

# Center for Sustainable Tourism



## Water Efficiency: Commercial Bathrooms

Water conservation is great for the environment and your business's bottom line!

Water-efficiency measures can lower your water and energy bills as well as improve operations. Low-cost and technological opportunities abound for using water efficiently in commercial bathrooms. Demonstrating your commitment to water efficiency will make a positive impression on your staff and the public. Some of the measures listed below can likely be applied to your business. The table below illustrates the associate water savings and cost benefits. We can all do our part to use water more effectively, thereby improving water quality and preserving our drinking water resources.

				
<b>Low-Flow Aerator</b>	<b>Touchless Faucet</b>	<b>High-Efficiency Toilet (HET)</b>	<b>Waterless Urinal</b>	<b>Dual-Flush Flushometer</b>

### Table of Water Savings Options

Retrofit Measures	Water Savings (%)	Avg. Annual Cost Savings <sup>a</sup>	Payback Period	Additional Benefits
<b>Aerator<sup>b</sup></b>	75%	\$130	< 1 month	Low-cost and easy to install
<b>Faucet<sup>c</sup></b>	85%	\$140	3 years	Touchless faucets are more sanitary and have water-saving aerators pre-installed
<b>HET Toilet<sup>d</sup></b>	60%	\$540	< 1 year	Increased flush performance and longer life
<b>Urinal<sup>e</sup></b>	100%	\$225	2 years	No utility cost, low maintenance, improved hygiene, odor control, no major breakdowns
<b>Flushometer<sup>f</sup></b>	30%	\$70	< 1 year	New dual flush handle for commercial toilets and urinals; 1.1 (liquid)-1.6 gpf (solid)

<sup>a</sup>Calculated using Pacific Institute study "Waste Not, Want Not" for restaurant setting with 300 patrons & 20 staff per day; \$5.15 water and sewer costs and associated energy costs from gas(\$0.6 per therm) hot-water heating

<sup>b</sup>Based on EERE FEMP Calculator-30 min use per day for 2.2 gpm versus 0.5gpm aerator (Savings of 18,600 gal per year)

<sup>c</sup>Based on 20 min use/day for self-powered touchless faucet with 0.5 gpm aerator (Savings of 20,400 gal per year)

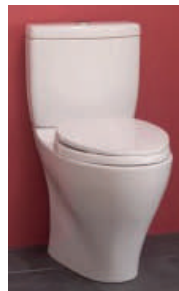
<sup>d</sup>Based on 150 flushes/day from current toilet average of 3 gpf versus top model 1.1 gpf (Savings of 103,500 gal per year)

<sup>e</sup>Based on 75 uses per day from conventional urinal average flush of 1.6 gpf vs. waterless (Savings of 40,000 gal per year)

<sup>f</sup>Based on 75 water-saving liquid waste flushes per day at 1.1gpf versus 1.6 gpf only (Savings of 14,000 gallons per year)

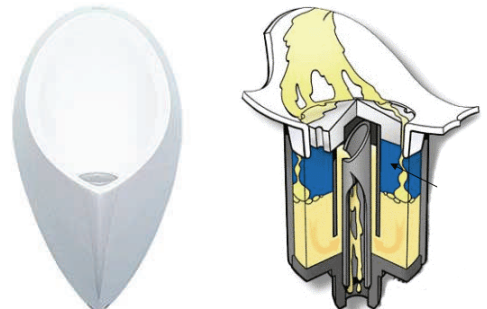
### High-Efficiency Toilets (HET) (\$190-\$500)

- HET flush at least 20% less water than a 1.6 gallon per flush toilet.
- Top models use ½ gallon less water (1.1 gpf) and offer 4 times the flush performance, compared to a standard toilet.
- New toilets are performance and reliability tested to ensure customer satisfaction.
- Check with your local municipality or utility provider for possible available rebates



## Waterless or No-Flush Urinals (\$250-\$400)

- Requires no water.
- Maintenance is reduced, as there are no mechanical parts and no clogged drains to clean up.
- Routine cleaning of surfaces is faster.
- More hygienic since there is no flush lever to operate, and there is no mist created by flushing.
- They provide improved odor control compared to traditional toilets, as the liquid sealant is designed to keep odors out of the restroom.



## Flushometer: Dual-Flush and Low Flow (\$50)

- Cost-effective retrofit.
- Lifting handle up saves ½ gallon of water per flush.
- Fast installation.



## Touchless or Self-Closing Faucets (\$220-\$440)

- Solar-, hydro-, or battery-powered, or hard-wire connection.
- Easier to clean since there are less surfaces.
- Hygienic - nothing to touch or turn on/off.
- Saves water due to efficient aerators and automation.
- Saves energy due to lower hot water heating demands.



## Aerators: Kitchen & Hand Sinks (\$1-\$5)

- Small investment, quick install, quick payback.
- 0.5 gpm aerators for hand sinks.
- 1.5 gpm aerators for kitchen sinks.



## Sample of Local Suppliers of Efficient Commercial Bathroom Equipment

Local Companies	Address	City	Phone	Web Site
Speedway Plumbing Inc	4909 Stough Road	Concord	704-720-9593	www.speedwayplumbing.com
AquaPro Solutions	46 New Leicester Hwy	Asheville	828-255-0772	www.aquapro solutions.com
Aquavative, Inc	P.O. Box 141	Wake Forest	732-980-3000	www.aquavative.com
A2Z Plumbing Contractors, Inc	111 Forest St	Asheville	828-274-4858	www.eatsleepplumb.com

For more information on water conservation fixtures and appliances, visit the EPA Water Sense web site at [www.epa.gov/watersense](http://www.epa.gov/watersense)



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