

## 55 Facts, Figures, & Follies of Water Conservation

Water conservation is something we all should practice. Except for the air we breathe, water is the single most important element in our lives. It's too precious to waste. Here are some useful facts and simple suggestions that will help you understand more about water. They'll help you save hundreds, even thousands, of gallons per month without any great inconvenience.

**1.** There's as much water in the world today as there was thousands of years ago. Actually, it's the same water. The water from your faucet could contain molecules that dinosaurs drank. Perhaps Columbus sailed across it.

**2.** Nearly 97% of the world's water is salty or otherwise undrinkable. Another 2% is locked in ice caps and glaciers. That leaves just 1% for all of humanity's needs -- all its agricultural, manufacturing, community, and personal household needs.

**3.** The United States uses some 450 billion gallons of water every day. Only about 6% of that -- 27 billion gallons -- is taken by public water supply systems. The U.S. daily average of water pumped by those systems is 185 gallons per person.

**4.** We drink very little of our drinking water. Generally speaking, less than 1% of the treated water produced by water utilities is actually consumed. The rest goes on lawns, in washing machines, and down toilets and drains.

**5.** For the price of a single 12-ounce can of soda -- about 50 cents -- many communities deliver up to 1,000 gallons of fresh, clean drinking water to homes 24 hours a day. If drinking water and soda pop were equally costly, your water bill would skyrocket more than 10,000%.

**6.** If everyone in the United States flushed the toilet just one less time per day, we could save a lake full of water about a mile long, a mile wide, and four feet deep every day.

**7.** Every glass of water brought to your table in a restaurant requires another two glasses of water to wash and rinse the glass. Since nearly 70 million meals are served each day in U.S. restaurants, we'd save more than 26 million gallons of water if only one person in four declined the complimentary glassful.

**8.** If you have a lawn, chances are it's your biggest water gobble. Typically, at least 50% of water consumed by households is used outdoors. Inside your house, bathroom facilities claim nearly 75% of the water used.

**9.** Indoor water use statistics vary from family to family and in various parts of the country, but they average out pretty reliably. Nearly 40% gets flushed down toilets, more than 30% is used in showers and baths, the laundry and dishwashing take about 15%, leaks claim 5% or more, which leaves about 10% for everything else.

**10.** How many times a day is the toilet flushed in your house? If U.S. citizens averaged only four or five flushes per day, it would amount to more than 5 billion gallons of water down the drain. That's enough to supply drinking water to the entire population of Chicago for more than 6 years.

**11.** Little leaks add up in a hurry. A faucet drip or invisible toilet leak that totals only two tablespoons a minute comes to 15 gallons a day. That's 105 gallons a week and 5,460 wasted gallons of water a year.

**12.** Ultra-low-flush toilets, which may cost from under \$100 to over \$300, depending on the type purchased, use only about

**29.** Select the appropriate water level for the size of your load of laundry. Most washers now offer preset water levels for small, medium, and large loads. Use full loads whenever possible.

**30.** Do you wash your car at home? Please don't let the hose run. Instead, wet the car thoroughly, then turn off the hose while you swab the car with soapy water from a bucket. Use the hose again for a final rinse. A trigger nozzle is best because it turns off automatically.



Recycle the soapy (not detergent) water on to your lawn or flower beds.

**31.** Sweep outside with a broom, not the hose. Yes, it's lots more fun using water, but just five minutes of hosing will waste, unnecessarily, some 25 gallons of water. Sweeping the sidewalk and driveway will get them clean enough.

**32.** What if there's a catastrophe? What if a water pipe bursts in your home? Do you know where the master shut-off valve is located? You could experience terrible flooding and property damage, not to mention immense water waste, if you don't locate the valve and mark it for quick identification. Be sure to show everyone in the family where it is.

**33.** When you walk on your lawn, do you leave footprints behind? That's a sign the grass needs water. It's too dry to spring back when you walk on it. Another sign is grass that turns a dull grey-green color. Give that off-color grass a good drink.

**34.** Don't sprinkle grass lightly, deep-soak it. Light watering can't get water down deep into the soil. The grass develops shallower roots and is both less drought-resistant and more prone to winterkill.

1.5 gallons of water per flush. That could cut your family's total indoor water use by as much as 20%.

**13.** Which uses more water, a shower or a tub bath? It all depends. A partially filled tub uses much less than a long shower, while a short shower is much more water efficient than a brimful tub. If you shower in a bathtub, check yourself by plugging the tub to see how high the water comes when you're finished. Do you use more or less than that amount when you take a bath?



*Wise people take quick showers, not full-tub baths!*

Wise people take quick showers, not full-tub baths!

**14.** Any showerhead now manufactured in the United States is required by law to release no more than 2.5 gallons of water per minute. Super low-flow showerheads that deliver as little as 1.25 gallons per minute, cost anywhere from \$5 to \$75.

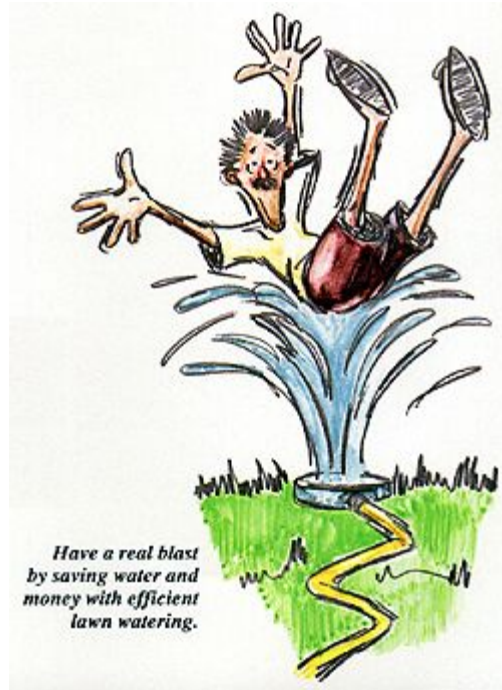
**15.** Is it possible your toilet has a secret leak? You can test it by putting 10 drops of food coloring in the tank. Don't flush for 15 minutes. If the colored water shows up in the bowl, the tank is leaking.



*Use the wastebasket instead of the toilet for trash such as facial tissues.*

Use the wastebasket instead of the toilet for trash such as facial tissues.

**16.** Some people thoughtlessly flush away tissues and other bits of trash in the toilet. Using a wastebasket, instead, will save all those gallons of water that otherwise go wastefully



*Have a real blast by saving water and money with efficient lawn watering.*

Have a real blast by saving water and money with efficient lawn watering.

**35.** If you have an automatic sprinkler system, check the heads periodically. Be sure they haven't shifted direction to spray water on the side of the house, driveway, or sidewalk instead of the lawn.

**36.** Do your lawn sprinkling early in the morning, between 4 and 6 a.m., when water demand is low. After about 10 a.m., both heat and evaporation go up, robbing the lawn of moisture. Sprinkling at night is fine for dry climates, but in humid climates the relatively cool, moist conditions can create an ideal environment for lawn diseases to develop.

**37.** Don't water your lawn too much. An automatic system can be preset, but a sprinkler on the end of a hose needs your personal attention. Buy timer attachments that hook on between the faucet and hose, or set a kitchen timer to ring in 15 or 20 minutes to remind you to move the sprinkler to a new area.

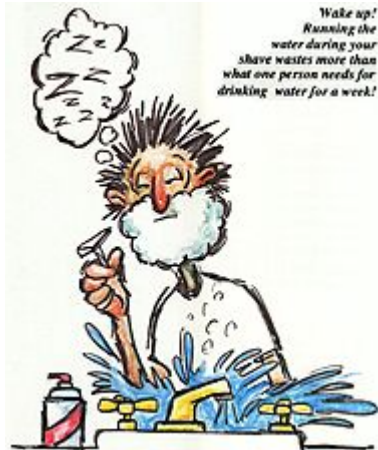
**38.** Not all soil is the same. If your grass grows on mostly clay soil, between  $\frac{1}{4}$ - and  $\frac{1}{2}$ -inch of water per hour can be absorbed before it starts running off wastefully. If you have sandy soil, you'll need to water more often and for shorter periods of time.

**39.** Grassy areas on sunny southern sides of buildings or on slopes and areas near sidewalks and driveways need to be watered more often. Shady areas and northern exposures need water less frequently.

**40.** Lawn and garden areas near sidewalks, driveways, and patios tend to dry out faster than the rest of the yard. To water more effectively, push a root feeder or water aerator into the soil about a foot from the concrete. Push it in about six inches. When the grass raises up like a bubble, pull out the probe and repeat the operation a foot or so farther along the grass edge.

down the drain.

**17.** If someone in your family likes to shave with water running in the basin, they probably use at least one gallon per minute, most of it wasted. A stoppered basin needs one-half gallon or so of water for adequate razor rinsing.



Wake up! Running the water during your shave wastes more than what one person needs for drinking water for a week!

**18.** Have you ever heard of showering "The Navy Way?" Because fresh water is relatively scarce on ships, sailors were taught to just get wet, and then turn off the shower while soaping and scrubbing, and turn it on again briefly to rinse off. It's a great water conservation technique.

**19.** Don't let the water run when you brush your teeth or when washing your face. Most of it will be wasted. Just take what you need and save the rest.

**20.** If everyone in the United States could manage to use just one less gallon of water per shower every day, we could save some 85 billion gallons per year. How do you do it? By keeping the shower pressure lower or by making your showers a few seconds shorter.

**21.** Fill your dishwasher full because it will use the same amount of water for a normal cycle, whether it contains a full load of dishes or just a few items. Also, there's really no need to fully wash dishes before loading in the dishwasher. Just scrape off food scraps and rinse.

**22.** Water heaters often are set at 140°. You can save energy by turning the temperature on your water heater down to 130°. Don't go any lower because some harmful bacteria could survive.

**23.** Which is more water efficient, washing dishes in an automatic dishwasher or doing them by hand in the sink? It depends. But you can check by testing how many gallons a full sink basin holds compared with the 9.5 to 12 gallons dishwashing machines use during a regular cycle.

**24.** Instead of letting the water run in the sink when you want a cool drink, keep a jug or pitcher cooling in the refrigerator. If you detect and dislike the taste of chlorine in your water, which is used by many communities for disinfection, an uncovered jug or pitcher will allow chlorine molecules to escape

**41.** Use root feeder or water-aerator probes around trees and bushes. Even for the biggest trees, you need go no deeper than 18 inches, while 8 to 12 inches is plenty deep for smaller trees and shrubs. The probes get water precisely where it's needed and simultaneously create lots of little holes that provide aeration benefits.

**42.** Delay regular lawn watering during the first cool weeks of spring. This encourages deeper rooting and makes your lawn healthier for the rest of the summer. It also delays the first time you have to mow the grass.

**43.** How to apply water to your lawn can be just as important as the amount of water you use. If your lawn thrives on 45 minutes of water every two or three days, it will not remain as healthy if you water 15 or 20 minutes every day.

**44.** Adjust lawn watering to the weather. Following a heavy rain, for instance, skip your regular watering day until the grass needs it again. Teach the family how to turn off an automatic sprinkler system in case a storm comes up during the sprinkling cycle.



Remember: water plus wind equals waste! If you water when it's windy, you will find the water going everywhere except where you want it to go! (Wind also causes water to evaporate quickly.)

**45.** More water is dispensed faster with a larger diameter hose. Sprinklers that throw large drops in a flat pattern are much more effective than those with fine, high sprays, which can be blown about and evaporate quickly.

**46.** For any small area of grass, water by hand to avoid waste. On steep slopes, try a soaker hose to help prevent wasteful runoff.

**47.** Adjust your lawn mower to a higher setting. The grass blades grow longer and shade one another, as well as the ground, helping to fight off heat and hold moisture longer.

**48.** Mow the lawn often, at least once a week. Try to cut no more than one-third of the grass blade, removing about one-half to three-quarters of an inch at a time. If you mow the grass shorter than this, excessive shock occurs that causes

into the air, thus improving the taste.

**25.** Check every faucet in the house for leaks. A single dripping faucet can waste far more water in a single day than one person needs for drinking in an entire week. Don't wait to fix a drip. Do it now!

**26.** If you like to rinse off vegetables and fruits, stopper the sink instead of using running water. Stopper the sink when you wash dishes by hand, too; and when you're finished, turn on the garbage disposal as you pull the plug.

**27.** Here's a two-for-one idea if you have a fish tank in the house. When you clean the tank, use the dirty water on your houseplants. It's rich in nitrogen and phosphorus, which gives you a nice fertilizer while you use the same water twice.

**28.** Check the water taps in your home to see if they all have aerators or spray taps. An aerator mixes air with the water, which not only cuts the flow but reduces splashing. The spray tap is similar, but also can swing from side to side like a tiny showerhead.

grass to turn yellow despite your best sprinkling efforts.

**49.** Minimize grass areas in your yard, because less grass means less water demand. Survey the lawn and consider whether it might make sense to remove grass from areas that aren't used much. Replace it with low-water use landscaping.

**50.** Try the concept of Xeriscape™ (pronounced Zer-i-scape), which means "landscaping for water conservation." The idea is to use plants that require less water. You also can decorate creatively with interesting objects that need no water at all, such as rocks, bricks, benches, gravel, and deck areas.

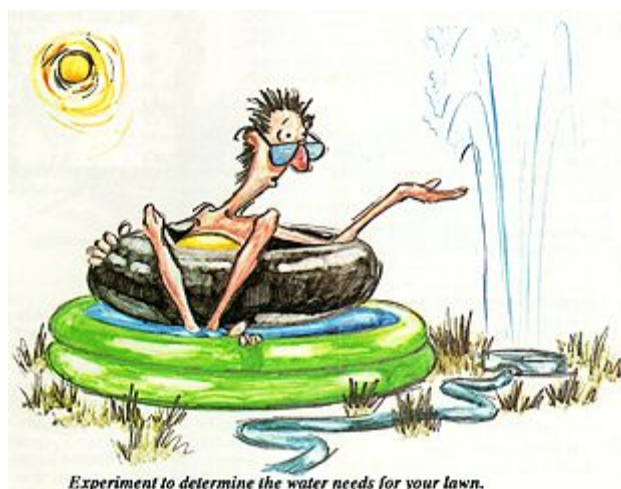
**51.** Mulch planting areas. Mulch covers open areas with tasteful good looks, helps keep the ground from overheating, holds moisture that otherwise would evaporate, and discourages weeds.

**52.** Unless you're lucky enough to have super soil, be sure to add compost, well-aged manure, or other organic material when preparing the ground for a new lawn. Add at least three cubic yards per 1,000 square feet and till to a depth of six inches.

**53.** Consider installing drip irrigation for individual bushes, trees, flowers, and garden areas. Drip systems are designed to get water slowly and directly to the roots of plants where they need it most. They deliver water in terms of quarts or gallons per hour instead of per minute.

**54.** If you have a swimming pool, get a cover for it. Evaporation can make hundreds, even thousands, of gallons of water disappear. An average-size pool with average sun and wind exposure loses approximately 1,000 gallons per month, enough to keep a family of four in drinking water for nearly a year and a half. A pool cover cuts the loss by 90%.

**55.** Water is a precious commodity and there is a limited supply in most communities. Remember to use only the amount you actually need. Encourage your family to keep looking for new ways to conserve water in and around your home.



Experiment to determine the water needs for your lawn.



Water the landscape only, not streets, walks, and driveways.

Adapted from the brochure "55 Facts, Figures, & Follies of Water Conservation,"  
originally published by the Denver Water Department, Denver, Colorado.

Information for the original brochure was obtained from the following sources:

"40 Ways To Save Water In Your Yard and Garden," by L. Ken Smith, Landscaping Architect

"Blueprint For A Green Planet. Your Practical Guide To Restoring The World's  
Environment," by John Seymour and Herbert Girardet.

© Copyright 1999-2004 Department Of Water Supply  
[Credits & Disclaimer](#)