Issue No. 26, October 2006

INFLOWMATION

Westford Water Department Newsletter

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- Leslie A. Thomas, Secretary
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- Warren Sweetser, Superintendent
- Robert Worthley, Water Treatment Manager
- Robin Fullford, Business Manager
- Jessica Cajigas, Environmental Compliance Manager

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Perchlorate Update…

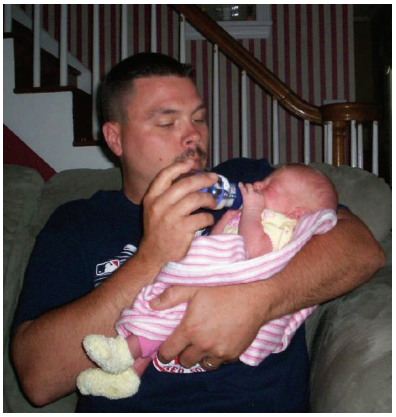
On July 28, 2006, Massachusetts became the first state in the nation to promulgate drinking water and waste site cleanup standards for the chemical perchlorate, setting the standard at 2 parts per billion (ppb). The new regulations require most public water systems to regularly test for perchlorate.

The new standards were adopted to protect public health, including sensitive populations such as pregnant women, nursing mothers, infants and individuals with low levels of thyroid hormones. Perchlorate has been found to interfere with thyroid function, which could lead to impaired development and metabolism.

Besides the requirement for regular testing, the new regulations also require parties responsible for perchlorate contamination to notify the Massachusetts Department of Environmental Protection (MassDEP) of the contamination and conduct appropriate environmental assessment and cleanup, and for all drinking water supplies to contain no more than 2 ppb of perchlorate.

Perchlorate is a chemical that can be found in blasting agents, fireworks, military munitions, and other manufacturing processes. Since perchlorate was first detected in the aquifer under Bourne, MA in 2002, the chemical has been detected in 10 other public water systems across Massachusetts, including Westford's Cote Well in July 2004.

The Cote Well was shut down from July 2004 until May 2006, when a treatment system was put online that treats the water to below 1 ppb of perchlorate, one-half of MassDEP's standard of 2 ppb. The treatment system consists of two high flow pressure vessels using a perchlorate-selective resin to filter out the chemical. At the time of printing, no Notice of Responsibilty has been issued by MassDEP for the perchlorate contamination of the Cote Well.



Employee Spotlight
Robert Daley

Robert Daley is a Licensed Well Specialist and has been with the Department for 9 years. Rob works on distribution system maintenance and is responsible for water main installation connection inspections to assure compliance with system regulations. He also oversees vehicle maintenance for the operational fleet. Rob and his wife Holly welcomed their first child, Jackalyn Ellen Marie Daley, into the world on July 31st. Congratulations Rob and Holly!!

Lead and Copper Monitoring...

In August, lead and copper monitoring for the public water supply was completed. Results showed no exceedance of the recommended action levels of 1.3mg/L for copper and 0.015mg/L for lead. A special thanks to those of you who provided us with water samples.

Tips For Homeowners With Fuel Oil Storage Tanks

The #1 contamination problem among homeowners and small businesses is leaking fuel oil storage tanks. Below are helpful tips from MassDEP on how to prevent leaks in your storage tank.

Replace or Upgrade Buried Tanks:
The average period of time an unprotected steel tank can be buried in the ground before springing a leak is only about 15 years, depending on site conditions and tank design and construction. However, any tank can leak and may experience failure much sooner or much later than this average. The cost of clean-ups can run into tens of thousands of dollars. So, as soon as you can, plan on replacing any old buried tank, either with a modern corrosion resistant/protected tank, or better yet, with a free-standing aboveground tank.

Replace Old/Rusted Free-Standing Tanks:
If you have an old, rusted free-standing tank in your basement, ask your oil dealer if it should be replaced. MassDEP responds to a number of spills where the use of new high-flow fuel oil delivery systems "blows out" the ends of weaker tanks.

Replace Your Oil Supply Delivery Line:
Oil is transferred from your oil tank to the furnace by a delivery line. These lines are usually buried below the concrete basement floor. The corrosive nature of concrete tends to create holes in these lines, which could lead to substantial leakage of oil into the soil below the basement floor. Often this can occur without notice. Eventually the oil may surface in a basement sump, storm drain, or drinking water well. Talk to your oil dealer about replacing these lines with a modern corrosion-resistant, double-walled piping system.

Remove Old/Unused Fill and Vent Pipes:
On occasion an oil tank in a basement is removed, but the fill pipe through the exterior wall is left in place. Periodically, MassDEP responds to spills where an oil delivery was made to one of these disconnected fill and vent pipes, and oil was pumped directly into the basement. If the tank is removed, immediately remove the fill and vent pipe.

InFLOWmation is published twice a year for all residents and businesses of Westford. Our goal is to keep you informed of events, our challenges and our accomplishments. We also strive to educate and encourage good stewardship of our water resources.

How and why we control pH of the water...

pH is a measure of the acidity of a solution on a scale of 1 to 14. Solutions with a pH less than 7 are considered acidic, and those higher than 7 are considered basic. In our treatment process, pH is adjusted using the chemical potassium hydroxide or KOH. KOH is added to the water to raise the pH to a level of about 7.5. This is done for two reasons: A proper pH level will 1. help in the removal of iron and manganese, and 2. prevent corrosion.

Iron and manganese are often associated with taste, odor, and/or staining problems. Our treatment process includes adding chemicals to eliminate iron and manganese. The proper pH is important for this process to take place. The result is better tasting water, and water that is less likely to stain clothing and plumbing fixtures.

Water with a low pH (<6.5) tends to be corrosive and can cause the degradation (corrosion) of plumbing materials within the water distribution system. Corrosion of plumbing materials containing iron, as stated above, can affect the taste of water and cause staining. But corrosivity not only affects the aesthetic quality of water, it may also have significant health implications. Corrosion may cause lead or copper to leach out of plumbing materials too. Excessive exposure to lead or copper (not just in drinking water) can lead to severe health problems including damage to the brain, kidneys, stomach, and liver. In order to prevent corrosion and prevent exposures to elevated lead and copper levels, we raise the pH of our water using KOH.

We also follow all MassDEP sampling requirements for lead and copper within the distribution system. The last round of sampling was completed this summer. Results showed no exceedance of the lead or copper action levels.

Interconnection with Littleton Tested

In August, a water main break occurred on Russell Street in Littleton. Normally several homes would have been without water until repairs were made. However, due to an interconnection put in place on Beaver Brook Road this Spring for Mutual Aid purposes, water from Westford was supplied to the affected area. The result was a minimal interruption of service. Westford has direct interconnection capabilities with Groton and Littleton, and can also connect through hydrants to Chelmsford and Tyngsboro.

Healthy Lawns for Healthy Families

Join the effort to reduce pesticide use and protect your family's health!

Fall Pesticide-Free Lawn Care Checklist:

Conduct Soil Test: If not done in the Spring, test your soil for pH (6.5-7.0 is best), Organic Matter Content (5-8%), Calcium-Magnesium ratio (10:1), and N P K.(Nitrogen: Phosphorus: Potassium) .

Continue to Mow While Grass Grows: Leave your grass clippings on the lawn, it reduces the need for fertilizer by one half. Final mow height should be about 2 inches.

Aerate Your Lawn: This will allow oxygen, water, and nutrients to circulate.

Fall is the Best Time to Lime: Based on your soil test, you may need to raise your soil's pH using lime. The Calcium-Magnesium ratio determines the type of lime to use. Use calcitic lime if calcium is low, and use dolomitic lime if magnesium is low.

Fall is the Best Time to Fertilize: Again, based on your soil test, you may need to apply fertilizer to adjust your soil's nutrient content. Talk to someone at your local garden center about organic fertilizers.

Fall is the Best Time to Seed: Seed your lawn's bare spots, or overseed the entire lawn, if necessary.

Remove Leaves: If you do not have a mulching lawn mower, rake and remove leaves as they accumulate.

Flushing began October 10th and will continue for approximately six weeks in the Nabnasset area.

Flushing will be conducted between the hours of 8am and 3pm, Monday through Friday. There may be situations when we will also flush at night between the hours of 10pm and 2am. During these times, water pressure may be low and the water discolored. Let the water run awhile and it should clear up quickly.

We regret any inconvenience this may cause you but you should notice better water after the flushing program is completed. Thank you for your assistance!

Water Dept. Education Outreach...

In October, Water Department staff once again took part in the Living Lab program held at the Day School. Jessica Cajigas, Environmental Compliance Manager, and Robin Fullford, Business Manager, provided an interactive demonstration about pollution prevention. Westford's 5th graders worked with a model landscape where they were put in charge of a farm, construction site, or forest. The challenge was to brainstorm ways to prevent discharging pollution from their site. They then implemented their plans using objects that represented silt-fencing, haybales, trees, rock walls, etc. A "rain storm," created with a spray bottle, tested the students designs. Thanks to the students creativity and teamwork, no pollution entered the rivers and streams!

Westford Water Department
IN*FLOW*MATION October 2006
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How to Reach Us

Main Phone Line	(978) 692-5529
Superintendent	(978) 399-2454
Water Treatment Manager	(978) 399-2456
Business Manager	(978) 399-2453
Environmental Compliance Manager	(978)399-2457
Billing and Property Transfers	(978) 399-2452
Accounts Payable	(978) 399-2451

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.

New Look to Water Bills!

Your water bill includes a "minimum charge" based on your account's meter size. A residential account with a typical 5/8" meter is charged $16 per quarter, plus the charge for water usage. Recently the "minimum charge" was renamed "customer service charge" and was separated from you water usage charge, allowing you to see the direct impact of your water usage on your bill.

While you cannot affect your customer service charge, you can affect your water usage charge. We encourage water conservation efforts, and our increasing block rate rewards conservation efforts on your bill. For ideas on lowering your water usage, please visit our website!

Remember, you can pay your bills after hours at our new drop box located in our office entranceway.

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