

## West Milford MUA – Birch Hill Park (PWSID#: NJ1615001) Year 2011 Annual Water Quality Report

**What's The Quality of Your Water?** West Milford MUA is pleased to share this water quality report with you. This report covers January 1 through December 31, 2011. Birch Hill Park's drinking water surpassed the strict regulations of both the State of New Jersey and the U.S. Environmental Protection Agency (EPA), which requires all water suppliers to provide reports like this every year to each customer. *Birch Hill Park monitors for many substances both regulated and unregulated.*

**Sources of Supply:** Birch Hill Park draws its water from 4 groundwater wells. These wells utilize corrosion control, Radionuclides removal, and disinfection in the treatment process. It has 52 service connections and serves approximately 180 people per day.

### Results of Monitoring For Contaminants in Drinking Water

<u>Contaminant</u>	<u>Units</u>	<u>MCL</u>	<u>MCLG</u>	<u>Level Detected</u>	<u>Range</u>	<u>Potential Source</u>
Total Coliforms	Present/ Absent	0	0	<1	0 of 12 samples were positive	Leaking septic system, runoff from streams
Copper (2009)	ppm	1.3 (Action Level)	1.3	0.1 (90 <sup>th</sup> Percentile)	0 of 5 samples exceeded action limit	Corrosion of household plumbing.
Lead (2009)	ppb	15 (Action Level)	0	<2.0 (90 <sup>th</sup> Percentile)	0 of 5 samples exceeded action limit	Corrosion of household plumbing.
Nitrate	ppm	10	10	0.6	1 Sample	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits.
VOCs Methyl tert- Butyl Ether	ppb	70	70	0.9	1 Sample	Leaking tanks, solvents, etc.
Trihalomethanes (THMs) (2009)	ppb	80	NA	8	1 Sample	Disinfectant Byproducts
Haloacetic Acids (HAAs) (2009)	ppb	60	NA	3	1 Sample	Disinfectant Byproducts
Chromium (2010)	ppb	100	100	5	1 Sample	Discharge from steel and pulp mills; erosion of natural deposits
Chlorine Residual	ppm	MRDL 4	MRDLG 4	0.30	0.01 – 2.20	Water additive used to control microbes.

### **Other Substances:**

These are considered Secondary Contaminants and are not considered a health risk. They can affect taste, odor or color of your drinking water.

<u>Contaminant</u>	<u>Units</u>	<u>Detected Limits</u>	<u>Range</u>	<u>Secondary MCL</u>
Sodium (2009)	ppm	35	NA	50
Sulfate (2009)	ppm	20	NA	250

## **Health Effects of Detected Contaminants:**

**Chlorine:** Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

**Chromium:** Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.

**Coliform Bacteria/E-Coli:** Coliform Bacteria are common in the environment and are generally not harmful. The presence of these bacteria in drinking water is usually the result of a problem with the treatment system or the pipes that distribute the water, and indicates that the water may be contaminated with germs that may cause disease.

**Copper:** Copper is an essential nutrient, but some people who drink water that contains copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water that contains copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

**Haloacetic Acids:** Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

**Lead:** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. West Milford MUA is responsible for providing high water quality, 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 drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

**Methyl-T-Butyl Ether (MTBE):** is a member of a group of chemicals commonly known as fuel oxygenates. Oxygenates are added to fuel to increase its oxygen content. There are no data on the effects on humans of drinking MtBE-contaminated water. In laboratory tests on animals, cancer and non-cancer effects occur at high levels of exposure. These tests were conducted by inhalation exposure or by introducing the chemical in oil directly to the stomach. The tests support a concern for potential human hazard. Because the animals were not exposed through drinking water, there are significant uncertainties about the degree of risk associated with human exposure to low concentrations typically found in drinking water. USEPA has not set a national standard for MTBE. The NJDEP has established a Maximum Contaminant Level at 70 ppb.

**Nitrate:** Nitrate in drinking water a levels above 10 ppm 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 your health care provider.

**Sodium:** Naturally occurring mineral. Sodium is essential for good health. Certain medical conditions however, require sodium intake monitoring. Excessive sodium can adversely affect high blood pressure, heart disease or diabetes. Contact your physician for further information.

**Sulfate:** Sulfate occurs naturally in water and is monitored as a secondary contaminant. Secondary contaminants are aesthetic (taste and odor) rather than health risks; however, in high concentrations sulfate can cause Diarrhea in some people.

**Trihalomethanes:** 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.

**Special Considerations Regarding Children, Pregnant Women, Nursing Mothers, and Other Vulnerable Population:** Some people may be more vulnerable to contaminants 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 particularly at risk from infections. These people should seek advice from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)

**Source Water Assessment:**

The **New Jersey Department of Environmental Protection (NJDEP)** has completed and issued the **Source Water Assessment Report and Summary** for this public water system, which is available at [www.state.nj.us/dep/swap/](http://www.state.nj.us/dep/swap/) or by contacting the NJDEP, Bureau of Safe Drinking Water at 609-292-5550.

The source water assessment performed on Birch Hill Park’s well-water sources determined the following:

<u>Source Name</u>	<u>Pathogens</u>	<u>Nutrients</u>	<u>Pesticides</u>	<u>VOCs</u>	<u>Inorganics</u>	<u>Radio-nuclides</u>	<u>Radon</u>	<u>DBPs</u>
	<i>Ratings</i> L / M / H							
4 Wells*	4	3 / 1	4	4	4	4	2 / 2	4

\*The numbers indicated represent the number of wells in that category’s ratings.

*Ratings: (L= Low, M= Medium, H = High)*

A public water system’s susceptibility rating (L for low, M for medium or H for high) is a combination of two factors. H, M, and L ratings are based on the potential for a contaminant to be at or above 50% of the Drinking Water Standard or MCL (H), between 10 and 50% of the standard (M) and less than 10% of the standard (L).

**If a system is rated highly susceptible for a contaminant category, it does not mean a customer is or will be consuming contaminated drinking water. The rating reflects the potential for contamination of source water, not the existence of contamination.**

Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels.

NJDEP found the following **potential** contaminant sources within the source water assessment areas for your water: Nutrients, Pesticides, Inorganics, Radon, Radionuclides, and Disinfection Byproducts. Birch Hill Park does chlorinate the water from their well and therefore runs risk of Disinfection Byproducts. The System will test for Radionuclides, Pathogens, Nutrients, VOCs and lead/copper, as prescribed by the NJDEP. After reviewing the results, the NJDEP will make an assessment of water quality to determine if any additional testing or treatment is necessary. If you have questions regarding the source water assessment report or summary please contact the **Bureau of Safe Drinking Water at [swap@dep.state.nj.us](mailto:swap@dep.state.nj.us)** or 609-292-5550.

## **Definitions:**

The following is a list of the most common definitions used in Annual Water Quality Reports. Not all of the definitions apply to your report:

- **90<sup>th</sup> Percentile:** 90% of samples are equal to or less than the number in the chart.

- **Action Level:** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

- **MCL or Maximum Contaminant Level:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

- **MCLG or Maximum Contaminant Level Goal:** 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.

- **RMCL or Recommended Maximum Contaminant Level:** recommended maximum level for secondary contaminants. Secondary contaminants are not believed to be a health risk.

- **ppb or parts per billion:** Micrograms per liter (ug/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

- **ppm or parts per million:** Milligrams per liter (mg/L). One part per million corresponds to one minute in two years, or a single penny in \$10,000.

- **NR:** Not regulated

- **NA:** Not applicable

- **ND:** Not detectable at testing limits

- **su:** Standard Units

- **NJDEP:** New Jersey Department of Environmental Protection

- **EPA:** Environmental Protection Agency.

- **CDC:** Centers for Disease Control

- **VOC:** Volatile Organic Contaminant

Report prepared for WMMUA Birch Hill Park by:

