2012 WATER QUALITY REPORT

Town of Derry , NH

Woodlands Community Water System

Is your water safe to drink? Absolutely!

Information about Our Drinking Water Testing in 2011

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. Herein is our report the results of our 2011 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.

As you know the Woodlands System incurred EPA/NHDES violations due to high levels of arsenic. While the well water containing the high arsenic levels has not entered the Woodlands water system, we are committed to resolving this issue. In 2012 we will be adding an addition to the pump house which will include a new water filtration system. This system will reduce the levels of arsenic well below EPA limits as well as further reduce the iron and manganese concentrations.

These improvements will all include a new emergency standby generator which will provide uninterrupted water service during power outages.

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 coa 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.

PROTECT YOUR WATER SUPPLY

PROPERLY DISPOSE OF HOUSEHOLD CHEMICALS

HOUSEHOLD HAZARDOUS WASTE

What do I do with leftover paint and chemicals?

For the residents of Derry and Londonderry

***Fall** 2012*
Nelson Field,
Londonderry, NH

***Spring** 2013*
West Running Brook School
Derry, NH

DO *NOT* THROW AWAY TOXIC PRODUCTS!

In the trash truck they cause fires. In the landfill they contaminate soil and groundwater.

***DO* BRING TOXICS SUCH AS:**

From the Yard	From the Garage	From the house	From the workbench
fertilizers with pesticides	acids	bathroom Cleaner disinfectants	brush Cleaner corrosives
fungicide	antifreeze	furniture polish	oil based paint/stain
insect spray	car waxes/polish	metal polish	rust preventative
lighter fluid	creosote	mothballs	solvents
pest strips/traps	driveway sealer	oven cleaner	thinner/turpentine
pesticides	flea powder	photo chemicals	wood preservatives
poisons	gasoline	rug cleaner	wood stripper
pool chemicals	radiator flush	roofing tar	thermometers

DO NOT BRING

Batteries of any kind, latex paints, explosives, ammunition, used oil, fluorescent bulbs, or radioactive and infectious wastes

Helpful Tips on Dealing with Toxic Products:

Follow and use the safety instructions on the label.
Give leftovers to friends and neighbors.
Keep the product in its original container and intact.
***Do not mix** toxic products!*
Use in a well ventilated area
Keep flammables away from heat, sparks and flames

For more information about hazardous waste in your home, visit:
http://www.des.state.nh.us/pdf/hmiyhome.pdf

The Derry Woodlands Community Water System is serviced by two groundwater supply bedrock wells located off Lester Lane, a storage tank, a water booster station, and 5,500 feet of plastic water lines. Chlorine is injected prior to distribution in order to maintain adequate disinfection. The system provides drinking water to 60 single family residential homes on Gervaise Dr., Lester Ln., Modean Dr., Long Ave., and Kelley Dr.

Please remember to restrict outdoor watering activities to the evening hours on your even or odd scheduled day.

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.

Woodlands Quality Summary

The Table below lists the contaminants detected in Derry's Woodlands Community Water System in 2011. 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 im-

2011 WATER QUALITY RESULTS

Contaminant	Sample Year[3]	MCL or MRDL	MCLG or MRDLG	Range of Detected Levels	Highest Detected Level	Major Sources of Contamination	Violation Yes or No
Regulated Contaminants							
Lead (ppb)	2009 [3]	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 [3]	Action Level=1.3 [2]	1.3	0.124 to 0.248	0.175 = (90th percentile)	Corrosion of household plumbing systems; Erosion of Natural Deposits; leaching from wood preservatives	No
Chlorine (ppm)	2011	4.0- MRDL	4.0- MRDL	0.03 to 0.46	0.46	Drinking water disinfection	No
Barium (ppm)	2011	2	2	0.029	0.029	Discharge of drilling wastes; Discharge from metal refineries; Erosion from natural deposits	No
Arsenic (ppb)	2011	0.01	0.01	0.006 to 0.020	0.020 [5]	Erosion of natural deposits. Stormwater runoff from orchards, glass and electronics wastes.	Yes
Fluoride (ppm)	2011	4	4	0.6	0.6	Erosion of natural depostis; Drining water additive to promote strong teeth.	No
Turbidity (NTU)	2011	TT	NA	0.7	0.7	Soil Runoff	No
Volatile Organic Contaminants							
TTHM's (Total Trihalomethanes)[7] (ppb)	2011	80	0	1.1 [7]	1.1 [7]	Byproduct of drinking water disinfection	No
Radiological Contaminants							
Radium 226 (pCi/l)	2006	5	0	<0.07+/-0.3 to 0.2 +/- 0.3	0.2 +/- 0.3	Decomposition of Natural deposits	No
Radium 228 (pCi/l)	2006	5	0	<0.5+/-0.2 to 0.9 +/- 0.3	0.9 +/- 0.3	Decomposition of Natural deposits	No
Combined Radium 226/228 (pCi/l)	2006	5	0	0.5 +/- 0.4 to 0.9 +/- 0.6 [6]	0.9 +/- 0.6 [6]	Decomposition of Natural deposits	No
Analytical Gross Alpha (pCi/l)	2006	5	0	<2.6 +/- 1.1 to 1.5 +/- 0.4 [6]	1.5 +/- 0.4	Decomposition of Natural deposits	No
Compliance Gross Alpha (pCi/l)	2006	5	0	<2.6 +/- 1.1 to 1.3 +/- 0.4	1.3 +/- 0.4	Decomposition of Natural deposits	No
Uranium -mass (ppb)	2006	30	0	<0.9 +/- 0.6 to 0.9 +/- 0.5	0.9 +/- 0.5	Decomposition of Natural deposits	No
Radon Gas (pCi/l)	2006	Not Regulated	Not Regulated	1910 to 2150	2150 [4]	Decomposition of Natural deposits	No
Inorganic Contaminants							
Chloride (ppm)	2011	Not Regulated	Not Regulated	68	68	Road Salt. Seawater trapped in sediments at time of deposition	No
Calcium (ppm)	2011	Not Regulated	Not Regulated	47.8 to 50.7	50.7	Soils and Rocks containing limestones, dolomite and gypsom. Small amounts from igneous and metamorphic rocks.	No
Sodium (ppm)	2010 [3]	Not Regulated	Not Regulated	16.6 to 18[8]	188	Road Salt. Seawater trapped in sediments at time of deposition. Also may occur in freshwater as a result of exchange of dissolved calcium and magnesium for sodium in aquifer materials.	No
Iron (ppm)	2011	Not Regulated	Not Regulated	0.056 to 0.193	0.193	Present in most soils and rocks.	No
Sulfate (ppm)	2011	Not Regulated	Not Regulated	18	18	Naturally present in the environment	No
Zinc (ppm)	2011	Not Regulated	Not Regulated	0.016	0.016	Naturally present in the environment	No
Manganese (ppm)	2011	Not Regulated	Not Regulated	0.068 to 0.229	0.229	Naturally present in the environment	No
Magnesium (ppm)	2011	Not Regulated	Not Regulated	7.4 to 7.9	7.9	Naturally present in the environment	No
Hardness (ppm CaCO3/L)	2011	Not Regulated	Not Regulated	153 to 159	159	Naturally present in the environment	No

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

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

SOURCE WATER ASSESSMENT SUMMARY

Source Information		Summary of Susceptibility Factors		
		Low	Med	High
Source Name and Description	BRW 1 Located 110 ft SW of PUMPHOUSE	10	0	2
Source Name and Description	BRW 2 Located 150 ft W of PUMPHOUSE	10	1	1

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 Woodlands 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 h**ttp://des.nh.gov/organization/divisions/water/dwgb/dwspp/reports/documents/derry.pdf**

HEALTH EFFECTS INFORMATION

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

[1] **Lead:** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is from primarily materials and components associated with service lines and home plumbing. The Derry Water system is responsible for high quality drinking water , but can not control the variety of materials used in your 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 levels in your home's water you may wish to have your water tested. Additional information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the USEPA Safe Drinking Water hotline (1-800-426-4791)

[4]**Radon**: A radioactive gas that you can not 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 know human carcinogen. Breathing radon can lead to lung cancer. Drinking water containing radon may cause an increased risk of stomach cancer.

[5] **Arsenic:** 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 (HAA)** 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.

[8] **Sodium**: Sodium sensitive individuals such as those experiencing hypertension, kidney failure, or congestive heart failure, who drink water containing sodium should be aware of levels where exposures are carefully controlled.

ARSENIC VIOLATIONS: As you are aware the Woodlands system incurred MCL violations during each of the last 3 monitoring quarters of 2011 for arsenic concentrations above the EPA limit of 0.010 mg/l.

These high arsenic levels have only been detected in our back-up well no. 2 which has been out of service since excessive arsenic levels were first detected in April of 2011.

The Town is in the process of designing a water treatment system that will reduce arsenic levels below the MCL as well as reduce iron and manganese concentrations thereby greatly improving the Woodlands water quality. This work is expected to be completed by the end of 2012. Until then we will keep the well no. 2 out of service.

See the health effects information on this page relative to arsenic.