



Annual Drinking Water Quality Report for 2022

Town of Niskayuna

One Niskayuna Circle, Niskayuna, NY 12309

(Public Water Supply Identification Number NY4600073)

INTRODUCTION

To comply with State regulations, the Town of Niskayuna issues an annual 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. This report provides an overview of our drinking water quality for the year 2022. Included are details about where your water comes from, what it contains, and how it compares to New York State standards. Our goal is to provide you with a safe and dependable supply of drinking water. We strive to improve our water treatment process and to protect our water resources.

If you have any questions about this report or your drinking water please contact *Matt Yetto, 1 Niskayuna Circle, Niskayuna NY, (518)386-4520*. 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 on the 3rd Tuesday of each month. For specific dates of scheduled meetings please visit the Town website (<http://www.niskayuna.org/>)

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. Similarly, for bottled water, State Health Department and FDA regulations establish limits to provide the same protection for public health.

Our water source is groundwater from two aquifers. In 2022, 425,166,900 gallons of our water was drawn from wells located near the Mohawk River in the Town of Niskayuna. 654,608,000 gallons was drawn from the City of Schenectady wells located in the Town of Rotterdam near the Mohawk River.

The water is purified naturally as it percolates through layers of soil, clay, rock and sand. When the “raw water” is pumped from the aquifer, it is further treated and disinfected prior to distribution. Treatment at the Niskayuna Water Plant consists of gas chlorination to oxidize iron and manganese and to disinfect the water, pressure sand filtration to remove iron and manganese, fluoridation at low levels to protect teeth, and injection of poly-orthophosphate to control corrosion. The City’s treatment process is nearly identical with one exception; there is no pressure sand filtration because their raw water has very little iron and manganese. To view the City of Schenectady Water Quality please follow the link. <https://www.cityofschenectady.com/220/Water-Department>.

FACTS AND FIGURES

Our water system serves about 22,287 people through 8,165 service connections. There are two sources of water supplying Niskayuna’s entire water transmission and distribution system and several blocks located in the City of Schenectady. Our “average daily demand” was 2,950,000 gallons per day. Our highest single day was 5,418,000 gallons. All the connections within Niskayuna are metered, 13 of the city connections are metered and the remaining 359 of the city connections are not metered. The total water withdrawn from both sources in 2022 to service this distribution system was 1,080,229,900 gallons; The amount of water delivered was 806,498,568 gallons. The remaining 273,731,332 gallons, about 26.3% was “lost water”.

In 2022, the residential water rate was \$3.07 per 1,000 gallons of water used. The commercial rates were \$5.40 per 1000 gallons used.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, we routinely test your drinking water for numerous potential contaminants including: inorganic compounds, radiological contaminants, lead and copper, nitrate, volatile organic compounds, haloacetic acids, trihalomethanes and synthetic organic compounds. In addition, we test 20 samples per month for coliform bacteria. The enclosed table 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 typically change little from year to year. Some of the data, though representative, is more than one year old.

All drinking water, including bottled drinking water, may contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate 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 Schenectady County Health Department at (518) 386-2818.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the tables, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these compounds were detected below New York State requirements.

New York State has adopted the first in the nation drinking water standard for 1,4-Dioxane along with one of the lowest maximum contaminant levels for PFOA and PFOS. Public Water Supplies in NYS are required to test for PFOA, PFOS and 1,4-Dioxane. PFOA and PFOS have Maximum Contaminant Levels (MCL) of 10 parts per trillion each while 1,4-Dioxane has an MCL of 1.0 parts per billion. Niskayuna has been doing quarterly monitoring on each well for PFOA, PFOS & 1,4-Dioxane. There were some detects for the PFOAs & PFOS's on several samples and those results are in the Table of Detects. There were no detects on any of the samples collected for 1,4-Dioxane.

In 2022, we were required to collect and analyze drinking water samples for 23 unregulated contaminants and 2 regulated contaminants on 1 sample from our finished water in March, May, September and November 2022. Some contaminants that are currently unregulated and 2 contaminants that are regulated were detected in the samples. The data is shown in the table on page 2. The list of Unregulated and Regulated Compounds can be found on the last page. You may obtain the monitoring results by calling Matt Yetto at (518)386-4520."

Many of the test results were **NON-DETECTABLE**. The type/group (number of contaminants in each group) tested for were as follows: volatile organic compounds (52) +MTBE, synthetic organic compounds (43), asbestos, and radiological chemicals (4). The inorganic contaminants tested for were: arsenic, cadmium, chromium, iron, manganese, mercury, silver, selenium, antimony, beryllium, thallium and cyanide. The microbiological contaminants (1) *E. coli*.

Unregulated Contaminant Monitoring 4 was conducted during 2018. This is a requirement of the 1996 Safe Drinking Water Act amendments. This monitoring provides a basis for future regulatory action to protect the public health. The number in parentheses refers to the number of measured for a total of 30 analytes. The breakdown of analytes is as follows: semi volatile organic chemicals (3), pesticides and pesticide manufacturing byproduct (9), metals (2), alcohols (3), brominated haloacetic acid groups (3), cyanotoxin chemical contaminants (10) and indicator compounds (2). We have listed those compounds that were detected in the table of Detected Contaminants for the Niskayuna Water Works. There are no associated MCL's for these compounds at this time with the exception of Manganese. We have listed those compounds that were detected in the table of Detected Contaminants for Niskayuna.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2022, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

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 microbiological pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHAT IS THE SOURCE WATER ASSESSMENT PROGRAM (SWAP)?

To emphasize the protection of surface and ground water sources used for public drinking water, Congress amended the Safe Drinking Water Act (SDWA) in 1996. The amendments require that New York State Department of Health's Bureau of Public Water Supply Protection is responsible for ensuring that source water assessments are completed for all of New York's public water systems.

A source water assessment provides information on the potential contaminant threats to public drinking water sources:

- ◆ each source water assessment will: determine where water used for public drinking water comes from (delineate the source areas)
- ◆ Inventory potential sources of contamination that may impact public drinking water sources
- ◆ Assess the likelihood of a source water area becoming potential contaminated

INFORMATION ON FLUORIDE ADDITION

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. Fluoride is added to your water by the Niskayuna and Schenectady Water Departments. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.7 to 1.2 mg/l (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that Niskayuna and Schenectady monitor fluoride levels on a daily basis. During 2022 monitoring showed fluoride levels in your water were within 0.2 mg/l of the target level for 99 % of the time for Niskayuna and 99% of the time for Schenectady. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

INFORMATION ON LEAD

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 Niskayuna Water Department is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your 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 reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Matt Yetto at Niskayuna Department of Public Works. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://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, it is still important to conserve water. Saving water saves energy required to pump water and reduces the need to construct costly new wells, pumping systems and water towers. You can conserve water by:

- *Using water saving showerheads*
- *Repairing all leaks in your plumbing system; leaking toilets can waste 100 GPD*
- *Watering your lawn sparingly in the early morning or in the late evening*
- *Doing only full loads of wash and dishes*
- *Washing your car with a bucket and hose with a nozzle*
- *Not cutting the lawn too short; longer grass saves water.*

Use your water meter to detect hidden leaks. Simply turn off taps and water using appliances; then check the meter after 15 minutes; if it moves, you have a leak.

SYSTEM IMPROVEMENTS

In 2022 the following improvements were made to the water system:

- Added 9 flushing machines to dead ends to help with water quality.
- Started upgrades to Water Treatment Plant and Pump Stations.

CLOSING

Thank you for allowing us to provide your family with quality water this past year. We ask that all our customers help us protect our water sources. Please call our office if you have questions.

TOWN OF NISKAYUNA TABLE OF DETECTED CONTAMINANTS
Public Water Supply Identification Number NY4600073

Contaminant	Violation Y/N	Date of Sample	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination					
Inorganic Contaminants												
Barium	N	3/8/21	27.4	µg/l	2000	MCL=2000	Geology; Naturally occurring					
Chloride	N	2/9/22	92.3	mg/l	N/A	MCL=250	Geology; Naturally occurring					
Copper Range of copper concentrations	N	6/29/21- 6/30/21	0.669 0.0807- 1.21	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems					
Fluoride	N	3/8/21	0.417	mg/l	N/A	MCL=2.2	Water additive which promotes strong teeth					
Lead Range of lead concentrations	N	6/29/21- 6/30/21	3.1 ² ND-9.3	µg/l	0	AL=15	Corrosion of household plumbing systems					
Nickel	N	3/8/21	1.5	µg/l	N/A	N/A	Erosion of natural deposits					
pH	N	2/9/22	7.02	units		6.5-8.5						
Sodium ³	N	2/9/22	29.9	mg/l	N/A	N/A	Geology; Road Salt					
Sulfate	N	2/9/22	18.3	mg/l	N/A	MCL=250	Geology					
Zinc	N	2/9/22	13.9	µg/l	N/A	MCL=5000	Geology; Naturally occurring					
Microbiological Contaminants												
Total Coliform ⁴	N	8/2/22	1 positive sample	N/A	N/A	TT=2	Naturally present in the environment.					
Stage 2 Disinfection Byproducts												
Chlorine (based on daily samples) Range of chlorine residuals	N	daily testing	1.0 Average 0.6-1.7 Range	mg/l	MRDLG 4	MRDL MCL=4	Used in the disinfection and treatment of drinking water chlorination					
Haloacetic Acids [HAA5] DBP _{MAX}	N	8/2/22	4.99	µg/l	N/A	MCL=60	Byproduct of drinking water chlorination					
Haloacetic Acids [HAA5] DBP ₂			5.33									
Trihalomethanes [TTHM] DBP _{MAX}	N	8/2/22	20.0	µg/l	N/A	MCL=80	Byproduct of drinking water chlorination					
Trihalomethanes [TTHM] DBP ₂			20.4									
Synthetic Organic Chemicals												
1,4 Dioxane Well 5-A	N	3/1/22	0.023	µg/l	N/A	MCL=1	This compound may enter the environment through its use as a solvent and in textile processing, printing processes, and detergent preparations.					
1,4 Dioxane Well 7			0.025									
1,4 Dioxane Well 8-A			0.033									
1,4 Dioxane Well 8-A			5/31/22					0.020				
1,4 Dioxane Well 9								0.029				
1,4 Dioxane Well 1-B			9/1/22					0.025				
1,4 Dioxane Well 4-A								0.039				
1,4 Dioxane Well 5-A								0.047				
1,4 Dioxane Well 7								0.028				
1,4 Dioxane Well 8-A								0.070				
1,4 Dioxane Well 9		0.026										
1,4 Dioxane Well 1-B		11/29/22	0.041									
1,4 Dioxane Well 4-A			0.056									
1,4 Dioxane Well 5-A			0.082									
1,4 Dioxane Well 7			0.034									
1,4 Dioxane Well 8-A			0.077									
1,4 Dioxane Well 9			0.046									
PFHxA Well 8-A			3/1/22					2.8	ng/l	N/A	MCL=10 ^{5,6,7}	Released into the environment from widespread use in commercial and industrial applications
PFHxS Well 8-A								1.9				
PFOA Well 8-A								3.3				
PFBS Well 4-A	5/31/22			1.9								
PFHxA Well 4-A		3.3										
PFOA Well 4-A		3.4										
PFOS Well 4-A		1.9										
PFHxA Well 5-A		3.0										
PFOA Well 5-A		2.9										
PFHxA Well 6		2.0										
PFBS Well 8-A		1.8										
PFHxA Well 8-A		4.2										
PFOA Well 8-A		2.0										
PFBS Well 4-A	9/1/22	2.6										
PFHxA		11 ⁵										
PFHxS		4.5										
PFHpA		7.8										
PFOA		15										
PFOS		4.8										
PFBS Well 5-A		2.5										
PFHxA		11 ⁵										
PFHxS		4.2										
PFHpA		8.0										
PFOA	14											
PFOS	4.5											
PFHxA Well 6	1.1											
PFOS	0.95											
PFBS Well 8-A	2.2											
PFHxA	7.1											
PFHxS	5.0											

PFHpA			5.5				
PFOA	N ⁸		11 ⁵				
PFOS			5.7				
PFNA			1.3				
PFBS Well 9			0.81				
PFHxA			3.6				
PFHxS			0.99				
PFHpA			1.4				
PFOA			1.4				
PFOS			1.1				
PFBS Well 4-A (2 Samples)		11/29/22	1.9, 1.9				
PFHxA			2.1, 1.9				
PFHxS			ND, 1.8				
PFOA			4.5, 4.5				
PFOS			3.3, 3.1				
PFBS Well 5-A (2 Samples)			2.4, 2.9				
PFHxA			2.3, 2.2				
PFHxS			2.5, 2.7				
PFHpA			2.0, 2.1				
PFOA			5.8, 6.3				
PFOS			3.3, 3.6				
PFHxA Well 6			2.1				
PFBS Well 8-A (2 Samples)			2.6, 3.0				
PFHpA			2.1, 2.1				
PFHxS			3.0, 3.0				
PFOS			1.9, 2.0				
PFOA			4.7, 4.5				
PFHxA			3.1, 3.0				
PFHxS Well 5-A		12/30/22	2.2				
PFOS			2.3				
PFOA			3.6				
Unregulated Contaminant Monitoring Rule 4 Detected Contaminants							
Manganese (range of values)	N	1/11/18	0.881-1.06	µg/l	N/A	300	Geology
HAA9	N/A	7/27/18	13.1-25.4		N/A	N/A	Byproduct of drinking water chlorination
HAA6	N/A		4.49-5.65		N/A	N/A	

NOTES-

- The level presented represents the 90th percentile of 30 sites tested. A percentile is a value on a scale of 100 that indicates the percent of 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 thirty samples were collected at your water system and the 90th percentile was the fourth highest value (0.669). The action level for copper was not exceeded at any of the 30 sites tested.
- The level presented represents the 90th percentile of 30 test sites. The action level for lead was not exceeded at any of the 30 sites tested.
- Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.
- Resamples for coliform were collected on 9/9/21. The results were all negative for total coliform.
- The MCL of 10 ng/l is only for PFOA and PFOS.
- All perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL = 0.05 mg/L or 50,000 ng/l.
- USEPA Health Advisory Levels identify the concentration of a contaminant in drinking water at which adverse health effects and/or aesthetic effects are not anticipated to occur over specific exposure durations. Health Advisory Levels are not to be construed as legally enforceable federal standards and are subject to change as new information becomes available. PFBS (2000 ng/l) and HFPO-DA (10 ng/l) also have Health Advisory Levels.
- If the results of a monitoring sample analysis exceed the MCL, the supplier of water shall collect one to three more samples from the same sampling point, as soon as practical, but within 30 days. An MCL violation occurs when the average of the initial sample and the resamples is over the MCL.

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Parts per billion (ppb) or Micrograms per liter (µg/l) - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

90th Percentile Value- The values reported for lead and copper represent the 90th percentile. 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 and copper values detected at your water system.

Action Level - the concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal The "Goal" (MCLG) is 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.

N/A-Not applicable

Niskayuna Consolidated Water District # 11
NY460073
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. The section of the report entitled, “Are there contaminants in our drinking water?” provides a list of the contaminants that have been detected.

As mentioned earlier in this report, our drinking water is derived from 9 drilled wells. The source water assessment has rated these wells as having an elevated susceptibility. In addition, the wells draw from an unconfined aquifer and the overlying soils are not known to provide adequate protection from potential contamination.

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

The Niskayuna Consolidated Water District recognizes the importance of watershed protection by implementing Watershed Rules and Regulations along with zoning restrictions.

Schenectady City
PWSID# NY460070
AWQR 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. The section of the report entitled, “Are there contaminants in our drinking water²” provides a list of the contaminants that have been detected.

As mentioned earlier in this report, our drinking water is derived from 11 drilled wells, the source water assessment has rated these wells as having an elevated susceptibility. This rating is due primarily to the close proximity of permitted discharge from commercial facilities that are regulated by the state. In addition, the wells draw from an unconfined aquifer and the overlying soils are not known to provide adequate protection from potential contamination.

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

The City of Schenectady recognizes the importance of watershed protection by implementing Watershed Rules and Regulations along with zoning restrictions.

Unregulated Perfluoroalkyl Substances / Regulated			
pfbs	Perfluorobutanesulfonic acid	NA	Hfpo-da
pfhpa	Perfluoroheptanoic acid	pfba	Perfluorobutanoic acid
pfhxs	Perfluorohexane sulfonic acid	6:2 fts	Perfluorooctane sulfonic acid
pfna	Perfluorononanoic acid	4:2 fts	Perfluorohexane sulfonic acid
<i>pfos</i>	<i>Perfluorooctane sulfonic acid</i>	8:2 fts	Perfluorodecane sulfonic acid
<i>pfoa</i>	<i>Perfluorooctanoic acid</i>	pfmpa	Perfluoro
pfda	Perfluorodecanoic acid	pfpea	Perfluoropentanoic acid
pfdoa	Perfluorododecanoic acid	pfmba	Perfluoro-4-methoxybutanoic acid
pfhxa	Perfluorohexanoic acid	pfesa	Perfluoro(2-ethoxyethane)sulphonic acid
pfuna	Perfluoroundecanoic acid	nfdha	Nonafluoro-3,6-dioxaheptanoic acid
NA	n11cl-pf3ouds	pfpes	Perfluoropentane sulfonic acid
NA	9cl-pf3ons	pfhps	Perfluoroheptane sulfonic acid
NA	Adona		

Notes: The two regulated compounds are in italics and have MCLs of 10 ng/L each.

The remaining 23 compounds are unregulated.

All perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL = 0.05 mg/L or 50,000 ng/l