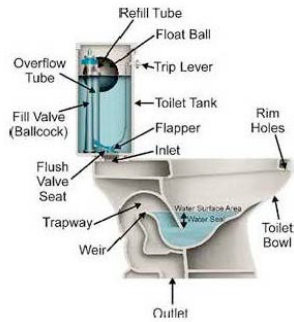


Everyday Environmental Stewardship



Sinks & Toilets

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Key Issue: Conserving resources

Stewardship Opportunities: Install water conserving equipment

A fundamental premise of stewardship is use only what is needed. Personal water use is one area where both behavior and equipment changes can make a significant difference. Given that the water supply of the earth is fixed, but the population increasing, using only what is needed makes sense. And as with many other environmental stewardship actions, **green** grows 2 ways, one of which you can take to the bank!

Stewardship Opportunity #1 - Reduce Water Use at Sinks

How long do you take to wash your hands and/or face? What is the “cost” involved, in \$s and in CO₂ emissions? Cost will depend on (1) the fuel and (2) the equipment used to heat your domestic hot water (“DHW”). Here is the cost in \$s and CO₂ emissions as of March 2011, if

Fuel	Equipment	\$\$/Year	\$\$ if 0.5 gpm
Gas	Hi-Eff	\$16.99	\$3.86
Gas	On-Demand	\$18.61	\$4.22
Gas	tank	\$24.05	\$5.46
Oil	Hi-Eff	\$39.50	\$8.97
Oil	Tank	\$44.97	\$10.21
Electricity	On-Demand	\$51.61	\$11.72
Electricity	Tank	\$51.61	\$11.72

you take 2 minutes and wash twice a day for a 2.2 gallon per minute (gpm) aerator and a 0.5 gpm aerator. By installing a 0.5 gpm aerator (which costs at most \$5) you save over 75%! The *Before* and *After* photos below of a



faucet make the volume difference very clear. Go to the MIP&L web site and get the *Sink Cost Calculator* to calculate your own costs, in \$s and environmental impact. Then spend the \$s you save by the large \$ drop by buying GreenE to help offset your remaining carbon footprint.

Stewardship Opportunity #2 - Reduce Water Use at Toilets

Toilets have been at 1.6 gallons per flush (gpf) since 1992. That is a big drop from the previous 5.6 gpf. The gpf volume is set to handle defecation, even though the ratio of urination to defecation is about 6:1 per day. Toilets are now available with *dual-flush*, at 0.8 gpf for urination and 1.6 gpf for defecation. Even better, there are easy-to-install, very reliable *dual-flush* conversion kits for existing toilets, at about \$20 each. How much will dual-flush save? About 4.8 gallons/person/day, over 1750 gallons per year. The benefit is financial, about \$24/person/year. More importantly, it makes the operations of the public wastewater treatment systems much more efficient and cost-effective. Plus, more water is now available for other, important uses.

Also, be sure to get MIP&L’s EES Brief on Showering, which explains using 1.5 gpm showerheads and reducing showering time. There is also a *Shower Cost Calculator* (available at MIP&L’s web site) that shows current and reduced cost, both \$s and environmental impact. www.MIPandL.org