Annual Drinking Water Quality Report for 2012

Highland Water District

12 Church Street, Highland N.Y. 12528

(Public Water Supply ID#NY5503368)

INTRODUCTION

To comply with State regulations, the Highland Water District, 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, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. 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 Andrew Paccione Senior Plant Operator,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 the month, 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, 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.

Our water sources are the Hudson River and four upland reservoirs. One horizontal and three vertical wells, drilled into Illinois Mountain, are used as supplemental sources for the reservoirs. The reservoirs and wells are located behind the John Jankiewicz Water Plant at 2 Thomas Rizzo Boulevard, Highland NY 12528. During 2012, our system did not experience any restriction of our water source. The water is chemically conditioned, clarified, filtered, and chlorinated prior to distribution.

FACTS AND FIGURES

Our water system serves approximately 5,000 people through 1,630 service connections. The total water produced in 2012 was 201,834,700 gallons. The amount of water delivered to customers was 147,062,695. The daily average of water treated and pumped into the distribution system was 552,971 gallons, with the highest single day at 967,300 gallons. This leaves 547,772,005 gallons of water unaccounted for. Flushing water mains, fighting fires, water main breaks, leakage and unmetered usage, road cleaning, and state contractor usage account for the remaining 54,772,005 gallons (27% of the total amount produced).

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, haloacetic acids, radiological 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 (Avg/Max) (Range)	Unit Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Microbiological Contaminants							
Turbidity*	**no**	**12/7/12**	**.22**	**ntu**	**N/A**	**TT=<1.0 ntu**	**soil runoff**
Turbidity*	no	7/2/13	100%<.03	ntu	N/A	TT=95%ofsamples	soil runoff
Total Organic Carbon*	**no**	**9/20/12**	**3.8**	**mg/l**	**N/A**	**TT range101-308**	**Naturally Present in the Environment**
Inorganic Contaminants							
Barium	**no**	**7/12/12**	**.014**	**mg/l**	**2**	**2**	**Erosion of natural Deposits**
Chloride	no	7/12/13	29	mg/l	N/A	250	Naturally occurring
Nitrate-Nitrogen	no	7/12/13	.42	mg/l	N/A	1	Naturally occurring
Sulfate	no	7/12/13	12	mg/l	N/A	250	Naturally occuring
Lead*3	**no**	**6/14/12**	**.005**	**ug/l**	**N/A**	**AL=15**	**Corrosion of house hold plumbing**
Copper*4	**no**	**6/14/13**	**.756**	**mg/l**	**N/A**	**AL=1.3**	**Corrosion of house hold plumbing**
Sodium*	no	9/25/12	55	mg/l	N/A	N/A	Naturally occurring
Disinfection By Products							
Total Trihalomethanes *6	no	8/9/12	50.3*	ug/l	N/A	80	Chlorine by Product
			Range: 87.9-16.9				
Total Haloacetic Acid *7	no	8/9/12	21.4*	ug/l	N/A	60	Chlorine by Product
Chlorine Residual *8	no	8/17/12	2.4	mg/l	N/A	4	Micro organisms

*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 (0..22 NTU) for the year occurred on (12/7/12). State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU.

*2 – Total Organic Carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by products. These include trihalomethanes (THMs) and (HAAs).

*3- Twenty samples were collected in our water system and the range of detection was (no detection to .005 mg/l). Our system passed with 100% percentile with 80% percentile allowed. None of the sites exceeded the action level of lead.

*4- Twenty samples were collected in our water system and the range of detection was (.076 mg/l to.076 mg/l). Our system passed with 100% percentile with 80% percentile allowed. None of the sites exceeded the action level of copper.

*5-Water containing more than 20 mg/l of sodium should not be used for drinking by people on a severely restricted sodium diet.

*6-This level represents the highest annual average calculated from the dada collected.

*7- This level represents the highest annual average calculated from the dada collected.

*8- Value 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 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.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements. It should be noted that the action level for lead was not exceeded. We are required to present the following information on lead in drinking water:

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 materials used in your home's plumbing. The Highland Water District 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?

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 2012, 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 meets or exceeds 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 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 2012, we implemented in house "jar testing" to further improve total organic carbon reduction by adding a new coagulant aid that will reduce disinfection by products.

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. This report will also be available on the web at www.townofIloyd.com/water.

Please contact our office at (845) 691-2400 if you have questions.