



Town of Enfield
Department of Public Works
Municipal Water Division
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2011 WATER QUALITY REPORT

This report describes The Town of Enfield's drinking water sources and quality, and programs that protect your water supply. This publication conforms to federal regulations that require water utilities to provide you this information annually. It will help us keep you informed about upcoming federal, state and local policies, regulations and guidelines. We are also affiliated with organizations such as the American Water Works Association, Granite State Rural Water Association and The New England Water Works Association, as well as the New Hampshire Water Works Association. These organizations support us by providing technical assistance and training, and represent our concerns regarding water quality issues to the U.S. Congress.

Your Drinking Water Sources

The Town of Enfield's water supply is provided by four bed rock wells, which are listed below. Groundwater is naturally filtered through soil; to this point no additional treatment has been required. The Enfield Water Department maintains disinfection equipment in the event of a microbiological contamination.

This chart lists the ground water sources utilized by the Town.

<u>Source</u>	<u>Capacity</u>	<u>Major Aquifer</u>
Prior I Well	65 gallons per minute	Lovejoy Brook
Prior II Well	30 gallons per minute	Lovejoy Brook
McConnell Well	125 gallons per minute	Lovejoy Brook
Marsh Well	40 gallons per minute	Moose Mountain

Protecting Source Waters

Your source water has passed many water quality parameters set by state and federal agencies, monitoring and protecting the lands surrounding wellfields and aquifers are important in sustaining high quality water for our community. The Water Department, with help from the EPA, NH Department of Environmental Services, Upper Valley Lake Sunapee Regional Planning Commission and Enfield Conservation Commission, has developed a comprehensive Wellhead Protection Area. This area encompasses approximately 1300 acres in Enfield and parts of Canaan to effectively protect our water and reduce the costs of sampling for some contaminants originating from petroleum and pesticide products.

Source Assessment Information

The State of New Hampshire WSEB has provided the town with source water assessment information. This assessment focuses on vulnerability and potential contamination sites (PCS) within the source protection area. We are obligated to provide copies of this information upon request. This information can be obtained at the Town Offices, or a map showing the location of the PCS's can be viewed at the Public Works Facility on Lockhaven Road.

Water Quality Testing

As operators our job is to provide this community with safe and pleasant drinking water 365 days a year. On a consistent water quality monitoring schedule, the Water Department collects samples from each source and sends them to the New Hampshire Department of Environmental Services Laboratory and other private independent labs to test for approximately 140 different potential contaminants as well as monthly Bacteria testing. Last year your tap water met all EPA and State drinking water health standards. The Water Department safeguards its water supplies. There were no bacterial violations in 2010.

MCLG	MCL	Prior 1	Prior 2	Marsh	McConnell	Source of Contaminant	Health Effects Language
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Inorganic Contaminants

Arsenic (ppb)	N/A	10	<0.005	—	<0.093	<0.005	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	(For arsenic levels above 5 ppb and up and including 10 ppb) While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.
Barium (ppm)	2	2	0.076	—	0.093	0.028	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Nitrate (mg/l)	10	10	<1.0	<1.0	<1.0	<1.0	Run-off from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and baby blue syndrome.

Radioactive Contaminants

*Radon	0	0	3500	2500	1100	2000	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation as photons and beta radiation.
**Radium 226	0	5	.16	.89	.08	.02	Naturally occurring	Exposure will increase the risk of cancer
**Radium 228	0	5	.38	1.99	.53	.00	Naturally occurring	Exposure will increase the risk of cancer
Lead (ppm)		.015	<.005	<.005	<.005	<.005		
Copper (mg/l)		1.3	<.5	<.10	<.5	<.5		

We conducted our 7th round of lead & copper testing and are pleased to report that none of our test sites exceeded any MCL

* Radon: EPA is in the process of setting a health standard for radon in public drinking water.

** Radium 226 & 228 not to exceed 5pCi/L

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

Maximum Contaminant Level: The highest level of a contaminant allowed in drinking water

Action Levels: Regulations set Action Levels for some contaminants, for example lead and copper. An Action Level is the concentration of a contaminant which triggers treatment or other requirements which a water system must follow.

Parts per million (ppm); part per billion (ppb): One Part per million is the equivalent of 1/2 of a dissolved aspirin tablet in a bathtub full of water (approximately 50 gallons). One part per billion is the equivalent to 1/2 of a dissolved aspirin tablet in 1,000 bathtubs of water (approximately 50,000 gallons).

Monitoring Waiver: The state requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. We have been granted a monitoring waiver by the NHDES for our synthetic organic chemicals.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment facilities, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. Copper was tested at ten representative sites throughout our distribution system, in addition to daycares and schools within the system. All results were less than the set McL.

Methyl Tertiary Butyl Ether (mtBe): The State of New Hampshire required all water systems to resample for this gasoline additive to maintain our monitoring waiver. All samples showed no detection of this contaminant. However, there are potential contaminant sites located within our wellhead protection areas.

Lead: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing, or the source line from the main to your home. If you are concerned about elevated lead levels in your home's water, flush your tap for 30 seconds to 2 minutes before using your tap water or you may wish to have your water tested. Call the EPA's Safe Drinking Water Hotline (1-800-426-4791) for more information. Your system was tested at ten representative sites, in addition to daycares and schools within the system, and all sites were below the set McL.

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.

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 from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection are available from the Safe Drinking Water Hotline (1-800-426-4791).

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. More information about contaminants can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 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.

Security: Water system security has increased throughout this country. As system operators it is our responsibility to maintain a protection program for our water supply. We have a computer monitoring system that has proven to be a great asset to this department. As the threat level increases, as set by the Department of Homeland Security, we increase our patrols of your water system. If you see any suspicious activity around the water supply area, please report it to this department immediately.

Thank You: To all the system users who help us do our job by restraining pets and keeping snow cleared during winter months, thank you, we appreciate it. We also appreciate your patience when doing our periodic hydrant flushing.

Enfield Water Works
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For More Information About:

Water Quality — call the U.S. Environmental Protection Agency's Safe Drinking Water Hotline 1 (800) 426-4791
State Drinking Water Quality — call New Hampshire Department of Environmental Services, Water Supply and
Engineering Bureau (603) 271- 3503
This Report, the Water Supply System, or Conservation —contact the Enfield Public Works Department 632-4605