

# Regional Water Planning in South Carolina

Developing a framework for water planning  
on a basinwide scale

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SCDNR  
Land, Water and Conservation Division

March 2012



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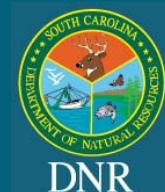
# What is water planning?

Water planning is the process of developing a water-resources management plan to ensure that an adequate and reliable supply of water will be available to sustain all future uses.



# Why is water planning important?

Economic development, environmental protection, and public health are critical quality-of-life issues that all depend on a reliable supply of water.

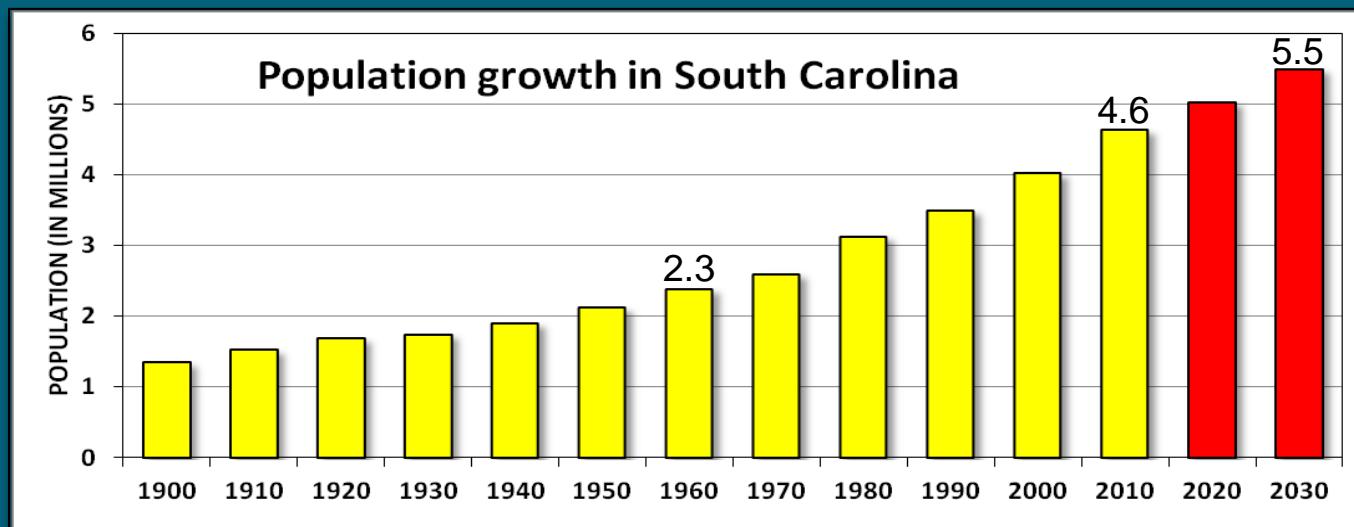


# Why is water planning important now?

Demand for water continues to increase

Water use from 1990-2005:

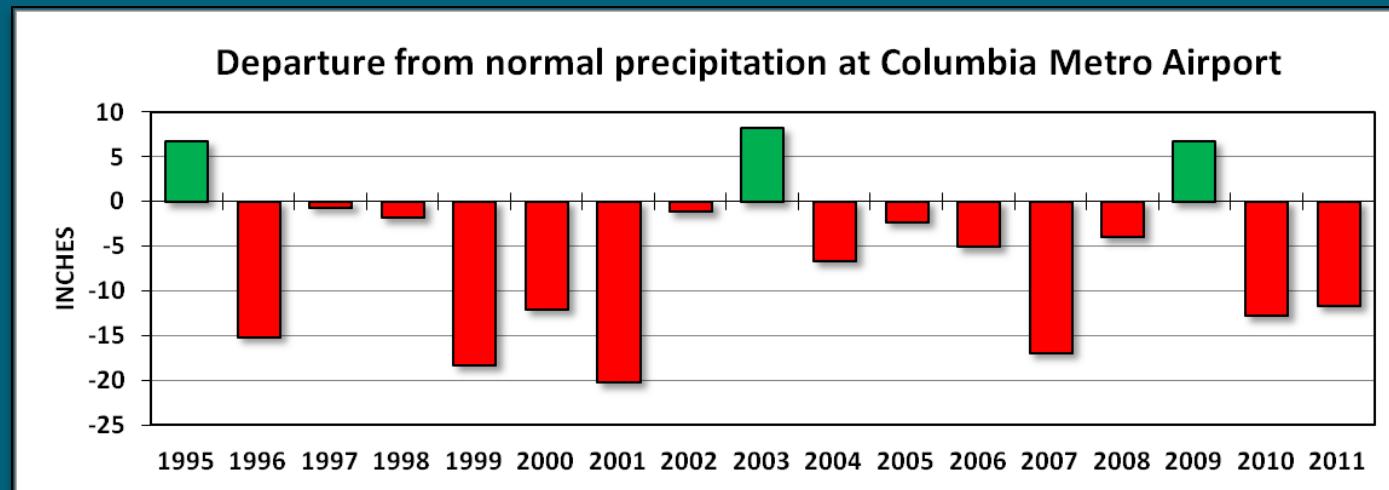
- Municipal use up 46%
- Thermoelectric use up 26%
- Irrigation use up by 40%



# Why is water planning important now?

## Continued water availability is uncertain

- Drought of record in South Carolina (1998-2002)
- Drought of record in Savannah River basin (2006-2008)



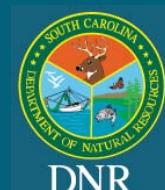
“Normal” precipitation is 48.27 inches (1971-2000 average).

# Water Resources Planning and Coordination Act (1967)

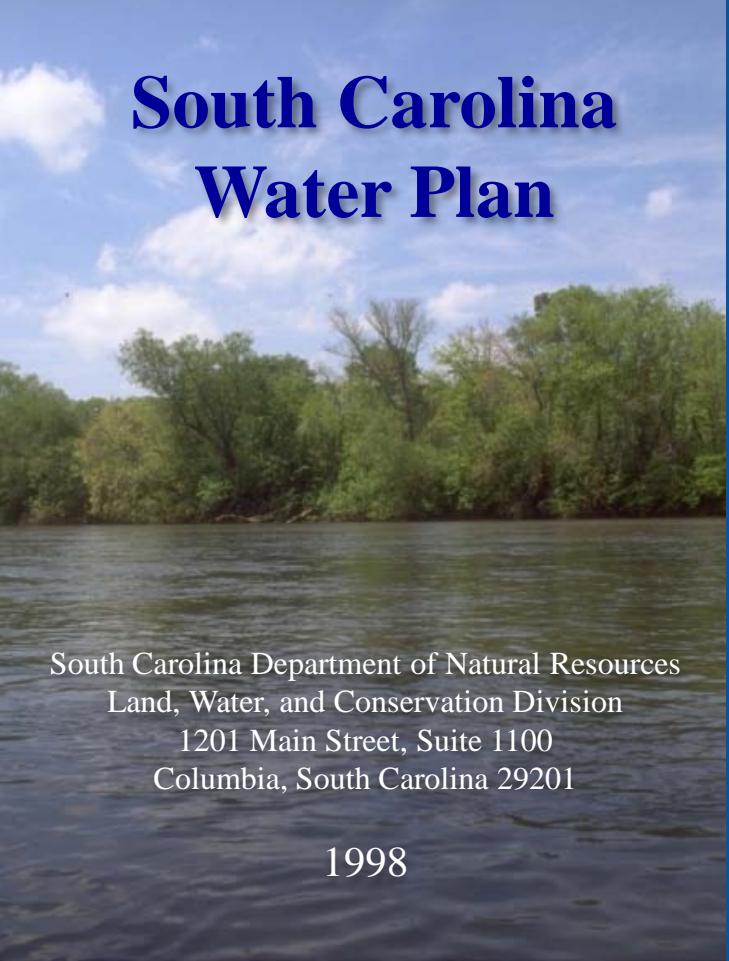
SCDNR "...shall advise and assist the Governor and the General Assembly in formulating and establishing a comprehensive water resources policy for the State..."

# Water Resources Planning and Coordination Act (1967)

SCDNR "...shall encourage, assist and advise regional, metropolitan, and local governmental agencies, officials or bodies responsible for planning in relation to water aspects of their programs..."



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# South Carolina Water Plan

South Carolina Department of Natural Resources  
Land, Water, and Conservation Division  
1201 Main Street, Suite 1100  
Columbia, South Carolina 29201

1998

In 1998, SCDNR published the first edition of the *South Carolina Water Plan*.

The *Plan* recommends policies and guidelines for the management of South Carolina's water resources to sustain water availability for all present and future uses.



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# South Carolina Water Plan

Second Edition

South Carolina Department  
of Natural Resources

Land, Water and Conservation Division



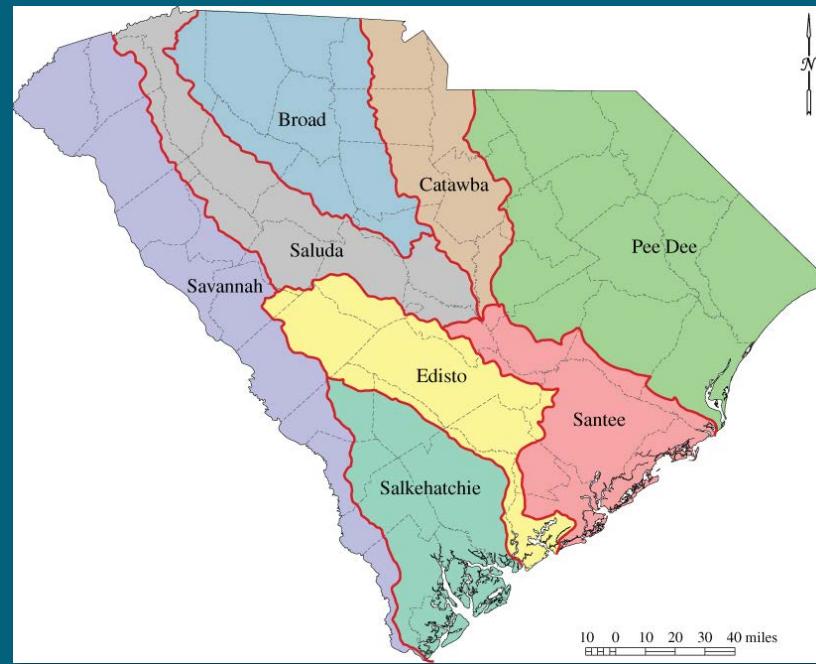
In 2004, SCDNR  
published the second  
edition of the *South  
Carolina Water Plan*.

One recommendation  
of the 2004 State Water  
Plan is for the  
development of  
regional water plans for  
each major river basin  
in the State.



# Why regional water plans?

Because different regions of the State have different sources and uses of water, plans should be developed that are tailored to each region's specific resources and needs.



# What kind of work needs to be done?

Technical work, for each region:

- Determine how much water is currently being used
- Determine how much water is available
- Make projections of future water demands
- Develop hydrologic models to determine if future demands can be met

Planning work, for each region:

- Conduct public hearings
- Organize stakeholder groups
- Compile and analyze technical data
- Develop a water plan to meet future demands

State Technical  
Advisory Committee

State Resource  
Agencies

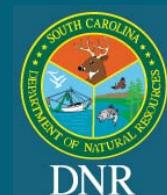
Outside Consultants

Technical Work

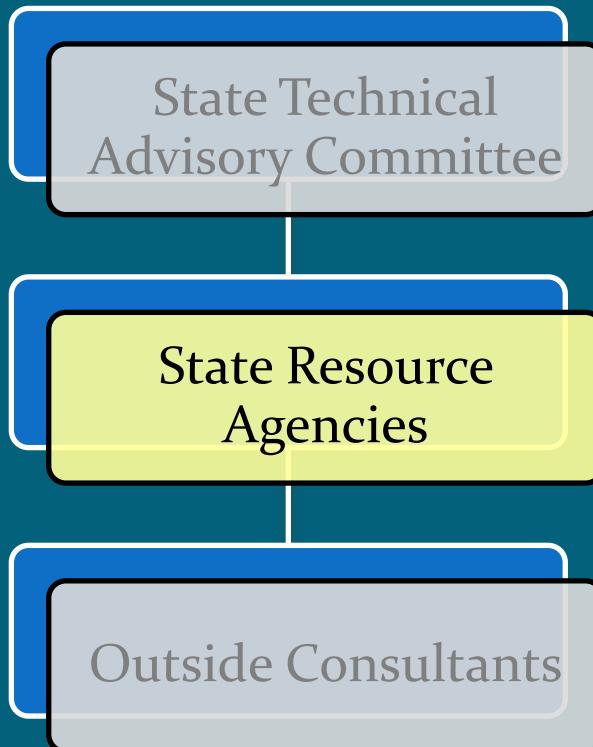
## State Technical Advisory Committee

Composed of scientists and  
technical experts

- Oversees scientific and technical aspects of regional water planning
- Reviews and approves water-use data, projections, and hydrologic models



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## Technical Work

### State Resource Agencies

- Assess current water use
- Project future water demands
- Assess water availability
- Develop hydrologic models

State Technical  
Advisory Committee

State Resource  
Agencies

Outside Consultants

Technical Work

## Outside Consultants

- Consultants may be contracted do some technical work associated with planning.
- Work might include development of water-use projections and surface and groundwater modeling.

# State Planning Advisory Committee

Composed of government, planners, and stakeholders

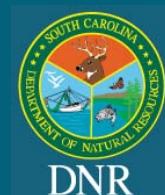
- Determines planning regions
- Oversees development of a regional water planning guidance document
- Appoints members to regional water planning groups
- Develops rules for the planning process

State Planning  
Advisory Committee

State Resource  
Agencies

Regional Water  
Planning Groups

## Planning Work



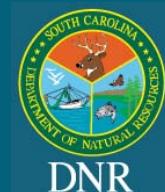
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# State Resource Agencies

- Develop a regional water planning guidance document
- Assist in the preparation of regional water plans



## Planning Work



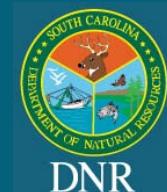
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# Regional Water Planning Groups (one for each region)

- Conduct public hearings
- Resolve regional and interregional disputes
- Recommend water management strategies and water projects
- Assist in the preparation of final regional water plans



## Planning Work



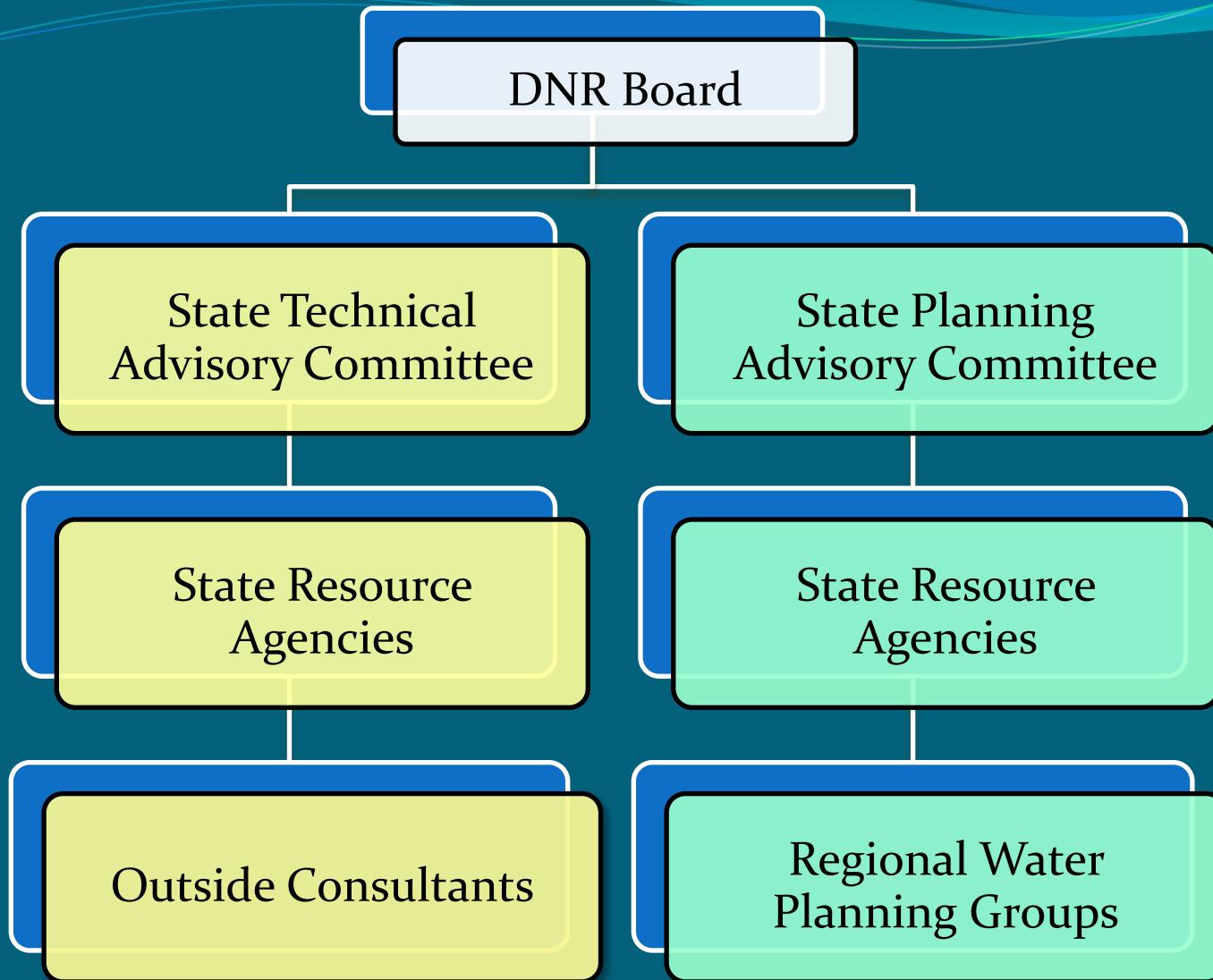
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# Regional Water Planning Groups

The Regional Water Planning Groups (20-25 members) will be composed of local governments, stakeholders, and the general public that are residents of the planning area, and would include:

- General public
- Local government
- Industry
- Agriculture
- Environmental/conservation groups
- Water and power utilities





Technical Work

Planning Work



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Technical Work

Planning Work



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# Water Planning Oversight Board

- Appoints members to the State Technical and State Planning Advisory Committees
- Gives final approval to the regional water plans
- Ensures coordination and cooperation among government agencies and regional planning groups
- Provides financial and administrative support
- Identifies the need for new legislation

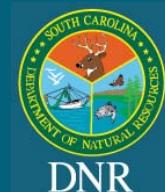


# What will the regional water plans be used for?

Once developed, regional water plans would be used to guide the development of clean and reliable drinking water supplies and to provide for an adequate supply of water to sustain all future demands in the region.

# What are other states doing?

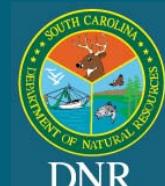
- Florida: Regional water plans since the late 1990s for its 5 water management districts.
- Georgia: Completed regional water plans for its 11 planning regions.
- North Carolina: Currently developing regional water plans for its 17 river basins.
- Virginia: Mandated development of local and regional water plans in 2005.
- Many other eastern states are developing regional water plans.



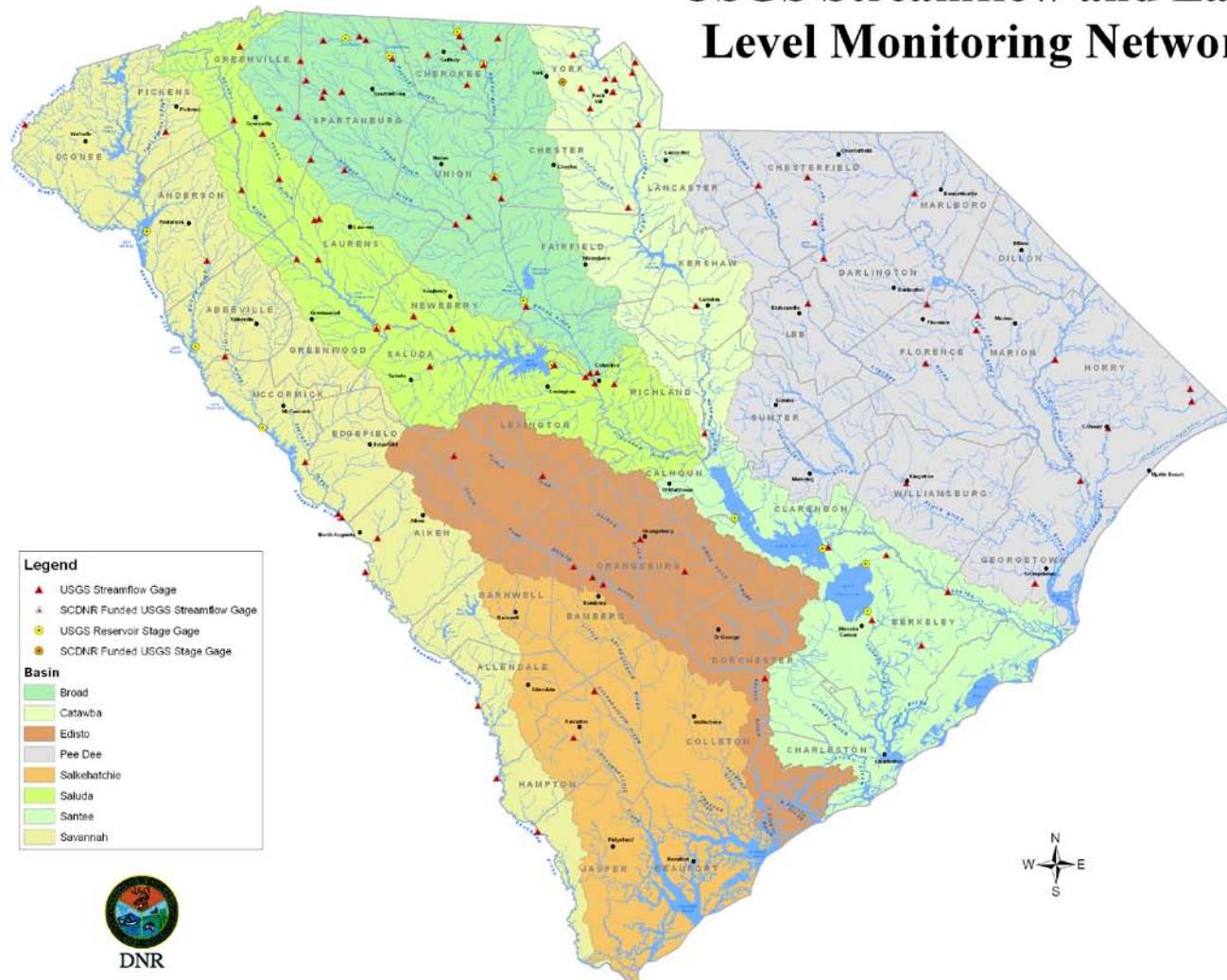
# Guidance Document for Regional Water Planning

The Hydrology Section is currently preparing a white paper that will recommend:

- Guiding principles of regional plan development
- Rules governing the regional planning process
- Composition of the regional water planning groups
- Roles and responsibilities of the parties involved
- Planning regions

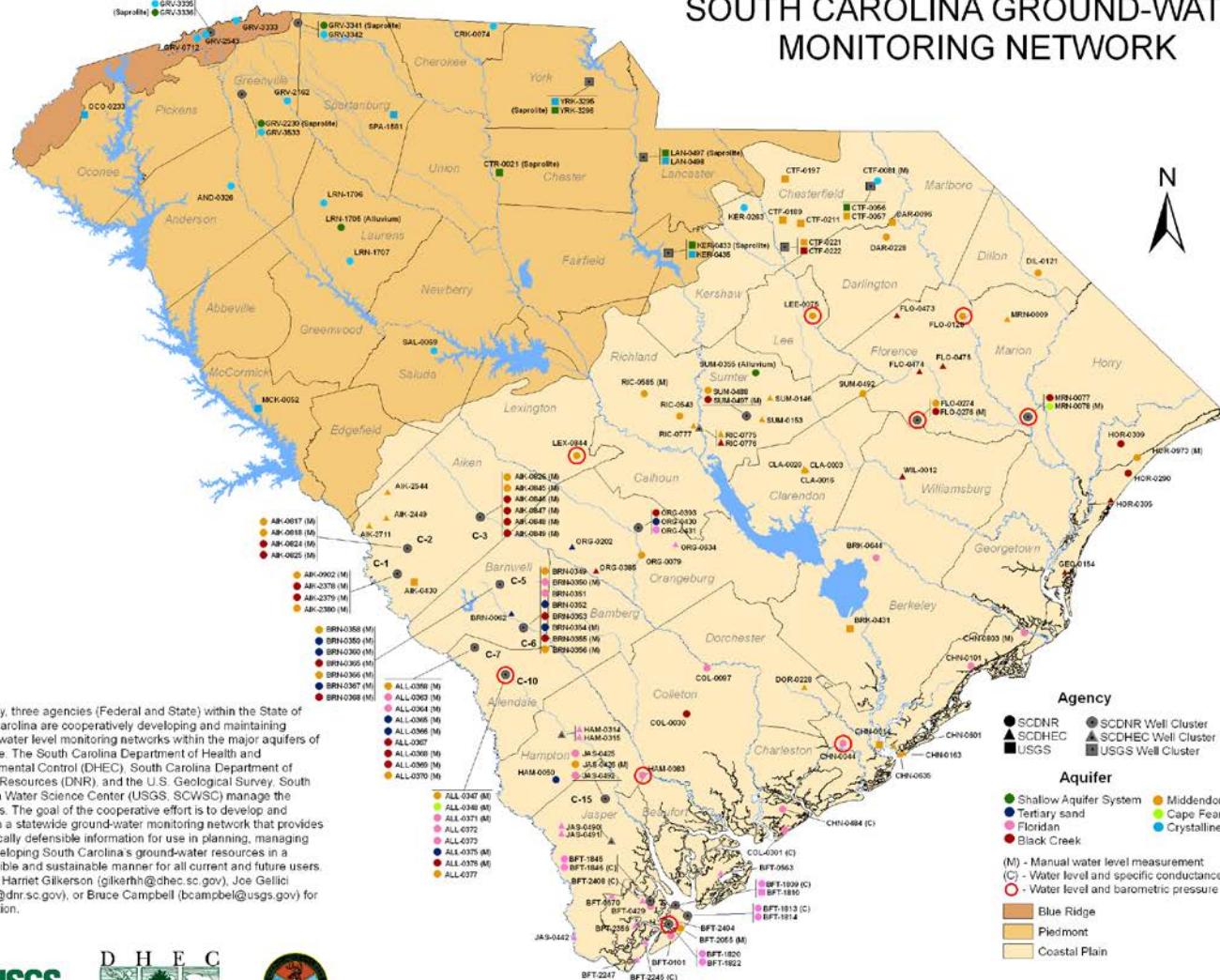


## USGS Streamflow and Lake Level Monitoring Network



Approximately 100 streamflow gages and 13 lakes gages.

## SOUTH CAROLINA GROUND-WATER MONITORING NETWORK

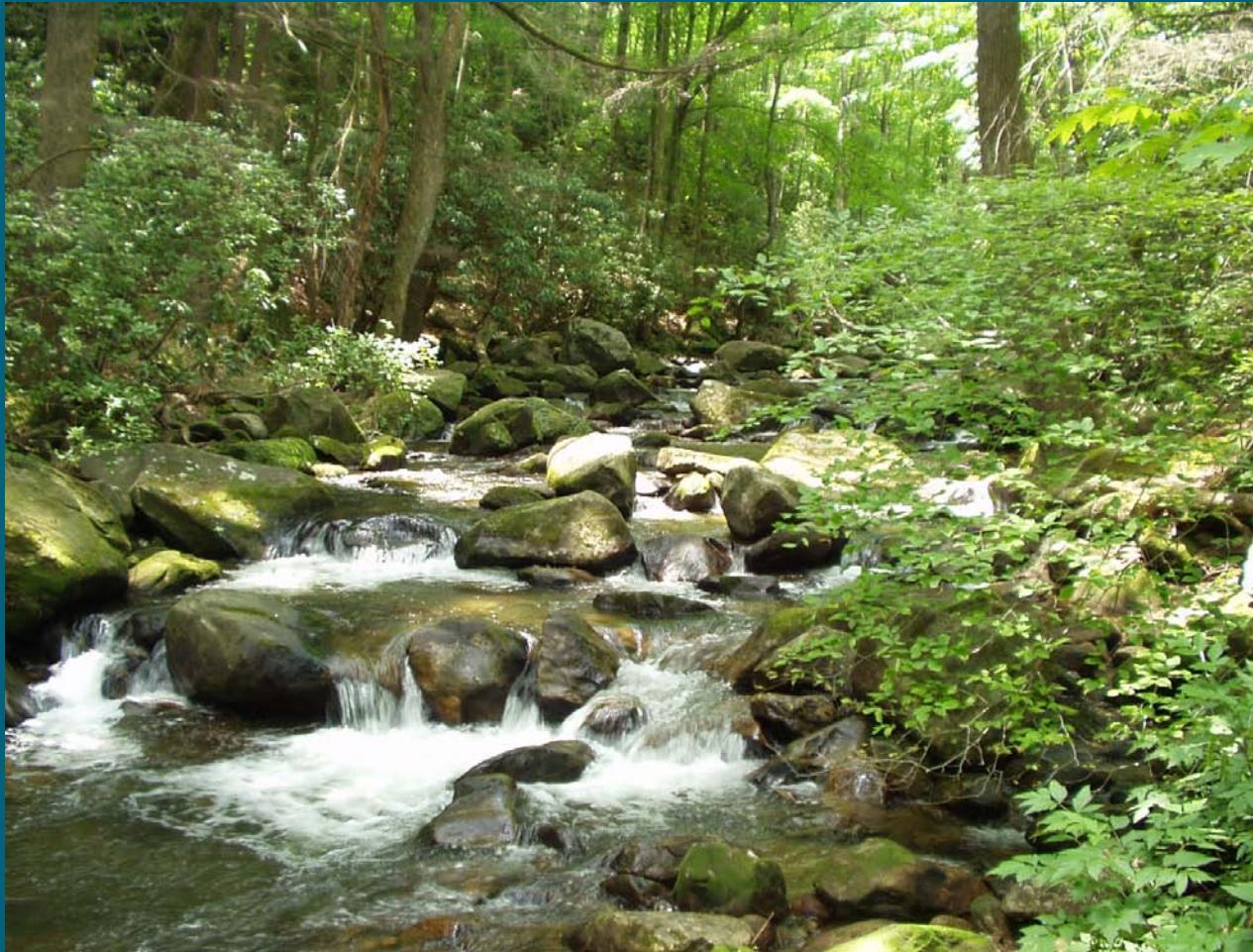


Approximately 200 monitoring wells.

# Why are we telling you this?

- Development of regional water plans will be a major undertaking for the SCDNR.
- SCDNR Board will be involved in the planning process.
- Additional staff and funding will be needed for required technical and planning work.
- New legislation may be required.

# Questions, comments, advice.



**The Middle Saluda River at Jones Gap State Park.**