

Catawba/Wateree River Basin Advisory
Commission

Regional Water Efficiency in the
Southeastern United States

Peter Raabe
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American Rivers
Rivers Connect Us





State Authority for Water Management

- 💧 The Public Trust Doctrine
- 💧 Riparian Doctrine
- 💧 Prior Appropriation
(Western Water Law)



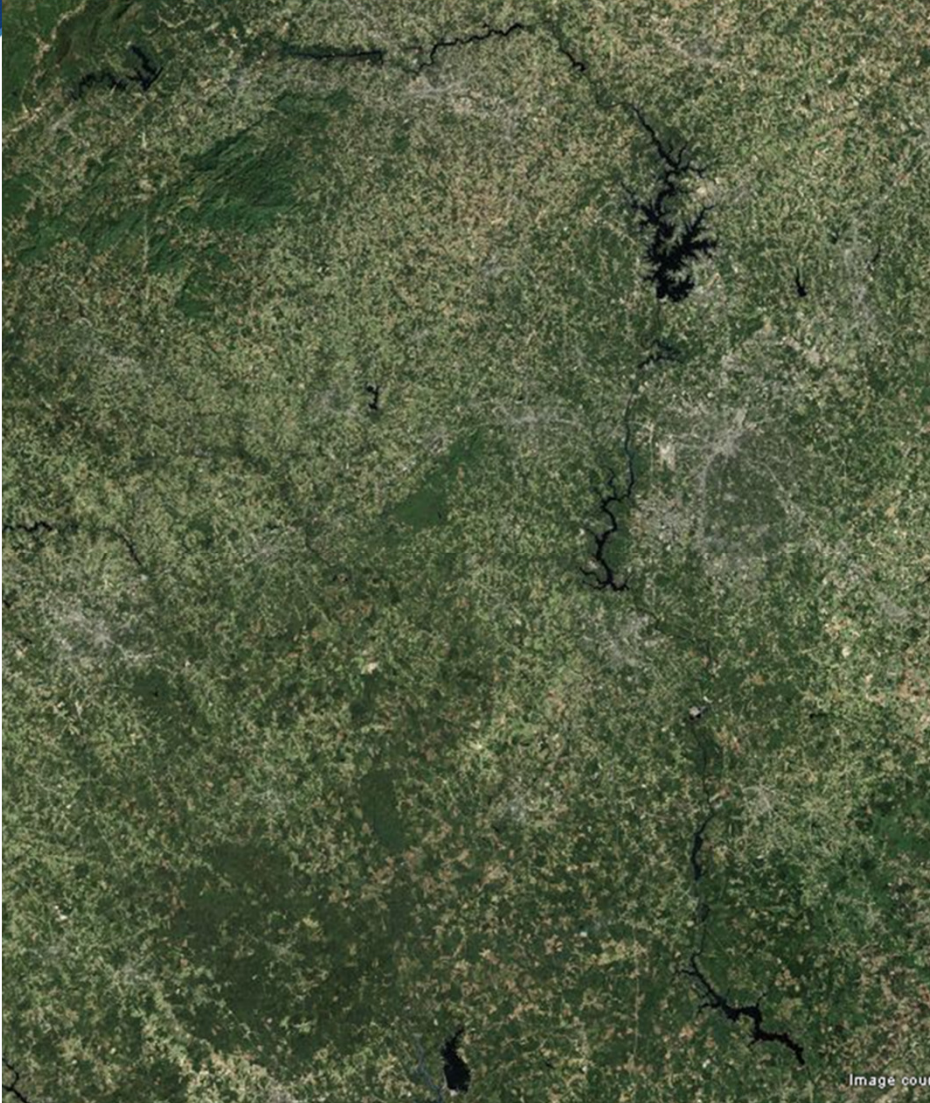


Water Supply Capacity vs. Demand





Water Supply Capacity AND Demand





Water Efficiency Policies

- 💧 California
- 💧 Texas
- 💧 Florida
- 💧 Virginia
- 💧 Georgia





California

- ◆ 2008-2010 developed the 20x2020 plan
 - ◆ Goal to achieve a 20 percent reduction in urban water use in California by 2020
 - ◆ Urban water suppliers are required to establish water conservation targets for the years 2015 and 2020
- ◆ State wide ordinance for requiring water-efficient landscaping in new construction
- ◆ High efficient standards for new toilets (1.28 gpf) and urinals (0.5 gpf) taking full effect in 2014
- ◆ Statewide Memorandum of Understanding on Urban Water Conservation
 - ◆ Voluntary agreement that over 200 water utilities have committed to implementing water conservation best management practices



Texas

- ◆ The first state to require that retail public water utilities file a standard water loss audit with the state, with a requirement to re-file every 5 years
 - ◆ Retail public utilities must set 5 and 10 year water savings targets
- ◆ The Texas Water Development Board offers technical assistance for developing water conservation plans and implementing water conservation programs, as well as water loss audits and leak detection
- ◆ High efficient standards for new toilets (1.28 gpf) and urinals (0.5 gpf) taking full effect in 2014
- ◆ A regional water planning process where water conservation is a priority water management strategy for any future need identified by the regional water planning group.



Florida

- ◆ Law sets an explicit "overall water conservation goal for the state" to "prevent and reduce wasteful, uneconomical, impractical, or unreasonable use of water resources."
- ◆ State is divided into five water management districts
 - ◆ districts have taxation power
 - ◆ permit most uses of water
 - ◆ implementation of water efficiency measures required as a condition for obtaining a water use permit.
- ◆ Developed a statewide water conservation clearinghouse
- ◆ All new sprinkler irrigation systems to come equipped with rain shut-off devices or soil moisture sensors.



Virginia

- ◆ All cities, towns, and counties are required to prepare local or regional (multi-jurisdictional) water plans
 - ◆ Water conservation (leak detection and repair and replacement)
 - ◆ Demand management measures (reduce unaccounted for water loss)
 - ◆ Completed plans reviewed and revised at least every 10 years.
- ◆ Groundwater management area (covers one-third of VA) conservation requirements included in all permits



Georgia

2010 Water Stewardship Bill

20 BE IT ENACTED BY THE GENERAL ASSEMBLY OF GEORGIA:

21 **SECTION 1.**

22 The General Assembly recognizes the imminent need to create a culture of water
23 conservation in the State of Georgia. The General Assembly also recognizes the imminent
24 need to plan for water supply enhancement during future extreme drought conditions and
25 other water emergencies. In order to achieve these goals, the General Assembly directs the
26 Georgia Department of Natural Resources to coordinate with its Environmental Protection

S. B. 370

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NC & SC Successes

SC

- ◆ DHEC is updating the Sanitary Survey and providing technical assistance on the AWWA water audit
- ◆ Utilities are adopting the AWWA Water Audit

Authorized Consumption	Billed Authorized Consumption	Billed Metered Consumption		Revenue Water
		Billed Unmetered Consumption		
Water Losses	Unbilled Authorized Consumption	Unbilled Metered Consumption		Non Revenue Water
		Unbilled Unmetered Consumption		
	Apparent Losses	Unauthorized Consumption		
		Customer Meter Inaccuracies		
	Real Losses	Leakage on Transmission and Distribution Mains		
		Leakage and Overflows at Storage Tanks		
Leakage on Service Connections up to point of Customer Meter				

NC

- ◆ DWR is developing a Water Efficiency BMP manual and providing direct education and technical assistance to communities
- ◆ PWS is considering using SRF for water audit training



Ideal State Water Efficiency Policy

- 1) Enact comprehensive water allocation or permitting within the state
- 2) Support utilities/communities in becoming more efficient: provide outreach and education, require timely reporting of water consumption, and require that costumers receive useful information in their bills on water use
- 3) Support efficiency through funding: water and energy efficiency tax breaks, prioritization within state financing agency, fund rate studies for communities
- 4) Require the use of the AWWA/IWA water balance approach to tracking water consumption and require a water audit every five years.



Ideal State Water Efficiency Policy

- 5) Update state plumbing code or pass legislation to require High Efficiency Toilets
- 6) Update state building/plumbing code to require submetering of new properties and the retrofit existing properties upon renovation
- 7) Reduce the use of potable water for irrigation- incentives to stop outdoor watering during the daytime (10am-4pm), mandate rain/moisture sensor shut-off devices, prohibit the creation or enforcement of restrictive covenants that undermine water conservation landscaping



Thank you!

Peter Raabe
American Rivers
919-682-3500

praabe@americanrivers.org
[Facebook.com/AmericanRivers](https://www.facebook.com/AmericanRivers)
[Twitter.com/AmericanRivers](https://twitter.com/AmericanRivers)
www.americanrivers.org