2025

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 Corporation. If you have any questions about this report, or for additional copies, please contact Nanatomqua Cooperative Corporation at tncc1@hotmail.com or visit the McClure Engineering website at https://mcclureengineers.com/consumer-confidence-reports/ 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

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 emailing the US Environmental Protection Agency (EPA) at safewater@epa.gov.

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.

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 by emailing the EPA at safewater@epa.gov.

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 ~

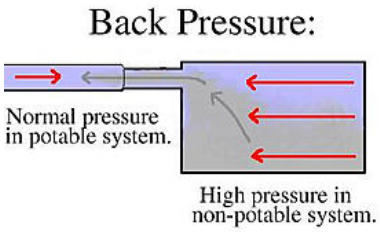
Nanatomqua makes every effort to ensure that the water delivered to your home and business is clean, safe and free of contamination. Our staff works very hard to protect the quality of the water delivered to our customers from the time the water is extracted via deep wells from underground aquifers or 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?

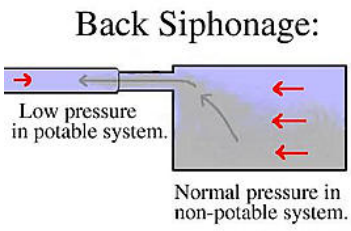
What is a cross-connection?

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 the 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, and 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.

	Site 1	Site 2	Site 3	Site 4	Site 5
Lead (ppb)	ND	ND	ND	ND	ND
Copper (ppm)	0.0498	0.0087	0.0452	0.0099	0.0041

Lead & Copper	Last Date Collected	Range Detected	* 90th Percentile	Action Level (AL)	MCLG	# of sites sampled	# of sites above Action Level	Exceeds Action Level	Possible Sources of Contamination
Lead (ppb)	September 2023	0	0	15	0	5	0	N	Corrosion of household plumbing; erosion of natural deposits
Copper (ppm)	September 2023	0.0041-0.0498	0.0475	1.3	1.3	5	0	N	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives.

*Nanatomqua Cooperative was required to collect 5 lead and copper samples. The average of the 4th and 5th highest sample results is used to calculate the 90th percentile. 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 compliance sampling is conducted triennially.

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.

There is no safe level of lead in drinking water. Exposure to lead in drinking water can cause serious health effects in all age groups, especially pregnant people, infants (both formula-fed and breastfed), and young children. Some of the health effects to infants and children include decreases in IQ and attention span. Lead exposure can also result in new or worsened learning and behavior problems. The children of persons who are exposed to lead before or during pregnancy may be at increased risk of these harmful health effects. Adults have increased risks of heart disease, high blood pressure, kidney or nervous system problems. Contact your health care provider for more information about your risks.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. **Nanatomqua Cooperative Corporation** is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. Because lead levels may vary overtime, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk.

Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead in drinking water is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact **Nanatomqua Cooperative Corporation** at tncc1@hotmail.com. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available 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							
Fluoride* [IOC] (ppm)	5/5/2020	0.53	ND – 1.06	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)	4/7/2025	0.042	ND – 0.084	10	10	N	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits.
Nitrite (ppm) (triennial)	4/2/2024	ND	ND	1	1	N	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits.
Perchlorate (ppb) (annual)	7/7/2025 8/5/2025	ND	ND	2	N/A	N	Rocket propellants, fireworks, munitions, flares, blasting agents.
PFAS6 (ppt) (triennial)	4/2/2024	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)	5/20/2019[1] 4/5/2022[2]	0.595	ND-1.19	15	N/A	N	Erosion of natural deposits.
Radium 226 & 228 (pCi/L) (combined values)	5/20/2019[2] 5/3/2022[1]	0.4805	ND-0.961	5	N/A	N	Erosion of natural deposits.

[1]Finished water blend Well 03G and Well 04G.
[2]Finished water Well 01G.
- Inorganic Contaminants (IOCs) were sampled on 5/5/2020. IOCs were non-detected unless listed above.
- Synthetic Organic Contaminants (SOCs) were sampled on 5/7/2024. SOCs were non-detected. SOCs are sampled triennially.
- Volatile Organic Contaminants (VOCs) were sampled on 5/12/2024. VOCs were non-detected. VOCs are sampled annually.

DISTRIBUTION SYSTEM WATER QUALITY (continued)

Unregulated and Secondary Contaminants[1]	Last Date Collected	Result or Range Detected	Average Detected	SMCL (ppb)	ORSG	Possible Sources
Iron (ppb) (annual)	4/7/2025	ND	ND	300	N/A	Natural and industrial sources as well as aging and corroding distribution systems and household pipes
Manganese[2] (ppb) (Quarterly)	Quarterly	2.23-427	167	50	Health advisory of 300 ppb	Natural sources as well as discharges from industrial uses
Sodium[5] [IOC] (ppm)	4/4/2023	26.3-41.9	34.1	N/A	20	Discharge from the use & improper storage of sodium-containing de-icing compounds or in water-softening agents.

[1]Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist US EPA in determining their occurrence in drinking water and whether future regulation is warranted.

[2]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.

[5]Sodium: Some people who drink water containing sodium at high concentrations for many years could experience an increase in blood pressure.

Use of water containing manganese at concentrations above the secondary MCL may result in aesthetic issues including the staining of laundry and plumbing fixtures and water with an unpleasant bitter metallic taste, odor, and/or black-brown color.

Manganese is a naturally occurring mineral found in rocks, soil, groundwater, and surface water. Manganese is necessary for proper nutrition and is part of a healthy diet, but can have undesirable effects on certain sensitive populations at elevated concentrations. The United States Environmental Protection Agency (EPA) and MassDEP have set an aesthetics-based Secondary Maximum Contaminant Level (SMCL) for manganese of 50 ug/L (microgram per liter), or 50 parts per billion. In addition, MassDEP's Office of Research and Standards (ORS) has set a drinking water guideline for manganese (ORSG), which closely follows the EPA public health advisory for manganese. **Drinking water may naturally have manganese and, when concentrations are greater than 50 ppb, the water may be discolored and taste bad. Over a lifetime, the EPA recommends that people drink water with manganese levels less than 300 ppb and over the short term, EPA recommends that people limit their consumption of water with levels over 1000 ppb, primarily due to concerns about possible neurological effects. Children younger than one year old should not be given water with manganese concentrations over 300 ppb, nor should formula for infants be made with that water for more than a total of ten days throughout the year.** The ORSG differs from the EPA's health advisory because it expands the age group to which a lower manganese concentration applies from children less than six months of age to children up to one year of age to address concerns about children's susceptibility to manganese toxicity.

See EPA Drinking Water Health Advisory for manganese at: https://www.epa.gov/sites/production/files/2014-09/documents/support_cc1_magnese_dwreport_0.pdf
And MassDEP Office of Research and Standards (ORSG) for manganese
http://www.mass.gov/eea/agencies/massdep/water/drinking/lead-and-othercontaminants-in-drinking-water.html#11

~ EDUCATIONAL INFORMATION ~

SWAP (Source Water Assessment and Protection) ~

MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the Nanatomqua Cooperative Corporation. 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 SWAP Report can be viewed using the following link and performing a search of the document by holding down the "CTRL" (⌘ on Mac) and the "F" key. This will open the Find functionality. Type the PWS ID# 2045001 into the text field provided.
https://www.mass.gov/doc/central-region-source-water-assessment-protection-swap-program-reports-0/download

Residents can help protect sources by:

- Practicing good septic system maintenance
- Supporting water supply protection initiatives at the next town meeting
- Taking hazardous household chemicals to hazardous materials collection days
- Limiting pesticides, fertilizer uses, and unnecessary outdoor watering

For more information, email Nanatomqua Cooperative Corporation at tncc1@hotmail.com.

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 the Water System Manager, Don Demers at 413-657-6480.

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
tncc1@hotmail.com

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.

For more information please contact:

Nanatomqua Cooperative
PWS ID# 2045001
3 Nanatomqua Drive
Brookfield, MA 01585
tncc1@hotmail.com

This report was prepared by McClure Engineering, Inc.

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

This notice for PWS ID# 2045001 was distributed by McClure Engineering/Nanatomqua Corp.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER