



## Water Conservation – It's Everyone's Responsibility

**97%** of the water on Earth is salt water; the water found in the Earth's lakes, rivers, streams, ponds, swamps accounts for only 0.3 percent of the world's fresh water. The rest is trapped in glaciers or is in the ground. There is more water in the atmosphere than in all of our rivers combined.

According to the American Water Works Association, the average US resident uses about **110** gallons a day. We use the most for toilets, followed by bathing, laundry/dishes and cooking/drinking. In the last 30 years the US demand for water has grown faster than our ability to find new water sources. During this period while our population grew 52%, total water use grew by 300%. In more recent years, population has increased only slightly but demand for water continues to rise sharply.

To begin conserving water, everyone needs to know some simple facts:

1. Water is a limited resource.
2. Water costs a great deal in energy and money to pump, move and purify.
3. Water consumption can be reduced significantly in the average home.

Water shortages are real, touching many US communities each year. Because water conservation is a good defense against shortages, it should happen all the time, not just when shortages occur. Conservation is everybody's responsibility. Most of us can significantly reduce our household water consumption if we change some of our habits. Here's a few tips to get you started.

### Bathing & Personal Care

- Turn faucets off completely to avoid drips and slow leaks. At one drip per second, a faucet can leak 3,000 gallons in a year.
- Turn the valves back a bit under the sink to reduce the rate of water flow.
- When you brush your teeth, don't let the water keep running. Just wet your brush and fill a glass for mouth rinsing. Turning off the water while you brush your teeth saves up to gallons a minute. That's up to 200 gallons a week for a family of four.
- Plug the sink instead of running the water to rinse your razor and save up to 300 gallons a month.
- Don't flush the toilet unnecessarily. Each flush uses 5 to 7 gal of water. Throw tissues, insects and other trash in the wastebasket, not the toilet.
- Reduce the amount of water the toilet uses by filling a 1-gallon plastic container with water and putting it in the tank to displace 1 gallon of water. This may save 10 or more gallons of water per day. Be sure at least 3 gallons of water remain in the tank so it will flush properly.
- For new toilet installations, consider buying "low flush" toilets, which use 1 to 2 gallons per flush instead of the usual 3 to 5 gallons, representing a 70% savings.
- Check your toilets for leaks. A running toilet can waste up to 200 gallons of water each day. Put a little food coloring in your toilet tank. If, without flushing, the color begins to appear in the bowl within 30 minutes, you have a leak that should be repaired immediately.
- Take short showers, not baths. A 4-minute shower uses approximately 20 to 40 gallons of water. A bath uses up to 70 gallons of water. Shorten your shower by a minute or two and you'll save up to 1,000 gallons per month.
- Install flow restrictors on individual water fixtures like low-flow showerheads and faucets. They automatically reduce flow and aerate the water. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Insulate your water pipes. It's easy and inexpensive to insulate your water pipes with pre-slit foam pipe insulation. You'll get hot water faster plus avoid wasting water while it heats up.
- As you wait for shower water to heat up, collect the cold water in a bucket for watering plants.

## Laundry

- Use your clothes washer for only full loads for optimum water conservation. Avoid the permanent press cycle which uses an added 5 gallons for the extra rinse. For partial loads, adjust water levels to match the size of the load. Replace old clothes washers. New Energy Star rated washers use 35 - 50% less water and 50% less energy per load. Consider buying a water-saving front load washer.
- Hand wash several items at the same time. Use the final rinse water from one group of items as the wash water for the next group.
- Turn your washer's water supply off when not in use. Check the hoses and look for leaks periodically.
- As with your water from baths and showers, you can re-cycle your used laundry water for flushing the toilet, watering outdoor plants or doing other household cleaning like mopping floors. Do not use wash water containing bleach or borax for watering plants.

## In the Kitchen

- Wash only full loads in the dishwasher. Select shorter cycles when possible to use less water.
- Scrape/wipe dishes rather than rinsing if they are to be washed immediately in the dishwasher. Most makers of dishwashing soap recommend not pre-rinsing dishes which is a big water savings.
- Minimize use of kitchen sink garbage disposal units. In-sink 'garburators' require lots of water to operate properly, and also add considerably to the volume of solids in a septic tank, which can lead to maintenance problems. Start a compost pile as an alternate method of disposing food waste.
- Hand wash cooking utensils and serving dishes that take up a lot of dishwasher space. Wash them as soon as possible to prevent food particles from getting hard and becoming more difficult to remove.
- When hand washing dishes, use a pan of soapy water for washing and one of hot water for rinsing. Doing so uses less water than a running faucet.
- Soak pots and pans instead of letting the water run while you scrape them clean.
- Select the proper size pans for cooking. Large pans require more cooking water. Use tight-fitting lids on pans to keep water from boiling away faster.
- Cook food in as little water as possible. Doing so also prevents loss of nutrient value.
- Save the water left after you cook vegetables for soups, cooking other raw vegetables or fruits. Refrigerate and use within a few days.
- Wash your fruits and vegetables in a pan of water instead of running water from the tap. Collect the water you use while rinsing fruit and vegetables. Use it to water house plants.
- Do not use water to defrost foods. Although many people do use this method it requires a lot of water consumption to do this. Don't use running water to thaw food. For water efficiency and food safety, defrost food in the refrigerator.
- Keep a bottle of drinking water in the fridge. Running tap water to cool it off for drinking water is wasteful.
- Designate one glass for your drinking water each day, or refill a water bottle. This will cut down on the number of glasses to wash.
- While waiting for faucet water to warm, catch water and use it for other parts of the meal preparation (cleaning vegetables, cooking liquid, hand dish washing, etc.), or to water plants.
- Install an instant water heater near your kitchen sink so you don't have to run the water while it heats up. This also reduces energy costs.
- If you accidentally drop ice cubes, don't throw them in the sink. Drop them in a house plant instead.

## Household Cleaning

- Wash windows outdoors with a bucket of soapy water. Rinse quickly with a hose using high pressure, low volume and a pistol-grip nozzle.
- Plan household cleaning chores so that you can reuse water for certain activities. Clean lightly soiled surfaces first, then the dirtier areas. Doing several tasks at the same time can save water.

## LAMPREY RIVER WATERSHED ASSOCIATION – WATER CONSERVATION TIPS

- Clean the driveway, patio, sidewalks and garage floor with a broom rather than a hose and water.
- If you wash your car, consider using a mild detergent and parking the car on the grass so the water used will also water the grass. Clean the car using a pail of soapy water. Use the hose only for rinsing - this simple practice can save as much as 150 gallons when washing a car.
- Use a bucket of water to wash the car, then rinse quickly with a hose (as with windows listed above). In emergencies washing cars may be prohibited.
- Clean the filter and maintain the swimming pool, spa and Jacuzzi properly so you won't need to replace water as often. If they are outdoors, cover them when not in use to prevent evaporation.

## Garden and Lawn

- Mulch shrubs and small trees to retain moisture in the soil for a longer time. Spread leaves, lawn clippings, small pieces of bark or plastic on the ground around plants.
- Pull out weeds to eliminate competition for water.
- When building or remodeling, plan your landscape and garden to minimize water needs.
- If you have to water, water thoroughly, but less frequently. Doing so promotes a deeper grass root system to withstand dry weather better.
- Trickle or drip techniques use 25 to 50% less water than standard hoses or sprinklers.
- Do not allow outdoor water to run down the driveway into the street or storm drain. When watering, ensure that the sprinkler system is set the right way to so you are watering only what needs water.
- Water your lawn and garden very early in the morning (before 10 a.m.) to avoid sun evaporation. Don't water when it is windy and during the heat of the day.
- Check hoses, faucets and water devices periodically for leaks and malfunctions, which can waste large amounts of water.
- Water brown spots separately so that you do not water areas not needing as much water.
- Avoid fertilizing the lawn during the summer as doing so increases its demand for water. Use only slow release fertilizer if any at all or apply very minimal amounts.
- When you plant new grass, try a variety that withstands dry weather. Do not replace grass during the summer.
- Use rainwater to water the plants around the house.
- Plant drought-resistant lawns, shrubs and plants. Many beautiful shrubs and plants thrive with far less watering than other species. Native plants will use less water and be more resistant to local plant diseases. Plant slopes with plants that will retain water and help reduce runoff. Group plants according to their watering needs.
- Put a layer of mulch around trees and plants. Mulch will slow evaporation of moisture while discouraging weed growth. Adding 2 - 4 inches of organic material such as compost or bark mulch will increase the ability of the soil to retain moisture. Press the mulch down around the dripline of each plant to form a slight depression which will prevent or minimize water runoff.
- Water your lawn only when it needs it. A good way to see if your lawn needs watering is to step on the grass. If it springs back up when you move, it doesn't need water. If it stays flat, the lawn is ready for watering. Letting the grass grow taller (to 3") will also promote water retention in the soil. Most lawns only need about 1" of water each week. During dry spells, you can stop watering altogether and the lawn will go brown and dormant. Once cooler weather arrives, the morning dew and rainfall will bring the lawn back to its usual vigor. This may result in a brown summer lawn, but it saves a lot of water.
- If watering the lawn, do it long enough for the moisture to soak down to the roots where it will do the most good. A light sprinkling can evaporate quickly and tends to encourage shallow root systems. Put an empty tuna can on your lawn - when it's full, you've watered about the right amount.
- Water during the early parts of the day. Early morning is generally better than dusk since it helps prevent the growth of fungus. Early watering, and late watering, also reduce water loss to evaporation. Watering early in the day is also the best defense against slugs and other garden pests. Try not to water when it's windy - wind can blow sprinklers off target and speed up evaporation.
- Add organic matter and use efficient watering systems for shrubs, flower beds and lawns. Adding organic material to your soil will help increase its absorption and water retention. Areas which are already planted can be 'top dressed' with compost or organic matter.

## LAMPREY RIVER WATERSHED ASSOCIATION – WATER CONSERVATION TIPS

- You can greatly reduce the amount of water used for shrubs, beds and lawns by the strategic placement of soaker hoses, installing a rain barrel, or installing a simple drip irrigation system.
- Avoid over-watering plants and shrubs, as this can actually diminish plant health and cause yellowing of the leaves.
- When hand watering, use a variable spray nozzle for targeted watering.
- As a general rule, lawns only need watering every 5 to 7 days in the summer and every 10 to 14 days in the winter. A hearty rain eliminates the need for watering for as long as two weeks.
- Adjust your lawn mower to the height of 1.5 to 2 inches. Taller grass shades roots and holds soil moisture better than short grass. Leave lawn clippings on your grass, this cools the ground and holds in moisture.
- Raise the lawn mower blade to at least three inches. A lawn cut higher encourages grass roots to grow deeper, shades the root system and holds soil moisture better than a closely-clipped lawn.
- Avoid over fertilizing your lawn. The application of fertilizers increases the need for water. Apply fertilizers that contain slow-release, water-insoluble forms of nitrogen.
- Plant native and/or drought-tolerant grasses, ground covers, shrubs and trees. Once established, they do not need to be watered as frequently and they usually will survive a dry period without any watering. Group plants together based on similar water needs.
- Outfit your hose with a shut-off nozzle which can be adjusted down to fine spray so that water flows only as needed. When finished, "Turn it Off" at the faucet instead of at the nozzle to avoid leaks.
- Use hose washers between spigots and water hoses to eliminate leaks.

## Other

- Be alert to potential faucet and toilet leaks throughout the house. Check and repair them as quickly as possible. A few simple repairs may reduce household water use by 10% or more.
- Insulate hot water pipes.
- Evaluate for other "hidden" water leaks. Read your water meter while no water is being used in your house. Check again after several hours when no one has used any water. If the meter reading has changed, you may have an underground water leak.
- When you leave home for a trip, turn off the water going to your faucet, so that no one can accidentally turn on an outside faucet. Also turn off the hot water heater. Doing so prevents water loss and potential damage if a pipe or hose breaks.
- If you use a home water softener, check how often it backwashes and how many gallons of water are used for regeneration. A weekly cycling is usually more than enough for a family of four. You may want to run unsoftened water lines to the toilet and other select faucets.
- Look at water requirements when you buy new appliances like a dishwasher or washing machine.
- When you buy water-using equipment, consider selecting: water-saving toilet models, smaller than standard bath tubs, water heater sized to family needs and insulated to prevent heat loss.
- When building or remodeling, group the bathroom, laundry and kitchen in one general area to avoid long plumbing lines. Locate the water heater near where hot water is needed: or, consider two smaller heaters when the distance between water use areas is great.
- If the water pressure is greater than 60 pounds per square inch (p.s.i.) consider installing a pressure reducing valve where the water comes into the house.
- Learn about new systems to reuse or recycle home wastewater. Before you install one, however, be sure to find out exactly how it operates and its recommendations for water use.
- Wash your pets outdoors, in an area of your lawn that needs water.
- When cleaning out fish tanks, give the nutrient-rich water to your non-edible plants.
- When you give your pet fresh water, don't throw the old water down the drain. Use it to water your trees or shrubs.
- Know where your master water shut-off valve is located. Were a pipe to burst, this could save gallons of water and prevent damage.