

## Water Conservation

### Water Conservation Tips and Fact Sheet

- *During a drought, you should primarily follow recommendations from your public water supplier for appropriate levels of water use requirement. Use water wisely to help save water, money, and energy and protect our supplies of clean water using the following water conservation tips:*

#### Indoor Usage:

##### In the Bathroom

- ✓ Turn the faucet off while you brush your teeth.
- ✓ Check dripping faucets and /or showerhead and replace faucets that are leaking by replacing faulty washers and “O” rings. In many cases, inexpensive washers can be replaced easily. Leak detection and repair can save up to 20 gallons a day!
- ✓ Showerheads purchased prior to 1989 may use 3 to 7 gallons or more per minute. If you have not installed a Water efficient showerhead which uses 2.5 gallons per minute or less, you are missing a superb way to save water and energy without losing the benefits of a satisfying shower.
- ✓ Check for leaky pipes under sinks, behind your washing machine and around basement plumbing for suspicious wet areas. Apart from wasting precious water, leaks could be damaging to your floors, walls and ceilings.
- ✓ Take a shower instead of a bath, and keep showers as short as possible. If you must take a bath, don’t fill the tub to the top.
- ✓ Use a bucket to capture shower and bath water while you wait for it to warm up. Use the captured water in your toilet or water your plants.
- ✓ Only flush the toilet when you have to, and consider installing a low-flow toilet. Low-flow toilets and retrofit kits are available at local hardware stores. Some retrofit kits only work with certain toilets, so get a recommendation from your local plumber on the right one for you.
- ✓ You can also reduce the volume of each flush by placing a toilet dam or a water-filled plastic bottle weighted with gravel in the tank if you have not already installed a 1.6 gallon toilet. Be sure not to interfere with the flushing mechanism and don’t use bricks as they might disintegrate.
- ✓ Test your toilet for leaks by putting food coloring in the tank: If a dye is seen in the bowl in about 15 minutes, the tank is leaking into the bowl! Determine the nature of the leak by inspecting the components in the tank. Try replacing the flapper, fill tube or flush valve.

### Take Action in Saving Water!

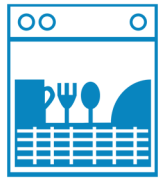
The ability of CT water systems to provide long term, reliable supplies to customers during a drought advisory, watch, warning or emergency rest mainly on developing a conservation strategy to augment existing supplies. Take action to save water!

## Water Conservation Tips



### In the Kitchen

- ✓ Soak pots and pans before washing them. Scrape dishes clean rather than rinsing them off.
- ✓ Run dishwashers only when full or adjust the water level setting accordingly. Consider buying a water saving dishwasher.
- ✓ Store water for drinking in the refrigerator rather than running the tap water until it is cold enough to drink.
- ✓ Thaw items in the refrigerator overnight rather than using running tap of hot water.
- ✓ Steam vegetables instead of boiling them. It uses less water and also improves flavor and nutrition.



### Doing the Laundry

- ✓ Only run the washing machine when the load is full or use the load selector to match the water level to the size of the load.
- ✓ Check the hose connections for leaks, and repair or replace them if needed.
- ✓ If you are purchasing a new washing machine, look for a water efficient model, with a load size selector, and variable water level control.



### Cleaning

- ✓ Use a pail or basin instead of running water for wet cleanings.
- ✓ Use a sponge mop instead of a string mop.
- ✓ Presoak oven/grill parts overnight, and use elbow grease instead of more water.
- ✓ Sweep your sidewalks clean rather than water-spraying them off.

## Outdoor Usage:

### In the Garden

#### Grass

- ✓ Keep grass 1-3 inches long so that the roots are shaded. Longer grass requires less water and mowing
- ✓ Avoid daily watering. Water the grass when you can step on it, and the blades don't lift back up. Consider letting the grass turn brown. It is normal for grass to brown and go dormant in the summer heat.



#### Watering

- ✓ Water your garden early in the morning, or in the evening. During the day, the sun will be hotter and cause more water to evaporate before being absorbed by the ground and plants.
- ✓ If you use a sprinkler to water your garden, make sure that you are not wasting water by watering the sidewalk or street. Position the sprinkler so that it waters plants! Better still, water your plants using a watering can with water from a rain barrel.
- ✓ Collect and recycle rainwater. Attach a rain barrel to the downspout of your gutters to capture rain, and use it to fill your watering can to water the garden or store collected water and siphon it off later to water garden and flower beds.
- ✓ Know your soil type. Sandy soil needs more watering, clay soil needs frequent light watering.
- ✓ Water slowly so soil and mulch is not pushed away from the roots.
- ✓ Consider an automatic sprinkler or drip irrigation system.
- ✓ Don't water during rainy or windy days. Consider a rain sensor for irrigation systems.

#### Planting and Lawns

- ✓ During Drought Watch, Drought Warning or Drought Emergency, water use for irrigation of existing lawns is not allowed. Please delay any new planting until after the drought. Watering of newly planted trees is only allowed at the time of planting. Landscapers and nurseries must reduce water usage by at least 20 %.
- ✓ *General conservation tips:*
  - Use plants that require less water, or mulch around plants to retain soil moisture. Mulch also prevents weeds!
  - Plant shrubs and perennials in the fall or spring to benefit from seasonal rain and cooler temperatures.
  - Group plants with similar soil type, sun and watering needs.
  - Dig basins around plants to catch water.
  - Reduce the size of your lawn by planting shrubs, berry bushes or other low-maintenance ground covers.
  - Your first priority is to water your fruits and vegetables because 'they' feed you! Water-wise plants and shade trees

use little or no water once established. Remember, thirsty plants such as lawn and container plants are the lowest priority so cut back water use on those first.

#### Pools and Car Wash

- ✓ Use a solar pool cover to prevent or minimize water evaporation.
- ✓ Wash your car on your lawn with water from a bucket, or consider using a commercial car wash that recycles water.
- ✓ When washing your car, rinse the car once, then wash from a bucket of soapy water, then quickly rinse.
- ✓ Check hose connections for leaks, and repair or replace them.



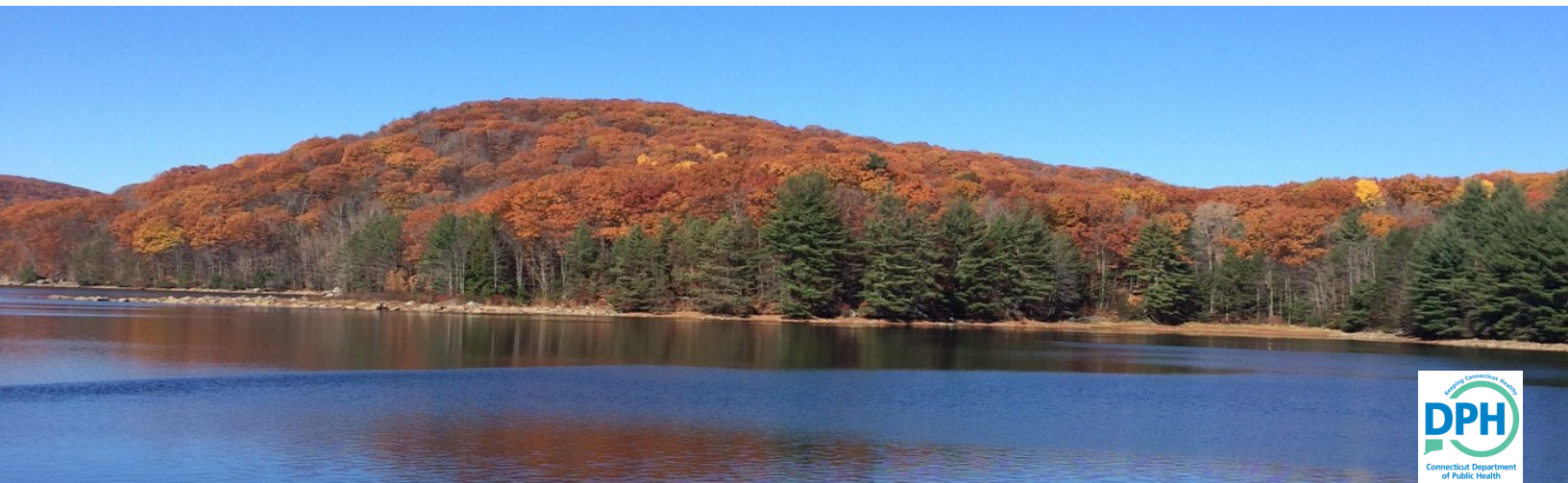
#### Leak Detection Survey

- ✓ Check your house for leaks by reading your water meter, then turning off all water appliances and fixtures for an hour. If you go back, and the meter reads a bigger number, you have a leak somewhere.
- ✓ Determine the reason or location of the leak and fix the problem to eliminate water waste, thereby ensuring enough clean water for today and the future.

## RESTAURANTS, HOTELS, BARS AND OTHER FOOD SERVICE ESTABLISHMENTS

Efficient use of Cooling Towers, Laundry facilities, Guest Rooms, Toilets/urinals, Showers, Sinks, Laundry needs, Swimming Pools & Spas, Restaurants, Landscaping, Ice Makers are ways that you can conserve water. An average uncovered outdoor Swimming Pool & Spa loses about an inch of water a week during the summer because of evaporation! Other losses occur through splashing, filter backwashing and leaks. Cooling towers lose 2.4 gpm per 100 tons of cooling. Hot water supplied to certain faucets, showerheads, and tubs often lead to heat losses that occur when hot water pipes are poorly insulated and / or when water must travel through long lateral lines to the user. The amount of water used by a sprinkler in one hour is equal to the daily water needs of a family of four. Hoses without nozzle can waste 10 gallons of water or more per minute. By changing to water efficient equipment and procedures and applying the conservation tips below, hotels and food establishments can cut water use by up to 30%.

- ✓ Regularly check and maintain the valve that controls Refrigeration and ice-making equipment, which uses “once-through” city water for cooling, because the valve often fails, causing water to flow 24 hours a day.
- ✓ Install water-cooled equipment to replace air-cooled equipment. Keep water-cooled refrigeration and ice-making equipment well maintained. The use of recirculated cooling water type icemakers is more efficient.
- ✓ Check your water meter, if you have one, to see if there’s movement at closing time after clean-up. If the leak detection dial is moving, you have some kind of continuous leak.
- ✓ Install flow-restricting aerators on your faucets. Such aerators allow 2 gallons per minute maximum flow. For faucets, which are used for filling pots, choose fingertip control valve that can be used to switch between full and aerated flow. Train kitchen staff to use full flow only when truly required.
- ✓ Install hands-free, foot-activated pedals for faucets or automatic shutoff valves.
- ✓ Use low-flow pre-rinse valves for automatic dishwashers. Run dishwashers only with full loads.
- ✓ Establish restaurant policy to only serve water to customers when requested.
- ✓ Refrain from using flowing water to defrost food. Instead, thaw food in the refrigerator.
- ✓ If the kitchen needs to be washed down, use hoses equipped with self-closing nozzles that flow at 5 gallons per minute.
- ✓ Request a free restaurant water audit from DEEP to identify areas of water and energy conservation.
- ✓ Replace older toilets with 1.6-gallons per flush toilets.



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## Water Savings, Water Audit and Must-Do Items

### Guest Rooms and Restrooms:

- ✓ Note that Low-volume toilets use 1.6 gallons per flush (gpf) or less; Dual flush toilets 1.0 gpf or less; Low-volume showerheads use a maximum of 2.5 gpm (@80 psi); Low-volume bath faucet use a maximum of 2.5 gpm (@80 psi). Low-volume kitchen faucets use a maximum of 2.5 gpm (@80 psi); Restrooms Checklists include: Metered-valve, self-closing and sensor-activated faucets; Spray nozzles (ergonomic), Toilet leaks

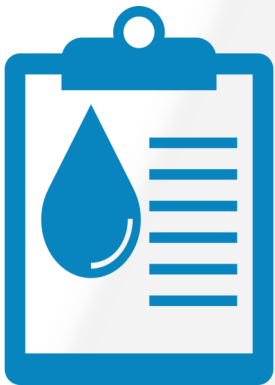


### Landscaping and Irrigation:

- ✓ Go for Low-Water-Use Turf and Plants; Grass turf requires 30-50 % more water than shrubs and other groundcover; Redirect condensate to landscape; Remove thatch and aerate turf to encourage the movement of water to the root zone; Consider using Electronic Irrigation System Controllers; Rainfall Shutoff Devices; Soil Moisture Sensors; Drip Irrigation systems, soil soakers and efficient sprinkler systems; Rain Barrels – Cisterns (- A 1000-square-foot roof can collect 150 gallons of water during a quarter-inch rain). Landscapes can be graded to create depressions to catch runoff for redirection to lawn. Cistern water can be used in cooling towers, plant watering, fountains, etc. Water the lawn only when the ground is dry not more than once a week. Pull weeds to decrease competition for water.

### Water Conservation Audit Your Establishment

- ✓ Check Records, Identify Sub-metering, Locations and Use a water audit checklist to look at the establishment in totality. Check that the following are in place: Well-maintained dishwashers; Faucet maintenance; Hands-free controls; Presoaking instead of using running water; Automatic shut-off for bar sinks; Reduction of flows to minimum in wells and troughs.



- ✓ Turn off continuous flows (drain trays). Use On-demand, point-of-use hot water dispensers to help prevent water loss!; Promptly repair leaks and malfunctioning equipment. Eliminate thawing frozen food with water unless required by law. Avoid running water to melt ice in sink strainers. Retrofit Wash-down hoses with a throttling valve. Use full loads in sanitizers, sterilizers, dishwashers, and washing machines; Replace worn-out fixtures and appliances with water-saving models. Use minimum wares to reduce dishwashing loads. Provide water conservation signs for staff and customers! Only wash linens that you need to wash. Disposables may be an option during the drought! Control your cooling tower blowdown, drift and chemistry! Use boiler-less steamers that consume 3 gallons per hour or less to realize water savings potential of 162,000 gallons per year. Collect the condensate from steam in boiler-type steam kettles with an insulated line to help the water retain heat. Re-using the water for boiling gives water savings potential of 90,400 gallons per year.

Note that using not more than 15 gallons of water in combination ovens (which are used to keep food from drying out while baking) gives a water savings potential of 120,000 gallons per year.

### More water conservation tips:

<https://www.swfwmd.state.fl.us/conservation/thepowerof10/> easily calculates your water consumption daily, weekly, monthly and yearly.

<http://www.home-water-works.org/calculator> easily calculates your home water consumption and where you can save water

<http://www.nyc.gov/html/dep/pdf/hciswrest.pdf>

### Additional fact sheets:

- [WaterSense water efficient landscaping](#) and [drought tips](#)

### Tools and Research:

[Drought Resilience and Water Conservation Technical Brief](#) (EPA -600-F-16-051) EPA actions and research on many areas related to drought and water resources.

[EPA WaterSense program drought outreach:](#) WaterSense tools.

