

# 2017 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 of years 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. 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.

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 its 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 Manchester Water Works' website, [www.manchesternh.gov/wtr](http://www.manchesternh.gov/wtr) 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 William Alois, Chairperson, or Jay Smith, Superintendent at 603-624-0608 or by email at [jaylsmithjr@comcast.net](mailto:jaylsmithjr@comcast.net)

Central Hooksett Water Precinct monthly meetings are held on the 2<sup>nd</sup> Monday of each month at 7:00 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

## 2016\* Water Test Results

| CONTAMINANT (Units)                | MCL      | MCLG      | Level Detected | VIOLATION | LIKELY SOURCE OF CONTAMINANT               | HEALTH EFFECTS OF CONTAMINANT  |
|------------------------------------|----------|-----------|----------------|-----------|--|--|
| Chlorine (ppm)                     | MRDL = 4 | MRDLG = 4 | .61            | 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       | 3.51           | NO        | By-product of drinking water chlorination. | 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       | 4.0            | NO        | By-product of drinking water chlorination. | 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)<br>*Test Results<br>July 2014   | ppb | 15 (AL)  | 7   | 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)<br>*Test Results<br>July 2014 | ppm | 1.3 (AL) | .09 | 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 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)      | 22-30            | 23              | Naturally occurring and/or added for pH adjustment |

| Secondary Substance | SMCL      | Range (Low-High) | Amount Detected | Typical Source      |
|---------------------|-----------|------------------|-----------------|---------------------|
| pH (units)          | 6.5 – 8.5 | 7.47-9.0         | 8               | Naturally occurring |

# Manchester Water Works 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   |
| <b>Barium</b>  | 2016            | 2                                   | 2               | 0.01195            | 0.0091-0.0142     | NO        | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits                                 |
| <b>Beta/Photon Emitters<sup>1</sup></b> (pCi/L)                    | 2016            | 50                                  | 0               | 1.1                | NA                | NO        | Decay of natural and man-made deposits   |
| <b>Chloramine</b> (ppm)  | 2016            | (4)                                 | (4)             | 2.05               | 1.67-2.44         | NO        | Water additive used to control microbes  |
| <b>Combined Radium</b> (pCi/L)                                     | 2016            | 5                                   | 0               | .3                 | NA                | NO        | Erosion of natural deposits  |
| <b>Fluoride</b> (ppm)  | 2016            | 4                                   | 4               | .56                | 0.53-0.57         | NO        | Erosion of natural deposits; water additive, which promotes strong teeth; discharge from fertilizer and aluminum factories |
| <b>Total Organic Carbon</b> (ppm)                                  | 2016            | TT                                  | NA              | 1.9                | 1.4-2.1           | NO        | Naturally present in the environment   |
| <b>Turbidity<sup>2</sup></b> (NTU)                                 | 2016            | TT                                  | NA              | 0.090              | 0.032-0.090       | NO        | Soil runoff  |
| <b>Turbidity</b> (lowest monthly percent of samples meeting limit) | 2016            | TT=95% of samples<br>< or = 0.3 NTU | NA              | 100                | NA                | NO        | Soil runoff  |

| SECONDARY SUBSTANCES           |                 |      |      |                    |                   |           |  |
|--------------------------------|-----------------|------|------|--------------------|-------------------|-----------|--|
| Substance<br>(Unit of Measure) | Year<br>Sampled | SMCL | MCLG | Amount<br>Detected | Range<br>Low-High | Violation | Typical Source   |
| <b>Chloride</b> (ppm)          | 2016            | 250  | NA   | 54.25              | 52-56             | NO        | Runoff/leaching from natural deposits                    |
| <b>Color</b> (units)           | 2016            | NA   | 1    | 1                  | ND-1              | NO        | Naturally occurring organic materials                    |
| <b>Manganese</b> (ppb)         | 2016            | 50   | NA   | 13.7               | 5-21.8            | NO        | Leaching from natural deposits                           |
| <b>Sulfate</b>                 | 2016            | 250  | NA   | 15.5               | 13-19             | NO        | Runoff/leaching from natural deposits; industrial wastes |
| <b>Zinc</b> (ppm)              | 2016            | 5    | NA   | 0.001              | 0.0011-0.0022     | NO        | Runoff/leaching from natural deposits; industrial wastes |

<sup>1</sup>The MCL for beta particles is 4 mrem/year. U.S. EPA considers 50 pCi/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.

Manchester Water Works Test Results cont'd

| <b>UNREGULATD SUBSTANCES</b>     |                 |                    |                   |  |
|----------------------------------|-----------------|--------------------|-------------------|--|
| SUBSTANCE<br>(UNIT OF MEASURE)   | YEAR<br>SAMPLED | AMOUNT<br>DETECTED | RANGE<br>LOW-HIGH | TYPICAL SOURCE                           |
| <b>Orthophosphate as P</b> (ppm) | 2016            | 0.4785             | 0.424-0.621       | Treatment additive for corrosion control |
| <b>PFOA</b> (ppt)                | 2016            | 0.003              | 0.003-0.003       | Industrial air born contaminant          |
| <b>Sodium</b> (ppb)              | 2016            | 43                 | 39.1-45.2         | Road deicing application                 |
| <b>Total Hardness</b> (ppm)      | 2016            | 18.6               | 17.9- 20.1        | Naturally occurring                      |

| <b>UNREGULATD CONTAMINANT MONITORING RULE – PART 3 (UCMR3)</b> |                 |                    |                   |
|--|-----------------|--------------------|-------------------|
| SUBSTANCE<br>(UNIT OF MEASURE)                                 | YEAR<br>SAMPLED | AMOUNT<br>DETECTED | RANGE<br>LOW-HIGH |
| <b>Chlorate</b> (ppb)  | 2014            | 180.9              | 32-380            |
| <b>Chromium</b> (ppb)  | 2014            | 0.119              | ND-0.27           |
| <b>Chromium-6</b> (ppb)  | 2014            | 0.060              | 0.040-0.079       |
| <b>Strontium</b> (ppb)   | 2014            | 47.6               | 41-52             |
| <b>Vanadium</b> (ppb)  | 2014            | 0.36               | ND-0.56           |