

# *2011 Annual Drinking Water Quality Report*

**Gray Water District**  
**PWSID#90620**  
**80 Shaker Road**  
**Gray, Maine**

We're pleased to present to you this year's Annual Water Quality Report. This report 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. Our water source is located at 80 Shaker Road. Our two gravel wells draw water from Libby Brook Aquifer. A Wellhead Protection Plan is available for your review in our office. Water treatment consists of sodium silicate for corrosion control with backup chlorination equipment to be used for disinfection if needed.

We're pleased to report that our drinking water is safe and meets federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact James Foster Superintendent at Phone 657-3500 or Fax 657-3277. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the third Monday of each month, 7:00 PM, at our 80 Shaker Road office.

**Gray Water District** routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, **2011**. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you understand these terms.

*Non-Detects (ND)* - laboratory analysis indicates that the constituent is not present.

*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.

*Parts per billion (ppb) or Micrograms per liter (ug/l)* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.

*Variances & Exemptions (V&E)* - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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

*Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Maximum Contaminant Level (MCL)* - The 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)* - The 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.

**The following contaminants were tested for:**

### **Microbiological**

#### **Contaminants**

1. Total Coliform Bacteria
2. Fecal coliform and *E.coli*
3. Turbidity

### **Radioactive**

#### **Contaminants**

4. Beta/photon emitters
5. Alpha emitters
6. Radon

### **Inorganic Contaminants**

7. Antimony
8. Arsenic
9. Asbestos
10. Barium
11. Beryllium
12. Cadmium
13. Chromium
14. Copper
15. Cyanide
16. Fluoride
17. Lead
18. Mercury (inorganic)
19. Nitrate (as Nitrogen)
20. Nitrite (as Nitrogen)
21. Selenium
22. Thallium

### **Synthetic Organic**

#### **Contaminants including Pesticides and Herbicides**

23. 2,4-D
24. 2,4,5-TP (Silvex)
25. Acrylamide
26. Alachlor
27. Atrazine
28. Benzo (a) pyrene (PAH)
29. Carbofuran
30. Chlordane
31. Dalapon
32. Di (2-ethylhexyl) adipate
33. Di (2-ethylhexyl) phthalate
34. Dibromochloropropane
35. Dinoseb
36. Diquat
37. Dioxin [2,3,7,8-TCDD]
38. Endothall
39. Endrin
40. Epichlorohydrin
41. Ethylene dibromide
42. Glyphosate
43. Heptachlor
44. Heptachlor epoxide
45. Hexachlorobenzene
46. Hexachlorocyclo-pentadiene
47. Lindane
48. Methoxychlor
49. Oxamyl [Vydate]
50. PCBs [Polychlorinated biphenyls]

51. Pentachlorophenol
52. Picloram
53. Simazine
54. Toxaphene

### **Volatile Organic Contaminants**

55. Benzene
56. Carbon tetrachloride
57. Chlorobenzene
58. O-Dichlorobenzene
59. P-Dichlorobenzene
60. 1,2 - Dichloroethane
61. 1,1 - Dichloroethylene
62. Cis-1, 2-Dichloroethylene
63. Trans - 1,2 -Dichloroethylene
64. Dichloromethane
65. 1,2-Dichloropropane
66. Ethylbenzene
- 66a. Methyl-Tertiary-Butyl-Ether (MTBE) (Maine MCL)
67. Styrene
68. Tetrachloroethylene
69. 1,2,4 -Trichlorobenzene
70. 1,1,1 - Trichloroethane
71. 1,1,2 -Trichloroethane
72. Trichloroethylene
73. TTHM [Total trihalomethanes]
74. Toluene
75. Vinyl Chloride
76. Xylen

**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, public water suppliers, and the DWP. For more information about the SWAP, please contact the DWP at 287-2070.

***The following contaminants were detected:***

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
1. Total Coliform Bacteria 2011	N	0 2 TEST/ MONTH		0	presence of coliform bacteria in 1 monthly sample	Naturally present in the environment
<b>Radioactive Contaminants</b>						
5. Alpha emitters 12/30/10	N	3.26	pCi/l	0	15	Erosion of natural deposits
6. Radon 10/19/07	N	1,640	pCi/l	N/A	4,000	Erosion of natural deposits
Uranium-238 12/29/11	N	4	ppb	0	30	Erosion of natural deposits
<b>Inorganic Contaminants</b>						
7. Antimony, Total 12/29/11	N	0.7	ppb	0	6	Discharge from petroleum refineries, fire retardants, ceramics, electronics, and solder.
8. Arsenic 12/29/11	N	1.5	ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
10. Barium 12/29/11	N	0.003	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium 12/29/11	N	1.4	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper 90 <sup>th</sup> percentile 1/1/08-12/31/10	N	0.51	ppm	1.3	AL=1.3	Corrosion of household plumbing systems. (see below)
17. Lead 90 <sup>th</sup> percentile 1/1/08-12/31/10	N	6.8	ppb	0	AL=15	Corrosion of household plumbing systems.
19. Nitrate (as Nitrogen) 12/29/11	N	2.4	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

*We constantly monitor the water supply for various constituents. **Radon:** There is no federal regulation for radon levels in drinking water. Exposure to air transmitted radon over a long period of time may have an increased risk of cancer. The State Drinking Water Program currently recommends treatment for radon levels above 4,000 pCi/L.*

**Violations:**

**Violation Period**

1/1/2011 - 12/31/2019 03

**Violation Type**

Violation - MONITORING, ROUTINE MAJOR ASBESTOS

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 meets health standards. During 2011, we did not test for, or failed to collect all necessary tests for Asbestos. We have since taken the required sample.

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. Gray 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 <http://www.epa.gov/safewater/lead>.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. 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.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-ten thousand chance of having the described health effect.

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 Safe Drinking Water Hotline (800-426-4791).

We at **Gray Water District** work to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Please call our office if you have questions.