



Rockingham County Engineering & Maintenance Services

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From: Jude Gates, Senior Director of Facilities, Planning & IT

Date: 60 June 2022

Subject: Consumer Confidence Report

On August 19, 1998, the U.S. Environmental Protection Agency published the Consumer Confidence Report Rule, which took effect on September 18, 1998. This Rule requires that all community water systems provide a yearly consumer confidence report (CCR) to their consumers each year prior to July first.

Enclosed please find the CCR for 2021 prepared by David Acheson our Water Treatment Facility Chief and Dan Carlisle our Water/Wastewater Assistant. I am pleased and proud to report that the diligence and hard work of our Operators has resulted in another year of Compliance! If you have any questions regarding this report, please feel free to call me at 603 679-9375 or the Water Treatment Facility at 679-2256 x9183.

Cc: Board of Rockingham County Commissioners
David Acheson, Mark Pettengill, Dan Carlisle - R.C. WTF/WWTF

2021 Consumer Confidence Report

Rockingham County Engineering & Maintenance Services Water Quality Report 2021

PWS ID 0284010

For the period January 2021 – December 2021

Introduction

Like any responsible water system, our mission is to provide the highest quality drinking water possible. 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 this past year we replaced both of our water softener units, and our finished water pumps. When considering the high value we place on water, it is truly a bargain to have water service that protects public health, and provides us with the high-quality of life we enjoy.

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, 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?

The source of our water here at the Rockingham County Complex is from two gravel packed wells. Well # 2 and Well # 3 are located on County property, in the hayfield across the street from the Nursing Home, behind the Engineering & Maintenance buildings. The water is treated to remove iron and manganese, softened, aerated, disinfected, and the pH is raised to 8.0.

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 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 March 26, 2002 are noted below.

Well # 2 – two susceptibility factors were rated high, two were rated medium, and eight were rated low.

Well # 3 – Two susceptibility factors were rated high, two were rated medium, and eight were rated low.

Note: This information is over 18 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 Water Treatment Facility Office. For more information, call the Rockingham County Complex switchboard at 603-679-5335 and ask for Jude Gates, Director of Engineering and Maintenance at extension 9375, or David Acheson, Water System Chief Operator at extension 9183, or visit 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 the Rockingham County Complex switchboard at 603-679-5335 and ask for Engineering & Maintenance Director Jude Gates at extension 9375 or Water System Chief Operator David Acheson at extension 9183. 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: We have no violations. The water was found to be in compliance with all water quality standards. All contaminants but six were found to be below detection limits. Of these six, none were found at violation levels. The type and level of each contaminant is listed in this report. A "Sanitary Survey" was conducted in 2019 at the Water Treatment Facility by Rick Skarinka of the N.H. Department of Environmental Services. The facility was observed to be especially clean and well cared for with no deficiencies. The operators were commended for their competence and professionalism.

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.

Abbreviations:

BDL: Below Detection Limits

LRAA: Locational Running Annual Average

ng/l: parts per trillion

pCi/L: picoCurie per Liter

ppb: parts per billion

ppm: parts per million

TTHM: Total Trihalomethanes

mg/l : milligrams per liter

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 800-426-4791 or at <http://www.epa.gov/safewater/lead>

2021 ROCKINGHAM COUNTY COMPLEX WELL # 2 - PWS ID 0284010

DETECTED WATER QUALITY RESULTS						
Contaminant (Units)	Level Detected*	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Radioactive Contaminants						
Compliance Gross Alpha (pCi/L)	1.8	15	0	NO	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation know as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (ug/L)	0.43	30	0	NO	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Combined Radium 226 + 228 (pCi/L)	0.1	5	0	NO	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Inorganic Contaminants						
Barium	0.011	2	2	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Nitrate (as Nitrogen)	0.97	10	10	NO	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 Symptoms include shortness of breath and blue baby syndrome.

SECONDARY CONTAMINANTS

Secondary MCLs (SMCL)	Level Detected	Date	SMCL	50 % AGQS (Ambient groundwater quality standard)	AGQS (Ambient groundwater quality standard)	Specific contaminant criteria and reason for monitoring
Chloride	160	9/14/21	250	N/A	N/A	Wastewater, road salt, water softeners, corrosion
Iron	1.5	7/8/21	0.3	N/A	N/A	Geological
PH	7.82	7/8/21	6.5-8.5	N/A	N/A	Precipitation and geology
Sodium	100	9/14/21	100-250	N/A	N/A	We are required to regularly sample for sodium
Sulfate	29	7/8/21	250	250	500	Naturally occurring
Zinc	0.024	7/8/21	5	N/A	N/A	Galvanized pipes

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)	5.80	9/14/21	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, immune system, or may experience increased cholesterol levels and may have an increased risk of getting certain types of cancer. It may also lower the chance of getting pregnant.
Perfluorononanoic acid (PFNA) (ppt)	ND	9/14/21	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, immune system, or may experience increased cholesterol levels and may have an increased risk of getting certain types of cancer. It may also lower the chance of getting pregnant.
Perfluorooctane sulfonic acid (PFOS) (ppt)	2.82	9/14/21	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, immune system, may experience increased cholesterol levels, and may have an increased risk of getting certain types of cancer. It may also lower the chance of getting pregnant.
Perfluorooctanoic acid (PFOA) (ppt)	ND	9/14/21	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, immune system, may experience increased cholesterol levels, and may have an increased risk of getting certain types of cancer. It may also lower the chance of getting pregnant.

2021 ROCKINGHAM COUNTY COMPLEX WELL # 3 - PWS ID 0284010

DETECTED WATER QUALITY RESULTS						
Contaminant (Units)	Level Detected*	MCL	MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Radioactive Contaminants						
Compliance Gross Alpha (pCi/L)	1.8	15	0	NO	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation know as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (ug/L)	0.43	30	0	NO	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Combined Radium 226 + 228 (pCi/L)	0.1	5	0	NO	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Inorganic Contaminants						
Barium	0.012	2	2	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Chromium	0.0016	100	100	NO	Discharge from steel and pulp mills; erosion of natural deposits	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis

SECONDARY CONTAMINANTS

Secondary MCLs (SMCL)	Level De- tected	Date		SMCL	50 % AGQS (Ambient groundwater quality stand- ard)	AGQS (Ambient groundwa- ter quality standard)	Specific contaminant criteria and reason for monitoring
Chloride	88	7/8/21		250	N/A	N/A	Wastewater, road salt, water softeners, corrosion
Iron	1.5	7/8/21		0.3	N/A	N/A	Geological
Manganese	0.12	7/8/21		0.05	0.15	0.3	Geological
Copper	0.16	7/8/21		1.3	N/A	N/A	Corrosion of plumbing systems; erosion of natural deposits; leaching from wood preservatives
PH	7.85	7/8/21		6.5-8.5	N/A	N/A	Precipitation and geology
Sodium	82	7/8/21		100-250	N/A	N/A	We are required to regularly sample for sodium
Sulfate	26	7/8/21		250	250	500	Naturally occurring
Zinc	0.011	7/8/21		5	N/A	N/A	Galvanized pipes

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)	9.18	9/14/21	18	0	NO	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, run-off/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, immune system, or may experience increased cholesterol levels and may have an increased risk of getting certain types of cancer. It may also lower the chance of getting pregnant.
Perfluorononanoic acid (PFNA) (ppt)	ND	9/14/21	11	0	NO	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, run-off/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, immune system, or may experience increased cholesterol levels and may have an increased risk of getting certain types of cancer. It may also lower the chance of getting pregnant.
Perfluorooctane sulfonic acid (PFOS) (ppt)	6.31	9/14/21	15	0	NO	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, run-off/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, immune system, may experience increased cholesterol levels, and may have an increased risk of getting certain types of cancer. It may also lower the chance of getting pregnant.
Perfluorooctanoic acid (PFOA) (ppt)	2.92	9/14/21	12	0	NO	Discharge from industrial processes, wastewater treatment, residuals from firefighting foam, run-off/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, immune system, may experience increased cholesterol levels, and may have an increased risk of getting certain types of cancer. It may also lower the chance of getting pregnant.

2020 ROCKINGHAM COUNTY COMPLEX –DISTRIBUTION SYSTEM - EPA # 0284010

LEAD AND COPPER

Contaminant (Units)	Action Level	90 th percentile	Date	# of sites above	Violation Yes/No	Likely Source of Contamina-	Health Effects of Contaminant
Copper (ppm)	1.3	0.069 ppm	2/14/20	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 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	1.0 ppb	2/14/20	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 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.

DISINFECTION BY-PRODUCTS

Contaminant (Units)	Range (Low to High)	Amount Detected (LRAA)	MCL	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Haloacetic Acids (HAA) (ppb)	1.6 – <6 ppb	<3.8ppb	60	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.
Total Trihalomethanes (TTHM) (ppb)	3.3 – 12 ppb	7.65 ppb	80	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.