

*Annual Drinking Water Quality Report for 2006*  
*Highland Water District*  
*12 Church Street, Highland N.Y. 12528*  
*(Public Water Supply ID#0061500 )*

## **INTRODUCTION**

To comply with State and Federal regulations, the Highland Water District issues an annual 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. This report provides an overview of last year's water quality. Included in it 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 Wesley Monica, Water & Sewer Administrator, at 845-691-2400. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled town board meetings. The meetings are held on the second Wednesday of every month, at 7:30 P.M., at Town Hall, 12 Church Street, Highland, N.Y.

## **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 sources are the Hudson River, upland reservoirs, and several wells drilled into Illinois Mountain. The reservoirs and the wells are located behind the water plant on Reservoir Road. During the year 2006, our system did not experience any restriction of our water sources. The water is chemically conditioned, clarified, filtered, and chlorinated prior to distribution.

## **FACTS AND FIGURES**

Our water system serves approximately 5000 people through 1597 service connections. The total water produced in 2006 was 290,728,600 gallons. The daily average was 777,483 gallons, and our single highest day was 1,186,700 gallons. The amount of water delivered to customers was 130,936,528 gallons. This leaves 160 million gallons unrecorded, which is a combination of flushing mains, fighting fires, leakage, and inaccurate meter recording. In 2006, water customers were charged \$3.75 per 1,000 gallons of water.

## **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, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, 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, may 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 Ulster County Health Department at 845-340-3010.

## Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Total Coliform	No	5/11/06	4	CFU/100ml	0	2 or more positive Samples in 1 month	Naturally present in the environment
Turbidity*1	No	2/13/06	0.20	NTU	N/A	0.30	Soil Runoff
Barium	No	6/27/06	0.008	mg/l	N/A	2.00	Erosion of Natural Deposits
Chloride	No	6/16/06	18	mg/l	N/A	250	Naturally Occurring
Iron	No	6/22/06	0.044	mg/l	N/A	0.30	Naturally Occurring
Manganese	No	6/22/06	0.005	mg/l	N/A	0.30	Naturally Occurring
Sodium	No	6/22/06	7.35	mg/l	N/A	N/A	Naturally Occurring
Sulfate	No	6/22/06	10	mg/l	N/A	250	Naturally Occurring
Zinc	No	6/22/06	0.009	mg/l	N/A	5	Naturally Occurring
Total THM's *4	No	2006 Avg	50	ug/l	N/A	100	Disinfection byproducts
Lead*2	No	5/18/06 5/18/06	27 86	ug/l	0	15	Corrosion of Household plumbing
Copper*3	No	5/18/06	0.891	mg/l	1.3	1.3	Corrosion of Household plumbing

**Notes:**

1 – Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year occurred on 2/13/06 (0.20 NTU). State regulations require that turbidity must always be below 5 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.5 NTU.

2 – The level presented represents the 90<sup>th</sup> percentile of the 23 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 lead values detected at your water system. In this case, 23 samples were collected in our water system, and the action level for lead was exceeded at 2 of the sites tested.

3 – The level presented represents the 90<sup>th</sup> percentile of the 23 samples collected. The action level for copper was not exceeded at any of the sites tested.

4 – This level represents the annual quarterly average calculated from data collected.

**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.

**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).

### WHAT DOES THIS INFORMATION MEAN?

As indicated by the above table, we had no violations due to high levels of any contaminant. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

## **IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?**

During the year 2006, our system was in compliance with all applicable State drinking water 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.
- ◆ 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, the Water District drilled a 300ft vertical well in the watershed on Illinois Mountain which is producing in excess of 100,000 gallons per day as a new 'raw water' supply. We also completed a 'loop' of water main from Brescia Blvd. to Hilltop Lane, and put new water mains in service in the Hillside Meadows development.

## **CLOSING**

Included again in this years report is an attached "source water assessment" that the Ulster County Health Department has provided. This report provides additional information regarding the conditions of our watersheds. Lastly, a word of caution regarding chlorine in your drinking water: we add chlorine to accomplish "disinfection", which is the final protection against water borne disease. Chlorination has been called the greatest public health tool in a century, as it may well have saved millions of lives by preventing the spread of disease. However, we are now discovering that there may be long-term consequences to using chlorinated water, such as an increased risk of bladder cancer, reproductive concerns for women, and other adverse health effects. If these potential risks are of a concern to you, you may want to consider an additional 'treatment' tool at home, in the use of 'chlorine reducing' carbon filters. If you choose to use such filters, please be aware of the need to maintain them, as a dirty filter can be more of a hazard than no filter at all. 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 and our way of life. Please call our office if you have questions.