

## Water Conservation

This paper provides technical information that should be of value to Nicasio well owners who are interested in practical water conservation measures. Every gallon not pumped is water saved for later use!

The first step to water conservation is to check for leaks in your water system. On average, 10% of homes have leaks that waste 90 gallons or more per day.<sup>1</sup> Fixing a leak can potentially save hundreds of gallons of water each month or more. Next, consider simple indoor and outdoor conservation measures that can significantly stretch your well's supply, especially during the hot summer months.

### Check for Leaks in Your Water System

Your water meter is an important conservation tool. It not only measures the amount of water you use, but can also tell you if there is a leak in your plumbing. To check for a leak, stop all water use inside and outside the home, including ice makers. Take a reading from your water meter and wait 10 minutes. When the 10 minutes are up, take another reading of the meter and compare it to the first reading. If the reading has changed, there is a leak. If the amount of water lost is greater than half a gallon per minute, you probably have a big leak. Many types of simple home water meters that cost \$50 and up are available at hardware stores.



### Check For Leaks In Your Toilet



Old or worn-out toilet flappers, that keep the water in the tank before each flush, can cause big leaks because these simple rubber devices wear out. Remove the toilet tank lid. Check the water level in the tank. If the water level is above the manufacturer's indicated water line, make adjustments to correct the water level. Once water level adjustments are completed, drop a dye tablet or several drops of food dye into the tank and wait 15 minutes. Check the water in the toilet bowl for color from the dye. If color appears in the bowl, there is a leak from the tank. Replacing the toilet's flapper valve will likely stop the leak. The EPA recommends replacing flappers every five years to ensure a good seal and avoid leaks. To ensure proper flush performance, bring the old flapper (or a picture of it) to the hardware store to make sure you buy a new flapper that fits your toilet model. Also pay attention to the width of the flapper and whether it has a foam float that may also need to be replaced. If you have more than one toilet to test, repeat this process for each toilet.

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<sup>1</sup> Environmental Protection Agency at [Fix a Leak Week | US EPA](#)

## Faucet and Showerhead Leaks

Old and worn out faucet washers and gaskets are usually the biggest source of these type of leaks. One drip per second waste more than 3,000 gallons per year – enough to take more than 180 showers!<sup>1</sup> The EPA recommends several guidance videos for how to do these repairs, including [How To Fix A Dripping or Leaky Double Handle Faucet](#), [How to Fix A Dripping or Leaky Single Handle Faucet](#), [Replace Your Faucet Aerator - WaterSense Bath Hack #2](#) and [How to Fix a Leaky Bathtub Faucet | The Home Depot](#). Similarly, many showerhead leaks can be fixed by making sure there is a tight connection between the showerhead and pipe stem. You can purchase pipe tape (also called teflon tape) from most hardware stores. Make sure to check and, if needed, replace the washer or “o” ring inside the showerhead. Here’s the link to the EPA recommended “how-to” video: [Replace Your Showerhead - WaterSense Bath Hack #1](#) . For more complicated valve leaks, it is best to contact an experienced handyperson or licensed plumber.



## Indoor Water Conservation Considerations

- Appliance Types and Water Usage – replace older appliances that use more water than newer models. For example, a front-load washing machine uses 40 percent less water than a top loading machine.
- Run the dishwasher and clothes washer with full loads only. Use the dishwasher instead of hand-washing dishes.
- Don’t let water run while shaving, brushing teeth or rinsing dishes. When you are washing your hands, don’t let the water run while you lather.
- Do not flush toilets every time after urination. As the saying goes, “if it’s yellow let it mellow.” Add some chlorinator or hydrogen peroxide if there is a cumulative odor.
- Use a large basin or bucket to collect water from the shower while waiting for hot water. This water can be used for plants or gardens rather than letting it flow out as wastewater into the septic system.
- When showering - get wet, turn off the water to lather up, then rinse.
- Cooking water - when cooled, can be used on plants.



## Outdoor Water Conservation Tips

- Convert Your Lawn To A Garden - Lawn isn't native to Nicasio and lawns use a lot of water. Sheet mulching – using a combination of cardboard, newspapers, green compost and time – is a simple green technique for converting lawn to a low water use garden and nurturing the soil. Here is a step-by-step description for how to sheet mulch from the California Native Plant Society: [Sheet Mulching - California Native Plant Society](#).
- Watering Schedule - Water between midnight and 6:00 a.m. to reduce water loss from evaporation and wind. Water your garden in 2 short cycles rather than one long one. Watering to a depth of 4 to 6 inches will encourage deeper healthier roots and allow the plants to go without water for longer periods of time.
- Irrigate By Hand - Target your water use by hand watering exactly in the spots that need it. Many plants go dormant at different times of the year and therefore need less water. Use a hose to hand water plants as needed. Be sure that the hose has a self-closing hose nozzle. While the flow rate for a hose is dependent on many factors such as hose diameter and water pressure, a typical garden hose without self-closing hose nozzle will flow at 10 to 16 gallons per minute.
- Cleaning Walkways - Use a broom, not a water hose, to clean your driveway, deck or patio. Washing a sidewalk or driveway with a hose uses about 50 gallons of water every 5 minutes.
- Washing Vehicles - Use a bucket and a hose with an automatic shut-off nozzle when you wash the car. Save water by extending the time between car washes.
- Pool Covers - Cover pools and hot tubs to reduce evaporation.
- Plant Selection - Replace water-using plants in your garden and around your home with drought-resistant plants and shrubs., including native plants that provide important habitat for our birds and butterflies.
- Graywater - Wastewater from showers, bathtubs, bathroom sinks, and clothes washing machines can be used to water your landscape. Graywater does not include water from toilets, kitchen sinks, or dishwashers. Graywater can be routed to your landscape to help meet your irrigation needs. Refer to prior Nicasio Water Memo on Graywater.
- Rainwater – Precipitation falling on rooftops can be captured from downspouts and stored in tanks for later use on landscaping and/or for fire protection.



## References

Sonoma-Marín Partnership, Saving Water. <https://www.savingwaterpartnership.org/programs-rebates/water-saving-tips/> accessed 5Feb2024.

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