ANNUAL DRINKING WATER QUALITY REPORT for 2018

Village of Cooperstown

PWSID: NY3800145

Introduction

To comply with State regulations, the Village of Cooperstown 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 did not violate maximum contaminant levels or any other water quality standard. 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 concerns about your drinking water, please contact Dennis Elliott, Water Plant Superintendent at 607-547-5591. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Board of Water and SewerCommissioner meetings. The meetings are generally held on the second Tuesday of every month at 9:00 a.m. in the Village board room located at 22 Main Street, Cooperstown, New York.

Where Does Our Water Come From?

Our water source is surface water drawn from Otsego Lake, located in the northern part of Otsego County. The lake is eight miles long and has a maximum depth of 166 feet. The lake has a watershed that covers about 75 square miles, which includes two counties and five townships. Numerous streams and springs feed the lake. The intake line for the Village runs up the Susquehanna River from the filtration plant and 1,700 feet out into the lake where the intake strainer is located. The water depth at the intake strainer is 45 feet. The Village is fortunate to have OtsegoLake as its source of water. Due to the size of the lake, it is very rare that we have to impose any water restrictions, except during an extended period of dry conditions during the summer for an unusually long period of time, due topumping capacity.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.

Water Production

A total of191-million gallons of water was drawn from Otsego Lake.Out of the 191-million gallons filtered,188-million gallons was pumpedto the clearwell tank and3-million gallons was used for startup, clarifier flushing and7-million gallons used for filter backwashing. Of the 180-million gallons that was pumped to the distribution system, there is an annual loss of approximately24-million gallons (13percent) due to leaks, main breaks, fires, hydrant flushing, and un-metered water usage in the Water Filtration Plant and the Wastewater Treatment Plant.

The Village has a leak detection program to keep water loss to a minimum.

Treatment

The Water Filtration Plant uses two filters with a maximum daily flow of one million gallons per day. A polymer is added to the water coming into the plant along with Earth Tec QZ. The filters have an up-flow clarifier that removes most of the contaminants and silt. From there the water flows through a multimedia filter of sand and activated carbon. The water is then chlorinated and fluoridated as it is being pumped to the clearwell, where the water is in contact with the chlorine for a minimum of 120 minutes before it is pumped to the system.

The filtration was put into service in January 1996. Before the filter system, the water was brought to the water plant by gravity and the only treatments were chlorination and fluoridation. Due to the lack of filters, personnel had to closely monitor the water because sudden changes, such as storms, could result in a boil water order due to high turbidity in the system. The Water Filtration Plant allows the quality of the water leaving the plant to be more uniform.

Distribution System

The system consists of two reservoirs. One is a steel 75,000-gallon reservoir on Irish Hill that was constructed in 1954. The second is a concrete, 160,000-gallon reservoir west of Maple Street and was constructed in 1905. This earlier reservoir was replaced in 2003 with a 1.5 million-gallon pre-stressed concrete reservoir. The distribution system has approximately 14.5 miles of cast iron, transite, ductile iron and high-density polyethylene pipe, most of which was installed from 1864 to 1948.

Facts and Figures

The population served by the distribution system year round is about 2,300, with an increase during the months of July and August when tourism peaks. This includes the Village of Cooperstown, the hamlet of Bowerstown, Route 80 East to the Fenimore House and Route 28 South to Community Bank N.A.

The current rate for water in the Village is $0.0568 per cubic foot or $0.0075 per gallon. The current rate for water outside of the Village is $0.1136 per cubic foot or $0.0151 per gallon. There are 7.48 gallons in one cubic foot of water.

Testing of the Water

As the State regulations require, we routinely test your drinking water every day at the Water FiltrationPlant. Wetake samples in the distribution system to check the chlorine residual and turbidity daily. Three times per month,bacteria samples are sent out to a lab for analysis for e-coli and coliform. Over the past year, the analysis samples have been negative. We also do a wide range of testing for chemicals in accordance with New York State Department of Health requirements, such as total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes (THM's), totalhaloacetic acids (HAA's) and synthetic organic compounds. The results of these tests are available from the Village Water Department upon request.

Detected Contaminants

We are required to notify customers of any violations concerning Maximum Contaminant Levels in the drinking water. A full list of detected chemicals is found at the end of this report. 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 results could be more than one year old because the Village is not required to test them every year.

Who May Be At Risk

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA's) Safe Drinking Water Hotline at 1-800-426-4791 or the State of New York Department of Health, Oneonta District Office at 607-432-3911.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons, such as those with cancer undergoing chemotherapy, who have undergone transplants, afflicted with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk of infections. These people should seek advice from their health care providers about drinking water. EPA and the Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of

infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Fluoride

Our system is one of the many drinking water systems in New York that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Center for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal level is 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.During 2015, monitoring showed fluoride levels in your water were in the range of 0.6 to 0.8 mg/l . None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

Conservation

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 withboth of these necessities of life;
- 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:
  - Install low volume shower heads.
  - Turn off the tap when brushing your teeth.
  - Check every faucet in your house for leaks. Just a slow drip can waste 15 to 20 gallons a day.
  - 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.
  - Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the water after 15 minutes, if the black triangle moved on the meter head, you have a leak.

Source Water Assessment Program (SWAP)

The New York State Department of Health has completed a source assessment for this system based on available information. Possible and actual threats to the 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 drinking water source.

The susceptibility rating is an estimate of potential for contamination of source water, it does not mean that the water delivered to consumers is or will become contaminated. While nitrates (and other inorganic contaminants) were detected in our water, 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 from natural sources. The presence of contaminants does not necessarily indicate that the water poses a health risk. The nitrate levels in our sources are not considered high in comparison with other sources in the area. See section, "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected.

As mentioned before, our water is derived from OtsegoLake. The source water assessment has rated our water source as having a moderate susceptibility to contamination for pesticides due to the amount of row crops in the assessment area. While there are some facilities present, permitted discharges do not likely represent an important threat to source water quality, based on their density in the assessment area. In addition, it appears that the total amount of wastewater discharged to surface water in this assessment area is not high enough to further raise the potential for contamination. There is also noteworthy contamination susceptibility associated with other discrete contaminant sources and these facility types include landfills and septics. While the source water assessment rates our source as being susceptible to microbials, please note that our water is disinfected to ensure

that the finished water delivered into your home meets New YorkState's drinking water standards for microbial contamination. A copy of the assessment, including a map of the assessment area, can be obtained by contacting the Water Filtration Plant at 607-547-5591.

System Improvements

The Village of Cooperstown replaced 1000' of 6" ductile iron water main that supplies the Village Waste Water Treatment Plant.

Closing

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water source, which is the heart of our community. Please feel free to call our office at 607-547-5591 if you have any questions.

1. **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 using the best available treatment technology.
2. **Maximum Contaminant Level Goal (MCLG)** - The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.
3. **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.
4. **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.
5. **Action Level (AL)** – The concentration of a contaminant, which if exceeded, triggers treatment, or other requirements, which a water system must follow.
6. **Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.
7. **Non-Detects (ND)**– Laboratory analysis indicates that constituent is not present.
8. **Nephelometric Turbidity Unit (NTU)** –A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
9. **Variances and Exemptions** – State or EPA permission not to meet an MCL or treatment technique under certain circumstances.
10. **Ppm** -Parts per million.
11. **Milligrams per liter(mg/L)** – Correspondstoone part of liquid in onemillion parts of liquid (parts per million –ppm).
12. **Micrograms per liter (ug/l)** – Corresponds to one part of liquid in one billion parts of liquid (Parts per billion – ppb).
13. **Nanograms per liter (ng/l)** – Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion –ppt).
14. **Picocuries per liter (pCi/l)**– A measure of the radioactivity in water.
15. **Picograms per liter (pg/l)** – Corresponds to one part of liquid to one quadrillion parts of liquid (parts per quadrillion – ppq).
16. **Millirems per year (mrem/yr)** – A measure of radiation absorbed by the body.
17. **Million Fibers per liter (MFL)** – A measure of the presence of asbestos fibers that are longer than 10 micrometers.

Contaminant	Violation Yes/No	Sample Date	Results	Regulatory Limit (MCL, TT, or AL)	Likely Source of Contaminant	Special Notes
Alpha	No	Average	0.175 pCi	15 pCi/l		
Antimony	No	8/2/18	<1.0 ug/L	0.006 mg/L		
Arsenic	No	8/2/18	<3.0 ug/L	0.01mg/L		
Barium	No	8/2/18	26.5 ug/L	2 mg/L	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits.	
Beryllium	No	8/2/18	<1.0 ug/L	0.004 mg/L		
Cadmium	No	8/2/18	<1.0 ug/L	0.005 mg/L		
Calcium	No	4/12/09	53 mg/L	NA	Naturally occurring or indicative of road salt.	
Chloride	No	7/9/12	<10.00 mg/L	250 mg/L	Naturally occurring or indicative of road salt contamination.	
Chlorine	No	Daily	1.3 ppm	4 mg/L	Added to water for the purpose of disinfection.	
Chromium	No	8/2/18	<5.0 ug/l	0.1 mg/L		
Copper	No	7/17/18 - 8/9/18	90% was 0.934 mg/l	1.3mg/L	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.	This sample represents the 90th percentile of the number of samples taken.
Cyanide (free)	No	8/2/18	<0.02 ug/L	0.2 mg/L		
Dibromomethane	No	8/2/18	<0.01 ug/L	5 ug/L	Runoff/leaching from soil fumigation used on soybean, cotton, pineapples, and orchards.	
Fluoride	No	8/2/18	0.8 ppm	2.2ppm	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.	
Gross Bata	No	12/1/00	1.3E 0+/-0.6E PCI/L	15PCI/L	Decay of natural deposits and man-made emissions.	
Haloacetic (HAA)	No	Quarterly	Running Avg.= 0.021 mg/L	0.060 mg/L	By-product of drinking water chlorination needed to kill harmful organisms. THMs are formed when source water contains large amounts of organic matter.	The range was 0.0149 - 0.0254 mg/l
Iron	No	7/16/12	<0.051 mg/L	0.3 mg/L	An abundant element found naturally in the earth.	
Lead	No	7/17/18 - 8/9/18	90% was 0.0035 ppb	0.015ppb	Corrosion of household plumbing; Erosion of natural deposits.	This sample represents the 90th percentile of samples taken.
Manganese	No	7/16/12	<0.002 mg/L	0.05 mg/L		
Mercury	No	8/2/18	<0.2 ug/L	0.002 mg/L		
Nickel	No	8/2/18	<5.0 ug/L	0.1 mg/L		
Nitrate as N	No	4/4/18	0.523 mg/L	10mg/L	Runoff from fertilizer use; leaching from septic tanks and sewers; erosion of natural deposits.	

Contaminant	Violation Yes/No	Sample Date	Results	Regulatory Limit (MCL, TT, or AL)	Likely Source of Contaminant	Special Notes
Radium 226	No	Average	0.08 pCi	5 pCi/L	Naturally-occurring radioactive gas found in soil and outdoor air.	
Radium 228	No	Average	0.22 pCi	5 pCi/L	Naturally-occurring radioactive gas found in soil and outdoor air.	
Selenium	No	8/2/18	<3.0 ug/L	0.05 mg/L		
Silver	No	7/13/12	<0.0010 mg/L	0.1 mg/L		
Sodium	No	6/6/13	12.4 mg/L	NA	Natural occurring; road salt; water softeners; animal waste.	
Sulfate as so4	No	7/10/12	<10.00 mg/L	250mg/L	Naturally occurring.	
Thallium	No	8/2/18	<0.5 ug/L	0.002 mg/L		
Thihalomethanes (THM)	No	Quarterly	Running Avg.= 0.0429 mg/L	0.080 mg/L	By-product of drinking water chlorination needed to kill harmful organisms. THMs are formed when source water contains large amounts of organic matter.	The range was 0.0362 - 0.0553 mg/l
Zinc	No	6/6/13	1.25 mg/L	5 mg/L	Corrosion of household plumbing.	