City of Ellsworth Water Department
www.cityofellsworthme.org
Email: lwilson@cityofellsworthme.org

2008 Annual Drinking Water report

We are pleased to present to you this year's Annual Quality Water 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. This report shows our water quality and what it means

Our water source is Branch Lake, which is located entirely within the City of Ellsworth in Hancock County, Maine. The surface area of the lake contains about 3000 acres and receives the runoff from a drainage area of 30.6 square miles. The lake is naturally divided by narrows forming a northern basin and a southern basin. The southern basin has a maximum depth of 60 feet as compared to 124 feet in the northern basin. The surface area of the northern basin is about 2000 acres and the southern basin is about 1000 acres. The average time for a complete water change is 2.2 years.

Your water supply and distribution system includes over 25 miles of water main, 1300 services and provides fire protection service through 205 hydrants. In 2008 we produced and delivered over 163 million gallons of water to the distribution system. That is an average of 444,000 gallons per day. The system also maintains 1,500,000 gallons of water in its three standpipes. This storage allows us to meet peak system demands and maintain adequate supply during fire fighting activities. The Department currently injects four chemicals into its water; sodium hypochlorite ""Liquid Chlorine" for disinfecting; hydrofluosilicic acid to prevent tooth decay; caustic soda for pH and corrosion control; Gen Coag S7 coagulant in order to form larger particles that can't pass through the filters.

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 has

completed Source Water Assessment Program of Branch Lake Watershed. The evaluation did consider geology and hydrology, land uses, water-testing information, and the extent of land ownership or protection by local ordinance to determine how likely our drinking water source is to being contaminated in the future. The SWAP assessment factors indicate that overall susceptibility of the water quality in Branch Lake is low-moderate. This conclusion is based on the general conditions observed, including the density of development, conservation ownership in the watershed, relative absence of activities that handle chemicals in the watershed and historical and recent water quality data. For more information, contact the Drinking Water Program at 287-2070

If you have any questions about this report or concerning your water utility, please contact Lawrence Wilson Superintendent at 667-8632.We want our valued customers to be informed about their water utility. If you want to lean more, please attend any of our regularly scheduled meetings. They are held on first Tuesday of every month, 8:30 a.m. at Pumping Station Point, Shore Road.

Ellsworth Water Dept. 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 1St to December 31St, 2008**.** 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. To help you better understand these terms we've provided the following definitions:

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)

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.

Action Level (AL) - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which 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. Combined radium
6.a. Uranium
6.b. 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-Dichlorobenze
59. p-Dichlorobenzene
60. 1,2 - Dichloroethane
61. 1,1 - Dichloroethylene

2. cis-1,2-Dichloroethylene
63. trans - 1,2 - Dichloroethylene
64. Dichloromethane
65. 1,2-Dichloropropane

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]
73.a. HAA5 Total Haloacetic Acids)
74. Toluene
75. Vinyl Chloride
76. Xylenes

The following contaminants were detected:

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
1. Total Coliform Bacteria 4 samples per month	n	0		0	Presence of 1 coliform bacteria positive sample	Naturally present in the environment
3. Turbidity	n	.38	9/28/2008	TT	0.3 ntu	Filter Backwash and soil runoff
Inorganic Contaminants						
14. Copper	n	0.1	Ppm on 12/31/06	1.3	1.3	Corrosion of household plumbing systems.
16. Fluoride	n	1.6	Ppm on 12/29/2008		4	Water additive which promotes strong teeth.
17. Lead	n	0.008	Ppm on 12/31/2006	0	15	Corrosion of household plumbing systems.
Arsenic (2)	n	0.6	Ppb on 5/11/2005	0	10	Erosion of natural deposits. Runoff from orchards, glass and electronics production wastes.
Nitrate Nitrogen (5)		0.03	Ppm on 2/11/2008	10	10	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
Barium	n	.0015	Ppm on 5/11/2005	2	2	Discharge of drilling wastes. Discharge from metal refineries. Erosion of natural deposits.
Radionuclides						
Gross Alpha Screen (6)	n	0.17	PCi/1 on 2/14/2006	0	15	Erosion of natural deposits.
Radium 228	n	0.3	PCi/1 on 5/7/2002	0	5	Erosion of natural deposits.
Disinfectants and Disinfectants ByProducts						
Total Trihalomethanes (TTHM)	n	60 Ppb	Running Annual Average	0	80	By-product of drinking water chlorination
Total Haloacetic Acids (HAA5)	n	50 Ppb	Running Annual Average		60	By-product of drinking water chlorination

Note1 All other contaminants screened were below the minimum detection level.

BDL=Below Detection Level, ppm= part per million, ppb= part per billion, pCi/l=picocuries per liter

Turbidity: Our turbidity level of samples taken each month must be less than or equal to 0.3 NTU in at least 95 percent of measurements taken. In 2008 the samples taken were 100 percent below 0.3 NTU for conventional filtration.

Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

Lead: If present,elevated levels of lead can cause serious health problems, especially for pregnant women and young chidren. Lead in drinking wateris primarily from materials and components associated with service lines and home plumbing.Ellsworth Water Dept. 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, testin 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. These substances can be microbes, inorganic or organic chemicals and radioactive substances. 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.

The Ellsworth Water Dept. received a three-year waiver from the Drinking Water Program in 2007 exempting us from testing for Synthetic Organic Contaminants (SOC). The SOC Waiver consists of: Herbicide Screen, Pesticide Screen and Carbonate Pesticide Screen. This waiver was received after past testing for SOC and a survey of the water shed area was done.

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements

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 Ellsworth Water Dept. work around the clock to provide top quality water to every tap said Lawrence A. Wilson Superintendent. 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.