

Eco-Warriors to the Rescue

With most of California in either extreme or exceptional drought and NASA predicting a mega-drought in the coming decades, we need more people to step up and make lasting and permanent changes to their water usage patterns both indoors and outdoors. Here are a variety of both low cost and medium cost steps you can take to reduce your water footprint at your home and property.

SIMPLE, LOW-COST and NO-COST STEPS (\$0-\$300)

- Take shorter showers (under 5 minutes)
Keep a timer handy in the bathroom to time yourself. Each minute of shower uses 2 to 4 gallons or more. Reducing a shower from 10 minutes to 5 minutes can save at least 10 gallons a shower or more than 300 gallons per month per person (nearly half a CCF).
- Install a shower shut off valve
To dramatically lower your water use during showers, install a shower shut off valve. This allows you to easily shut off the water while you are soaping up or rubbing shampoo in your hair.
http://www.amazon.com/s/ref=nb_sb_noss_1/187-8969810-4579446?url=search-alias%3Daps&field-keywords=shower+shutoff+valve
- Collect water in the shower
Keeping a few buckets in the shower is an easy way for you to collect greywater that can be reused to flush your toilet or out in landscaping in mulch basins. A shower can generate 1-4 gallons of clean unused water while waiting for the hot water to come in or an additional 10-20 gallons of greywater while taking your shower.
- If it's yellow, let it mellow. If it's brown, flush it down.
The typical resident flushes the toilet 6-10 times a day, using 10-20 gallons of clean potable water. Halving the quantity of flushes each day could save over 500 gallons a month for a family of four. Although for some, drilled since childhood to flush the toilet after use, it may seem like downward mobility to not flush every time but urine is a sterile substance in a healthy person. The nitrogen contained in urine is highly bioavailable and beneficial to plants so you might even consider peeing in your compost pile!
- Mulch and compost
Add a layer of mulch such as wood chips or similar material and compost around your property to shade the soil and retain moisture. Several inches of mulch help to reduce soil evaporation loss and suppress weeds. Be sure to leave a several inches open directly around the plant stem to prevent root rot.

MEDIUM COST STEPS (\$300-\$1000)

- Install Laundry to Landscape Greywater system

Consider installing a Laundry to Landscape greywater system. LtoL systems can save 200-400 gallon a month or more depending on how often you do laundry and how efficient your laundry machine is.

Information and video available at <http://www.urbanfarmerstore.com/pdflibrary/rainwater-harvesting/> and at <http://greywateraction.org/greywater-resources-2/>).

- Install a simple branched-drain greywater system

More and more people are realizing the commonsense idea of reusing water you already have to feed their plants. Simple branched-drain systems route greywater from showers and sinks to subsurface mulch basins situated around the yard near thirsty plants. Plants don't need clean drinking water but can use plant-friendly soapy water. Greywater systems also serve as insurance against extended droughts to help maintain your landscape even in cases of severe water reductions.

- Install a water flow sensor

Flow sensors are small units costing from \$100-\$300 that install on your water line and are linked to your irrigation controllers. They monitor your water usage and prevent water waster from broken pipes or stuck valves by turning off your irrigation controller when they detect abnormal water use.

<http://www.hunterindustries.com/irrigation-product/sensors/flow-syncr>

- Install a moisture sensor and rain sensor in your outdoor landscaping

A variety of irrigation sensors exist to inexpensively upgrade your irrigation timer to make it smarter. Cal Water will provide reimbursement for some modules.

Most of the major irrigation supply companies have low cost moisture sensors available which can be installed in your lawn to monitor the moisture level. Costing under \$100, models are available that can be easily installed in a central section of the lawn. The sensor then communicates with your controller and turns off the watering when the soil reaches the correct moisture level. Rain sensors are typically installed at the house eave and work with the irrigation controller to turn off the water during and after rainstorms.

<http://www.hunterindustries.com/irrigation-product/sensors/rain-clikr>
<http://www.hunterindustries.com/irrigation-product/sensors/solar-syncr>
<http://www.hunterindustries.com/irrigation-product/sensors/soil-cliktm>
<http://www.rainbird.com/landscape/products/accessories/smrty.htm>
<http://www.toro.com/xtrasmart/>
<http://gardenbot.org/howTo/soilMoisture/>

- Consider installing a rainwater capture system

A simple water barrel or more complex holding tank can collect rainwater falling on your roof and store it for use during the summer months. A 1000 square foot of roof can collect 600 gallons with one inch of rain.

Installation information available at <http://www.urbanfarmerstore.com/pdflibrary/rainwater-harvesting/> and at <http://greywateraction.org/contentabout-rainwater-harvesting/>

A \$50 rebate is available for San Mateo County residents through BAWSCA. (<http://bawasca.org/conservation/rain-barrel-rebate-program/>)

- Install a rain garden on your property

A rain garden or vegetated swale is an easy and attractive way to prevent rain water runoff from a property and create a water efficient ecosystem. Diverting rain water from your gutters, sidewalks, and street into a rain garden helps preserve potable water and recharge the ground water on your property. Your deep rooted trees have access to the ground water year round. Choosing native plants and trees for these specially created sunken areas that are happy to absorb and retain water in their root systems can help reduce flooding and water pollution, increase ground water, and create beautiful landscapes that don't require supplemental irrigation.

Resources available at <http://greywateraction.org/rainwater-harvesting-resources/>