

# **Annual Drinking Water Quality Report for 2017**

**Village of St. Johnsville**

**16 Washington St., St. Johnsville, NY 13452**

**(Public Water Supply ID#2800143)**

## **INTRODUCTION**

To comply with State regulations, the Village of St. Johnsville, will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system has never violated a maximum contaminant level or any other water quality statement. 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 Mr. Bill Vicciarelli, Chief Operator, at (518) 568-2225. 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 3rd Tuesday of each month, at 6:30 pm at the Village Hall located at 16 Washington St., St. Johnsville, NY 13452.

## **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. 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 1700 people through 640 metered service connections. Our water comes from two sources. A drilled-well in the Roland V. Swartz well field, that is a groundwater source. The well is seventy feet deep and has an 18-inch casing and produces about 400 gallons per minute. The water produced by the drilled well at the Roland V. Swartz Well field is disinfected by injection of a sodium hypochlorite solution prior to distribution.

The Village also has a surface water source, the Congdon Springs that produces about 225 gallons per minute. The water from the Congdon Springs is filtered at our Slow-sand Filtration plant. The water produced by the Filter Plant is disinfected by injection of gaseous chlorine prior to distribution. Water not consumed by our customers is then stored in a 750,000-gallon concrete storage tank.

## **Source Water Assessment**

The NYSDOH 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 contaminants, if any, that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived from a drilled well. The source water assessment has rated this well as having a very high susceptibility to bacteria, viruses and nitrates; and a high susceptibility to halogenated solvents, pesticides, herbicides, metals, protozoa, petroleum products and industrial organic compounds. These ratings are due primarily to the proximity of the well to a permitted discharge facility (industrial/commercial facility that discharges wastewater into the environment and is regulated by the state and/or federal government), a toxic chemical release facility and low intensity residential activities in the assessment area. In addition, the well draws from an unconfined aquifer of high hydraulic conductivity.

While the source water assessment rates our well as being 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.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting us, as noted below.

A source water assessment for our surface water source has not yet been completed.

## 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, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, and synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791) or the NYSDOH-Herkimer District Office at (315) 866-6879.

**Table of Detected Contaminants**

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
Turbidity #1	No	Daily	.04 / .06 100%<1.0	NTU	N/A	TT=5NTU	Soil Run-off
<b>Inorganic contaminants</b>							
Nitrate Swartz Well Spring	No No	7/2017	0.749 < 0.23	Mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Copper *2	No	7/2015	20	Ug/l	1300	AL=1300	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead	No	7/2015	ND	Ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits.
Sodium Swartz Well Congdon Spring	No No	4/2010 5/2012	12 3.5	mg/l	N/A	(See health effects)	Naturally occurring; Road salt; Water softeners; Animal waste.
Sulfate Swartz Well Congdon Spring	No	4/2010 5/2012	8 7	Mg/l	250	N/A	Naturally occurring.
Barium Swartz Well	No	7/2016	.024	Mg/l	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium Swartz Well	No	4/2009	6.54	ug/l	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.

Nickel Swartz Well	No	3/2013	1.5	ug/l	100	100	Nickel is a metal found in natural deposits as ores containing other elements. The greatest use of nickel is in making stainless steel and other alloys.
Gross Alpha Congdon Spring Swartz Well	No No	7/2016	+/- 1.05 +/- 1.18	pCi/l	N/A	15	Erosion of natural deposits.
<b>Synthetic Organic Contaminants</b>							
Di(2-ethylhexyl) phthalate	No	6/2011	5.47	ug/l	0	6	Used in plastic products. Also used in Inks, pesticides, cosmetics, and vacuum pump oil.
<b>Disinfection By-products</b>							
TTHM's (Total Trihalomethanes) #4	No	7/2017	< 0.5 (ND - < 0.5)	Ug/l	0	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 Acids (HAA5) #4	No	7/2017	<1.00 (ND - <1.00)	Ug/l	N/A	60	By-product of drinking water chlorination.
Chlorine Residual	No	Daily	(.56/.78) (.41-.78)	Mg/l	N/A	4.0	By-product of drinking water chlorination

**Notes:**

#1- 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 9/17/17, 0.06 NTU. Regulations require that turbidity must always be below 5 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 1.0 NTU. Although November was the month when we had the fewest measurements meeting the treatment technique for turbidity, the levels recorded were within the acceptable range allowed and did not constitute a treatment technique violation.

\*2- 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 20.0 ug/l Value. The action level for copper was not exceeded at any of the sites tested.

\*4 - This level represents the annual quarterly average calculated from data collected.

**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 which a water system must follow.

**Treatment Technique (TT)**: A required process intended to reduce the level of a contaminant in drinking water.

**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).

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

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

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

During 2017 our system received a notice of violation for applicable State drinking water monitoring and reporting requirements. The village failed to submit a primary inorganic chemical sample by the 10<sup>th</sup> day of the month following the compliance period 1/1/2017 to 12/31/2017. This note shall serve as Public Notification of this violation.

## **DO I NEED TO TAKE SPECIAL PRECAUTIONS?**

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the **Safe Drinking Water Hotline (800-426-4791)**.

## **WHY SAVE WATER AND HOW TO AVOID WASTING IT?**

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- ♦ Saving water saves energy and some of the costs associated with both of these necessities of life;
- ♦ Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- ♦ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential 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. 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 (518) 568-2225.