

2023 ANNUAL WATER QUALITY REPORT

Reporting Year 2022



Presented by
Central Hooksett Water Precinct



PWS ID# NH1181010

2023 Consumer Confidence Report

Central Hooksett Water Precinct

PWS ID# 1181010

Introduction

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 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 not had any major repairs or replacement projects and do not anticipate any in the coming year.

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) 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 stormwater 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?

For a number a year's the Central Hooksett Water Precinct has been completely supplied by Manchester Water Works with a connection on Zapora Road and North River Road

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. Immunocompromised 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.

In compliance with federal mandate, the NH Department of Environmental Services performed a Source Water Assessment on Lake Massabesic in September 2002. The assessment looked at the drainage area for the lake and ranked it vulnerability to contamination. Lake Massabesic received four high and four medium vulnerability ratings, while it ranked low vulnerability for five additional categories.

The complete Assessment Report is available for review on the Central Hooksett Water Website, www.centralhooksettwater.org or at the NH DES Drinking Water Source Water Assessment page at <http://des.nh.gov/organization/divisions/water/dwagb/dwspp/dwsap.htm>.

How can I get involved?

For More information about this report, or any questions relating to your drinking water, please call Richard Bairam, Chairperson, or Chris Culberson, Superintendent at 603-624-0608 Option 2 or by email at culbersonc@comcast.net

Central Hooksett Water Precinct monthly meetings are held on the 3rd Tuesday of each month at 6:30 pm at the Precinct Office and are open to the public.

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.

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

Central Hooksett Water Precinct

2022 Water Test Results

CONTAMINANT (Units)	MCL (MRDL)	MCLG (MRDLG)	Range (low-high)	Level Detected	VIOLATION	LIKELY SOURCE OF CONTAMINANT	HEALTH EFFECTS OF CONTAMINANT
Asbestos (MFL) *Test Results July 2022	7	7	NA	ND	No	Decay of asbestos cement water mains; erosion of natural deposits	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
Chlorine (ppm)	(4)	(4)	.56 Jan-Apr 2022	.368	No	Water additive used to control microbes.	Some people who drink water that contains chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort
Chloramine (ppm)	(4)	(4)	.06-.95 May-Dec 2022	.517	No	Water additive used to control microbes.	Some people who drink water that contains chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort
TTHM (Total Trihalomethanes) (ppb)	80	N/A	2.3-65.0	28.29	No	By-product of drinking water disinfection	Some people who drink water that contains 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.
Haloacetic Acids (ppb)	60	N/A	0-46.0	22.11	No	By-product of drinking water disinfection.	Some people who drink water that contains Haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
TAP WATER SAMPLES WERE COLLECTED FOR LEAD AND COPPER ANALYSIS FROM SAMPLE SITES THROUGHOUT THE COMMUNITY							
Lead (AL) Jan 2020	ppb	15 (AL)		1.36	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 lead levels, at your home may be higher than in 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. (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 experience kidney damage.
Copper (AL) Jan 2020	ppm	1.3 (AL)		.07	No	Corrosion of household plumbing systems; Erosion of natural deposits.	Copper is an essential nutrient, but some people who drink water that contains copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water that contains 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.

Unregulated Substance	Range (Low-High)	Amount Detected	Typical Source
Alkalinity (ppb)	8-45	24.43	Drinking Water Treatment Additive

Secondary Substance	SMCL	Range (Low-High)	Amount Detected	Typical Source
pH (units)	6.5 – 8.5	6.72-8.33	7.58	Naturally occurring

CCR Language	Citation
Coliform are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that were found during these assessments.	40 CFR 141.153(h)(7)(i)(A)
During the past year 1 Level 2 assessment was required to be completed for our water system. 1 Level 2 assessment was completed. We were required to take 1 corrective action and we completed this 1 corrective action.	FR 141.153(h)(7)(i)(C)

Manchester Water Works Test Results

2022 Water Test Results

REGULATED SUBSTANCES						
SUBSTANCE (UNIT OF MEASURE)	Year Sampled	MCL (MRDL)	MCLG (MRDLG)	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Barium	2022	2	2	0.011	0.0089-0.0130	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

Bromate (ppb)	2022	10	0	1.1	ND-1.1	No	By-product of drinking water disinfection
Chloramines (ppm)	2022	(4)	(4)	2.46	2.34-2.56	No	Water additive used to control microbes
Chlorine (ppm)	2022	(4)	(4)	1.29	.88-2.69	No	Water additives used to control microbes
Fluoride (ppm)	2022	4	4	.65	0.55-0.75	No	Erosion of natural deposits; water additive, which promotes strong teeth; discharge from fertilizer and aluminum factories
Halo acetic Acids (HAA) (ppb)	2022	60	NA	18.5	ND-51.7	No	By-product of drinking water disinfection
Nitrite (ppm)	2022	1	1	0.046	0-0.437	No	Run off from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate (ppm)	2022	10	10	.07	ND-.07	NO	Run off from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Perfluorooctanoic Acid [PFOA] (ppt)	2022	12	0	5.35	4.72-5.72	NO	Discharge from industrial process, wastewater Treatment, residuals from fire fighting foam, runoff/leachate from landfills and septic systems
TTHMs (Total Trihalomethanes) (ppb)	2022	80	NA	24.7	.6-74.0	NO	By-product of drinking water disinfection
Total Organic Carbon (ppm)	2022	TT	NA	1.97	1.53-2.49	NO	Naturally present in the environment
Turbidity² (NTU)	2022	TT	NA	0.048	0.02-0.048	NO	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2022	TT=95% of samples Meet the limit	NA	100	NA	NO	Soil runoff

TAP WATER SAMPLES WERE COLLECTED FOR LEAD AND COPPER ANALYSIS FROM SAMPLE SITES THROUGHOUT THE COMMUNITY

Substance (Unit of Measure)	Year Sampled	AL	MCLG	Amount Detected (90%tile)	Sites Above AL/Total Sites	Violation	Typical Source
Copper (ppm)	2022	1.3	1.3	.048	0/70	NO	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	2022	15	0	<0.001	0/70	NO	Corrosion of household plumbing systems; Erosion of natural deposits.

SECONDARY SUBSTANCES

Substance (Unit of Measure)	Year Sampled	SMCL	MCLG	Amount Detected	Range Low-High	Violation	Typical Source
Aluminum (ppb)	2022	200	NA	23.4	19-28.9	No	Erosion of natural deposits; Residual from some surface water treatment processes
Chloride (ppm)	2022	250	NA	52.75	50-57	No	Runoff/leaching from natural deposits

Manganese (ppb)	2022	50	NA	5.8	3.8-10.3	No	Naturally present in the environment
Sodium (ppb)	2022	100-250	NA	54.1	47.4-63	No	Naturally Occurring
Sulfate	2022	250	NA	24	16-33	No	Runoff/leaching from natural deposits; industrial wastes

¹The MCL for beta particles is 4 mrem/year. U.S. EPA considers 50 p Ci/L to be the level of concern for beta particles.

²Turbidity is a measure of the cloudiness of the water. It is monitored by surface water systems because it is a good indicator of water quality and thus helps measure the effectiveness of the treatment process. High turbidity can hinder the effectiveness of disinfectants.

UNREGULATED AND OTHER SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH		TYPICAL SOURCE
Alkalinity (ppm)	2022	36.5	25-42		Drinking water treatment additive
Ammonia, as Nitrogen (ppm)	2022	.59	ND-0.71		By-product of drinking water disinfection
Ammonia, Free (ppm)	2022	.11	.10-.11		By-product of drinking water disinfection
Calcium (ppm)	2022	5.18	4.7-5.7		Erosion of natural deposits
Magnesium (ppm)	2022	1.2	1.1-1.3		Erosion of natural deposits
Perfluorobutanoic Acid [PFBA] (ppt)	2022	2.38	2.05-3.03		Manufacturing by-product
Perfluoroheptonic Acid [PFHpA] (ppt)	2022	.525	ND-2.1		Industrial Pollutant/Manufacturing by-product
Perfluorohexanic Acid [PFHxA] (ppt)	2022	.5775	ND-2.31		Industrial Pollutant/Manufacturing by-product
Perfluoropentanoic Acid [PFPeA] (ppt)	2022	1.09	ND-2.24		Industrial Pollutant/Manufacturing by-product
Phosphate (ppm)	2022	.48	.41-.58		Corrosion control additive
Silica (ppm)	2022	3.7	2.37-4.92		Naturally present in the environment
Total Hardness	2022	17.88	16.7-18.8		A measure of dissolved minerals, primarily calcium and magnesium