

2021

ANNUAL REPORT
Endicott Water Department
Public Water Supply
ID# 0301665

Water Quality
For Supply Year

2021

Report to Customers on Water Quality



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Introduction:

To comply with State regulations, the Village of Endicott issues a report annually describing the quality of your drinking water. The purpose of this report is to raise your understanding and awareness of the need to protect our drinking water sources. This report provides an overview summary of analytical results from 2021. Complete results are available at the Endicott Water Department office, 1009 East Main Street, Endicott, New York, 13760. Included are details of where your water comes from, what it contains and how it compares to State standards. It includes who we serve, water costs, planned improvements, about radon, water quality, frequently asked questions and the water department responsibilities. If you have any questions about this report or concerning your drinking water, please contact the Village of Endicott Water Department at 607-757-2445. Also the Public is invited to attend regular scheduled Village Board meetings. We would also like to encourage the public to be vigilant and report any suspicious activity to assist in the security of your water system.

Where Does Water Come From?

In general, the sources of 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 and through the ground, it dissolves naturally-occurring minerals and in some cases, radioactive materials 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 the water provided by public water systems. The State Health Department's and the FDA's regulations also establish limits for contaminants in bottled water which provide the same protection for public health.

Important Phone Numbers

Endicott Water Phone System
 (607)757-2445 Then press...

1 for Distribution & Maintenance
 Report any water emergencies 24/7

2 for Customer Service

Billing questions, Transfer of service, change of address ect.

3 for Water Service Department
 All other Water Related Issues and to leave non-emergency message after hours.

**Broome County Health
Department:**
 (607) 778-2887

**New York State Department of
Health: 1-800-458-1158**

**USEPA Safe Drinking Water
Hotline:**
 1-800-426-4791

Where Does Our Water Come From?

The sole source of Endicott's drinking water comes from an underground Aquifer. Several wells located along the Susquehanna River allow us to tap into this Aquifer. We also purchase water from Johnson City, our neighboring municipal water supplier. The Ranney Well (#32) is a 110-foot deep groundwater collection well, which supplies a good portion of our water. The Ranney Well has two aeration towers that have the capability of removing Volatile Organic Chemicals (VOC's) and radon from the water if needed.

Water Department Responsibilities

It is the responsibility of the Endicott municipal Water Department to strive to provide safe, sanitary, quality water that is free from harmful or objectionable taste, odor, and turbidity in the most efficient manner possible. We will supply adequate amounts of water for fire protection, maintain our system with as few interruptions as possible by responding to emergencies in a timely and efficient manner, and assist utilities, contractors, and private individuals through line location and general information, to help them conform to water department specifications. The water department is responsible to pump a sufficient amount of water to meet peak demands of residential, commercial, and industrial customers. Backflow and cross connection control, preserving and testing for water quality, maintaining pumps, motors, property and buildings, chlorinating and fluoridating water, reading and maintaining water meters for water and sewer bills, repairing water leaks, maintaining hydrants, curb boxes, valves, tanks, and booster stations, marking out water lines for other utilities, shutting off or turning on water service for customers moving, vacationing, etc, chlorinating lines for newly developed areas, and services to assist customers when needed. Endicott Municipal Water System is the second largest system in the Triple Cities and serves 46,000 customers.

Endicott Municipal Water Department is proud to be a Utility Member of the American Water Works Association and an active member of the New York Rural Water Association.

Who We Serve

The Endicott Municipal Water Department services all of the Village of Endicott, as well as a major portion of the Town of Union, including Endwell and West Corners with about 14,500 service connections and 46,000 customers. The area served runs from the West Corners area of Bean Hill Road and the Boswell Hill Road area, north to Twist Run Road, east to Robinson Hill Road and south to the Susquehanna River. During 2021, our system experienced one boil water restriction due to a water main break in April.



Facts & Figures

In the Endicott Water System there is approximately 170 miles of water main. There are 13 storage tanks with a total holding capacity of 10 million gallons. There are 2 pneumatic tanks, and over 950 hydrants for fire protection. There are 10 booster pump stations to serve 5 pressure zones. In 2021, 1.3 billion gallons of water was pumped (an average of 3.7 million gallons per day).

Water System Improvements

- The 1.5 million gallon tank at Pine Street was drained and cleaned. A valve and hydrant was added to drain the tank easily in the future. The tank was sand blasted and a special rubberized coating was applied to the inside. It was then sterilized and flushed.
- Two Pumps at Pine Street Booster site were replaced. This included new high efficiency 60 HP motors and new AC drives which save on wear and tear of equipment by ramping pump speeds.
- Construction was completed on the Hayes Ave Pump Station. The station will replace the booster pump that is in a vault in the road.
- The .5 million gallon tank at Sky Island was repainted. The concrete base was restored as it was deteriorating.
- Taft Ave Booster Station was repaved.
- Divers cleaned 1million gallon twist run tank and .5 million gallon Pheasant Lane tank.



Repainting of Sky Island Tank



New 60 HP Pump and AC Drive



Hayes Ave Booster Pump Station

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. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at a properly controlled level. To ensure that the fluoride supplement in your water provides optimal dental protection, we monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7 mg/l. During 2021 monitoring showed that fluoride levels in your water were within 0.2 mg/l of the target level for 80% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.



Fire Hydrants & You

If you are a resident with a fire hydrant on or near your property it would be appreciated if you could keep the hydrant free of snow in the winter months and free of grass and weeds in the summer months. The house you help to save might be your own.



Frequently Asked Questions About Water

Leaks & Water Conservation

The bathroom toilet is usually the cause of unexplainably high water and sewer bills. There are two places in the toilet tank for a leak that are out of sight. One is the flapper in the bottom of the tank and the second is the overflow pipe. The overflow pipe is usually obvious; however, the flapper is not so obvious. If you put a few drops of food coloring in the toilet tank and it ends up in the bowl, you have an invisible toilet leak. Other common sources of leaks include outside taps that have not been shut completely, worn washers in faucets and showerheads. If you check your water meter when no one is using the water, and the little dial is rotating, or on a digital meter the number is changing, then you have a leak somewhere in your home. **Why save water?** Although our system has an adequate amount of water to meet present demands, there are a number of reasons why it is important to conserve water: Saving water saves energy and the costs associated with both of these necessities. Saving water lessens the strain on the water system during the dry spells or droughts. Saving water also reduces the amount of energy required to pump water to maintain tank levels for fire protection.



Water Cost & Water Bill Information

The billing rate for residential customers is \$3.42 per 1,000 gallons of water up to 18,000, \$2.96 per 1,000 gallons for usage over 18,000 gallons.

Additional charges on your water bill: There is a sewer charge of \$3.65 per thousand gallons of water usage. Your water service will not be shut off for non payment; instead the amount will be added to your tax bill. There is also a Tipping Fee, pertaining to trash removal, of \$105.00 per unit for Village residents only. All water bills have a fixed charge of \$12 per 6 month bill.

How Do We Know Our Water Is Safe?

The Endicott Municipal Water Department takes hundreds of samples for numerous chemical, physical and biological tests each year. Usually groundwater is free from many of the pollutants associated with surface water, however, as water travels through the ground; it dissolves naturally occurring minerals and can pick up substances. In order to ensure that your tap water is safe to drink, the State and EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The Village of Endicott has joined with the Town of Union and the Village of Johnson City to protect the aquifer we share through passing wellhead protection ordinances in all our Municipalities. Contact your local municipality for more information. In Broome County, the State Health Department has delegated its primary enforcement and surveillance activities to the Broome County Health

Department. The County reviews all testing, improvements, and modifications. They also review all of our water departments operating and monitoring data. We are proud to report that your tap water met all State drinking water standards.

Do We Need To Take Special Precautions?

Though 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. Immune-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with **HIV/AIDS** or other immune disorders, some elderly, and infants can be at risk from infections. These people should seek advice about drinking water from their health care provider.

EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* or other microbial contaminants are available from **SAFE DRINKING WATER HOTLINE** at **1-800-426-4791**



If you check your water meter when no one is using water, and the dial is rotating or the digits are counting, then you have a leak somewhere in your home.

Endicott Municipal Water Works
NY0301665
AWQR 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, called the well sensitivity. 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. While inorganic and organic contaminants were detected in our water, 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 from natural sources. The presence of contaminants does not necessarily indicate that the water poses a health risk.

As mentioned before, our water is currently derived from one well. The source water assessment has rated the well as highly sensitive to both chemical and microbial contaminants. The well rates a high sensitivity because of historic detections of chemical contaminants and because the well is located in a very productive aquifer where the subsurface soils allow large volumes of water to move through the aquifer

Potential contaminant sources were then evaluated and given a contaminant prevalence rating. The sensitivity and contaminant prevalence then determine the susceptibility of a particular well. The source water assessment has rated the Endicott Municipal Water Works well as having a medium-high susceptibility to microbials, such as enteric bacteria and enteric viruses, and a medium-high to very high susceptibility to various chemical contaminants as noted in the table below. While significant sources of some types of contamination have not been identified in the assessment area, a well may have been given an elevated susceptibility rating for other chemicals because of high well sensitivities.

SUSCEPTIBILITY TABLE	
CONTAMINANT	Well #32
Cations/Anions (Salts)	High
Enteric Bacteria	Medium-High
Enteric Viruses	Medium-High
Halogenated Solvents	Very High
Herbicides/Pesticides	High
Metals	High
Nitrate	Medium-High
Other Industrial Organics	Very High
Petroleum Products	High
Protozoa	Medium-High

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

The Village of Endicott currently has an active wellhead and watershed protection plan in place to ensure drinking water safety and the source water assessment is another tool that can help direct further refinements to the plan. County and state health departments will also use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education programs.

**ANY QUESTIONS REGARDING THIS SUMMARY CAN BE DIRECTED TO
THE BROOME COUNTY DEPARTMENT OF HEALTH AT 607-778-2887.**

TABLE OF DETECTED CONTAMINANTS 2021

[illegible]

3	Water containing more than 20 mg/l of sodium should not be used for drinking by people 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.
4	This level represents the total of the following contaminants: chloroform, bromodichloromethane, dibromochloromethane, bromoform.
5	This level represents the total levels of the following contaminants: Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, Dibromoacetic Acid.

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.

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.

UNREGULATED CONTAMINANT MONITORING

The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every five years, the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants monitored by public water systems (PWSs). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. Unregulated contaminants are those that don't yet have a drinking water standard set by US EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. The following unregulated contaminants were detected in our water system during 2018:

Manganese	160 - 1100 ug/l	Source is erosion of natural deposits.
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Germanium	ND - 0.31 ug/l	Source is erosion of natural deposits. Also used in electronics manufacturing.
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Bromide	43 - 200 ug/l	Naturally occurring. Tested as a precursor of disinfection byproducts.
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Total Organic Carbon	ND - 1000 ug/l	Naturally occurring. Tested as a precursor of disinfection byproducts.
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Haloacetic Acids*	9.7 - 14.0 ug/l	By-product of drinking water disinfection needed to kill harmful organisms.
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* - These levels represent the total levels of the following contaminants: Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, Dibromoacetic Acid, Bromochloroacetic Acid, Bromdichloroacetic Acid, Chlorodibromoacetic Acid, Tribromoacetic Acid

TABLE OF DETECTED CONTAMINANTS - Village of Johnson City 2021

Contaminant	Violation Yes/No	Sample Location	Date of Sample	Level Detected (range)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
Barium	No	Camden St. Well #6 Well #7	5/19/2020 5/19/2020 5/19/2020	0.111 0.112 0.0852	mg/l	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Lead ²	No	Distribution	7/31- 8/1/2019	1.8 (ND-10.8)	ug/l	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits.
Copper ²	No	Distribution	7/31- 8/1/2019	0.189 (0.001-0.299)	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Nitrate (as Nitrogen)	No	Camden St. Well #6 Well #7	5/21/2021 5/21/2021 5/21/2021	0.85 0.89 0.87	mg/l	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Sodium ³	No	Camden St. Well #6 Well #7	5/21/2021 5/21/2021 5/21/2021	80.6 84.0 85.8	mg/l	N/A	See Health Effects	Naturally occurring; Road salt; Water softeners; Animal waste.

Disinfection Byproducts

Total Trihalomethanes ⁴	No	Distribution	8/27/2021 11/15/2021	30.0 43.2	ug/l	N/A	80	By-product of drinking water chlorination.
Haloacetic Acids ⁵	No	Distribution	8/27/2021 11/15/2021	12.5 3.15	ug/l	N/A	60	By-product of drinking water chlorination.

Emerging Organic Contaminants

1,4-Dioxane	No	Camden St. Well #6 Well #7	2021 Quarterly	0.434-0.842 0.470- 0.876 0.406-0.592	ug/l	N/A	1	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
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Radiological Contaminants

Gross Alpha	No	Camden St. Well #6 Well #7	2/12/2019 2/12/2019 2013-2015	0.811 0.565 1.29	pCi/L	0	15	Erosion of natural deposits.
Radium-226 & Radium-228	No	Camden St. Well #6 Well #7	2/12/2019 2/12/2019 2013-2015	0.426 0.312 0.95	pCi/L	0	5	Erosion of natural deposits.

Notes:

2	The level presented represents the 90 th percentile of the 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 90 th percentile is equal to or greater than 90% of the lead/copper values detected at your water system.
3	Water containing more than 20 mg/l of sodium should not be used for drinking by people 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.
4	These levels represent the Locational Running Annual Average levels (annual sampling) of the following contaminants: chloroform, bromodichloromethane, dibromochloromethane, bromoform.
5	These levels represent the Locational Running Annual Average levels (annual sampling) of the following contaminants: dibromoacetic acid, dichloroacetic acid, monochloroacetic acid, monobromoacetic acid, and trichloroacetic acid.

Definitions:

<u>Maximum Contaminant Level (MCL):</u> The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.
<u>Maximum Contaminant Level Goal (MCLG):</u> 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.
<u>Action Level (AL):</u> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
<u>Non-Detects (ND):</u> Laboratory analysis indicates that the constituent is not present.
<u>Milligrams per liter (mg/l):</u> Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).
<u>Micrograms per liter (ug/l):</u> Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).
<u>Nanograms per liter (ng/l):</u> Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).
<u>Picocuries per liter (pCi/L):</u> A measure of the radioactivity in water.

What Does This Information Mean?

We have learned through our testing that some contaminants have been detected; however these contaminants were detected below the level allowed by the State. NYS and EPA have promulgated a drinking water arsenic standard of 10 parts per billion. While your drinking water meets the standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effect of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

EMERGING ORGANIC CONTAMINANTS

Perfluorooctanoic acid (PFOA), Perfluorooctansulfonic acid (PFOS), and 1,4 Dioxane (1,4-D)

PFOA, PFOS, and 1,4-D are relatively ubiquitous in the environment due to their historical widespread use and persistence. The New York State Health Department has instituted regulations requiring water systems to test for these contaminants.

PFOA and PFOS have been used in a variety of consumer and industrial products as surface coatings and/or protectants because of their nonstick properties. Research indicates that these compounds bioaccumulate in various organisms, including fish and humans.

1,4-D has been largely used as a solvent stabilizer for chemical processing but can also be found as a purifying agent in the manufacturing of pharmaceuticals as well as a contaminant in ethoxylated surfactants commonly used in consumer cosmetics, detergents, and shampoos. Research indicates that this chemical does not bioaccumulate in the food chain.

We are informing you that although our testing detected 1,4-Dioxane in Well #32, it did not exceed the MCL set forth by the New York State Health Department. PFOA and PFOS were not detected in Well #32 during 2021.

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. We had one incident during 2021 that required public notification: On April 29, 2021 there was loss of pressure in the distribution system due to a water transmission main break and a boil water advisory was issued. The problem was corrected, pressure and chlorine disinfection were restored, and acceptable bacteriological check samples were collected on April 30th and May 1st. The boil water was then lifted on May 2nd.

Water Treatment



Endicott Municipal Water must be treated to assure the quality of water delivered to our customers meets or exceeds state and federal guidelines. Fluoride is added to the water as an effective measure to prevent dental cavities in children. Aqua Pure, a sequestering agent, is added to the water to help prevent iron and manganese that is found naturally occurring in our water from depositing on clothes and fixtures. This product is considered a food additive and has not been found to have any adverse health effects. An additional method of treatment is Air Stripping used at all three of our producing wells. Air Stripping is the process used to remove Volatile Organic Chemicals. The most important treatment that occurs is Disinfection. Chlorine is added for disinfection purposes.



Are There Contaminants In Our Drinking Water?

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. As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, inorganic compounds, nitrates, lead and copper, volatile organic compounds, total trihalomethanes, and synthetic organic compounds. Additionally, your water is tested for coliform bacteria at least 50 times per month. The tables enclosed depict which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year. Some of our data, though, representative, are more than a year old. More information about contaminants and potential health risk can be obtained by calling EPA's Safe Drinking Water Hot Line at 1-800-426-4791 or the Broome County Environmental Health Department at 607- 778-2887.