



COUNTY of VENTURA
County Executive Office
Sustainability Division



Do-It-Yourself Water Savings Kit

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You're on Your Way to Saving Water!

Welcome to County of Ventura's Do-It-Yourself Water Savings Kit

The fact that you brought this toolkit home from the library tells us that you're already curious about how you can save water. Congratulations! That's the first step toward water conservation.

The toolkit helps you take charge of your home's water use.

It includes tools and equipment you can use to divert or slow down water flows and let you know what changes you need to make. We walk you through each step in exploring this toolkit and help you understand how you can lower your water usage. We also offer additional tips for "going green" in your daily life. Whether your goal is to save money, improve your health, or protect your local environment, we invite you to explore this guide and start learning more!

What's in Your Toolkit?

Stuff to Keep:



Soil Moisture Meter

This tool measures the amount of water in your soil.



5-Minute Hourglass Timer

Time yourself as you shower to help conserve water.



Hot Water Temperature Card

Use this card to detect if you need to turn down your water heater's thermostat.



Toilet Tank Bank

Fill this with water and add to your toilet tank to reduce how much water you flush.



Toilet Fill Cycle Diverter

Add this to your tank to divert more water to the tank and less to the bowl.

Stuff to Bring Back



Outdoor Hose Watering Timer

This tool will help you conserve water by turning on and off the water hose for you.



Garden Hose Nozzle Sprayer

Use this tool to turn your water on and off and adjust the spray settings.



Water Pressure Test Gauge

This tool measures the force of the pressure in the water or air in your tanks or systems.



Rain Gauge

This tool measures how many inches of rainfall you get.



Pipe Thread Seal Tape (plumber's tape)

This tape prevents leaks in your faucets and showerheads. Use what you need and return the rest.



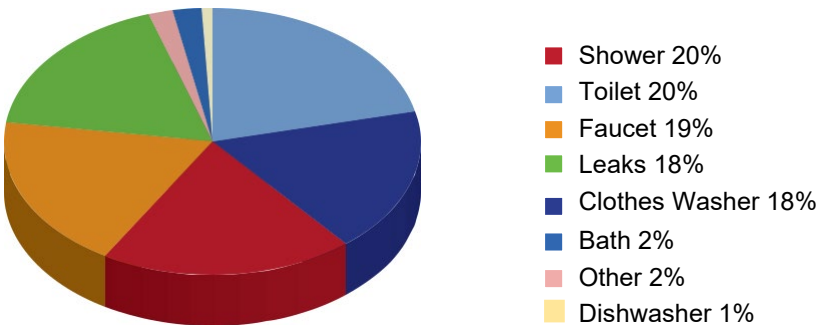
Toolbox Symbol

Look for this symbol to know when to use your toolkit.

Let's Start Saving Water

On the Central Coast, we get most of our primary water supplies from stormwater capture such as the reservoirs at Lake Casitas, Lake Cachuma, and Lake Nacimiento. Other sources include groundwater, the state water project, and recycled water or desalinated water. But with a changing climate and growing populations, our water resources have been shrinking year by year. While state and local leaders continue to work on long-term solutions to our water challenges, saving water on a daily basis helps stretch supplies and can save you money.

Indoor Water Use in a Typical Single-Family Home

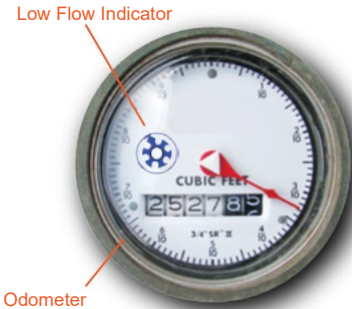


Fun Fact

On average, U.S. residents use 69 gallons of water a day per person for indoor use. That's 25,000 gallons a year per person—enough to fill an average home swimming pool!

How Much Water Are You Using?

HOW TO READ YOUR WATER METER



The best way to tell how much water your whole house is using is to read your water meter.

Your water meter is usually located at the front of the house near the curb—sometimes in the sidewalk. Look for a cover labeled “Water.”

Water meters in the U.S. typically measure volume in gallons or cubic feet. One cubic foot = 7.48 gallons and 100 cubic feet = 748 gallons. Water charges are typically based on 100 cubic feet or on 1000-gallon units.

Read your meter every day or every week and keep a log of the readings. Is your consumption consistent or is it higher on some days? If your sprinkler system has a timer, read the meter the day before and the day after an irrigation cycle. How much water is going into the garden? How does that compare to the days without irrigation?

CHECK YOUR WATER PRESSURE

Most home plumbing fixtures are designed to work best at a pressure of about 50 psi (pounds per square inch). A level much higher than that can cause faucets and other features to leak and appliances to break down. To check if your water pressure is high use the water pressure test gauge in your toolkit and screw it onto any hose bib or washing machine faucet and turn on the cold-water tap. A good reading would be between 40 and 60 psi but anything over 80 will cause stress to your pipes.



Use the Water Pressure Test Gauge

Watch this video to see how to use the water pressure test gauge. Scan the QR code or visit youtu.be/14F4HV4n1pk.



If your water pressure is high, consider purchasing a water pressure regulator. This tool reduces incoming water pressure to a manageable level and is installed where the main water line enters the home.

CHECKING FOR LEAKS

Your water meter can also help you determine if you have a leak. Here's how:

1. Turn off all water in your home. Make sure that any dishwashers, automatic irrigation systems, etc. are not running.
2. Lift the cover to expose your water meter. Flip open the hinged lid. You'll find either a straight-reading or round-reading dial. On straight-reading meters, the large needle on the dial is used for testing. On round-reading dials, the test dial will either be labeled "one foot" or will have no markings.
3. Mark the test-needle by laying a straight-pin or toothpick exactly on top of it.
4. Wait 30 minutes, then check the dial again. If the test needle has moved (and no one has used any water) you probably have a leak and should do some more investigating.
5. To determine if the leak is inside or outside the house, locate the main shut-off valve (usually at the front of the house underneath an outside faucet) and turn it off. If the dial moves while the main house valve is turned off, you may have an underground house line leak. Inspect along a straight line between the meter and the house valve for surface water or a wet or super-green spot.

Showerheads and Toilets

TAKE SHORTER SHOWERS

How long do you take when you shower? If it's more than 10 minutes, then consider reducing your time under the showerhead. The recommended time for taking a shower is 5 to 10 minutes. This gives people enough time to clean themselves and not cause to strip away the natural oils of the skin. Plus, each minute you don't have your showerhead on saves 2.1 gallons of water. If you think you need more time than 10 minutes, then turning off the water while you scrub goes a long way.



Use the Shower Timer

Ready to time your next shower? Grab the Shower Timer from your kit and place the suction park on your shower wall. Next time you shower just flip the side with sand to the top and race to finish your shower before all the sand is at the bottom.



USE LESS WATER IN TOILET TANKS

Did you know that every time you flush, 1.28 gallons of water is used? There are many tips one can use to reduce their toilet flushing water usage down.

Have you heard the expression, "If it's yellow, let it mellow. If it's brown, flush it down"? Flushing with a purpose like flushing solid waste and not flushing urine until a few trips can help save water.

But those practices might not seem so tempting for you, so the toolkit has two tools to help save you water in your toilet tanks. The first one is a toilet tank bank. If you have an older toilet, you're probably using more water than a newer model. A toilet tank bank will make your toilet tank think it is full of more water than it actually is. Using a toilet tank bank will save you up to 0.8 gallons per flush with no loss in performance.

The second item in your kit is a toilet fill cycle diverter. Installing this little item will direct more water to the tank and less to the bowl and has no negative effect on the flushing power. This item can save you up to 0.5 gallons of water per flush!



Use the Toilet Tank Bank

1. Remove the lid of your toilet tank.
2. Fill the tank bank with tap water to the fill line.
3. Close the red valve to prevent evaporation.
4. Place the toilet tank bank in the toilet tank between the tank's wall and the intake valve.



Use the Toilet Fill Cycle Diverter

Watch this video to see how to install the toilet fill cycle diverter. Scan the QR code or visit

youtu.be/hcPydhbmL50 .



Water Heaters

Heating water typically accounts for up to 49 percent of the natural gas use in your home.

LOOKING FOR LEAKS

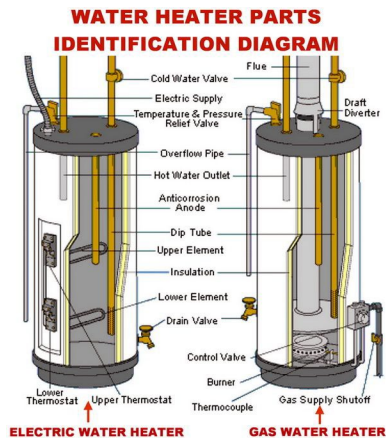
Most people visit their water heaters only if the hot water stops. Check yours. If you notice a puddle of water around the bottom of the tank, it probably indicates a leak caused by corrosion— a sure sign of old age, and the most common reason for replacing the tank. If the tank wall is corroding, more problems are coming, and it's time to retire the tank and get a new energy saving model.

Water heaters last about 15 years with proper care. To clear out any sediment, flush a few quarts of water from the drain valve at the bottom of the tank into a bucket about every six months – maybe when you change fire alarm batteries around the house. Also operate the pressure-relief valve at the top of the tank. Don't worry if a little water leaks out; that means it's working. Also, close and reopen the cold-water inlet valve at the top, so you're sure it's easy to operate in an emergency.

CHECKING THE WATER HEATER'S TEMPERATURE

Have you ever noticed that the water in your home gets too hot? Extremely hot is unsafe and it uses up more energy to warm up. One reason for your

water being too is that your water heater is set to the wrong temperature. Check the temperature and turn the dial of the thermostat down. The thermostat will be in different places depending on the type of water heater you have. For a gas-powered water heater, the control valve is what regulates the temperature. View an example of a gas and electric water heater to see where the thermostat may be located.



Not sure if your water is too hot? Use the Hot Water Temperature Card in your kit and follow the instructions.



TIPS FOR WATER HEATERS

- Insulate the hot water pipes leading from the water heater. This helps conserve energy.
- Set your water heater to “Vacation Mode” when you are away for long periods of time to conserve energy.
- Check the EnergyGuide sticker when purchasing a new hot water heater. It provides the estimated cost to run the equipment.

REPLACING YOUR WATER HEATER

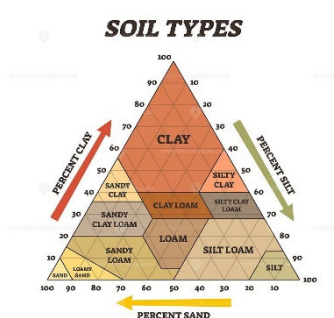
Is this handbook making you realize it's time to switch out your water heater? If so, consider getting an electric water heater and making your home eco-friendlier. Are there less people at home? Maybe consider getting a smaller water tank than what you currently have. Since there's less water in the tank, getting a smaller water tank saves you water by warming up the water in your house faster.

Outdoor Irrigation and Landscaping

CHECKING YOUR LAWN'S SOIL MOISTURE

If you want to upgrade your lawn to have more plants, then it's important to know about the soil in your backyard. Luckily this toolkit has two tools to help you with that!

Before we talk about the tools let's quickly go over soil types. The type of soil structure you have determines how much water will be retained. Sandier soils will have water easily pour through while more clay-like soil will retain more water. View the image below to see more soil types. The ideal soil type would be something in the middle of this diagram.



One tool in your toolbox is the soil moisture meter. This one measures soil moisture, pH level, and sunlight. The soil moisture section will show you if your plant is dry (in the red), just right (in the green), or overwatered (in the blue). Checking if your plant is getting sufficient sunlight will be in the DARK to LIGHT region and the value will depend on your plant species. Same with the pH level. The other tool in your toolbox is the rain gauge. A rain gauge tells you how much water your ground has received

from rain and precipitation. Make sure to put your rain gauge in an isolated area and away from rain gutters, walls, and other objects.



Soil Moisture Meter



Rain Gauge

IRRIGATING YOUR LAWN

Now that you know when to water your backyard, let's talk about how to efficiently do it without wasting much water.

You probably have a garden hose outside, right? Maybe you've accidentally left the hose on or overwatered an area and realized it too late. In the toolbox you have an outdoor hose watering timer that gets attached to the water faucet and to the hose. Choose how much time you want the hose to be on and it will turn off the hose for you.

If you only have a hose but no spray nozzle, then you're in luck. The toolkit has a garden hose nozzle sprayer for you to try out. Having one helps you control the water pressure and the amount of water you use.



**Outdoor Hose Watering
Timer**



Garden Hose Nozzle Sprayer

TIPS

- Regularly check for and fix leaks in your irrigation system. Run each station of your automatic irrigation controller and do a visual inspection. Water shouldn't be running into the gutter and should only be spraying the landscaping.
- Consider switching to a drip irrigation system to save water.
- Water between sunset and sunrise when temperatures and wind are the lowest to reduce evapotranspiration.
- Pool filters are energy intensive. Consider reducing your filter times in the fall and winter and set timers to avoid peak utility rates. Using a pool cover will save even more energy and water.
- Change your irrigation schedule with the season and with local weather conditions. Better yet, consider upgrading to a weather-based irrigation controller.

- Make sure sprinklers are pointed at landscape and are not watering concrete.
- Consider a switch to drought tolerant landscaping

LOOK FOR LEAKS IN BRIGHT GREEN OR “SOFT” AREAS

Manual, sprinkler, and drip systems can all leak. First check for overly green or soggy spots, where broken spray heads or underground pipe cracks will tell on themselves. Leaks occurring in sandy or porous soil may not show up as clearly. Automatic sprinkler and drip systems that generate a hissing sound are likely leaking. Remember to check drip systems for damage from foot traffic or gnawing pets or pests. Got leaky hoses? Repair them with waterproof tape. Dribbling spray nozzle connection? Wrap the hose threads with plumber’s tape that’s in your toolkit.



**Plumber's
Tape**



Next Steps

Return the Water Savings toolkit to the library

Now that you've used the toolkit and accomplished the steps to a more water-efficient home, you have just a few things left to do:

1. Make sure all the “Stuff to Bring Back” listed on page 5, including the guidebook, are placed in the toolkit. Don't forget the guidebook!
2. Bring the toolkit back to your local library by the return date assigned at check-out.
3. Interested in how else you can make your home eco-friendlier? Check out our other kits-the DIY Home Energy Savings Kit and the Induction Cooktop kits. Visit to learn more.
4. Want more water savings tips? Contact your local water purveyor and City or County water agencies for more information on programs and rebates.
5. Spread the word about this toolkit!

Learn more sustainable living practices

Ventura County Sustainability Resources & Partners

The Ventura County 2040 General Plan (www.vc2040.org) reflects the County's ongoing commitment to collaborate with residents, cities, businesses, and non-profits to meet our social and economic needs in a sustainable manner, protect the environment and address climate change, and encourage safe, healthy, vibrant, and diverse communities to thrive.

The Ventura County Regional Energy Alliance

(www.vcenergy.org) is a Joint Powers Authority composed of public agencies working in collaboration with various entities in the region to collectively preserve and enhance the area in which we live.

Tri-County Regional Energy Alliance (3C-REN) is a partnership between the Counties of San Luis Obispo, Santa Barbara and Ventura. For households, 3C-REN offers direct energy saving opportunities. For industry, 3C-REN offers capacity-building services including workforce training and technical code support.