

CITY OF BEACON WATER DEPARTMENT

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2015 Annual Water Quality Report

Public Water Supply ID #1302760; 1330557

INTRODUCTION

To comply with State and Federal regulations, the City of Beacon Water Department 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 your awareness of the need to protect 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 standards. This report provides an overview of last years' 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 Matthew Fezza, Chief Water Treatment Plant Operator at (845) 831-3185. We want you to be informed about your drinking water. Beacon City Council meetings are held the first and third Monday of the month at the Municipal Center – 1 Municipal Plaza, Beacon, NY.

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: microbiological contaminants; inorganic contaminants; pesticides & 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 and the FDA's regulations establish limits for contaminants in bottles water which must provide the same protection for public health.

Our water sources consist of three surface sources – Cargill, Mt. Beacon, and Melzingah reservoirs, and three ground water sources – City of Beacon wells 1 & 2 and Village of Fishkill well 8. The water from these sources is blended in various ratios depending on source condition and demand for water. The blended water is then treated at the water filtration facility located at 470 Liberty Street. The current capacity of the plant is 4 million gallons per day. Our average flow for 2015 was 2.523 million gallons per day. Highest daily flow for 2015 was 3.1 million gallons per day. The water is then filtered and chemicals are added for disinfection and corrosion control. The water is then pumped to the distribution system entry point tank. The following chemicals, including purpose and amounts, were used to treat our water in 2015; Alum - coagulant for filtration (104,375 lbs); Polymer – coagulant aid (391.09 lbs); Zinc Orthophosphate – corrosion control (10,171 lbs); Chlorine – disinfection (15,397 lbs).

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 & copper, volatile organic compounds, synthetic organic compounds, radioactive contaminants, and disinfection byproducts.** The table presented below depicts compounds which were detected in your drinking water in 2015 and other years. The state allows us to 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 water, may be reasonably 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 EPA’s Safe Drinking Water Hotline at (800) 426-4791 or the Dutchess County Health Departments at (845) 486-3400.

DEFINITIONS

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL are set as close to the MCLG’s 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. MCLG allow for margin of safety.

Turbidity (NTU): a measure of cloudiness of water. We monitor it because it is a good indicator of water quality.

NTU'S – Nephelometric Turbidity Units: A measure of the clarity of the water. Turbidity in excess of 5 NTU's is just noticeable to the average person.

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

Milligrams per Liter (mg/L): Corresponds to one part of liquid in one million parts of liquid (parts per million – PPM).

Micrograms per Liter (uh/L): 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.

MRDL – Maximum Residual Disinfection Level: A level of disinfectant added for water treatment that may not be exceeded at the consumers' tap without an unacceptable possibility of adverse health effects. MRDL's are currently regulated in the same manner as MCL's.

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.

TABLE OF DETECTED CONTAMINANTS

Microbiological Contaminant

Contaminant	Violation	Date	Level	Unit Measured	Limit Type	Likely Source
Filtered Turbidity	No	Dec. 2015	99.8%	Minimum Monthly %	>95% TT	Soil Runoff
Filtered Turbidity	No	11/29/15	0.682	Maximum NTU	<5 MCL	Soil Runoff
Distribution Turbidity	No	8/14/15	0.047	Maximum NTU	<1 MCL	Soil Runoff

Disinfection Byproducts

Contaminant	Violation	Date Of Sample	Level Detected Maximum Average	Unit Measured	MCLG	Limit MCL	Likely Source Of Contamination
Total Trihalomethanes	No	4/14/15	24	ug/L	n/a	80	By product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Total Haloacetic Acids	No	4/14/15	19	ug/L	n/a	60	By product of drinking water disinfection needed to kill harmful organisms.

Inorganic Contaminants

Contaminant	Violation	Date Of Sample	Level Detected Maximum	Unit Measured	MCLG	Limit MCL	Likely Source Of Contamination
Barium	No	8/26/14	0.04	mg/L	2	2	Discharge of drilling waste, discharge from metal refineries, erosion of natural deposits
Chloride	No	12/17/15	43	mg/L	n/a	250	Road salt Naturally occurring
Nitrate	No	7/28/15	0.2	mg/L	10	10	Runoff from fertilizer Leaching from septic tanks
Sodium	No	12/17/15	18.1	mg/L	n/a	Dietary restrictions- 20 mg for severe. 270 mg moderate	Road Salt Naturally occurring
Selenium	No	3/10/15	2.6	ug/L	50	50	Discharge from petroleum and metal refineries; Erosion of metal refineries; Discharge from mines.
Sulfate	No	3/10/15	19.3	mg/L	n/a	250	Naturally occurring.

Corrosion Control

Contaminant	Violation	Date Of Sample	Level Detected Maximum	Unit Measured	MCLG	Limit AL	Likely Source Of Contaminant
Lead	No	8/7/14	0.002	mg/L	0	0.015	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper	No	8/7/14	0.33	mg/l	0	1.3	Corrosion of household plumbing systems Erosion of natural deposits; leaching from wood preservatives.

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. Immune-compromised people such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk for 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).

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 woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Beacon 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 or at <http://www.epa.gov/safewater/lead>.

INFORMATION FOR NON-ENGLISH SPEAKING RESIDENTS

Spanish

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

WHY SAVE WATER AND HOW TO AVOID WASTING IT

Although our system has an adequate amount of water to meet present demands, this may not be the case for the future. Here is a number of reasons why it is important to conserve water.

- Saving water saves energy and some costs associated with both of these necessities of life;
- Saving water reduces the costs of energy to pump water and the need to construct costly new wells, pumping systems and water towers; and
- Saving water lessens strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential firefighting 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. Try always loading it to capacity.
- Turn off tap when brushing your teeth.
- Check faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save 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 ends 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 can 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, and then check the meter after 15 minutes. If it moved, you have a leak.

CLOSING

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