

**Annual Drinking Water Quality Report for 2023**  
**Virgil Water District #1**  
**Public Water Supply ID# NY1103502**

## **INTRODUCTION**

To comply with State and Federal regulations, the Virgil Water District #1 annually issues 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. 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 Tom Bullard, system operator at business number 315-345-4444 or cell 315-591-4180. 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 on the Second Thursday of each month at the Virgil Town Hall, telephone #607-835-6174.

## **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 Wells number 2 and 3 in the Gridley Creek Aquifer, located adjacent to Greek Peak Ski Resort. The water is chlorinated for disinfection protection prior to distribution, and stored in a glass lined Aquastore tank. Our water system serves 500 people through 160 service connections.

## **Source Water Assessment**

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 2 drilled wells. The source water assessment has rated these wells as having a medium-high to high susceptibility to enteric bacteria and viruses, halogenated solvents, herbicides/pesticides, nitrates, metals, other industrial organics, petroleum products and protozoa. These ratings are due primarily to the close proximity of properties with pastures and transportation routes in close proximity to the wells and assessment area. In addition, the wells draw from an unconfined aquifer of high yield.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting the Cortland County Health Department.

## 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, total haloacetic acids, synthetic organic compounds which includes perfluorooctanesulfonic acids, radon and radiological. The table presented depicts which compounds were detected in your drinking water. The state allows us to monitor 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 Cortland County Health Department at 607-753-5035.

**Table of Detected Contaminants**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Sources in Drinking Water
Nitrate	No	3/8/23	1.98	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Lead <sup>1</sup>	No	7/23	6.9 Range: 0.7-11.3	ug/l	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits
Copper <sup>2</sup>	No	7/23	272.5 Range: 31.3-464.4	ug/l	1,300	AL = 1,300	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Barium	No	10/18/21	54.9	ug/l	2,000	2,000	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloride	No	3/8/23	51.3	mg/l	N/A	250	Naturally occurring or indicative of road salt contamination.
Sodium <sup>3</sup>	No	3/8/23	31.5	mg/l	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste.

<sup>1</sup> The level presented represents the 90th percentile of the 5 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 lead values detected at your water system. In this case, five samples were collected at your water system and the 90th percentile value was the average of the highest two. The action level for lead was not exceeded at any of the sites tested.

<sup>2</sup> The level presented represents the 90<sup>th</sup> percentile of the 5 samples collected. The action level for copper was not exceeded at any of the sites tested.

**Table of Detected Contaminants**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Sources in Drinking Water
Sulfate (SO4)	No	7/24/18	11.0	mg/l	N/A	250	Naturally occurring
Zinc	No	7/24/18	33.9	ug/l	N/A	5,000	Naturally occurring; Mining waste.
Total Trihalomethanes (TTHMs - chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	No	'23 Ann. Average	13.05 (11.2-14.9)	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
Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and di-bromoacetic acid.	No	'23 Ann. Average	3.5 (3.2-3.8)	ug/l	N/A	60	By-product of drinking water disinfection needed to kill harmful organisms

**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 Disinfection 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. MRDLG's 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.

**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).

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

**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. During 2023, we did not monitor for Principal Organic Chemicals. This is a violation of the State Sanitary Code, and therefore cannot be sure of the quality of your drinking water during that time.

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<sup>3</sup> Water containing more than 20mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.

## **INFORMATION ON RADON**

Radon is a naturally-occurring radioactive gas found in soil and outdoor air that may also be found in drinking water and indoor air. Some people exposed to elevated radon levels over many years in drinking water may have an increased risk of getting cancer. The main risk is lung cancer from radon entering indoor air from soil under homes.

In 2006, we collected one sample that was analyzed for radon. The results were 148.5 picocuries/liter (pCi/l). For additional information call your state radon program (1-800-458-1158) or call EPA's Radon Hotline (1-800-SOS-Radon).

## **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. Repair 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. Repair it and you save more than 30,000 gallons a year.

We at Greek Peak, on behalf of the Town of Virgil Water District #1 and the Virgil Town Board work to provide quality water to every tap. We ask that all our customers help us protect our water resources, which are the heart of our community, our way of life and our children's future.