

Annual Drinking Water Quality Report for 2016
Village of Hudson Falls & Town of Fort Edward Water District #1
220 Main Street, Hudson Falls, NY 12839
Public Water Supply Identification Numbers NY5700123 & NY5730027

INTRODUCTION

To comply with State regulations, the Village of Hudson Falls 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 purchase our water from the Town of Queensbury. 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. Mike Fiorillo, Superintendent of Public Works, Village of Hudson Falls, 220 Main Street, Hudson Falls, NY 12839; Telephone (518) 747-4544.* We want our valued customers to be informed about their water service. If you want to learn more, please attend any of our regularly scheduled Village Board meetings. They are held on the 2nd Monday of each month, 6:00 PM at the Village Hall, 220 Main Street, Hudson Falls, NY 12839; Telephone (518) 747-5426.

WHERE DOES OUR WATER COME FROM?

The Village of Hudson Falls purchases its water from the Town of Queensbury. The Queensbury Water District's source is the Hudson River, a surface water supply that is located at the Sherman Island Dam. Water is pumped from the river into a complete treatment facility consisting of the following: chemical pretreatment, flocculation, coagulation, sedimentation, pre-chlorination, filtration, post-chlorination and corrosion control. Licensed operators staff this treatment plant 24 hours a day, 365 days per year.

We continue to add chlorine and fluoride to the water we purchase at our Ferry Street Pumping Station. Additionally, we add phosphate for corrosion control. We have two storage tanks in the distribution system that have a combined capacity of 475,000 gallons to meet consumer demand and to provide adequate fire protection.

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.

SOURCE WATER ASSESSMENT

The NYS Department of Health has evaluated the Hudson River's susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph 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 water supply. The Queensbury Water District provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

Based on documented polychlorinated biphenyl (PCBs) contamination of sediments upstream of the intake, the raw water is tested quarterly for PCBs. During 2016, PCB's were not detected in source or finished drinking water. It should also be noted that rivers in general are highly sensitive to microbial contaminants. 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.

FACTS AND FIGURES

The Village of Hudson Falls provides water through 2,515 service connections to a population of approximately 7,000 people. In addition, the Village of Hudson Falls sells water to the Town of Fort Edward Water District #1 through 600 service connections to a population of approximately 1,800 people. Our average daily demand is 745,361 gallons. Our single highest day was 1,196,200 gallons. The total water purchased from Queensbury in 2016 was 272,930,620 gallons. The amount of water billed to customers was 230,111,435 gallons while the amount of water accounted for but not billed was 9,500,000 gallons used for Village building, water main breaks and street cleaning which resulted in 33,319,185 gallons unaccounted. We determined that 10.8% of the water produced is non-revenue-producing water.

This is water was used for fire fighting purposes, sewer cleaning, hydrant use by Village trucks for street sweeping, road projects, use in Village buildings, water used during flushing and distribution system leaks. There was a higher amount of water accounted for but not billed this year due to the construction projects. The average annual water bill is approximately \$210.00 per year. Water Rates in 2016 were as follows: **WITHIN THE CORPORATION- Residential Customers First 20,000 gallons** \$72.50; each 1000 gallons thereafter \$2.90; Minimum charge biannually \$72.50; **Commercial Customers First 20,000 gallons** \$55.00; each 1000 gallons thereafter \$2.30; Minimum charge per month \$55.00; **TOWN OF FORT EDWARD- Residential Customers First 20,000 gallons** \$72.50; each 1000 gallons thereafter \$2.90; Minimum charge biannually \$72.50; **Commercial Customers First 20,000 gallons** \$55.00; each 1000 gallons thereafter \$2.30; Minimum charge per month \$55.00; **OUTSIDE THE CORPORATION Residential Customers First 20,000 gallons** \$72.50; each 1000 gallons thereafter \$2.90; Minimum charge biannually \$67.50; **Commercial Customers First 20,000 gallons** \$55.00; each 1000 gallons thereafter \$2.50; Minimum charge per month \$55.00; Construction Rates- each 1000 gallons \$2.50; Minimum charge \$50.00; Sale of Property Pro-ration-3000 gallons per month \$12.08; each 1000 gallons thereafter \$2.90.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the Village of Hudson Falls routinely monitors your drinking water for numerous contaminants. The Town of Queensbury tests our water for inorganic contaminants, radiological contaminants, nitrate, volatile organic contaminants, and synthetic organic contaminants. We test for lead and copper, haloacetic acids and trihalomethanes. In addition, we test 10 samples 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 and is noted. For a listing of the parameters we analyzed that were not detected along with the frequency of testing for compliance with the NYS Sanitary Code, see Appendix A. The water quality test results for the Town of Queensbury are also included in this report.

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 New York State Department of Health Glens Falls District Office at (518) 793-3893.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the tables on pages 4 & 5 our system had no violations. We have learned through our monitoring and testing that some constituents 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 constituents, 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.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2016, Hudson Falls was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

During 2016 Fort Edward WD#1 was in compliance with the 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 microbiological pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

INFORMATION ON GIARDIA

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection. During 2016, as part of our LT2 Enhanced Surface Water Treatment Rule monitoring Hudson River source water samples were collected and analyzed for Giardia cysts. Of these samples, three samples were confirmed positive for Giardia. Therefore, our monitoring indicates the presence of Giardia in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Giardia may cause giardiasis, an intestinal illness. People exposed to Giardia may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic

diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risks of becoming infected with Giardiasis. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The Giardia parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where handwashing practices are poor.

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 Hudson Falls 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>

INFORMATION ON FLUORIDE

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 an optimal level of 0.7 mg/l (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that we monitor fluoride levels on a daily basis. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride

WATER CONSERVATION TIPS

The Village of Hudson Falls 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
- ◆ Install faucet aerators in the kitchen and the bathroom to reduce the flow from 4 to 2.5 gallons per minute
- ◆ Water gardens and lawn for only a couple of hours after sunset
- ◆ Check faucets, pipes and toilets for leaks and repair all leaks promptly
- ◆ Take shorter showers

CAPITAL IMPROVEMENTS

The following improvements were made to the water system in 2016:

- Had leak detection done and continue replacing old water mains
- Installed new watermain on Mechanic St. Hudson Place and Cherry Street
- Continue replacing old water meters with upgrades to new meters.
- Have a leak detection survey done every three to four years

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.

TOWN OF FORT EDWARD WD #1 TABLE OF DETECTED CONTAMINANTS						
Public Water Supply Identification Number NY5730027						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants						
Copper (samples 9/7/16) Range of copper concentrations	N	57 ¹ ND-66	ppb	1300	AL=1300	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (samples from 9/7/16) Range of lead concentrations	N	1 ² ND-1	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Stage 2 Disinfection Byproducts (Quarterly samples from 2/3/16, 5/4/16, 8/3/16 & 11/2/16 unless otherwise noted)						
Haloacetic Acids [HAA5](LRAA) ³ Range of values for HAA5	N	22.6 7.6-25.1	ppb	N/A	60	By-product of drinking water chlorination
Total Trihalomethanes[TTHM](LRAA) ³ Range of values for TTHM	N	64.2 44.2-78	ppb	0	80	By-product of drinking water chlorination
NOTES-						
1. The level presented represents the 90 th percentile of 10 test sites in Ft. Edward WD#1. The action level for copper was not exceeded at any of the 10 sites tested						
2. The level presented represents the 90 th percentile of 10 test sites in Ft. Edward WD#1. The action level for lead was not exceeded at any of the 10 sites tested.						
3. The average is based on a Locational Running Annual Average (LRAA). The average shown is the highest LRAA for 2016. The highest LRAA for the HAA5s was in the 1 st quarter of 2016 and the highest LRAA for the THMs was in the 2 nd quarter of 2016.						
VILLAGE OF HUDSON FALLS TABLE OF DETECTED CONTAMINANTS						
Public Water Supply Identification Number NY5700123						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants						
Copper (samples from 7/19/16) Range of copper concentrations	N	49 ¹ 5-138	ppb	1300	AL=1300	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride (monthly samples from 2016 (average) samples from distribution system range of values	N	0.7 0.4-0.6	ppm	N/A	2.2	Erosion of natural deposits, discharge from fertilizer and aluminum factories, water additive that promotes strong teeth
Lead (samples from samples from 7/19/16) Range of lead concentrations	N	2 ² ND-5	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Stage 2 Disinfection Byproducts (Quarterly samples from 2/3/16, 5/4/16, 8/3/16 & 11/2/16 unless otherwise noted)						
Haloacetic Acids [HAA5] (LRAA) ³ Range of values for HAA5	N	18.2 5.2-18.3	ppb	N/A	60	By-product of drinking water chlorination
TTHM[Total Trihalomethanes](LRAA) ³ Range of values for TTHM	N	61 44-64	ppb	0	80	By-product of drinking water chlorination
Chlorine (average value distribution system) (range of values for 2016)	N	0.6 0.4- 1.0	ppm	MRDLG N/A	MRDL 4	Used in the treatment and disinfection of drinking water
NOTES-						
1. The level presented represents the 90 th percentile of 20 test sites. The action level for copper was not exceeded at any of the 20 sites tested						
2. The level presented represents the 90 th percentile of 20 test sites. The action level for lead was exceeded at one site tested						
3. The average is based on a Locational Running Annual Average (LRAA). The average shown is the highest LRAA for 2016. The highest LRAA for the HAA5s and the THMs was in the 2 nd quarter of 2016.						

TOWN OF QUEENSBURY TABLE OF DETECTED CONTAMINANTS
Public Water Supply Identification Number NY5600114

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants (sample data from 2/3/2016 unless otherwise noted)						
Barium	N	5	ppb	2000	2000	Erosion of natural deposits
Chloride (sample from 2/3/ 2013)	N	5	ppm	N/A	250	Naturally occurring or indicative of road salt contamination
Iron (sample from 2/13/13)	N	9	ppb	N/A	300	Naturally occurring
Manganese (sample from 2/13/13)	N	5	ppb	N/A	300	Naturally occurring
Nitrate	N	0.11	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
pH (range based on daily testing) average range	N	7.8 6.8-8.7	units		6.5-8.5	
Sodium ¹ [average of 3 samples collected 5/4/16, 8/3/16 & 11/2/16] (range of values)	N	14.6-15.4	ppm	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate (sample from 2/13/2013)	N	11.5	ppm	N/A	250	Geology;
Zinc (sample from 2/3/ 2013)	N	6	ppb	N/A	5000	Naturally occurring
Principal Organic Compounds						
Bromomethane (methyl bromide) quarterly sample samples from 2/3/16 which had detect ,samples from 4/6/16,7/13/16 & 11/2/16 had not detects Range of samples	N	0.58 ND-0.58	ppb	N/A	5	Used to kill a variety of pests; used to make other chemicals or as a solvent to get oil out of nuts, seeds, and wool.
Long Term 2 Enhanced Surface Water Treatment Rule						
Giardia ² sample from 10/5/16 sample from 11/1/16 sample from 12/8/16	N	3 46 15	oocysts	N/A	N/A	Soil runoff
Microbiological Contaminants						
Turbidity ³ (Highest turbidity sample from 5/11/9/16 & 11/17/16)	N	0.13	NTU	N/A	TT=1 NTU	Soil runoff
November ² May 2016	N	100%			TT=95% of samples <0.3 NTU	
Total Organic Carbon⁴ (monthly samples from 2016)						
Treated Water (average) Range of values	N	1.62 ND-2.1	ppm	N/A	TT	Organic material both natural and manmade; Organic pollutants, decaying vegetation
Unregulated Contaminant Monitoring (UCMR3)⁵ sample collected quarterly 2/13/15, 4/13/15,7/16/15 & 10/15/15						
Strontium (range)	N	22-28	ppb	N/A	N/A	Erosion of natural deposits
Chlorate (range)	N	44-160	ppb	N/A	N/A	Agricultural runoff
Vanadium (range)	N	0.2-0.5	ppb	N/A	N/A	Erosion of natural deposits
Chromium (hexavalent) (range)	N	0.03	ppb	N/A	N/A	Erosion of natural deposits

NOTES-

- Water containing more than 20 ppm should not be consumed by persons on severely restricted sodium diets.
- The Long Term 2 Enhanced Surface Water Treatment Rule was implemented by USEPA to monitor drinking water sources. Specifically, Giardia and Cryptosporidium which are highly resistant to traditional water treatment practices. Our system is required to test monthly for two years, starting October 2016. Please note that these results are prior to any water treatment. For more information please review the USEPA website.
- Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of our filtration system. Level detected represents the highest-level detected. Our highest single turbidity measurement for the year occurred 11/9/16 & 11/17/16 (0.13 NTU). 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 0.3 NTU. We met the requirement 100% of the time in 2016.
- It has been determined that with respect to raw water TOC levels and raw water alkalinity, the Queensbury WTP achieved removals that were well below the acceptable range allowed on their filter effluent.
- The UCMR3 regulation required us to collect samples to see the occurrence of certain contaminants in water and determine if future regulation is needed. There are no maximum contaminant levels for these chemicals at this time.

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

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

90th Percentile Value- 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

Action Level - the concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - 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.

Maximum Contaminant Level Goal 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.

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

Running Annual Average (RAA): The RAA is calculated each quarter by taking the average of the four most recent samples collected.

Locational Running Average (LRA): The LRA is calculated by taking the average of the four most recent samples collected at each individual site.

N/A-Not applicable

