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Saving Water in

# South Carolina

South Carolinians are fortunate to have an abundance of clean, fresh water. Statewide, South Carolina receives an average of about 48 inches of water per year from precipitation. That's significantly more than the 36 inches per year that famously rainy Seattle receives.

However, the state has experienced a number of droughts in recent years; in fact, South Carolina's worst drought on record occurred in 2008. South Carolina's population is also projected to increase nearly 18 percent between 2010 and 2030. These strains on South Carolina's freshwater supply highlight the need for water efficiency in the Palmetto State.

## WATER SOURCES AND USES

Ground water is more plentiful than surface water in South Carolina, but surface water is the source of most of the large water supplies in the state because of its convenience and availability. In fact, 70 percent of the state's population gets its daily water needs from surface water, and 30 percent from ground water. The largest cities in the state depend upon surface water for their supplies. Geographically, the heaviest users of surface water are in the western part of the state, and the heaviest users of ground water are in the eastern part of the state.

By far, the largest users of surface water in South Carolina in 2010 were hydroelectric power plants, accounting for more than 77 percent of total reported water use. However, most of the water is returned after use. The second biggest user was thermoelectric power plants, which generate electricity using steam, and third was water withdrawn for the public water supply.

Agriculture in the state does not rely heavily on irrigation. In 2007, only about 9 percent of the harvested cropland was irrigated.



## DROUGHTS TAKE A TOLL

While South Carolinians generally enjoy fairly high rainfall levels, droughts have recently plagued the state. In addition to a record drought in 2008, drought conditions in 2011 officially reached the "severe" level in multiple counties. Average precipitation, groundwater levels, and stream flows dropped to at or near record lows. Droughts have forced both mandatory and voluntary water conservation actions throughout the state and raised concerns about wildfires and the replenishment of water sources.

Along the coast—in the Hilton Head area most notably—another problem is occurring. Some groundwater aquifers have been withdrawn to such an extent that salt water enters the aquifer to replace the water that has been removed, resulting in the addition of salt to a previously freshwater source.

In addition to dealing with drought and saltwater intrusion, South Carolina also must negotiate water

usage rights with its neighbors. South Carolina shares three of its four river basins with North Carolina and Georgia. Demand on the Savannah River, which forms much of the border between South Carolina and Georgia, is increasing due to population growth in metropolitan Atlanta, Georgia. Hydropower usage of water upstream in North Carolina also affects water in streams in South Carolina.

### CONSERVATION IS THE KEY

South Carolinians can help ensure enough water for future generations by using water more efficiently. Communities and utilities are promoting water efficiency through programs such as the U.S. Environmental Protection Agency's (EPA's) WaterSense® program. Organizations in South Carolina have partnered with WaterSense to promote WaterSense labeled plumbing fixtures, new homes, and landscape irrigation products that are

independently certified to use at least 20 percent less water and perform as well or better than standard models. One WaterSense partner, Spartanburg Water, has been a longtime advocate for water efficiency and WaterSense labeled products. The utility has spread the word about saving water to the community through its "Every Drop Counts" campaign, helping to save South Carolinians more than 677 million gallons of water annually.

In fact, if every household in South Carolina installed WaterSense labeled showerheads, it would save four billion gallons of water annually across the state. That's equivalent to the amount of water needed to supply Greenville County, South Carolina, for nearly three months.

For more information on WaterSense labeled products and new homes, or other water-saving tips, visit [www.epa.gov/watersense](http://www.epa.gov/watersense).

### South Carolinians Use Water Wisely



South Carolina's Department of Health and Environmental Control (DHEC) is working to encourage South Carolinians to save water:

- DHEC promotes EPA's Fix a Leak Week, an annual event that reminds Americans to check their household fixtures and irrigation systems for leaks and repair them.
- Hotels in the state can join DHEC's Green Hospitality Program and get guidance to help reduce their water use.
- Young people can get involved in water efficiency activities through DHEC's Champions of the Environment program. For example, the student champions at Heathwood Hall Episcopal School constructed a rain barrel and drip irrigation system to collect and store rainwater.