

## Reducing Water Use In the Home

By JAY ROMANO

**P**ICTURE 60 one-gallon water jugs lined up outside your door. Now multiply those 60 jugs by the number of people in your household. The result, conservation experts say, is the amount of water your family will use on an average day.

Now imagine there is a drought in your area. Wouldn't it be a good idea to save some of those jugs for tomorrow?

"Residential water consumption accounts for a huge chunk of total water consumption," said Alex Wilson, editor of Environmental Building News, a newsletter published in Brattleboro, Vt. "And measures that homeowners take to conserve water are extremely important right now."

Last month, officials in New York and New Jersey declared drought emergencies in those states; officials in Connecticut have declared drought warnings in New Haven, Middlesex and Fairfield Counties. And while the water use restrictions vary from state to state (instructions for obtaining state-specific details

are provided at the end of this column), there are a number of things that homeowners can do to conserve water both inside and outside the home.

For example, Mr. Wilson said, one inexpensive and effective way for homeowners to cut down on their water use is to install low-flow faucet aerators and shower heads on their plumbing fixtures.

"It may not seem like a big deal, but these devices can significantly reduce water usage," he said, explaining that while an older shower head can deliver water at 5 gallons per minute or more, appliances fitted with water-conserving devices can reduce the flow to as little as 1.5 gallons per minute. (That means that someone who takes a 10 minute shower could save 35 gallons of water a day just by replacing the shower head.) While some older water-saving devices used on sinks and showers did little more than reduce the amount of water coming out of the spigot — an annoying result for many homeowners — some state-of-the-art water-saving devices available today produce the feeling of lots of water and pressure while cutting the actual

amount of water used by as much as 70 percent.

For example, Mr. Wilson said, a water-saving shower head manufactured by Energy Technology Laboratories in Modesto, Calif., "supercharges" the water by injecting air as the water passes through the shower head.

"You end up with a forceful shower that uses only 1.5 to 2.5 gallons of water per minute," he said. (The shower head, the Oxygenics Skin Care Shower, which costs \$29.95, is not sold in home centers or hardware stores, but it can be purchased on the Internet at the manufacturer's Web site at [www.energytechlabs.com](http://www.energytechlabs.com).)

A device that can be used on kitchen and bathroom faucets to cut down significantly on the water being used while still retaining the feel of high pressure and volume is known as a "laminar flow control" adapter.

"When you turn on an old-fashioned faucet, you have a solid column of water coming out of the faucet and going down the drain," Mr. Wilson said. "But with a laminar flow faucet, you

basically have a hollow cylinder of water coming out, and that fools you into thinking there's a lot more water flowing than there actually is." (The laminar flow adapter — which sells for about \$10 — is available from Omni Products in Harbor City, Calif. The company's Web site is [www.omnidealers.com](http://www.omnidealers.com).)

Another gadget that can save significant amounts of water in the kitchen or bathroom, Mr. Wilson said, is a pedal controller, which is basically a secondary on-and-off control that is installed on the floor in front of the sink. "You set the water temperature by opening the valves on the main faucet, and then you turn the

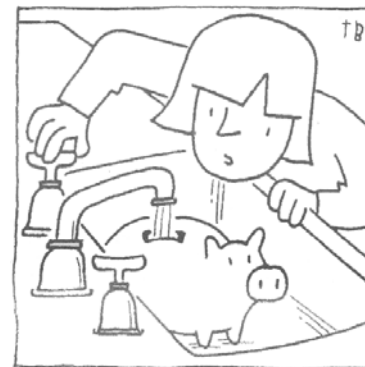
water on and off by stepping on the pedal," Mr. Wilson said.

Information about the pedal controller, which costs about \$300, can be obtained from Pedal Valves, Inc., in Luling, La. ([www.pedalvalve.com](http://www.pedalvalve.com).)

Yet another way to save water at the sink, Mr. Wilson said, is to install a Metlund Hot Water D'MAND System. "Normally, when you turn on your hot water, you have to wait for the hot water to get to the sink," Mr. Wilson said. "And while you're waiting, water is running down the drain."

With the Metlund system, he said, a small pump and valve

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Relatively inexpensive devices on sinks, shower heads and toilets can cut water and sewer charges

### YOUR HOME



610 Oxygenics  
Chrome and Gold  
Shower Head by  
Energy Technology Laboratories

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assembly is installed in the plumbing system. When hot water is desired, the homeowner presses a button on the D'MAND controller, which then pumps hot water to the point of use. Since the faucet is opened only after the hot water has reached the point of use, no cold water is wasted.

The system — which can be installed by a plumber or a relatively handy homeowner — costs about \$330 and is available on the company's Web site ([www.metlund.com](http://www.metlund.com).)

By far, though, Mr. Wilson said, one of the most notorious water-guzzlers in a home is an old-fashioned toilet.

"The toilet is typically the

biggest water consumer in the house," he said. "And I would strongly encourage every homeowner to replace their old inefficient toilets with new low-flow models."

Robert Bellini, president of Varsity Plumbing and Heating in Flushing, agreed. "Low-flow toilets have come a long way in the last five years," Mr. Bellini said. He noted that while early versions of the water-saving 1.6 gallon-per-flush toilets were less than a hit with consumers — owners of some first-generation low-flow toilets often had to "double-flush" to get the job done — toilets on the market today flush as well as the water-guzzling models they replace.

Mr. Bellini, a contractor who

participated in a New York City toilet rebate program that ended several years ago — which provided property owners with a rebate for replacing old 5- or 6-gallons-per-flush toilets with new low-flow appliances — said 1.6 gallon-per-flush toilets can be purchased at home centers or plumbing supply stores for under \$100. (The cost of installation, he said, can run \$200 to \$250 in the New York City area.)

A less expensive but less effective way to save water with an older toilet is to install a displacement device in the water tank. A sealed half-gallon water container installed in the tank, for example, will save a half gallon of water per flush. While that might not seem like much, Mr. Bellini said, a family of five that flushes five times a day each — the national average — will save 350 gallons of water each month.

Another way to conserve water in a home is to make sure that existing faucets and toilets are not leaking.

Geoffrey C. Ryan, a spokesman for the New York City Department of Environmental Protection, said a steadily dripping faucet can send 180 gallons of water down the drain each day while a leaking toilet

can waste 250 gallons. And while the waste of water alone should be enough to inspire a homeowner to ferret out such leaks and fix them, the actual cost of those leaks over a one-year period — about \$307 and \$426 respectively, including New York City sewage charges — provides an even more compelling incentive.

(Mr. Bellini, the plumber, said that one way to find out if a toilet is leaking is to put some food coloring in the tank. If the color ends up appearing in the bowl without the toilet being flushed, the tank is leaking and either the flushing mechanism or the seal between the tank and the bowl will have to be replaced.)

Outside the home, one of the biggest consumers of water, of course, is the front lawn. And while areas with declared drought emergencies typically have restrictions in place for the watering of lawns, it is not unusual for homeowners to overdo it during the times they are permitted to use their sprinklers.

"Most people tend to overwater their lawns," said Tom Kimmel, executive director of the Irrigation Association, a trade association based in Falls Church, Va.

For most lawns, Mr. Kimmel

spread out over two or three days — is probably sufficient.

"The trick is knowing how long you have to water to put down an inch," he said, adding that one way to determine that is to place "catch cans" at various places on the lawn to determine how long a sprinkler system must run to deliver a desired amount of water for a given watering period. And for sprinkler systems on an automatic timer, Mr. Kimmel said, water can be conserved with the installation of a rain sensor.

"If it's raining when the sprinkler system is supposed to turn on, the sensor overrides the controller and prevents the system from activating," he said, adding that such sensors are relatively inexpensive — \$25 to \$50 in most home centers.

Information about water restrictions in New York — along with additional tips for saving water — are available on the state Department of Environmental Conservation's Web site at [www.dec.state.ny.us](http://www.dec.state.ny.us). Similar information for New Jersey is available on the state Department of Environmental Protection's Web site at [www.njdrought.org](http://www.njdrought.org). Connecticut residents can obtain information at [www.drought.state.ct.us](http://www.drought.state.ct.us).