Yes, we are under extreme drought conditions in Central Texas. What can we do to help our area and our gardens? First of all we must practice water conservation.

**Water conservation** refers to reducing the usage of water and recycling of wastewater for different purposes such as cleaning, manufacturing, and agricultural irrigation. It is defined as: any beneficial reduction in water loss, use or waste as well as the preservation of water quality, a reduction in water use accomplished by implementation of water conservation or water efficiency measures; or, improved water management practices that reduce or enhance the beneficial use of water. A water conservation measure is an action, behavioral change, device, technology, or improved design or process implemented to reduce water loss, waste, or use.

The goals of water conservation efforts include as follows:

**Sustainability.** To ensure availability for future generations, the withdrawal of fresh water from an ecosystem should not exceed its natural replacement rate.

**Energy conservation.** Water pumping, delivery, and wastewater treatment facilities consume a significant amount of energy. In some regions of the world over 15% of total electricity consumption is devoted to water management alone!

**Habitat conservation.** Minimizing human water use helps to preserve fresh water habitats for local wildlife and migrating waterfowl, as well as reducing the need to build new dams and other water diversion infrastructure.

These goals go together to promote efficient and effective water usage so all people and critters can benefit together.

**Water efficiency** is a tool of water conservation. That results in more efficient water use and thus reduces water demand. The value and cost-effectiveness of a water efficiency measure must be evaluated in relation to its effects on the use and cost of other natural resources (e.g. energy or chemicals).

So what should we all be doing right now? Here are a few tips to help you conserve.

1. Fill 1 sink with wash water and 1 sink with rinse water when you are washing dishes, (2) upgrade to air- cooled appliances, (3) adjust your sprinklers so only your lawn is watered, and not your house, street, or sidewalk. Choose to water the shrubs, trees, and permanent plantings, because turfs can absorb too much water and can be replaced more readily than your trees and shrubs that take years to grow. Check the foundation; watch for cracks and perhaps water the foundation, if necessary. Try weather-based irrigation controllers and garden nozzles that shut off water when it is not being used, instead of letting a hose run. (4) Run dishwashers and clothes washers only when they are full and run them at night during low electricity usage.
Not only can you conserve water on the outside but you must also look at your habits for using water in the house. Water-saving technology for the home includes:

- Low-flow shower heads sometimes called energy-efficient shower heads as they also use less energy, and low-flush toilets and composting toilets. These have a dramatic impact in the developed world, as conventional Western toilets use large volumes of water. Dual flush toilets include two buttons or handles to flush different levels of water. Dual flush toilets use up to 67% less water than conventional toilets. Saline water (sea water) or rainwater can be used for flushing toilets.
- Faucet aerators, which break water flow into fine droplets to maintain "wetting effectiveness" while using less water. An additional benefit is that they reduce splashing while washing hands and dishes.
- Wastewater reuse or recycling systems, allowing: reuse of graywater for flushing toilets or watering gardens, recycling of wastewater through purification at a water treatment plant, rainwater harvesting (if we ever get rain again!), high efficiency clothes washers, using low flow taps in wash basins.
- An automatic faucet is a water conservation faucet that eliminates water waste at the faucet. It automates the use of faucets without the use of hands. A valve, which reduces water, gas, time, money and CO2 known as a Combisave.

Water can also be conserved by landscaping with native plants and by changing behavior, such as shortening showers and not running the faucet while brushing teeth.

- If you replace any plantings, replace with native plants, including the grasses. Provide a dish of water for the insects, butterflies and other critters that come by your yard. Consider a small pond installation to create a neighborhood oasis for you and the wildlife. There are many creative ways to conserve water and resources are available for all of us.

Part three will continue the drought discussion.

Have any questions about gardening in Central Texas? Contact ask.bcmga@gmail.com