



**Annual Drinking Water Quality Report
For 2016
"THE WATER WE DRINK"
Wayne County Water & Sewer Authority
3377 Daansen Road, Walworth, N.Y. 14568**

For water customers in the Wayne County Water and Sewer Authority's **Huron 4 Service Area** (SA) (PWS ID #NY5830075) supplied by the town of Rose, located in the Towns of Huron and Rose, Wayne County, NY.

INTRODUCTION

To comply with State regulations, the Wayne County Water & Sewer Authority 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

If you have any questions about this report or concerning your drinking water, please contact Mr. Martin J. Aman, Executive Director, Phone: (315) 986-1929, Fax: (315) 986-1687 or email: maman@wcwsa.org. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled board meetings. The meetings are held on the fourth (4th) Tuesday of each month at 4:00 p.m. at the Wayne County Water & Sewer Authority building, 3377 Daansen Road, Walworth. Or you may visit our website at www.wcwsa.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, in some cases radioactive material. It can also 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 Environmental Protection Agency (EPA) prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the Food and Drug Administration's (FDA's) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

In the Huron 4 Service Area, the WCW&SA receives water from the Town of Rose. This water source is groundwater, which is drawn from 2 wells. Wells #4 and #2 are located off Salter Colvin Road. An activated carbon unit is used by well #4 to help remove organic compounds. The water from well #2 is not filtered. Chlorination is used to disinfect the water prior to distribution. Well #2 can produce 200 gallons a minute, and Well #4 can produce 350 gallons a minute. Wells #1 & #3 are no longer being used. Two 400,000 gallon water tanks provide storage and pressure for the distribution system.

During emergencies, we sometimes use Village of Sodus water as a supplemental supply to this service area. The Sodus supply comes from two sources. Lake Ontario, a surface water source, goes through a filtration process and has chlorine (for disinfection) and fluoride (to assist in the prevention of dental cavities) added. The second, a ground water source, is a well located south of the Village of Sodus on Route 88, where chlorine and fluoride are added. Storage and pressure in the Sodus supply system is provided by one 1,500,000 gallon concrete water tank.

SOURCE WATER ASSESSMENT PROGRAM

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 in the future. Water suppliers 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, Rose water comes from 2 drilled wells. The source water assessment has rated Well #2 as having a medium-high susceptibility to microbials, nitrates, industrial solvents, metals, pesticides, and petroleum products. While no significant sources of contamination have been identified in these areas, the wells draw greater than 100 gallons per minute (gpm) from an unconfined aquifer. Well #4 has been rated as having a high susceptibility to some microbials and a medium-high susceptibility to other microbials, industrial solvents, petroleum products, nitrates, metals, and pesticides. These ratings are due primarily to low intensity residential activities in the assessment area. In addition, the wells draw greater than 100 gpm from an unconfined aquifer. While the source water assessment rates these wells as being susceptible to microbials, please note that this water is disinfected to ensure that the finished water delivered into your home meets New York State’s drinking water standards from microbial contamination. A copy of this assessment, including a map of the assessment area, can be obtained by contacting us as noted below.

For the Sodus supply, some water is derived from one drilled well. The source water assessment has rated this well as having a medium-high susceptibility to microbials, nitrates, metals, pesticides, petroleum products, industrial solvents, and other industrial contaminants. These ratings are due primarily to the close proximity of pasture in the assessment area. In addition, the well draws from an unconfined aquifer of unknown hydraulic conductivity. Please note that, while the source water assessment rates the Village of Sodus well as being susceptible to microbials, that water is disinfected to ensure that the finished water delivered into your home meets the New York State drinking water standards for microbial contamination. A copy of this assessment, including a map of the assessment area, can be obtained by contacting us.

FACTS AND FIGURES

This water system serves approximately 21 people through 7 residential service connections, and also serves the Marshall Farms Complex in the Town of Huron as the primary customer within this service area. The total water purchased by W.C.W. & S.A. in 2016 for the Huron 4 service area was approximately 6.4 million gallons. The amount of water delivered to customers was approximately 5.5 million gallons. This leaves an unsold total of approximately 829 thousand gallons, water used for fire fighting and flushing of mains, as well as lost water through leaks, slowed meters, unauthorized use of water, etc. In 2016, water customers were charged a \$4.25 per 1,000 gallons of water, and a \$20.00 basic service charge per quarter. This rate would result in an annual water charge of \$352.00 for a customer using 64,000 gallons per year, an average use for a family of three.

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, copper, volatile organic compounds, total trihalomethanes, synthetic organic compounds and radiological. The table presented below depicts which compounds were detected in your drinking water. The Wayne County Water & Sewer Authority and its suppliers send their samples to independent New York State certified water quality testing laboratories. 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 reasonably be 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 log on to EPA's Drinking Water Website www.epa.gov/safewater/. If you have questions or concerns about the quality of your water, please feel free to contact the Water Authority or the local office of the NYSDOH.

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The Wayne County Water and Sewer Authority is required to collect and analyze one (1) total coliform sample from within the Authority's Rose distribution system per month.

The accompanying table shows the **detected results only** of monitoring for the period of January 1st to December 31st 2016, and any detected results taken in the past 5 years.

DEFINITIONS OF TERMS IN TABLE

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to 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.

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

Maximum Residual 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.

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).

Picocuries per liter (pCi/L) : A measure of the radioactivity in water.

Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers longer than 10 micrometers.

<u>Contaminant</u>	<u>Units</u>	<u>Violation Yes/No</u>	<u>MCLG</u>	<u>MCL</u>	<u>Date of Sample</u>	<u>Town of Rose Supply</u>	<u>V/Sodus Lake Plant = VSLP</u> <u>V/Sodus = VS</u>	<u>Likely Source</u>
Barium	mg/l	No	2	2	2016	.154 Well #2 .117 Well #4	.022 VSLP 0.142 VS Well (2014)	Erosion of natural deposits
Nitrate	mg/l	No	5	10	2016	Well #4 1.6 Well #2 2.7	0.390 VSLP 0.390 VS Well	Erosion of natural deposits
Turbidity Plant <i>*footnote 5</i>	NTU	No	N/A	TT=95% of samples < or = 0.3	Continuous 2016	N/A	100% 0.02-0.22	Soil runoff
Turbidity Distribution <i>*footnote 5</i>	NTU	No	N/A	NTU = 5	Daily 2016	N/A	Max 1.20	Soil runoff
Copper <i>*footnote #1</i>	ug/l	No	1300	1300	2015	140 (32 – 140)	194 (2 - 600) VSLP	Corrosion of household plumbing systems; erosion of natural deposit leaching from wood preservatives
Lead <i>*footnote #2</i>	ug/l	No	15	15	2015	1.4 (nd-2.3)	5.4 (ND-11.6) VSLP	Corrosion of household plumbing systems, erosion of natural deposits
Fluoride	mg/l	No	2.2	2.2	Daily 2016	NS	0.1-1.2 VSLP 0.1–1.5 Well	Natural and additive which promotes strong teeth
Total Trihalomethanes <i>*footnote 4</i>	ug/l	No	N/A	80	2016	16	42.28 (9.13 – 111.0)	Disinfection Byproducts
HAA5	ug/l	No	N/A	60	2016	6.8	30.22 (4.12 – 89.5)	By-Product of drinking water chlorination
Gross Alpha	pCi/l	No	0	15	2014	ND	3.03 VSLP 0.66 Well	Erosion of natural deposits
Gross Beta	pCi/l	No	0	50	2014	ND	1.98 VSLP 1.32 Well	Decay of natural deposits and manmade emissions
Uranium	mg/L	No	0	30	8/10/16	ND Well #2 .0011 Well #4	0.3 VSLP 0.36 Well (2014)	Erosion of natural deposits
Radium 226	pCi/l	No	N/A	5	2014	ND	0.065 VSLP 0.47 Well	Erosion of natural deposits
Radium 228	pCi/l	No	N/A	5	2014	ND	0.697 VSLP 0.8 Well	Erosion of natural deposits

WCWSA RESULTS							
Contaminant	Units	Violation Yes/No	MCLG	MCL	Date of Sample	WCWSA Results	Likely Source
Copper <i>*footnote 3</i>	ug/l	No	1300	1300	2016	330 (130-460)	Corrosion of household plumbing systems; erosion of natural deposit leaching from wood preservatives
Lead <i>*footnote 2</i>	ug/l	No	15	15	2016	4.7 (<1.0-5.1)	Corrosion of household plumbing systems, erosion of natural deposits
Total Trihalomethanes <i>*footnote 4</i>	ug/l	No	N/A	80	2016	44	Disinfection Byproducts
HAA5	ug/l	No	N/A	60	2016	14	By-Product of drinking water chlorination

***footnote 1 (Copper)** – 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 in **the Village of Sodus** water system, and the 90th percentile value was the 194 ug/l value; the action level for copper was not exceeded at any of the sites tested.

***footnote 2 (Lead)** - The level presented represents the 90th percentile of the 5 samples collected in the Rose supply area & the WCWSA area. The action level for lead was not exceeded at any of the tested areas.

***footnote 3 (WCWSA Copper)** – The level presented represents the 90th percentile of the 5 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, 5 samples were collected in your water system, and the 90th percentile value was the 330 ug/l value; the action level for copper was not exceeded at any of the sites tested.

***footnote 4 (Turbidity)** – This level represents the highest Locational Running Annual Average (LRAA) calculated from data collected.

***footnote 5** – Turbidity is a measure of the cloudiness of the water. The suppliers test and record it every 8 seconds because it is a good indicator of the effectiveness of the filtration system. The number 0.3 NTU represents the average measured and 0.02-0.22 NTU represents the range measured. State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU.

Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced. Please visit our website, www.wcwsa.org for more information on lead.

Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short period of time could experience gastrointestinal distress. Some people who drink water containing in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the above table, our system had no violations. We have learned through our testing that some contaminants have been detected, however these contaminants were detected below the level allowed by the State. During 2014, 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 ON FLUORIDE ADDITION

The Village of Sodus 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 the water by the Village of Sodus before it is delivered to us. 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, the Village of Sodus monitors fluoride levels on a daily basis to make sure fluoride is maintained at a target level of .07 mg/l. During 2015 monitoring showed that fluoride levels in the Sodus water were within the optimal range 77% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

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 transmission mains, 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 fire fighting 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.

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 water off while shaving and/or 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 can 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.
- Replace older fixtures with water-saving devices.
- When washing your car, use a bucket for washing and turn on the hose only for rinsing.
- Take showers instead of baths.
- Curb lawn watering – water your lawn only when necessary, and water between the hours of 8:00 p.m. - 10:00 a.m.
- Put a layer of mulch around trees and plants to hold water for your plants.
- If you have a swimming pool, fill it during the night when demands on power and water production systems are less.

SYSTEM IMPROVEMENTS

The Authority continued to work on the distribution system maintenance program. This included flushing of dead end watermains, maintenance and painting of fire hydrants, monitoring the cross connection back flow prevention program with three certified backflow testers, exercising of main line and gate valves throughout the system, and continuation of the residential water meter replacement program within the Authority's service area.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources and systems, which are the heart of our community. In addition to helping us with the conservation measures as outlined in this report, we also ask for your co-operation in reporting any unusual or suspicious activity around any of our water facilities, including tanks, hydrants, pump stations, etc. We encourage you to notify us immediately at (315) 986-1929 if you observe any suspicious activities, or if you notice any new or unusual wet spots or other signs that may indicate a leak in the water system. As always, please feel free to call at any time if you have any questions or concerns about your water supply or our operation in general.