



# HOW



## To Save Water Inside The Home

### TEXAS WATER DEVELOPMENT BOARD

#### WHY CONSERVE WATER?

When Texans turn on the tap, they expect an ample supply of inexpensive water. However, the cost of expanding water supplies and treating wastewater is rapidly increasing. Texans now spend over one billion dollars each year on new or expanded water supply and wastewater treatment facilities just to keep up with growth and to replace worn-out systems.

#### WATER USE IN A TYPICAL COMMUNITY



Despite increasing expenditures, water supplies will still be inadequate to meet future demands in some parts of the State. To minimize future water problems and costs, all Texans should start now to make more efficient use of the State's water resources. This brochure contains water-saving tips for indoor water use which, if followed, will save money by reducing the water bill and will help conserve Texas' most precious natural resource. Please read the brochure and put water conservations into practice in the home.

#### START IN THE BATHROOM...

About 75 percent of the water used inside the home is used in the bathroom. Be aware of the amount of water being used, and look for ways to use less whenever possible.

**Bathing:** Taking a shower instead of a bath will usually save water, and a short shower will use less water than a long one. Additionally, installing a low-flow showerhead will save about one-half the water currently being used in the shower, while still provide a refreshing, cleansing shower. Installing a low-flow showerhead is the **single most effective conservation step** that can be taken inside the home.

**Toilets:** Standard toilets manufactures prior to the 1980's usually use 5 to 7 gallons per flush. In these older toilets, water can be conserved by using either a toilet dam, plastic bottle, or plastic bag to displace water in the tank. Installing a displacement device\* is the second most effective conservations step that can be taken inside the home, and up to 20% of the water that is currently used can be saved. Replacing the existing toilet with one using only 1.6 gallons per flush would

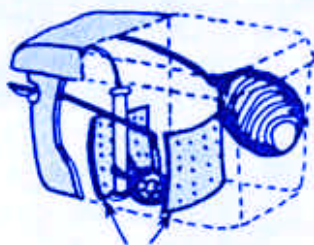
#### To Change Showerheads



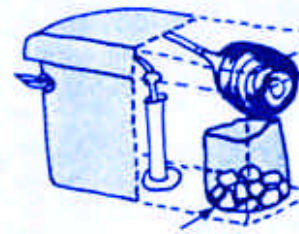
1. To remove the old "high-flow" showerhead, turn counter-clockwise

save even more water and money. Displacement devices usually do not work as well in newer toilets that use 3.5 gallons or less per flush. However, regardless of the type of toilet, make sure it is using the least amount of water possible, do not use it as a trash can for paper and facial tissues, and make sure the flush and fill components in the tank work properly.

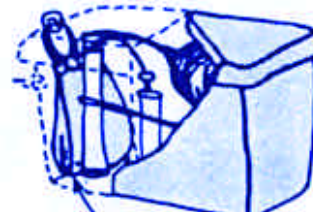
#### Toilet Displacement Devices



Toilet Dam (Install one in either location)

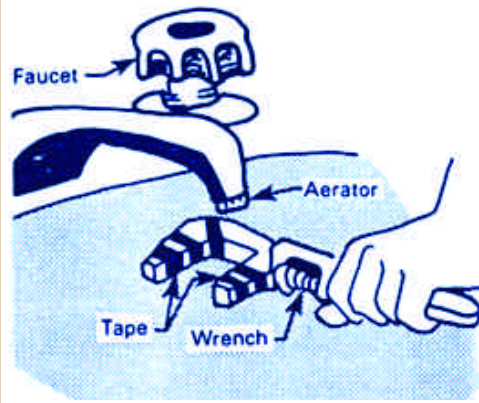


Plastic Bottle



Toilet Bag

## Install A Faucet Aerator



**\* Do not use a brick** – it can crumble and damage the fixture.

**Lavatory:** By simply changing tooth brushing habits, a considerable amount of water can be saved. Instead of allowing the tap water to run while brushing, run the tap just to rinse the toothbrush. The same method can be used to conserve additional water when washing

hands. Additionally, installing a new faucet aerator can save up to one-half the water currently being used in the lavatory.

### ...ADVANCE TO THE KITCHEN...

About 8 percent of in-home water uses take place in the kitchen. Keep water conservation in mind and think of ways that water can be saved in the kitchen.

**Sink:** Run water from the faucet only when necessary.

- Fill the basin or a dish pan to rinse dishes instead of using running water.
- Soak pots and pans before washing.
- Fill the basin or a pan or bowl with water to wash fruits and vegetables.
- Instead of letting hot water run over frozen foods, place them in a pan of hot water to defrost.
- Keep a pitcher of water in the refrigerator rather than running tap water for a cool drink.

• Operate the garbage disposal only when necessary.

**Dishwasher:** Wash only full loads in the dishwasher. When buying a new machine, considering purchasing a water-saving model. New models can cut water usage by 25 percent and are no more expensive than non-conserving models.

### ...CONTINUE AROUND THE HOUSE...

Several other ways to conserve water are listed below.

Always look for different places in the home where water can be used more efficiently.

**Washing Machine:** The washing machine uses 14% of the water used inside the home. When using an automatic washing machine (32 to 50 gallons are required per cycle), adjust the water level to match the size of the load. If the machine does not have a water level adjustment, wash only full loads. When purchasing a new machine, consider a water-saving model, which should be no more expensive than a conventional model and which can reduce water use by as much as 30%.  
**Insulate Pipes:** Insulate hot water pipes where possible to avoid long delays (and wasted water) while waiting for the water to “run hot”. Pipe insulation is inexpensive, easy to install, and available at plumbing and hardware stores.

**Hot Water Heater:** Be sure the hot water heater thermostat is not set too high. Very hot settings (above 125 degrees F) waste energy since the water has to be mixed with cold water before use. However, if the home has an automatic dishwasher, a water temperature of at least 140 degrees F is required so that the dishwasher will clean effectively.

### ...AND FIX ALL LEAKS

Leaks can easily account for 10% or more of the water bill and waste both water and energy if the source is a hot water faucet. For example, a toilet with a silent leak of one cup of

water a minute (a mere dribble) wastes about 2,700 gallons of water a month.

**Toilet Leak:** When a toilet leaks, water escapes from the tank into the bowl. To determine if the toilet is leaking, look first at the toilet bowl after the tank has stopped filling. If water is still running into the bowl or if water can be heard running, the toilet is leaking.

Although water may not be seen or heard running, the toilet may have a “silent leak”. To test for a silent leak, mix a few drops of food coloring or place a dye capsule or tablet (available from many utilities and hardware stores) into the water in the toilet tank. DO NOT flush the toilet. Wait for about 10 minutes, and if the dye or food coloring appears in the toilet bowl, the toilet has a silent leak.



The most common causes of toilet leaks are worn flush valve balls, improperly adjusted water levels, worn valve seats, and leaking fill valves. Check each item, replace worn parts as necessary, and retest to make sure the leak has been fixed.

**Faucet Leaks:** Faucet leaks are usually obvious.

However, seldom-used taps in the basement or storage rooms should be periodically checked. Faucet leaks are usually caused by worn washers or “O” rings (for a washerless faucet) which can be replaced with two or three hand tools. Replacement washers and “O” rings are inexpensive and can be purchased from most hardware and variety stores.

### Water Wasted in One Month From Leaks

Gallons / month

- |   |             |
|---|-------------|
| 1. A slow steady drip<br>(100 drops a minute) | 350         |
| 2. A fast drip                                | 600         |
| 3. A small stream                             | 2,000-2,700 |
| 4. A large stream                             | 4,600       |

### Use The Water Meter To Check For Other Leaks:

The water meter can be used to check for invisible or unnoticed leaks. Turn off all water outlets and water-using appliances. Read the dial on the water meter and record the reading. After 15 to 20 minutes, recheck the meter. If no water has been turned on or used and the reading has changed, a leak is occurring somewhere in the plumbing system. The services of a plumber or trained water utility employee are often required to locate and fix these invisible leaks. The water meter is often located in the front yard near the street.