

**Boothbay Region Water District
P.O. Box 520, Boothbay, Maine 04537
2006 Consumer Confidence Report**

INTRODUCTION

This is the annual water quality report of the Boothbay Region Water District serving Boothbay, Boothbay Harbor and Southport. This annual report is intended to provide you with important information about your drinking water. We know that you count on us for a safe and reliable supply of water every day and we are dedicated to providing the highest quality of service to you. Herein is an analytical report. Since all water for the district originates from the Adams Pond Treatment Plant the results are applicable to all of the customers served.

THE CONTENTS OF THIS REPORT

The Safe Drinking Water Act mandates the State of Maine, along with the Environmental Protection Agency (EPA), establish and enforce minimum drinking water standards. These standards set limits on certain biological, radioactive, organic and inorganic substances sometimes found in drinking water. The limits set on these standards are known as MCLs, Maximum Contaminant Levels. Two types of standards have been established. Primary Standards set achievable levels of drinking water quality to protect your health. Secondary Standards provide guidelines regarding the taste, odor, color, and other aesthetic aspects of your drinking water, which do not present a health risk. Listed on the following pages are the results of the water district's regular testing, which provide the test results for both Primary and Secondary Standards. All substances tested met both Primary and Secondary Standards within the levels established by the EPA and the State of Maine.

WATER QUALITY

We ensure that your water is safe through regular monitoring and testing of water quality. Maine State Health and Environmental Testing Laboratory conduct these tests. This report shows a comprehensive summary of the laboratory test results for the constituents we regularly monitor in your water supply. Responsibility for maintaining water quality resides with our staff of certified water treatment plant operators, licensed by the State of Maine Department of Human Services. In 2005, our system was granted a "Synthetic Organics Waiver". This is a three-year exemption from the testing/monitoring requirements for pesticides, herbicides, fungicides and other industrial chemicals. This waiver was granted due to the absence of these potential sources of contamination within a half-mile radius of the water source. 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, leaking septic systems, agricultural livestock operations, domestic animals 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. 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).

Source Water Assessment: Sources of drinking water include rivers, lakes, ponds, and wells. As water flows either on the surface or through the ground, it dissolves naturally occurring minerals and radioactive material and can also accumulate substances resulting from human and animal activity. The Maine Drinking Water Program (DWP) has evaluated all public water supplies as part of the Source Water Protection Program. 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 the SWAP, you may contact the DWP at telephone (207) 287-2070.

WATER SUPPLY INFORMATION

Adams Pond served as the towns of Boothbay, Boothbay Harbor and Southport primary water supply during 2006. During the past year, construction commenced on the Knickerbocker Lake Intake. This project was tested in 2006 and

will become fully operational in 2007, augmenting the supply of Adams Pond with Knickerbocker Lake water.

Chlorine levels are continuously monitored and controlled to insure adequate disinfection has occurred prior to delivery to you. Surface water in Maine are naturally acidic requiring the addition of sodium hydroxide, to raise the pH, and sodium bicarbonate which is added to aid to the stability of the water. This practice helps protect the distribution system and your home plumbing system from corrosion. To further protect the piping systems, we add a corrosion inhibitor, sodium silicate, designed to stabilize the metal surfaces of the iron and copper pipelines. This treatment has been very effective. We also add fluoride to promote dental health.

The filtration media used at the Adams Pond Treatment Plant is a mixed media of anthracite and sand of various particle sizes. The particles trap suspended solids, as measured by the amount of turbidity, removing foreign material from the water. Turbidity is a measurement of cloudiness or suspended colloidal matter (silt). Excessive turbidity levels can cause problems with water disinfection. 0.13 was the single highest turbidity measurement in calendar year 2006. The regulatory limit is 0.3 ntu with all water produced remaining well below this threshold. Therefore, our water filtration system renders your finished drinking water clear and safe to drink.

In addition to treating the surface water to a high degree of excellence, the district adds hydrofluorosilicic acid. This is added in small amounts to introduce fluoride in the water supply for dental reasons.

In 2006 the district sampled homes throughout the district to evaluate new treatment techniques to lower the concentration of lead, which leaches from homes plumbing fixtures, in the drinking water at the tap. By raising the pH of the water the lead concentration were found to be within acceptable limits.

NEW CONSTRUCTION & OTHER PROJECTS

In 2006 The Maine Department of Environmental Protection (DEP) completed a revision to the DEP Chapter 587, *In Stream Flow and Water Level Standards*'. The consequences of this action may mean the district will have to adjust the way it manages its surface water resources in upcoming years. During 2006 the district was very active in pressing its concerns, regarding these rules potential costly effect, to the DEP and the Maine legislature. In stream flow and water use/allocation will only become more of a focus in the years to come.

The district completed an overhaul of Clarifier #1, upgrading components. Due to expert operation by the districts operators, the components were found to be in excellent condition.

Several subdivisions were constructed during 2006 adding a potential 60 customers to the system and over two miles of new main. The construction was in both Boothbay and Boothbay Harbor. Due to these projects the district's fire protection reach was enhanced.

Much of the district's seasonal water distribution system was upgraded, removing outdated galvanized water main and expanding service to new cottages and seasonal homes/business.

Lastly, the district concentrated on "tightening" the system. The amount of water that could not be accounted for reached one of the lowest levels recorded, allowing the district to operate at a high level of efficiency.

WATER SYSTEM DATA

Your water supply and distribution system includes over 84 miles of water main. The District served nearly 3,000 service connections in 2006 and provides fire protection service through 230 hydrants. In 2006 we produced and delivered over 185,099,300 gallons of water, 100% being treated surface water from Adams Pond. That's an average of 507,100 gallons each day. The system also maintains 1,526,000 gallons in our four storage tanks.

OTHER IMPORTANT INFORMATION

This report is only a summary. If you have any questions about your water quality, the information contained in this report, or your water service in general, please call us at our administrative office at (207) 633-4723 (7:00 AM to 3:30 PM). Board of Trustees meetings, open to the public, Are typically held the second and fourth Tuesday of each month at 2 p.m. at the District's Administrative Office, 184 Adams Pond Rd., Boothbay. You may also direct questions to the Maine Department of Human Services Drinking Water Program at (207) 287-2070 or the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Boothbay Region Water District Results

Parameter	Maximum Contaminant Level Goal	Maximum Contaminant Level	Actual Test Results	Actual Test Results
	<u>MCLG</u>	<u>MCL</u>	(Highest or Average, if appl.)	(Range)
Clarity Turbidity (NTU) (12) (TT)	n/a	0.3	0.13	0.06 to 0.13
Microbiological Total Coliform bacteria (<40 samples)	0	1	0	0-1 (101 tests)
Organic Chemicals	No Detected Results for all Chemicals Tested			
Inorganic Chemicals				
Antimony (ppb)	0	6	Not Detected	
Arsenic (15) (ppb)	0	10	Not Detected	
Asbestos (1) (MFL)	7	7	Waived by the State	
Barium (ppm)	2	2	0.006	
Beryllium (ppb)	4	4	Not Detected	
Cadmium (ppb)	5	5	Not Detected	
Chromium (Total) (ppb)	100	100	Not Detected	
Copper (7) (ppm) 90th % Value	1.3	1.3	0.23	0 sites failed out of 40 sampled.
Cyanide(ppb)	200	200	Waived by the State	
Fluoride (6) (ppm)	4	4	1.29	
Lead (7) (ppb) 90th % Value	0	15	5	0 site failed out of 40 sampled.
Mercury (ppb)	2	2	Not Detected	
Nitrate (ppm)	10	10	Not Detected	
Nitrite (ppm)	1	1	Not Detected	
Selenium (ppb)	50	50	Not Detected	
Thallium (ppb)	0.5	2	Not Detected	
Radionuclides				
Gross Alpha Activity (11) (pCi/l)	0	15	0.297	
Radium 226/228 (Combined) (pCi/l)	0	5	Not Detected	
Uranium (13) (ug/l)	0	30	Not Detected	
Radon (12) (pCi/l)	n/a	4,000	Not Detected	
Other				
Cryptosporidium/Giardia (14)	0	0	Waived by the State	
Disinfection and Disinfection ByProducts				
Trihalomethanes (Total)(ppb) (10)	0	80	41.8	
Haloacetic Acid (Total) (ppb) (10)	0	60	37	

Secondary Drinking Water Standards

Chemical Parameters (ppm)	Maximum Contaminant Level Goal (MCLG)	Maximum Contaminant Level (MCL)	Actual Test Results	Actual Test Results
Chloride	250	250	21	
Sodium	100	100	22	
Iron	0.3	0.3	Not Detected	
Manganese	0.05	0.05	0.05	
Silver	0.1	0.1	Not Detected	
Sulfate	250	250	12	
Total Dissolved Solids	500	500	15.9	
Zinc	5.0	5.0	0.004	
Physical Parameters				
Color (units)	15.0	15.0	Not Detected	
pH	6.5-8.5	6.5-8.5	8.4	8.0 to 8.4

Definitions:

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health: pos: positive samples

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water

Variance of Waiver: State or U.S. EPA permission not to meet MCL or treatment technique under certain conditions (e.g. waiver to filtration).

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

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

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

Concentrations: In this report, most of the quantities are expressed as ppm, ppb, ppt and pCi/l.

These are measure of organics, inorganics or radiation activity per a fixed amount of water.

Parts per Million (ppm): parts per million or milligrams per liter (mg/l).

Parts per Billion (ppb): parts per billion or micrograms per liter (µg/l).

Picocuries per Liter (pCi/l): picocuries per liter (a measure of radioactivity).

Nephelometric Turbidity Units (ntu): turbidity units are the measurement of cloudiness in the water.



Boothbay Region Water District

Notes:

- (1) Arsenic - The U.S. EPA adopted the new MCL standard in October 2001. Water systems must meet the new standard by January
- (2) Asbestos - State wide waiver to testing in Maine. Only those systems with asbestos pipe need test
- (3) Dibromochloropropane - State wide waiver granted to Maine
- (4) Dioxin/Glyphosate - State wide waiver granted to Maine
- (5) Diquat/Endothall - Testing only required if potato growing occurs in watershed.
- (6) Ethylene Dibromide - Testing only required for ground water systems. State wide waiver for surface water systems in Maine
- (7) Fluoride - Fluoride levels must be maintained between 1 - 2 ppm for those systems that fluoridate the water
- (8) Copper/Lead action levels are measured at consumer's tap. 90% of tests must be equal to or below action level
- (9) Total Coliform Bacteria - Reported as the highest monthly number of positive samples, for water systems that take <40 samples per month.
- (10) 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
- (11) Gross Alpha - Action level over 5pCi/l requires testing for Radium. Action level over 15pCi/l requires testing for Uranium and Radon
- (12) Radon - The State of Maine currently recommends follow-up action (treatment) for radon levels in drinking water above 4,000pCi/L. EPA is considering setting a standard for radon in drinking water.
- (13) Uranium: The U.S. EPA adopted the new MCL standard of 30ug/L (ppb) in December 2000. Water systems must meet this new standard after December 2003.
- (14) Cryptosporidium, Giardia, Legionella - Surface Waters Only, Ground waters required to test or exempt before 1999.
- (15) Turbidity - Surface waters only; 1.49 NTU for Slow Sand or AFT
- 0.549 NTU for Conventional or Direct Filtration; 3.0 ntu for unfiltered surface water systems.
- (16) MTBE - State only MCL promulgated on 2/98.

All other regulated drinking water contaminants were below detection levels.