

**Annual Drinking Water Quality Report for 2010**  
**Village Of Belmont**  
**1 Schuyler Street,**  
**Belmont, New York 14813 USA**  
**(ID# 0000314)**

**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 D. Glover Water Dept. Supt. 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 1<sup>st</sup> and 3<sup>rd</sup> 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 interface control technicians 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 2010, 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 within the near future we hope to restrict the application 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 oversea the land use and in return for very limited chemical application. The primary goal of our direct filtration 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 aquifer flows through an immense coarse/fine gravel field. This gravel acts as a filter in that it traps suspended solids within the water prior to our pumps sending it to the plant. The highest limit of turbidity (cloudiness) permitted for public use is 0.50 NTU and our filtration equipment automatically diverts or shuts down if 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. 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 2010 was approx. 87 million gallons. The daily average of water treated and pumped into the distribution system is 242,000 gallons per day. Our highest single day was 294,000 gallons). The annual amount of water delivered to our customers was 56.5 million gallons. This leaves an unaccounted total of 30.5 million gallons. This water was used to flush mains, for construction, filter maintenance, fight fires, leakage, and meter maintenance. All of which accounts for (35% of the total amount produced). Eighteen years ago the unaccounted % was 65%. With Belmont's new improvements and SCADA system the unknown loss percentage has been addressed through data review and significantly reduced. In 2010 water customers average water payment annually was approx. \$336.00 some of the production increases come from continual equipment improvement adjustments of the public filtration system.

**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, 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.

<b>Treatment</b>							
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
Alkalinity	no	12-08-10	60	mg/l		N/A	
Total Organic Carbon	no	12-08-10	raw 0.09	Mg/l	N/A	TT-<2	
Total Organic Carbon	no	12-08-10	finish 0.09	Mg/l	N/A	TT-<2	
Arsenic	no	08-25-10	0.0082	ug/l		10 <sup>u</sup> ug/l	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Manganese	no	07-23-10	0.010	mg/l		0.05 mg/l	
Barium	no	08-25-10	.0061	mg/l <sub>g</sub>	2	2 mg/l	
Copper	no	08-20-10	0.878	mg/l	90 <sup>th</sup> %	1.3 mg/l	Home Plumbing
Lead	no	08-20-10	0.90	mg/l	90 <sup>th</sup> %	0.015 mg/l	Home Plumbing
Nitrates	no	12-08-10	1.14	mg/l	10	10 mg/l	Landowner Agriculture Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Disinfection Byproducts</b>							
Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and di-bromoacetic acid)			ug/l	60	n/a		By-product of drinking water disinfection needed to kill harmful organisms.
Total Trihalomethanes (TTHMs - chloroform, bromodichloromethane, dibromochloromethane, and bromoform)			ug/l	80	n/a		By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
<b>Trihalomethanes</b>							
Bromodichloromethane	no	12-22-10	0.0076	mg/l		0.08 mg/l	
Bromoform	no	12-22-10	0.0034	mg/l		0.08 mg/l	
Chlorodibromomethane	no	12-22-10	0.0065	mg/l		2. mg/l	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloroform	no	12-22-10	0.0037	mg/l		0.08 mg/l	
Total Trihalomethane	no	12-22-10	0.0212	mg/l		0.04 mg/l	Disinfection Byproducts

**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 NTU for the year occurred on 12/01/2010. 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. Although December 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 90<sup>th</sup> 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 90<sup>th</sup> 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 90<sup>th</sup> percentile value was the second highest value, .0057 mg/l). The action level for copper was not exceeded at any of the sites tested.

3 - The level presented represents the 90<sup>th</sup> percentile of the ten samples collected. The action level for lead was not exceeded at the 10 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.

**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.

**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 you can see by the table, our system had violations. New York State requirements: we are required to present the following information on lead & copper in drinking water.

“Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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. If you are concerned about elevated lead levels in your home’s water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).”

As you can see by the table, our system had no violations, New York State requirements. Although nitrate was detected below the MCL. Therefore, we are required to present the following information on nitrate in drinking water:

“Nitrate in drinking water at levels above 10 mg/l is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from you health care provider.”

New York State requirements: we are required to present the following information on arsenic in drinking water:

“EPA has promulgated a drinking water arsenic standard of 10 parts per billion. While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effect of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.”

New York State requirements. Although total trihalomethanes were detected below the new MCL of 80 ug/l. this MCL becomes effective in 2004. Therefore, 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.”

#### **Is our water system meeting other rules that govern operations?**

During 2010, our system was not in compliance with all applicable State drinking water requirements. “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 2010, we “did not monitor or test” or “did not complete all the monitoring or testing” for (contaminant(s)), and therefore can not be sure of the quality of your drinking water during that time.”

#### **Monitoring or Reporting Violations:**

The Village of Belmont was in violation of State drinking water requirements. Therefore, we are required to include the following statement in this report:

10/31/2010 the Village of Belmont received a violation: Failure to monitor for coliforms in accordance with requirements found in subpart 5-1 of the New York State Sanitary Code.

12/14/2010 the Village of Belmont received a violation type 52: Failure to monitor for Lead and Copper in accordance with requirements found in subpart 5-1 of the New York State Sanitary Code.

12/14/2010 the Village of Belmont received a violation type 04: Failure to monitor for Radium 228 in accordance with requirements found in subpart 5-1 of the New York State Sanitary Code. An insufficient number of samples was taken or reported.

12/14/2010 the Village of Belmont received a violation type 72: The 2009 AWQR for the Village of Belmont was determined to be deficient in language and content, in that the report was determined to be inaccurate and not presented in a manner that was understandable.

#### **INFORMATION ON CRYPTOSPORIDIUM**

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

#### **INFORMATION ON GIARDIA**

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Giardia may cause giardiasis, an intestinal illness. People exposed to Giardia may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risks of becoming infected with Giardiasis. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The Giardia parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where handwashing practices are poor.

#### **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.

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).

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#### **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 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.

#### **CLOSING**

. Thank you for the opportunity to provide your family with quality drinking water this year. We are on the job 365 days a year in order to maintain a safe and dependable water supply. Please stay informed by attending Board meetings or call the Water Department at 268-7121 to get the correct answers to your questions. Our meter replacement and Backflow Prevention programs are ongoing. Please help to protect and conserve our water sources. Remember that used oil, gasoline, anti-freeze and other harmful chemicals disposed of improperly will eventually find their way into the water table.