

Consumer Confidence Report

Castle Reach

EPA # 2542140

2021

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).

NOW IT COMES WITH A LIST OF INGREDIENTS.



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, the EPA prescribes regulations which limit the amounts 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?

The source of the Castle Reach water supply is two wells located off Searles Road in Windham, NH. Bedrock well 1 is located 49' northwest of the pump house, is 885 feet deep and yield 19 gallons per minute. Bedrock well 2 is located 243' north of the pump house, is 825 feet deep and yields 19 gallons per minute. Treatment consists of caustic soda for corrosion control, potassium permanganate and MTM® filtration for reducing iron and manganese, and chlorine for disinfection. Average use is 7,000 gallons.

BULK WATER DELIVERIES in 2020

Source	Dates	Gallons	Reason
Manchester Water	6/19/20	18,000	High demand

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

Department of Environmental Service (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.

Source Name	Date	Low	Med	High
Bedrock Well # 1	3/01/06	9	2	1
Bedrock Well # 2	3/01/06	9	2	1

Note: This information is over 10 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. For more information, call *Matt Day* at 800-553-5191 or visit the DES Drinking Water Source Assessment website at <https://www.des.nh.gov/climate-and-sustainability/conservation-mitigation-and-restoration/source-water-protection/assessment>

How can I get involved?

For more information about your drinking water, please call our laboratory at 800-553-5191 or send an email to customer-service@pennichuck.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: We are pleased to announce there were no violations.

Health Effects

Arsenic: 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 cost 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.

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>

Sodium: Sodium sensitive individuals such as those experiencing hypertension, kidney failure, or congestive heart failure, who drink water containing sodium, should be aware of levels where exposures are being carefully controlled.

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.

Secondary Maximum Contaminant Level or SMCL:

They identify acceptable concentrations of contaminants which cause unpleasant tastes, odors, or colors in the water.

Abbreviations

NA: Not Applicable

ND: Not Detectable at testing limits

pCi/L: picoCurie per Liter

ppb: parts per billion

ppm: parts per million

ppt: parts per trillion

RAA: Running Annual Average

90th Percentile – Out of every 10 homes sampled, 9 were at or below this level

2020 Results

Inorganic Contaminants	Year Collected	Highest Detect	Range Detected	MCL	MCLG	Violation Yes/No	Typical Source of Contaminant
Arsenic (ppb)	2018	1.6	NA	10	0	No	Erosion of natural geological deposits; pesticide residue, industrial waste
Barium (ppm)	2018	0.0076	NA	2	2	No	Geological; oil/gas drilling, painting, industrial waste
Chromium (ppb)	2018	1.2	NA	100	100	No	Discharge from steel and pulp mills; erosion of natural deposits
Per- and Polyfluoroalkyl Substances (PFAS) Contaminants							
Perfluorooctanoic acid (PFOA) (ppt)	2020	11.2	14.2(2019)	12	0	No	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, runoff/leachate from landfills and septic systems
Disinfectants and Disinfection By-Products							
Chlorine (ppm)	Monthly 2020	Average 0.12	ND - 0.53	4-MRDL	4-MRDLG	No	Water additive used to control microbes
Total Trihalomethanes (ppb)	2020	52	46 - 60	80	0	No	By-product of drinking water chlorination
Haloacetic Acids (ppb)	2020	5.0	ND – 9.0	60	0	No	By-product of drinking water chlorination
Radiological Contaminants							
Compliance Gross Alpha (pCi/L)	2015	3.3	NA	15	0	No	Erosion of natural deposits
Radium 226 & 228 (pCi/L)	2015	0.3±0.7	NA	5	0	No	Erosion of natural deposits
Uranium (ppb)	2018	9.2	NA	30	0	No	Erosion of natural deposits
Radon (pCi/L)	2020	502	NA	Not Regulated	Advisory Level 2000	NA	Erosion of natural deposits and radioactive materials
Year Collected	90th Percentile	Action Level	MCLG	# of Sites Sampled	# Sites Above Action Level	Violation Yes/No	Typical Source of Contaminant
Lead (ppb)	2019	ND	15	0	5	0	Corrosion of household plumbing system
Copper (ppm)	2019	1.32	1.3	1.3	5	1	Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives

Secondary Contaminants					
Secondary MCLs (SMCL)	Level Detected	Date	Treatment technique (if any)	AL (Action Level), SMCL or AGQS (Ambient groundwater quality standard)	Specific contaminant criteria and reason for monitoring
Chloride (ppm)	57	2018	N/A	250	Wastewater, road salt, water softeners, corrosion
Fluoride (ppm)	0.31	2018	N/A	2	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Hardness (ppm)	204	2018	N/A	N/A	Geological
Iron (ppm)	0.26	2018	filtration	0.3	Geological
Manganese (ppb)	45.7	2018	filtration	50	Geological
Nickel (ppm)	0.0016	2018	N/A	N/A	Geological; electroplating, battery production, ceramics
pH (SU)	7.82	2018	Caustic soda	6.5-8.5	Precipitation and geology
Sodium (ppm)	29.9	2018	N/A	100-250	Road salt, septic systems (salt from water softeners) We are required to regularly sample for sodium
Sulfate (ppm)	23	2018	N/A	250	Naturally occurring
Zinc (ppm)	0.329	2018	N/A	5	Galvanized pipes