

Substances That Could Be in Water

To ensure that tap water is safe to drink, the Department of Environmental Protection Agency (DEP) and the U.S. Environmental Protection Agency (U.S. EPA) prescribe regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Massachusetts Department of Public Health (DPH) 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 these contaminants does not necessarily indicate that the water poses a health risk.

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. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



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ANNUAL WATER QUALITY REPORT

Water testing performed in 2008

Presented By:

TOWN OF UXBRIDGE
WATER DEPARTMENT

PWS ID#: 2304000

Meeting the Challenge

We are once again proud to present to you our annual water quality report. This edition covers all testing completed from January 1, 2008 through December 31, 2008. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal drinking water standards. We continually strive to adopt new and better methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

The Uxbridge drinking water system has recently completed a water main and fire hydrant replacement project that involved Douglas Street and Snowling Road. Many aging gate valves were replaced and some new ones added at intersecting streets such as Main, Carney, Seagrave, Marion, Taft, and Hewett Streets. An additional 4,800 ft. of 16-inch main connecting the nearly completed High Street storage tank was also installed. These system upgrades will improve our system control and increase fire hydrant flow in town.

Please share with us your thoughts about the information in this report. After all, well-informed customers are our best allies.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

Where Does My Water Come From?

The Town of Uxbridge's customers receive their water from two groundwater sources each containing three gravel-packed wells. The Blackstone Well Field is located at the Water Department office on Blackstone Street. The second source is the Bernat Well Field located on town property on the east side of South Main Street. Both well fields are constantly being replenished from various underground sources.

To learn more about our watershed on the Internet, go to the U.S. EPA's Surf Your Watershed Web site at www.epa.gov/surf.



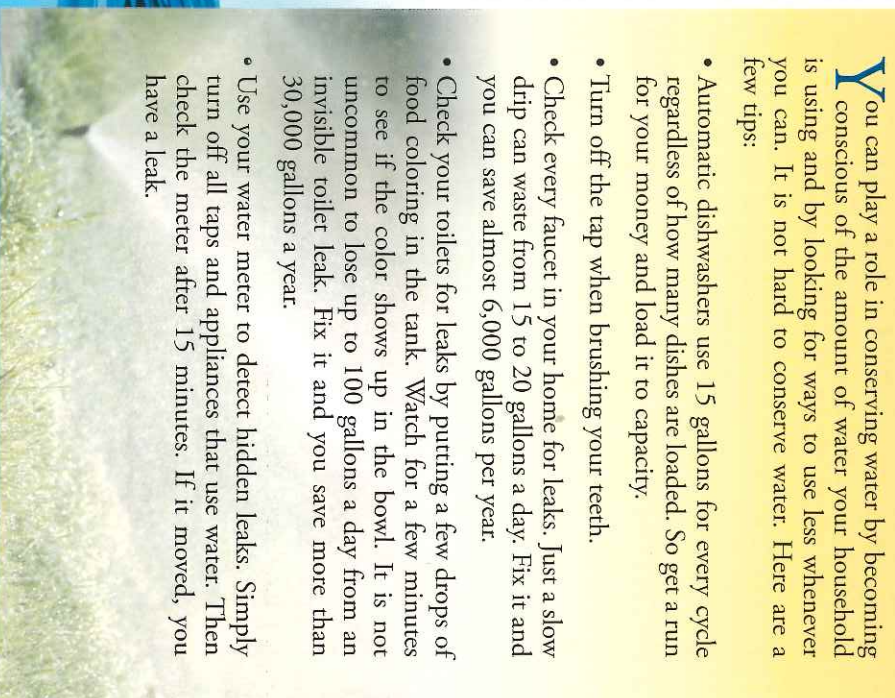
Source Water Assessment and Protection

The Massachusetts Department of Environmental Protection (DEP) completed an assessment of Uxbridge's water sources and prepared a report that documents specific threats, such as underground storage tanks, auto repair shops, and transportation corridors. It also recommends actions we can take to protect our water supply. DEP has assessed our susceptibility as high based on the presence of at least one high-threat land use in our water supply protection areas. This Source Water Assessment and Protection (SWAP) report is available at the DEP's central office in Worcester or online at www.mass.gov/dep/burp/dws/swap.htm.

Water Conservation

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. Here are a few tips:

- 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 from 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 an invisible toilet leak. 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 appliances that use water. Then check the meter after 15 minutes. If it moved, you have a leak.



Who To Call

For more information about this report or for all general problems concerning leaks, meters, hydrants, or mains, call William Buma at the Water Division at (508) 278-8631 (Monday through Friday, 7:00 a.m. to 3:00 p.m.).

Emergency: For emergency service after business hours, please call the Uxbridge Police at (508) 278-7755.

Billing and Information: For billing, final readings, and other customer service questions, call the Department of Public Works (DPW) office at (508) 278-8616.

This report will be posted in the Uxbridge Town Hall located at 21 South Main Street, Uxbridge, Massachusetts. Extra copies will also be available in the DPW office located at 147 Hecla Street.

Sampling Results

During the past year we have taken dozens of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the samples were taken.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Nitrate (ppm)	2008	10	10	1.2	0.96–1.2	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Perchlorate ¹ (ppb)	2008	2	NA	1.9	0.06–1.9	No	Inorganic chemicals used as oxidizers in solid propellants for rockets, missiles, fireworks and explosives
Total Coliform Bacteria ² (# positive samples)	2008	1 positive monthly sample	0	1	NA	No	Naturally present in the environment
Tap water samples were collected for lead and copper analyses from sample sites throughout the community.							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2007	1.3	1.3	0.662	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2007	15	0	12	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits

SECONDARY SUBSTANCES									
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE		
Manganese (ppm)	2008	50	NA	0.139	0.032-0.247	No	Leaching from natural deposits		

UNREGULATED AND OTHER SUBSTANCES ³									
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE					
Hardness (ppm)	2008	43.8 (average)	37.1-50.5	Natural impurities such as manganese and calcium found in groundwater; Results reported in the form of calcium carbonate (CaCo3)					
Sodium (ppm)	2006	37.5	29-46	Naturally occurring; Seasonal road treatment					

¹ The Well No. 1 sample taken on September 23, 2008 (analytical result: 1.9 ppb) was resampled on October 21, 2008 and no contaminant was detected.
² One positive sample was detected in each the following months: February, October, and December. All retested samples were found to be negative.
³ Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the U.S. EPA in determining their occurrence in drinking water and whether future regulation is warranted.



Lead and Drinking Water

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 your home's plumbing. The Uxbridge Water Department 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 the 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 (800) 426-4791 or at www.epa.gov/safewater/lead.



How Is My Water Treated and Purified?

The treatment process consists of a series of steps. First, raw water is drawn from our water sources and treated with potassium hydroxide. This chemical is used for pH adjustment and as a corrosion inhibitor (to protect distribution pipes and household plumbing). A polyphosphate is also added to sequester the iron and manganese that naturally occur in groundwater throughout New England. Finally, the water is pumped into the High Street underground reservoir and to the water tank on Richardson Street. The final destination from the storage tanks is your home or business. Uxbridge has never added fluoride to the drinking water.

Is It Safe to Drink Water from a Garden Hose?

Substances used in vinyl garden hoses to keep them flexible can get into the water as it passes through the hose. These chemicals are not good for you, nor are they good for your pets. Allow the water to run for a short time in order to flush the hose before drinking or filling your pet's drinking containers. Hoses made with food-grade plastic will not contaminate the water. Check your local hardware store for this type of hose.

Should I Put a Brick in My Toilet Tank to Save Water?

Toilet flushing uses a lot of water: about 40% of a household's total water usage. Putting something in the toilet tank that takes up space, like a toilet dam or a water filled jug, is a good idea. But putting a brick in the tank is not a good idea; bricks tend to crumble and might damage your toilet.

How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

How Much Water is Lost to a Dripping Faucet?

Dripping faucets waste a precious resource and it costs you money. As an example, if you have a faucet that drips 60 times a minute, this adds up to over 3 gallons each day or 1,225 gallons each year.

What Makes Water Hard?

If substantial amounts of either calcium or magnesium, both nontoxic minerals, are present in drinking water, the water is said to be hard. Hard water does not dissolve soap readily, so making lather for washing and cleaning is difficult. Conversely, water containing little calcium or magnesium is called soft water.

Definitions

90th Percentile: Out of every 10 homes sampled, 9 were at or below this level.

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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.

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.

NA: Not applicable.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).