

*Annual Drinking Water Quality Report for 2008*  
*Village of Ellenville*  
*2 Elting Court*  
*Ellenville NY, 12428*  
*(Public Water Supply ID# 5503366 )*

## **INTRODUCTION**

To comply with State regulations, Village of Ellenville, 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. 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 **Michael Avery Jr., Senior Water Treatment Operator, at 647-5740, or Village Clerk, at 647-7080.** 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 second and fourth Monday every month, at the Ellenville Government Center, 2 Elting Court, Ellenville NY, 12428.

## **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 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.

The Village of Ellenville receives water from four sources; these include one surface water supply ( North Gully Reservoir) and three well supplies ( Fallsview well, Harris wells, and center St. well.). The surface supply receives water from Lake Maratanza through a 10-inch water main that is connected to North Gully Brook and transported into the reservoir. The reservoir has a capacity of 1.5 million gallons. Water from the reservoir is filtered by bag filters followed by two stage cartridge filtration, disinfected with liquid sodium hypochlorite and then pumped to a 150,000 gallon holding tank for chlorine contact time requirements. Zinc orthophosphate is also added to the filtered water supply for corrosion control in the distribution system.

Water from the well supplies currently receive only chlorination treatment with liquid sodium hypochlorite. The Fallsview Well has a capacity of 500 gallons per minute (gpm) and provide about 50 % of the village's daily requirements. The Harris Wells have a combined capacity of about 620 gpm and include one active and one new well that is expected to be in service in 2008. The new Harris Well (NO. 2) will become a primary source with Harris Well NO. 1 and the Center Street Well being used as backup or as an emergency source supply.

Once Treated, all source waters (wells and surface supply) enter the Village's distribution system. The distribution system currently operates with two in-Village water storage tanks with a total capacity of 1.1 million gallons and one booster pump station that is located on Westwood Ave.

## **Source Water Assessment**

The NYSDOH has completed a source water assessment for the 3 well sources of this system, based on available information. Possible and actual threats to this 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 wells. 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. While nitrates 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. See section " Are there contaminants in our drinking water? " for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

As mentioned before, three of the sources from which our water is derived are drilled wells. The source water assessment has rated these wells as having a medium to high susceptibility to some microbials; and low to no susceptibility to nitrates, industrial solvents, and other industrial contaminants. These ratings are due primarily to low intensity residential activities in the assessment area. In addition, the wells draw from fractured bedrock and a lower permeability layer exists above the aquifer. Please note that, while the source water assessment rates our wells as being susceptible to some microbials, our water is disinfected to ensure that the finished water delivered into your home meets the New York State drinking water standards for microbial contamination.

A copy of this assessment, including a map of the assessment area, can be obtained by contacting the Village Water Department.

#### **FACTS AND FIGURES**

The Village of Ellenville supplies water to approximately 4,300 people through 1,362 service connections. The number of service connections include commercial accounts as well as residences. The total amount of finished water produced in 2008, was 380,024,000 gallons or an average of 1.041 million gallons per day (mgd). The highest daily usage of water was in June with a use of 1.140 mgd; the lowest daily usage was in November with a use of 0.947 mgd. The amount of water delivered to customers in 2008 was 246,496,344 gallons. This leaves a non billable total of 133,527,656 gallons or 35% . This non billable water was due to flushing water mains, fire fighting, water main breaks, recreation, street sweeping and illegal use.

#### **Water rates**

Water bills are sent out on a quarterly basis. Current residential water rates for the Village of Ellenville are \$19.00 for the minimum of 5000 gallons and \$3.00 per 1000 gallons over the minimum usage.

#### **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, turbidity, inorganic compounds (IOC'S), principal organic contaminants (POC'S), synthetic organic compounds (SOC'S), nitrate (NO<sub>3</sub>), nitrite (NO<sub>2</sub>), lead and copper, and radiological parameters (gross alpha emitters and radium). The NYS Department of Health allows us to test for some contaminants less than once a year because the concentrations of these contaminants do not change frequently. Therefore some of our data, though representative, is more than a year old.

According to State regulations, the Ellenville Water Department routinely monitors your drinking water for various contaminants. A summary of the contaminants detected last year is provided in Table 1. Contaminants that were tested for, but not detected, are not listed in the table. These contaminants that were not detected are: principle organic chemicals, synthetic organic chemicals, arsenic, cadmium, chromium, mercury, selenium,

fluoride, antimony, beryllium, nickel, thallium, cyanide, iron, color, silver, gross alpha radiation, and radium 226.

The testing schedule was in accordance with the yearly monitoring requirements stipulated by the NYS Department of Health and the Ulster County Health Department. In 2008, the Village continued testing for disinfection by-product compounds known as trihalomethanes (TTHM'S) and haloacetic acids (HAA5). The disinfection by-products are compounds that may form when disinfectants (such as chlorine) are added to drinking water to kill germs that react with naturally occurring organic matter in the water. Samples for TTHM and HAA5 analyses are collected from a furthest point in the distribution system in accordance with the NYSDOH sampling requirements. The furthest point is used because it provides a measure of the possible maximum TTHM and HAA5 concentrations that could develop throughout all of the Village water distribution system. Radiological contaminants were tested for in 2006 and are included in Table 1.

It should be noted that all drinking water, including bottled drinking 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 US EPA'S safe drinking water hotline (1-800-426-4791), the NYS Department of Health- Office of public health (518-793-3893) or the Ulster County Health Department (845-340-3010). Information is also available through the US EPA'S drinking water website ([www.epa.gov/safewater/hfacts.html](http://www.epa.gov/safewater/hfacts.html)) and the NYSDOH website ([www.health.state.ny.us](http://www.health.state.ny.us)).

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper volatile organic compounds, total trihalomethanes, and synthetic organic compounds. None of the compounds we analyzed for were detected in your drinking water.

**TABLE 1. - LIST OF DETECTED CONTAMINANTS IN 2007**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MC LG	REGULATOR Y LIMIT (MCL,TT,AL)	Likely Source of Contamination
Total Coliform Bacteria	NO	FIVE SAMPLES MONTHLY	NO POSITIVE SAMPLES	N/A	N/A	MCL 2 OR MORE PER MONTH	Naturally present in the environment
<b>COPPER (AT CUSTOMER TAP)</b>	YES SEE NOTE 1'	4/19/07 & 11/27/07	1.71 (ND-2.56) 2.30 (ND-3.90)	mg/l	1.3	Al=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives

1 FORTY SAMPLES WERE COLLECTED IN first ROUND OF SAMPLING AND THE 90<sup>th</sup> PERCENTILE VALUE WAS THE 36<sup>th</sup> HIGHEST VALUE. FORTY SAMPLES WERE COLLECTED IN THE SECOND ROUND OF SAMPLING. THE ACTION LEVEL FOR COPPER WAS EXCEEDED AT 8 OF THE SITES COLLECTED ON 4/19, AND 9 OF THE SITES COLLECTED ON 11/27. THE LEAD ACTION LEVEL WAS EXCEEDED AT 1 OF THE SITES ON 11/27.

**TABLE 1. - LIST OF DETECTED CONTAMINANTS IN 2007**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	REGULATORY LIMIT (MCL,TT,AL)	Likely Source of Contamination
<b>LEAD</b> (AT CUSTOMER TAP)	NO	4/19/07 & 11/27/07	0.004 (ND-0.008) 0.067 (ND-0.021)	mg/l	0	AL = 0.015	Corrosion of household plumbing systems; Erosion of natural deposits
<b>CHLORIDE</b> HARRIS WELL NORTH GULLY FALLSVIEW	NO	2/25/08	16 4 14	mg/l	N/A	MCL= 250	Naturally occurring or indicative of road salt contamination.
<b>SODIUM</b> HARRIS WELL NORTH GULLY FALLSVIEW	NO See Note 3	2/25/08	7.4 3.1 6.8	mg/l	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste
<b>ZINC</b> HARRIS WELL NORTH GULLY FALLSVIEW	NO	2/25/08	<0.01 <0.01 <0.01	mg/l	N/A	MCL= 5	Naturally occurring; Mining waste
<b>SULFATE</b> HARRIS WELL NORTH GULLY FALLSVIEW	NO	2/25/08	9 5 7	mg/l	N/A	MCL= 250	Naturally occurring
<b>NITRATE</b> HARRIS WELL NORTH GULLY FALLSVIEW	NO	2/25/08	0.3 <0.2 0.4	mg/l	10	MCL= 10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>MANGANESE</b> HARRIS WELL NORTH GULLY FALLSVIEW	NO	2/25/08	0.02 0.02 0.01	mg/l	N/A	MCL= 300	Naturally occurring; Indicative of landfill contamination.
<b>BARIUM</b> HARRIS WELL NORTH GULLY FALLSVIEW	NO	2/25/08	<0.10 <0.10 <0.10	mg/l	2.0	MCL= 2.0	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits



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Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	REGULATORY LIMIT (MCL,TT,AL)	Likely Source of Contamination
<b>TOTAL TRIHALOMETHANES (TTHM'S)</b>	NO	QUARTERLY JAN.08 TO DEC. 08	15.4 (10.2-19.1)	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.
<b>HALOACETIC ACIDS (HAAS)</b>	NO	QUARTERLY JAN. 0 8TO DEC. 08	17.6 (7.3-27.8)	ug/l	N/A	MCL=60	By-product of drinking water disinfection needed to kill harmful organisms.
<b>RADIUM 228 HARRIS WELL</b>	NO	3/14/05 & 6/6/05	0.44 - 0.77	PCl/L	0	MCL=5 PCl/L	EROSION OF NATURAL DEPOSITS
<b>RADIUM 228 FALLSVIEW WELL</b>	NO	3/14/05 & 6/6/05	0.09 - 0.67	PCl/L	0	MCL=5 PCl/L	EROSION OF NATURAL DEPOSITS
<b>RADIUM 228 CENTER ST WELL</b>	NO	3/14/05 & 6/6/05	0.58 - 1.60	PCl/L	0	MCL=5 PCl/L	EROSION OF NATURAL DEPOSITS

**Notes:**

1 - Although there is no MCL for sodium, it is recommended that those on a severely sodium restricted diets not consume water that contains more than 20 mg/l of sodium. The recommended limit for those on a moderately restricted sodium diets is 250 mg/l.

2 - The level presented represents the 90<sup>th</sup> percentile of the 40 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 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 40 samples were collected at your water system and the 90<sup>th</sup> percentile value was the 35<sup>th</sup> sample value 1.71 mg/l in the first round of sampling and 2.30 for the second round of sampling. The action level for copper was exceeded at 8 sites tested in the first round and 9 in second round of sampling.

3- Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets

#### **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 which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

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

**Nephelometric Turbidity Unit (NTU):** A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**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).

**Nanograms per liter (ng/l):** Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

**Picograms per liter (pg/l):** Corresponds to one part per of liquid to one quadrillion parts of liquid (parts per quadrillion - ppq).

**Picocuries per liter (pCi/L):** A measure of the radioactivity in water.

**Millirems per year (mrem/yr):** A measure of radiation absorbed by the body.

**Million Fibers per Liter (MFL):** A measure of the presence of asbestos fibers that are longer than 10 micrometers.

The Village of Ellenville is in violation of State lead and copper control requirements for Copper. Therefore, we must include the following statement in this report.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

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. During 2008, we also

tested for a group of Synthetic Organic Chemicals (SOC's), and all results came back well below state requirements.

## **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 2008, we anticipate the implementation of improvements to allow better corrosion control in our treatment facilities. This will result in a reduction in lead and copper levels in our water and extend the life of our buried water lines. We also anticipate the installation of a new water transmission main from the Fallsview and Harris wells to the distribution system. This will increase our ability to pump water from the wells to the rest of the Village water system and increase the reliability of the entire 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 our office if you have questions.