

# **2006 ANNUAL WATER QUALITY REPORT**

## **FIN: NY3800145**

### **Questions About The Report**

On behalf of the Board of Water Commissioners for the Village of Cooperstown, Water Superintendent, Dennis Elliott, has prepared the Annual Water Quality Report for 2006 in compliance with the Safe Drinking Water Act. Should you have any questions about the report you may contact Mr. Elliott at 607-547-5591 or attend a meeting of the Board of Water Commissioners, which is generally held on the second Monday of every month at 10:00 a.m. in the Village board room located at 22 Main Street, Cooperstown, New York.

### **Where Your Water Comes From**

The Village of Cooperstown draws its water 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 Otsego Lake 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 to pumping capacity.

### **Water Production**

The total amount of water drawn from the lake was 222-million gallons. Of the 222-million gallons, 215-million gallons were sent to the clearwell tank and 12-million gallons were used for startup, clarifier flushing and filter backwashing. Of the 203-million gallons sent to the distribution system, there is an annual loss of about 30-million gallons (15 percent) due to leaks, main breaks, fires, hydrant flushing and un-metered water usage in the water filtration plant and the sewer 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 pre-chlorination. 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 treatment was chlorination and fluoridation. Due to the lack of filters, personnel had to closely monitor the water because of sudden changes, such as storms, could result in a boil water order due to high turbidity in the system. The new 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 12.5 miles of cast iron, transite and ductile pipe, most of which was installed from 1864 to 1948.

## **Population and Cost**

The population served by the distribution system year round is about 2,032, 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 Wilber Bank.

The current rate for water in the Village is \$0.0454 per cubic foot or \$0.00607 per gallon. The current rate for water outside of the Village is \$0.0908 per cubic foot or \$0.01214 per gallon. There are 7.48 gallons in one cubic foot.

## **Testing of the Water**

The Village takes 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. Over the past year there have not been any positive samples. We also do a wide range of testing for chemicals in accordance with New York State Department of Health requirements, such as lead, copper, trihalomethanes (THM's) and haloacetic acids (HAA's). The results of these tests are available from the Village 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.

## **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.

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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

## **Cryptosporidium**

Due to the possibility of a rare instance of water contamination, New York State Health law requires water suppliers to notify customers about the possible risk of two intestinal illnesses known as Cryptosporidiosis and Giardiasis. These are two water-borne parasites that anyone can contract, but they are more serious when people with weakened immune systems are affected. Symptoms can range from watery diarrhea, vomiting, fever, cramps and loss of appetite, depending on the health of the individual. Anyone who thinks that he or she may be infected should contact his or her doctor to be tested. Individuals with weakened systems who suspect they might be infected should contact the State Health Department, Oneonta District Office at 607-432-3911 for information.

## **Conservation**

Water conservation has become more of a topic of concern for water producers and consumers. Based on the rising cost of producing a clean and safe product, the water industry has been working on programs to help consumers by educating them with ways to reduce their consumption and still enjoy the resource. We are working on making this information available to you.

## **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 the 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 Otsego Lake. 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 septic. 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 York State’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.

### **Definitions**

1. **MCL** (Maximum Contaminant Level)- The highest level of a contaminant that is allowed in drinking water. MCL’s are set as close to the MCLG’s as feasible using the best available treatment technology.
2. **MCLG** (Maximum Contaminant Level Goal) – The level of a contaminant in drinking water below which there is no known or expected health risk. MCLG’s allow for a margin of safety.
3. **AL** (Action Level) – The concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.
4. **TT** (Treatment Technique) – A required process intended to reduce the level of a contaminant in drinking water.
5. **Variations and Exemptions** – State or EPA permission not to meet an MCL or treatment technique under certain circumstances.
6. **ppm** -Parts per million.
7. **mg/L** - Milligrams per liter.
8. **ppb** - Parts per billion.
9. **mcg/L** – Micrograms per liter.
10. **pCi/L** – Picocuries per liter.
11. **NTU** – Nephelometric Turbidity Units (a measure of turbidity)
12. **ug/L** – Parts per billion