

# *Village of Highland Falls*

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## **DRINKING WATER QUALITY REPORT - 2010**

**VILLAGE OF HIGHLAND FALLS  
Public Water Supply ID # 3503532  
Calendar Year 2010**

We are pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water services we deliver to you every day. Our constant goal is to provide you with a safe dependable supply of drinking water. We want you to understand the efforts we make continually to improve the water treatment process and protect our water resources. We are committed to ensuring the quality of our water. We are pleased to report that our water meets federal and state requirements.

### **INTRODUCTION**

To comply with State and Federal regulations, Highland Falls is pleased to present its 2010 Annual Water Quality Report. The purpose of this report is to raise your understanding of drinking water and your awareness of the need to protect our drinking water sources. Last year, your tap water met all state drinking water health standards, we are proud to report that our system never violated a maximum contaminant level or any other water quality statement. 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 questions concerning your drinking water, please contact Mr. Kevin Hurst, Water Plant Operator (845) 446-3252.

### **WHERE DOES OUR WATER COME FROM?**

In general, the sources of drinking water (both tap 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 contaminants; and radioactive contaminants. In order to insure 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's Health Department 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 surface water supply that encompasses a 2.9 square-mile drainage area, which is located within the Highlands. The water is withdrawn from the main intake basin and treated by filtration to remove particulate matter. Chlorine is added to kill microorganisms. Fluoride is added for dental benefits and sodium carbonate for corrosion control prior to distribution.

### **SOURCE WATER SUSCEPTIBILITY TO CONTAMINATION**

The NYS DOH has evaluated this PWS's susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

This assessment found a moderate susceptibility to contamination for this source of drinking water. Land cover and its associated activities within the assessment area does not increase the potential for contamination. No permitted discharges are found in the assessment area. There are no noteworthy contamination threats associated with other discrete contaminant sources. Additional sources of potential contamination include: road. Finally, it should be noted that hydrologic characteristics (e.g. basin shape and flushing rates) generally make reservoirs highly sensitive to existing and new sources of phosphorous and microbial contamination.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting us, as noted in this report.

## **FACTS AND FIGURES**

Our water system serves approximately 4400 people through 1161 service connections. The total amount of water from our reservoir system treated at our water plant during the 2010 water billing period was 158,030,000 gallons. The amount of water treated and delivered to the water distribution system was 142,030,000 gallons. The amount of water that was metered and billed to the consumer was 108,266,030 gallons. This leaves 33,744,000 gallons of un-metered water that was used for flushing mains, fighting fires, water leaks and parks. The average daily flow into the water plant was 433,000 gallons per day. The Town was supplied 15,865,915 gallons an average of 43,350 gallons per day. Water rates in the village were \$3.97 per 1,000 gallons. The town water district rate was \$5.68 per 1,000 gallons.

## **WHAT IS HAPPENING IN OUR WATER SYSTEM**

The Village of Highland Falls continuously performs repairs and maintains its system and provides the highest quality water.

There were eight (8) water leaks repaired in the system during 2010. A leak survey was conducted of the entire system.

A project to remove trees, and improve surface drainage around water storage tanks was completed.

An engineer inspection of our dams within our water supply was completed.

All brush and small trees on the upstream and downstream faces of the embankment of the Bog Meadow reservoirs have been cleared as recommended by the NYS Department of Environmental Conservation.

### **Future projects**

Painting interior and exterior of .500 million and 1.0 million gallon water storage tanks are scheduled to be done in 2011.

## **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 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 affects can be obtained by calling EPA's Safe Drinking Water Hotline (800) 426-4791 or the Orange County Health Department at (845) 291-2331.

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

During 2010, 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 micro-organisms or pathogens in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or immune system disorders, some elderly, and infants can be particularly at risk for infections. These people should seek advise from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to less the risk of infection by Cryptosporidium, Giarda and other microbial pathogens are available from the Safe Drinking Water Hotline (800) 416-4791.

### **Is home treatment necessary?**

Your water meets all EPA requirements as it comes from the tap. Additional treatment for esthetic qualities is an option not a necessity. If you install treatment devices, you are responsible for their operation and maintenance. You can make your water unsafe by not taking proper care of your at-tap system.

## **INFORMATION ON FLUORIDE ADDITION**

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.8 to 1.2 mg/l (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that we monitor fluoride levels on a daily basis. During 2010, monitoring showed fluoride levels in your water were in the optimal range (99% of the time.) None of the monitoring results showed fluoride at levels that approached the 2.2 mg/l MCL for fluoride.

### **Sometimes my water is a rusty brown color. What causes this?**

Brown water can be associated with plumbing inside house and from rusted hot water heaters. In addition brown water may result from work being done on water mains in the area. Any disturbance to the main, including the opening of a fire hydrant can cause pipe sediment to shift causing brown water. The water should clear up in about an hour depending on the size of the water main.

## **WAYS TO SAVE WATER & MONEY**

- Saving water saves energy and some of the costs associated with both of these necessities of life.
- 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 tap when brushing teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6000 gallons per year.
- Check your toilet 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 loose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and 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.
- You can conserve outdoors as well: Water lawn and garden early in the morning or evening. Use mulch around your shrubs and plants. Use water-saving nozzles. Use water from bucket to wash your car and save the hose for rinsing. Don't water your sidewalk or driveway—sweep them clean.

## **NOTES:**

1. Turbidity is a measurement of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year occurred on 3/14/2010 – (0.90 NTU). State regulations require that turbidity must always be less than or equal to 1.0 NTU. The regulations require that at 95% of turbidity samples collected have measurements below 0.3 NTU. Although December 2010, was a month when we had the fewest measurements meeting the treatment. Technique for turbidity, the level recorded was within the acceptable range allowed and did not constitute a treatment technique violation.
2. Lead and Copper—The levels presented represent the 90th percentile of 20 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution sample that is equal to or below it. The 20 samples tested for lead and copper were below the action level.
3. Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5)- This level represents the running annual average calculated from data collected. Two (2) samples are collected each quarter. TTHM and HAA5 are produced when chemical disinfectants, like chlorine, react with natural organic matter. The results of the samples collected were below the maximum contaminant levels.

## WHAT DOES THIS INFORMATION MEAN?

As you can see by the **TABLE OF CONTAMINANTS**, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

A supplement containing all test results are available for viewing at the Highland Falls Water Plant.

## CLOSING

Thank you for allowing us to provide your family with quality water this year. We ask that all our customers help us to protect our water resources, which are the heart of our community and our way of life. Please call our office if you have any questions.

Our normal work hours are 7:00 AM to 3:30 PM, Monday—Friday.

Our telephone numbers are: Billing: (845) 446-3400, M-F (9:00 AM-4:00 PM)  
Operations: (845) 446-3252, M-F (7:00 AM-3:30 PM)  
FAX (845) 446-2598

## EMERGENCY AFTER HOURS (845) 446-4911

Water Department Employees carry a photo ID. If a Water Department Employee cannot produce a photo ID, you do not have to allow access to your home for meter repairs or meter readings.

Your Water Plant Operators are New York State Department of Health Certified.

Any time the water department is going to shut down a water main, we make every effort to notify you of the time and duration of the shut down. In times of an “**EMERGENCY**”, we must shut the water down without notice.

**SECURITY** — Customers should report any suspicious activity within our Water System by calling 446-4911 (24-hour dispatcher).

## DEFINITIONS:

**Maximum contaminant level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to 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 not 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-Detect (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 NTUs 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 (ugl):** Corresponds to one part of liquid in one billion parts of liquid (parts per billion-ppb).

**Picocuries per liter pCi/l):** A measure of radioactivity in water.

# TABLE OF DETECTED CONTAMINANTS

| Contaminant   | Violation<br>Yes/No | Date of<br>Sample  | Level Detected<br>(Average)<br>(Range) | Unit<br>Measure-<br>ment | MCLG | Regulatory<br>Limit (MCL<br>TT or AL) | Likely Source of<br>Contamination  |
|---|---------------------|--------------------|--|--------------------------|------|---------------------------------------|--|
| Fluoride  | No                  | daily              | ave. 1.0<br>range 07-1.3               | mg/l                     | N/A  | MCL+2.2                               | Water additive which promotes<br>strong teeth  |
| Sulfate   | No                  | 7/19/2010          | 6.3                                    | mg/l                     | N/A  | MCL=250                               | Naturally occurring  |
| Sodium  | No                  | 2/4/2010           | 34                                     | mg/l                     | N/A  | See Health<br>Effects                 | Naturally occurring road salt water<br>softeners, animal waste   |
| NITRATE   | No                  | 7/19/2010          | 0.07                                   | mg/l                     | 10   | 10                                    | Fertilizer runoff-septic tanks   |
| Barium  | No                  | 7/19/2010          | 11                                     | ug/l                     | 2    | 2                                     | Erosion of natural deposits  |
| Chloride  | No                  | 6/8/2009           | 52                                     | mg/l                     | NA   | 250                                   | Road Salt contamination  |
| Lead<br>SEE Note 2  | No                  | 6/8/2008           | 4.3 @ 90%<br>1.0-7.6                   | ug/l<br>ug/l             | 0    | AL=15                                 | Corrosion of household plumbing<br>systems; erosion of natural deposits  |
| Copper  | No                  | 6/8/2008           | 0.053 @ 90%<br>Range<br>0.010-0.073    | mg/l                     | 1.3  | AL=1.3                                | Corrosion of household plumbing<br>systems; leaking from wood preservations  |
| Mercury   | No                  | 7/19/2010          | 0.24                                   | ug/l                     | 2    | MCL-2                                 | Erosion of natural deposits  |
| Total Coliform  | No                  | 6/14/2010          | 1 positive<br>sample                   | NA                       | 0    | 2 positive<br>samples<br>per month    | Naturally present in the environment   |
| Combined Radium<br>226 and 228  | No                  | 9/8/2003           | 0.2                                    | PCI/L                    | 0    | MCL=5                                 | Erosion of natural deposits  |
| Physical<br>Turbidity SEE NOTE 1  | No                  | 7/day<br>3/14/2010 | Range<br>0.9                           | NTU                      | N/A  | TT=1.0 NTU                            | Soil Runoff  |
| Turbidity   | No                  | month              | 97%                                    | NTU                      | N/A  | TT=95% of<br>samples ≤<br>NTU 0.3     |  |
| Disinfection By Products<br>SEE NOTE 3  | NO                  | Quarterly          | ave.=54.77<br>Range<br>40.1-90.0       | ug/l<br>ug/l             | N/A  | MCL=80                                | By product of drinking water chlorination<br>needed to kill harmful organisms. TTHMs<br>are formed when source water contains<br>large amounts of organic matter   |
| Total Trihalomethanes<br>(TTHM-chloroform,<br>bromodichloromethane<br>dibromochloromethane<br>and bromoform |                     |                    |  |                          |      |                                       |  |
| Haloacetic Acids<br>(mono, di, and tri chlor-<br>oacetic acid and mono<br>and di bromoacetic acid           | No                  | Quarterly          | ave.=14.89<br>Range<br>12.7-32.0       | ug/l                     | N/A  | MCL=60                                | By product of drinking water chlorination<br>needed to kill harmful organisms  |
| Health effects<br>Sodium  |                     |                    |  |                          |      |                                       | Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium<br>diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately reduced<br>sodium diets |