

Ten Tips for Saving Gallons of Water in the Garden this Year

We all know this is a drought year and we are being asked to save at least 10 percent of our water use. Here are some ideas on how you can do this. I hope it helps you decide how to move forward.

1. Check for leaks. The Environmental Protection Agency estimates that one in ten homes has a leak of 90 gallons per day. That equals almost 33,000 gallons of water per year! The most foolproof way to check for leaks is at your water meter and I recommend you check for leaks at least once per year. Here's how. Make sure no one is using water inside the house and the irrigation system is not running. Don a pair of garden gloves and grab a long handled screwdriver. Locate your water meter near your curb and pry off the concrete cover using the screwdriver. Flip open the cover of the meter and check for the location of the red or blue needle. Note where the needle is and walk away for 15 minutes. When you return, it should be in the exactly same place. If not, you have a leak somewhere inside or outside of the house.
2. Calculate how many gallons of water you use per year. Most people don't know how much water they use, but this knowledge will save water just because you'll be more aware of your usage. Water bills are usually for a two-month period, so collect six of these from last year. Look for the amount of water you used. If it is measured in CCFs (100 cubic feet), you can easily change this to gallons by multiplying by 748. One CCF equals 748 gallons of water. According to the California Building Industry Association, most new homes use 174,000 gallons of water per year, with 57 percent used for landscapes and 9 percent used for over watering!
3. Calculate how much water you use *outside*. If you turn your irrigation controller off in the winter (I know, I know, not this winter!), you'll know that your winter water use is the amount you use for *inside* the house. The water use from December to March is usually the lowest, and the water use from June to September is usually the highest. The difference between these amounts is how much water you use *outside* the house. Calculate how much water you use outside. How does this compare to the average new home in California?
4. Change the nozzles on your spray irrigation system to rotator nozzles. These nozzles are easy to change out and the Santa Clara Water District will rebate you the cost. They apply water at 1/3 the rate that typical spray nozzles do, allowing your clay soil to absorb the water without it running off. If you have lawn on a slope, this is especially important. Just remember, that you'll have to water 2-3 times longer to apply the same amount of water, and remember to check with your water district *before* you make any changes.
5. Add a "smart" irrigation controller. Many people over water because they don't change their controller as the days get shorter and cooler. Smart controllers automatically adjust your irrigation depending on the temperature, amount of rain, humidity, etc. By not overwatering, you'll save 9 percent of your water or at least 16,000 gallons of water per year, if you are a typical water user as described in #2. Oh, and did I mention that your water district will rebate you the cost of the controller?

6. Add a “Laundry to Landscape” gray water system for watering a section of your garden. This type of graywater system is legal without a permit everywhere in California and costs only about \$100 in materials. It can save you at least 3,000 to 6,000 gallons of water per year during the dry season assuming you wash 5 loads of laundry per week. Again the Santa Clara Valley Water District will rebate you the material costs. Here’s a video to watch about graywater: <http://www.thisoldhouse.com/toh/tv/ask-toh/video/0,,20565323,00.html>
7. Replace your spray irrigation with drip. Spray irrigation is at around 50 to 75 percent efficient. That means that you are wasting 50 to 25 percent of the water you use for a lawn. Drip is 95-99% efficient so you waste less water. And remember you can use drip irrigation on lawns, too, it just has to be “subsurface” (4-6” below ground). Assuming your lawn uses 1 inch of water per week during six months of the year, changing to subsurface drip would save up to 3,000 to 6,000 gallons of water per year for a 1,000 square foot area.
8. Change your lawn to a low-water lawn alternative. Most lawn grasses are considered high-water users, which means they use roughly 1 inch of water per week. By changing to a low-water lawn alternative, you can use about 50 percent less water. That conservatively means you’ll save almost 8,000 gallons of water per year for a 1,000 square foot area. The Santa Clara Water District will rebate you \$1 per square foot to change your lawn to a low-water lawn alternative, other water districts have similar plans. Check with them before you make any changes.
9. Remove your lawn and plant low-water using trees, shrubs, and perennials. Similar to the item above, you can typically save even more water by removing all your lawn and even lawn alternatives. My estimate is that you’ll save closer to 75 percent of the water you now use for lawn or almost 12,000 gallons of water per year for a 1,000 square foot area. Again you can get rebates.
10. Create a section of your garden that uses only very low water use plants. These plants can survive on rainfall (even in drought years) with little to no supplemental water *once they are established*. Changing a lawn to a very low water garden will save you about 13,500 gallons of water per year for a 1,000 square foot area.

So that’s the list—I tried to order it from easiest to hardest, generally, and I hope it gives you some ideas. I myself am going to be teaching several classes on how to save water this year. Please go to: sustainable-landscape.com under Articles and News for more information. As many of you know, I also coordinate the Gardening with Natives classes for the local chapter of the California Native Plant Society. Go here for more information on saving water by switching to drought-tolerant native plants: cnps-scv.org.

And finally, I wanted to share my water use numbers with you. My husband and I now use about 106,000 gallons of water per year for our 1957 house on a 10,000 square foot lot with a covered pool. We have a low-water use meadow, but no lawns, a drought-tolerant landscape, about 300 square feet of vegetable garden and lots of fruit trees. Only 20 percent of our water use goes outside and we recently changed all our toilets to be low water. Feel free to come by and see my garden and over 50 other drought-tolerant ones during the Going Native Garden Tour this April. For more information, go to: <http://gngt.org/GNGT/HomeRO.php>

References: Santa Clara Valley Water District rebates: <http://www.valleywater.org/Programs/LandscapeRebateProgram.aspx>
 Alameda County Water District rebates: <http://www.acwd.org/index.aspx?NID=145>
 BAWSCA “Lawn Be Gone” rebates: <http://bawasca.org/water-conservation/residential-water-conservation-programs/lawn-be-gone/>
 Water use for California homes: <http://www.cbia.org/go/cbia/?LinkServID=E242764F-88F9-4438-9992948EF86E49EA&showMeta=0>
 Plant water requirements: Water Use Classification of Landscape Species <http://www.water.ca.gov/wateruseefficiency/docs/wucols00.pdf>
 1 cubic foot equals 7.48 gallons of water, 1 inch of water equals .08 feet
 High water use plants use roughly 1 inch (.08 feet) of water per week during the dry season, medium water use plants use roughly .04 feet, low-water .02, and very low-water .01 feet of water per week.