# Annual Drinking Water Quality Report for 2023

## Frankfort (V) Water Works
## 110 Railroad St. Suite 1, Frankfort, NY 13340
## (Public Water Supply ID#NY2102301)

## INTRODUCTION

To comply with State regulations, Frankfort (V) Water Works, 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, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. Last year, we conducted tests for over 80 contaminants. 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 **Chris Evans (Water Operations Specialist / Foreman) at 315-894-0620**. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings. **The meetings are held the First and Third Tuesday of each month at 6:30 PM at the Village Hall 110 Railroad St., Frankfort, NY 13340.**

## 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 source is a groundwater source consisting of three (3) drilled wells located on Industrial Drive within the Village of Frankfort. During 2023, our system did not experience any restriction of our water source. Well depth range from 46 to 60 feet deep and each well has the capacity to produce 750 gallons per minute. Our raw water is Air Stripped to treat and remove any existing tetrachloroethene (a Principal Organic Chemical discovered in our raw water in the 1990's). We continue to airstrip our raw water as a precautionary treatment. It is then disinfected with a sodium hypochlorite solution. We also add orthophosphate (a polyphosphate solution) for the purpose of sequestering possible lead and copper in the distribution system. After treatment any water not consumed by our customers is then stored in three (3) glass lined storage tanks.

## Source Water Assessment Summary

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 contaminants, if any, 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 3 drilled wells. The source water assessment has rated these wells as having a very high susceptibility to halogenated solvents; a high susceptibility to herbicides, pesticides, metals, nitrates, petroleum products and industrial organic compounds; and a medium-high susceptibility to bacteria, viruses and protozoa. These ratings are due primarily to the proximity of the wells to permitted discharge facilities (industrial/commercial facility that discharges wastewater into the environment and is regulated by the state and/or federal government), industrial activity, toxic chemical release facilities, hazardous waste sites, mining activity, chemical storage facilities and low intensity residential activities in the assessment area. In addition, the wells draw from an unconfined aquifer of unknown hydraulic conductivity.

While the source water assessment rates our wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbial contamination.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting us or the **New York State Department of Health (Herkimer District Office) at 315-866-6879**

## FACTS AND FIGURES

Our water system serves a population of 3800 through 1569 metered service connections. This includes the five (5 - Town of Frankfort Water Districts), that the Village of Frankfort provides finished water to. The total amount of water withdrawn from the aquifer and treated in 2023 was 223,850,000.00 gallons. The daily average of water treated and pumped into the distribution system was 575,000 gallons per day. Our highest single day was 870,000.00 gallons. The amount of water delivered to customers was 221,000,000 gallons. This leaves an unaccounted for total of 13.5 million gallons. This water, used to flush mains, fight fires, and leakage, accounts for the remaining 13.5 million gallons (7% of the total amount produced). In 2023, water customers were charged $6.40 per 1,000 gallons of water and the annual average water charge per user was $390.00. It should be noted that these numbers are estimated and customers in the Town of Frankfort Water Districts and those customers paying sewer use fees may differ depending on their circumstances. The Village of Frankfort Water Rate Chart is available at the Village of Frankfort office at 110 Railroad St., Suite 1, Frankfort, NY 13340.

# 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, nitrite, 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 Herkimer District Office of the New York State Department of Health at (315-866-6879).

**Table of Detected Contaminants**

| Contaminant | Violation Yes/No | Date of Sample | Level Detected (Avg/Max) (Range) | Unit Measure-ment | MCLG | Regulatory Limit (MCL, TT or AL) | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| **Organics** | | | | | | | |
| Frankfort (V) **Synthetic Organic Chemicals** | No | 4/20/23 | ND | mg/l | 0.005 | 0.005 | Run off, leaching from improperly stored man made chemicals |
| Frankfort (V) **Principal Organic Chemicals** | NO | 4/20/23 | ND | mg/l | 0.005 | 0.005 | Released into the environment from widespread use in commercial and industrial applications. |
| Frankfort (V) Well # 2 **PFOA / PFOS (3)** | NO | 3/15/23<br>4/19/23<br>7/27/23<br>12/14/23 | 0.0023<br>0.0022<br>ND<br>0.0015 | ug/l | 1.0 | 1.0 | Released into the environment from widespread use in commercial and industrial applications. |
| Frankfort (V) Well # 3 **PFOA / PFOS (3)** | NO | 3/15/23<br>4/19/23<br>7/27/23<br>12/14/23 | 0.0024<br>0.0022<br>ND<br>0.0015 | ug/l | 1.0<br>1.0 | 1.0<br>1.0 | Released into the environment from widespread use in commercial and industrial applications. |
| Frankfort (V) Well # 4 **PFOA / PFOS (3)** | NO | 3/15/23<br>4/19/23<br>7/27/23<br>12/14/23 | 0.0020<br>0.0019<br>ND<br>0.0073 | ug/l | 1.0<br>1.0 | 1.0<br>1.0 | Released into the environment from widespread use in commercial and industrial applications. |

3 – PFOA & PFOS 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 & PFOS 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 & PFOS as having suggestive evidence for causing cancer based on studies in animals.

| Table of Detected Contaminants | | | | | | | |
|---|---|---|---|---|---|---|---|
| Contaminant | Violation Yes/No | Date of Sample | Level Detected (Avg/Max) (Range) | Unit Measure-ment | MCLG | Regulatory Limit (MCL, TT or AL) | Likely Source of Contamination |
| **Inorganics** | | | | | | | |
| Nitrate as N | No | 4/20/23 | 2.0 | mg/l | 10 | 10 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits. |
| Barium | No | 4/20/23 | 160 | ug/l | 2000 | 2000 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits |
| Chromium | No | 4/20/23 | 4.7 | ug/l | 100 | 100 | Discharge from steel and pulp mills; Erosion of natural deposits. |
| Nickel | No | 4/20/23 | 3.6 | ug/l | N/A | N/A | Erosion of natural deposits. |
| Selenium | No | 4/20/23 | 2.3 | ug/l | 50 | 50 | Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines. |
| Fluoride | No | 4/20/23 | 110 | ug/l | N/A | 2200 | Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Cyanide | No | 4/20/23 | 120 | ug/l | 200 | 200 | Discharge from steel/metal factories; c |
| Copper **(See Note 1)** | No | 9/17/21 | 170 13 – 440 | ug/l | 1300 | AL=1300 | Corrosion of household plumbing systems; Erosion of natural deposits ; leaching from wood preservatives |
| Lead **(See Note 2)** | No | 9/17/21 | 3.6 ND – 7.5 | ug/l | 0 | AL=15 | Corrosion of household plumbing systems; Erosion of natural deposits. |

1 – The level presented represents the 90th percentile of the 20 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, (20) samples were collected at your water system and the 90th percentile value was the 170 ug/l value. The action level for **copper** was not exceeded at any of the sites tested.

2 – The level presented represents the 90th percentile of the (20) samples collected. The action level for **lead** was not exceeded at any of the 20 sites tested.

## Table of Detected Contaminants

| Contaminant | Violation Yes/No | Date of Sample | Level Detected (Avg/Max) (Range) | Unit Measure-ment | MCLG | Regulatory Limit (MCL, TT or AL) | Likely Source of Contamination |
|---|---|---|---|---|---|---|---|
| **Disinfection By-Products** | | | | | | | |
| Free Chlorine Residual | No | 8/31/22 | (0.72) (.5 – 1.2) | mg/l | N/A | 4.0 | By-product of drinking water disinfection needed to kill harmful organisms |
| District11 (TWD) **Haleocetic Acids (HAA5)** | No | 8/31/23 | 1.4 | ug/l | N/A | 60 | By-product of drinking water disinfection needed to kill harmful organisms |
| District11 (TWD) **Total Trihalomethanes (TTHM's)** | No | 8/31/23 | 1.3 | ug/l | N/A | 80 | By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter. |
| District3 (TWD) **Haleocetic Acids (HAA5)** | No | 8/31/23 | 1.6 | ug/l | NA | 60 | By-product of drinking water disinfection needed to kill harmful organisms |
| District3 (TWD) **Total Trihalomethanes (TTHM's)** | No | 8/31/23 | 5.2 | ug/l | N/A | 80 | By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter. |
| District8 (TWD) **Haleocetic Acids (HAA5)** | No | 8/31/23 | 1.5 | ug/l | N/A | 60 | By-product of drinking water disinfection needed to kill harmful organisms |
| District8 (TWD) **Total Trihalomethanes (TTHM's)** | No | 8/31/23 | 1.2 | ug/l | N/A | 80 | By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter. |
| District 2 (TWD) **Haleocetic Acids (HAA5)** | No | 8/31/23 | 2.0 | ug/l | N/A | 60 | By-product of drinking water disinfection needed to kill harmful organisms |
| District 2 (TWD) **Trihalomethanes (TTHM's)** | No | 8/31/23 | 5.7 | ug/l | N/A | 80 | By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter. |
| Frankfort (V) **Haleocetic Acids (HAA5)** | No | 8/31/23 | 1.4 | ug/l | N/A | 60 | By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large |
| Frankfort (V) **Total Trihalomethanes (TTHM's)** | No | 8/31/23 | 4.2 | ug/l | N/A | 80 | By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter. |
| District 20 (TWD) **Haleocetic Acids (HAA5)** | No | 8/31/23 | 2.1 | ug/l | N/A | 80 | By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter. |
| District 20 (TWD) **Trihalomethanes (TTHM's)** | No | 8/31/23 | 4.8 | ug/l | N/A | 80 | By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter. |

**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.

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

***Level 1 Assessment:*** A Level 1 assessment is an evaluation of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.

***Level 2 Assessment:*** A Level 2 assessment is an evaluation 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.

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

***Nephelometric Turbidity Unit (NTU)***: A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

***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).

***Picograms per liter (pg/l)***: Corresponds to one part of liquid to one quadrillion parts of liquid (parts per quadrillion – ppq).

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

***Millirems per year (mrem/yr)***: A measure of radiation absorbed by the body.

***Million Fibers per Liter (MFL)***: A measure of the presence of asbestos fibers that are longer than 10 micrometers.

## WHAT DOES THIS INFORMATION MEAN?

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.

## 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. In 2023 our system met all the Rules and Regulations that govern Operations.

## DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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).**

**Lead.** If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your homes plumbing. The Village of Frankfort is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing component. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap foe 30 seconds to 2 minutes before using water for drinking or 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 (1-800-426-4791) or at *//www.epa.gov/safewater/lead*

## 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 firefighting 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 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.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes. If it moved, you have a leak.

## SYSTEM IMPROVEMENTS

Currently the village is in the process of various water system projects including water main upgrades, leak detection, hydrant and valve replacements, meter upgrades, in 2023 a total rehabilitation of well #4. Please note that our Water Dept. and DPW are constantly working to deliver "Quality on Tap".

## CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community. **Please call our office if you have questions at (315) 894-0620.**

**Thank You:** **Chris Evans, Water Operations Specialist, Foreman**
**Village of Frankfort Water Department**