

# 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](http://www.centralhooksettwater.org) or at the NH DES Drinking Water Source Water Assessment page at <http://des.nh.gov/organization/divisions/water/dwgb/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 Culbertson, Superintendent at 603-624-0608 Option 2 or by email at [culbertsonc@comcast.net](mailto:culbertsonc@comcast.net)

Central Hooksett Water Precinct monthly meetings are held on the 3<sup>rd</sup> 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   |
|---|------------|--------------|-------------------------|----------------|-----------|---|---|
| <b>Asbestos (MFL)</b><br>*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.   |
| <b>Chlorine (ppm)</b>   | (4)        | (4)          | .56<br>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  |
| <b>Chloramine (ppm)</b>   | (4)        | (4)          | .06-.95<br>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  |
| <b>TTHM (Total Trihalomethanes) (ppb)</b>   | 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.   |
| <b>Haloacetic Acids (ppb)</b>   | 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.   |
| <b>TAP WATER SAMPLES WERE COLLECTED FOR LEAD AND COPPER ANALYSIS FROM SAMPLE SITES THROUGHOUT THE COMMUNITY</b> |            |              |                         |                |           |   |   |
| <b>Lead (AL) Jan 2020</b>   | 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. |
| <b>Copper (AL) Jan 2020</b>   | 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<br>(UNIT OF MEASURE) | Year<br>Sampled | MCL<br>(MRDL) | MCLG<br>(MRDLG) | AMOUNT<br>DETECTED | RANGE<br>LOW-HIGH | VIOLATION | TYPICAL SOURCE  |
| Barium                         | 2022            | 2             | 2               | 0.011              | 0.0089-0.0130     | No        | Discharge of drilling wastes; Discharge from metal refineries;<br>Erosion of natural deposits |

|   |                     |                                  |             |                                  |                                   |                  |   |
|---|---------------------|----------------------------------|-------------|----------------------------------|-----------------------------------|------------------|---|
| <b>Bromate (ppb)</b>  | 2022                | 10                               | 0           | 1.1                              | ND-1.1                            | No               | By-product of drinking water disinfection   |
| <b>Chloramines (ppm)</b>  | 2022                | (4)                              | (4)         | 2.46                             | 2.34-2.56                         | No               | Water additive used to control microbes   |
| <b>Chlorine (ppm)</b>   | 2022                | (4)                              | (4)         | 1.29                             | .88-2.69                          | No               | Water additives used to control microbes  |
| <b>Fluoride (ppm)</b>   | 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                    |
| <b>Halo acetic Acids (HAA) (ppb)</b>  | 2022                | 60                               | NA          | 18.5                             | ND-51.7                           | No               | By-product of drinking water disinfection   |
| <b>Nitrite (ppm)</b>  | 2022                | 1                                | 1           | 0.046                            | 0-0.437                           | No               | Run off from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits  |
| <b>Nitrate (ppm)</b>  | 2022                | 10                               | 10          | .07                              | ND-.07                            | NO               | Run off from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits  |
| <b>Perfluorooctanoic Acid [PFOA] (ppt)</b>  | 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 |
| <b>TTHMs (Total Trihalomethanes) (ppb)</b>  | 2022                | 80                               | NA          | 24.7                             | .6-74.0                           | NO               | By-product of drinking water disinfection   |
| <b>Total Organic Carbon (ppm)</b>   | 2022                | TT                               | NA          | 1.97                             | 1.53-2.49                         | NO               | Naturally present in the environment  |
| <b>Turbidity<sup>2</sup> (NTU)</b>  | 2022                | TT                               | NA          | 0.048                            | 0.02-0.048                        | NO               | Soil runoff   |
| <b>Turbidity (lowest monthly percent of samples meeting limit)</b>  | 2022                | TT=95% of samples Meet the limit | NA          | 100                              | NA                                | NO               | Soil runoff   |
| <b>TAP WATER SAMPLES WERE COLLECTED FOR LEAD AND COPPER ANALYSIS FROM SAMPLE SITES THROUGHOUT THE COMMUNITY</b> |                     |                                  |             |                                  |                                   |                  |   |
| <b>Substance (Unit of Measure)</b>  | <b>Year Sampled</b> | <b>AL</b>                        | <b>MCLG</b> | <b>Amount Detected (90%tile)</b> | <b>Sites Above AL/Total Sites</b> | <b>Violation</b> | <b>Typical Source</b>   |
| <b>Copper (ppm)</b>   | 2022                | 1.3                              | 1.3         | .048                             | 0/70                              | NO               | Corrosion of household plumbing systems; Erosion of natural deposits.   |
| <b>Lead (ppb)</b>   | 2022                | 15                               | 0           | <0.001                           | 0/70                              | NO               | Corrosion of household plumbing systems; Erosion of natural deposits.   |
| <b>SECONDARY SUBSTANCES</b>   |                     |                                  |             |                                  |                                   |                  |   |
| <b>Substance (Unit of Measure)</b>  | <b>Year Sampled</b> | <b>SMCL</b>                      | <b>MCLG</b> | <b>Amount Detected</b>           | <b>Range Low-High</b>             | <b>Violation</b> | <b>Typical Source</b>   |
| <b>Aluminum (ppb)</b>   | 2022                | 200                              | NA          | 23.4                             | 19-28.9                           | No               | Erosion of natural deposits; Residual from some surface water treatment processes   |
| <b>Chloride (ppm)</b>   | 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 |

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

<sup>2</sup>Turbidity 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<br>(UNIT OF MEASURE)        | YEAR<br>SAMPLED | AMOUNT<br>DETECTED | RANGE<br>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   |
| Perfluorheptonic Acid [PFHpA] (ppt)   | 2022            | .525               | ND-2.1            |  | Industrial Pollutant/Manufacturing by-product                    |
| Perfluorhexanoic 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 |