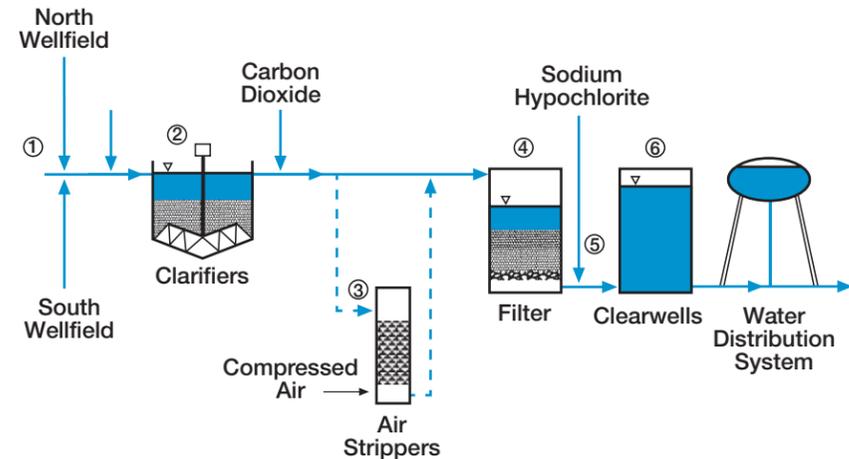


# WOOSTER'S WATER TREATMENT PLANT



1. Raw water is pumped to the plant from two wellfields.
2. Softening chemicals are added and the water enters the clarifiers where solids and hardness are removed.
3. If needed, air stripping towers are available to remove some substances that may sometimes be found in the well water.
4. Water flows through filter media consisting of layers of gravel, silica sand and anthracite to remove remaining solids.
5. A liquid form of chlorine is added to disinfect the water.
6. The water is pumped to two 750,000 gallon clearwells for storage until it is pumped to the water distribution system when needed.

The plant has a design capacity of 6.1 MGD which should be adequate for the City's needs for many years. The plant has been designed to be easily expandable to a capacity of 12.2 MGD. Treatment consists of lime-soda softening with disinfection using sodium hypochlorite. Lime solids from the softening process are pumped to the Wastewater Treatment Plant for co-disposal with wastewater solids.

All plant processes, remote booster pumps and water levels in elevated storage tanks are monitored by computer.

## For Your Health

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 cost of removing arsenic from drinking water. EPA continues to research the health effects 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.

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 be particularly at risk from infections. These people should seek advice about drinking water 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).

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. The City of Wooster 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 two 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 at <http://www.epa.gov/safewater/lead>.

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 have an increased risk of getting cancer.

## For Your Information and to Offer Comments About Your Water

City Council meets at 7:30 p.m. on the first and third Mondays of each month (except July and August) in the Municipal Building, 538 North Market Street.



# City of Wooster 2010 WATER QUALITY REPORT July 2011



## Wooster Water – It's Your Water

The City of Wooster is pleased to provide you with our annual Water Quality Report. We have a current, unconditioned license to operate our water system issued by the Ohio EPA. This report is required as a part of the Safe Drinking Water Act Amendments of 1996. Feel free to call us for a tour of the water treatment plant. It's your water!

In this Water Quality Report to you, the user, we also explain the source of your water supply, where you can obtain additional information about Wooster's water, and how you can provide input to water decisions in the future. Data contained in this report was collected from 2009 to 2010.

We welcome your questions and feedback about this Water Quality Report and any other questions or concerns you have about Wooster's water.

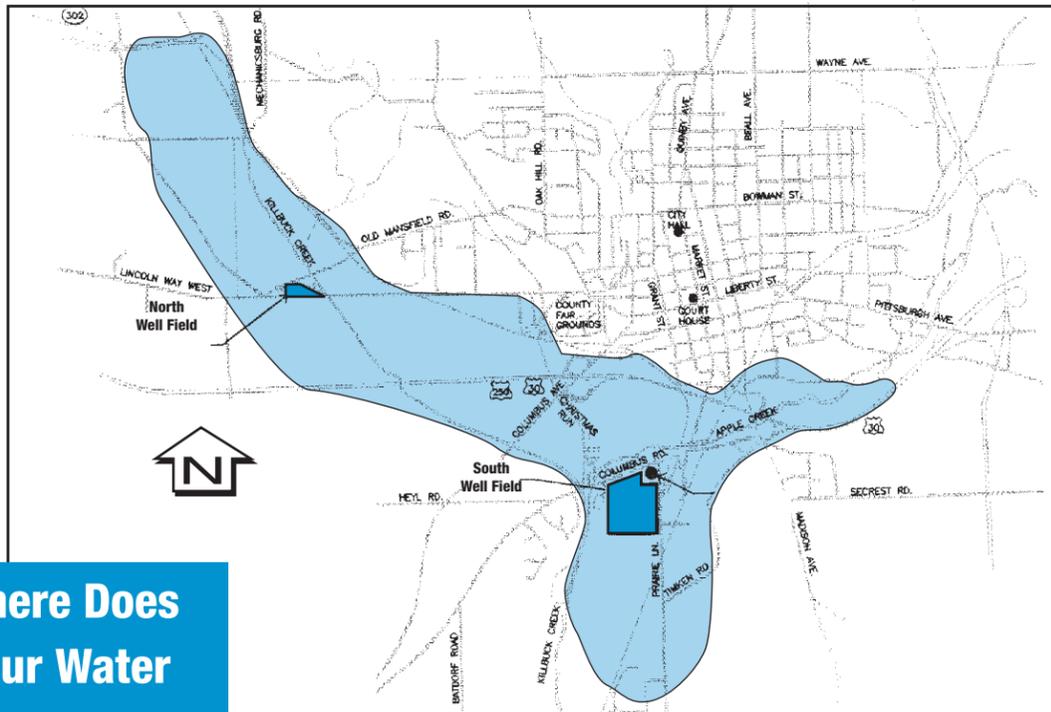
Since 1936, Wooster has continued a tradition of providing quality water to its citizens. We are working hard to continue that tradition of high quality, safe drinking water. Your help and support is always appreciated.



## How to Contact Us:

James L. Borton  
Utilities Manager  
Phone: 330-263-5293

Kevin Givins, Assistant Mgr.  
Water Treatment Plant  
Phone: 330-263-5286



## Where Does Your Water Come From?

Wooster's water is pumped from the Killbuck Buried Valley Aquifer. This underground water supply is located as shown on the map above. Protection of Wooster's well water supply is of utmost importance. In 1998, the City began a Wellhead Protection Program, including the establishment of a committee to review the program and advise on its implementation. This program identifies the source and boundaries of the City's aquifer and the potential sources of contamination that could affect the water in the aquifer. The sand and gravel aquifer is susceptible to contamination. The city has identified potential sources within the wellhead protection area. These sources include several industrial activities, underground storage tanks, and abandoned landfills. Volatile organic compounds (VOCs) have been detected in water well S-1, confirming the sensitive nature of the aquifer. The city has worked to keep VOCs out of the remaining public water wells through pumping and ground water monitoring. The City of Wooster has placed a priority on protecting its ground water resources through public education and source controls. Education will be focused on those activities identified by the potential contamination source inventory. Source controls will focus on education, recycling methods, and pollution prevention. Identified as high priority potential sources of pollution were several industrial activities, underground storage tanks, and abandoned landfills near the wellfields. You can review the report by contacting the Wooster Water Plant. We encourage your participation on the Wellhead Protection Committee.

## What You Should Know About Water Quality

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 activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be 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).

## Water Quality Test Results

Listed below are substances that have been detected in Wooster's water. Tests were performed on the drinking water during the year 2010 unless otherwise noted in the report. We have not listed a large number of substances that were tested for and not detected in the drinking water. If you would like to know more about the tests listed below or other laboratory data performed regularly on Wooster's water, call the Water Treatment Plant at 330-263-5286.

### Measured at the Wooster Water Treatment Plant

SUBSTANCE	Measuring Units Used	Highest Level Allowed by USEPA (MCL)	Highest Level Detected in Wooster's Water	Range Detected in Wooster's Water Low/High	Ideal Goals set by USEPA (MCLG)	Violation Y/N	Description & Source of Substances
Nitrate 2010	ppm	10.0	<0.1	N/A	10.0	N	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks
Fluoride 2010	ppm	4.0	0.125	N/A	4.0	N	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Arsenic 2010	ppb	10.	<3.0	N/A	0	N	Erosion of natural deposits; run off from orchards; discharge from glass and electronics factories
Barium 2010	ppm	2.0	0.028	N/A	2.0	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Selenium 2010	ppb	50.0	<1	N/A	50.0	N	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.

### Measured in Wooster's Distribution System

SUBSTANCE 2010	Measuring Units Used	Highest Level Allowed by USEPA (MCL)	Highest Level Detected in Wooster's Water	Range Detected in Wooster's Water Low/High	Ideal Goals set by USEPA (MCLG)	Violation Y/N	Description & Source of Substances
Total Coliform Bacteria	Positive Samples/Mo	0	0	0	0	N	Naturally present in the environment
Bromodichloromethane	ppb	Not Regulated	8.1	N/A	N/A	N	By-product of drinking water chlorination
Bromoform	ppb	Not Regulated	31.3	N/A	N/A	N	By-product of drinking water chlorination
Chloroform	ppb	Not Regulated	2.3	N/A	N/A	N	By-product of drinking water chlorination
Dibromochloromethane	ppb	Not Regulated	23.2	N/A	N/A	N	By-product of drinking water chlorination
Total Trihalomethanes	ppb	80.0	64.9	N/A	N/A	N	By-product of drinking water chlorination
Haloacetic Acids	ppb	60.0	8.9	N/A	N/A	N	By-product of drinking water disinfection

### Measured at Customer Faucets

SUBSTANCE 2010	Measuring Units Used	Highest Level Allowed by USEPA (MCL)	Highest Level Detected in Wooster's Water	Range Detected in Wooster's Water Low/High	Ideal Goals set by USEPA (MCLG)	Violation Y/N	Description & Source of Substances
Lead	ppb	AL=15.0	<5* <5	<5 / <5	0	N	Corrosion of household plumbing systems; erosion of natural deposits
Copper	ppm	AL=1.3	0.022* 0.031	<0.05 to 0.031	1.3	N	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

### Special Testing for IDSE in Wooster's Distribution System

SUBSTANCE 2009	Measuring Units Used	Highest Level Allowed by USEPA (MCL)	Highest Level Detected in Wooster's Water	Range Detected in Wooster's Water Low/High	Ideal Goals set by USEPA (MCLG)	Violation Y/N	Description & Source of Substances
Total Trihalomethanes	ppb	80.0	58.0	12.5 / 58.0	N/A	N	By-product of drinking water chlorination
Haloacetic Acids	ppb	60.0	11.5	<6.0 / 11.5	N/A	N	By-product of drinking water disinfection

## Terms and Abbreviations To Help You Understand The Data

**Action Level (AL)** - The concentration of a contaminant which, if exceeded, triggers additional treatment measures by the public water system.

**Center For Disease Control (CDC)**

**Environmental Protection Agency (EPA)**

**Initial Distribution System Evaluation (IDSE)** - Sample results for USEPA special monitoring.

**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 using the best available treatment technology.

**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.

N/A - Not Applicable

**Million Gallons Per Day (MGD)**

**Nephelometric Turbidity Units (NTU)** - Turbidity is a measure of cloudiness in water.

**Parts Per Million (ppm)** - Equivalent to milligrams per liter. One part per million is comparable to one penny out of \$10,000.

**Parts Per Billion (ppb)** - One part per billion is comparable to one penny in \$10,000,000.

**Picocuries Per Liter (pCi/L)** - A measure of radioactivity.