2011 WATER QUALITY REPORT

Town of Derry , NH

Meadowbrook Community Water System

Is your water safe to drink? Absolutely!

Information about Our Drinking Water Testing in 2010

Prepared by:

The Derry Department of Public Works

Municipal Water Division

Dear Water Customer,

The Town of Derry is committed to providing water customers with high quality drinking water that meets or exceeds state and federal standards for quality and safety. We are pleased to report the results of our 2010 water testing to inform you about your drinking water.

Each year we report information about your drinking water quality specifically noting any contaminants detected in the water which exceeded state or federal water quality standards, their probable source, and their potential health effects.

In 2010 due to water quality issues including the presence of arsenic, Derry and Pennichuck Water Works extended municipal water to east Derry. The Town completed the interconnection in 2011 of the Meadowbrook System with the Municipal Core System. Next year you will received a copy of both the Core System and the Manchester Water Works Consumer Confidence Reports.

If you have any questions regarding this report or your drinking water in general, please contact the Department of Public Works at the Derry Municipal Center, 14 Manning Street, Derry, NH in person or by calling **603-432-6147.**

HEALTH EFFECTS INFORMATION

Health Information: To ensure tap water is safe to drink, the EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establishes limits for contaminants in bottled water.

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 mean that the water poses a health risk. More information about contaminants and their potential health effects can be obtained by calling EPA's safe drinking water hotline at 1-800-426-4791.

The sources of drinking water (both tap 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 radioactive material and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present include:

Biological Contaminants such as viruses and bacteria which may come from sewage treatment plants, private septic systems, agricultural livestock operations and wildlife.

Inorganic Contaminants such as salt and metals which can be naturally occurring or result from urban run-off, 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, storm-water run-off, and residential uses.

Organic chemicals including synthetic and volatile organics which are byproducts of industrial processes and petroleum production and can also come from gas stations, urban storm-water run-off and septic systems.

Radioactive materials which may be naturally occurring or be the result of oil and gas production and mining activities.

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 other homes in the community as a result of materials used in your homes plumbing. If you are concerned about lead levels in your home's water you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the safe drinking water hotline (1-800-426-4791)

Do I need to take special precautions? Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune disorders, some elderly, and infants con be particularly at risk for infections. These people should seeks advice about drinking water from their health provider. EPA/Center for Disease Control guidelines on appropriate means to lessen risk of infection by cryptosporidium are available from the Safe Drinking Water hotline at 1800-426-4791.

IMPORTANT REMINDER ABOUT CHLORAMINES

Manchester Water Works, Derry water supplier, uses chloramines to treat the water supply for disinfection. Chloramines make water safer and better tasting. Chloraminated tap water, which has been used in the U.S. for decades is safe for drinking, cooking, bathing and other daily uses. However, some customers will need to take special precautions.

FISH OWNERS Like chlorine, chloraminated water may cause both fresh and saltwater fish and other aquatic life to die, because water is taken directly into their bloodstream. Recommended precautions include: Treat chloraminated water **BEFORE** it is added to your tank, aquarium, pond or bowl. Carbon filters do not remove chloramines. Customers who use tap water for aquaculture (growing plants in a water tank or pond) are encouraged to get expert advice regarding whether and how to neutralize or remove chloramines. Restaurants and grocery stores with lobster tanks should take special precautions to treat the water. Chloraminating products and equipment for chlorine and ammonia removal can be found at most pet and aquarium retailers.

KIDNEY DIALYSIS PATIENTS Chloramines are harmful when they go directly into the bloodstream, just as chlorine in water would be toxic. They must be removed from water used in either hospital or home dialysis machines. Medical centers that perform dialysis are responsible for the removal of chloramines from water that enters the machines. Any dialysis equipment connected to the Derry water supply will require modifications to eliminate chloramines. Dialysis patients and people with questions or concerns should contact their physician or public health professional.

HOUSEHOLD CONCERNS Chloramines may cause some rubber or synthetic rubber materials in plumbing fixtures to degrade faster than normal. When replacing, ask for chloramines resistant parts at plumbing suppliers and hardware stores. Chloramines may also impact **BREWERIES AND BAKERIES** as yeast and enzymes may not survive.

The Derry Meadowbrook Community Water System is serviced by three groundwater supply bedrock wells located off Adams Pond Rd, a storage tank, a booster pump station, and 7,000 feet of plastic water lines. Chlorine is injected prior to distribution in order to maintain adequate disinfection. The system provides drinking water to 59 single family residential homes on Adams Pond Rd., Meadowbrook Rd., Berge Ln., Coventry Ln., Belmont Ter., and Blake Farm Rd

How can I get involved?

The Town of Derry invites its customers to become more involved with the Town's water quality efforts. The Derry Town Council, who act as the Water Commission, meet periodically to discuss issues that concern our customers. Council meetings are usually held on the first and third Tuesdays of each month at the Derry Municipal Center at 14 Manning Street. For more information you can call the Municipal Center or visit our website.

Town of Derry, NH
Derry Municipal Water Division
Department of Public Works
Derry Municipal Center
14 Manning Street
Derry, NH 03038
Phone: 603-432-6147
Fax: 603-432-6130

National Drinking water Compliance

This report was prepared using technical guidance provided by the American Water Works Association and the NH Department of Environmental Services and in the strict compliance with consumer confidence reporting guidelines adopted by the US Environmental Protection Agency.

Meadowbrook Water Quality Summary

The Table below lists the contaminants detected in Derry's Meadowbrook Community Water System in 2010. In Addition to those detected the Town tests your drinking water for over 100 additional contaminants such as pesticides, herbicides, radionuclides, MTBE etc. using both Town resources and local laboratories. **How to read this table:** This table shows the results of our water quality analyses. Every regulated contaminant that we detected in your water, even in the most minute traces, is listed here. The **table** contains the names of each contaminant, the highest level allowed by State and EPA regulations (MCL), the ideal goals for public health (MCLG), the amount detected, and the most common sources of the contaminant. Footnotes explaining our findings and a key to the units of measure are also included in this **table**. Definitions of MCL and MCLG are important

2010 WATER QUALITY RESULTS

Contaminant	Sample Year[3]	MCL	MCLG	Range of Detected Levels	Highest Detected Level	Major Sources of Contamination	Violation Yes or No
Inorganic Contaminants							
Lead (ppb)	2009	Action Level=15 [1]	0	No Detection to 5	5[1] (90th percentile)	Corrosion of household plumbing systems; Erosion of Natural Deposits.	No
Copper (ppm)	2009	Action Level=1.3 [2]	1.3	0.05 to 0.237	0.237 = (90th percentile)	Corrosion of household plumbing systems; Erosion of Natural Deposits; leaching from wood preservatives	No
Chlorine (ppm)	2010	4.0- MRDL	4.0- MRDL	0.14 to 0.67	0.67	Drinking water disinfection	No
Barium (ppm)	2010	2	2	0.013 to 0.014	0.014	Discharge of drilling wastes; Discharge from metal refineries; Erosion from natural deposits	No
Arsenic (ppb)	2010	0.01	0.01	0.011 to 0.015	0.015 [5]	Erosion of natural deposits. Stormwater runoff from orchards, glass and electronics wastes.	Yes
Fluoride (ppm)	2010	4	4	0.39 to 0.40	0.4	Erosion of natural depostis; Drining water additive to promote strong teeth.	No
Volatile Organic Contaminants							
TTHM's (Total Trihalomethanes)[7] (ppb)	2009	80	0	8.3	8.3	Byproduct of drinking water disinfection	No
Methyl tertiary Butyl Ether (MtBE) (ppb)	2010	13	0	0.5 to 0.6	0.6	Residual from gasoline spill or leakage	No
Radiological Contaminants							
Compliance Gross Alpha (pCi/l)	2006	5	0	<2.4 +/- 1.0 to 0.0+/-0.4	0.0 +/- 0.4	Decomposition of Natural deposits	No
Radium 226 (pCi/l)	2006	5	0	<0.05 +/- 0.2 to 0.5 +/- 0.1	0.5 +/- 0.1	Decomposition of Natural deposits	No
Radium 228 (pCi/l)	2006	5	0	<0.5+/-0.3 to 1.1 +/- 0.2	1.1 +/- 0.2	Decomposition of Natural deposits	No
Uranium -mass (ppb)	2006	30	0	<0.9 +/- 0.6 to 0.9 +/- 0.6	0.9 +/- 0.6	Decomposition of Natural deposits	No
Radon Gas (pCi/l)	2006	Not Regulated	Not Regulated	2000 to 3290	3290 [4]	Decomposition of Natural deposits	No
Inorganic Contaminants							
Chloride (ppm)	2010	Not Regulated	Not Regulated	38	38	Road Salt. Seawater trapped in sediments at time of deposition	No
Sodium (ppm)	2010	Not Regulated	Not Regulated	14.4 to 14.6	14.6	Road Salt. Seawater trapped in sediments at time of deposition. Also may occur in freshwater as a result of exchange of dissolved calcium	No
Calcium (ppm)	2010	Not Regulated	Not Regulated	55 to 55.6	55.6	Soils and Rocks containing limestones, dolomite and gypsom. Small amounts from igneous and metamorphic rocks.	No
Iron (ppm)	2010	Not Regulated	Not Regulated	0.032	0.042	Present in most soils and rocks.	No
Sulfate (ppm)	2010	Not Regulated	Not Regulated	25	25	Naturally present in the environment	No
Magnesium (ppm)	2010	Not Regulated	Not Regulated	7.7 to 7.9	7.9	Naturally present in the environment	No
Mangenese (ppm)	2010	Not Regulated	Not Regulated	0.088 to 0.089	0.089	Naturally present in the environment	No
Hardness (ppm CaCO3/L)	2010	Not Regulated	Not Regulated	No Range	169	Naturally present in the environment	No

HEALTH EFFECTS INFORMATION

No Contaminants exceeded the Maximum contaminant level (MCL).

For general health information refer to the back page of this report.

[4]**Radon Gas**: Presently the US Environmental Protection Agency is determining a standard for radon gas which is inhaled and has been linked to cancer. However, it is not clear at what level in your drinking water contributes to this health effect.

[5]**Arsenic**: The US Environmental Protection Agency has set an MCL of 10 ppb effective January of 2006. A system must have a rolling average for 4 quarters of 0.010 for a violation to be issued. USEPA's current standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. USEPA 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. 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.

[6] **Combined Radium (pCi/L):** Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

[7]**Total Trihalomethanes (TTHM) and Haloacetic Acids** are byproducts of disinfection process. They are created when chlorine and naturally occurring organic compounds come together. Some of these compounds are known or suspected carcinogens.

GENERAL NOTES

1 The maximum allowable limit for lead by EPA as measured in stagnant water is 15 ppb. Results represent 90th percentile.

2 The maximum allowable limit for copper by EPA standards in stagnant water is 1.3 ppm. Results represent 90th percentile.

3 The State of NH and EPA allow for water systems to monitor for contaminants noted less than once per year because the concentrations for these contaminants do not change frequently. Some of this data, though representative, is more than one year old.

KEY TO TABLE

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to MCLG's as feasible using the best available technology.

Maximum Contaminant Level Goal or MCLG: The highest level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow a margin of safety.

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

MRDL: Maximum residual disinfectant level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary to control microbial contaminants.

AL: Action level above which a treatment technique must be implemented.
NTU: Nephelometric Turbidity Units
pCi/l: Picocuries per liter (a measure of radioactivity)
ppm: parts per million or milligrams per liter (mg/l)
ppb: parts per billion or micrograms per liter (ug/l)
NR: Not regulated

SOURCE WATER ASSESSMENT SUMMARY

Source Information		Summary of Susceptibility Factors		
		Low	Med	High
Source Name and Description	BRW 2/N Located 300 ft ESE of PUMPHOUSE	9	0	3
Source Name and Description	BRW 3/N Located 305 ft ESE of PUMPHOUSE	10	0	2

Souce Water Assessments are prepared by the NH Department of Environmental Services and are conducted to identify potential contamination sources within the protection area of public water supply wells. This allows communities to developemnt and implement source water protection programs. The complete assessment report for the Meadowbrook system is available at the Derry Department of Public Works, For more information you may contact the DPW at 603-432-6144 or visit the NHDES website at
http://des.nh.gov/organization/divisions/water/dwgb/dwspp/reports/documents/derry.pdf

Tips to Conserve Water:

- Water in the early morning or evening on your scheduled day. If you sprinkle your lawn under the hot midday sun, you'll lose as much as 30% of your water to evaporation.
- Several short watering sessions are better than a single long one. Lawns can only absorb water so fast. Its better to water your lawn for three ten minute sessions-with each session an hour and a half apart-than it is to water steadily for 30 minutes and cause run-off.
- Better yet...Xeriscape®. Xeriscaping is water wise landscaping that stresses proper soil preparation, efficient irrigation, and the use of water stingy plants. For homeowners, it means less maintenance, lower water bills and a colorful decorative look. Contact your local greenhouse for more information.