



**IPSWICH RIVER  
WATERSHED  
ASSOCIATION**

*Connecting  
Communities from  
Source to Sea*

The Ipswich River Watershed serves as the voice of the Ipswich River. Through outreach, education, monitoring, and advocacy, we seek to connect the people, communities, and ecosystems integral to a healthy watershed.

143 County Road  
P.O. Box 576  
Ipswich, MA 01938

p. 978.412.8200  
f. 978.412.9100

irwainfo@ipswichriver.org  
www.ipswichriver.org

# Keeping Water Local at Riverbend

## Demonstration Project #1: High Efficiency Toilets

You wouldn't flush money down the toilet, would you? If you have an old or leaky toilet, that is exactly what you do every day. By replacing old toilets with new, high efficiency toilets (HETs), you can save water, money – and energy too!

Toilets are typically the biggest water user in a household, using up to 70 gallons a day for an average household (or much more for leaky toilets). But now, there are many HETs available that save water – and they work better than older toilets.

The Massachusetts plumbing code requires that toilets use no more than 1.6 gallons per flush, but HETs use at least 20% less water than the code requires – from 0.8 to 1.28 gallons per flush. Many models are available to choose from, and their performance is now carefully tested and rated, so you can be sure not to choose a model that doesn't perform properly.

Replacing inefficient or leaky toilets will save water and money. For those paying sewer charges, you'll save approximately double the money (depending on your town's rates); and those on septic systems can prolong the septic system's life and avoid replacement costs. By replacing a 3.5 gallon per flush toilet with an HET, EPA estimates savings of \$2000 over the expected life of the toilet – and twice that for a 7 gallon per flush model! A number of communities offer rebates for toilet replacements – call your water department to ask if they will give you a rebate. If they say no, work with them to begin doing so – the sooner you replace your toilet, the sooner you will start saving water and money!

IRWA replaced two 40-year old wall-hung toilets with HETs. There are not too many wall-hung HETs to choose from, whereas there are many, many floor-mounted HETs; however, the unique construction of Riverbend's Deck House made it difficult to replumb for floor-mounted toilets. We chose a dual-flush, pressure-assisted toilet for the office bathroom. Dual flush toilets use as little as .8 gallons per "regular" flush and 1.6 gallons to flush larger loads; the one we chose uses 1.1/1.6 gpf and has a solid waste removal rating of 1000 grams, the highest rating. For the downstairs bathroom, we installed a 1.1 gpf pressure-assisted single flush HET with a waste removal rating of 800 grams.

The U.S. Environmental Protection Agency's WaterSense web pages have excellent information about saving water; see <http://www.epa.gov/watersense/> for information about HET's and a list of toilets that meet EPA's water efficiency and performance criteria.

See [http://www.cuwcc.org/toilet\\_fixtures/HET\\_06-12-07.pdf](http://www.cuwcc.org/toilet_fixtures/HET_06-12-07.pdf) for an up-to-date summary about the water efficiency and performance of a wide range of toilets from many manufacturers; [www.cuwcc.org/MaPtesting.lasso](http://www.cuwcc.org/MaPtesting.lasso) has a wealth of information about tests of every imaginable toilet and other water efficiency technologies, including appliances, faucets, showerheads, irrigation technology, etc. If you really want to compare toilet options, check this site.



The HET at Riverbend uses only 1.1 or 1.6 gallons per flush, saving water, money, and energy!

*The Keeping Water Local Demonstration Projects are funded by a generous grant from the Massachusetts Riverways Program, Department of Fish and Game. We would also like to acknowledge the donation of two HETs by Gerber Toilets, and thank Allsopp Design, Inc. and Terry Desmond Plumbing for their assistance with this demonstration project.*