

Annual Drinking Water Quality Report for 2023
Genoa King-Ferry Water District
Genoa N.Y. 13071
PWS # 0501731

To comply with State regulations, **The Genoa-King Ferry Water District**, will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources.

Last year, we conducted tests for over 80 contaminants. We detected some contaminants, but only found one of those contaminants at a level higher than the State allows. As we told you at that time, we had a single sample exceedance in a drinking water standard. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact **Paul Wheeler at (315)497-0681 OR Cayuga County Health Department at (315-253-1405)**. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Town board meetings. The meetings are held the second Wednesday of each month at 7:00 pm in the New Town Hall 1000 Bartnick Road.

Where does our water come from?

In general, 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 activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water system serves **approx. 900 people through 290 service connections**. The water system consists of 4-drilled wells located on town property located at the Maple St. Ext. site at a depth of 31' each. From the wells the water is disinfected with sodium hypochlorite before it is transferred into the water system with 2 storage tanks that hold 370,000 gallons.

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. See section "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived from 4 drilled wells. The source water assessment has rated these wells as having a high susceptibility to microbial contaminants. These ratings are due primarily to the close proximity of a low intensity residential development in relation to the wells. In addition, all four wells draw from unconfined aquifers. Three of the four wells draw from an aquifer of unknown hydraulic conductivity, while the fourth draws from an aquifer with high hydraulic conductivity. Please note that, while the source water assessment rates our well as being susceptible to microbial, our water is disinfected to ensure that the finished water delivered into your home meets the New York State drinking water standards for microbial contamination.

County and state health departments will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education programs. A copy of the assessment is available for review by calling the Cayuga County Health Department at (315-253-1405).

Are there contaminants in our drinking water?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: **total coliform, inorganic compounds, nitrate, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological, and synthetic organic compounds.** The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, may be reasonably 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 EPA's Safe Drinking Water Hotline (800-426-4791) or the **(Cayuga County) Health Department at (315-253-1405).**

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the definitions on the following page:

TEST RESULTS OF DETECTED CONTAMINANTS

Contaminant	Date	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Barium	Oct. 5, 2021	No	70.7	ug/L	2000	2000	Discharge or drilling waste; discharge from metal factories; erosion of natural deposits.
Sodium	Aug. 5 2019	No	14.8	mg/L	No limit	No limit	Naturally occurring; Road salt; Water softeners; Animal waste.
Copper ¹	July 2021	No	0.146 ¹ Range 0.026- 0.192	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; Leaching from wood preservatives.
Lead ²	July 2021	No	2.7 ² Range <1-4.1	ug/L	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits.
Nitrate	May 1 2023	No	0.33	mg/L	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Total Trihalomethanes (TTHMs)	Aug. 2 2023	No	3.6	ug/L	N/A	80	Byproduct of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.

Haloacetic Acids (HAA5s)	August 2, 2023	No	ND	ug/L	N/A	60	Byproduct of drinking water chlorination needed to kill harmful organisms
Perfluorooctanoic acid (PFOA)	Aug/292023	*	23.2	ng/L	0	10	Released into the environment from widespread use in commercial and industrial applications
Gross Alpha	April 5, 2023	No	0.370	pCi/L	0	15	Erosion of natural deposits
Radium 226	April 5, 2023	No	1.55	pCi/L	0	5	Erosion of natural deposits
Radium 228	April 5, 2023	No	0.395	pCi/L	0	5	Erosion of natural deposits

*A PFOA sample collected from Well #4 had a result of 23.2 ng/L. We were required to collect a confirmation sample within 30 days of initial sampling. We failed to collect this confirmation sample, however, all subsequent monitoring results were non-detect. We will continue to monitor Well #4 quarterly in 2024.

Health Effects: PFOA caused a range of health effects when studied in animals at high exposure levels. The most consistent findings were effects on the liver and immune system and impaired fetal growth and development. Studies of high-level exposures to PFOA in people provide evidence that some of the health effects seen in animals may also occur in humans. The United States Environmental Protection Agency considers PFOA as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFOA in animals.

Genoa-King Ferry 2017 USGS Sampling Results

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL)	Likely Source of Contamination
Methane	No	12/20/17	0.0050	mg/L	N/A	N/A	Naturally occurring.
Carbon dioxide	No	12/20/17	28.6	mg/L	N/A	N/A	Naturally occurring.
Nitrogen gas	No	12/20/17	20.69	mg/L	N/A	N/A	Naturally occurring.
Dissolved oxygen	No	12/20/17	2.8	mg/L	N/A	N/A	Naturally occurring.
Argon	No	12/20/17	0.7160	mg/L	N/A	N/A	Naturally occurring.
Calcium	No	12/20/17	90.7	mg/L	N/A	N/A	Naturally occurring.
Magnesium	No	12/20/17	23.3	mg/L	N/A	N/A	Naturally occurring.
Potassium	No	12/20/17	1.85	mg/L	N/A	N/A	Naturally occurring.
Sodium	No	8/23/19	14.8	mg/L	N/A	N/A	Naturally occurring; road salt; water softeners; animal waste.
Chloride	No	12/20/17	18.6	mg/L	N/A	250	Naturally occurring or indicative of road salt contamination.
Fluoride	No	12/20/17	0.11	mg/L	N/A	2.2	Erosion of natural deposits; discharge from fertilizer and

							aluminum factories.
Silica	No	12/20/17	6.13	mg/L	N/A	N/A	Naturally occurring.
Sulfate	No	12/20/17	22.1	mg/L	N/A	250	Naturally occurring.
Hardness	No	12/20/17	323	mg/L	N/A	N/A	Naturally occurring.
Nitrate and Nitrite	No	12/20/17	1.37	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Orthophosphate	No	12/20/17	0.004	mg/L	N/A	N/A	Naturally occurring.
Organic carbon	No	12/20/17	0.7	mg/L	N/A	N/A	Naturally occurring.
Boron	No	12/20/17	24	ug/L	N/A	N/A	Naturally occurring.
Cobalt	No	12/20/17	0.04	ug/L	N/A	N/A	Naturally occurring.
Copper	No	12/20/17	4.9	ug/L	1300	AL=1300	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead	No	12/20/17	0.09	ug/L	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits.
Lithium	No	12/20/17	2.57	ug/L	N/A	N/A	Naturally occurring.
Manganese	No	12/20/17	0.32	ug/L	N/A	300	Naturally occurring; indicative of landfill contamination.
Molybdenum	No	12/20/17	0.63	ug/L	N/A	N/A	Naturally occurring.
Strontium	No	12/20/17	206	ug/L	N/A	N/A	Naturally occurring.
Zinc	No	12/20/17	5	ug/L	N/A	5000	Naturally occurring; mining waste.
Uranium	No	12/20/17	0.698	ug/L	0	30	Erosion of natural deposits.
Beta Radioactivity	No	12/20/17	2.5	pCi/L	N/A	N/A	Erosion of natural deposits.
Radon-222 ³	No	12/20/17	470	pCi/L	N/A	N/A	Erosion of natural deposits.
Prometon	No	12/20/17	5.27	ng/L	N/A	50,000	Released to the environment by its application as an herbicide used on annual and perennial weeds and grasses.
2-Chloro-4-isopropylamino-6-amino-s-triazine (Deethyl Atrazine)	No	12/20/17	43.1	ng/L	N/A	50,000	Degradation byproduct of the herbicide atrazine.
2-Hydroxy-4-isopropylamino-6-ethylamino-s-triazine	No	12/20/17	43.0 (Estimated)	ng/L		50,000	Degradation byproduct of the herbicide atrazine.
Chlorodiamino-s-	No	12/20/17	90.5	ng/L		50,000	Degradation

triazine							byproduct of the herbicide atrazine.
Metolachlor sulfonic acid	No	12/20/17	178	ng/L	N/A	50,000	Metolachlor sulfonic acid is a degradation product of pesticides.

Notes:

1 - The level presented represents the 90th percentile of the 10 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, **ten** samples were collected at your water system and the 90th percentile value was the **2nd highest** value (0.146 mg/l). The action level for copper was not exceeded at any of the sites tested.

2- The level presented represents the 90th percentile of the 10 samples collected. The action level for lead was not exceeded at any of the sites tested.

3-The USEPA has proposed a two-part standard for radon in drinking water: 300 pCi/L for areas that do not implement a mitigation program to address radon in indoor air, and 4000 pCi/L for areas like ours that do implement a radon mitigation program in indoor air.

The following list is of contaminants that were analyzed for, but not detected in the water supply:

Aldicarb Sulfoxide, Aldicarb Sulfone, Oxamyl (Vydate), Methomyl (Lannate), 3-Hydroxy Carbofuran, Aldicarb (Temik), Propoxur (Baygon), Carbofuran, Carbaryl (Sevin), Methiocarb, Pentachlorophenol, 2,4,5-TP (Silvex), 2,4,5-T, 2,4-DB, Dinoseb, Picloram, Acifluorfen, Simazine, Atrazine, Metribuzin, Alachlor (Lasso), Metolachlor (Dual), Butachlor, Hexachlorocyclopentadiene (C-56), Hexachlorobenzene, HCH, Alpha, HCH, Gamma (Lindane), HCH, Beta, HCH, Delta, Heptachlor, Aldrin, Heptachlor epoxide, Endosulfan I, 4,4'-DDE, Dieldrin, Endrin, 4,4'-DDD, Endosulfan II, 4,4'-DDT, Endrin aldehyde, Endosulfan sulfate, Methoxychlor, Mirex, Toxaphene, Chlordane, technical, Aroclor 1016, Aroclor 1221, Aroclor 1232, Aroclor 1242, Aroclor 1248, Aroclor 1254, Aroclor 1260, 1,2-Dibromoethane (EDB), 1,2,3-Trichloropropane, Dibromo-3-chloropropane, Dichlorodifluoromethane, Chloromethane, Vinyl Chloride, Bromomethane, Chloroethane, Trichlorofluoromethane, 1,1-Dichloroethene, Methylene Chloride, trans-1,2-Dichloroethene, Methyl-t-Butyl-Ether, 1,1-Dichloroethane, Methyl Ethyl Ketone, cis-1,2-Dichloroethene, Bromochloromethane, 2,2-Dichloropropane, 1,2-Dichloroethane, 1,1,1-Trichloroethane, 1,1-Dichloropropene, Carbon Tetrachloride, Benzene, Dibromomethane, 1,2-Dichloropropane, Trichloroethene, cis-1,3-Dichloropropene, Methyl Isobutyl Ketone, trans-1,3-Dichloropropene, 1,1,2-Trichloroethane, Toluene, 1,3-Dichloropropane, Tetrachloroethene, 1,1,1,2-Tetrachloroethane, Chlorobenzene, Ethylbenzene, Bromoform, m/p-Xylene, Styrene, 1,1,2,2-Tetrachloroethane, o-Xylene, 1,2,3-Trichloropropane, Isopropylbenzene, Bromobenzene, n-Propylbenzene, 2-Chlorotoluene, 4-Chlorotoluene, 1,3,5-Trimethylbenzene, tert-Butylbenzene, 1,2,4-Trimethylbenzene, sec-Butylbenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, p-Cymene, 1,2-Dichlorobenzene, n-Butylbenzene, 1,2,4-Trichlorobenzene, Naphthalene, Hexachlorobutadiene (C-46), 1,2,3-Trichlorobenzene, Fluoride, Free, Beryllium, Chromium, Nickel, Arsenic, Selenium, Cadmium, Antimony, Thallium, Lead, Mercury, Cyanide, Perfluorooctanesulfonic Acid (PFOS), 1,4-dioxane.

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

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.

Maximum Residual Disinfectant Level (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 (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 contamination..

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

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Nanograms per liter (ng/l): Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

What does this information mean?

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

Lead

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. *[Water Supply Name]* 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. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact *[Water Supply Name and Contact Information]*. 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>.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During 2023, [we did not complete the required confirmation monitoring or testing for PFOA on Well #4](#).

Do I Need to Take Special Precautions?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens 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 provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

Why Save Water and How to Avoid Wasting It?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life;

- Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it up and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

Closing

Thank you for allowing us to continue to provide your family with quality drinking water this year. We supplied you with approximately 36 million gallons of drinking water in 2023. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. Please call our office if you have questions. We at **the Genoa-King Ferry Water District** work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.