



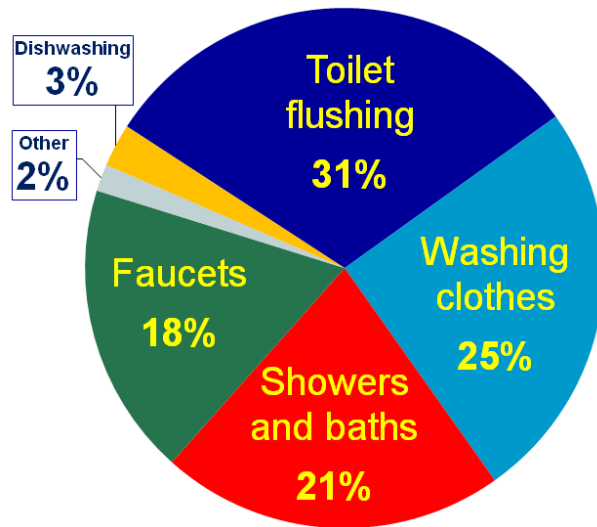
ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

WATER-SAVING FAUCETS AND AERATORS

Faucet use is a significant factor (18%) in residential water demand, and a good opportunity for conservation by many customers.

Intentional indoor water use at residences



If you have a faucet or faucet aerator installed **before 1994**, it may have a water flow capacity of

3 to 7 gallons per minute (gpm), versus **1 to 2.5** gpm for *new models*.

Under Federal requirements, bathroom and kitchen faucets and replacement aerators made after January 1, 1994, have a flow capacity of no more than 2.5 gpm at water pressure of 80 pounds per square inch (psi).

The water savings from retrofitting a faucet with a new aerator or replacing the faucet are typically in the range of 15 percent to 40 percent.

Potential savings from faucet replacement

Water flow rate in an older faucet	Water flow in a new, more efficient faucet	Potential water savings
5 gpm	1.5 gpm	49.9 gallons per day
5 gpm	2.5 gpm	35.6 gallons per day
3 gpm	1.5 gpm	21.4 gallons per day

By replacing a 5 gpm faucet with a 2.5 gpm model or 1.5 gpm model, a typical household may save 35.6 gallons per day (gpd), or 49.9 gpd, respectively. Replacing a 3 gpm faucet with a 2.5 gpm model or a 1.5 gpm model results in a savings of 7.1 gpd, or 21.4 gpd, respectively, per household.

These water savings would translate to the following annual water/sewer cost savings:

Water savings per day (gallons)	Water savings per year (gallons)	Potential dollar savings for a residential customer paying the "Block two" water rate of \$6.26 per 1,000 gallons* plus the sewer rate of \$6.35 per 1,000 gallons
49.9	18,213.5	\$229.67
35.6	12,994	\$163.85
21.4	7,811	\$98.50

* The **Block Two** water rate applies to water use from 3,000 to 5,000 gallons per month at an individually-metered residence. Block rates vary with the level of water use per month. For example, the block rate for the first 2,000 gallons of water use in a month is \$2.36. Sewer volume charges do not vary with the level of use except that the maximum sewer volume billed **at an individually-metered residence** is 15,000 gallons per month. (Water use above 15,000 gallons/month at such a residence is assumed to be for irrigation or other uses which do not involve returning used water to OWASA's sanitary sewer system.)

If hot water is used in hand washing, etc., efficient faucets and aerators would also reduce energy costs (assuming conventional energy source is used).

Low-flow faucets may cost about \$25 to \$150, depending on the model. Installation would take about an hour. Faucets have a useful life of about 15 to 20 years.

Faucet aerators

Aerators reduce the water flow rate in a faucet, thereby converting a less efficient faucet into a low-flow faucet. Aerators screw onto the faucet head and add air to the water flow while also reducing the water flow. They are available at common ratings of 0.5, 0.75, and 1.0 gpm. Flow rates as low as 0.5 gpm are adequate for hand washing. For kitchen faucets, aerators with higher flow rates deliver water at 2.0 to 2.5 gpm for general washing purposes.

Faucet aerators are very inexpensive (\$0.50 to \$3) and easy to install. If a plumber is hired to install an aerator at the same time that other improvements are done, the additional installation cost could be about \$10. Faucet aerators have a useful life of about 15 to 20 years.

For more information

The U.S. Environmental Protection Agency's WaterSense webpage on faucets and aerators:

http://www.epa.gov/WaterSense/products/bathroom_sink_faucets.html