**ANNUAL DRINKING WATER QUALITY REPORT 2021**

**PUBLIC WATER SUPPLY ID#NY 4100042**

**Village of Nassau**

**40 Malden Street,**

**PO Box 452**

**Nassau, NY 12123**

## INTRODUCTION

To comply with State regulations, Village of Nassau, 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 Peter Derkowski, Operator in charge, 518-766-3044. 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 second Wednesday of every month at 7:30pm at the Nassau Village Hall.

## GENERAL DESCRIPTION

The Village of Nassau water system was created in *1903 to* serve the residents of the Village of Nassau. Water was collected in a reservoir located east of the village and distributed to village customers through a series of unlined cast iron pipes. In the mid-thirties the system was upgraded to include wells, located on John Street and a 225,000 gallon storage tank (new in 2010), located on the east end of the village. The wells pump water directly into the distribution system and storage tank, water then flows out of the tank to our customers. The Village of Nassau water system serves approximately 1500 village residents through 600 service connections and a few homes just outside the village lines.The design of the water system has not changed over the years, although numerous upgrades to the distribution system have been made. The well water is treated with chlorine at a rate of 2 to 4 parts per million as it is pumped into the distribution system.

## 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 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 1500 residents through 600 service connections and a few homes just outside the village lines. Our water source is two (2) wells, located' on John Street. These wells pump water from the aquifer under the village directly into the distribution system. Pumping is regulated by a level transmitter located on the water tank turning the pumps on and off. A new well has been added to the system to replace an adjacent well that became inoperable. It is expected to supply adequate quantities of water for years to come. The water is treated with chlorine at a rate of 2 to 4 parts per million as it is pumped into the storage tank then into the distribution system. A source water assessment was completed on this system. A full copy of the report is available for review at the Village Hall located at 40 Malden Street Nassau NY 12123 Monday- Friday from 8am-12pm.

## 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 Rensselaer County Health Department at 518-270-2626.

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, and synthetic organic compounds.

**TABLE OF NON DETECTED CONTAMINANTS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Contaminant** | **Violation** | **Date of** | **Contaminant** | **Violation** | **Date of** |
|  | ***Yes / No*** | **Sample** |  | ***Yes / No*** | **Sample** |
| COLIFORM  | NO | 1/11/21 | COLIFORM | NO | 8/25/21 |
| COLIFORM  | NO | 1/28/21 |  COLIFORM |  NO | 9/7/21 |
| COLIFORM  | NO | 2/8/21 | COLIFORM | NO | 9/20/21 |
| COLIFORM  | NO | 2/18/21 | COLIFORM | NO | 10/4/21 |
| COLIFORM  | NO | 3/3/21 | COLIFORM | NO | 10/19/21 |
| COLIFORM  | NO | 3/23/21 | COLIFORM | NO | 11/4/21 |
| COLIFORM  | NO | 4/7/21 | COLIFORM | NO | 11/22/21 |
| COLIFORM | NO | 4/15/21 | COLIFORM | NO | 12/2/21 |
| COLIFORM  | NO | 4/27/21 | COLIFORM | NO | 12/14/21 |
| COLIFORM | NO | 5/10/21 | COLIFORM |  |  |
| COLIFORM | NO | 5/25/21 | COLIFORM |  |  |
| COLIFORM | NO | 6/8/21 | COLIFORM |  |  |
| COLIFORM | NO | 6/22/21 | COLIFORM |  |  |
| COLIFORM | NO | 7/12/21 | COLIFORM |  |  |
| COLIFORM | NO | 7/29/21 | COLIFORM |  |  |
| COLIFORM | NO | 8/10/21 | COLIFORM |  |  |

**TABLE OF DETECTED CONTAMINANTS**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contaminant** | **Violation Yes/No** | **Date of Sample** |  **Level Detected (Avg/Max)** | **Unit Measurement**  | **MCLG**  | **Regulatory Limit (MCL, TTor AL)**  | **Likely Source of Contamination** |
| Barium  | No | 6/11/2020 | 0.13 | ,mg/L |   | 2 | Drilling wastes |
| pH | No | 6/11/2020 | 6.6 | HZ |   | 6.5-8.5 | Characteristics of water |
|   |   |   |   |   |   |   |   |
| Chloride | No | 6/11/2020 | 144 | mg/L | 250 |   | Naturally occurring |
| Sulfate | No | 6/11/2020 | 17 | mg/L | 250 | <0.2-250 | Naturally occurring |
| Sodium | No | 6/11/2020 | 63.2 | mg/L | NA | NA | Naturally occurring |
| Monobromoacetic acid | No | 9/7/2021 | <1.00 | ug/L | NA | NA | Naturally occurring |
| Bromodichloromethane | No | 9/7/2021 | 1.42 | ug/L | NA | NA | Naturally occurring |
| Dibromochloromethane | No | 9/7/2021 | <1.00 | ug/L | NA | NA | Naturally occurring |
| Bromoform | No | 9/7/2021 | 2.65 | ug/L | NA | NA | Naturally occurring |
| Total Trihalomethanes | No | 9/7/2021 | 6.82 | ug/L | 80 | NA | Naturally occurring |
| Nitrate | No | 9/7/21 | 2.29 | mg/L | 10 | 0.2 | Run off from fertilizer, erosion of natural sources |
| Copper1 | No | 6/23/2020 | 0.16-0.33 | mg/L |   | AL=1.3 | Internal Plumbing |
| Lead2 | No | 6/23/2020 | ND-0.018 | mg/L |   | AL=0.015 | Internal Plumbing |

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, 10 samples were collected at your water system and the 90th percentile value was 0.32mg/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. In this case, 10 samples were collected at your water system and the 90th percentile value was 0.003mg/L. The action level for lead was exceeded at one of the 10 sites tested.

**PFOA TESTING 2021 Quarter Date of Sample Well #1 Well #2**

 **Level Detected Level Detected**

Perfluorobutanesulfonic acid: 1 NA NA NA

 2 4/14 & 4/15 <1.80 <1.80

 3 7/22 3.07 1.92

 4 NA NA NA

Perfluoroheptanoic acid: 1 NA NA NA 2 4/14 & 4/15 <2.00 <2.00

 3 7/22 2.50 <2.00

 4 NA NA NA

Perfluorhexanesulfonic acid: 1 NA NA NA

 2 4/14 & 4/15 2.53 <2.00

 3 7/22 3.51 2.33

 4 NA NA NA

Perfluoronanoic acid: 1 NA NA NA

 2 4/14 & 4/15 <2.00 <2.00

 3 7/22 <2.00 <2.00

 4 NA NA NA

**PFOA TESTING 2021 Quarter Date of Sample Well #1 Well #2**

Continued **Level Detected Level Detected**

Perfluorooctanesulfonic acid (PFOS): 1 1/28 NA 2.80

 2 4/14 & 4/15 2.88 <2.00

 3 7/22 3.68 2.34

 4 10/28 2.45 2.38

Perfluorooclanoic acid (PFOA): 1 1/28 NA 2.96

 2 4/14 & 4/15 3.94 <2.00

 3 7/22 6.86 3.35

 4 10/28 3.91 3.93

**Likely Sources:** Industrial waste, cookware, treated apparel, pre-treated carpet, industrial floor wax and removers, stone ,tile and wood sealants, PTFE such as Teflon.

***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 per 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 New York State requirements. It should be noted that the action level for lead was exceeded in 1 result. 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 in your home’s plumbing. Village of Nassau 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).

## 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.

## DISTRIBUTION IMPROVEMENTS

### Recent improvements for 2021 include:

### \* Minor leaks were repaired to our system.

### Planned improvements for 2022 include:

**\*** Mapping of Village water system

**\*** Upgrade water mains on Chatham Street and Kaunameek Street

**PROCEDURE FOR WATER SERVICE REPAIR**

If there is a problem with your water service, you must notify the Village Water Department at 518-766-3850 prior to any work being performed. The Water Department will decide the best way to proceed with the repair. Failure to comply will result in the resident taking full responsibility for the cost of the repair.

**CLOSING**

Thank you 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. 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 to protect our water sources, which are the heart of our community. Again please call our office if you have questions.

This water supply statement is being prepared for our customers in accordance with New York State Public
Health Law. Call the Village Hall at 766-3044 (Monday through Friday 8:00 a.m. to Noon) and we will try to answer any questions you may have.

For a copy of analytical results you may call the Village Clerks Office at 766-3044 ext 0. Contact person Peter Derkowski.

**ASSESSMENT SUMMARY**

This assessment evaluates the potential for contaminants to enter the groundwater pumped at the following well(s). The maps which are included at the end of this report (Appendix 4) show the well location(s) and the assessment area that includes an inner and outer zone. The assessment area is the estimated surface area that could contribute recharge to the well that was evaluated for
potential and actual sources of contamination.

**Table of Significant Potential Sources of Contamination**

**Well Name: Drilled Well #1**

**Well Number: 2561284**

|  |  |  |  |
| --- | --- | --- | --- |
| **Contaminants of Concern** | **Potential Land Cover Sources of Contamination** | **Potential Discrete** **Sources of Contamination** | **Potential Impact to Water Source** |
| Nitrates | Low Intensity Residential  | 1 SPDES Permitted Facility(s) in Outer Zone | Medium-High |
| Protozoa | Low Intensity Residential | 1 SPDES Permitted Facility(s) in Outer Zone | Medium-High |
| Enertic Bacteria | Low Intensity Residential | 1 SPDES Permitted Facility(s) in Outer Zone | Medium-High |
| Enertic Viruses | Low Intensity Residential | 1 SPDES Permitted Facility(s) in Outer Zone | Medium-High |

**Table of Significant Potential Sources of Contamination**

**Well Name: Drilled Well #2**

**Well Number: 2561285**

|  |  |  |  |
| --- | --- | --- | --- |
| **Contaminants of Concern** | **Potential Land Cover Sources of Contamination** | **Potential Discrete** **Sources of Contamination** | **Potential Impact to Water Source** |
| Nitrates | Low Intensity Residential  | 1 SPDES Permitted Facility(s) in Outer Zone | Medium-High |
| Protozoa | Low Intensity Residential | 1 SPDES Permitted Facility(s) in Outer Zone | Medium-High |
| Enertic Bacteria | Low Intensity Residential | 1 SPDES Permitted Facility(s) in Outer Zone | Medium-High |
| Enertic Viruses | Low Intensity Residential | 1 SPDES Permitted Facility(s) in Outer Zone | Medium-High |