ANNUAL DRINKING WATER QUALITY REPORT FOR 2010
VILLAGE OF CAYUGA
Cayuga, NY 13034
Public Water Supply ID Number: NY 0501716

Introduction

To comply with State regulations, the Village of Cayuga, annually issues 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. This report provides an overview of last year's water quality. Included are details about where water comes from, what it contains, and how it compares to state standards.

If you have any questions about this report or concerning your water utility, please contact Daniel Patterson, Superintendent of Public Works at (315) 252-0861. Additionally, you may contact the Cayuga County Health Department at 253-1405, which has jurisdiction over the Village Water Department. We like our customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Village Board meetings. They are held on the second Wednesday of each month, 7PM, at the Village Office, 6205 Railroad Street, Cayuga, NY.

Where Does Our Water Come From?

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 human activity. 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 and the Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Our water system serves 1,000 persons through 200 service connections. Our water source is Cayuga Lake. The water is filtered, chlorinated and ultraviolet disinfected prior to distribution. The NYS Department of Health has completed a source water assessment for the Village based on available information. Possible and actual threats to this drinking water source were evaluated. This 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 lakes. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. (See Table of Detected Contaminants). The source water assessments are intended to provide managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived primarily from Cayuga Lake. The source water assessment has rated this source as having an elevated susceptibility to protozoa and phosphorus due to the moderate density of CAFOs (Concentrated Animal Feeding Operations) and sanitary wastewater discharges in the assessment area. The amount of agricultural lands used for crops increases the susceptibility potential for pesticides.

County and state health departments will use this information to direct future source water protection activities. These may include water quality monitoring, resource management,

planning and education programs. A copy of the complete assessment is available for review by calling the Cayuga County Health Department at 253-1405.

Are There Contaminants In Our Drinking Water?

As State regulations require, the Village of Cayuga routinely tests your drinking water for numerous contaminants. We regularly test your drinking water for 17 inorganic compounds, nitrate, nitrite, 56 volatile organic compounds, total trihalomethanes, and 46 synthetic organic compounds. In addition, we test the water for coliform bacteria once a month, turbidity continuously, pH and chlorine at least once a day. The table presented depicts which compounds were detected in your drinking water. The State allows us to test for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are 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 indicate that the water poses 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 Cayuga County Health Department (253-1405).

What Does This Information Mean?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards.

The table shows that our system has had some problems this year. We have violated the MCL for total trihalomethanes, a group of disinfection byproducts, as our running annual average has exceeded the MCL during all four quarters of 2010. Therefore, we are required to present the following information on total trihalomethanes in drinking water:

> "Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer."

We are addressing this by this by has modifying our chlorination practices in an effort to reduce the amount of chlorine added to the water, conducting an aggressive hydrant and water main flushing program, and working with our engineer to make capital improvements to its water treatment plant to reduce the organic matter in the water and lessen the potential for THMs to form.

Lead. If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of material used in your home's plumbing. The Village of Cayuga 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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

Is Our Water System Meeting Other Rules That Govern Operations?

The Village of Cayuga had turbidity treatment technique violations in March, September, and October of 2010. On March 9, 2010, the treated water turbidity was measured at 0.8 NTU. This is above the maximum allowable standard of 0.3 turbidity units for treated water. The elevated

turbidity measurement was attributed to a breach in the Village's raw water intake line. This line was repaired. The treated water turbidity levels returned to below 0.3 NTU on March 15, 2010. Additionally on September 25, 2010, the treated water turbidity was measured at 0.37 NTU which is also above the maximum allowable standard of 0.3 turbidity units for treated water. The elevated turbidity measurement was attributed to a water main break and loss of pressure in the distribution system. In an effort to fill the storage tank which was emptied during the water main break, the plant was operating almost continuously and had problems with elevated turbidity levels in the treated water. The water main was repaired and the Village worked with their engineer to improve plant performance and fill the storage tank. The treated water turbidity levels returned to below 0.3 NTU on October 9, 2010. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Do I Need To Take Special Precautions?

Some people may be more vulnerable to disease causing 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 for infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other *microbial pathogens* are available from the Safe Drinking Water Hotline (800-426-4791).

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 all of our customers. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please call our office if you have questions.

ND: None Detected N/A: Not Applicable.

	Violation Yes/No?	Date of Sample	Level Detected	Unit Measure	MCLG	MCL	Likely Source of Contamination
Total Trihalomethanes Chloroform,Bromoform, Bromodichloromethane, Depromochloromethane	Yes	2/16/10 5/18/10 8/17/10 11/16/10	86.64 97.86 76.69 76.37 Average 84.39	ug/l	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.

Haloacetic Acid, Bromoacetic Acid, Chloroacetic Acid, Dibromoacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid	No	2/16/10 5/18/10 8/17/10 11/16/10	1.51 1.26 ND 8.57 Average 2.84	ug/l	N/A	60	By-product of drinking water chlorination needed to kill harmful organisms.
Sulfate	No	12/01/10	48.0	mg/l	N/A	250	Naturally occurring.
Barium	No	12/01/10	21	ug/l	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Nitrate	No	12/01/10	0.90	mg/l	10	10	Run-off from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Copper	No	11/17/09	0.034	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems.

In November 2009, we collected and analyzed 7 samples for Lead and Copper. The level included in the table represents the average of the two highest levels detected, which is known as the 90th percentile value. The action level for lead was not exceeded at any of the sites tested. Copper was not exceeded as noted in the chart above. Lead and Copper are tested every 3 years.

Definitions:
Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible.
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG;s allow for a margin of safety.
Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million – ppm).
Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion – ppb).
Action Level: (AL) The concentration of a contaminant which, if exceeded, triggers treatment or other requirement which water system must follow.
Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Turbidity

Contaminant	Violation Yes/No?	Date of Sample	Level Detected - Maximum Range	Unit Measurement	MCLG	Regulatory Limit (MCL,TT or AL)	Likely Source of Contamination
Turbidity Natural Filters	Yes	3/9-3/15/10 9/25-10/9/10	0.65-2.7 0.31-1.5	NTU	N/A	0.3NTU	Soil Runoff
Turbidity Distribution	No	3/23/10	0.7	NTU	N/A	5.0 NTU	Soil Runoff

Turbidity is a measure of the cloudiness of the water. Turbidity is monitored because it is a good indicator of the effectiveness of our filtration system. High turbidity can hamper the effectiveness of disinfectants. Our highest turbidity measurement of treated water as it leaves the water plant was 2.2 NTU. We monitor and record the turbidity level on a daily basis.

Definitions:

NTU: Nephelometric Turbidity Unit – A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
ND: None Detected N/A: Not Applicable.