

EMERALD LAKE VILLAGE DISTRICT

WATER QUALITY REPORT – 2007

What is the water quality of my drinking water? The testing performed by the District, as required by the Environmental Protection Agency and the NH Department of Environmental Services, shows that during 2006 the water provided to our consumers exceeded the MCL for arsenic. A treatment system has been installed at the former Meeting House and is in operation for the removal of arsenic. The system has reduced arsenic level so we are currently meeting the standards for safe drinking water.

What is the source of my water? The water supplied by the District is from groundwater sources. It is pumped from seven bedrock wells. The water is pumped from the wells to a series of five atmospheric storage tanks. The water from well 4 and well 11 is treated to remove fluoride and arsenic. The remaining wells are untreated.

Why are contaminants in my water? Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the US Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

How can I get involved? The Emerald Lake Village District Commissioners meet on the first Friday of every month at the Hillsborough Court House on School Street. An annual election is held for officers. Warrant articles and budgets are voted on at the annual meeting. Meeting dates and times are posted on the bulletin board on the front of the former Meeting House.

Other information: The District has contracted Water System Operators, Inc. to provide trained and certified professional operators. Water System Operators, Inc. can be reached at 428-3525.

Do I need to take special precautions? 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).

Definitions:

MCLG: Maximum Contaminant Level Goal, or 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.

MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. They are set as close to

the MCLGs as feasible using the best available treatment technology.

AL: Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

TT: Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

MRDLG: Maximum residual disinfectant level goal or the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

MRDL: Maximum Residual Disinfectant Level or the highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

Abbreviations:

ppm: parts per million MFL: million fibers per liter pCi/L: pico curies per liter

ppb: parts per billion N/A: Not Applicable ppt: parts per trillion nd: not detectable at testing limits ppq: parts per quadrillion NTU: Nephelometric Turbidity Unit

Sample Dates: The results for detected contaminants listed below are from the most recent monitoring done in

compliance with regulations ending with the year 2006. The State of New Hampshire allows water systems to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Thus some of the data presented, though representative, may be more than one year old.

Radon: Radon is a radioactive gas that you can't see, taste or smell. It can move up through the ground and into a home through cracks and holes in the foundation. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. It is a known human carcinogen. Breathing radon can lead to lung cancer. Drinking water containing radon may cause an increased risk of stomach cancer. Presently EPA is reviewing a standard for radon in water.

DETECTED WATER QUALITY RESULTS						
Contaminant (Units)	Level Detected Violation Yes or No	MCL	MCLG	X	Likely Source of Contamination	Health Effects
Radioactive Contaminants						
Radon (pCi/L)	Range 150-1400 Average 725 Sampled 2002 – 2003 No	None	0	X	Erosion of natural deposits	Presently the US Environmental Protection Agency is reviewing the setting of a standard for radon in drinking water. See radon note above on page one of this report.
Compliance Gross Alpha (pCi/L)	Range Nd – 1.1 Average 0.41 Sampled 2005 No	15	0	X	Erosion of natural deposits	X
Uranium	Range nd – 7.6 Average 1.27	30				X

(ug/L)	Sampled 2005		0	X	Erosion of natural deposits	
	No					
Combined	Range nd – 1.6					X
Radium	Average 0.4	5	0	X	Erosion of natural deposits	
(pCi/L)	Sampled 2005					
	No					
Inorganic Contaminants						
Arsenic	Range nd – 1.21			X		Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
(ppm)	Average 0.12	10	0		Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	
	Sampled 2006					
	Yes					
Copper	90th percentile 0.15			X		X
(ppm)	Sampled 2006	AL=1.3	1.3		Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
	No					
	Range 0.46 – 3.2			X		X
	Average				Erosion of natural deposits;	

Fluoride (ppm)	2.2 Sampled 2006 No	4	4		water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	
Lead (ppb)	90th percentile = 3 Sampled 2006 No	AL=15	0	X	Corrosion of household plumbing systems, erosion of natural deposits	X
Nitrate (as Nitrogen) (ppm)	Range nd - 0.19 Average 0.04 Sampled 2006 No	10	10	X	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	X
Volatile Organic Contaminants						
Chlorine (ppm)	Range 0.21 – 0.41 Average 0.33 Sampled 2006 No	MRDL = 4	MRDL G = 4	X	Water additive used to control microbes	X
Methyl tertiary-	Range Nd – 2.1 Average			X		X

butyl ether (MTBE)	0.46				
(ppb)	Sampled 2006	13	13	A gasoline additive	
	No				

Description of Drinking Water Contaminants:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. 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, which 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, which 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The United States Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Source Water Assessment Summary:

The NH Department of Environmental Services has prepared a Source Water Assessment Report for the source(s) serving this community water system, assessing the sources' vulnerability to contamination. The results of the assessment, prepared during 2002, are as follows:

Well	High	Medium	Low
001	2	1	9
004	2	1	9
006	1	3	8
007	1	2	9
008	1	2	9
009	1	2	9
011	not rated		

The complete Assessment Report is available for review at Water System Operators, Inc. For more information call 603/428-3525

or visit NH Department of Environmental Services Drinking Water & Groundwater Bureau web site at WWW.DES.NH.GOV/DWGB

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