

# How to Save Water at Home

*An Action by Green Sangha*

## Do we really need to conserve water?

Yes. According to the U.S. Geological Survey, the nation is consuming 402 billion gallons of water each day for all its uses. Extraction of water from the mighty Colorado River for agriculture and urban use is so extreme that at times little, if any, Colorado River water reaches the Gulf of California where the river historically met the sea. In California's central valley, which grows half the nation's fruits and vegetables, groundwater loss exceeds recharge by 1 billion cubic meters per year. The California Department of Water Resources predicts that by year 2020 California will experience water shortages of 2.4 million acre-feet. To make matters worse global warming trends threaten the Sierra snow pack, which may result in more water loss during the winter months, thereby increasing winter floods and further starving California agriculture during the dry season.

## Are we currently wasting water?

Yes. The average North American consumes over 170 gallons per day, more than seven times the per capita average in the rest of the world and nearly triple Europe's level. According to the World Health Organization, good health and cleanliness require a total daily supply of about 8 gallons of water per person.

## How are we wasting water?

By using non-conserving showerheads and faucet fixtures, we are unnecessarily wasting hundreds of gallons of water in our homes each day. Standard kitchen and bathroom water faucets use 4-7 gallons of water per minute. This means that a single instance of washing dishes may consume up to 120 gallons of water. Non-conserving showerheads use up to 5-8 gallons of water per minute, consuming up to 40 gallons of water for a single five-minute shower.

## How can we save water?

**Install low-flow or ultra-low flow showerheads in your home.** Low flow heads have been tested and proven to save more than 12 gallons per shower (which is equal to about 44% savings of what non-conserving heads use). Ultra-low flow heads conserve even more, using only .8 - 1.5 gallons per minute, reducing the average five minute shower's water usage from 40 gallons to 7.5 gallons.

**Install high efficiency faucet aerators in your home.** A faucet aerator is a small attachment that you screw onto the faucet that mixes air and water as the water leaves the spout. It reduces the flow rate (from 4-7 gallons per minute to 1-2.75 gallons per minute) while increasing areas of coverage and wetting efficiency. This conserves water and improves faucet performance at the same time.

## Will efficient showerheads and faucets make a difference?

Simply installing a high-efficiency showerhead and faucet aerators will save about 7,800 gallons of water per year in an average household. Also, by reducing the demand for hot water, a low-flow showerhead can save (depending on the energy resource used to heat your water) up to 376 pounds of climate changing carbon dioxide each year and faucet aerators 83 pounds per year.

## Green Sangha Action Goal

Get 100 homes to switch to water saving faucet aerators and low-flow showerheads thereby saving 780,000 gallons of water per year.

## What will happen to my water pressure if I switch?

Nothing. Ultra-low flow showerheads either draw in air, or have it forced into the water stream by using compressed air. The air-water mixture under pressure creates a high velocity spray, which makes it seem like much more water is coming out than actually is. These showerheads should not be confused with the primitive flow restrictors that simply reduce flow and result in a dribble out of the

showerhead. User satisfaction (equal to that with any conventional showerhead) has been demonstrated in many independent tests, such as noted in the July 1990 issue of Consumer Reports Magazine.

### Where do I get it and how much does it cost?

High efficiency showerheads and faucet aerators can be found at your locally-owned hardware store:

- *Faucet aerators cost less than \$5 apiece*
- *High-efficiency showerheads cost under \$20*

The purchase is cost effective: in less than a year, you'll make that money back through lower water and energy bills.

### What else can I do to save water?

- **Buy low-water foods:** Learn about foods that require a lot of water and consume less of them. Beef, for example, is one of the most water intensive foods, taking 1,232 gallons to produce one 8-ounce serving of steak! Here are the number of gallons of water needed to produce an edible pound of the following foods grown in California: pork: 1,630, chicken: 815, eggs: 544, milk: 130, grapes: 70, oranges: 65, apples: 49, carrots: 33, wheat: 25, potatoes: 24, lettuce: 23, tomatoes: 23.
- **Check your water habits:** Use wash basins or turn the water off between dishes. Use sink stoppers instead of letting the water run while washing vegetables. Use the energy-saving cycle on your dishwasher and washing machine, and wash only full loads. Reduce toilet flushes by not using the toilet as a waste basket. Take shorter showers. Make use of the water that goes down the drain while you wait for it to get hot. Look for water leaks in the house.
- **Conserve water outside:** Use a broom instead of hosing down your sidewalk, driveway, or patio. Carwash with care, using a bucket or a hose with a shut-off nozzle. Monitor your lawn watering, making sure to prevent lawn run-off.
- **Garden wisely:** Twenty minutes of outdoor watering can use up to 700 gallons of water. Water before 10 am or after 5 pm only. Water slowly and deeply; don't over-water. Make sure your hose has a shut-off nozzle. Slow water evaporation by putting a 2-inch layer of mulch (such as wood chips) around trees and plants. Plant shrubs and trees instead of lawns, which use more water.

Excerpted and reworked from the website of Center for a New American Dream.

References:

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- *Low snowpack dims California power hopes*, The Associated Press, March 31, 2001

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