wellcare® information for you about Water Conservation

Moderate to severe drought conditions are a fact of life in more than half the nation, according to the U.S. Geological Survey. Many areas face serious regional water shortages because water is being used faster than it can be replenished naturally. Some utilities, and local and state governments have declared mandatory water conservation measures, even for private well owners.

Water conservation can help well owners secure their drinking water supply, save money and protect the environment. Don't wait until a prolonged drought creates a water emergency. Consider measures today to preserve your water supply far into the future.

Consider Average Water Use

The average home in the U.S. consumes about 69.3 gallons of water per person per day, according to a 1999 survey of 1,200 homes by the American Water Works Association. Nearly 14 percent of that water is wasted. A leaky faucet can waste 20 gallons or more, while a leaky toilet can waste hundreds of gallons a day.

By using more efficient fixtures, well owners can cut their water use by more than 34 percent, for an average of 45.2 gallons of water per person per day. That's a savings of nearly 9,000 gallons per person per year, or more than 35,000 gallons per year for a family of four!

For well owners, efforts to reduce water consumption make sense. If you have a low yielding well (less than 5-10 gallons a minute), you should be very careful of how much demand you place on the well. If you live in a drought region or an area of rapid development where groundwater supplies are stressed, you need to reduce consumption to ensure an adequate supply.

AVERAGE INDOOR WATER USE – NO CONSERVATION MEASURES

69.3 Gallons Per Person Per Day

26.7 percent	Toilets (18.5 gallons)
21.7 percent	Clothes Washer (15 gallons)
16.8 percent	Showers (11.6 gallons)
15.7 percent	Faucets (10.9 gallons)
13.7 percent	Leaks (9.5 gallons)
2.2 percent	Other Domestic Uses (1.6 gallons)
1.7 percent	Baths (1.2 gallons)
1.4 percent	Dishwasher (1 gallon)

Source: Adapted from *Residential End Uses of Water,* by permission.
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Conduct a Household Water Audit

Gauge your water use by conducting a simple audit of your household and outdoor water use, using the chart below. Indoors, estimate the daily use of faucets, toilets, showerheads, clothes washer, dishwasher and other water-consuming activities. Determine the average for all members of the household. Outdoors, estimate the amount of water used to irrigate lawns and gardens, wash cars, and fill the pool or hot tub.

If the task seems too daunting or you are confused by the results, you can hire a professional water auditor. Many public utilities and local governments, particularly in areas with shortages and water emergencies, can recommend people to conduct water audits and outline conservation strategies.

TYPICAL HOUSEHOLD WATER CONSUMPTION – NO CONSERVATION MEASURES

Faucet	3 - 5 gallons per minute
Toilet Flush	5 - 7 gallons
Unrestricted Showerhead	5 - 10 gallons per minute
Dishwasher	15 gallons
Bathtub (1/2 full)	50 gallons
Clothes Washer	50 gallons
Shower (10 minutes)	50 - 100 gallons
Running Hose (15 minutes)	100 gallons
Watering Lawn (1 inch)	660 gallons per 1,000 square feet

Source: United Water New York, Rockland County, NY.

Compare your water audit results with the charts on average water use. Consider reasons for high levels of water use. Are fixtures leaking or appliances old and inefficient? Or is it the way you use the water, with long showers and many half-full loads of laundry?

Check faucets and test toilets for leaks. Put a little food coloring in the toilet tank, but don't flush. If color appears in the bowl within 10 minutes, you have a leak.

New homes typically have more efficient fixtures and use less water. Since 1992, the federal government has set maximum water-use levels for new fixtures: toilets (1.6 gallons per flush), showerheads (2.5 gallons per minute) and faucets (2.5 gallons per minute). But new homes may also contain more fixtures – bathrooms, garbage disposal, whirlpool tub, hot tub or swimming pool – that consume greater quantities of water.

If your water use is close to or exceeds the 69.3 gallons per person per day national average, you'll need to consider ways to reduce consumption. There are two primary strategies to help conserve water – using new technology and changing water use behavior.

Water Conservation: Use New Technology

Conserve water by using technology to retrofit or replace inefficient water appliances, equipment, fixtures and processes. Many are very low-cost, such as a flow restricting showerhead or a simple displacement device for water in the toilet tank, such as a gallon jug. High efficiency fixtures and appliances may have a higher initial cost, but this is recovered over time by savings in water and energy.

Contact your local plumber and/or the plumbing and appliance salespeople at hardware and home improvement stores for help in selecting and installing some of the conservation measures listed below.

Steps to Conserve Water

- Repair faucets to eliminate leaks in kitchen and bathrooms.
- Install retrofit devices on faucets to reduce flow.
- Repair toilets to eliminate leaks.
- Install water displacement devices in toilet tanks to reduce flow.
- Replace with new low volume toilets.
- Install a high efficiency clothes washer (average 27 gallons per load).
- Install a water efficient dishwasher (average six to seven gallons per load).

Water Conservation: Change Behavior

There also are many options to change the way that water is used. Small changes in behavior can reap big benefits in water conservation. Turning off the water while brushing teeth will save an average family of four 200 gallons of water per week!

In The House

- Turn off the tap when brushing teeth, shaving or scrubbing dishes and save more than five gallons a day per person.
- Use the sink, not running water, to rinse your razor.
- Don't use the toilet as a wastebasket.
- Take shorter showers and save at least 10 gallons per shower.
- Keep a pitcher of drinking water in the refrigerator, rather than running the tap.
- Run the clothes washer and dishwasher only with full loads.

In The Yard

- Most established lawns and gardens need just one hour of deep watering once a week to remain healthy.
- Water during the coolest part of the day, usually in early morning.
- Set the lawn mower to 3 inches. Longer grass allows less evaporation and shades the roots from drying out so quickly.
- Water the grass, not the pavement.
- In the garden, switch from sprinklers to soaker hoses.
- Look for native perennial plants and grass seeds at the garden center. These require much less water, particularly in drier climates, than tropical annuals.
- Use mulch to retain water in the soil and reduce thirsty weeds.
- Wash the car with soap and water from a bucket.
- Fit all hoses with a sprayer to control flow.
- Use a broom, not a hose, to clear debris from sidewalks.

Enjoy the Benefits of Water Conservation

Water conservation saves money by reducing wear and tear on your well and septic system. The hundreds of gallons of water released from your home each day eventually saturates the soil in and around the septic field to the point where extensive repair or replacement is necessary. The cost to replace a septic system can reach $4,000 or more. Conserving water will extend the life of the system and delay the need for repair.

Water conservation also helps protect the environment and the quality of your drinking water. High demand on limited water supplies may affect stream flow, wetlands and the capacity of an aquifer to recharge its supply of ground water. Old, leaky and overloaded septic systems may cause nutrient and bacterial contamination of nearby wells, lakes and streams.

Conserve your ground water today. The quality and quantity of your drinking water supply depends upon the wise use of this precious natural resource.

For more information on water conservation

Handbook of Water Use and Conservation by Amy Vickers (Water Plow Press, Amherst, MA, 2001) can be found in the reference section of many public libraries. The following websites are also helpful:

U.S. Drought Monitor	**www.drought.unl.edu/dm/monitor.html**
U.S.G.S. WaterWatch	**water.usgs.gov/waterwatch**
The Water Efficiency Clearinghouse	**www.waterwiser.org**
Soil and Water Conservation Society	**www.swcs.org**

For more information on your drinking water

The following sites provide up-to-date information on efforts to protect public water supplies and steps you can take as a private well owner:

Home*A*Syst Program	**www.uwex.edu/homeasyst**
Water Quality Association	**www.wqa.org**
The Groundwater Foundation	**www.groundwater.org**
American Water Works Association	**www.awwa.org**

For more information about wells and other wellcare® publications

wellcare® is a program of the **Water Systems Council (WSC). WSC** is a national nonprofit organization dedicated to promote the wider use of wells as modern and affordable safe drinking water systems and to protect ground water resources nationwide.

Contact us at 888-395-1033 or visit www.watersystemscouncil.org

This publication was developed in part under Assistance Agreement No. X-82849101-1 awarded by the U.S. Environmental Protection Agency. It has not been formally reviewed by EPA. The views expressed in this document are solely those of WSC. EPA does not endorse any products or commercial services mentioned in this publication.