



This report was prepared by:  
Turners Falls Water Department  
226 Millers Falls Road  
Turners Falls, MA 01376-1605

## Quality First

Once again we are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2010. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us to continue providing you and your family with quality drinking water.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions or concerns, we are always available to assist you, by phone (413-863-4542), fax (413-863-3175), e-mail (turnerswater@yahoo.com), or on the Web at [www.turnersfallswater.com](http://www.turnersfallswater.com).



For more information about this report, or for any questions relating to your drinking water, please call Michael Brown, Water Department Superintendent, or Nancy Holmes, Clerk/Collector, at (413) 863-4542.

## Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the first Wednesday of each month, beginning at 5:30 p.m., at the Water Department Office 226 Millers Falls Road, Turners Falls. Our Annual Meeting of the Fire District is held the third Tuesday in April.

Our Department Board of Water Commissioners are Kenneth Morin, Stephen Call, Kevin McCarthy. Our Pump Station operators are John Collins, Jeffrey Hildreth, Stephen Fitzpatrick.

## Where Does My Water Come From?

The Turners Falls Water Department's main source of water consists of two artesian wells located off Center Street in Montague Center. These gravel-packed wells, #1192000 1G and #1192000 2G, pump 1.2 to 2 million gallons of water per day to the filter plant. At the plant, the water is sand filtered for the removal of iron and manganese; the treated, filtered water is then discharged into the gravity fed distribution system. The storage facilities in Turners Falls have a total storage capacity of 6.3 million gallons. Lake Pleasant and Green Pond are emergency backup surface water supplies.

Call Mike or Nancy for additional information; they are available to answer any questions (413-863-4542).

## Source Water Assessment

Protecting Turners Falls Water Supply: The Department of Environmental Protection (DEP) has prepared a Source Water Assessment Program (SWAP) for the water supply source serving this water system. This report is a planning tool to support local and state efforts to improve water supply protection. Although the TFWD has many safeguards in place, the overall susceptibility ranking to contamination of the ground water supplies is high, based on the presence of numerous high-ranking threat land uses within the Zone II water supply protection areas. The report commends our water system on its proactive approach to source protection. A complete SWAP report is available at the TFWD, the Board of Health office, and online at <http://www.mass.gov/dep/water/drinking/swapreps.htm>. For more information, call the TFWD at 863-4542.

### Things You Can Do to Protect Our Water Supply

Use fertilizers and pesticides sparingly; do not use the river beds to dispose of any waste; take used motor oil and other such fluids to the town's hazardous waste collection sites.

## Substances That Could Be in Water

To ensure that tap water is safe to drink, the Department of Environmental Protection (Department) 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. 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 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.

## Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than most tap water. In fact, about 25 percent of bottled water is actually just bottled tap water (40 percent according to government estimates).

The Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Further, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water.

For a detailed discussion on the NRDC study results, check out their Web site at [www.nrdc.org/water/drinking/bw/exesum.asp](http://www.nrdc.org/water/drinking/bw/exesum.asp).

## Lead in Home Plumbing

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. We are 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](http://www.epa.gov/safewater/lead).



## What's a Cross-Connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at <http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/index.cfm>. You can also call the Safe Drinking Water Hotline at (800) 426-4791.

## Water Conservation

You can play a role in conserving water and save 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 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 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.

## 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 or <http://water.epa.gov/drink/hotline>.



## Why do I get this report each year?

Community water system operators are required by Federal law to provide their customers an annual water quality report. The report helps people make informed choices about the water they drink. It lets people know what contaminants, if any, are in their drinking water and how these contaminants may affect their health. It also gives the system operators a chance to tell customers what it takes to deliver safe drinking water.

## How much water is used during a typical shower?

The Federal Energy Policy Act set a nationwide regulation that limits showerheads to a maximum flow of 2.5 gallons per minute (GPM). Showerheads made before 1980 are rated at 5 GPM. Since the average shower is estimated to last 8.2 minutes, the old showerheads use 41 gallons of water while the newer, low-flow showerheads use only about 21 gallons.

## Sampling Results

During the past year, we have taken numerous 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. The state has granted our department a waiver on testing of Inorganic and Synthetic Organic compounds because the source is not at risk of contamination. The last samples collected for these contaminants were taken on 1/21/03 for SOC and 8/28/03 for IOC, and both were found to meet all applicable EPA and DEP standards.

### 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
<b>Copper</b> (ppm)	2010	1.3	1.3	0.037	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits
<b>Lead</b> (ppb)	2010	15	0	0.0016	0/20	No	Corrosion of household plumbing systems; Erosion of natural deposits

### SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	RANGE LOW-HIGH	AMOUNT DETECTED WELL #1 / WELL # 2	VIOLATION	TYPICAL SOURCE
<b>Chloride</b> <sup>1</sup> (mg/L)	2009	NA	250	NA	37.0 / 24	No	Runoff/leaching from natural deposits
<b>pH</b> <sup>1</sup> (mg/L)	2009	NA	6.5–8.5	NA	7.61 / 7.70	No	Naturally occurring

### UNREGULATED AND OTHER SUBSTANCES<sup>2</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED WELL #1 / WELL #2	RANGE LOW-HIGH
<b>Calcium</b> <sup>1</sup> (mg/L)	2009	35 / 27	None
<b>Hardness</b> <sup>1</sup> (mg/L)	2009	110.0 / 89.0	180
<b>Magnesium</b> <sup>1</sup> (mg/L)	2009	7.2 / 5.4	None
<b>Potassium</b> <sup>1</sup> (mg/L)	2009	2.40 / 2.4	None
<b>Sodium</b> (mg/L)	2010	9.9	NA
<b>Sulfate</b> <sup>1</sup> (mg/L)	2009	23.0 / 20.0	250
<b>Total Dissolved Solids</b> <sup>1</sup> (mg/L)	2009	190 / 150	None
<b>Alkalinity-Total</b> (mg/L)	2009	78.0 / 62.0	None
<b>Aluminum</b> (mg/L)	2009	ND	0.2
<b>Manganese</b> (mg/L)	2009	ND	0.05
<b>Silver</b> (mg/L)	2009	ND	0.10
<b>Turbidity</b> mg/L	2009	ND	None
<b>Zinc</b> (mg/L)	2009	ND	5
<b>Odor</b>	2009	ND	None
<b>Color</b>	2009	ND	None
<b>Iron</b> (mg/L)	2009	ND	0.3

<sup>1</sup>Results are from Well #1 and Well #2, sampled in 2009. Next sample date is 2011.

<sup>2</sup>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.

## 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. Secondary MCLs (SMCL) are set for the control of taste and odor.

**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.

**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).