

Update of the State Water Plan

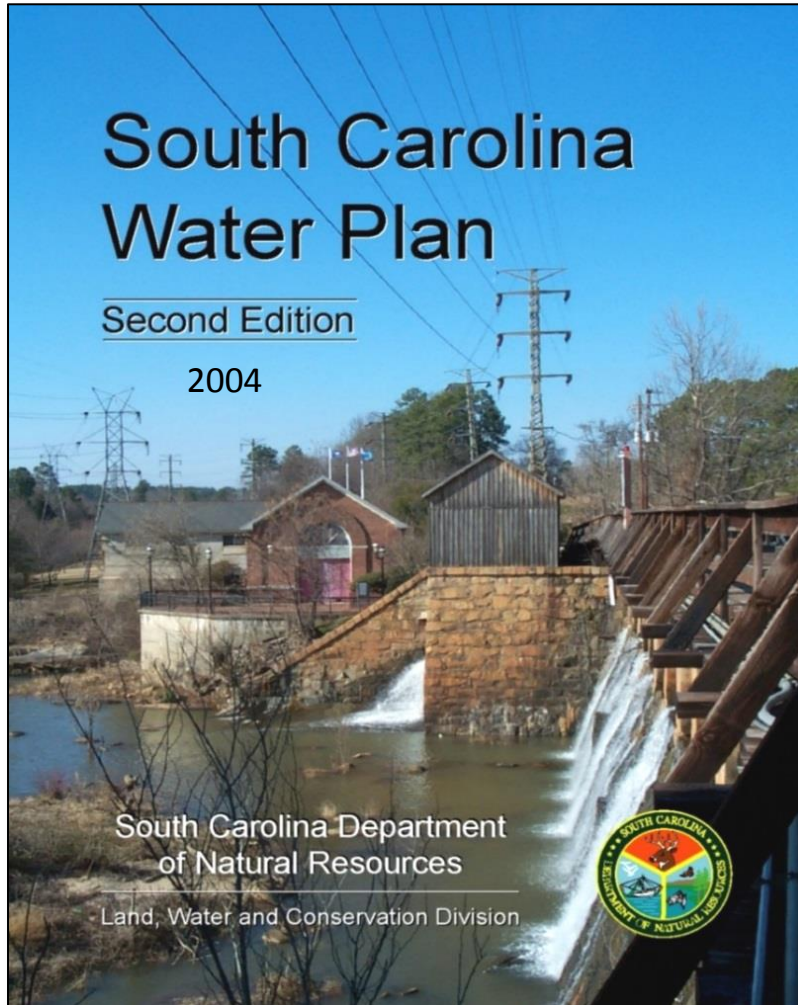
Groundwater Availability Assessment
Stakeholder Meeting
North Charleston, S.C.
November 28, 2017



Joe Gellici - Hydrologist
Land, Water and Conservation Division
S.C. Department of Natural Resources

Overview of the Water Planning Process

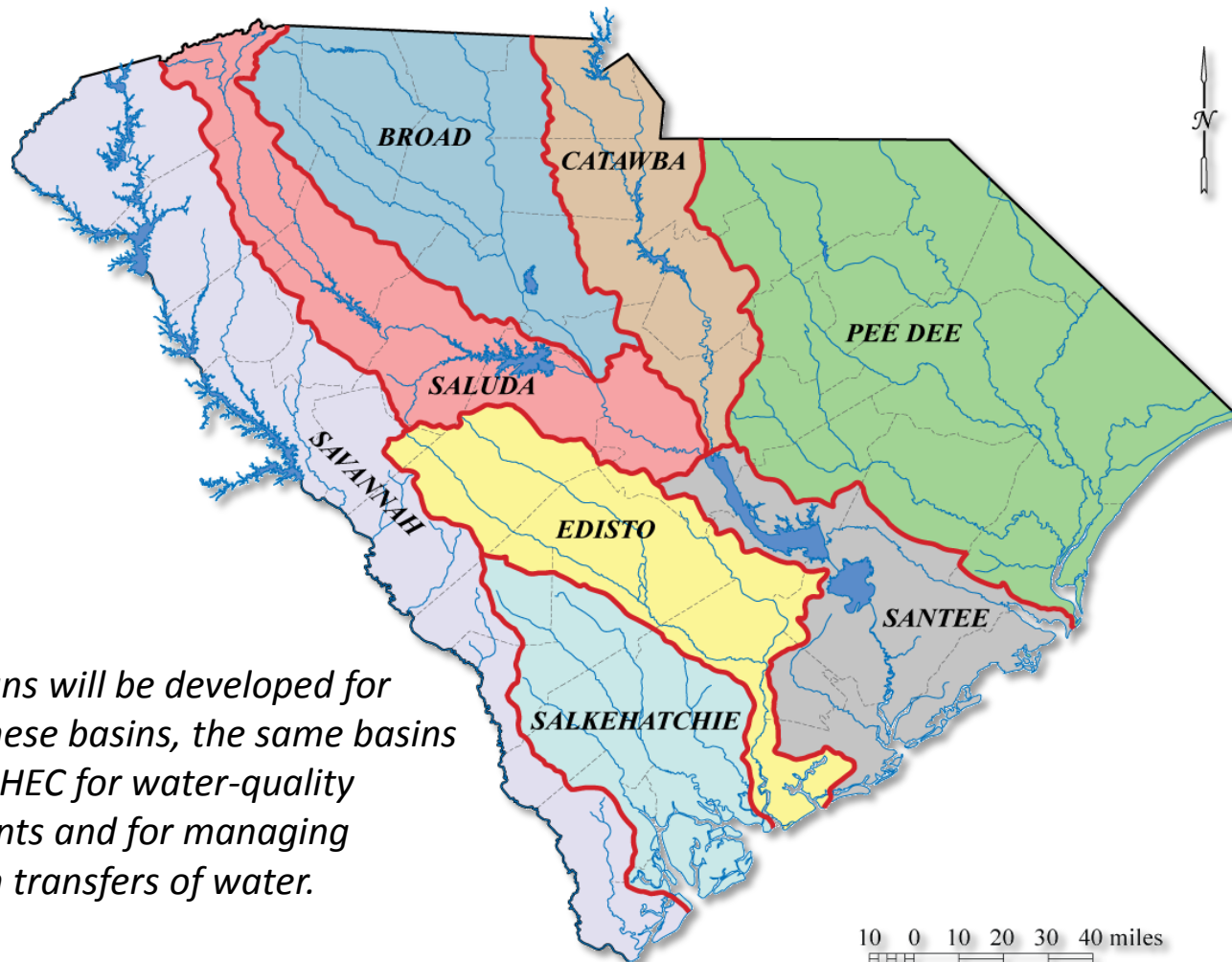
A Brief History...



- In 2004, DNR published the second edition of the South Carolina Water Plan incorporating lessons learned from the drought of 1998-2002.
- One recommendation was for the development of regional water plans for each major river basin in the State.
- 10 years later – SCDNR and SCDHEC initiated the first step towards these regional water plans

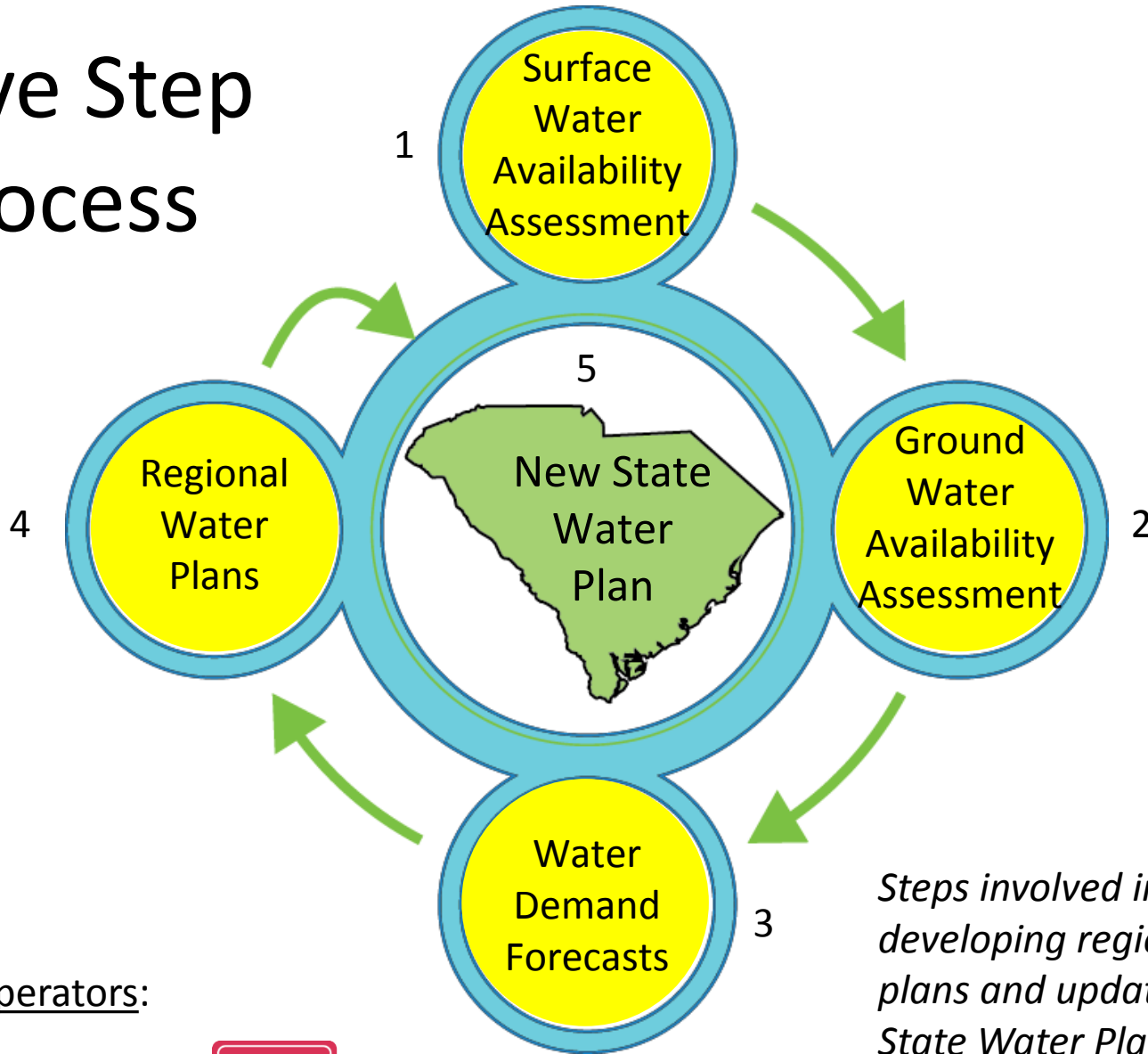
South Carolina's Major River Basins

The goal of water planning is to develop a water-resources management plan that ensures that an adequate and reliable supply of clean water will be available to sustain all future uses.



Water plans will be developed for each of these basins, the same basins used by DHEC for water-quality assessments and for managing interbasin transfers of water.

Five Step Process



Cooperators:



STEP 1

Surface-Water Availability Assessment

Purpose: Develop surface-water quantity models for each basin.

- In August 2014, CDM Smith, Inc. was awarded a contract to develop surface-water quantity models for each basin using its *Simplified Water Allocation Model (SWAM)* modeling tool.
- Models inform us of how much surface water is available for future use and to test water-management strategies.
- Stakeholder meetings were facilitated by Clemson University with support from CDM Smith, DNR, and DHEC.



John Boyer (lead)

Kirk Westphal

Tim Cox

Nina Caraway



Jeff Allen (lead)

Lori Dickes

Katie Callahan

Tom Walker

Surface-Water Availability Assessment Stakeholder Meetings

Saluda	#1	Greenville	Apr. 2015
	#2	Greenville	Dec. 2015
Edisto	#1	Blackville	June 2015
	#2	Blackville	Dec. 2015
Broad	#1	Spartanburg	Aug. 2015
	#2	Spartanburg	May 2016
Pee Dee	#1	Florence	Nov. 2015
	#2	Florence	May 2016
Catawba	#1	Rock Hill	Nov. 2015
	#2	Rock Hill	Nov. 2016
Santee	#1	Moncks Corner	Mar. 2016
	#2	Moncks Corner	Dec. 2016
Salkehatchie	#1-2	Walterboro	Aug. 2016
Savannah	#1	North Augusta	Aug. 2016
	#2	North Augusta	Feb. 2017



SOUTH CAROLINA SURFACE WATER AVAILABILITY ASSESSMENT
Public Service

Home | Process | Model | River Basins | Resources

CU > Public Service > Water Assessment > Home

ASSESSMENT VIDEOS
PLAYLIST South Carolina
South Carolina Surface Water Availability Assessment
PLAY ALL

STAKEHOLDERS
Stakeholders | Upcoming Meetings | Get Involved! | DNR Assessment Site | Next

This site is under construction. Please check back often as we add new information. Thank you!

PROCESS & ASSESSMENT
The responsible management of the state's water resources is beyond the scope of any one agency or organization and requires cooperation and shared responsibility amongst all agencies and water users. Stakeholder involvement and feedback is critical to this process. [READ MORE >>](#)

RIVER BASINS
Did you know that only two of South Carolina's eight major river basins are not shared with other states? This is also the first time that South Carolina will have surface water models developed individually for each basin that can work together for a state assessment. [READ MORE >>](#)

SURFACE WATER MODELING
The surface water quantity models being built in South Carolina are intended for long-term agency and stakeholder use to enhance the permitting, planning and management of the state's surface water resources. [READ MORE >>](#)

RESOURCES
Past information is critical to understand water supply during times of drought, periods of high use and other temporal changes that affect water availability. Past assessments, plans and more will continue to be referenced here. [READ MORE >>](#)

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* indicates required
Email Address *
First Name
Last Name
Affiliation
Website

www.scwatermodels.com

Surface-Water Availability Assessment DNR Webpage

The screenshot shows the DNR website header with the logo and navigation menu. The main content area is titled "Surface Water Modeling and Assessments" and contains text about water planning, a list of project documents with expandable arrows, and contact information for Joe Gellici.

Life's Better Outdoors
South Carolina Department of Natural Resources

Navigation: Buy, Boating, Education, Fishing, Hunting, Land, Maps, Regulations, Water, Wildlife

Surface Water Modeling and Assessments

Effective water planning and management requires an accurate assessment of the location and quantity of the water resources of the State, and one of the most useful tools for evaluating management strategies is a computer model that simulates the surface water system throughout an entire watershed. To that end, SCDNR and SCDHEC have begun the process of developing surface-water quantity models for each of the [eight major watersheds](#), or basins, in South Carolina.

A more detailed discussion of the proposed surface water modeling can be found in the document [Basinwide Surface Water Modeling in South Carolina PDF](#), and an overview of each of the eight basins for which the models will be developed can be found in the document [Major Basins of South Carolina PDF](#).

In July 2014, CDM Smith, Inc. was awarded a contract to develop the models for the state.

Project Documents

For any questions regarding these reports and presentations, please contact Joe Gellici by phone (803-734-6428) or [email](#).

For information about stakeholder meetings, please visit <http://www.clemson.edu/public/water-assessment/>.

(Documents below are in PDF format.)

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- [Monthly Progress Reports](#) ⊕
- [Legislative Quarterly Reports](#) ⊕
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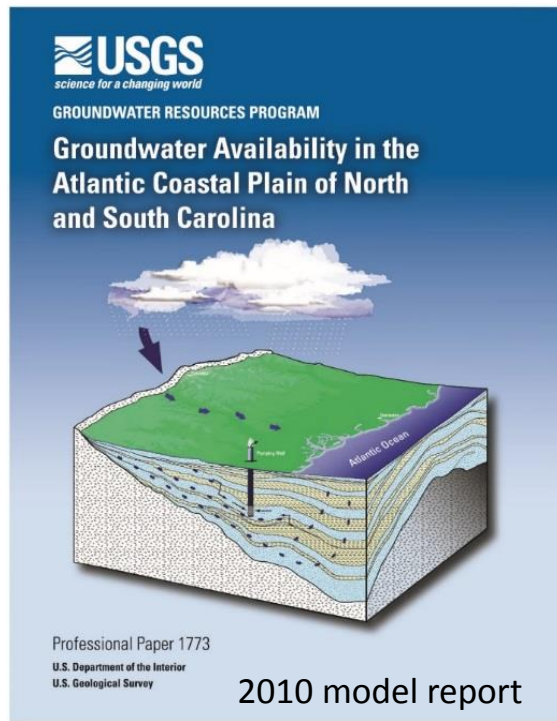
[*http://www.dnr.sc.gov/water/waterplan/surfacewater.html*](http://www.dnr.sc.gov/water/waterplan/surfacewater.html)

STEP 2

Groundwater Availability Assessment

Purpose: Update the 2010 groundwater flow model of the Coastal Plain.

<https://pubs.usgs.gov/pp/1773/>



USGS webpage for the project:

https://www.usgs.gov/centers/sa-water/science/update-south-carolina-atlantic-coastal-plain-groundwater-availability-0?qt-science_center_objects=0#qt-science_center_objects

The screenshot shows the USGS South Carolina Water Science Center website. The main heading is "Update the South Carolina Atlantic Coastal Plain Groundwater Availability Model". It lists project details: Project Number: GC16MP00SGE7100, Project Chief: Bruce Campbell, and Cooperator: South Carolina Department of Natural Resources. The period of the project is February 2016 to February 2019. There is a search bar and a navigation menu. The background section provides a detailed overview of the project's goals and the hydrogeologic context of the Atlantic Coastal Plain aquifers.

Model update is scheduled to be completed by February 2019.



DNR

STEP 3

Water-Demand Forecasts

Purpose: Develop water-demand forecasts for each of the 8 basins.

SCDNR is working with the USACE (Charleston) and Clemson to develop water-demand forecasts for each basin.

Forecasts from 2015-2065 in 5- and 10-year intervals for:

1. Public supply
2. Domestic supply
3. Agriculture
4. Industry
5. Power
6. Golf Course

Have recently met with these groups:

- Water Works Association, Utility Council
- Chamber of Commerce, Environmental Committee
- Farm Bureau, Water Committee
- Water Quality Association



US Army Corps
of Engineers



DNR

CLEMSON
UNIVERSITY

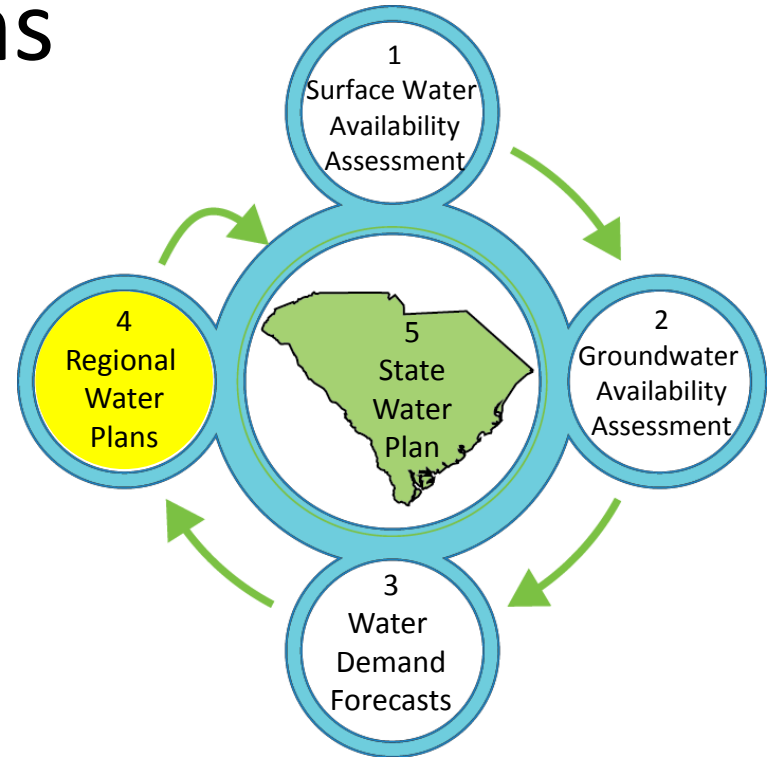
STEP 4

Regional Water Plans

Using the models and forecasts, and with oversight from State agencies, stakeholders will begin the process of developing regional water plans for each basin.

This step includes:

- The formation of basin advisory councils
- An analysis to determine if any water deficits will occur
- An assessment of management strategies to meet the future demands
- Water conservation and drought management recommendations



STEP 5

State Water Plan

Upon completion of the regional water plans, the State water plan will be updated by DNR.

This step includes:

- Assessment of the overall condition of water resources in the State
- Evaluation of statewide trends in water use and availability
- Offering water-resource policy and program recommendations
- Introducing innovative practices

