



# 2010 Water Quality Report Beechwood Water System

Public Water System ID # CT0700011

We are pleased to present a summary of the quality of the water provided to you during the past year. This report was prepared under the requirements of the Federal Safe Drinking Water Act. This report details where your water comes from, what it contains, and the risks our water testing and treatment are designed to prevent.

**Water Source:** Beechwood System serves Connecticut Water Company customers in the Beechwood Complex in Killingworth. Water from the Beechwood water system comes from Wells 2, 3 and 4, a groundwater source located in the Beechwood community in Killingworth.

**Water Quality Testing:** Connecticut Water has tested for contaminants and other water quality parameters in the Legend Hill system that could adversely affect the quality of your drinking water. Samples for testing were taken at several places within the water system, including:

- At the source well.
- In the distribution system.

All of the samples were tested at laboratories certified by the State of Connecticut Department of Public Health (DPH). The test results were submitted to the DPH Drinking Water Division, as required.

**Protecting Water Sources:** Sources of tap water and bottled water include reservoirs, ponds, wells, and springs. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and in some cases, radioactive material, and pick up substances resulting from the presence of animals or from human activity, including:

- Viruses and bacteria, which may come from septic systems, livestock, or wildlife.
- Salts and metals, which can be natural or may result from storm water runoff and farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, or farming.
- Organic chemicals, which originate from industrial processes, gas stations, storm runoff, and septic systems.
- Radioactive substances, which can be naturally occurring.

To ensure safe tap water, the U.S. Environmental Protection Agency (EPA) prescribes limits on these substances in water provided by public water systems.

Many people don't know that most contaminants enter rivers, lakes, and reservoirs from storm water runoff of streets, golf courses, athletic fields, construction sites, farms, and neighborhoods like yours. You can help reduce polluted runoff using the following guidelines:

- Restrict the use of lawn chemicals, especially before heavy rains.
- Dispose of pet or animal waste properly so that it does not wash into a nearby stream or storm drain.
- Have septic tanks inspected every two years, and cleaned as needed. Make septic system repairs as soon as possible.
- Do not pour used motor oil on the ground or into storm drains. Contact your town for proper disposal of household chemicals.
- Report muddy runoff from construction sites to your town's zoning or wetland officials.

The State of Connecticut DPH has completed an assessment of Beechwood Wells 2, 3 & 4, and has assigned the source with an overall susceptibility rating of "Moderate to High." This rating indicates that the water source has a moderate risk of contamination. The completed assessment report is available on the Drinking Water Division's Web site, [www.ct.gov/dph](http://www.ct.gov/dph).

**Educational Information about Lead and Copper:** Connecticut Water believes it is important to provide you with information about the sources of lead and copper in drinking water and the health effects associated with them. The primary source of lead and copper in tap water is household plumbing, and plumbing can vary from house to house within the same neighborhood. For information on the levels of lead and copper detected in your drinking water system, please refer to the table in this water quality report.

**What is lead:** Major sources of lead in drinking water are corrosion of household plumbing systems and erosion of natural deposits. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink water containing lead in excess of the action level over many years could develop kidney problems or high blood pressure.

**What is copper:** Major sources of copper in drinking water are corrosion of household plumbing systems, erosion of natural deposits, and leaching from wood preservatives. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing 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.

If you are concerned about elevated lead or copper levels, you may wish to have your water tested. Running your tap for 30 seconds to two minutes before use will significantly reduce the levels of lead and copper in the water. Additional information is available from the U.S. Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

**Conserving Water Indoors and Outdoors:** Conserving water helps to ensure that we have an adequate supply of water for public health and safety, especially during peak demand seasons. Conserving can lower your water bill, and depending on the community where you live, it may reduce your sewer bill.

Here are some things you can do to conserve:

- Repair leaking toilets - check for toilet leaks by putting a drop of food coloring in the tank. If the food coloring seeps into the bowl without flushing, there is a leak.
- Consider installing a low-flow 1.6 gallon per flush toilet.
- Don't use toilets as a wastebasket.
- Fix leaking fixtures.
- Run full loads in the dishwasher.
- Set the water level in the washing machine to match the amount of clothes being washed.
- Water lawns and gardens in the early morning.
- Use mulch around plants and shrubs.
- Use a bucket rather than a running hose to wash cars.

**About the 2010 uranium violation:** We routinely monitor for the presence of drinking water contaminants. A sophisticated uranium treatment system was installed in October 2010 to address historic water quality issues for that supply. The water delivered in the system now meets drinking water quality standards. Since the treatment was installed in October, your water quality is being monitored and test results for uranium have consistently been near or below the detection level, and well below the EPA standard.

Test results from January 1, 2010, to December 31, 2010, showed the Beechwood system exceeded the standard for the Running Annual Average for the maximum contaminant level (MCL), for uranium. The presence of uranium in drinking water is naturally occurring and the standard for uranium is 30 ug/L. The Running Annual Average for uranium at Beechwood through the 4<sup>th</sup> quarter was found to be 43 ug/L. This running annual average includes data back to the fourth quarter of 2009 which predates the recent system improvements by Connecticut Water to treat uranium. Test results were reported to the Department of Public Health and we anticipate the Running Annual Average to be in compliance with the standards by the second quarter of 2011.

*If you would like more information, please call Customer Service at 1-800-286-5700, write to Connecticut Water Company, 93 West Main Street, Clinton, CT 06413 or e-mail us at [publicaffairs@ctwater.com](mailto:publicaffairs@ctwater.com).*

## Water Quality Data

The table below lists all the drinking water contaminants that were detected in water quality testing conducted in 2010. The “Highest level detected” column represents the highest concentration detected throughout the monitoring period.

Inorganic	MCL	MCLG	Highest Detected Level	Range of Detection	Met Drinking Water Standards	Typical Source of Contaminant
Copper (ppm)	AL 1.3	AL 1.3	0.15	0	Yes	Corrosion of household plumbing systems
Lead (ppb)	AL 15	0	2	0	Yes	Corrosion of household plumbing systems
Barium	2	2	0.011	0.011	Yes	Erosion of natural deposits
Chloride (ppm)	250	NA	34.4	34.4	Yes	Erosion of natural deposits
Chromium (ppm)	0.1	0.1	0.002	One sample	Yes	Erosion of natural deposits
Fluoride (ppm)	4	4	0.07	One sample	Yes	Erosion of natural deposits
Nitrate (ppm)	10	10	1.67	0.11-1.67	Yes	Runoff from fertilizer
Nitrite (ppm)	1	1	ND	ND	Yes	Runoff from fertilizer
Sodium (ppm)	NL=28	NA	15	15	Yes	Erosion of natural deposits
Sulfate (ppm)	NA	250	16.6	16.6	Yes	Erosion of natural deposits
<b>Microbiological</b>						
Turbidity	TT 5 NTU	0	0.30	100%	Yes	Soil runoff
<b>Radioactive</b>						
Alpha emitters (pCi/L)	15	0	9.2	ND-9.2	Yes	Erosion of natural deposits
Combined Radium (pCi/L)	5	0	1.29	1.23- 1.29	Yes	Erosion of natural deposits
Uranium (ug/L)	30	0	43	ND-68.1	No <sup>1</sup>	Erosion of natural deposits
<b>Organic</b>						
TTHMs (ppb) [Total Trihalomethanes]	100	0	ND	ND	Yes	By-product of drinking water disinfection
HAA <sub>5</sub> (ppb) [Haloacetic Acids]	60	NA	ND	Not chlorinated	Yes	By-product of drinking water disinfection
Chlorine (mg/L)	MRDL 4	MRDLG 4	ND	Not chlorinated	Yes	Water additive used to control microbes

<sup>1</sup> See explanation on page 2

### Terms and Abbreviations

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

**MCLG** = 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.

**MCL** = 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.

**MRDL** = Maximum Residual Disinfection Level - 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

**MRDLG** = Maximum Residual Disinfectant Level Goal - 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.

**NA** = not applicable

**NL** = notification level (There is no MCL for sodium. However, the Connecticut DPH requires customers to be notified if sodium exceeds 28 ppm.

**NTU** = Nephelometric Turbidity Unit: A measure of water clarity.

**ppm** = parts per million, or milligrams per liter (mg/l)

**ppb or ug/L** = parts per billion, or micrograms per liter (µg/l)

**pCi/l** = picocuries per liter (a measure of radioactivity)

**TT** = Treatment Technique – a required process intended to reduce the level of a contaminant in drinking water.

