2023 Consumer Confidence Report

Laconia Water Works

PWS ID:1281010

Introduction

As a responsible public water system (PWS), our mission is to meet and exceed standards set by the State of New Hampshire and the United States EPA. Aging infrastructure presents challenges for maintaining safe quality drinking water and continuous improvements are necessary. In the past year, we have completed the installation of two new storage tank mixers at our Longbay tank and our Weirs tank as well as an inspection and cleaning of our Weirs tank. We continue to replace aging water mains on an annual basis. These investments along with on-going operation and maintenance costs are supported by water rates. When considering the high value placed on quality drinking water, it is truly a bargain to have water service that protects public health, fights fires, supports businesses and the economy, and ensures high-quality drinking water is always available at your tap.

What is a Consumer Confidence Report?

The Consumer Confidence Report (CCR) details the quality of your drinking water, where it comes from, and how to get more information. This annual report documents all detected primary and secondary drinking water contaminants and 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, 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 per- and polyfluoroalkyl substances, 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.

To ensure that tap water is safe to drink, the EPA prescribes regulations which limit the number 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.

What is the source of my drinking water?

Consumers of the Laconia Water Department receive their drinking water from Paugus Bay which is a surface water source. The water is treated and filtered at our treatment facility located at 117 Stark Street. The chemicals used to ensure our safe drinking water are Sodium Hypochlorite (disinfection), Sodium Hydroxide (pH control), Aluminum Sulfate (coagulation), Sodium Fluoride (dental care), and Zinc Orthophosphate (corrosion control).

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.

Fluoridated Water System

Your public water supply is fluoridated. According to the Centers for Disease Control and Prevention (CDCP), if your child under the age of 6 months is exclusively consuming instant formula reconstituted with fluoridated water, there may be an increased chance of dental fluorosis. Consult your child's health care provider for more information.

All infant formulas, either concentrated or ready-to-feed, have some fluoride, but most infant formula manufacturers develop their products to ensure low levels of fluoride. A recent study by the American Dental Association (ADA) confirmed that fluoride concentrations in commercially available infant formulas are very low. It is not possible to remove this small amount of fluoride by filtering or boiling the formula; however, at normal consumption amounts, infant formula alone does not contain fluoride at levels that would be higher than the daily upper limit established by the Institute of Medicine. In liquid or powdered infant formula concentrate, most of the fluoride comes from the water used to mix the formula. Some parents may choose bottled water. To learn more, check out the FDA's website http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm203620.htm

Do I need to take special precautions?

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, persons 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 on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Source Water Assessment Summary

NHDES prepared drinking water source assessment reports for all public water systems between 2000 and 2003 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 which we inspect on a tri annual basis, and a High-Medium-Low susceptibility rating for our raw water source. The ratings were low = 5, and high = 3. The three high susceptibility areas were two for MTBE detection (recreational watercraft within our wellhead protection area) and roadways within 1,000 feet of our intakes (the possibility of accidental spills). It should be noted that all our MTBE test results for the past 14 years were below detection limits. The main purpose of this report is to show us what vulnerabilities are within our source waters and what we can do to minimize them. Being that the report is extensive, we will keep a record of it at our business office at 988 Union Avenue for customers to look over as well as on the NHDES website.
Note: Due to the time when the assessments were completed, some of the ratings might be different if updated to reflect current information.

How can I get involved?

The Laconia Water Department's Board of Water Commissioners generally meet each 1st and 3rd Monday of each month at 6:00 PM at the Water Treatment Facility located at 117 Stark Street. These meetings are open to the public.

For more information about Laconia's drinking water, please call Benjamin Crawford, Superintendent, at 524-0901 or Eric Messier, Water Quality Control Supervisor at 524-1096.

Violations and Other information:

The Laconia Water Works has had no violations.

Definitions

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

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.

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 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 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 at 1-800-426-4791 or at US EPA Basic Information about Lead in Drinking Water

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

Recognition

We wanted to take a moment to recognize all the personnel and certified operators that come together and give their full efforts each day to ensure we all have clean, safe, and reliable drinking water when we open our faucets. A sincere thank you to the following. *Joanie B, Vinnie B, Adam B, Wendy B, Jeffrey C, Benjamin C, Cheryl C, Drew M, Jason M, Stacey P, Raymond S, Nick S, Clay S, Seth S, Don W, Chris W, & Eric M.* Your efforts and contributions are greatly appreciated, and we are fortunate to have you on the team. The pride that you all take in your work is what this business is all about. You all hold yourselves accountable and to the highest standards.

Laconia
CITY ON THE LAKES
NEW HAMPSHIRE

System Name: Laconia Water Works PWS ID: 1281010
2023 Report (2022) Data

LEAD AND COPPER							
Contaminant (Units)	**Action Level (AL)**	**90th percentile sample value ***	**Date**	**# of sites above AL**	**Violation Yes/No**	**Likely Source of Contamination**	**Health Effects of Contaminant**
Copper (ppm)	1.3	0.0046	08/18/2022	0	NO	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper more than the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper more than the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Lead (ppb)	15	11	09/10/2020	0	NO	Corrosion of household plumbing systems, erosion of natural deposits	(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 because 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 more than 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.

DETECTED WATER QUALITY RESULTS							
Microbiological Contaminants							
Contaminant (Units)	**Level Detected***	**Date**	**MCL**	**MCLG**	**Violation YES/NO**	**Likely Source of Contamination**	**Health Effects of Contaminant**
Total Organic Carbon (ppm)	1.72 (RAA)	2022	TT	N/A	NO	Naturally present in the environment	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 more than 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.
Finished Water Turbidity (NTU)	0.075 (RAA)	2022	TT	N/A	NO	Soil runoff	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.
Inorganic Contaminants							
Contaminant (Units)	**Level Detected***	**Date**	**MCL**	**MCLG**	**Violation YES/NO**	**Likely Source of Contamination**	**Health Effects of Contaminant**
Barium (ppm)	0.0047	2022	2.0	2.0	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium more than the MCL over many years could experience an increase in their blood pressure.
Contaminant (Units)	**Level Detected***	**Date**	**MCL**	**MCLG**	**Violation YES/NO**	**Likely Source of Contamination**	**Health Effects of Contaminant**
Distribution System Chlorine (ppm)	.327 (RAA)	2022	MRDL= 4	MRDLG= 4	NO	Water additive that is used to control microbes.	Some people who use water containing chlorine more than the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine more than the MRDL could experience stomach discomfort.
Fluoride (ppm)	0.66	2022	4.0	4.0	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride more than 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.

Volatile Organic Contaminants							
Contaminant (Units)	**Level Detected***	**Date**	**MCL**	**MCLG**	**Violation YES/NO**	**Likely Source of Contamination**	**Health Effects of Contaminant**
Haloacetic Acids (HAA) (ppb)	14.60 (RAA) Range: 9.8-21	2022	60	N/A	NO	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Contaminant (Units)	**Level Detected***	**Date**	**MCL**	**MCLG**	**Violation YES/NO**	**Likely Source of Contamination**	**Health Effects of Contaminant**
Total Trihalomethanes (TTHM) (Bromodichloro-methane Bromoform Dibromochloro-methane Chloroform) (ppb)	48.03 (RAA) Range: 24.77-73.9	2022	80	N/A	NO	By-product of drinking water chlorination	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.

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) CONTAMINANTS							
Contaminant (Units)	**Level Detected ***	**Date**	**MCL**	**MCLG**	**Violation YES/NO**	**Likely Source of Contamination**	**Health Effects of Contaminant**
Perfluorohexane sulfonic acid (PFHxS) (ppt)	ND	2021	18	0	NO	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems	Some people who drink water containing perfluorohexane sulfonic acid (PFHxS) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, or may experience increased cholesterol levels. It may also lower a women's chance of getting pregnant.
Perfluorononanoic acid (PFNA) (ppt)	ND	2021	11	0	NO	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems	Some people who drink water containing perfluorononanoic acid (PFNA) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, or may experience increased cholesterol levels.

Contaminant (Units)	Level Detected *	Date	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Perfluorooctane sulfonic acid (PFOS) (ppt)	ND	2021	15	0	NO	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems	Some people who drink water containing perfluorooctane sulfonic acid (PFOS) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, may experience increased cholesterol levels, and may have an increased risk of getting certain types of cancer. It may also lower a women's chance of getting pregnant.
Perfluorooctanoic acid (PFOA) (ppt)	ND	2021	12	0	NO	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems	Some people who drink water containing perfluorooctanoic acid (PFOA) in excess of the MCL over many years could experience problems with their liver, endocrine system, or immune system, may experience increased cholesterol levels, and may have an increased risk of getting certain types of cancer. It may also lower a women's chance of getting pregnant.

SECONDARY CONTAMINANTS							
Secondary MCLs (SMCL)	**Level Detected**	**Date**	**Treatment technique (If any)**	**SMCL**	**50 % AGQS (Ambient groundwater quality standard)**	**AGQS (Ambient groundwater quality standard)**	**Specific contaminant criteria and reason for monitoring**
Chloride (ppm)	23	2022	N/A	250	N/A	N/A	Wastewater, road salt, water softeners, corrosion
Fluoride (ppm)	0.66	2022	N/A	2	2	4	*Add Health effects language from Env-Dw 806.11 or attach public notice to CCR*
PH (ppm)	7.30	2022	N/A	6.5-8.5	N/A	N/A	Precipitation and geology
Sodium (ppm)	17	2022	N/A	100-250	N/A	N/A	We are required to regularly sample for sodium
Sulfate (ppm)	5.9	2022	N/A	250	250	500	Naturally occurring
Zinc (ppm)	0.19	2022	N/A	5	N/A	N/A	Galvanized pipes