

Substances That Might Be in Drinking 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) prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and 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 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 2007



Presented By:

UXBRIDGE WATER DIVISION

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 through December 31, 2007. 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 and water conservation while continuing to serve the needs of all our water users.

The Uxbridge drinking water system is currently undergoing a \$4.6 million dollar upgrade. We are replacing the 500,000 gallon water tank (1907) on High Street with a new 1.5 million gallon tank. We are also installing a 16 inch main line from the new tank on High Street through Taft Park to the intersection of Douglas Street and Snowling Road. From there, two new 16 inch water mains will be installed to Main Street on both Douglas Street and Snowling Road, beginning this spring.

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 customers are fortunate because we enjoy an abundant groundwater supply from two 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-owned property on the east side of South Main Street. Both well fields are constantly being replenished from various underground sources.

During the Bernat Mill fire and the week that followed, the Uxbridge Water Division purchased a little over 2 million gallons of water from the Town of Northbridge. This helped us deal with the fire and the short term supply problems that came up because of the fire. Northbridge also has two wellfields that supply water to their system.

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

WE'LL-INFORMED CUSTOMERS ARE OUR BEST ALLIES.



Source Water Assessment and Protection

The Massachusetts Department of Environmental Protection (DEP) completed an assessment of Uxbridge 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/brp/dws/swap.htm.

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 ground water throughout New England. Finally, the water is pumped into the High Street underground reservoir and to the new 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.

Who To Call

For more information about this report or for all general problems concerning leaks, meters, hydrants or mains, call William Buna at the Water Division at (508) 278-8631 (Monday through Friday, 7 a.m. to 3 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, MA. Extra copies will also be available in the DPW Office located at 147 Hecla Street.

Sampling Results

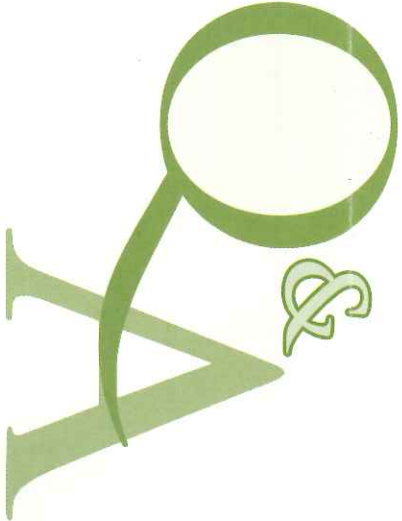
During the past year we have taken dozens of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed 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 [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION
Nitrate (ppm)	2007	10	10	1.2	1.1-1.2	No
Selenium (ppb)	2003	50	50	5	2-5	No
Thallium (ppb)	2003	2	0.5	1	ND-1	No
Total Coliform Bacteria ¹ (# positive samples)	2007	1 positive monthly sample	0	1	NA	No
Tap water samples were collected from 20 sample sites throughout the community						
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE ACTION LEVEL	VIOLATION
Copper (ppm)	2007	1.3	1.3	0.662	0	No
Lead (ppb)	2007	15	0	12	0	No
Typical Source						
Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives						
Corrosion of household plumbing systems; Erosion of natural deposits						

SECONDARY SUBSTANCES						
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION
Manganese (ppb)	2007	50	NA	29.4	148-294	No
Typical Source						
Leaching from natural deposits						

UNREGULATED SUBSTANCES ²				TYPICAL SOURCE
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	
Hardness (ppm)	2007	50.2	46.8-53.5	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 All retest samples were found to be negative. Date of positive sample 2/13/2007.
² 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.



Q: WHAT MAKES WATER HARD?
A: 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.

Q: SHOULD I PUT A BRICK IN MY TOILET TANK TO SAVE WATER?
A: 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.

Q: HOW MUCH WATER IS LOST TO A DRIPPING FAUCET?
A: 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.

Q: HOW LONG CAN I STORE DRINKING WATER?
A: 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.

Q: IS IT SAFE TO DRINK WATER FROM A GARDEN HOSE?
A: 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 pets' drinking containers. There are hoses made with "food-grade" plastic that will not contaminate the water. Check your local hardware store for this type of hose.

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.

MRDL (Maximum Residual Disinfectant 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 contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

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).

Water Conservation

You can play a role in conserving water and saving yourself money in the process 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 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 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 water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.



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 home plumbing. The USbridge 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 2 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 or at www.epa.gov/safewater/lead.