2022

ANNUAL DRINKING WATER QUALITY REPORT

This report is a snapshot of the drinking water quality that was provided last year.
Included are details about where your water came from, what it contained, and how it compared to state and federal standards. Our system makes every effort to provide you with safe and pure drinking water.

for

Nanatomqua Cooperative Corp.
PWS ID #2045001

Prepared by

McCLURE ENGINEERING, INC

The water system is owned by Nanatomqua Cooperative Corp. If you have any questions about this report, or for additional copies, please contact Tom Charron or visit the McClure Engineering website at http://www.mcclureengineers.com/water.html or office at 508.248.2005.

<u>This report contains very important information about your drinking water.</u>
<u>Please translate it, or speak with someone who understands it.</u>

Community Drinking Water Source

Nanatomqua Cooperative is located in Brookfield, MA and is supplied water by the following groundwater sources:

- PWS Source ID# 2045001-01G (Well #01G)
- 2045001-03G (Well #03G)
- 2045001-04G (Well #04G)

Data in this report reflects water quality from Well 01G, Well 03G, and Well 04G.

Nanatomqua Cooperative continuously strives to produce the highest quality water possible to meet or surpass every water quality standard. We monitor our water source and distribution system very closely. The standards we operate under were enacted by the U.S. Congress as the Safe Drinking Water Act in 1974 and were amended in 1986 and 1996.

Is My Water Treated?

To ensure that we provide the highest quality of water available, certified operators and MassDEP regularly monitor water quality. When standards are exceeded, MassDEP requires treatment. Currently <u>Well 01G</u> is treated for manganese and VOCs via two trains operated in parallel inside Pump House #1. Each treatment train consists of a cartridge filter, an Aquabubble water softener with anion-exchange media for manganese removal, and an Aquabubble activated carbon filter for VOC removal. Water is regenerated with a sodium chloride brine rinse. Chlorine disinfection is available for emergency situations.

Substances Found in Tap Water ~

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 or domestic wastewater discharges, oil and gas production, mining, and 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**, can be naturally occurring or be the result of oil and gas production and mining activities.
- **Unregulated Contaminants** are those for which EPA has not established drinking water standards. The purpose of unregulated monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.

All 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 US Environmental Protection Agency (EPA) Safe Drinking Water Hotline (1-800-426-4791.)

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 from their health care providers. EPA/Centers for Disease Control and Prevention (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 (1-800-426-4791).

In order to ensure that tap water is safe to drink, the Department of Environmental Protection (MassDEP) and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

~ CROSS CONNECTION CONTROL AND PREVENTION ~

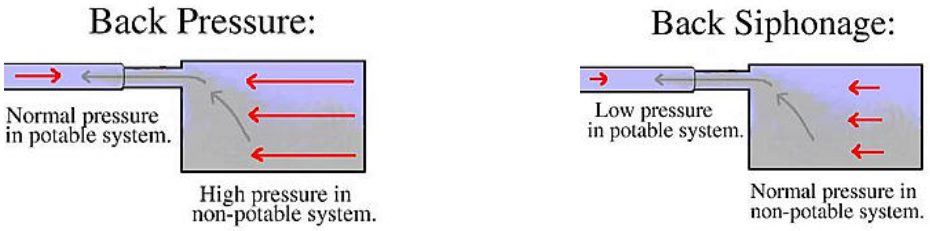
Nanatomqua makes every effort to ensure that the water delivered to your home and business is clean, safe and free of contamination. Our staff works very hard to protect the quality of the water delivered to our customers from the time the water is extracted via deep wells from underground aquifers or withdrawal point from a surface water source, throughout the entire treatment and distribution system. But what happens when the water reaches your home or business? Is there still a need to protect the water quality from contamination caused by a cross-connection? If so, how?

What is a cross-connection?

A cross-connection occurs whenever the drinking water supply is or could be in contact with potential sources of pollution or contamination. Cross-connections exist in piping arrangements or equipment that allows the drinking water to come in contact with non-potable liquids, solids, or gases (hazardous to humans) in event of a backflow.

What is a backflow?

Backflow is the undesired reverse of the water flow in the drinking water distribution lines. This backward flow of water can occur when the pressure created by equipment or a system such as a boiler or air-conditioning is higher than the water pressure inside the water distribution line (back pressure), or when the pressure in the distribution line drops due to routine occurrences such as water main breaks or heavy water demand causing the water to flow backward inside the water distribution system (back siphonage). Backflow is a problem that many water consumers are unaware of, a problem that each and every water customer has a responsibility to help prevent.



What can I do to help prevent a cross-connection?
Without the proper protection something as simple as a garden hose has the potential to contaminate or pollute the drinking water lines in your house. In fact over half of the country's cross-connection incidents involve unprotected garden hoses. There are very simple steps that you as a drinking water user can take to prevent such hazards, they are:

- NEVER submerge a hose in soapy water buckets, pet watering containers, pool, tubs, sinks, drains, or chemicals.
- NEVER attached a hose to a garden sprayer without the proper backflow preventer.
- Buy and install a hose bibb vacuum breaker in any threaded water fixture. The installation can be as easy as attaching a garden hose to a spigot. This inexpensive device is available at most hardware stores and home-improvement centers.

- Identify and be aware of potential cross-connections to your water line.
- Buy appliances and equipment with backflow preventers.
- Buy and install backflow prevention devices or assemblies for all high and moderate hazard connections.

Nanatomqua recommends the installation of low-cost hose bibb vacuum breakers for all inside and outside threaded spigots and hoses. You can purchase them at a hardware store or plumbing supply store. This is a great way to help protect the water system that serves your home and community!

~ IMPORTANT DEFINITIONS ~

Maximum Contaminant Level (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 (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.

Action Level (AL) – The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

90th Percentile – Out of every 10 homes sampled, 9 were at or below this level. This number is compared to the action level to determine lead and copper compliance.

Secondary Maximum Contaminant Level (SMCL) – These standards are developed to protect aesthetic qualities of drinking water and are not health-based.

Office of Research and Standards Guideline (ORSG) – This is the concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

ppm = parts per million, or milligrams per liter (mg/L)
ppb = parts per billion, or micrograms per liter (ug/L)
ppt=parts per trillion, or nanograms per liter (ng/L)
pCi/l = picocuries per liter (measure of radioactivity)
ND = Not Detected
N/A = Not Applicable

DISTRIBUTION SYSTEM WATER QUALITY

What Does This Data Represent?
The water quality information presented in the table is from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the table.

Lead & Copper	Last Date Collected	* 90th Percentile	Action Level (AL)	MCLG	# of sites sampled	# of sites above Action Level	Exceeds Action Level	Possible Sources of Contamination
Lead (ppb)	9/5/2020	2.1	15	0	5	0	N	Corrosion of household plumbing; erosion of natural deposits
Copper (ppm)	9/5/2020	0.076	1.3	1.3	5	0	N	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives.

*9 out of every 10 sites sampled were at or below this level. Lead and copper compliance is determined by comparing the 90th percentile value to the Action Level (AL) for each contaminant. The AL is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Lead and copper sampling is scheduled every three years. The last samples collected were in September 2020 and the next sample collection will be during Quarter 3 of 2023.

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. Nanatomqua is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about 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://www.epa.gov/safewater/lead.

DISTRIBUTION SYSTEM WATER QUALITY (continued)

Regulated Contaminants	Date Collected	Highest Result or Highest Avg	Range detected	MCL	MCLG	Violation (Y/N)	Possible Sources
Inorganic Contaminants							
Barium (ppm)	5/5/2020	0.0053	ND – 0.0053	2	2	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm) ■	5/5/2020	1.59	ND – 1.59	4	4	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
■Fluoride also has a secondary contaminant level (SMCL) of 2 ppm.							
Nitrate (ppm) (annual)	4/5/2022	0.157	ND – 0.157	10	10	N	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
PFAS6* (ppt) 2022 Results	1/27/2022 4/5/2022 7/11/2022	ND	ND	20	None	N	Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire-fighting foams.
Radioactive Contaminants							
Gross Alpha (pCi/L)	4/5/2022	0.381	0.381	15	N/A	N	Erosion of natural deposits
Radium 226 & 228 (pCi/L) (combined values)	5/3/2022	0.701	0.701	5	N/A	N	Erosion of natural deposits

- Inorganic Contaminants (IOCs) were sampled in May 2022. IOCs were non-detected unless listed above.
- Synthetic Organic Contaminants (SOCs) were sampled in April 2021. SOCs were non-detected. Next sampling event is due in 2024.
- Volatile Organic Contaminants (VOCs) were sampled in April 2022. VOCs were non-detected. Next sampling event is due in 2023.

DISTRIBUTION SYSTEM WATER QUALITY (continued)

Unregulated and Secondary Contaminants	Last Date Collected	Result or Range Detected	Average Detected	SMCL (ppb)	ORSG	Possible Sources
Iron (ppb)	4/5/2022	ND	ND	300	N/A	Naturally occurring, corrosion of cast iron pipes
Manganese***** (ppb)	1/10/2022 4/5/2022 9/16/2022	ND – 0.685	0.22904	50	Health advisory of 300 ppb	Natural sources as well as discharges from industrial uses
Sodium****** (ppm)	5/5/2020	20.3 – 39.6	33.067	N/A	20	Discharge from the use & improper storage of sodium-containing de-icing compounds or in water-softening agents.
Conductivity	7/21/2021	130-180	155	N/A	N/A	

*****US EPA and MassDEP have established public Health Advisory (HA) levels for manganese to protect against concerns of potential neurological effects and a one-day and 10-day HA of 1000 ppb for acute exposure.
******Sodium: Some people who drink water containing sodium at high concentrations for many years could experience an increase in blood pressure.

Drinking Water Violations

We failed to complete required sampling in a timely manner, which is a monitoring and reporting violation. Because we did not take the required number of samples, we did not know whether the contaminants were present in your drinking water, and we are unable to tell you whether your health was at risk during that time. The contaminants for which monitoring was not done are listed in the table below, with the period during which samples should have been taken, the number of samples each contaminant required, the number taken, and when the required sampling was conducted. In addition to sampling for these contaminants, our system announced public notification upon awareness of the violation.

Contaminant	Monitoring Period	Number of Samples Required	Number of Samples Taken	Date Sampling Conducted	Health Effects
Manganese	10/1/22-12/31/22	1	0	2/7/2023	Unknown

~ EDUCATIONAL INFORMATION ~

SWAP (Source Water Assessment and Protection) ~

MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the Nanatomqua Cooperative Corp. The report assesses the susceptibility of public water supplies to contamination and makes recommendations.

A susceptibility ranking of moderate was assigned to this system using the information collected during the assessment by MassDEP.

The complete SWAP Report is available at Nanatomqua Office and online at https://www.mass.gov/doc/central-region-source-water-assessment-protection-swap-program-reports-0/download.

For more information, call Tom Charron (678) 231-9008.

Opportunities to Participate ~

Any matters that concern your drinking water supply or issues you would like to see addressed can be presented at the regularly scheduled meeting of the trustees, association or board. If your concerns need immediate attention contact System Owner, Nanatomqua Office at 508-867-6392.

Water System Improvements ~

Our water system is routinely inspected by MassDEP for its technical, financial and managerial capacity to provide safe drinking water to you. In 2018, the PWS replaced the 1,000-gallon hydropneumatics tank located in Pump House #3, the MassDEP approved activation of the tank in 2019. The PWS continues to monitor the water and make adjustments when necessary.

Nanatomqua Cooperative Corp.
PWS ID# 2045001
3 Nanatomqua Drive
Brookfield, MA 01506
#508.867.6392

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Date Distributed: **6/29/2023**

For more information please contact:

Nanatomqua Cooperative
PWS ID# 2045001
3 Nanatomqua Drive
Brookfield, MA 01585
#508.867.6392

This report was prepared by McClure Engineering, Inc.

Also available at http://www.mcclureengineers.com/

This notice for PWS ID# 2045001 was distributed by the Nanatomqua Cooperative on 6/29/2023

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

DRINKING WATER NOTICE — Monitoring Requirements Not Met for:

PWS NAME: NANATOMQUA MOBILE HOME PARK

We violated monitoring and reporting requirements of the drinking water regulations. Even though this was not an emergency, as our customers, you have a right to know what happened and what we are doing to correct this

We are required to monitor your drinking water for specific man-made and naturally occurring contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the monitoring period(s) listed below we did not monitor and/or did not complete all monitoring for the contaminant(s) listed below and therefore cannot be sure of the quality of our drinking water during that time.

WHAT THIS MEANS: There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for and/or report to the Department of Environmental Protection (DEP) during the required monitoring period(s).

Monitoring Period		Contaminant Group	Violation Comments
10/1/2022	12/31/2022	MANGANESE	01G

STEPS WE ARE TAKING:

In response to monitoring and reporting violations of the Massachusetts Drinking Water Regulations, our system is taking the following corrective actions:

1. We are notifying our customers of the violation(s) by providing this public notice to you as well as submiting a copy of this public notice to the MassDEP and local board of health.
2. Sample Collection (check appropriate boxes):
   - ☐ We have scheduled to collect and analyze sample(s) for the contaminants listed above and will submit copies of the sampling results to the MassDEP upon completion.
   - ☒ We have already collected and analyzed sample(s) for the contaminants listed above and have submitted copies of the sampling results to the DEP. These contaminant(s) were collected AFTER the required monitoring period(s) on: 2/7/2023 [Date].
3. We will continue to collect samples for all contaminants according to our most recent sampling schedule.
4. Other Corrective Actions Taken:

CONTACT INFORMATION:

Please share this information with all people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information or questions regarding this notice, please contact:

Responsible Party Name: Tom Charron **at Phone #:** 678-231-9008

CERTIFICATION:

DEP Reference Number: NON-CE-23-5D00015432-CSA **PWSID:** 2045001

The Public Water system indicated above hereby affirms that public notice has been provided to consumers in accordance with 310 CMR 22.16 including: delivery, content, format requirements, notification deadlines and that the Public Water system will meet future requirements for notifying new billing units and new customers of the violation. I certify under penalty of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best of my knowledge and belief.

Notice Distributed by: CCR [Delivery Method] on 6/29/2023 [Date]

Notice Distributed by: _____ [Delivery Method] on _____ [Date]

Tom Charron — **Signature of Responsible Party**

6-29-23 — **Date**