



InFLOWmation

Westford Water Department Newsletter



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Nabnasset Water Main Improvement Project

The Westford Water Department began work on a water main replacement project in the Nabnasset area the first week of August. The project area included Edwards Avenue from Oak Hill Road to Birch Road Extension, and Hadley Road from Edwards Avenue to Byrne Avenue. The project included replacement of approximately 2,500 linear feet of 8” asbestos cement water main with 8” ductile iron water main, renewal of approximately 35 residential services, and



Above: New 8” ductile iron water main and 2 gate valves

the installation of new gate valves and fire hydrants. Additionally, new main was run between Birch Road extension and Edwards Avenue. By connecting these mains we removed 2 dead ends—which can contribute to poor water quality conditions.

The existing 8-inch asbestos cement water mains on Edwards Avenue and Hadley Road were installed in the early 1950’s needed replacement due to exterior degradation caused by aggressive groundwater and soil conditions. This stretch of main was identified as a distribution system deficiency due to its history of breakage, and was in urgent need of replacement. In addition – the elimination of 2 dead ends will also result in improved water quality.

Route 110 Water Main Improvement Project

Started May 2014 and finished in June 2014. Approximately 1900 feet of 8” asbestos cement water main between Boston and Nixon Roads was replaced with 12” ductile iron water main.

This project was the second phase of a two-phase project that began in the Fall of 2012. This first phase included replacement of older 8” water main with 12” ductile iron water main from Tadmuck Road to Nixon Road. The water distribution system now includes a 12-inch transmission main extending from Concord Road (Route 225) to Princeton Properties, a distance of over 2.5 miles.

This was a key infrastructure improvement that has been identified in the Water Department’s Master Plan. The entire project, which was financed exclusively from the Water Department Enterprise fund, costing approximately \$1.3M. The larger diameter water main will provide increased flow and fire protection to this bustling commercial area.

Residential Water Conservation

One only has to watch the news out of California this year to understand that water is a precious resource that's sometimes easy to take for granted until it becomes scarce. With that in mind, it's never a bad time to think about conservation here in Westford. Thankfully, this area of the country is normally blessed with abundant rainfall, and we do not experience the degree of emergency widespread in California. However, that does not mean we can simply waste water and ignore conservation. Water Management Act regulations have recently been revised based on the Sustainable Water Management Initiative (SWMI) framework. These regulations will undoubtedly have a significant effect on Westford's daily allowable water usage (i.e. how much water the Water Department is allowed to withdraw from the ground on an daily basis) as well as future regular mandatory outdoor water use restrictions.

With over 55% of the metered public water supply in Massachusetts used for residential purposes, improved residential use efficiency and conservation can provide significant water savings. Massachusetts Water Conservation Standards target 65 residential gallons per capita per day per (rgpcpd) as an ideal residential use benchmark to either meet or exceed.

Indoor Water Conservation

As parents we are conditioned to tell our kids thing like: "turn off those lights—you're wasting electricity" or "shut the door—we're losing heat!" Nobody likes spending money on high electricity or heating bills, and once the utility is used then the bill must be paid. The same goes for water—once it passes through your meter it is considered used and purchased—even if it is wasted through leaks or inefficient use.

The [EPA Watersense® website](#) has some rather eye-opening statistics on household leaks:

The average household leaks can account for more than 10,000 gallons of water wasted each year—or more than 270 loads of laundry per year! 10,000 gallons of water in Westford will run you about \$60—a lot of money for something that you will never use.

Household leaks can waste more than 1 trillion gallons of water annually nationwide—enough water to supply 11 million homes.

10% of homes have leaks that waste 90 gallons or more per day (gpd). 90 gpd in Westford translates to about \$185/year in lost money.

Most common household leaks including toilets, faucets, and showerheads are easily correctable. Fixing these common leaks can save homeowners about 10% on their water bills.



Simple things you can do to conserve water indoors:

A leaking toilet (especially an older less efficient model) can cost a homeowner several hundred dollars per year, so it makes sense to periodically check your toilets for leaking. Add toilet tank leak detecting dye (available for free at the Water Department) to the toilet tank (do not flush). Wait for 15 minutes to see if color appears in the bowl. If there is a color in the bowl then there is a leak, and you should check the flapper valve to see if it has deteriorated or is not seating properly. The flush assembly can be replaced easily if you are a do-it-yourselfer or otherwise you may want to contact your local plumber.

Repair that leaky faucet or showerhead—or better yet—upgrade with a more efficient fixture. A faucet leak of one drip per second can waste more than 3,000 gallons per year. A showerhead leak of 10 drips per minute wastes more than 500 gallons per year.

Don't add strong cleaning chemicals to your toilet tank as they may corrode rubber and plastic parts and cause leaks.

Use your meter to check for hidden leaks (indoors and outdoors). Check your water meter before and after a 2 hour period when no water is being used. If the meter does not read exactly the same then you probably have a leak. Some meters have a leak detector built in - a little red triangle on the face. If there is no water being used in the house and the little red triangle is moving that means you have a leak somewhere (Note: slight back and forth wiggling of the red triangle is normal and does not indicate a leak).



Keep in mind—once water passes through your meter you have purchased it—even if it is wasted through leakage. It's in your best interest to eliminate any leaks you find.

Consumer Confidence Report

The Water Department provides our customers with a direct link to an electronic copy of the CCR on the Water Department website. **Visiting the following website address will take you to the current CCR:**

<http://www.westfordma.gov/ccr>

The CCR contains important information about the source and quality of your drinking water, and is well worth the time to review. Since electronic delivery will become our primary method for providing the annual CCR it's important to note that:

- **The Westford Water Department no longer mails out paper copies of the CCR unless requested.**
- **If you have previously requested a paper copy then one will automatically be sent to you each year (there is no need to make additional requests).**
- **Please call at 978-399-2457 (or send email to mwarren@westfordma.gov) if you would like a paper copy delivered to your home or business.**

In addition, paper copies of the CCR will still be available at the Water Department, Town Hall and other municipal and community buildings.

Indoor Water Conservation (cont. from page 2)

Two of the biggest indoor water users are the toilet and clothes washer. Together, they can account for almost 50% of indoor residential water use. Keeping this in mind it makes sense to consider replacing older, inefficient toilets with a new 1.6 gallons per flush (gpf) toilet or better yet a high efficiency toilet that uses 1.28 gpf (or less). Older style toilets can use 3.5 gpf or more!

A new front-loader or top-loader high efficiency (HE) clothes washer uses considerably less water than older top loading washers. The newer front-loader and HE washers use around 15 gallons per load compared to 35-50 gallons per load for older models. You can save upwards of 8,000–10,000 gallons of water per year alone! Front loader and HE washers also save on hot water and energy costs.

Save money in the shower. Showering can account for about 17% of indoor water use. Consider upgrading your showerhead from the standard 2.5 gallon per minute (gpm) to a more efficient 2.0 (or less) gpm model. You can save about \$70 dollars a year in water and energy costs. Take shorter showers (the Water Department has free shower timers available). Turn off the water when lathering.

Don't forget about your faucets! Older faucets/aerators typically provide a 2.2 gallons per minute (gpm) flow. By installing a high efficiency aerator (1.5 gpm or less) you can reduce your sink's flow by 30% and save yourself some cash.

Miscellaneous: Only flush the toilet when necessary—and don't use for a wastebasket. When brushing your teeth—only turn on the water when needed. Wash only full loads of dishes and clothes.



Outdoor Water Conservation

Residential outdoor water use (mostly from landscape irrigation) accounts for over 9 billion gallons of water per day in the United States. Consider installing a [Watersense® labeled irrigation controller](#). This controller acts like a thermostat for your sprinkler system telling it when to turn on and off, using local weather and landscape conditions to tailor watering schedules to actual conditions on the ground. Replacing a standard clock timer with one of these controllers can save the average household about 8,800 gallons per year (about \$50) - and much more if you tend to water frequently during the summer. Some more tips:

Install a moisture detector to your system to prevent watering when it's raining.

This can't be stressed enough: Keep your irrigation system well-maintained and regularly check for leaks. Even seemingly small leaks can result in water bills of hundreds or even thousands of dollars! It's a good idea to have a professional irrigation company regularly maintain your system. Regardless, once water passes through your meter—leaky irrigation system or not—you have purchased this water so it is in your best interest to keep your system well maintained and fix leaks as soon as discovered.

Outdoor Water Conservation (cont. from page 3)

Mow your lawn high, often, and sharp. Mow to about 2.5-3 inches high and do not allow grass to grow longer than 4-5 inches. Sharpen your mower blades to cut the grass cleanly and avoid shredding to minimize water loss and prevent disease infestation. Allow the clippings to decompose in place in order to contribute to the organic content of the soil.

Follow seasonal outdoor water use restrictions and only water in the early morning or evening (to reduce evaporation), and don't overwater— established lawns only require one inch of water per week. Try to avoid water during excessively windy days. Check your sprinkler patterns to make sure you are not watering the pavement!

Use a broom to clean decks, driveways and walkways instead of hosing off.



Use the hose sparingly to wet and then rinse off your car when washing (use a bucket and sponge to wash).

Try to avoid water-loving plants unless you have the natural conditions to support them. Consider incorporating low water use/drought resistant landscaping such as native plants or drought-resistant grasses that require minimal supplemental irrigation.

Purchase a rain barrel (see page 4).

Constructing a rain garden using native plant can add a natural beauty to your home while reducing the need for outside irrigation.

How to calculate your household's average per capita daily water usage (compare to 65):

Add up the usage in cubic feet for one year of water bills (4 quarterly bills). If you don't have this available the Water Department can easily provide this information. The conversion to gallons is: 1 cubic foot = 7.48 gallons. If you've used 10,000 cubic feet of water in a year that translates to 74,800 gallons/year. Simply divide this number by 365 (days in a year) and then by the number of persons living in the household. If there were 4 people living in this house then the residential gallons per capita per day (rgpcpd) usage in this example would be 51 gallons—well below the goal of 65 gallons.

A source of information for this newsletter—and fantastic resource for water saving tips and more—is the EPA Watersense® website: www.epa.gov/watersense. Be sure to try the savings calculator on the website to see how much money you can save by installing Watersense® labeled fixtures.

Water conservation not only produces an immediate savings, but is an effective means to control system demand. Why is this important? Poorly managed system demand can create the need for additional water sources and infrastructure such as wells and pump stations, storage tanks, and water mains. By conserving and using water efficiently we not only ensure an adequate supply of drinking water, but reduce the need for these expensive capital projects whose costs are ultimately borne by the water customer. *Good news for 2013—in Westford our rgpcpd was 64 gallons exceeding the Drive to 65 goal.*

Private Well Corner



The Westford Water Department services roughly 75% of the town. The remaining residents rely on private drinking water wells. For questions regarding private wells—including when you should have your well tested—contact Darren MacCaughey, Director of Environmental Services, Westford Health Dept.: 978-692-5509 or at dmaccaughey@westfordma.gov. **Remember: Private wells may never be connected to the public water system!** If you have a private well and are connected to the public water supply then there may be no physical connection between the well and the plumbing in your house which is fed by the public supply. If you have any questions about this feel free to contact the Water Department at 978-692-5529.

2014 Rain Barrel Sale

The Westford Water Department partnered with The Great American Rain Barrel Company in 2014 to provide a town rain barrel program. The program was a success with 45 rugged and attractive rain barrels purchased at discounted rates (40% of retail price). If you did not get a chance to purchase a rain barrel through the program then not to worry—we plan on participating in a municipal rain barrel program in 2015.



Information From the Healthy Lakes & Ponds Collaborative (HLPC)

The Westford Healthy Lakes and Ponds Collaborative is a collaborative of interested parties that have come together to help improve and maintain the health of Westford's Lakes and Ponds. The "Healthy Lakes & Ponds Collaborative" has a common goal to preserve Westford's important natural resources and protect our bodies of water which feed our drinking water aquifers. As a community we can reduce our impact of nutrient overload to our water bodies by making some simple changes. **How can you help protect and preserve Westford's bodies of water?**



- Overfeeding your lawn can green our rivers and ponds. Calibrate your spreader to avoid overfeeding.
- Leave grass clippings on the lawn to lessen the need for fertilizer.
- Use fertilizers, pesticides, and herbicides sparingly. Sweep any overspray back onto the lawn.
- Mow 2.5-3 inches high with a sharp blade to encourage dense growth and deter weeds.
- Never discard yard waste down storm drains or into waterways.
- Water deeply and infrequently, and time watering to avoid evaporation and runoff.
- Reseed bare areas with drought-tolerant varieties of grass.
- If you hire a lawn care contractor, speak with him or her about their application practices. Overfilling seed hoppers in driveways and in the street can run off into the storm drains and will end up in the lakes and streams.
- Do not discharge laundry, car, or boat washing detergent into a storm drain or to a body of water.
- Maintain your septic system regularly by having your septic tank pumped every 2-3 years. Keep a watchful eye on your septic system leaching area to make sure there is no discharge to the surface of the ground or into a lake or pond.
- Please do not dispose trash or waste near storm drains and water bodies.
- Do not discharge chlorinated pool water to a storm drain or a body of water.
- Remove all plants from your boat motor, trailer, anchors, fishing gear, dive gear and dispose of them on dry land, well away from the water or in a trash can.
- Never release non-native animals or plants into a body of water.
- Never empty aquariums into a water body.
- Please keep all animal waste away from the storm drains and water bodies.
- Extra nutrients such as phosphorus and nitrogen that are found in fertilizers can cause blue-green algae blooms and the blooms can have major impacts on animals, aquatic life, our water bodies, wells, humans, and our recreational lifestyles. Consider using phosphorus-free fertilizer and detergents.
- Maintain Your Septic System, Pump Regularly & Replace When In Failure: The major reason for safe disposal of sewage is to prevent the spread of disease. If a septic system is properly sited, is working properly, and has been maintained regularly, it will effectively and efficiently remove disease-causing bacteria.

Visit the below link for more information on caring for your septic system

<http://www.mass.gov/eea/agencies/massdep/water/wastewater/caring-for-septic-system-reference-guide-for-homeowner.html>

With one-third of the U.S. population using septic systems, over 1 trillion gallons of waste per year is disposed of below the ground's surface from individual septic systems. Nutrients from failing septic systems can also cause serious health problems. Inadequately treated sewage from failing septic systems is the most frequently reported cause of groundwater contamination.

Visit the below link for more information on failing septic systems.

<http://www.mass.gov/eea/agencies/massdep/water/wastewater/failing-septic-systems-can-be-hazardous-to-your-health.html>



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How to Reach Us

- Main Phone Line (978) 692-5529
- Superintendent (978) 399-2455
- Water Operations Manager (978) 399-2456
- Business Manager (978) 399-2453
- Environmental Compliance Manager (978) 399-2457
- Billing and Property Transfers (978) 692-5529
- Accounts Payable (978) 692-5529

Visit our website:
www.westfordma.gov/water

After Hours

In the event of a water emergency outside of the work day, call the Police Department at 978-692-2161. The police dispatcher will contact our on-call personnel for quick response.

Fire Hydrant Shoveling— Our Annual Friendly Reminder...



We need your help in keeping the fire hydrants free from snow (rule of thumb is at least 3 feet surrounding the hydrant should be cleared). With over 1,000 hydrants in town it takes us considerable time to get to them all after each major snow

Now you see me... storm, and the more help we get from folks the quicker we can get them cleared and easily accessible in the event of an emergency. The last thing anyone wants is to have to search for a buried hydrant during an emergency. Also—please remember that: In accordance with Massachusetts General Law Chapter 148 Section 27B it is unlawful to pile, push, or plow snow or ice on or against any fire hydrant in any public or private way. Please make sure not to shovel, plow, or blow snow onto the hydrants when clearing your property!



Now you don't!

