

Annual Drinking Water Quality Report for 2011
Village Of Belmont
1 Schuyler Street,
Belmont, New York 14813 USA
(ID# NY0200314)

INTRODUCTION

To comply with State regulations, the Village Of Belmont, 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. Last year, we conducted tests for over 13 contaminants, and found none of those contaminants at a level higher than the State allows. 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 the Village Of Belmont Office 585-268-5522 or the Belmont Water Dept. 585-268-7121. 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 normally on the 1st and 3rd Monday of every month. The meetings start at 7:00 pm in the Horn Room of the Town/Village Hall, 1 Schuyler St. in Belmont.

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 primary water source is the bank water from the Genesee River underlying the fields just west of County Road #48 at a depth of 7' across from the new GVCS complex. Our secondary source aquifer is the watershed flowing from the top of Alfred Hill St. Rt. #244, to the Genesee River following the valleys contour through the underlying strata of the Genesee Valley School and fields. The Village Of Belmont has just completed implementation of a new direct water filtration system capable of filtering and treating 432,000 gallons per day. The Belmont Water Department has been testing and operating our new MicroFloc water filtration equipment and working closely with the manufactures and the SCADA operator interface control to supply our customers with an enhanced polished water resource. Our water customers are always welcome to stop at the water treatment plant and consider their drinking water's quality.

During 2011, our system did not experience any restriction of our water source.

Our report includes a brief summary of our source water's susceptibility to contamination based on the findings of our system's 9/2004 [Source Water Assessment](#), this report is available. Customers can obtain a copy of the [Source Water Assessment](#) from the Village of Belmont or the District Health Department. Currently we try to monitor all activity in and around the public water supply and we have insisted on limited restriction of all chemical applications within our proposed protection districts. A soil bank has been initiated concerning the privately owned lands which overlay our primary aquifer water supply. Governmental agencies oversee the land use and in return there is very limited chemical application. The primary goal of our direct filtration is the removal of giardia cyst and cryptosporidium. Since the new direct filtration has been on line we have not (encountered) any sample results indicating these Giardia cyst or Cryptosporidium.

The village water supply aquifer flows through an immense coarse/fine gravel field. This gravel acts as a filter in that it traps suspended solids from the water prior to our pumps sending it to the plant. The highest limit of turbidity (cloudiness) permitted to leave the Belmont Water Treatment Plant is 1 NTU. Our filtration equipment automatically diverts or shuts down if their production waters sample rises to a 0.30 NTU. Our bank water comes to the plant at an average of 0.094 NTU then the filters clean that water again to 0.047 NTU avg. Please note that our raw water source is so clear that it would not normally need to be filtered for turbidity, yet daily we monitor, filter and treat every drop. The Bureau of Water Protection has approved and monitors the use of several water treatment chemicals that are constantly added to the water in order to meet state requirements to operate our permitted treatment plant. Currently these include a polymer, EC-461 to assist in turbidity and Giardia removal. A phosphate (Calciquest) is added to inhibit mineral leaching from pipe and tubing materials and also to aid in sequestering suspended solids from potentially discoloring the water supply. A Hypo Sodium Chlorite (Chlorine) residual is maintained throughout the public water supply to insure against bacterial coliform contamination. Each week we take samples daily and check the treatment plant and watermain levels of these chemicals to determine their effectiveness. In 2001 the Belmont Water Department had two 165' deep wells refurbished. These wells are used in a back-up capacity.

FACTS AND FIGURES

Our water system serves approximately 2850 people through some 542 residential, governmental and commercial services. The total water produced in 2011 was approx. 83 million gallons. The daily average of water treated and pumped into the distribution system is 228,000 gallons per day. Our highest single day was 318,000 gallons. The annual amount of water delivered to our customers was

30 million gallons. This leaves an unaccounted total of 53 million gallons. This water was used to flush mains, for construction, filter maintenance, fight fires, leakage, and meter maintenance. All of which accounts for (64% of the total amount produced). With Belmont's unknown loss percentage has been addressed through data review and significantly reduced. In 2011 water customers average water payment annually was approx. \$ 346.00. Some of the production increases come from continual equipment improvement adjustments of the public filtration system and distribution/supply maintenance.

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, principal inorganic compounds, nitrate, nitrite, radon, lead and copper, principal 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 Allegany County Health Department at 585-268-9251.

Table of Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Manganese	no	07-23-10	0.010	mg/l		0.05 mg/L	Erosion of natural deposits.

Radium 226-228	no	02-09-11	0.77	pCi/L		5 pCi/L	Erosion of natural deposits.
Radium 226-228	no	04-06-11	0.36	pCi/L		5 pCi/L	Erosion of natural deposits.
Radium 226-228	no	07-13-11	0.90	pCi/L		5 pCi/L	Erosion of natural deposits.

Principle Organic Compounds			ND	12/22/09			available at the village office
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Principle Inorganic Contaminants							
Barium	no	02/09/11	0.390	mg/l		2 mg/L	Erosion of natural deposits.

Synthetic Organic Contaminants			ND	08/25/10			available at the village office
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Lead and Copper

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Maximum) (Range)	Unit Measurement	MCLG	Regulatory Limit	Likely Source of Contamination
Lead	no	07-19-11	0.0057 ³ 90 th %	mg/l	na	0.015 mg/l 90 th %	Corrosion of household plumbing systems; Erosion of natural deposits. Leaching from wood preservatives. Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Copper	no	07-19-11	0.779 ² 90 th %	mg/l	na	1.3 mg/l 90 th %	

Lead	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
July 2011	ND	.0006	.0006	.0007	.0007	.0008	.0012	.0012	.0057 ³	.018 ²

Copper	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
July 2011	0.0166	0.0274	0.0357	0.0374	0.0431	0.0501	0.646	.0.678	0.779 ²	1.31

Disinfection Byproducts 2011

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Trihalomethanes							
Chlorodibromomethane	no	12-22-10	0.0065	mg/l		2. mg/l	Disinfection Byproducts
Bromodichloromethane	no	qtrly/avg	0.0089 ⁴	mg/l		0.08 mg/l	Disinfection Byproducts
Bromoform	no	qtrly/avg	0.0038 ⁴	mg/l		0.08 mg/l	Disinfection Byproducts
Chloroform	no	qtrly/avg	0.0148 ⁴	mg/l		0.08 mg/l	Disinfection Byproducts
Dibromochloromethane	no	qtrly/avg	0.0052 ⁴	mg/l		0.08 mg/l	Disinfection Byproducts
Total Trihalomethane Concentration		qtrly/avg	<u>0.0301⁴</u>	mg/l		0.08 mg/l	Disinfection Byproducts

Total Trihalomethanes	2 nd Quarter 2010	3 rd Quarter 2010	4 th Quarter 2010	1 st Quarter 2011	2 nd Quarter 2011	3 rd Quarter 2011	4 th Quarter 2011
Site 1	0.0178 mg/l	0.023 mg/l	0.0212 mg/l	0.0217 mg/l	0.0248 mg/l	0.0351 mg/l	0.0389 mg/l
Rolling Annual Avg.	-	-	-	0.0209 mg/l	.0227 mg/l	.0257 mg/l	.0301 mg/l

Total Trihalomethanes	No	four quarters 2011	.0217 - .0389	mg/l	n/a	MCL= .08mg/l	By-product of drinking water chlorination
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Units MCL no detect

Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and di-bromoacetic acid)	ug/l	60	ND	By-product of drinking water disinfection needed to kill harmful organisms.
Total Trihalomethanes (TTHMs - chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	ug/l	80	ND	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.

Microbiological Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Maximum) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Total Coliform	no	Bi-monthly	ND samples	na	0	MCL= 2 or more positive samples	Naturally present in the environment
Turbidity ¹	no	06-01-2011	0.29 highest 2011 sample	NTU	N/A	TT= ≤ 1.0 NTU	Soil Runoff
Turbidity ¹	no	Daily	ND samples	NTU	N/A	TT=95% of samples ≤ 0.3 NTU	

Footnotes:

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 June 1st (0.29 NTU). 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. Although (12/2011) was the month when we had the fewest measurements meeting the treatment technique for turbidity, the levels recorded were within the acceptable range allowed and did not constitute a treatment technique violation.

2 - The level presented represents the 90th percentile of the 10 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 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 10 samples were collected at your water system and the 90th percentile value was at site 9 having the second highest value (0.779 mg/l) then site 10 had the highest value (1.31 mg/l). The action level for copper was not exceeded for Belmont system. (Part 5 subpart 5-1.41(b)).

3 - The level presented represents the 90th percentile of the 10 samples collected. The action level for lead was not exceeded for Belmont system. (Part 5 subpart 5-1.41)

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.

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 is 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 even though the action level for lead was not exceeded (Part 5 subpart 5-1.41(b)). 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 Village of Belmont is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has sat 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>.

We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements. Although total trihalomethanes were detected below the new MCL of 80 ug/l. We are required to present the following information on total trihalomethanes in drinking water:

"Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer."

INFORMATION ON RADON

Radon is a naturally-occurring radioactive gas found in soil and outdoor air that may also be found in drinking water and indoor air. Some people exposed to elevated radon levels over many years in drinking water may have an increased risk of getting cancer. The main risk is lung cancer from radon entering indoor air from soil under homes.

In 2011, we collected 3 separately tested samples (three representative water samples, one per quarter, to complete four quarter sampling regiment, with one sample from 2010) that were analyzed for radon. The average of the 2011 samples was .68 picocuries/liter (.68 pCi/L)

For additional information call your state radon program (1-800-458-1158) or call EPA's Radon Hotline (1-800-SOS-Radon).

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; 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.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. 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.