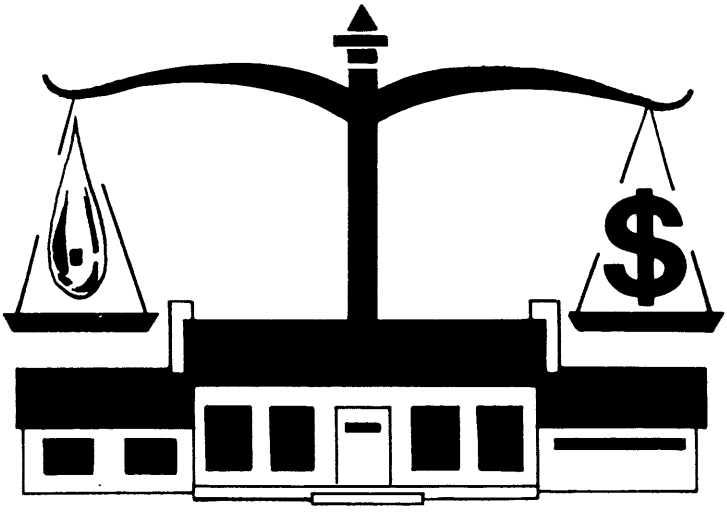
SAVE WATER...
SAVE MONEY



Prepared jointly by the U.S. Department of the Interior/ Geological Survey and the government of Fairfax County, Virginia.

SAVE WATER... SAVE MONEY

The United States uses huge quantities of water. In 1976, for example, it was estimated that for each person in the U.S., about 2,000 gallons of water were used daily in homes, offices, farms, and factories. This means that roughly 420 billion gallons of water were pumped, piped, or diverted each day—about 15 percent more than in 1970. By the year 2000, our daily water needs will probably exceed 800 billion gallons.

Fortunately, the Nation as a whole is water rich. Still the water actually available for use is limited, unevenly distributed and being stretched to serve more people with bigger thirsts. We may not be running out of water, but each of us can help to stretch our water resources by conserving water and using it more wisely.

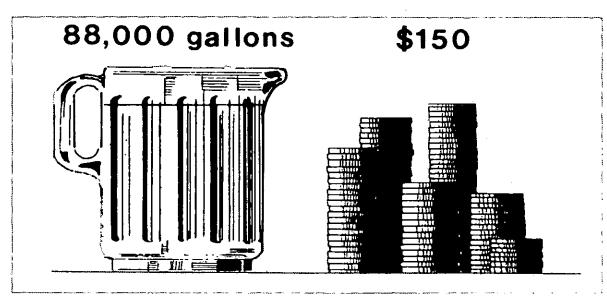
As the Nation's principal water data agency, the U.S. Geological Survey receives many requests for information on water conservation. This publication, prepared in cooperation with the government of Fairfax County, Virginia, offers some tips for saving water—and money—in our homes and communities.

TIPS THAT SAVE

Although some American communities have recently experienced the hardships of a widespread water shortage, most of us are so accustomed to having an unlimited water supply that the prospect of running out of water is rarely considered. As the Nation's population grows, however, it is becoming more difficult to meet the expanding and diversified demands for water.

Fortunately, the Nation's overall water resources are more than adequate to meet any foreseeable need. Our average annual streamflow alone is about three times greater than present water use, and ground-water resources are even larger. Unfortunately, the distribution of our water resources is uneven and sometimes irregular, and the cost of maintaining ample water supplies of good quality is increasing. Furthermore, almost every area of the country has some major water problem, such as pollution, floods, or drought. Parts of the arid West, for example, have climate and soils favorable for agriculture, but not enough water to satisfy the demand. The more humid areas of the East and South usually enjoy a general surplus of water, but some of that surplus may occur in the form of destructive floods. Also, even these humid areas can suffer severe droughts, such as those of the 1930's and the mid-1960's.

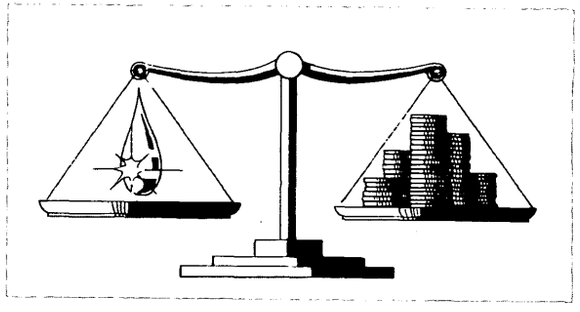
In some parts of the country, the increased demand has already produced local water shortages that will limit future development. Other areas face continuous and costly problems in developing and maintaining a safe and adequate supply. Each of us can help to stretch our water resources by conserving water and using it more wisely in our own homes as well as in our communities. At the same time, by saving water, we can save money too.



Water Cost

Many consumers have little idea of the quantity and cost of the water that they use.

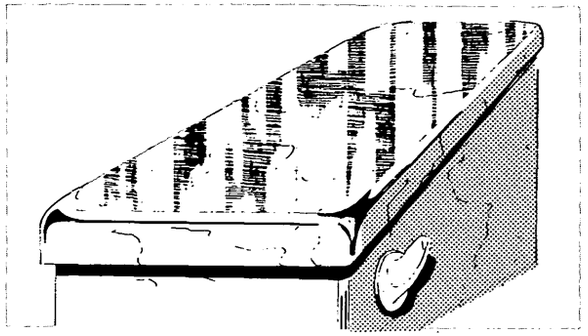
An average single family with three to four people in northern Virginia, for example, uses about 88,000 gallons of water per year or an average of more than 240 gallons per day. A typical charge for the water from a utility company would be 70 cents per thousand gallons. Sewage treatment adds another 95 cents per thousand gallons. Thus, a homeowner may pay close to $1.65 for each thousand gallons of water used, and an average family may spend as much as $150 a year for the water it uses. The actual cost and use, of course, vary throughout the country.



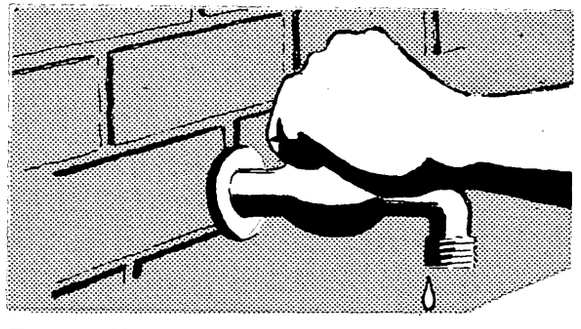
Tips For The Home

Spend wisely. Perhaps the first step in cutting down on water use is to become aware of just how much water is required for simple household chores. Just as we learn to shop wisely and not pay $20 for $10 shoes, we can learn to use water more wisely by not spending 20 gallons of water for a 10-gallon chore.

Flushing a toilet takes 3 to 6 gallons. Is one facial tissue worth 6 gallons? A short shower may require 20 to 30 gallons of water; an average bath is generally more costly, taking about 30 to 40 gallons. Perhaps quicker showers with the water turned off while soaping? Automatic dish washers swallow 15 to 20 gallons of water on every run. Full load every time? Washing dishes by hand can be cheaper, but letting the rinse water run can easily take up to 30 gallons. Turn off the faucet and rinse in the sink?

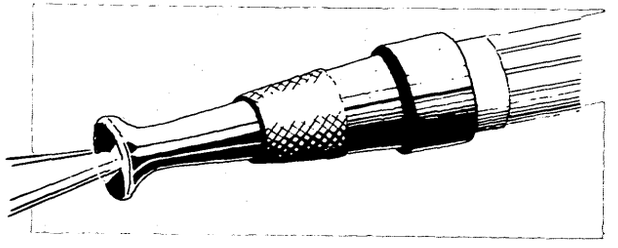


The silent leak. Even worse than the careless hand on the faucet is the silent toilet bowl leak, probably the single greatest water waster in most homes. In some areas, such leaks cause about 95 percent of the complaints about excessive water use charges. A leak of 1 gallon every 6 minutes—not an unusual amount—totals 10 gallons per hour or 240 gallons per day, almost equal to the average amount of water consumed each day in a single family home. The leak nearly doubles the total water consumption. Most such leaks are caused by poorly seated tankballs, worn valves, or other minor maladjustments. To detect the silent leak in a toilet bowl, place a few drops of food coloring in the tank; if the color shows up in the bowl, there's a leak.

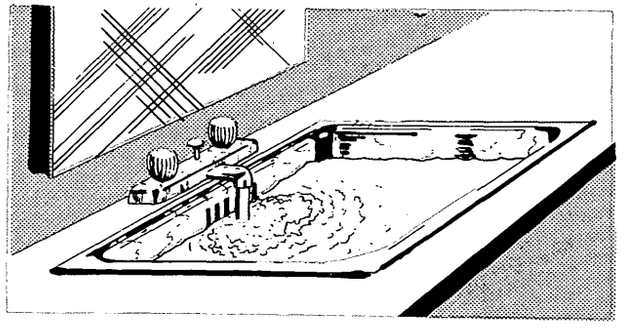


Turn off the drip. There is no such thing as a little drip. The leaking faucet with a drip just 1/16 of an inch in diameter (about this big —o—) can waste 100 gallons every day. Even

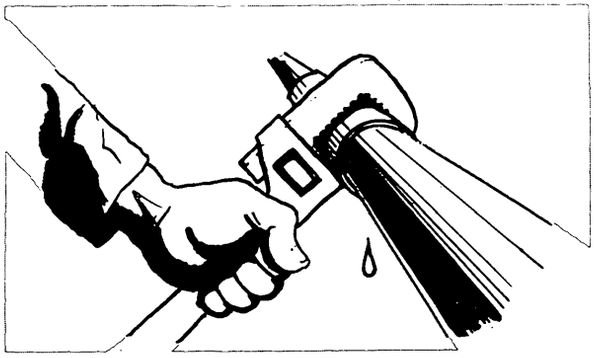
in dollars, that drip is not cheap. At the rate of $1.65 per thousand gallons, a little drip with the 100-gallon-a-day habit can cost more than $60 a year. Turn off that drip by replacing worn washers or valve seats.



Close the hose. Letting the garden hose run faster or longer than necessary while we sprinkle the kids, water the lawn, or wash the car often becomes a careless and wasteful habit. A ½-inch garden hose under normal water pressure pours out more than 600 gallons of water per hour and a ¾-inch hose delivers almost 1,900 gallons in the same length of time. Left on overnight, one garden hose can easily waste twice as much water as the average family uses in a month.

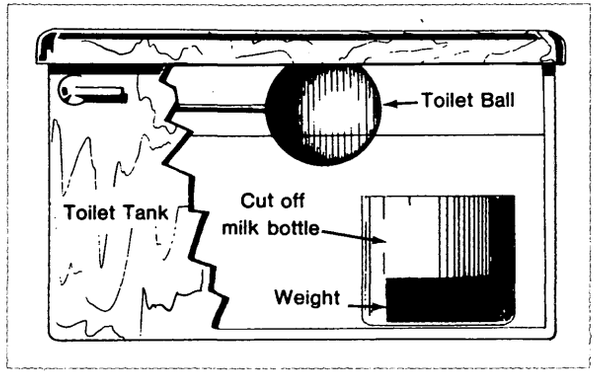


Don't let it run. Too many of us have developed the bad habit of letting the faucet run while we shave, rinse vegetables, or wait for a glass of cold water. Keeping a jug of water in the refrigerator or using a single sinkful of water for shaving or rinsing can save several gallons a day.



Check the plumbing. Proper maintenance is one of the most effective water savers. Faucet washers are inexpensive and take only a few minutes, a wrench, and a screwdriver to replace. The ball stopper in the toilet tank may become encrusted with calcium that prevents proper seating—another easy repair for the do-it-yourselfer.

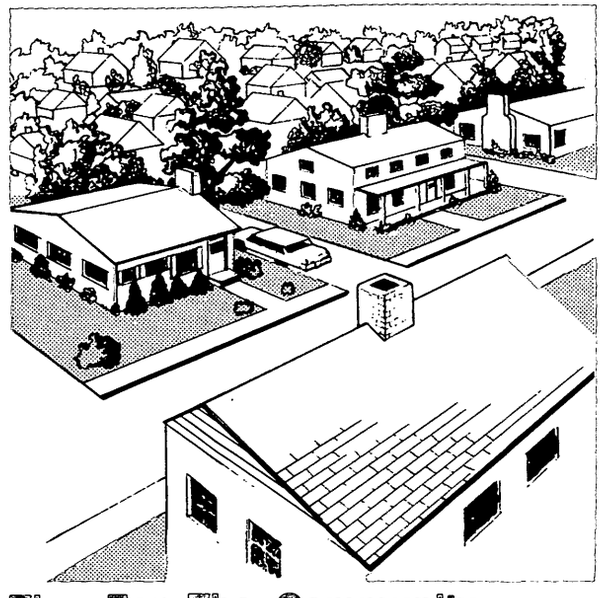
Check all water taps and hose connections. Faucets connected to washing machines, portable dishwashers, or other water-using equipment should be turned off tightly when they are not in use. The garden hose should be turned off at the faucet, not just at the nozzle. Dollars can also be saved by shutting off the supply to outside faucets when away from home to prevent water-wasting vandalism.



Bottle the tank. Most toilets use more water than necessary. Some of that excess water can be displaced and saved by putting

a plastic milk or bleach bottle in the toilet tank. The jug can save almost a gallon per flush without reducing the velocity or pressure below what is necessary for proper flow. The jug, which lasts longer and works better than bricks, should be weighted and located so that it can't interfere with the plumbing in the tank.

Other devices are also available to help conserve water in the home. For example, pressure reduction valves can be placed on household supply lines to reduce excess pressure that might be contributing to water waste throughout the house. Flow regulators can be added to shower heads to encourage the use of less water, and any number of devices can provide a quick shutoff of water in the toilet tank. Also, plumbing and fixture modifications that will save money can be made while a house is under construction or being remodeled.



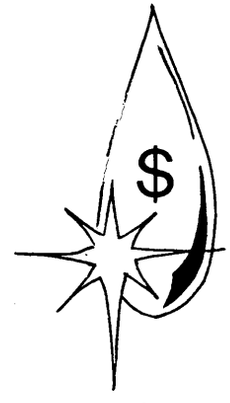
Tips For The Community

Just as important as installing such devices, however, is learning to think in terms of better water conservation. We can begin practicing better water management at home,

at work, and at play. As citizens, we can help our towns and cities save water by controlling pollution, eliminating wasteful usage, and encouraging multiple use, reuse, and recharge of our water resources.

Whether in the home or the community, better management can save water because less water can be used to accomplish the same purpose. In agricultural areas, water may be saved by more efficient irrigation methods, by controlling seepage, and by controlling evaporation from reservoirs. In industrial areas, manufacturers can save water by reusing it and by treating industrial wastes. Cities and towns can save water by eliminating leaks, and installing meters. Waste water can be treated and reused to conserve water of higher quality.

Balanced decisions must be made about the best ways to use water. A personal financial budget includes spending for necessities, a few luxuries, and savings. Similarly, the water budget must include water for domestic, industrial, and agricultural needs, for storage as insurance against drought, and to provide protected wetlands, wilderness streams, and recreational areas. Wise management and conservation, beginning with the wise use of water right in the home, will help to ensure that water resources continue to meet growing water needs.



As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

Cecil D. Andrus, Secretary
U.S. Department of the Interior

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