Annual Drinking Water Quality Report for 2019

Schuylerville-Victory Board of Water Management
35 Spring Street, Schuylerville, NY 12871
Public Water Supply Identification Number NY4500169

INTRODUCTION

To comply with State regulations, the Schuylerville-Victory Board of Water Management (BOWM) 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 your 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, your drinking water met all State drinking water health standards. 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.

The Village of Schuylerville and Village of Victory have an inter-municipal agreement governing the joint village water system. This agreement was created by both Village Boards of Trustees. The BOWM consists of four (4) appointed commissioners, two from each village. The current members of the BOWM are as follows: Timothy Healy (Chairman)- Village of Victory, Leslie Dennison- Village of Victory, Michael Hughes- Village of Schuylerville and Bryan Drew- Village of Schuylerville. The BOWM has the authority to manage and operate the joint water system.

If you have any questions concerning this report or concerning your drinking water please contact DCK Services, LLC, PO Box 152, Glens Falls, NY12801 (Telephone) (518) 636-3518 or email dckservices@roadrunner.com; or the water commissioners for your village: Village of Victory; Telephone (518) 695-3808 or the Village of Schuylerville; Telephone (518) 695-3881; You may send a written request to, Schuylerville /Victory Board of Water Management, 35 Spring Street, Schuylerville, NY 12871. We want our valued customers to be informed about their water service. If you want to learn more, please attend any of our monthly meetings. They are scheduled by the BOWM at the previous meetings. They are generally held on the third Monday of every month at 7:00 PM and alternate in location, i.e., one month in Schuylerville Hall and the next at Victory Hall. Dates can be determined by contacting either the Victory Village Clerk at (518) 695-3808 or the Schuylerville Village Clerk at (518) 695-3881.

WHERE DOES OUR WATER COME FROM?

The Schuylerville-Victory BOWM has two water sources. The Fort Hardy Filtration Plant is supplied by two wells rated at 750 gallons per minute (gpm) each. The wells are located at the Filtration Plant site. The plant consists of two reverse osmosis (R/O) filtration trains and a two stage 5-micron absolute filtration for bypass water. The process is as follows: As water from the wells enters the treatment plant it passes through a UV system that disinfects the water. The water flow is then split into three sections of pipeline, two of which are directed to each R/O unit (only one R/O runs at a time). Prior to the water entering the R/O, anti-scalant is added to the water before it enters the 1-micron prefilter cartridge housing. After prefiltration the water enters the R/O unit. Each unit consists of 18 tubes for a total of 108 membrane filters. The concentrate or reject water containing the contaminants removed by the R/O system is discharged to the river.

The third section of pipe that bypasses the R/O system is directed to two sets of Filter Housing (only one set is in service at a time). The by-pass water first enters a 5-micron filter and then passes through a 1-micron absolute filter. The filters provide turbidity or particulate removal and additionally can filter out any waterborne parasites such as Giardia or Cryptosporidium due to the very small pore size of the filter. The by-pass water is regulated by a flow valve.

The water that leaves the R/O which is called "permeate" flows from the process room to the caustic room where a 50% sodium hydroxide solution is injected. The water then enters another room where a blend of ortho/polyphosphate is injected. The filtered by-pass water also enters this room and connects to the flow valve and is blended with the R/O water. This one line then re-enters the process room where chlorine is injected for disinfection. The water then flows to the clear wells.

Maximum treatment capacity is 648,000 gallons per day. As previously mentioned, disinfection is provided by ultraviolet light and sodium hypochlorite. Additional treatment includes antiscalant to help prevent fouling of the membrane filters, sodium hydroxide for pH control and a blended ortho/polyphosphate for corrosion control and iron and the sequestering of iron and manganese. All of the chemicals used are NSF/ANSI approved products for potable water. The finished water is stored in two 30,000-gallon enclosed concrete tanks prior to pumping into the distribution system and the enclosed 600,000-gallon storage tank located on Cemetery Road.

The Victory WTP derives its water from two wells. The Victory WTP is a Greensand pressure vessel filtration plant designed for removal of iron and manganese with a maximum flow of 125 gallons/minute. There are 2 Greensand-Plus Filter Tanks. Each filter is composed of anthracite, Greensand and 5 layers of graded gravel. The water is pumped from the wells to the treatment plant where chlorine and sodium permanganate are added to enhance the iron and manganese removal processes as it passes through green sand filters. The water is disinfected again as it leaves the plant.

In general, 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 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.

FACTS AND FIGURES

The water system provides water to a population of approximately 2,200 people through 860 service connections. Our average daily demand was 198,906 gallons per day at the Ft. Hardy WTP and 76,475 gallons per day at the Victory WTP. Our highest single day was 635,730 gallons. The total water produced by both water plants in 2019 was 100,514,183 gallons. The average annual charge for water is $420.00 for residential use per unit. Businesses are charged a commercial rate; outside water rates are charged $630.00 per residential unit.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the Schuylerville-Victory Board of Water Management 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 2 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 a year old and is noted.

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 table on pages 3, 4 & 5, our system had no maximum contaminant level (MCL) violations. 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.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2019, the Schuylerville-Victory BOWM followed 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 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 Schuylerville-Victory BOWM 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

WATER CONSERVATION TIPS

The Schuylerville-Victory Board of Water Management 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 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

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.

Schuylerville-Victory BOWM
PWSID NY4500169
AWQR SWAP Summary

The NYS DOH has evaluated this Public Water System's (PWS) 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 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 potential contaminant sources, but agricultural land in the watershed for this drinking water source poses a variety of risks to drinking water quality. The greatest risks are associated with microbial contaminants, followed by pesticides, phosphorus, and Disinfection-Byproduct (DBP) precursors.

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.

SCHUYLERVILLE-VICTORY BOWM TABLE OF DETECTED CONTAMINANTS

Public Water Supply Identification Number NY4500169

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants	*Quarterly samples collected: (6/5,7/26,9/26,11/20/2018) **FH= Ft. Hardy WTP, V= Victory WTP**					
Barium FH (sample from 9/25/2019)	N	5.4	ppb	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Barium V (sample from 9/26/2018)	N	240				
Chloride FH (sample from 9/25/2019)	N	28.4	ppm	N/A	250	Naturally occurring or indicative of road salt contamination.
Chloride V (sample from 11/2/2019)		70.1				

Iron FH (sample from 12/18/2019)	N	12.4	ppb	N/A	300	Geology; Naturally occurring
Iron V (sample from 11/2/2019)	N	48.2				
Copper (sample data from 9/22 to 9/25/2018) (1)	N	0.2	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Range of copper concentration (1)		0.03-0.26				
Manganese FH (average) (collected 3/28/2019, 5/28/2019, 8/27/2019, 9/25/2019, 12/18/2019)	N	152	ppb	N/A	300	Geology; Naturally occurring
Range of 5 samples		103-188				
Manganese V (sample collected 11/2/19)	N	7.9				
Gross Alpha Activity FH (sample collected 9/25/19)	N	0.474	Pci/L	0	15	Erosion of natural deposits.
Gross Alpha Activity V (samples collected 3/22/18 and 9/26/18)	N	0.38 0.54				
Radium-226 V (samples collected 3/22/18 and 9/26/18)	N	0.1 0.398	Pci/L	0	5	Erosion of natural deposits.
Radium-228 V (samples collected 3/22/18 and 9/26/18)	N	0.4 0.362	Pci/L	0	5	Erosion of natural deposits.
Zinc FH (sample from 9/25/2019	N	8	ppb	N/A	5000	Zinc has no health effects unless detected in very high concentrations.
Zinc V (sample from 11/2/2019	N	21.9	ppb	N/A	5000	Zinc has no health effects unless detected in very high concentrations.
Nickel V (sample from 9/26/2018)	N	0.7	ppb	N/A	100	Discharge from steel/metal factories

Color V [5] Sample from 11/2/2019)	N	20	Units	N/A	15	Large quantities of organic chemicals, inadequate treatment, high disinfectant demand and the potential for production of excess amounts of disinfectant by-products such as trihalomethanes, the presence of metals such as copper, iron and manganese; Natural color may be caused by decaying leaves, plants, and soil organic matter.
pH FH (sample from 9/25/2019)		7.34				
pH V (sample from 11/2/2019)		7.28				
Sodium[3] FH (sample from 9/25/2019)	N	42.9	ppm	N/A	N/A	Geology; Road Salt
Sodium[3] V (sample from 11/2/2019)		42.8				
Microbiological Contaminants						
			NTU	N/A	TT=5 NTU	Turbidity has no health effects. Turbidity can interfere with disinfection and provide a medium for microbial growth. It may indicate the presence of disease-causing organisms.
Turbidity- Ft. Hardy (Highest turbidity sample 4/16/2019)[4]		0.222				
Turbidity- Victory (Highest turbidity sample 12/26/2019) [4]		0.966				

Stage 2Disinfection Byproducts (samples from 8/26/2019)						
Haloacetic Acids (HAA5) 17 Herkimer St	N	ND	ppb	N/A	60	By-product of drinking water chlorination
Haloacetic Acids (HAA5) 9 Liberty St	N	ND	ppb	N/A	60	
TTHM [Total Trihalomethanes] 9 Liberty St.	N	ND	ppb	N/A	80	By-product of drinking water chlorination
TTHM [Total Trihalomethanes] 17 Herkimer St.	N	12.9				
Chlorine (average) FH Range (based on daily testing)	N	1.062 0.923-1.315	ppm	MRDLG	MRDL	Used in the treatment and disinfection of drinking water
Chlorine (average) V Range (based on daily testing)	N	0.886 0.696-1.224	ppm	N/A	4	

Notes:

1. The level presented represents the 90th percentile of 10 test sites. 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 from your water system and the 90th percentile value was the 9th sample with the second highest value (level detected 0.20 mg/l). The action level for copper was not exceeded at any of the sites tested.

2. The level presented represents the 90th percentile of 10 test sites. The action level for lead was not exceeded at any of the10 sites tested.

3. Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets.

4. 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.

5. Color has no health effects. In some instances, color may be objectionable to some people at as low as 5 units. Its presence is aesthetically objectionable and suggests that the water may need additional treatment.

We also monitor the distribution system 5 times a week with 0.08 NTU being the average turbidity.
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. *Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water. *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. *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. *N/A*-not applicable

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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 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.

This report was prepared for the Schuylerville-Victory Board of Water Management by:
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