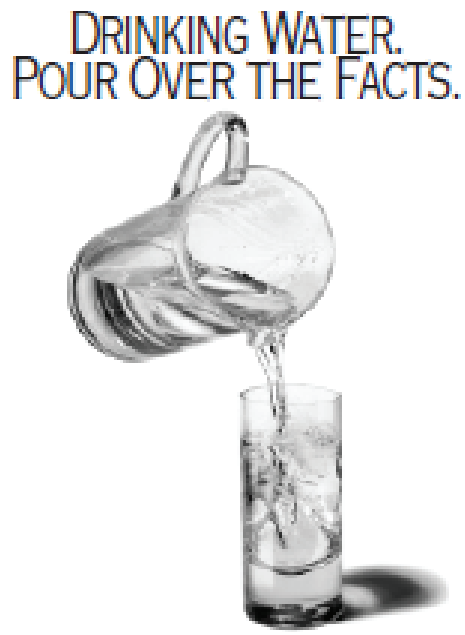


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# Water Quality Report for 2014

### Water Conservation Tips:

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your bill. Here are some suggestions:

**Inside your home:** (Conservation Kits are available by calling 773 - 6157)

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets, and appliances
- Wash only full loads of laundry
- Do not use the toilet for trash disposal
- Take shorter showers
- Do not let the water run while shaving or brushing teeth
- Soak dishes before washing
- Run the dishwasher only when full

### Outside your home:

- Water the lawn and garden in the early morning or evening
- Use mulch around plants and shrubs
- Repair leaks in faucets and hoses
- Use water-saving nozzles
- Use water from a bucket to wash your car, and save the hose for rinsing



# Town of Exeter Exeter Water Department

EPA#: NH 0801010

*Water testing performed in 2014*

### Is My Water Safe?

Yes, it is! We are pleased to inform our customers that the quality of the tap water currently meets the quality standards set by the state and federal regulations. Reporting Regulations changed in 2013 with 2014 being the first year when the new reporting procedure was enforced. Construction delays caused improvements at the Water Treatment Facility to be installed later than anticipated, which in turn, allowed excessive natural elements to pass through the treatment train, and when exposed to the Chlorine disinfectant, caused elevated Total Trihalomethane (TTHM) levels in the last two quarters of 2014. The arithmetic will also cause the first two quarters of 2015 to be in violation even though the current test numbers are below the maximum contaminant levels allowed.

This Annual Water Quality Report is written to keep you informed of the past year’s water quality results. The water is tested daily at the water treatment plant and weekly within the distribution system to ensure safe drinking water. Chlorine is regularly monitored in the system. Bacteria tests are done on a monthly basis. Within this report you will find a record of contaminants that were detected in the water. All water samples taken have shown that the water is safe to drink. In the past, there have been reportable levels of arsenic in Lary Lane well source. A new regulation went into effect in 2006 regarding arsenic and Lary Lane well water has been just over the limit. We have minimized the use of this source. A more detailed explanation of this concern is found within this report.

Improvements have been made in the process at the water treatment plant to correct some deficiencies. These improvements were necessary to meet existing regulations and allow the plant to meet current demand and also allow the facility to operate on a 24 hour basis.

Other process testing and adjustments are being made to evaluate whether further improvements can be made with minimal expenditures that result in improved water quality. At the same time, efforts are accomplishing reduced waste from normal process cleaning, reduced water losses from sampling stations, and greater attention to areas where recycling water can be achieved.

### Where Does My Water Come From?

The sources of drinking water supply in the Town of Exeter are the Exeter River, Dearborn Reservoir, Lary Lane Well and Skinner Springs. The Exeter River and Dearborn Reservoir are surface water supplies, and are treated at the water treatment plant on Portsmouth Avenue. These source waters go through a five-step process to become finished water. Skinner Springs is also filtered at the water treatment plant. Studies show that the existing sources provide ample supply to meet current and future demands. Lary Lane well is only being used on an emergency basis at this time.

Though the water supplies have been ample, there continues to be deficiencies and challenges with the treatment processes. The Water & Sewer and Public Works Departments continue to investigate solutions for the water treatment deficiencies. This investigation has included consideration of new groundwater sources. The goal is to provide the most cost efficient solution with the least impact to the consumer.

### Source Water Assessment Report

The New Hampshire Department of Environmental Services (NHDES) has prepared the 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 October 28, 2002, and last updated August 8, 2006, are as follows. The Dearborn Reservoir received three high susceptibility ratings, three medium susceptibility ratings, and six low susceptibility ratings. The Exeter River received three high susceptibility ratings, five medium susceptibility ratings, and four low susceptibility ratings. Lary Lane Well received two high susceptibility ratings, three medium susceptibility ratings, and seven low susceptibility ratings. Skinner Springs received two high susceptibility ratings, three medium susceptibility ratings, and seven low susceptibility ratings. The complete Source Water Assessment Report is available for inspection at the Exeter Water Treatment Plant or the NHDES Web site.

Please Note that this information is over 8 years old and includes information that was current at that time. Some ratings might be different if updated to reflect current information. Presently, the DES has no plans to update this data.

### Working Hard for You

Customer service is a priority of the Exeter Water Department. We take customer calls seriously, documenting complaints and analyzing causes for concerns. Residents are the “inspectors” for our system. We appreciate residents taking the time to make a call. If you have questions or concerns regarding water quality, or the treatment process, please call. The following names and numbers are available for contacts and information.

During 2013 the Exeter Water Department was recognized for Treatment Optimization above and beyond the State and Federal Surface Water Treatment Plant regulations. We are one of six utilities recognized for this achievement among the twenty-one surface water treatment plants in the State of New Hampshire.

### Please note the following numbers for more information:

Water/Sewer Department: Michael Jeffers — Water / Sewer Managing Engineer (603) 773 - 6157

Water Treatment Operations Supervisor / Primary Operator — Paul A. Roy, P.E. (603) 772 - 1346

24-Hour Emergency: Police Dispatch— (603) 772 - 1212

Town of Exeter Web site: [www.exeternh.gov](http://www.exeternh.gov)

New Hampshire Department of Environmental Services: [www.des.nh.gov](http://www.des.nh.gov)

*Refer to the Exeter Newsletter or Local TV for announcements regarding water system issues*

**2014 Consumer Confidence Report**

Like any responsible public water system, our mission is to deliver the best quality drinking water and reliable service at the lowest, appropriate cost. Aging infrastructure presents a challenge to drinking water safety, and continuous improvement is needed to maintain the quality of life we desire for today and for the future. In the coming year we anticipate beginning some major improvements to the Distribution System and a new Ground Water Treatment System to further improve the quality of our water. When considering the high value of water, it is truly a bargain to have a water service that protects the public health, fights fires, and supports businesses and the economy, and provides us with the high-quality life we enjoy.

This Consumer Confidence Report (CCR) details the quality of your drinking water. This report documents all detected Primary and Secondary Drinking Water Parameters and compares them to their respective Standards known as Maximum Contaminant Levels (MCLs).

**How can I get involved?**

You are invited to voice your concerns at any of the Water/Sewer Advisory Committee Meetings, usually held the second Wednesday of every other month. The Meetings are held in the Nowak Room which is on the second floor of the Town Office at 10 Front Street, at 6:30 PM, or check the Town’s Web Page or on Comcast Chanel 22 for the Meetings or announcements.

For more information about the Drinking Water, you can contact Paul A Roy, P.E., the Primary Operator for the Water System at (603) 772 - 1346

**Substances That Might Be in Drinking Water**

To ensure that tap water is safe to drink, the U.S. EPA regulates the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

**The sources of drinking water** (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoir, springs, and wells. As water travels over the surface of land or through the ground, it can acquire naturally occurring minerals, in some cases, radioactive material; and 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, or wildlife.

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may 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 which may also come from gas stations, urban storm water runoff, and septic systems.

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA’s Safe Drinking Water Hotline at (800) 426-4791.

**Arsenic Regulation**

Low levels of arsenic are naturally present in water about 2 parts of arsenic per billion parts of water (ppb). Thus, you normally take in small amounts of arsenic in the water you drink. Some areas of the country, such as New Hampshire, have unusually high natural levels of arsenic in rock, which can lead to high levels of arsenic in water.

A new limit for arsenic of 10 ppb became effective in 2006. The level of arsenic at Lary Lane Well has historically averaged 11 ppb, but has decreased with limited usage. 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. Exposure assumptions used to calculate Maximum Contaminant Levels include consuming two liters of water per day by a 154 lb adult for a 70-year exposure duration. It is not necessary to use alternate water; however, if you have specific health concerns, please contact your health care professional.

The Lary Lane Well is on a limited use schedule until the new Ground Water Treatment Plant on Lary Lane is in full operation, which is anticipated to be the early fall 2015.

**Lead in Drinking Water**

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 cannot 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 for drinking and cooking. Do not use hot water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure are available from the Safe Drinking Water Hotline or at <http://water.epa.gov/drink/info/lead/index.cfm>

**Violations and Exceedances**

**(TTHM’s) Total Trihalomethanes — Quarter 3 and Quarter 4—2014**

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 system, and may have an increased risk of getting cancer. New requirements for reporting the data as Locational Running Annual Average (LRAA) has caused our system to be in violation of the requirements and will also cause a violation for the first two quarters of 2015! In Quarter 3 of 2014, 3 locations exceeded the TTHM MCL with the LRAA results of 81.6, 93.5, and 97.5ppb In Quarter 4 of 2015, 2 locations exceeded the LRAA TTHM MCL with results of 90.2 and 96.2 ppb. Replacement equipment for our Process and the addition of new equipment in the Distribution system was unfortunately delayed until after the Quarter 3 and Quarter 4 Samples were taken. We have hired a Consultant to help with further Process and Distribution system refinements.



**Abbreviations**

ppm: parts per million  
ppb: parts per billion  
NA: Not Applicable  
ND: Non Detectable at testing limits  
NTU: Nephelometric Turbidity Units  
pCi/L: picocurie per Liter  
LRAA: Locational Running Annual Average  
RAA: Running Annual Average  
TT: Treatment Technique  
MFL: Million Fibers per Liter

**Important Health Information**

Some people may be more vulnerable to contaminants in drinking water than the general population. People with health issues, 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Center for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800)



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Construction

| Regulated Substances                     | Year Sampled | Violation       | MCL               | MCL Goal | Average Amount Detected | Range         | Units of Measure | Typical Source   |
|--|--------------|-----------------|-------------------|----------|-------------------------|---------------|------------------|--|
| Barium                                   | 2005         | NO              | 2                 | 2        | 0.012                   | 0 to 0.3      | ppm              | Erosion of natural deposits  |
| Arsenic <sup>1</sup><br>(Lary Lane Well) | 2014         | NO              | 10                | 0        | RAA 10                  | 9 to 11       | ppb              | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes |
| (Compliance) Gross Alpha                 | 2005         | NO              | 15                | 0        | 3                       | 0 to 3        | pCi/L            | Erosion of natural deposits  |
| Combined Radium                          | 2005         | NO              | 5                 | 0        | 0.3                     | 0 to 0.3      | pCi/L            | Erosion of natural deposits  |
| Asbestos                                 | 2013         | NO              | 7                 | 7        | ND                      | 0             | MFL              | Decay of cement water mains  |
| TTHM<br>(Trihalomethanes)                | 2014         | Yes             | 80                | NA       | LRAA 84.3               | 31. to 156.5  | ppb              | By-product of drinking water chlorination  |
| HAA5<br>(Haloacetic Acids)               | 2014         | NO              | 60                | NA       | LRAA 44.2               | 27.8 to 70.7  | ppb              | By-product of drinking water chlorination  |
| Total Organic Carbon (TOC)               | 2014         | NO              | Removal ratio     | NA       | 2.68                    | 1.7 to 3.7    |                  | Naturally present in the environment<br>A ratio of less than 1 is a violation                          |
| (Compliance) Gross Alpha                 | 2005         | NO              | 15                | 0        | 2                       | 2             | pCi/L            | Erosion of natural deposits  |
| Combined Radium                          | 2005         | NO              | 5                 | 0        | 0.7                     | 0.7           | pCi/L            | Erosion of natural deposits  |
| Turbidity <sup>3</sup>                   | 2014         | NO <sup>4</sup> | TT                | NA       | .026                    | .010 to 0.093 | NTU              | Soil runoff  |
| Total Coliform Bacteria                  | 2014         | NO              | 0                 | 0        | 0                       | 0             |                  | Naturally present in the Environment and are indicators of potentially harmful bacteria                |
|  |              |                 |                   |          |                         |               |                  |  |
| Copper <sup>5</sup>                      | 2013         | NO              | Action Level= 1.3 | 1.3      | 0.120                   | 0             | ppm              | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead <sup>5</sup>                        | 2013         | NO              | Action Level= 15  | 0        | 0                       | 1             | ppb              | Corrosion of household plumbing systems; erosion of natural deposits;                                  |

Maximum Contaminant Level (MCL) The highest level of a contaminant that is allowed in drinking water

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

<sup>1</sup>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.

<sup>2</sup>The value reported under Amount Detected for Total Organic Carbon (TOC) is the lowest ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value greater than one indicates that the water system is in compliance with the TOC removal requirements.

<sup>3</sup>Turbidity is a measurement of the cloudiness of the water. Turbidity is monitored because it is a good indicator of the effectiveness of our filtration system. High turbidity can hinder the effectiveness of disinfection.

<sup>4</sup>Any measurement in excess of 1 is a violation unless otherwise approved by the state. Also, if more than 5% of any one month’s combined filter effluent samples are above the TT value of 0.3 NTU, this would constitute a TT (Treatment Technique) violation.

<sup>5</sup>Tap water samples were collected for lead and copper analyses from 30 homes throughout the service area. The next round of samples are due in 2016.

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