How to Conserve Water in Your Home & Yard
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Dean Solomon, Natural Resources and Public Policy; Eckhart Dersch, Resource Development
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How to Conserve Water in Your Home and Yard

Dean Solomon
District Extension Leader
Natural Resources and Public Policy

Eckhart Dersch
Professor of Resource Development

This bulletin is designed to help you save money, protect your health and reduce the risk of damaging the quality of your drinking water, lake or pond by practicing water conservation in your home. These tips are best used in conjunction with WQ-39, "Maintaining Your Septic System."

Conserving Water . . . Here?

Michigan has abundant water resources envied by people in less fortunate parts of the country. In those places, conservation by homeowners is often necessary just to have enough water for basic needs. But why conserve in water-rich Michigan?

The simplest answer is that conserving water saves money—in many cases, very significant amounts of money. If you depend on your own well and septic system, the hundreds of gallons of water released each day will, over a period of years, saturate the soil near the septic system absorption field to the point where extensive repair or replacement is necessary. Replacing a septic system costs $2,000 to $4,000. Conserving water can extend the life of the system and delay the need for repair.

If you live in an area served by a municipal system, the greater your water use, the more you pay for water and sewer service. In some communities, costly sewage and water supply system expansion has been avoided by communitywide household water conservation.

In addition to saving money, water conservation helps tremendously in preventing water pollution. Old, leaky or poorly designed septic systems may cause nutrient and bacterial contamination of nearby lakes, streams and drinking water from your own well. Overloading municipal sewer systems can also cause untreated sewage to flow into lakes and rivers. The smaller the amount of water flowing through these systems, the lower the likelihood of pollution.

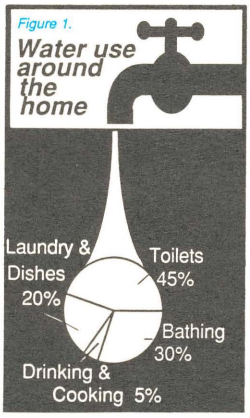
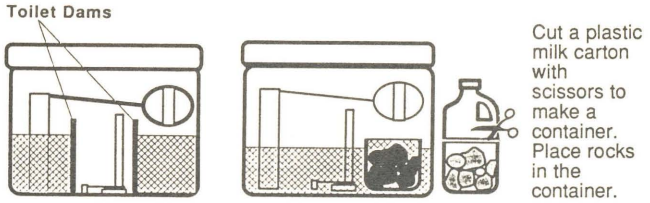
Figure 1.


Figure 2. A toilet dam *(below left)* or a rock-filled container *(below right)* can reduce the amount of water flowing out of the toilet by up to 25%.



Pollution costs money, too. Excessive weed growth in a lake caused by nutrient enrichment from leaky septic systems often means costly weed control measures paid for by you and your neighbors. Polluted home water wells cost thousands of dollars to fix, if they can be repaired at all.

Water Use Around Your Home

The first step in understanding how to conserve water in your home is to know where water is used.

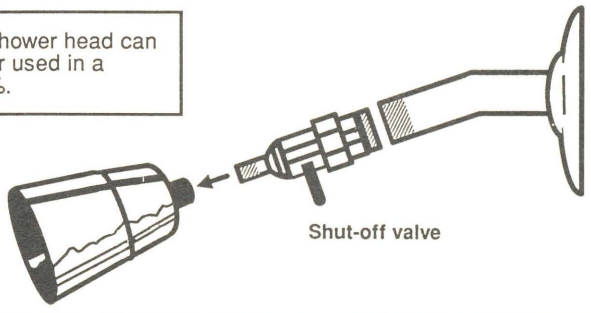
Most people use 50 to 70 gallons of water indoors each day and a similar amount outdoors, depending on the season. Indoors, three-quarters of all the water is used in the bathroom (Fig. 1). Outdoors, lawn and garden watering and car washing use the most water.

How to Conserve Water Daily

Because such a huge percentage of the water you use is used in the bathroom, that's where water conservation efforts should focus. You can install a few simple, inexpensive devices in the bathroom that can save a lot of water with **no** change in your lifestyle or your present habits. Many hardware and plumbing supply stores stock these items. These are:

- **Toilet dams or rock-filled containers.** These devices (one of which you can make, Fig. 2) reduce the amount of water flowing out of the toilet by up to 25 percent. They **do not** affect flushing ability. Never use a brick to provide the same effect—particles may harm your plumbing. Always leave at least 3 gallons of water in the tank so it will flush properly.
- **Low flow, water-saving shower heads.** This piece of plumbing (Fig. 3) reduces the amount of water flowing through your shower by up to 50 percent, but increases its velocity so the shower feels the same. This also saves

Figure 3. A water-saving shower head can reduce the amount of water used in a shower by as much as 50%.



hot water. You may even be able to avoid buying a larger water heater.

- **Faucet aerators.** These devices restrict the amount of water going through your faucet by up to 50 percent, but add bubbles so the flow of water appears the same. They could be installed on all of your faucets.

Other simple things you can do in your home to reduce water use are:

- **Repair leaks in your faucets and toilets.** A leaky faucet can waste 20 gallons or more per day. Leaky toilets, even though they are usually silent, can waste **hundreds** of gallons per day. To find out if your toilet has leaks, put a little food coloring in the tank. If, without flushing, color appears in the bowl, you have a leak that should be repaired. Repairing a faucet is usually as simple as changing an inexpensive washer. Leaky toilets can often be repaired by adjusting the float arm or plunger ball.

- **Use your dishwasher and clothes washer only when you have a full load.** If you are purchasing a new clothes washer, choose one with variable load or suds-saver options. Many dishwashers are also now available with water-saving options. If you already have these options, use them whenever possible.

- **If you are building a new home or remodeling an old one, consider installing "low flush" toilets.** These toilets use 1 to 2 gallons per flush instead of the 3 to 5 gallons used by conventional ones. They are readily available and, although they cost more, they can save you a lot of money in the long run through decreased water and energy use.

Outdoor uses of water are often high volume. Nevertheless, there are ways you can save water. Try these:

- **Attach a pistol-type sprayer to the end of your garden hose.** In addition to enabling you to adjust the rate of flow, this device keeps water from continuing to run out during those short periods when you put down the hose without turning it off (while you are washing your car, for example).

- **Water your lawn only when necessary.** It takes 660 gallons of water to supply 1,000 square feet of lawn with 1 inch of water. This is nearly the same amount of water as you use inside the house in an entire week! Water your lawn when it begins to show signs of wilting—when the grass does not spring back when you step on it—rather than on a regular schedule. A deep-rooted lawn is also more resistant. Encourage growth of deep roots by mowing your grass as high as possible (3 inches) all year. Also, apply nitrogen fertilizers at lighter rates (1/2 normal rate), but more often. Do not fertilize grass when it is dormant, but wait until rainfall resumes.

Saving Water in Special Situations

Sometimes it is necessary to use extra measures to reduce even further the amount of water you are using in your house. Although useful in any situation, these techniques may be especially helpful, or even necessary in some cases, when water levels are high around your house, your septic system shows signs of failing or your community water system temporarily loses capacity to supply adequate amounts of water.

Indoors, consider these changes:

- **Take short showers instead of baths.** A four-minute shower can use as little as 8 gallons of water, while a bath needs 50 to 60 gallons.

- **Avoid unnecessarily flushing your toilet.** Never use it as a wastepaper basket to dispose of cigarette butts or tissue paper.

- **Turn off the faucet while you are shaving or brushing your teeth or hand washing dishes.**

- **Avoid running water in the shower while you are shampooing or soaping.** Most people step away from the water to do this anyway. Many water-saving shower heads come with a button to shut off the flow without changing the mix of hot and cold water.

Outdoors, try these:

- **Use mulch around trees and shrubs and in garden beds.** This greatly reduces the amount of water lost through evaporation and so reduces the need for watering.

- **Consider using a drip irrigation system in your garden.** This system supplies water only to the root zones of plants. In addition to saving water, it reduces weeding because it doesn't water the areas between rows and hills of crops.

- **Use only plant varieties that are well adapted to your locality and soil conditions.** Poorly chosen varieties often need greater amounts of fertilizer and water just to stay alive.

- **Avoid watering the lawn.** Your lawn may turn brown in the middle of the summer, but this doesn't mean that it's dead. Rather, the grass is dormant and will regrow when rain and cooler weather returns. Both dormancy and disease can be offset by applying as little as 1/10 inch of water during the warmest part of the day, depending on the severity of the problem.

- **Use the water from your roof downspouts for watering your garden and flower beds.** Just 1/2 inch of rain on an 18-by-20-foot roof will more than fill two 55-gallon drums.

Where To Go For Help

If you need help in locating water-saving devices or other advice about water conservation, contact your local health department.

Check Other Extension Bulletins in this Series:

- WQ-13, "Maintaining Your Septic System: Special Considerations for Shoreline Property Owners."
- WQ-14, "What To Do if Your Septic System Fails."
- WQ-15, "Buying or Selling a Home? What To Find Out About Your Water and Septic Systems."

plus...

- WQ-39, "Maintaining Your Septic System."
- MWPS-24, "On-Site Domestic Sewage Disposal Handbook."

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