VILLAGE OF SUFFERN WATER DEPARTMENT ANNUAL WATER QUALITY REPORT FOR

2023

POTABLE WATER SUPPLY ID # ***4303675***

The Village is pleased to present this year's Annual Water Quality Report. This report is designed to inform Village residents about the quality of water and services the Village delivers to you every day. We are proud that our drinking water met or exceeded all Federal and State requirements. It is our responsibility to provide you with a safe and dependable supply of drinking water. This report will provide you with an understanding of the efforts we make to continually improve the water treatment process and protect our water resources and that we are committed to ensuring the highest quality of your drinking water.

Michael F. Curley
Mayor

INTRODUCTION

To comply with State and Federal regulations the Village of Suffern Water Department 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 has never violated 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 Stanley R. Dobrinski, Jr., Chief Operator at 845-357-0950. 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 on the first Monday of the month at 7:00 p.m. in the Village Hall.

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 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 located in the Ramapo Valley. During 2023, our system did not experience any restriction of our water source.

We have 4 wells that pump water to the Water Operation Center. The water passes through greensand filters for removal of iron and manganese. These natural elements, if not removed cause staining of laundry, dinnerware, dishwashers and washing machines. After filtration, sodium hydroxide, also known as caustic soda, is added for pH adjustment. Our untreated water has pH of approximately 6.50. With the addition of sodium hydroxide, we reach our target pH of 7.30 to 7.60.

Next is the addition of orthophosphate. Orthophosphate protects plumbing and inhibits leaching of lead and copper from soldered joints and plumbing fixtures. The final step taken in the treatment process is disinfection. The finished water is disinfected by adding the chlorine disinfectant sodium hypochlorite. After disinfection, the water is pumped from the operations center into the distribution system and storage tanks. We have three storage tanks that have combined capacity of 3.7 million gallons. Granulated activated carbon filters are available before disinfection for removal of volatile organic compounds, if needed.

FACTS AND FIGURES

During 2023, the total amount of water drawn from the aquifer was 425,657,000 gallons. Approximately 326,760,750 gallons were billed directly to the customer. Approximately 6.9 million gallons were used at Village owned properties. The balance of unaccounted for water, 22% or 91,991,130 gallons, includes water used for main flushing, hydrant flow testing, fire department training, firefighting, municipal pool use, water main breaks, service leaks, under registering water meters, illegal hydrant use, and theft of services.

Our daily average was 1.166 million gallons during 2023. One day in the month of September., we recorded our maximum daily output of 1.742 million gallons. Our minimum flow was recorded in January at .974 million gallons a day.

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, disinfection by-products and synthetic organic compounds.

The table presented 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 Rockland County Health Department at (845) 364-2608.

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.
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.
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.
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 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 contaminants.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Maximum) (Range)	Unit Measured	MCLG	Regulator Limit (MCL, TT or AL)	Likely Source of Contamination
Microbiological Contaminant							
Total Coliform *	No	2/7/23 5/9/23 7/11/23	3 Positive Sample	Present/ Absent	0	2 or more positive samples per month	Naturally occurring in the environment.
Disinfection By-Products							
Total Trihalmoethanes **	No	Quarterly 2023	15.3 7.1-15.3	ug/l	N/A	MCL=80	By-product drinking water chlorination needed to kill harmful organisms, TTHMS are formed when source water contains large amounts of organic matter.
Total Haloacetic Acids **	No	Quarterly 2023	4.4 3.3-4.4	ug/l	N/A	MCL=60	By-product of drinking water disinfection needed to kill harmful organisms.
Inorganic Compounds							
Sulfate	No	8/2023	20 16-20	mg/l	N/A	MCL=250	Naturally occurring.
Nitrate	No	8/2023	2.5 1-2.5	mg/l	N/A	MCL=10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Zinc	No	8/2023	21 0-21	ug/l	N/A	MCL=5000	Naturally occurring, mining waste.
Chloride	No	Quarterly 2023	225 140-225	mg/l	N/A	MCL=250	Naturally occurring or indicative of road salt contamination.
Sodium	No	8/2023	130 83-130	mg/l	N/A	N/A	Naturally occurring; road salt; water softeners; animal waste.
Manganese	No	2023	170 0-170	ug/l	N/A	MCL- 300	Naturally Occurring
Radioactive Contaminants							
Radium 226	No	2015	0.71 0-.71	pCi/L	0	MCL=5	Erosion of natural deposits.
Gross Beta	No	2015	155 0-155	pCi/L	0	50**	Erosion of natural deposits.
Synthetic Organic Contaminants							
PFOS Perfluorooctanesulfonic Acid	No	Quarterly 2023	8.8 4.5-8.8	ng/l	N/A	MCL=10	Released into the environment from widespread use in commercial and industrial applications.
PFOA Perfluorooctanoic Acid	No	Quarterly 2023	8.4 5.9-8.4	ng/l	N/A	MCL=10	Released into the environment from widespread use in commercial and industrial applications.
1-4 Dioxane	No	8/2023	0.035 0.028-0.035	ug/l	N/A	MCL=1	Release into the environment from commercial and industrial sources and associated with inactive hazardous wastesites.
Unregulated Perfluoroalkyl Substances							
Perfluorohexanesulfonic Acid (PFHxS)	No	Quarterly	1.9 0-1.9	ng/l	N/A	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluoroheptanoic Acid (PFHpa)	No	Quarterly	3.4 2.7-3.4	ng/l	N/A	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorononanoic Acid (PFNA)	No	Quarterly	2.6 2.2.-2.6	ng/l	N/A	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctanoic Acid (PFHxA)	No	Quarterly	6.8 4.7-6.8	ng/l	N/A	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorobutanoic Acid (PFBA)	No	Quarterly	3.8 0-3.8	ng/l	N/A	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluoropentanoic Acid (PFPeA)	No	Quarterly	6.0 0-6.0	ng/l	N/A	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorobutanesulfonic Acid (PFBS)	No	Quarterly	4.3 2.2-4.3	ng/l	N/A	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorobutanoic Acid (PFBA)	No	Quarterly	7.0 0-7.0	ng/l	N/A	N/A	Released into the environment from widespread use in commercial and industrial applications.
Disinfectants							
Chlorine Residual	No	Daily 2023	2.34 0.64-2.34	mg/l	N/A	MCL=4	Water additive used to control microbes.

Lead and Copper

CONTAMINANT	ACTION LEVEL	90th PERCENTILE	SAMPLE ABOVE AL	RANGE DETECTED	VIOLATION YES/NO	LIKELY SOURCE	UNIT OF MEASURE
LEAD ***	15	1.6	0	0-11	NO	HOUSEHOLD	PPB
COPPER ***	1300	250	0	11-370	NO	PLUMBING	PPB

*Total Coliform was not detected in the repeat samples and that did not trigger a Level 1 Assessment.
**This level represents the highest locational running annual average calculated from data collected.
***The level presented represents the 90th percentile of the 32 sites tested. The 90th percentile is equal to or greater than 90% of the lead and copper values detected in your water system. In this case, 32 samples were collected at your water system for lead and copper. The 90th percentile value for lead was 1.6 parts per billion. The 90th percentile for copper was 370 parts per

Water Quality Parameter	Maximum Detected	Range Detected	Unit
pH	7.88	7.11-7.88	-
Phosphate	1.84	1.14-1.84	mg/1
Temperature	17.5	12.8-17.5	°C
Alkalinity	16.6	10.1-16.6	mg/l
Total Dissolved Solids	640	410-640	mg/l
Odor	1	1	TON
Total Hardness	190	90-190	mg/l

As you can see from 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 New York State requirements.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATION?

During 2023our system was in compliance with all applicable State drinking water operating monitoring and reporting requirements.

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 the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future. Water suppliers and 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.

As mentioned before, our water is derived from 4 drilled wells. The source water assessment has rated these wells as having an elevated susceptibility to industrial solvents. These ratings are due primarily to the close proximity of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) to the wells, and the associated industrial activity in the assessment area. In addition, the wells are high yielding wells that draw from an unconfined aquifer of unknown hydraulic conductivity. An unconfined aquifer is a shallow aquifer that occurs immediately below the ground surface and has no overlying protective layer for protection from potential sources of contamination. Continued vigilance in compliance with water quality protection and pollution prevention programs as well as continued monitoring and enforcement will help continue to protect groundwater quality.

A copy of this assessment, including a map of the assessment area, can be obtained by contacting us.

INFORMATION ON LEAD IN DRINKING WATER

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the safe drinking water help line (1-800-426-4791).

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. The Village of Suffern is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in pluming components in your home plumbing. You can take responsibility for identify and removing lead materials within you 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 refuse lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the Suffern Water Department. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safwater/lead.

INFORMATION OR RADIOLOGICAL PARAMETERS

In 2015, we collected four representative water samples that were analyzed for radioactive contaminants. The results can be found in the Table of Detected Contaminants. 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. These include immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants and people with HIV/AIDS or other immune system disorders.

Some elderly persons and infants may 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 (1-800-426-4791).

WATER RATES EFFECTIVE 6/1/24

For consumers within the Village, for the first 10 units or fraction thereof: $50 minimum charge; for that portion over 10 units and less than 71 units: $4.66 per unit; for that portion over 70 units: $6.09 per unit. 100 cubic feet equals one unit. One unit equals 750 gallons. There is a 10% penalty for payments made after 30 days.

UNDERSTANDING CROSS CONNECTION AND BACKFLOW PREVENTION

A cross connection is direct or indirect connection between drinking water system and any other liquid or substance. When certain conditions occur, such as water main breaks, hydrant flushing or fire fighting, water can flow backwards (backflow) into the drinking water system through the cross connection. Cross connections are common and happen in every type of property, both residential and non-residential.

Common examples of residential cross connections are lawn irrigation systems, boilers for heating, and residential fire systems. Common household hazards that are serious cross connections are: chemical spray applicators that connect directly to your garden hose and submerged garden hoses used to fill pools, hot tubs and buckets can act as a conduit for contaminants to enter the drinking water system under backflow conditions.

There are many things you can do to help prevent contamination of the public water system due to backflow. Ensure that water hoses to fill swimming pools, hot tubs and buckets are not submerged or are connected to a hose bib that has a vacuum breaker. All irrigation systems have an approved backflow device installed and are tested annually.

SYSTEM IMPROVEMENTS

In 2023 the New York Rising Project was completed. This project included major system improvements to Well #2 and Well #4. The existing well house Structures were demolished and rebuilt above the 100-year flood elevations, preventing future damage. New pumps, 100HP motors, piping, flow meters and Variable Frequency Drive controllers were installed. Additional work was performed on Well #4 while it was out of service including a new well screen.

Also a new electrical transformer was installed on an elevated platform to prevent the risk of outages due to flooding.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe dependable water supply, we need to make improvements that will benefit all of our customers. Rate adjustment may be necessary in order to address these improvements. We ask that all of our customers help us protect our water sources. Please call our office if you have any questions.

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 or shaving.
- 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.

PIPE LEAK SIZE	GALLONS LOST PER DAY	PER MONTH
•	360	11,160
●	3,096	95,976
●	8,424	261,144
●	14,952	463,512

Besides reducing your water bill, in many cases we can delay or eliminate capital expenditures for expanding water supplies by stopping your losses.