

Annual Drinking Water Quality Report for 2006

Village of Clinton

**P.O. Box 242, Clinton, NY 13323
(Public Water Supply ID# NY3202386)**

INTRODUCTION

To comply with State regulations, the Village of Clinton, 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, we conducted tests for over many contaminants. We detected a few of those contaminants, and only found two of those contaminants at a level higher than the State allows (Total Coliform and E.Coli bacteria). As we told you at that time, our water temporarily exceeded a drinking water standard and after a Boil Water Order, we returned to compliance as all follow-up samples were free from contamination. 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 concerning your drinking water, please contact Dale Jewell, Water Operator or Bob Galinski, Chief Operator at (315) 853-2240. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings. The meetings are held on the first Monday of each month at 7:00PM at the Village Offices located at Lombard Hall.

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 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 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.

Our water source is a groundwater source that is pumped from two separate well fields, four wells located on Sanford Avenue, and two wells on Old Boorne Road. Groundwater is drawn from six wells, ranging from 50-55 feet deep. During 2006 our system did not experience any restriction of our water sources, although the Old Boorne Road wells were taken off-line until they are determined to be true groundwater and not under the influence of surface water. The water is disinfected with sodium hypochlorite prior to distribution. In addition, hydrofluosilic acid (fluoride) is added to the water prior to distribution. Any water not used by our customers is stored in two steel storage tanks, a 300,000 gallon tank on Kellogg Street and a 540,000 gallon tank located on South Street.

SOURCE WATER ASSESSMENT INFORMATION

A source water assessment is a process by which possible and actual threats to drinking water source(s) are determined. A source water assessment was completed for the Village Of Clinton water system. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily the contaminants can move through the subsurface to the source(s). The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to the consumers is, or will become contaminated. The source water assessment program (SWAP) is designed to compile, organize and evaluate information to make better decisions regarding protecting sources of public drinking water. A copy of the assessment, including a map of the assessment area can be obtained by contacting us as noted above.

The land uses around the Village of Clinton water system sources were rated for their potential to cause contamination to the sources. The sources were rated at a medium risk for nitrates, protozoa, enteric bacteria, and enteric viruses. Discrete potential source of contamination around the sources include a pest control site, several gas stations, and auto service stations, and a dry cleaning business. When the potential land use contaminants are combined with the medium risk factors presented by the discrete potential sources and the high natural sensitivity of the sources, the public drinking water source is at a high to medium high susceptibility for contamination. The high natural sensitivity is based on contaminant history, soils, surficial geology, and aquifer information and bedrock geology. See section "*Are there contaminants in our drinking water?*" for a list of contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

Based upon the SWAP report determinations, good judgement should be used and caution should be exercised when determining placement of certain materials, actions and facilities, including septic systems high-rise business or chemical storage near the source(s). We work hard to ensure that the source of water for our system is protected from contamination.

GROUNDWATER UNDER THE DIRECT INFLUENCE OF SURFACE WATER (GWUDI) INFORMATION

From 2003-2005, the Oneida County Health Department conducted a study of our water system to determine if our source was under the direct influence of surface water. Based upon the data collected (e.g. temperature, conductivity, and precipitation), geology, construction methods, and soils, the OCHD has determined that the Old Boorne Road water sources for the water system demonstrate

characteristics of a groundwater source that is under the direct influence of surface water (GWUDI). We have completed site work to increase the protection of our sources at that location. Recent sampling has indicated an improvement in water quality. Additional testing will be performed to determine the GWUDI status of the wells. At this time, the Old Boorne Road wells are not in use.

FACTS AND FIGURES

Our water system serves a population of approximately 3,000 through 1,140 metered connections. The total water produced in 2006 was over 165,045,000 gallons. The amount of water delivered to customers was over 97,189,305. This leaves an unaccounted for total of around 67,855,695 gallons. This water was used to flush mains, fight fires, street cleaning, and leakage. (41% of the total amount produced). Water customers inside the village limits are charged \$12.50 per 1,000 cubic feet of water and outside the village the rate was \$25.00 per 1,000 cubic feet.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, and synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking water. 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, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, might be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that 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 Oneida County Health Department at (315) 798-5064

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG / MRDLG	Regulatory Limit (MCL, MRDL, TT or AL)	Likely Source of Contamination
Microbiological Contaminants- 3 Samples Monthly							
Total Coliform	Yes	9/6/06	Present ⁽¹⁾	N/A	0	MCL = Any positive sample	Naturally present in the environment
Total Coliform	Yes	9/11/06	Present ⁽¹⁾				
E.Coli	Yes	9/11/06	Present ⁽¹⁾	N/A	0	MCL = Any positive sample	Human and animal fecal water.
Radioactive Contaminants- None Detected - Sampled in 2001							
Inorganic Contaminants							
Barium	No	10/06	0.1 (Sanford Ave Wells) 0.1 (Old Boorne Rd Wells)	mg/l	2	MCL = 2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper	No	9/06	0.12 ⁽²⁾ (range = 0.029 - 0.23)	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems
Fluoride (Entry Point)	No	10/06	0.7 (Sanford Ave Wells) 0.2 (Old Boorne Rd Wells)	mg/l	N/A	MCL = 2.2	Erosion of natural deposits; Water additive that promotes strong teeth (<i>The Village of Clinton adds Fluoride to the water</i>); Discharge from fertilizer and aluminum factories.
Fluoride (Distribution System)		Monthly	0.92 ⁽³⁾ (range = 0.7 - 1.3)				
Lead	No	9/06	4.6 ⁽⁴⁾ (range = 1.0 - 9.6)	mg/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (single sample - Old Boorne Road Entry Point)	No	10/06	6.1	mg/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate	No	8/06	1.6 (Sanford Ave Wells) 1.5 (Old Boorne Rd Wells)	mg/l	10	MCL = 10	Runoff from fertilizer use; Erosion of natural deposits
Synthetic Organic Contaminants including Pesticides and Herbicides - None Detected - Sampled in 2006							
Volatile Organic Contaminants - None Detected - Sampled in 2006							
Disinfection By-Products (See Table 17 of Part 5)							
Chlorine Residual	No	Daily/ Monthly	0.51 ⁽⁵⁾ (range = 0.2 - 0.9)	mg/l	N/A	MRDL = 4 ⁽⁶⁾	By-product of drinking water chlorination
Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid)	No	8/06	3.7	ug/l	N/A	MCL = 60	By-product of drinking water disinfection needed to kill harmful organisms.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG / MRDLG	Regulatory Limit (MCL, MRDL, TT or AL)	Likely Source of Contamination
Total Trihalomethanes (TTHMs – chloroform, bromodichloromethane, dibromochloromethane and bromoform)	No	8/06	21	ug/l	N/A	MCL = 80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.

Notes:

- 1 - The table shows that we had an MCL violation for total coliform. On September 6, 2006, one of three monthly samples collected indicated the presence of total coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful bacteria may be present. Follow-up samples collected on September 11, 2006 also indicated the presence of total coliform. This sample also indicated the presence of E. Coli. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems. Since coliforms and E.coli were found in more samples than allowed we violated the MCL. A Boil Water Order was issued and after flushing, increased chlorine residuals, and additional sampling (12 samples from September 13 through 14), the Boil Water Order was rescinded.
- 2 - The level presented represents the 90th percentile of the 10 sites tested. 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, the 90th percentile was the second highest value or 0.12 mg/l. The action level for copper was not exceeded at any of the 10 sites tested.
- 3 - This level represents the annual average and range of results calculated from monthly sample submissions.
- 4 - The level presented represents the 90th percentile of the 10 sites tested. The action level for lead was not exceeded at any of the sites tested.
- 5 - This level represents the annual average and range of results calculated from sample submissions.
- 6 - Value presented represents the Maximum Residual Disinfectant Level (MRDL) which is a level of disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. MRDLs are currently not regulated but in the future they will be enforceable in the same manner as MCLs.

Definitions:

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.

Maximum Contaminant Level Goal (MCLG): 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.

Action Level (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

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).

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking

WHAT DOES THIS INFORMATION MEAN?

The table shows that our system uncovered some problems this year. On September 6, 2006, routine sampling indicated the presence of Total Coliform Bacteria. Following that sample, four (4) repeat samples were collected on September 11, 2006. One of these samples indicated the presence of both Total Coliform bacteria and E.Coli. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful bacteria may be present. E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems. Since we were unsure as to the extent of the potential contamination, a Boil Water Order was issued for the water system. After flushing, increased chlorine residuals, and additional sampling (12 samples from September 13 through 14 with no detection of bacteria) throughout the system, the Boil Water Order was rescinded. We believe that the contaminated samples were isolated and were most likely the result of site specific problems and limited water flow in the area of the samples. We do not expect to experience the same issues in the future.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2006, our system was in compliance with 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 microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

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 up 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.
- ♦ Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes, if it moved, you have a leak.

SYSTEM IMPROVEMENTS

In 2006 we replaced components of our fluoride treatment systems to increase efficiency and ensure consistent fluoride concentrations throughout the water system.

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 sources, which are the heart of our community. Please call the Village office if you have any questions at (315) 853-5231.