

Annual Drinking Water Quality Report for 2018

Village of Delanson

PO Box 235, Delanson, NY 12053

(Public Water Supply Identification Number NY4600064)

INTRODUCTION

To comply with State regulations, the Village of Delanson, 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. We are very pleased to provide you with this year's Annual Water Quality Report. Last year, we conducted tests for over 80 contaminants. We detected 2 of those contaminants at a level higher than the State allows in each of the 2 of the 4 quarters of monitoring. As we told you at the time, our water temporarily exceeded a drinking water standard and we modified our treatment process to rectify this problem. This report is 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 New York State standards. Our constant goal is and always has been, to provide to you a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources. If you have any questions concerning this report or concerning your drinking water please contact: *Mr. Jeffrey Iveson, Water Commissioner, Village of Delanson Water Department, PO Box 235, 1797 Main Street, Delanson, NY 12053; telephone (518) 895-2199.* We want our valued customers to be informed about their drinking water. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the 2nd Monday of each month, 7:00 PM at the Village Hall, located at the Fire Hall, Delanson, NY 12053; telephone (518) 895-2199.

WHERE DOES OUR WATER COME FROM?

The Village is served by a lower spring fed reservoir of 28 million-gallons, which is our primary source of water. We also have an upper reservoir with a 32 million gallon capacity for emergency use. The water is gravity feed to the water treatment plant. Treatment consists of: UV light disinfection of the raw water; Chlorination using 12% sodium hypochlorite to protect against contamination from harmful bacteria and other organisms; Slow sand filtration for turbidity removal which traps the smaller particles in sand filters; Corrosion control using zinc ortho-phosphate to minimize the amount of lead and copper that could leach from your household plumbing

Our water plant is equipped with an inline turbidity meter and with chlorination equipment, backed-up by an auxiliary generator in case of electrical failure to keep the chlorinator operating. There is also a second chlorinator that serves as a backup.

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 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.

FACTS AND FIGURES

The Village provides water through 135 service connections to a population of approximately 385 people. Our average daily demand is 31,000 gallons. Our single highest day was 75,000 gallons. The total water produced in 2018 was 11,290,000 gallons.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the Village of Delanson routinely monitors your drinking water for numerous contaminants. We test your drinking water for inorganic contaminants, radiological contaminants, lead and copper, nitrate, volatile organic contaminants, and synthetic organic contaminants. In addition, we test 1 sample for coliform bacteria each month. The table presented below depicts which contaminants were detected in your drinking water. The state allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is 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 pose 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 Public Health Services at (518) 386-2818.

VILLAGE OF DELANSON TABLE OF DETECTED CONTAMINANTS Public Water Supply Identification Number NY4600064						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity ¹ (8/10/18)	N	1.03	NTU		TT=5 NTU	Soil runoff
		100%			TT=95% of samples <1.0 NTU	
Inorganic Contaminants (sample data from 10/18/17) unless otherwise noted)						
Barium (from 5/22/18)	N	11.8	ppb	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chloride	N	44	ppm	N/A	250	Geology; Naturally occurring
Copper (samples from 10/2/17) Range of copper concentration	N	70 ² ND-90	ppb	1300	AL=1300	Corrosion of household plumbing systems; erosion of natural deposits
Manganese	N	51	ppb	N/A	300	Geology; Naturally occurring
pH	N	7.13	units		6.5-8.5	
Sodium ³	N	29.9	ppm	N/A	N/A	Naturally occurring; Road salt; Water softeners;
Zinc	N	2640	ppb	N/A	5000	Galvanized pipe; corrosion inhibitor
Stage 2 Disinfection Byproducts (Quarterly samples from 2/19/18, 5/21/18, 8/13/18 & 11/13/18)						
Haloacetic Acids (HAA5) (average) ⁴ Range of values for HAA5	Y	81.5 14-170	ppb	N/A	60	By-product of drinking water chlorination
Total Trihalomethanes (TTHM)(average) ⁴ Range of values	Y	94.2 40-137	ppb	0	80	By-product of drinking water chlorination
Chlorine (based on daily testing) average range	N	0.31 0.01-0.94	ppm	MRDLG N/A	MRDL 4	Used in the treatment and disinfection of drinking water
Notes:						
<p>1. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Level detected represents the highest level detected. Distribution system turbidity performed 5 times a week with 1.11 NTU being the average and 1.82 NTU being the highest level detected. State regulations require that entry point turbidity must always be below 1.0NTU. The regulations also require that 95% of the turbidity samples collected have measurements below 1.0 NTU.</p> <p>2. The level presented represents the 90th percentile of the 5 samples collected. The number represents the average of the two highest levels detected. The action level for copper was not exceeded at any of the 5 sites tested. Lead samples were collected at the same locations as the copper samples and all the lead samples were below the detection limit of the analytical method.</p> <p>3. Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets.</p> <p>4. The average is based on a Locational Running Annual Average. The average shown represents the highest LRAA for 2018. The highest TTHM LRAA was in the first quarter of 2018 while the highest HAA5 LRAA was in the 4th quarter of 2018.</p> <p><i>Non-Detects (ND)</i> - laboratory analysis indicates that the constituent is not present. <i>Parts per million (ppm) or Milligrams per liter (mg/l)</i> - one part per million corresponds to one minute in two years or a single penny in \$10,000. <i>Parts per billion (ppb) or Micrograms per liter</i> - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000. <i>Picocuries per liter (pCi/L)</i> - picocuries per liter is a measure of the radioactivity in water. <i>Nephelometric Turbidity Unit (NTU)</i> - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. <i>90th Percentile Value</i> - 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 <i>Action Level</i> - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. <i>Treatment Technique (TT)</i> -A treatment technique is a required process intended to reduce the level of a contaminant in drinking water. <i>Maximum Contaminant Level</i> - 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. <i>Maximum Contaminant Level Goal</i> - 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. <i>Maximum Residual Disinfectant Level (MRDL)</i>: 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. <i>Maximum Residual Disinfectant Level Goal (MRDLG)</i>: 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. <i>Locational Running Annual Average (LRAA)</i>: The LRA is calculated by taking the average of the four most recent samples collected at each individual site N/A-not applicable</p>						

WHAT DOES THIS INFORMATION MEAN?

As you can see by the tables on page 2, our system had 5 violations. We exceeded the MCL for the Haloacetic Acids in the 1st 2nd and 4th quarters. We exceeded the MCL for the Trihalomethanes in each of the 1st and 2nd quarters of 2018 and are required to furnish the following information:

Haloacetic Acids Health Effects

Some studies suggest that people who drank chlorinated drinking water containing disinfection by-products (possibly including HAAs) for long periods of time (e.g., 20 to 30 years) have an increased risk for certain health effects. These include an increased risk for cancer. However, how long and how frequently people actually drank the water as well as how much HAAs the water contained is not known for certain. Therefore, the evidence from these studies is not strong enough to conclude that the observed increased risk for cancer is due to HAAs, other disinfection by-products, or some

other factor. Studies of laboratory animals show that the individual HAAs, dichloroacetic acid and trichloroacetic acid, can cause cancer following exposure to high levels over their lifetimes. Dichloroacetic acid and trichloroacetic acid are also known to cause other effects in laboratory animals after high levels of exposure, primarily on the liver, kidney, and nervous system and on their ability to bear healthy offspring. The effects reported in studies of laboratory animals occur at exposures much higher than exposures that could result through normal use of the water. The risks for adverse health effects from HAAs in drinking water are small compared to the risk for illness from drinking inadequately disinfected water.

THM Health Effects

Some studies suggest that people who drink chlorinated water (which contains trihalomethanes) or water containing elevated levels of trihalomethanes for long periods of time may have an increased risk for certain health effects. For example, some studies of people who drank chlorinated drinking water for 20 to 30 years show that long term exposure to disinfection by-products (including trihalomethanes) is associated with an increased risk for certain types of cancer. A few studies of women who drank water containing trihalomethanes during pregnancy show an association between exposure to elevated levels of trihalomethanes and small increased risks for low birth weights, miscarriages and birth defects. However, in each of the studies, how long and how frequently people actually drank the water, as well as how much trihalomethanes the water contained is not known for certain. Therefore, we do not know for sure if the observed increases in risk for cancer and other health effects are due to trihalomethanes or some other factor. The individual trihalomethanes chloroform, bromodichloromethane and dibromochloromethane cause cancer in laboratory animals exposed to high levels over their lifetimes. Chloroform, bromodichloromethane and dibromochloromethane are also known to cause effects in laboratory animals after high levels of exposure, primarily on the liver, kidney, nervous system and on their ability to bear healthy offspring. Chemicals that cause adverse health effects in laboratory animals after high levels of exposure may pose a risk for adverse health effects in humans exposed to lower levels over long periods of time.

We have learned through our monitoring and testing that some contaminants have been detected; however, these compounds were detected below New York State requirements. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

SOURCE WATER RESTRICTIONS

We have temporarily disconnected the water line supplying the Upper Reservoir to the Lower Reservoir.

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.

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).

INFORMATION ON LEAD

If present, elevated levels of 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 Village of Delanson is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>

CAPITAL IMPROVEMENTS

During 2018 there were no major capital improvements made to the water system. There are no major projects planned for 2018.

WATER CONSERVATION TIPS

The Village of Delanson encourages water conservation. There are a lot of things you can do to conserve water in your own home. Conservation tips include:

- ◆ Only run the dishwasher and clothes washer when there is a full load
- ◆ Use water saving showerheads
- ◆ Install faucet aerators in the kitchen and the bathroom to reduce the flow from 4 to 2.5 gallons per minute
- ◆ Water garden and lawn for only a couple of hours after sunset
- ◆ Check faucets, pipes and toilets for leaks and repair all leaks promptly

Closing

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit our customers. We ask that all our customers help us protect our water sources. Please call our office if you have questions.

**Village of Delanson Water Works
PWS ID# NY460064
SWAP Summary**

The NYS DOH has evaluated this PWS's susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph(s) below. It is important to stress that these assessments were 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 this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

The assessment area for this drinking water source contains no discrete PCSs, and only the protozoa land cover contaminant prevalence ratings is greater than low. A copy of the full Source Water Assessment, including a map of the assessment area, is available for review by contacting us at the number provided in this report.