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Town of Exeter-DPW
13 Newfields Road
Exeter, NH 03833

2016

Consumer Confidence Report

For the 2015 year Data

Exeter Water Department

NH PWS ID# 0801010

What is a Consumer Confidence Report?

The Consumer Confidence Report (CCR) details the quality of your drinking water, where it comes from, and where you can get more information. This annual report documents all detected primary and secondary drinking water parameters, and compares them to their respective standards known as Maximum Contaminant Levels (MCLs).

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 stormwater 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 US Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

EPA NH0801010

Water testing performed in 2015

Water & Sewer Department

Town of Exeter

How can I get involved?

You are invited to voice your concerns at any of the Water / Sewer Advisory Committee Meetings, usually held on the second Wednesday of every other month at 6:30 pm in the Nowak Room at 10 Front Street, or check the Town's web page or Chanel 22 for announcements.

For more information about your drinking water, please call the Primary Operator, Paul A. Roy, PE at 772 - 1346.

Violations and Other information:

The Violation for Total Trihalomethane (TTHM) level exceedence carried over from all 4 Quarters of 2015 into 2016. Several attempts, at reducing the contaminant, were unsuccessful. A Consultant has been hired to assist in making Surface Water Treatment Process evaluations and possible changes to the system.

Definitions

Ambient Groundwater Quality Standard or **AGQS**: The maximum concentration levels for contaminants in groundwater that are established under RSA 485-C, the Groundwater Protection Act.

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

Level I Assessment: A study of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.

Level II Assessment: A very detailed study of the water system to identify potential problems and determine, if possible, why an E.coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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

Maximum Contaminant Level Goal or **MCLG**: 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.

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

Maximum Residual Disinfectant Level Goal or **MRDLG**: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

Source Water Assessment Summary
DES prepared drinking water source assessment reports for all public water systems between 2000 and 2003 in an effort to assess the vulnerability of each of the state's public water supply sources. Included in the report is a map of each source water protection area, a list of potential and known contamination sources, and a summary of available protection options. The results of the assessment, prepared on October 28, 2002 and updated on August 8, 2006, are noted below.

- The Exeter River, three susceptibility factors were rated high, five were rated medium, and four were rated low.
- The Dearborn Reservoir (Water Works Pond), three susceptibility factors were rated high, three were rated medium, and seven were rated low.

- The Skinner Springs, two susceptibility factors were rated high, three were rated medium, and seven were rated low.
- The Lary Lane Well, two susceptibility factors were rated high, three were rated medium, and seven were rated low.

Note: This information is over five years old and includes information that was current at the time the report was completed. Therefore, some of the ratings might be different if updated to reflect current information. At the present time, DES has no plans to update this data.

The complete Assessment Report is available for review at the Public Works Office at 13 Newfields Road. For more information, call Michael Jeffers, Water / Sewer Managing Engineer at 772 - 6157 or visit the DES Drinking Water Source Assessment website at <http://des.nh.gov/organization/divisions/water/dwgb/dwsdpb/dwsap.htm>.

What is the source of my drinking water? *The sources of drinking water for the Town of Exeter are the Exeter River and Dearborn Reservoir (both surface water supplies and treated at the Water Treatment Facility on Portsmouth Avenue). Skinner Springs (added to Clarified Water at the Treatment Plant and filtered), and the Lary Lane Well (a ground water source), and the new Ground Water Treatment Plant (GWTP).*

The water is treated for color, turbidity, Iron, Manganese, corrosivity, and is disinfected with Chlorine.

Why are contaminants in my 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 Safe Drinking Water Hotline at 1-800-426-4791.

Turbidity: A measure of the cloudiness of the water. It is monitored by surface water systems because it is a good indicator of water quality and thus helps measure the effectiveness of the treatment process. High turbidity can hinder the effectiveness of disinfectants.

Abbreviations

BDL: Below Detection Limit
mg/L: milligrams per Liter
NA: Not Applicable
ND: Not Detectable at testing limits
NTU: Nephelometric Turbidity Unit
pCi/L: picoCurie per Liter
ppb: parts per billion
ppm: parts per million
RAA: Running Annual Average
TTHM: Total Trihalomethanes
UCMR: Unregulated Contaminant Monitoring Rule
ug/L: micrograms per Liter

Drinking Water Contaminants:

Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This 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 cold water from your tap for at least 30 seconds before using water for drinking or cooking. Do not use hot water for drinking and cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://water.epa.gov/drink/info/lead/index.cfm>

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 showing, 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.

DATA from 2015 and earlier

VIOLATIONS					Health Effects (Env-Dw 811.21)
VIOLATIONS	Date of violation	Explain violation	Length of violation	Action taken to resolve	
Public notice	January 2015	TTHM exceedence	Q1,Q2, Q3, Q4, 2015	Process Adjustments	
MCL	80µgl	RAA 82.1 to 117.9 µgl			Some people who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidney, or central nervous system, and may have an increased risk of cancer

DETECTED WATER QUALITY RESULTS					
Contaminant (Units)	Level Detected	MCL	MCLG	Violation YES/NO	Likely Source of Contamination
Microbiological Contaminants					
<u>E.coli</u> Bacteria	1 Present	< 40 samples >1 is positive	0	NO	<u>E.coli</u> is bacteria whose presence indicates that the water may be contaminated with human or animal waste. These wastes can cause short term effects such as diarrhea, cramps, headaches, or other symptoms . A detailed assessment concluded that the sample tap at the designated Sampling Location had become contaminated and was in dis-repair, necessitating its replacement with another nearby location that had a solid smooth-nose discharge. We did <u>not</u> violate the standard.
Total Organic Carbon (ppm)	1.7 to 3.3	TT	N/A	NO	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.
Turbidity (NTU)	.010 to .314	TT	N/A	NO	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.
Fecal Coliform, <i>E. coli</i> Bacteria	1 Present	0	0	NO	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely-compromised immune systems.

Radioactive Contaminants				
Compliance Gross Alpha (pCi/L)	0.6 (2015)	15	0	NO
Uranium (pCi/L)	0.3 to 0.4	30		NO
Combined Radium 226 + 228 (pCi/L)	0.3 (2015)	5	0	NO

Inorganic Contaminants				
Arsenic (ppb)				(above 10 ppb) 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.
LLW	9	RAA =10	0	(5 ppb through 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)	.009 (2015)	2	2	NO
Chlorine (ppm)	0.21 to 3.25	MRDL = 4	MRDLG = 4	NO
Copper (ppm)	0.023 to .360 (2013)	AL=1.3 90 th percentile = 0.120	1.3	NO

Fluoride (ppm)	0.13	4	4	NO	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children’s teeth, usually in children less than nine years old. Mottling also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
Lead (ppb)	0 to 28 (2013)	AL=15 90 th percentile = 1	0	NO	(15 ppb in more than 5%) 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. If you are concerned about elevated 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 (800-426-4791).
					(above 15 ppb) Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Revised Total Coliform Rule (RTCR) --- Assessments					
Required Assessments	Number of Assessments	Assessments Completed	Corrective Actions Required	Corrective Actions Completed	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms and were required to conduct assessments to identify and correct problems that were found during the assessments
Level 1	2	2	0	0	No problems identified -- Repeat samples were negative
Level 2	1	1	1	1	No major problems identified — We discovered the sample tap in disrepair and was replaced by a new, nearby location. Repeat samples were negative.

Volatile Organic Contaminants					
Haloacetic Acids (HAA) (ppb)	26.0 to 70.0	60	NA	NO	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Total Trihalomethanes (TTHM) (ppb)	50.0 to 194.2	80	N/A	YES	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. (Bromodichloromethane, Bromoform, Dibromomethane, Chloroform)