

**ANNUAL
NEWMARKET
WATER QUALITY
REPORT
2008**



**Department of Public Works
Water Division
186 Main Street
Newmarket, NH 03857**

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

Radon is a radioactive gas that you can't see, taste, or smell, and is found all over the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the homes through tap water will, in most cases, be a small source of radon in indoor air. Radon is a known carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in the home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 peico-curies per liter of air or higher. There are simple ways to fix a radon problem that aren't costly. For additional information, call your State Radon Program or call the **EPA's Radon Hotline (1-800-SOS-RADON)**

Microbiological Contaminants

Table of Contaminants	MCLG	MCL	Units	Violation Y / N	Sewell Well	Bennett Well	Likely Source of Contaminant
Total Coliform	0	>40 samples 5% are positive	mg/L	N	0	0	Naturally present in the environment.
E.coli	0	0	mg/L	N	0	0	Human and animal fecal waste.
Total Organic Carbon	N/A	TT	ppm	N	1.54 (avg.) Range {.56-3.1}	1.71 (avg.) Range {.73-2.5}	Naturally present in the environment

Radioactive Contaminants

Radon	0	None	(pCi/L)	N	1200 (10/28/03)	1500 (10/28/03)	Erosions of natural deposits
Compliance Gross Alpha	0	15	(pCi/L)	N	0 (10/28/03)	1 (10/28/03)	Erosions of natural deposits
Combined Radium	0	5	(pCi/L)	N	BDL (10/28/03)	.2 (10/28/03)	Erosions of natural deposits

Inorganic Contaminants							
Table of Contaminants	MCLG	MCL	Units	Violation Y / N	Sewell Well	Bennett Well	Source of Contaminant
Arsenic	0	10	ppb	N	.0017 11-14-06	.0011 11-14-06	Erosion of natural deposits: runoff from orchards: runoff from glass and electronics: solder
Barium	2	2	ppm	N	.0171 11-14-06	.0125 11-14-06	Discharge of drilling wastes: discharge from metal refineries: erosion of natural deposits
Copper	1.3	1.3	ppm	N	.026	.026	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	0	15	ppb	N	2	2	Corrosion of household plumbing systems; erosion of natural deposits.
Nitrate	10	10	ppm	N	2.3	1.5	Runoff from fertilizer use; leaching from septic tanks sewage; erosion of natural deposits
Volatile Organic Contaminants							
Table of Contaminants	MCLG	MCL	Units	Violation Y / N	Sewell Well Range Avg. (LOW-HIGH)	Bennett Well Range Avg. (LOW-HIGH)	Source of Contaminant
Chlorine	MLRDG = 4	MLRD = 4	ppm	N	.50 (.2-.6)	.50 (.2-.8)	Water additive used to control microbes
Haloacetic Acids	NA	60	ppb	N	ND	ND	By-product of drinking water disinfection
Methyl tertiary-butyl ether (MBTE)	13	13	ppb	N	.4 (.5-.6)	.5	A gasoline additive
1,1,1-Trichloroethane	200	200	ppb	N	.5	ND	Discharge from metal degreasing sites and other factories
TTHMs (Total Trihalomethanes) Take total of contaminates below: Dibromochloromethane Bromoform Dichlobromomethane Chloroform	NA	80	ppb	N	.88 ND ND ND (.5-.6)	ND ND ND ND	By-product of drinking water chlorination

TOWN OF NEWMARKET

WATER MANAGEMENT PROGRAM

<p>STAGE 1</p> <p>Voluntary Water Conservation</p> <p>The public is requested to refrain voluntarily from watering lawns and encouraged to conserve water in all practical ways.</p>	<p>STAGE 2</p> <p>Mandatory Odd/Even Outside Watering</p> <p>The public is required to restrict lawn watering to every other day based on address and calendar day.</p> <p style="text-align: center;">EXAMPLE</p> <p>Even address Even calendar day Odd address Odd calendar day</p>	<p>STAGE 3</p> <p>Mandatory Two-Day Restrictions on Lawn Watering by Address.</p> <p>Each address is restricted to two (2) days per week between the hours of 5-8 am and 6-9 pm on the following schedule.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Allowed Days</td> <td style="width: 50%;">Street Address</td> </tr> <tr> <td>Mon., Wed.</td> <td>Odd Number</td> </tr> <tr> <td>Tues., Thurs.</td> <td>Even Number</td> </tr> </table> <p style="text-align: center;">No washing driveways, sidewalks, autos., or boats.</p>	Allowed Days	Street Address	Mon., Wed.	Odd Number	Tues., Thurs.	Even Number	<p>STAGE 4</p> <p>Mandatory Outside Water Ban.</p> <p>The public is required to restrict the following.</p> <p style="text-align: center;"><u>NO OUTSIDE WATER USE</u></p>
Allowed Days	Street Address								
Mon., Wed.	Odd Number								
Tues., Thurs.	Even Number								
<p>Water Conservation Ordinance No. 2002-05 at Town Office</p>	<p>NOTICE</p> <p>Hand held hoses may be used for flower and vegetable gardens plus shrubbery without hour and day restrictions. (STAGE 2 and 3 ONLY)</p>		<p>For additional information on water saving ideas check these web sites.</p> <p style="text-align: center;"> www.awwa.org www.epa.gov www.des.state.nh.org www.waterwise.org </p>						
<p>How will you know what Stage is in affect?</p> <p>Stage in effect will be posted at locations entering town, on thee Town Hall marquee, Channel 13, the Town web site and in the local newspapers.</p>	<p>THANK YOU FOR YOUR COOPERATION</p>								
<p>Why Do We Need Stages?</p> <p>To ensure adequate pressure and fire Protection, storage tank must be 3/4 full. If this amount cannot be replenished during non-watering times, more restrictive measures will go into effect.</p>	<p>WATER SAVING TIPS</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ol style="list-style-type: none"> 1. Check your toilet. 2. Install water-saver shower heads or restrictors. 3. Check faucets and pipes for leaks. 4. Use your dishwasher only when full. 5. Use washing machine with full loads only. 6. Keep a bottle of drinking water in the refrigerator. </td> <td style="width: 50%; vertical-align: top;"> <ol style="list-style-type: none"> 7. Water your lawn only when it needs it. 8. Water during cool parts of the day. 9. Don't wash down driveways or gutters. 10. Plant drought-resistant trees and plants. 11. Use mulch around trees and plants. 12. Cover swimming pool to reduce evaporation. </td> </tr> </table>			<ol style="list-style-type: none"> 1. Check your toilet. 2. Install water-saver shower heads or restrictors. 3. Check faucets and pipes for leaks. 4. Use your dishwasher only when full. 5. Use washing machine with full loads only. 6. Keep a bottle of drinking water in the refrigerator. 	<ol style="list-style-type: none"> 7. Water your lawn only when it needs it. 8. Water during cool parts of the day. 9. Don't wash down driveways or gutters. 10. Plant drought-resistant trees and plants. 11. Use mulch around trees and plants. 12. Cover swimming pool to reduce evaporation. 				
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Are there any precautions the public should consider?

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, people 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 and appropriate means to reduce the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-462-4791).

Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Local water vigilantly safeguards its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

Where does my water come from?

Newmarket has two water supplies, ground water and surface water. The ground water source consist of two sand gravel wells. Sewell Well and Bennett Well are situated on the Newmarket Plains Aquifer. Newmarket's surface Water Treatment Plant is located on Packer Falls Road. The water treatment plant is currently offline for an indefinite period.

How can I get involved?

The Town of Newmarket is currently in a STAGE 2/ Mandatory Odd/Even Outside Watering and is encouraging its residents to conserve water. You can conserve water by taking shorter showers; Not leaving water running while washing dishes. Installing water saving devices (i.e.. shower heads, toilets), fix leaking faucets and toilets. Your assistance in conservation of our water supply will be greatly appreciated and assure an adequate supply and preserve the quality of our water during the dry period. If you have any questions you can reach our Operators Joel Drelick or Ben Trottier at (603) 659-3093.

Source Water Assessment Summary

The NH department of Environmental services has prepared a Source Water Assessment Report for the sources serving this community water system, assessing the sources' vulnerability to contamination. The results of the Assessment, prepared on Dates , are as follows:

002 Follet's Brook Raw/S 10/25/2001, received (0) high susceptibility ratings, (3) medium susceptibility ratings, and (8) low susceptibility ratings.

003 Lamprey River Raw/S 10/25/2001, received (2) high susceptibility ratings, (6) medium susceptibility ratings, and (3) low susceptibility ratings.

004 Piscassic River Raw/S 10/25/2001, received (2) high susceptibility ratings, (6) medium susceptibility ratings, and (3) low susceptibility ratings

006 Bennett Well/ G 6/9/2000, received (4) high susceptibility ratings, (3) medium susceptibility ratings, and (5) low susceptibility ratings.

007 Sewell Well/ G 2/25/2000, received (4) high susceptibility ratings, (2) medium susceptibility ratings, and (6) low susceptibility ratings.

The complete Assessment Report is available for review at the Water Treatment Plant. For more information call Sean Greig (603) 659-3093 or visit NH department of Environmental Services Drinking Water & Groundwater Bureau web site at www.des.nh.gov/dwgb

How can you improve the taste and odor in your water?

(1) Try flushing out your hot water tank of any sedimentation that might have built up in the bottom of your hot water tank.

(2) Fill a container of cold water and place it in your refrigerator, this should help dissipate the chlorine and odor problem.

(3) If you choose to add filters to your faucets, it is important that you change them on a regular basis. **You could grow bacteria in your filter if not changed regularly.**

Why are there contaminants in my drinking 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 indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (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 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. Microbial contaminants, such as viruses and bacteria, that 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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