

# 2022 Consumer Confidence Report

## Emerald Lake Village District

PWS ID# 1141020

### Introduction

Like any responsible public water system, our mission is to help our NH communities maintain public health through drinking water supply. We do this by tailoring and carrying out preventative maintenance checks and services to the individual water system to ensure a strong and reliable water supply system. We adhere to the EPA and NH DES regulations and master sampling schedule to continuously monitor water quality and ensure the water being delivered to your home is safe for consumption.

Aging infrastructure presents challenges 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 past year, we have begun/completed leak detection and multiple repairs throughout distribution, as well as replace pump in well 7. We have installed meter pits, installed a new PLC, HMI, replaced a sensor for the tank, and replaced modules. In the coming year we intend to continue our investigation into the leaks that may be surfacing and monitoring distribution.

These investments along with on-going operation and maintenance costs are vital to the system integrity and ability to deliver clean, safe, and reliable drinking water to your home. When considering the high value, we place on water, it is truly a bargain to have water service that protects public health, fights fires, supports businesses and the economy, and provides us with the high-quality of life we enjoy.

### What is a Consumer Confidence Report?

The Consumer Confidence Report (CCR) de-

tails 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 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 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.

### What is the source of my drinking water?

Your communities water source comes from 8 Bedrock Wells, 1 water treatment plant, 1 water storage tank, 4 underground meter pits and 13 miles of water mains. The system supplies water to approximately 540 homes with an average population of 1,300.

BRW 1/Hummingbird Lane

BRW 6/7/8/9/11 Patten Hill

BRW 4/Meetinghouse- 50' S of PH

Mary Rowe Well – 220' NE of PH

In addition, due to high water use, drought, leaks(s), we had to purchase bulk water throughout the summer into the beginning of winter.

**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.

**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

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

NOW IT COMES WITH A  
LIST OF INGREDIENTS.



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. N/A

Note: This information is over UKN 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 DES Drinking Water Source Assessment website at <http://des.nh.gov/organization/divisions/water/dwgb/dwspp/dwsap.htm>.

### How can I get involved?

For more information about your drinking water, please call Emerald Lake Village District at 603-464-3128 email [info@elvdnh.com](mailto:info@elvdnh.com) or Aquamen Water Solutions LLC at 603-397-7814 email [info@aquamenwatersolutions.com](mailto:info@aquamenwatersolutions.com)

Although we do not have specific dates for public participation events or meetings, feel free to contact us with any questions you may have.

### Violations and Other information:

07/10/21 Arsenic Monitoring

10/01/21 Arsenic Monitoring

10/20/21 Failure to collect sample, Sample completed 11/20/21

### Definitions:

**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.

### 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

*If Lead is present the following statement must be included.*

### 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 or at <http://water.epa.gov/drink/info/lead/index.cfm>

System Name: Emerald Lake Village District PWS ID: 1141020

## 2022 Report (2021 data)

<b>BULK WATER DELIVERIES</b>				
<b>Bulk Water Source</b>	<b>Dates of Water Delivery</b>	<b>Gallons Delivered</b>	<b>Reason for Delivery</b>	
1471010	2/4/21	24,000	Source demand trouble	
1471010	2/5/21	18,000	Source demand trouble	
1471010	2/8/21	18,000	Source demand trouble	
1471010, 1141010	2/10/21	30,000	Source demand trouble	
1471010, 1141010	3/4/21	30,000	Source demand trouble	
1471010, 1141010	6/2/21	30,000	Source demand trouble	
1471010, 1141010	6/3/21	24,000	Source demand trouble	
1471010, 1141010	6/17/21	30,000	Source demand trouble	
1471010, 1141010	6/24/21	30,000	Source demand trouble	
1471010, 1141010	7/1/21	30,000	Source demand trouble	
1471010, 1141010	7/8/21	54,000	Source demand trouble	
1471010, 1141010	7/15/21	60,000	Source demand trouble	
1471010, 1141010	7/20/21	36,000	Source demand trouble	
1471010, 1141010	7/27/21	30,000	Source demand trouble	

If a drinking water public notice, MCL, Monitoring/Reporting, or treatment technique violation has occurred, the following table should be used to explain the violation and health effects:

<b>VIOLATIONS</b>					
<b>VIOLATIONS</b>	<b>Date of violation</b>	<b>Explain violation</b>	<b>Length of violation</b>	<b>Action taken to resolve</b>	<b>Health Effects (Env-Dw 804-810)</b>
Public notice					N/A
Monitoring and Reporting (M/R)	7/10/21	Arsenic sampling		Monitoring	N/A
	10/01/21	Arsenic sampling		Monitoring	
	10/20/21	Failure to collect routine sample		Sampled	
	11/20/21	Report Failure		Reported	
MCL					<i>Insert health effects language for contaminant from Env-Dw 804-810</i>

\*The value must be reported as whole number, see Env-Dw 811, Appendix B for conversions:

### LEAD AND COPPER

Contaminant (Units)	Action Level	90 <sup>th</sup> percentile sample value *	Date	# of sites above AL	Violation Yes/No	Likely Source of Contamination	Health Effects of Contaminant
Copper (ppm)	1.3	0.405	8/25/21		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 in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of 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	0.001	8/25/21		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 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.

\*If applicable report average and range and date sampled if prior to the reporting year. Level detected must be reported as whole number, see Env-Dw 811, Appendix B for conversions:

Inorganic Contaminants						
Arsenic (ppb)	(H) 4 (1/23/21) (H) 4 (4/18/21) (H) 4 (7/15/21) (H) 4.1 (10/14/21)  (PH) 6 (1/23/21) (PH) 5 (4/18/21) (PH) 1 (10/15/21)  (MH) 1 (1/23/21) (MH) 1 (4/18/21) (MH) 1 (7/15/21) (MH) 1 (10/14/21)	10	0		Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	(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.  (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.
Fluoride (ppm)	(MH) 4.1 (4/16/21) (MH) 3.6 (7/14/21) (MH) 2.9 (10/13/21)	4	4		Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	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.
Nitrate (as Nitrogen) (ppm)	(H) 1 (10/13/21)  (PH) 1 (10/13/21)	10	10		Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	(5 ppm through 10ppm) Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.  (Above 10 ppm) Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Nitrite (Nitrogen)(ppm)	(MH) 0.01 (10/13/21)	1	1		Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill, and if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

**Volatile Organic Contaminants**

Benzene (ppb)	(H) < 0.5 (10/20/21)  (PH) < 0.5 (10/20/21)  (MH) < 0.5 (10/18/21)	5	0		Discharge from factories; leaching from gas storage tanks and landfills	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
o-Dichloro-1,2 benzene (ppb)    1,3	(H) < 0.5 (10/20/21)  (PH) < 0.5 (10/20/21)  (MH) < 0.5 (10/18/21)  (H) < 0.5 (10/20/21)  (PH) < 0.5 (10/20/21)  (MH) < 0.5 (10/18/21)	600	600		Discharge from industrial chemical factories	Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.
p-Dichloro-benzene 1	(H) < 0.5 (10/20/21)  (PH) < 0.5 (10/20/21)  (MH) < 0.5 (10/18/21)	75	75		Discharge from industrial chemical factories	Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.
1,2-Dichloro-ethane (ppb)    1,1	(H) < 0.5 (10/0/21)  (PH) < 0.5 (10/20/21)  (MH) < 0.5 (10/18/21)  (H) < 0.5 (10/20/21)	5	0		Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.

	(PH) <0.5 (10/20/21)  (MH) <0.5 (10/18/21)					
1,1-Dichloroethylene (ppb)	(H) <0.5 (10/0/21)  (PH) <0.5 (10/20/21)  (MH) <0.5 (10/18/21)	7	7		Discharge from industrial chemical factories	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
cis-1,2-Dichloroethylene (ppb)	(H) <0.5 (10/20/21)  (PH) <0.5 (10/20/21)	70	70		Discharge from industrial chemical factories	Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
Trans-1,2-Dichloroethylene (ppb)	(H) <0.5 (10/20/21)  (PH) <0.5 (10/20/21)	100	100		Discharge from industrial chemical factories	Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.
Ethylbenzene (ppb)	(H) <0.5 (10/20/21)  (PH) <0.5 (10/20/21)  (MH) <0.5 (10/18/21)	700	700		Discharge from petroleum factories	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.
Styrene (ppb)	(H) <0.8 (10/20/21)  (PH) <0.8 (10/20/21)  (MH) <0.8 (10/18/21)	100	100		Discharge from rubber and plastic factories; leaching from landfills	Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.
Tetrachloroethylene (ppb)	(H) <0.5 (10/20/21)	5	0		Discharge from factories and dry cleaners	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.

	(PH) <0.5 (10/20/21)  (MH) <0.5 (10/18/21)					
1,2,4-Trichlorobenzene (ppb)   1,2,3	(H) <0.8 (10/20/21)  (PH) <0.8 (10/20/21)  (MH) <0.8 (10/18/21)  (H) <0.8 (10/20/21)  (PH) <0.8 (10/20/21)  (MH) <0.8 (10/18/21)	70	70		Discharge from textile-finishing factories	Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.
1,1,1-Trichloroethane (ppb)	(H) <0.5 (10/20/21)  (PH) <0.5 (10/20/21)  (MH) <0.5 (10/18/21)	200	200		Discharge from metal degreasing sites and other factories	Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
1,1,2-Trichloroethane (ppb)	(H) <0.5 (10/20/21)  (PH) <0.5 (10/20/21)  (MH) <0.5 (10/18/21)	5	3		Discharge from industrial chemical factories	Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.
Trichloroethylene (ppb)	(H) <0.5 (10/20/21)  (PH) <0.5 (10/20/21)  (MH) <0.5	5	0		Discharge from metal degreasing sites and other factories	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.



	(10/18/21)					
Toluene (ppm)	(H) 0.0005 (10/20/21)  (PH) <0.0005 (10/20/21)  (MH) <0.0005 (10/18/21)	1	1		Discharge from petroleum factories	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
Vinyl Chloride (ppb)	(H) <0.9 (10/20/21)  (PH) <0.9 (10/20/21)  (MH) <0.9 (10/18/21)	2	0		Leaching from PVC piping; discharge from plastic factories	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.

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