

Water Conservation Information and Awareness

Water conservation has become essential in all regions, even where water seems abundant. That's because our water resources are finite, and they are getting smaller every year. Use our guide to save more water, both indoors and in your garden and yard.

Keep in mind that we live in a high desert area. The key word is desert, meaning that there is limited yearly precipitation. During the past 10 years, precipitation and snowpack have declined. The water in our aquifers comes from the mountain snowpack.

Using water saving features can reduce your in-home water use by 35%. This means the average household, using 350 gallons per day, could save 125 gallons per day.

Overloading municipal sewer systems can cause untreated sewage to flow to lakes and rivers. The smaller the amount of water flowing through these systems, the lower the likelihood of pollution. In some communities, costly sewage system expansion has been avoided by community-wide household water conservation.

Water Conservation in the Home

The most effective way to save water is to upgrade to efficient fixtures. But there are other ways to reduce the amount of water you use. Conserving water can also extend the life of your septic system by reducing soil saturation and pollution due to leaks.

Toilets

75% of water used indoors is in the bathroom, and 25% of this is for the toilet. Composting toilets are the most effective way to cut this water waste because they require no water at all! Also, they keep all nutrients and pollutants out of waterways. Check codes in your area to be sure they're legal before installing one. Read about [composting toilets](#) to find out if they're right for you.

Federal regulations state that new toilets must use no more than 1.6 gallons per flush. Replacing an old toilet with an ultra-low volume (ULV) 1.6-gallon flush model represents a 70% savings in water and will cut indoor water use by about 30%. Alternatively, consider purchasing a dual flush toilet or installing a dual flush converter (it turns a standard toilet into a dual flush toilet), saving an average family 15,000 gallons of water each year.

To continue using your regular toilet, consider reducing the water in the tank. Put an inch or two of sand or pebbles inside two plastic bottles, fill the bottles with water, screw the lids on, and put them in your toilet tank (safely away from the operating mechanisms). Or save 10 or more gallons of water per day with an inexpensive [tank bank](#) or float booster. Installing an [adjustable toilet flapper](#) will allow for adjustment of each per flush use; the user can set the flush rate to the minimum setting that still achieves a single good flush.

Be sure at least three gallons of water remain in the tank so it will flush properly. If there is not enough water to get a proper flush, users will hold the lever down too long or do multiple flushes; two flushes at 1.4 gallons are worse than a single 2-gallon flush.

Don't use the toilet as an ashtray or wastebasket. Every time you flush a cigarette butt, facial tissue, or other small bit of trash, you're wasting gallons of water. Some trash may contribute to developing septic maintenance problems.

Showers

One way to cut down on water use is to turn off the shower after soaping up, then turn it back on to rinse. A 4-minute shower uses approximately 20 to 40 gallons of water. You can also install a simple shower timer, available from your local water utility or hardware store.

Install water-saving showerheads, shower timers, and low-flow faucet aerators. Inexpensive water-saving low-flow showerheads or restrictors are easy to install. Showers can use 5 to 10 gallons every minute. "Low-flow" means less than 2.5 gallons per minute. A shower start automatically pauses a running shower once it gets warm. Use a 5-gallon bucket to collect water while waiting for hot water and use that water for plants.

Faucets and Sinks

Fit household faucets with aerators. A simple low-flow aerator is inexpensive and saves water in the bathroom.

Turn off the water after you wet your toothbrush. There is no need to keep the water running while brushing your teeth. Just wet your brush and fill a glass for mouth rinsing. And when shaving, rinse your razor in the sink containing a few inches of warm water rather than from a running faucet.

Don't let the faucet run while cleaning vegetables; just rinse them in a plugged sink or a pan of clean water. And when washing dishes by hand, don't leave the water running. If you have a double basin, fill one with soapy water and one with rinse water. If you have a single basin, gather washed dishes in a dish rack and rinse them with a spray device or a pan full of hot water. But use the dishwasher over hand washing—it turns out that washing dishes by hand uses a lot more water than running the dishwasher, especially if you have a water-conserving model. The EPA estimates an efficient dishwasher uses half as much water, saving close to 5,000 gallons each year. And there is usually no need to pre-rinse the dishes.

Minimize use of kitchen sink garbage disposal units; in-sink "garburators" require lots of water to operate properly and add considerably to the volume of solids in a septic tank, which can lead to maintenance problems. Start a compost pile as an alternate method of disposing food waste.

Keep a bottle of drinking water in the fridge. Running tap water for drinking water can be wasteful. Store drinking water in the fridge in a safe drinking bottle. If you are filling water bottles to bring along on outdoor hikes, consider buying a personal water filter, which enables users to drink water safely from rivers or lakes.

Laundry

Use your clothes washer only for full loads, and avoid the permanent-press cycle, which uses an added 5 gallons for the extra rinse. For partial loads, adjust water levels to match the size of the load. Consider a high efficiency (HE) washing machine, which can use as little as 7 gallons per load, compared to 54 for a traditional washer. An HE washer should easily pay for itself over its lifetime in water and energy savings. Energy star rated washers use 35-50% less water and 50% less energy per load. If you're in the market for a new clothes washer, read about water-saving frontload washers.

Leaks

Check faucets and pipes for leaks. A small drip from a faucet washer can waste 20 gallons of water per day. Larger leaks can waste hundreds of gallons. Some faucet leaks are easily spotted, but others take a little more effort to locate. Dry sinks and tubs thoroughly and check them in an hour. To find leaks from faucet handles, dry the area around them before running water. If water appears next to them, there's a leak. Also, read the house water meter before and after a two-hour period of no water use; if it doesn't read exactly the same, there is a leak.

Check toilets for leaks by putting a little food coloring in the toilet tank and don't flush. If color begins to appear in the bowl within 30 minutes, you have a leak that should be repaired immediately. Most replacement parts are inexpensive and easy to install.

Extending Conservation Measures

It's easy and inexpensive to insulate your water pipes with pre-slit foam pipe insulation. You'll get hot water faster and avoid wasting water while it heats up. To recycle water, collect cold water as you run it before showering; use it to water plants or flush the toilet ("bucket flush").

Buy less: consumer products are an often-overlooked source of water use, accounting for up to a third of most people's water footprint. Buying less of everything—from clothing to electronics to household goods—can dramatically decrease your water footprint.

Water Conservation in the Yard and Garden

While washing your car, use a pail of soapy water and use the hose only for rinsing; this can save as much as 100 gallons. Use a spray nozzle for more efficient use of water, or use a waterless car washing system; there are several brands, such as Eco Touch, on the market.

Use a broom, not a hose, to clean driveways and sidewalks. Before blasting leaves or stains off walkways with water, sweep with a broom to loosen the grime.

Cover swimming pools to reduce evaporation. Pools can lose an inch or more of water each week, and the rate of evaporation is affected by temperature, humidity, wind, and how the pool is situated. To save thousands of gallons each season, get a cover for your pool.

Check for leaks in pipes, hoses, faucets, and couplings. Leaks outside the house are not as visible but can be just as wasteful as leaks indoors. Check frequently to keep them drip-free. Use hose washers at spigots and hose connections to eliminate leaks.

Reuse wastewater where possible. “Gray water” is the water draining from your house’s sinks, bathtubs, and laundry machine, which can be used to water plants (as opposed to “black water” from toilets, which needs to be treated). You can harvest gray water with a bucket in the kitchen or shower, or install a gray water system, which reroutes water from drains to the landscape. Though not yet legal everywhere, codes are changing to allow more people to take advantage of this source of otherwise wasted water. The simplest systems harvest only water from the washing machine, which can add up to thousands of gallons per year. If you use gray water in your landscape, be sure to use only eco-friendly and plant-based soaps and cleaners in your home so you’re not dousing your plants with industrial chemicals.

Use rain barrels or a catchment system (e.g., cisterns) to capture valuable rainwater from your roof. Plants prefer untreated water, so your garden will be healthier while you cut your water bill.

Watering yards and gardens uses 30% to 60% of domestic drinking water, and often large amounts are wasted by over-watering, evaporation, and sprinklers misdirected to sidewalks and driveways. Use a soil moisture meter to gauge when to water the garden; it quickly lets you know whether the soil is dry. If you use an irrigation (drip) system, check frequently that it’s operating correctly. Clear any visible clogs and adjust the settings according to the needs of plants and the time of year. Plants need less water in cooler weather and more in hotter weather; correct settings not only save water but ensure that plants are getting the right amounts. Also regulate the system to reduce loss to evaporation.

Water during the early hours; avoid watering when windy. Early morning irrigation helps prevent the growth of fungus and defends against pests such as slugs. Early and late watering also reduce loss to evaporation. Wind can blow sprinklers off target and speed evaporation. Position sprinklers carefully so that water lands on the lawn or garden, not on paved areas.

An automated watering system with a built-in moisture sensor can help. If you’re using a timer, consider adding a rain or moisture sensor to avoid watering unnecessarily. To see if your lawn needs watering, step on the grass; if it springs up when you move, it doesn’t need water. If it stays flat, the lawn is ready for watering. Letting the grass grow taller (to 3”) will also promote water retention in the soil. Most lawns only need about 1” of water each week.

Control weeds to reduce competition for water. If you don’t weed, these garden invaders will take the water meant for your plants. A good layer of mulch around plants not only conserves soil moisture but helps keep weeds under control.

Plant trees in the yard for shade. Besides making your house cooler and storing carbon, shade trees can lessen the need for watering by protecting plants and soil from the afternoon sun.

Group plants with similar water needs to avoid wasting water on plants that don’t need it. Keep your water-wise and xeriscape plants together and do likewise with thirstier plants. Water only certain zones regularly, while watering drought-tolerant plantings less frequently.

Plant drought-resistant lawns and shrubs. Whether planting a new lawn or overseeding an existing lawn, use drought-resistant grasses. Replace herbaceous perennial borders with native plants; they use less water and are more resistant to plant diseases. Consider applying the principles of xeriscape for a low-maintenance, drought-resistant yard. Group plants according to watering needs. Deep-soak lawn, plants, and trees so moisture reaches the roots, where it will do the most good. A light sprinkling can evaporate quickly and tends to encourage shallow root systems. For trees and woody shrubs, consider deep watering with slow-delivery irrigation like a tree-ring soaker hose.

Add organic matter to garden beds to increase absorption and water retention. Areas that are already planted can be “top dressed” with compost or organic matter every year. Give a healthy dose of compost to new garden beds when preparing the soil for planting.

Put mulch around trees and plants to slow evaporation and discourage weed growth. Adding two to four inches of organic material such as compost or bark mulch helps soil retain moisture. Press mulch around the drip line of each plant to form a slight depression, or when planting new plants, create a depressed bowl to prevent or minimize water runoff.

Our local leaders are facing the pressing question of how to ensure a clean, reliable water supply with strains from population growth, booming development, and global warming. Many communities are already enforcing water restrictions. These water-saving measures can have a big impact on water demand in local communities. While saving money, you also have the opportunity to get involved in your local community, and most importantly, protect the water in your local waterways.