

# **Annual Drinking Water Quality Report for 2018**

***Village of Jordan***  
***7 Mechanic St., Jordan NY 13080***  
***(Public Water Supply ID#3304316)***

## **INTRODUCTION**

To comply with State regulations, **the Village of Jordan**, 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. 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 Patrick Byrnes, Superintendent of Public Works, (315) 689-6608.** We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings. **The meetings are held on the second and fourth Mondays of each month at the Village Hall located at 7 Mechanic St., Jordan NY 13080, at 7:00 pm.**

## **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 amounts of certain contaminants in water provided by public water systems. The State Health Department's 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 a population of 1325 through 550 metered service connections. Our water source is Skaneateles Lake. The City of Syracuse is responsible for the treatment of our water. This treatment consists of chlorination for disinfection purposes and fluoridation for the prevention of tooth decay. The water then flows by gravity to the City of Syracuse distribution system and is then delivered through the Village of Elbridge transmission lines to the Village of Jordan water distribution system.

## **NEW YORK STATE SOURCE WATER ASSESSMENT PROGRAM**

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

This assessment found a moderate susceptibility to contamination for the Skaneateles Lake source of drinking water. The amount of pasture in the assessment area results in high potential for protozoan contamination. No permitted discharges are found in the assessment area. There are no likely contamination threats associated with other discrete contamination sources, even though some facilities were found in low densities.

**ARE THERE CONTAMINANTS IN OUR DRINKING WATER?**

As the State regulations require, The Village of Jordan routinely monitors for constituents in your drinking water according to Federal and State laws. The City of Syracuse tests your drinking water for 22 inorganic compounds, nitrates, nitrites, 53 volatile organic compounds, and 40 synthetic organic compounds, coliform bacteria, turbidity, pH, and chlorine residual. In addition to these tests the Village of Jordan tests for coliform bacteria monthly and turbidity and chlorine residual on a weekly basis. 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 Onondaga County Health Department, Division of Environmental Health, John H. Mulroy Civic Center, 12<sup>th</sup> Floor, 421 Montgomery St., Syracuse, NY 13202, (315) 435-6600.**

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.

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
<b>Village of Jordan – Distribution System</b>							
Turbidity (1)	No	Weekly	0.34 (0.18 – 0.68)	NTU	5	TT = 5.0 NTU for systems that don’t filter	Soil run-off
Total Coliform (2)	No	Monthly	6 positive samples	N/A	N/A	TT= 2 or more positive samples	Naturally present in the environment
E. Coli (3)	Yes	October 2018	4 positive samples	N/A	N/A	MCL = 1 or more positive samples	Human and animal fecal waste
Chlorine Residual	No	Weekly	0.15 (0.0- 0.68)	mg/L	N/A	4	By-product of drinking water chlorination
Copper (4)	No	July-10 2017	0.70 (0.35-0.74)	mg/L	1.3	AL= 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead (5)	No	July-10 2017	3.5 (1.0 – 3.8)	ug/L	0	AL= 15	Corrosion of household plumbing systems; Erosion of natural deposits.

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
<b><u>Disinfection By-products</u></b> Total Trihalomethanes (TTHM)	No	Aug-14 2018	39	ug/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Haloacetic Acid (HAA5)	No	Aug-14 2018	3.9	ug/L	N/A	60	By-product of drinking water chlorination needed to kill harmful organisms.
<b>City of Syracuse – Entry Point</b>							
Turbidity (6)	Yes	Every 4 hours	Dec-28 5.94 NTU	NTU	N/A	TT = 5.0 NTU for systems that don't filter	Soil run off
Chlorine Residual	No	Daily	1.33 (0.76-2.43)	mg/L	N/A (MRDL G)	4 (MRDL)	By-product of drinking water chlorination.
<b><u>Inorganics</u></b> Barium	No	May-10 2018	0.025	mg/L	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloride	No	May-10 2018	22	mg/L	N/A	250	Naturally occurring or indicative of road salt contamination.
Fluoride	No	Daily	0.73 (0.2-2.0)	mg/L	NA	2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate as N	No	July-17 2018	0.48	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium (7)	No	May-10 2018	13	mg/L	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste.
Sulfate	No	May-10 2018	12	mg/L	N/A	250	Naturally occurring
Nickel	No	May-10 2018	0.00076	mg/L	N/A	N/A	Erosion on natural deposits
Toluene	No	Feb May Aug Nov 2018	0.32 (ND-0.53)	ug/L	N/A	5	Toluene is an additive to gasoline, used to produce benzene, and used as a solvent

**Notes:**

1 – The Village of Jordan Distribution System: Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year occurred on December 26, 2018 (0.68 NTU). Regulations require that turbidity must always be below 5 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.5 NTU.

2 – Since we had more than 2 total coliform-positive routine/repeat samples in the same month, we triggered a Level 1 assessment. This assessment is to assess the coliform contamination and take corrective action against sanitary defects in the water system. See additional information under the heading “What does this Information Mean?” below.

3 – Since we had more than 1 E. coli positive routine/repeat samples in the same month, we exceeded the E. coli MCL, issued a

Boil Water Order, and completed a Level 2 assessment. See additional information under the heading “What does this Information Mean?” below.

4 – The level presented represents the 90<sup>th</sup> 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 90<sup>th</sup> 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 90<sup>th</sup> percentile value was the 0.70 mg/L value. The action level for Copper was not exceeded at any of the 10 sites tested.

5 – The level presented represents the 90<sup>th</sup> percentile of the 10 samples collected. The action level for Lead was not exceeded at any of the 10 sites tested.

6 – The City of Syracuse measures the turbidity in its raw water every 4 hours. Turbidity has no health effects. However, Turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites, including Giardia Lamblia and Cryptosporidium. Please pay special attention to the additional statement in this document regarding Cryptosporidium.

7 – There is no MCL established for Sodium, however, water containing more than the 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.

### **Definitions:**

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

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**Action Level (AL):** The concentration of a contaminant, which if exceeded, triggers treatment or other requirements that 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).

**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.

**HAA5 ( Haloacetic Acids )** – the combined concentration of the following five contaminants; Dibromo-, Dichloro-, Monobromo-, Monochloro-, and Trichloro-, acetic acids.

**TTHM (Total Trihalomethanes)** – the combined concentration of the following four contaminants; Bromodichloromethane, Bromoform, Chloroform, and Dibromochloromethane.

### **WHAT DOES THIS INFORMATION MEAN?**

The table shows that we triggered a Level 1 assessment for total coliform. Each month two routine samples are collected to test for the presence of Coliform bacteria. One of the two samples collected on July 30, 2018 showed the presence of total coliform bacteria. Five repeat samples were collected on August 02, 2018. One of the three repeat samples showed the presence of Coliform Bacteria. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or

that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct a Level 1 assessment to identify problems and to correct any problems that were found during the assessment. We were required to complete a Level 1 assessment. We failed to conduct the required Level 1 assessment within 30 days of the positive samples; however, previous assessments have indicated that routine flushing is necessary to maintain acceptable chlorine residuals in the Village of Jordan distribution system. In response to the positive total coliform samples, the distribution system was flushed systematically and extensively. Five more repeat samples were collected on August 17, 2018. All five samples were negative for the presence of total coliform.

The table shows that we had an MCL violation for E. coli. Each month two routine samples are collected to test for the presence of Coliform bacteria. One of two samples collected on October 24, 2018 showed the presence of total coliform, and one sample showed the presence of E. coli. The system was flushed extensively and six repeat samples were collected on October 26, 2018. Three of the six samples were positive for Total Coliform and three of the six were positive for E. coli and thus violated the MCL for E. coli. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We found E. coli bacteria violating the MCL and immediately issued a Boil Water Notice (BWO) to all Village of Jordan Water customers. In addition, we were required to complete a Level 2 assessment to identify problems and to correct any problems that were found during the assessment. The BWO was lifted on November 2, 2018 after the system was flushed systematically and extensively and after two consecutive days of sampling were confirmed negative for the presence of bacteria. The Level 2 assessment was completed and identified the low chlorine residuals in the Village of Jordan distribution system to be the most likely cause of the problems. A short-term corrective action identified by the assessment was to continue with routine flushing of the system to maintain acceptable chlorine residuals. A long-term corrective action identified by the assessment was to contract with a consultant to identify other ways to boost or maintain acceptable chlorine residuals in the distribution system. The Village of Jordan completed both corrective actions.

On December 28, 2018 the turbidity levels entering the City of Syracuse's intake exceeded the maximum allowable standard of 5 Nephelometric Turbidity Units (NTU) due to high winds. Turbidity levels reached 5.94 NTU. Notification of this event was made to the public and to the Onondaga County Health Department. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Please pay special attention to the additional statements in this document regarding Cryptosporidium.

We have learned through our testing that some other contaminants have been detected; however, these contaminants were detected below the level allowed by the State. For more information please contact the Village of Jordan Water Department at 315-689-6608.

### **IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?**

During 2018, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

### **INFORMATION ON CRYPTOSPORIDIUM AND GIARDIA**

New York State law requires water suppliers to notify their customers about the risks of Cryptosporidium and Giardia. These pathogens are of concern because they are found in surface water and groundwater under the influence of surface water throughout the United States. Filtration and disinfection are the best methods for use against them, but 100% removal or inactivation cannot be guaranteed. Cryptosporidiosis and Giardiasis are intestinal illnesses caused by these microscopic parasites. Symptoms of infection include nausea, diarrhea, and

cramps. Most healthy people can overcome the disease within a few weeks.

The City of Syracuse Water Dept. took a total of 24 Cryptosporidium and Giardia samples in 2018 representing water originating from Skaneateles Lake. Two Raw water samples (one from each intake) were sampled monthly. No Cryptosporidium or Giardia were detected in any of the City of Syracuse's Raw water samples.

### **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**

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 City of Syracuse Water Department 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 State Department of Health requires that the City of Syracuse monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7mg/L. During 2018 monitoring showed that fluoride levels in your water were within 0.1 mg/L of the target level for 79.7% 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 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 up and you can save almost 6,000 gallons per year.
- ◆ Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

### **CLOSING**

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community. **Please call our office if you have questions at (315) 689-6608.**