfectant ByProducts					
Trihalomethane (TTHM) (9)	RAA (2010)	8.3 ppb	80 ppb	0 ppb	By-product of drinking water chlorination.

Definitions:

Maximum Contaminant Level (MCL) - is the highest level of a contaminant that is allowed in drinking water.

Maximum Contaminant Level Goal (MCLG) – is the level of a contaminant in drinking water below which there is no known or expected risk to health.

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

Action Level (AL) – The concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Residual Disinfection 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 Disinfection 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 (e.g. treatment technique for turbidity).

Units:

ppm = parts per million or milligrams per liter (mg/L) ppb = parts per billion or micrograms per liter (pg/L)

pCi/L = picocuries per liter (a measurer of radioactivity) pos = positive samples

MFL = million fibers per liter

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 of 10 ppb 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 whose 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 care 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 US 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.

All other regulated drinking water contaminants were below detection levels.

Secondary Contaminants (You are not required to list detects for secondary contaminants, but this information, particularly sodium levels, might be useful to your customers. The decision to supply this information is your CCR is up to you.)

NICKEL	0.00088 ppm	03/01/2011
ZINC	0.0048 ppm	03/01/2011
SULFATE	9 ppm	03/01/2011
MAGNESIUM	2.2 ppm	03/01/2011
SODIUM	6.1 ppm	03/01/2011
MANGANESE	0.00062 ppm	03/01/2011
CHLORIDE	9 ppm	03/01/2011

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 storm water 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 storm water runoff, and residential uses.

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

Radioactive contaminants 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 microbiological contaminants are available from the Environmental Protection Agency's 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.

BWD 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Violations

Violation Period

01/01/2011-12/31/2019

Violation Type

03 Violation – MONITORING, ROUTINE MAJOR RADIUM -228

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 meeting health standard. During 2012, we did not test for, or failed to collect all necessary tests for Radium -228. To correct the problem the BWD collected/will collect a sample(s) on: May 30, 2013. Subsequent testing has been negative for Radium -228.

Waiver Information (to be included in the CCR for systems that were granted a waiver)

In 2011, 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, HERICIDES, CARBAMATE PESTICIDES, SEMIVOLATILE ORGANICS. This waiver was granted due to the absence of these potential sources of contamination within a half mile radius of the water source.