

## ***Annual Drinking Water Quality Report for 2021***

### **Schuylerville-Victory Board of Water Management**

35 Spring Street, PO Box 56, 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: Michael Hughes and Brian Drew, Chairman representing Schuylerville and Timothy Healy and Leslie Dennison representing Victory. 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 JCF Water Consulting, LLC (Telephone) (518) 695-4713 or email [waterlab@nycap.rr.com](mailto:waterlab@nycap.rr.com); or the water commissioners for your village: Village of Victory; Telephone (518) 538-1480 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, PO Box 56, 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/poly-phosphate 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 clearwells.

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 GreensandPlus

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 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 water system provides water to a population of approximately 2,200 people through 850 service connections. Our average daily demand 169,660 gallons per day at the Ft. Hardy WTP and 115,755 gallons per day at the Victory WTP. The average annual charge for water is \$460.00 for residential use per unit. Businesses are charged a commercial rate; outside water rates are charged 1.5 times 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 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 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 4 & 5, our system had 2 violations. We exceeded the Maximum Contaminant Level for color at each of our treatment plants and are required to furnish the following information:

##### Color

*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.*

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.

New York State has adopted the first in the nation drinking water standard for 1,4-Dioxane along with one of the lowest maximum contaminant levels for PFOA and PFOS. Public Water Supplies in NYS are required to test for PFOA, PFOS and 1,4-Dioxane. PFOA and PFOS have Maximum Contaminant Levels (MCL) of 10 parts per trillion each while 1,4-Dioxane has an MCL of 1.0 parts per billion.

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

During 2021, the Schuylerville-Victory BOWM was in compliance with applicable State drinking water operating 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
<b>Inorganic Contaminants</b> FH= Ft. Hardy WTP, V= Victory WTP						
Barium FH (sample from 8/2/21)	N	7.8	ppb	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Barium V (sample from 8/2/21)	N	234				
Chloride FH (sample from 8/2/21)	N	42.6	ppm	N/A	250	Geology; Naturally occurring
Chloride V (sample 8/2/21)		66.9				
Color V (sample 8/2/21)	Y	50	units	N/A	15	Presence of metals such as copper, iron and manganese; Natural color may be caused by decaying leaves, plants, and soil organic matter.
Color FH		50				
Copper (sample data from 9/22/21-9/28/21)		0.572 0.044-0.80	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (sample data from 9/22/21-9/28/21) Range of lead concentration	N	1.8 <sup>2</sup> ND-3	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Manganese FH (average) 2/9/21, 4/13/21, 7/21/21 & 10/31/21 Range of 4 samples	N	180 126-234	ppb	N/A	300	Geology; Naturally occurring
Manganese V (sample from 8/2/21)	N	38.6				
Nickel FH (sample from 8/2/21)	N	5.6	ppb	N/A	N/A	Discharge from steel/metal factories
Nickel V (sample from 8/2/21)	N	1.15				
Odor FH (sample from 8/2/21)	N	1	units	N/A	3	Natural sources.
Odor V (sample from 8/2/21)	N	1				
pH FH (sample from 8/2/21)	N	7.48	units		6.5-8.5	
pH V (sample from 8/2/21)	N	7.21				
Sodium <sup>+</sup> FH (sample from 8/2/21)	N	47.7				
Sodium <sup>+</sup> V (sample from 8/2/21)	N	43.9	ppm	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate V (sample from 8/2/21)	N	14.2	ppm	N/A	250	Geology;
Zinc FH (sample from 8/2/21)	N	10.7	ppb	N/A	5000	Naturally occurring; Mining waste.
Zinc V (sample from 8/2/21)	N	7.6				
<b>Synthetic Organic Chemicals</b>						
PFOS FH (sample from 1/27/21)	N	2.23	ppt	N/A	10	Released into the environment from widespread use in commercial and industrial applications
PFOS FH (sample from 4/19/21)	N	2.82				
PFOS FH (sample from 9/6/21)	N	2.63				
PFHxS FH (sample from 9/6/21)	N	4.30 <sup>5</sup>				
PFOS FH (sample from 11/1/21)	N	2.64				
PFHxS FH (sample from 11/1/21)	N	4.01 <sup>5</sup>				
<b>Microbiological Contaminants</b>						
Turbidity- Ft. Hardy *7/8/21	N	0450	NTU	N/A	TT=5 NTU	Soil runoff
Turbidity-Victory *6/9/21		0.438			TT=%samples <0.3	
		100%				
<b>Stage 2 Disinfection Byproducts (samples from 8/27/21 unless otherwise noted)</b>						
Haloacetic Acids (HAA5) 17 Herkimer St	N	44.8	ppb	N/A	60	By-product of drinking water chlorination
Haloacetic Acids (HAA5) 9 Liberty St	N	3.95				
TTHM[Total Trihalomethanes] 9 Liberty St.	N	12.3	ppb	N/A	80	By-product of drinking water chlorination
TTHM[Total Trihalomethanes] 17 Herkimer St.	N	63.6				
Chlorine (average) FH Range (based on daily testing)	N	1.09 0.40-2.05	ppm	MRDLG	MRDL	Used in the treatment and disinfection of drinking water
Chlorine (average) V Range (based on daily testing)	N	0.83 0.24-4.38	ppm	N/A	4	

**Notes:**

1. The level presented represents the 90<sup>th</sup> 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 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 from your water system and the 90<sup>th</sup> percentile value was the 9<sup>th</sup> sample with the second highest value (level detected 0.40 mg/l). The action level for copper was not exceeded at any of the sites tested.
2. The level presented represents the 90<sup>th</sup> percentile of 10 test sites. The action level for lead was not exceeded at any of the 10 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. State regulations require that entry point turbidity must always be below 1.0 NTU. The regulations also require that 95% of the turbidity samples collected have measurements below 0.3 NTU.
5. There is no associated MCL with this compound 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.

*90<sup>th</sup> Percentile Value*- The values reported for lead and copper represent the 90<sup>th</sup> 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 90<sup>th</sup> 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