Annual Drinking Water Quality Report
for 2021
Village of Nunda
9510 Nunda Dalton Road, Nunda, New York, 14517
Public Water Supply ID#2501024

INTRODUCTION

To comply with State regulations, the Village of Nunda, 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. 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 Troy Bennett, Chief Water Operator, 585-468-5983. 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 on the second Monday of each month, at 7:00 PM, at the Nunda Government Center, 4 Massachusetts Street, Nunda, New York 14517.

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 number of certain contaminants in water provided by public water systems. The State Health Departments 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 1,600 people through 757 service connections. Our water source is a man-made impoundment reservoir which is located in the Town of Nunda. During 2021, our water system did not experience any restrictions from our water source. Prior to distribution, the water is received through two clarification tanks. Stern-Pac (a coagulant) is added to optimize settling. The gravity-fed multimedia filters remove the finer organic and inorganic matter and an optimum turbidity (clarity of water) is the result. The last stage of treatment is disinfection with chlorine. Chlorine is an oxidizing agent and is most widely used means of disinfection prior to distribution. Ortho-phosphates are added for corrosion control in the distribution system.

The total water produced in 2021 was 42,412,000 gallons. The daily average of water treated and pumped into the distribution system was 116,197 gallons per day. Our highest single day was 166,000 gallons in January 24, 2021. The amount of water delivered to customers was 30,950,495 gallons. This leaves a total of 11,461,505 gallons which was used to provide bulk water to customers, the Nunda Government Center, Village DPW Department, Village Water Treatment Plant and Waste Water Treatment (Sewer) Plant for backwashing requirements, flushing mains, fighting fires, storage, leakage and accounts for the remaining 27.02% of the total amount produced. In 2021, water customers were

charged $49.50 for the minimum usage of 5,000 gallons per quarter, and $3.50 per 1,000 gallons of water over the minimum usage. The annual *average water* charge per service connection, less the debt service charge was $287.82, billed quarterly with an average of $71.96 (or monthly average charge of $23.99). These service charges are determined through *739 active service connections*.

The New York State Department of Health has evaluated the Village of Nunda's water source susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraphs below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this Public Water Supply (PWS). This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

For the reservoir located in the Town of Nunda, this assessment found an elevated susceptibility to contamination for this source of drinking water. The number of agricultural lands in the assessment area results in elevated potential for protozoa and pesticides contamination. No permitted discharges are found in the assessment area. There is also considerable contamination susceptibility associated with other discrete contaminant sources, and these facility types include mines. Finally, it should be noted that hydrologic characteristics (e.g., basin shape and flushing rates) generally make reservoirs highly sensitive to existing and new sources of phosphorus and microbial contamination.

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, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, halo acetic 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 Livingston County Health Department at 585-243-7280.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected Average/Maximum Range	Unit Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Chlorine Residuals Measured in Distribution							
Chlorine Residual	**No**	Daily	Range (0.10-0.91)	mg/l	N/A	MRDL=4.0	Water additive used to control microbes

Contaminant	Violation Yes/No	Date of Sample	Level Detected Average/Maximum Range	Unit Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Microbiological Contaminants							
Turbidity [1] (Raw)	No	Daily	**1.25 / 30.7** Average / Maximum	NTU	N/A	N/A	Soil Runoff
Turbidity [1] (Treatment)	No	Daily	**0.048 / 0.211**	NTU	N/A	TT = 0.3	Soil Runoff
Turbidity [1] (Distribution)	No	5 per week	**0.129 / 0.390** Average / Maximum	NTU	N/A	TT = 5	Soil Runoff
Disinfection Byproducts							
Total Trihalomethanes	No	8/17/2021	49	ug/L	N/A	MCL = 80	By-product of drinking water chlorination needed to kill harmful organisms. Trihalomethanes are formed when source water contains large amounts of organic matter.
Halo acetic Acids	No	8/17/2021	18	ug/L	N/A	MCL = 60	By-product of drinking water chlorination.
Organic Contaminants							
Perfluorobutanoic acid (PFBA)	No	5/17/2021	2.5	Ng/L	N/A	N/A	
1,4 Dioxane	No	12/7/2021	0.344	Ug/l	N/A	1	Released into the environment from commercial and industrial sources and is associated with inactive hazardous waste sites.
Inorganic Contaminants							
Barium	No	5/17/2021	0.0353	mg/l	2	MCL = 2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloride	No	12/7/2021	45	mg/L	N/A	MCL = 250	Naturally occurring or indicative of road salt contamination.
Sodium [2]	No	12/7/2021	23	mg/L	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste.
Nitrate	No	12/7/21	2	Mg/l	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Lead and Copper							
Copper	No	8/18/2020	0.067[3] Range (0.012-0.099)	mg/L	1.3	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits. Ten locations were used for this analysis spread-out throughout the municipality.
Lead	No	8/18/2020	2.2[3] Range (ND-57)	ug/l	0	AL = 15	Corrosion of household plumbing systems; erosion of natural deposits. Ten locations were used for this analysis spread-out throughout the municipality.

Notes:

1 – Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement, after treatment, for the year occurred on September 3, 2021 (0.211 NTU). State regulations require that turbidity, prior to distribution, must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU.

2 – Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets.

3 – 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 values detected at your water system. The action level for lead was exceeded at one of the 10 sample sites tested.

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.

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 (nq/l): Corresponds to one part of liquid in one trillion parts of liquid (parts per trillion – ppt)

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 New York State requirements. It should be noted that the action level for lead was exceeded at one of the sample sites throughout our distribution system. Although no action level for lead was exceeded, we are required to present the following information on lead in drinking water:

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 your home's plumbing. The Village of Nunda is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 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 http://www.epa.gov/safewater/lead.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2021, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

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).

INFORMATION FOR NON-ENGLISH-SPEAKING RESIDENTS

Spanish

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

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 treat 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.

CLOSING

The Village of Nunda Water Department continues its working collaboration with New York State Department of Conservation and the Livingston County Department of Health which has created a superb dynamic between personnel, processes, reporting requirements and increased functionality and safety measures of our municipal water source and Water Department.

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. Through collaboration with New York State Rural Water Association, the Village of Nunda continues to reduce loss of water by identifying leaks within the infrastructure and repairing our system. Continuous efforts are in place to monitor leakage through system checks. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community.

In July 2019, the Village of Nunda submitted to New York State Department of Conservation through the Water Quality Improvement Project (WQIP) Program a grant request to acquire, through purchase, property directly adjacent to the municipality's water source (reservoir). In December 2019, a grant award of $236,250 for the Village of Nunda, Land Acquisition for Source Water Protection Project was received. This grant will be used to acquire 173.8 acres within the water source protection area of the municipal reservoir adding greater protection to the drinking water the municipality provides. Due to COVID-19 restrictions, including State Executive Orders, delays in acquiring these properties were identified and mitigated through months of dialog with many New York State officials. In late Fall 2020, State restrictions expired allowing our process to move forward. Our goal of completion was December 2021, which the Village of Nunda met. The Village of Nunda completed the transfer of ownership of these three properties in September 2021 increasing our source water protection area by nearly 12%.

The Nunda Water Department asks that all our customers continue to help us protect our water sources, which is at the heart of the community. Please call our office at 585-468-2215 if you have questions or concerns.