

2010 Annual Drinking Water Quality Report

Passamaquoddy Water District

Eastport, Maine
PWSID ME0090510

We're pleased to present to you our Annual Drinking Water Quality Report, also known as the Consumer Confidence Report. This report, a requirement of the 1996 amendments to the Safe Drinking Water Act, is designed to inform you about the quality 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 quality of your water.

WATER SOURCE

Our water is drawn from the Boyden Lake Stream in Perry. It is filtered and then treated with chlorine to protect against potential bacteriological contaminants and fluoridated to promote dental health. Treatment also includes coagulation and pH adjustment. We serve an approximate population of 1920 through 768 service connections.

SOURCE WATER ASSESSMENT

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 public water suppliers, town offices, and the DWP. For more information about the SWAP, please contact the DWP at telephone 207-287-2070.

If you have any questions about this report or concerning your water system, please contact Nancy Seeley, Superintendent, at telephone number 207-853-2660, fax 207-853-2738, or at mailing address 56 Water Street, Eastport, ME 04631. We want our valued customers to be informed about their water system. If you want to learn more, please attend any of our regularly scheduled board meetings. They are held at the District office on Water Street. Meetings are held as scheduled and published each month. Agendas are posted regularly at the Eastport City Hall, the water district, and the tribal office in Pleasant Point.

WATER QUALITY

Passamaquoddy Water District routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table shows any detection resulting from our monitoring for the period of January 1st to December 31st, 2010.

In 2008, due to efforts to protect the water supply, we applied for and were granted a three-year waiver for synthetic organics (Phase II/V) testing. This is an exemption from the testing/monitoring requirements for pesticides, herbicides, fungicides and other industrial chemicals; the state of Maine Drinking Water Program grants a waiver only upon a finding that "it will not result in an unreasonable risk to health."

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. All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, 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 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.

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

The table below lists all of the drinking water contaminants that were detected through out water quality monitoring and testing. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk.

TEST RESULTS						
Unless otherwise noted, testing was done in 2010.						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria	Y	2 positive	Highest monthly # of positive samples	0 positive	1 positive	Naturally present in the environment
Turbidity (2010)	N	1.3	ntu	N/A	TT	Soil runoff
Radioactive Contaminants						
Gross Alpha (3/1/06)	N	0.117	pCi/L	0	15	Naturally occurring radioactivity in bedrock.
Inorganic Contaminants						
Barium (3/17/10)	N	0.0044	ppm	2	2	Erosion of natural deposits
Copper* (1/1/08-12/31/10)	N	0.08	ppm	1.3	AL=1.3	Corrosion of household plumbing systems
Fluoride (4/13/10)	N	1.5	ppm	4	4	Additive to promote dental health.
Lead* (1/1/08-12/31/10)	N	4.0	ppb	0	AL=15	Corrosion of household plumbing systems
* = Reported results are the 90 th percentile value (the value that 90% of all samples are less than).						
Disinfection By-Products						
HAA5 [Total Haloacetic Acids] (2009)	N	RAA= 5.47 (0.0-10.0)	ppb	0	60	By-product of drinking water chlorination
TTHM [Total Trihalomethanes] (2009)	N	RAA= 33.55 (4.09-57.3)	ppb	0	80	By-product of drinking water chlorination
Initial Distribution System Evaluation (IDSE) Data**						
Contaminant		Level Detected	Unit Measurement	Likely Source of Contamination		
HAA5 [Total Haloacetic Acids]		RAA = 10.77 (5.1-26.0)	ppb	By-product of drinking water chlorination		
TTHM [Total Trihalomethanes]		RAA = 53.22 (39.0-62.3)	ppb	By-product of drinking water chlorination		
**In 2009, under the EPA Stage 2 Disinfectants and Disinfection Byproducts Rule (DBPR) our water system was required to conduct an Initial Distribution System Evaluation (IDSE). The IDSE is a one-time evaluation to determine the levels of disinfection byproducts (TTHM & HAA) in the distribution system for future regulations. Disinfection byproducts are the result of the disinfection of your drinking water. They form when the disinfectants combine with naturally occurring organic matter in the water. The IDSE data was not used for compliance purposes by the Maine Drinking Water Program, and test results were not required to meet the MCL of 60 ppb for HAA and 80ppb for TTHM.						

Note: The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Not all contaminants are tested for every year due to monitoring waivers and therefore we must use the most recent round of sampling. Some of our data is more than one year old, however, is limited to no older than 5 years.

Definitions:

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

Maximum Contaminant Level (MCL) - is 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.

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. MCLGs allow for a margin of safety.

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.

Not Applicable (N/A) - Does not apply

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

Treatment Technique (TT) - A required process intended to reduce the level of a contaminant in drinking water (e.g. treatment technique for turbidity).

Variations, Exemptions, and Waivers - State or EPA permission not to meet an MCL, a treatment technique or test for a given contaminant under certain conditions.

Units:

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Parts per billion (ppb) or micrograms per liter (µg/L) - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per million (ppm) or milligrams per liter (mg/L) - One part per million corresponds to one minute in two years or a single penny in \$10,000.

Picocuries per liter (pCi/L) - A measure of the radioactivity in water.

Notes:

Barium: Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Gross Alpha: Action level over 5 pCi/L requires testing for Radium. Action level over 15 pCi/L requires testing for Radon and Uranium.

Lead/Copper: Action levels are measured at consumer's tap. 90% of the tests must be equal to or below the action level; therefore, the listed results above have been calculated and are listed as the 90th percentile.

Fluoride: Fluoride levels must be maintained between 1-2 ppm, for those water systems that fluoridate the water.

Total Coliform Bacteria: Reported as the highest monthly number of positive samples, for water systems that take < 40 samples per month.

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.

Turbidity: Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

IMPORTANT INFORMATION

Current Developments:

The Passamaquoddy Water District is continuing its efforts to improve the quality of the water it delivers to its customers and improve the quality of Fire Protection to our community.

The district completed two projects in 2010 with SRF funds through the Main Municipal Bond Bank.

In the first project, the district replaced approximately 5000 feet of deteriorated mains, corresponding gate valves, service connections to all customers and hydrants on these lines. This project completed the replacement of the South end of the city. We were again able to "loop" the system to allow for a constant flow of water.

In the second project, the district installed a chlorine residual continuous monitoring station to monitor and maintain the proper chlorine residual going into the system for the safety of our customers.

The total cost of these projects was \$1,043,350.00 - (\$782,512.50 in grant money, leaving a 30-year loan at 0% interest for \$260,837.50).

New rates were effective on 4/1/10 to cover the cost of the main replacements and increased operational costs.

Our water treatment process is running efficiently. Based on the research study that was completed in 2009 and 2010 by AE Hodsdon Engineering, we have been able to maintain a well run district, continuing to maintain accurate compliance levels.

Future Plans

The district applied to the MMBB for an SRF loan for 2011. This project will consist of replacing approximately 2,600 ft. of aging infrastructure, 1,200 ft. of service lines, curb stops, gate valves and five hydrants. The streets we plan to be working on are Broadway, Third Street and Boynton Street.

We plan to apply to the MMBB to refinance our current Rural Development loans for a lower interest rate.

We will continue to improve the water treatment process and protect our water resources. We will also continue to replace deteriorated water mains to deliver cleaner, safer water to our customers.

Total Coliform Bacteria MCL Violation

During the June 1, 2010 to June 30, 2010 monitoring period, our water testing results were positive and at least 1 recheck sample was positive for the presence of coliform bacteria. To resolve this problem, we chlorinated our wells, the water storage tanks and the distribution system. Public notification was posted or distributed to all concerned residents. Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. Subsequent tests have been negative. **Total Coliform:** The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

For most people, the health benefits of drinking plenty of water outweigh any possible health risk from these contaminants. However, 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/Center of Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (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. We are 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 thirty (30) seconds to two (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>.

We, at Passamaquoddy Water District, work hard to provide top quality water to every tap. We ask that all our customers help us protect and preserve our drinking water resources, which are the heart of our community, our way of life, and our children's future. Please contact us with any questions. Thank you for working together for safe drinking water.