



Draft Lower Savannah-Salkehatchie River Basin Plan Public Meeting

July 22, 2025

Draft LSS River Basin Plan – Public Meeting Agenda

- **Welcome and Introductions** 6:00 – 6:10
- **Overview of the Planning Process** 6:10 – 6:20
- **Draft LSS River Basin Plan Highlights** 6:20 – 7:00
- **Public Comments and Q&A with the RBC** 7:00 – 7:30
- **Reception** 7:30 – 8:00



Welcome and Introductions

LSS River Basin Council

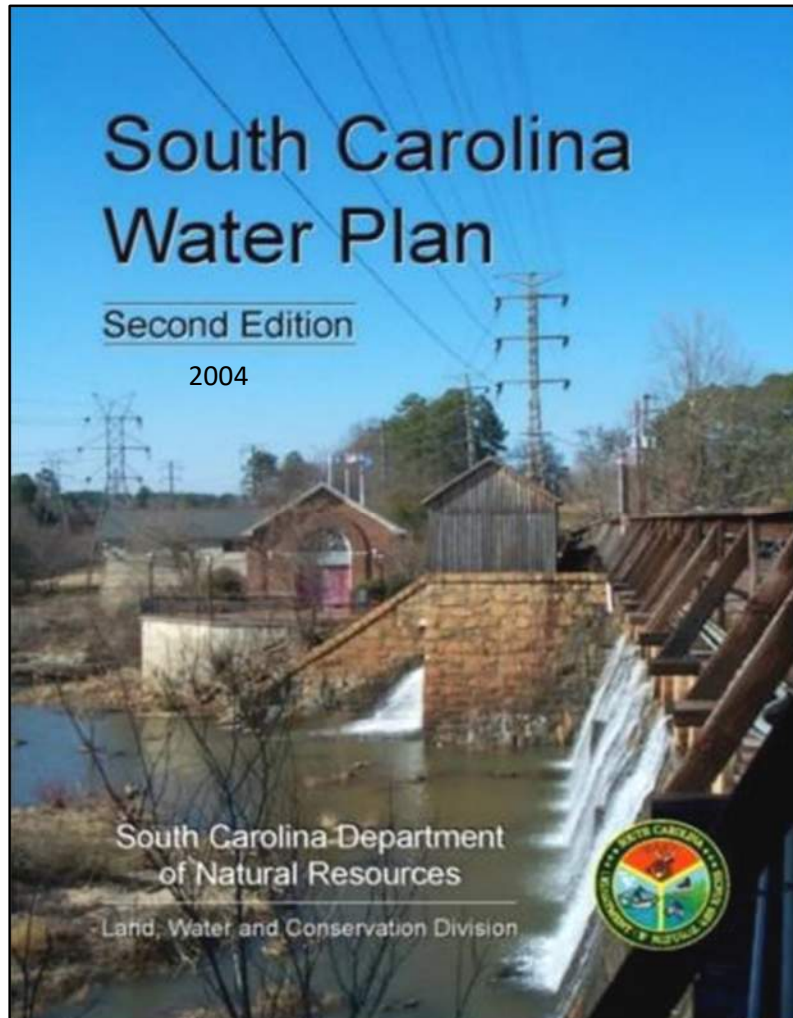
Name	Organization	Interest Category
Austin Connelly	Farmers Grain & Supply Inc.	Agriculture, Forestry, and Irrigation
Brad Young	Hilton Head National Golf Club	
Brad O’Neal	Coosaw Farms	
Samuel Grubbs	Samuel L Grubbs Farm LLC	
Joseph Oswald III	JCO Farms & AIS LLC	
Kenneth Caldwell	Alliant Insurance Services/Tree Farmer	At-Large
Dean Moss	Retired	Electric-Power Utilities
Brandon Stutts	Dominion Energy	
Sara O’Connor	Coppage Law Firm/Seaside Sustainability	Environmental Interests and Conservation Groups
Leslie Dickerson	Savannah Riverkeeper	
Courtney Kimmel	Port Royal Sound Foundation	
Lawrence Hayden	Self Employed - Previously USDA Forest Service	Industry and Economic Development
Will Williams	Western SC Economic Development Partnership	
Heyward Horton	Colleton County Economic Alliance, Inc.	
Danny Black	Southern Carolina Regional Alliance	
Jeff Hynds	Department of Energy - Savannah River Field Office	Local Governments
John Carman	City of Aiken Energy and Environmental Committee	
Tommy Paradise	City of North Augusta	
Pete Nardi	Hilton Head Public Service District (PSD)	Water and Sewer Utilities
Brian Chemsak	Beaufort Jasper Water and Sewer Authority	
Lynn McEwen	City of Barnwell	
Kari Foy	Lowcountry Regional Water System (LRWS)	Water-Based Recreational
Bill Wabbersen	Retired	
Reid Pollard	Retired	





Overview of the Planning Process

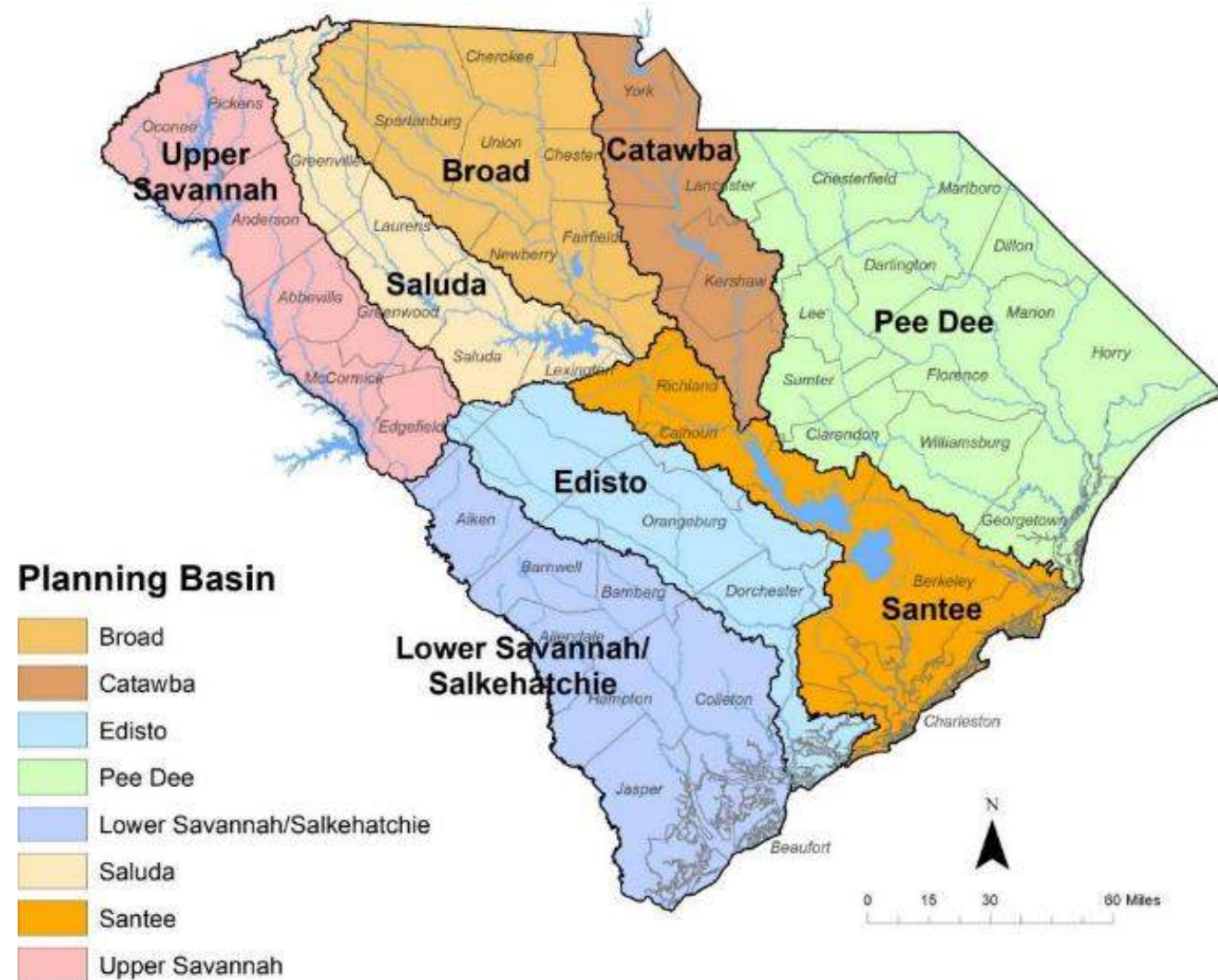
History of State Water Planning



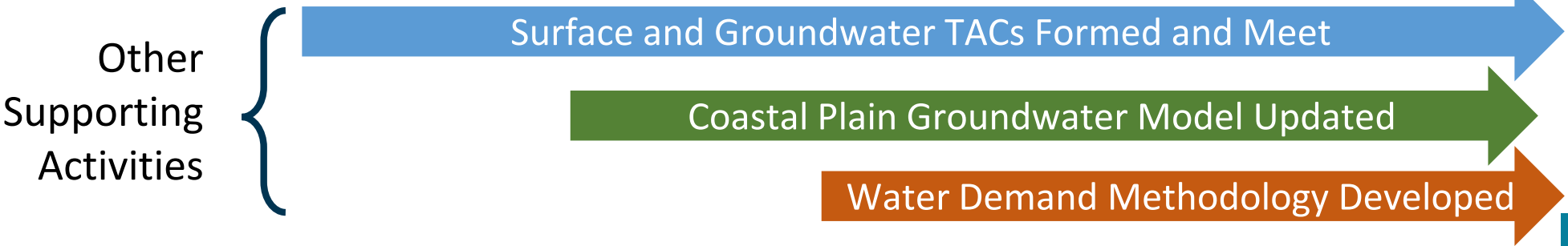
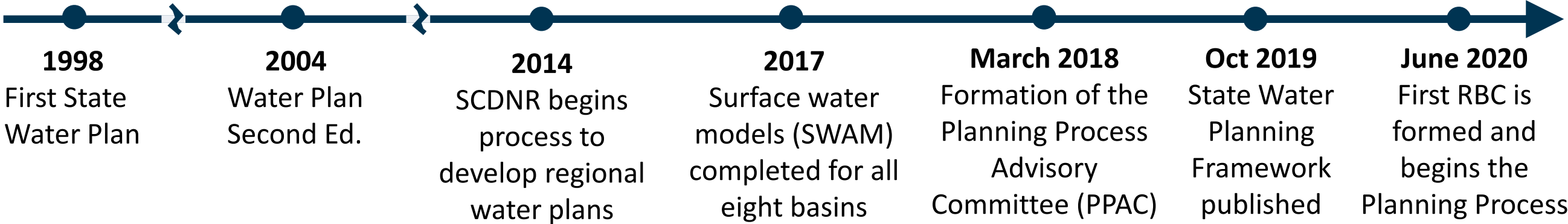
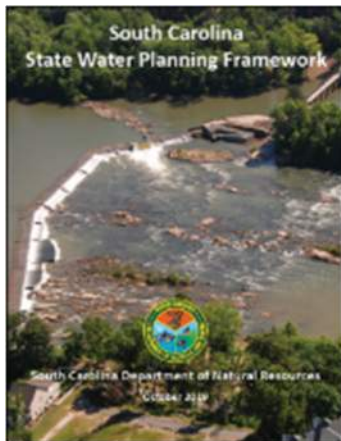
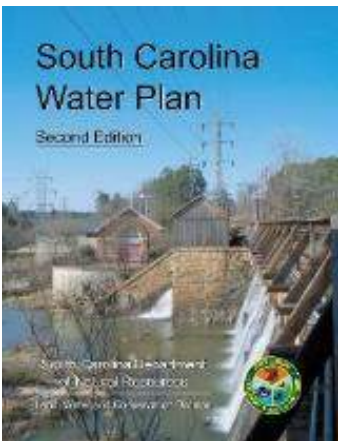
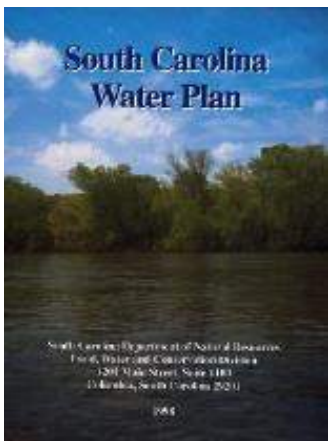
- Prior to July 1, 2024, state water planning was the responsibility of SCDNR:
 - SCDNR published the first edition of the State Water Plan in 1998.
 - In 2004, SCDNR published the second edition of the South Carolina Water Plan incorporating lessons learned from the drought of 1998-2002.
 - One recommendation was to develop a regional water plan for each major river basin in the State.
 - In 2014, SCDNR initiated the first steps to developing regional water plans, now formerly called River Basin Plans.
- ***Pursuant to Act 60 of 2023 and effective July 1, 2024, water planning responsibilities were transferred to SCDES.***

South Carolina's Eight Planning Basins

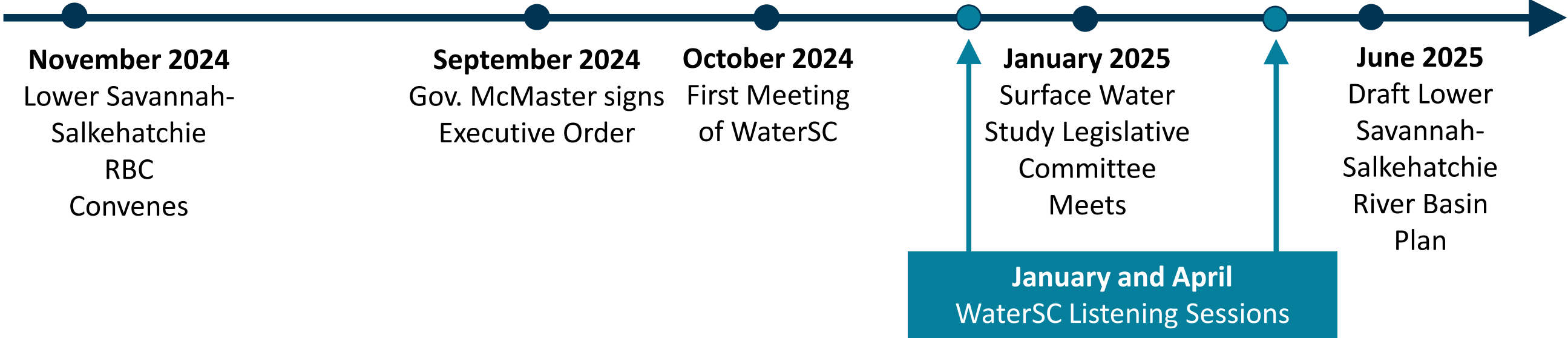
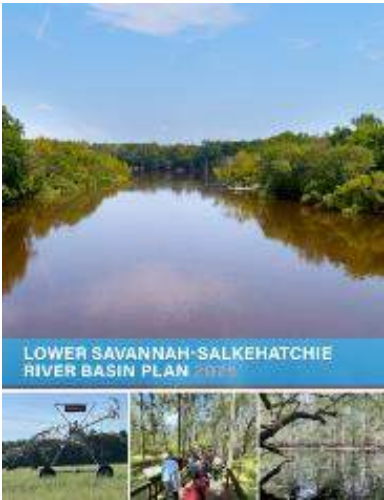
- River Basin Plans will be developed for the State's eight major river basins using a “bottom-up” approach where stakeholders in each basin lead the development of their basin plan.
- Collectively, the River Basin Plans will form the foundation of a new State Water Plan.



South Carolina State Water Planning Timeline

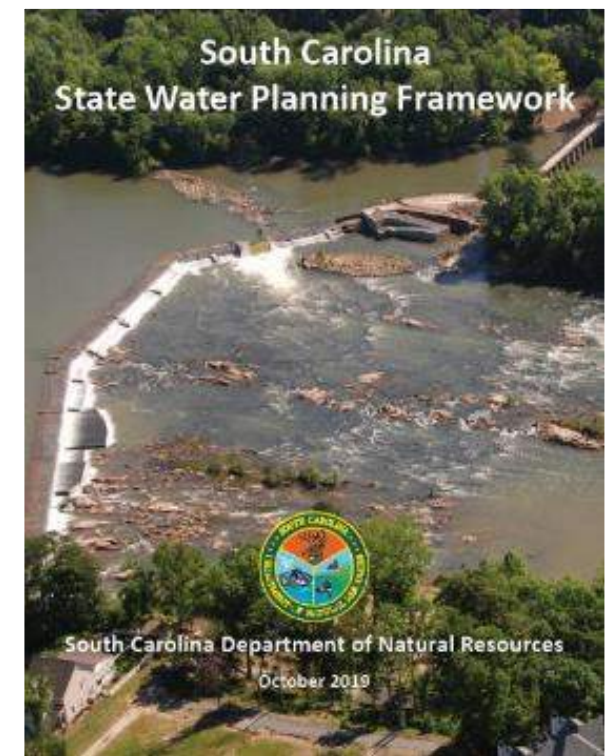


South Carolina State Water Planning Timeline



Planning Process Advisory Committee

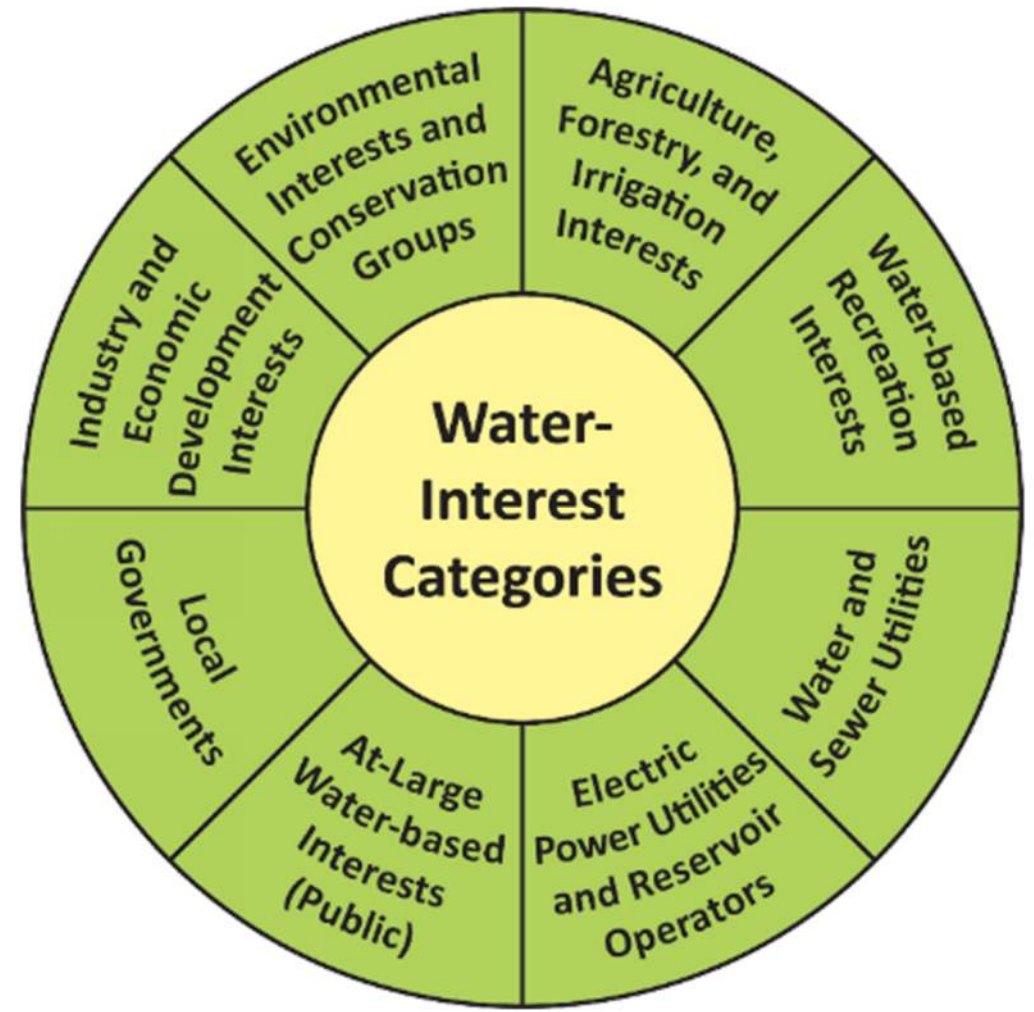
- Convened by SCDNR in March 2018.
- Purpose - develop a guidance document (Planning Framework) for developing River Basin Plans and for updating the State Water Plan.
- South Carolina State Water Planning Framework (Planning Framework) was published in October 2019 after an 18-month process.
- **New WaterSC committee has recently replaced the PPAC.**



Planning Framework is available for review and download at:
<https://des.sc.gov/programs/bureau-water/hydrology/water-planning>

Planning Framework calls for the formation of a River Basin Council (RBC) in each planning basin

- **Stakeholder-led team** responsible for developing the River Basin Plan
- Up to **25** members representing **8 interest categories**
- Governed by a set of Bylaws
- **Consensus based** decision-making process
- Chair and Vice-Chair elected by RBC



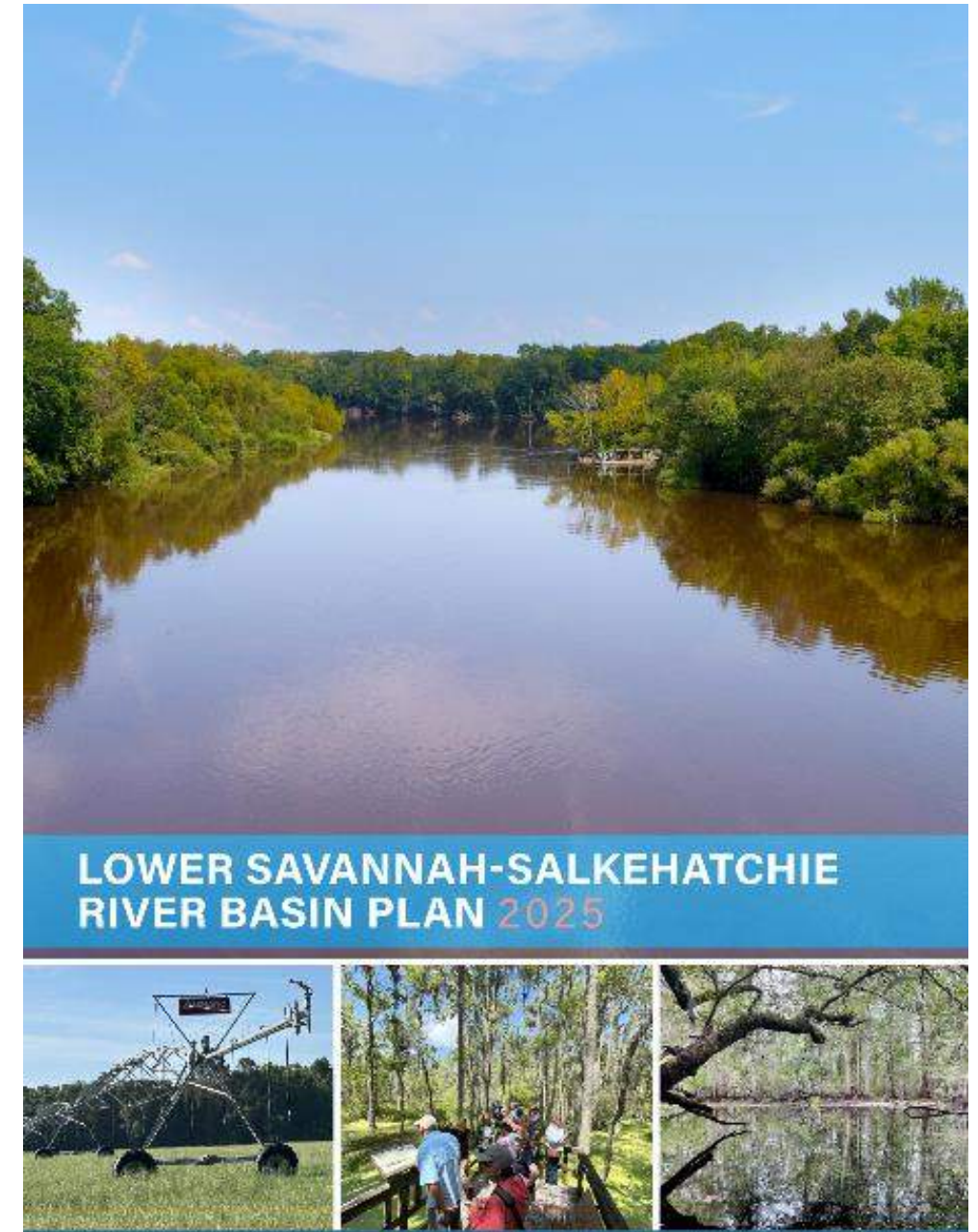
What is a River Basin Plan?

Key Outcomes

- Assesses **current** water supply and demand
- Identifies **future** water demand scenarios
- Identifies water management **strategies** to ensure supply meets or exceeds demand over the Planning Horizon

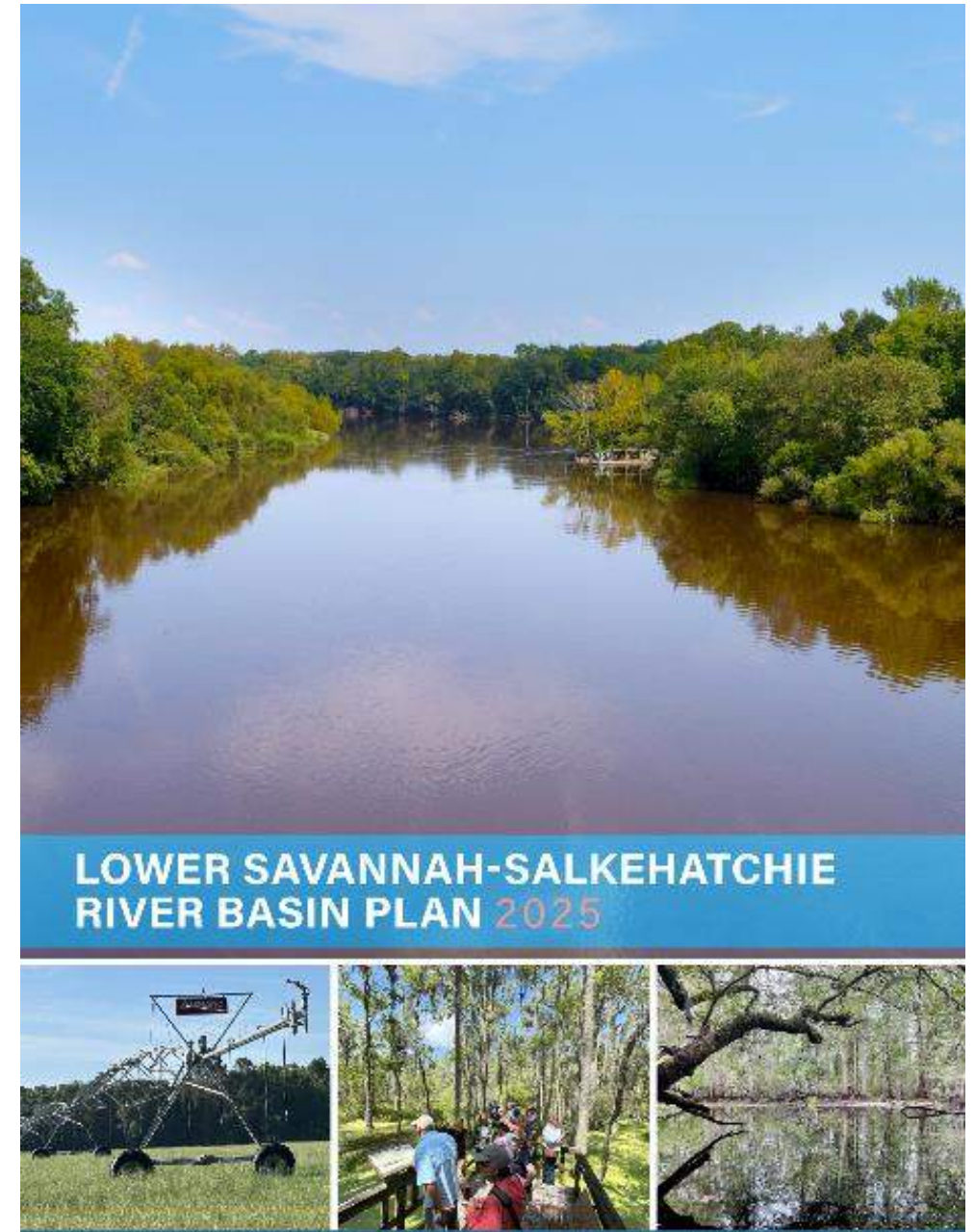
Features

- **Stakeholder-developed**
- Covers a **50-year** Planning Horizon.
- Considers both **surface water** and **groundwater**
- Supported by hydrologic data, models, and water-demand projections.



The current focus of River Basin Plans is on **water quantity**, with emphasis on drought conditions.

Subsequent phases of planning evaluate **water quality** issues that are important in each river basin.



The Four Phases of the Planning Process

Phase 1 Understand Baseline	• Develop a vision statement and goals • Learn about the basin's water resources and modeling tools • Evaluate water demand projections
Phase 2 Assess Future Availability	• Evaluate current and future water availability issues • Identify and quantify potential water shortages through year 2070 for several water demand scenarios
Phase 3 Develop Strategies	• Develop and evaluate water management strategies • Recommend and prioritize strategies
Phase 4 Develop the Plan	• Develop legislative, policy, technical and planning process recommendations • Prepare the River Basin Plan that includes an implementation plan, Identifies drought response initiatives, and considers public input



River Basin Planning Current Status

Basin	Status	Completion Date
Edisto	Completed	June 2023
Broad	Completed	February 2024
Pee Dee	Completed	March 2025
Upper Savannah	Completed	June 2025
Saluda	Draft Plan is being finalized	July 2025
Lower Savannah/ Salkehatchie	November 2023 – present	September 2025
Catawba	CWWMG’s Integrated Resource Plan 2020 – present	Winter, 2025
Santee	December 2024 – present	November 2025
State Water Plan	October 2024 – present	December 2025

Stakeholder Participation

Edisto River Basin Council Field Trip



PPAC Meeting



Broad River Basin Council Meeting



Pee Dee River Basin Council Meeting



Edisto Basin Water Demand Projection Stakeholder Meeting



SWAM Model Stakeholder Meeting



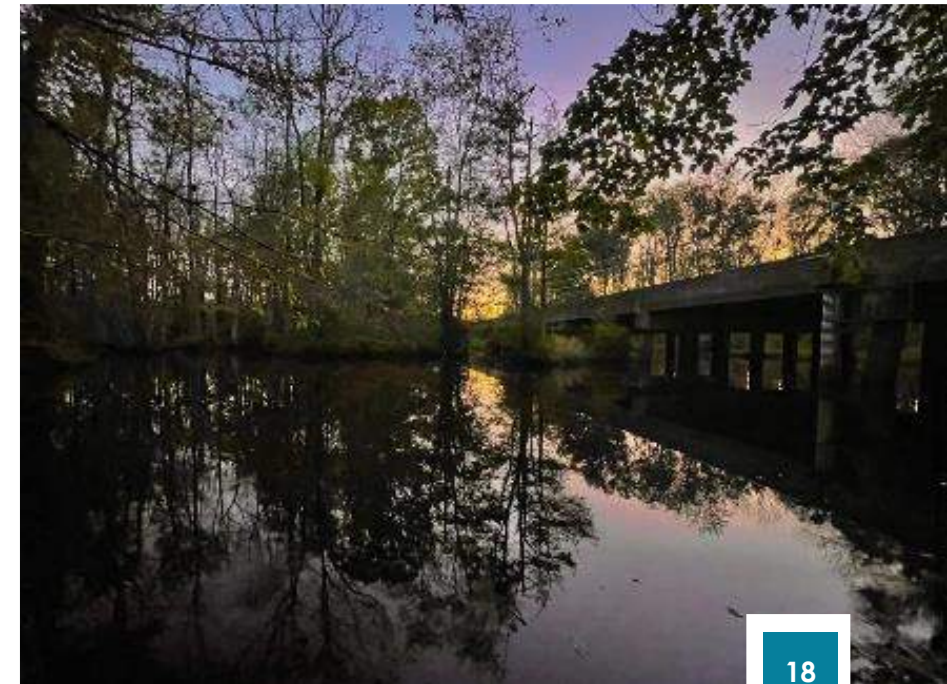


Draft Lower Savannah-Salkehatchie River Basin Plan Highlights

Draft LSS River Basin Plan Highlights

We Will Review:

- Current and projected water demands in the basin
- Results of current and future water availability assessment
- Extended drought scenario analysis
- Streamflow ecology relationships
- Recommended water management strategies
- Plan recommendations and implementation approach



Lower Savannah-Salkehatchie RBC Vision Statement

Shared water resources are managed to sustainably meet the needs of all stakeholders in the Lower Savannah and Salkehatchie basins now and into the future.



Lower Savannah-Salkehatchie RBC Goals

1. Develop and implement an education and communication plan to promote the strategies, policies, and recommendations developed for the Lower Savannah-Salkehatchie River basin

2. Develop water use strategies, policies, and legislative recommendations so that the Lower Savannah and Salkehatchie River basins are resilient

3. Educate and inform local governments on how land use decisions impact water availability

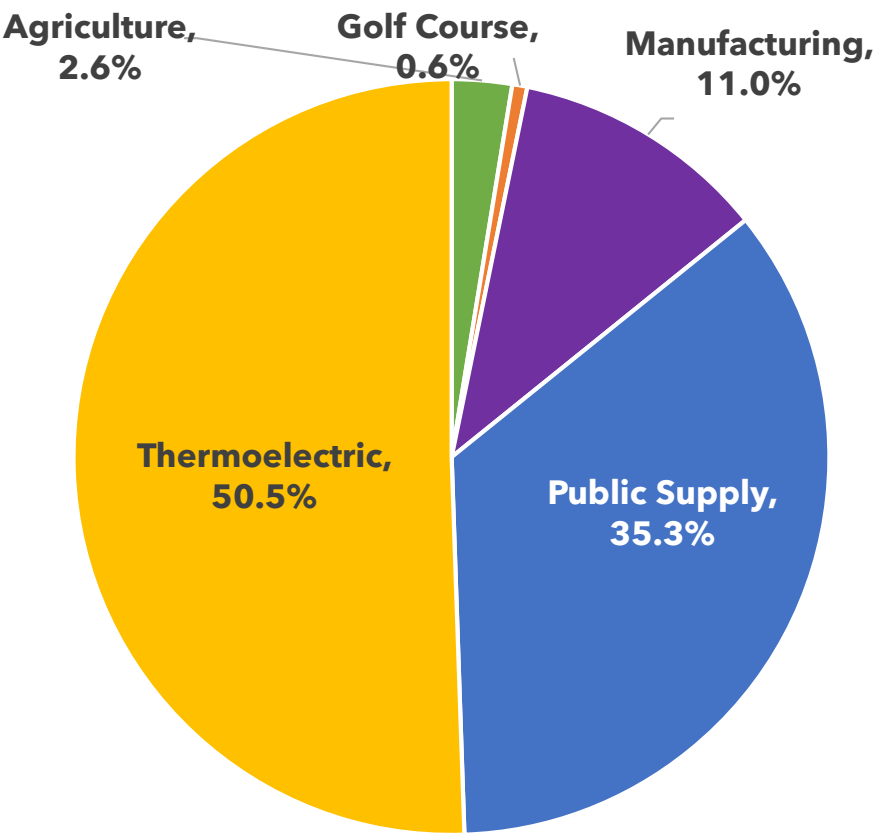
4. Enhance collaboration between all stakeholders & water interest groups, including Georgia & the Upper Savannah RBC



Current Water Demands in the Lower Savannah Basin

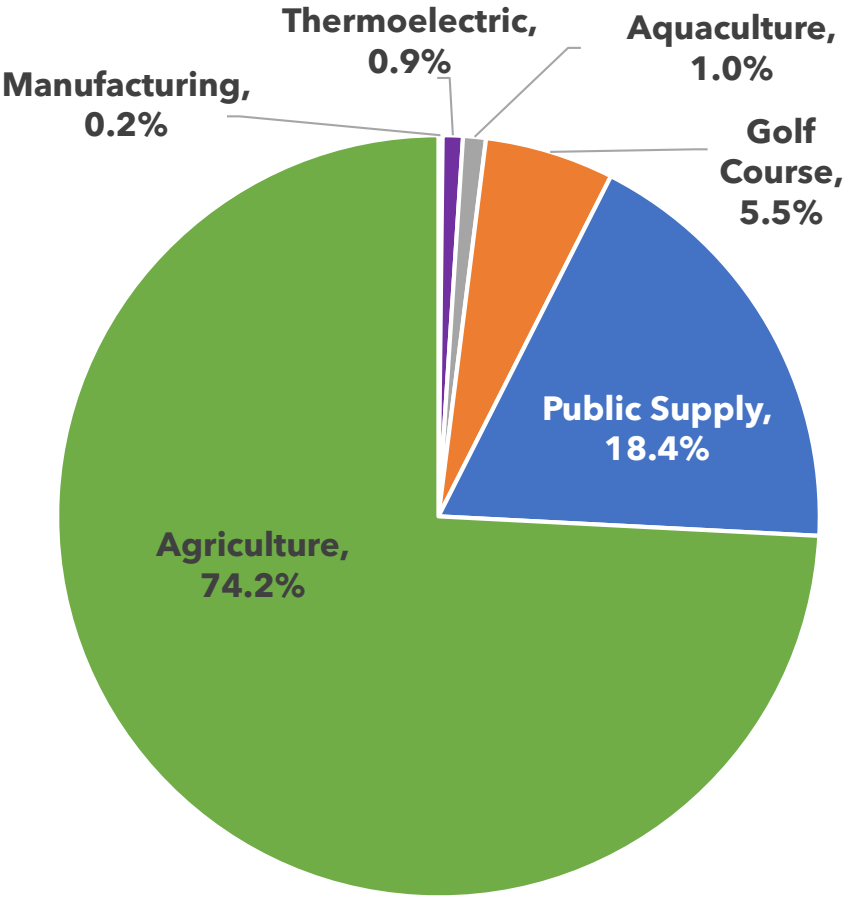
Water Use Category	Groundwater (MGD)	Surface Water (MGD)	Total (MGD)
Thermoelectric	0.0	103.1	103.1
Public Supply	26.6	45.2	71.9
Manufacturing	3.6	18.7	22.4
Golf Course	0.7	0.6	1.3
Agriculture	5.3	0.0	5.3
Total	36.2	167.6	203.9

MGD is million gallons per day



Current Water Demands in the Salkehatchie Basin

Water Use Category	Groundwater (MGD)	Surface Water (MGD)	Total (MGD)
Thermoelectric	0.4	0.0	0.4
Public Supply	7.8	0.0	7.8
Manufacturing	0.1	0.0	0.1
Golf Course	2.3	0.0	2.3
Agriculture	28.8	2.8	31.5
Aquaculture	0.4	0.0	0.4
Total	39.8	2.8	42.5



MGD is million gallons per day

Current Water Demands in the Lower Savannah and Salkehatchie Basin

Water Use Category	Total (MGD)
Thermoelectric	103.4
Public Supply	79.7
Manufacturing	22.5
Golf Course	3.6
Agriculture	36.8
Aquaculture	0.4
Total	246.4



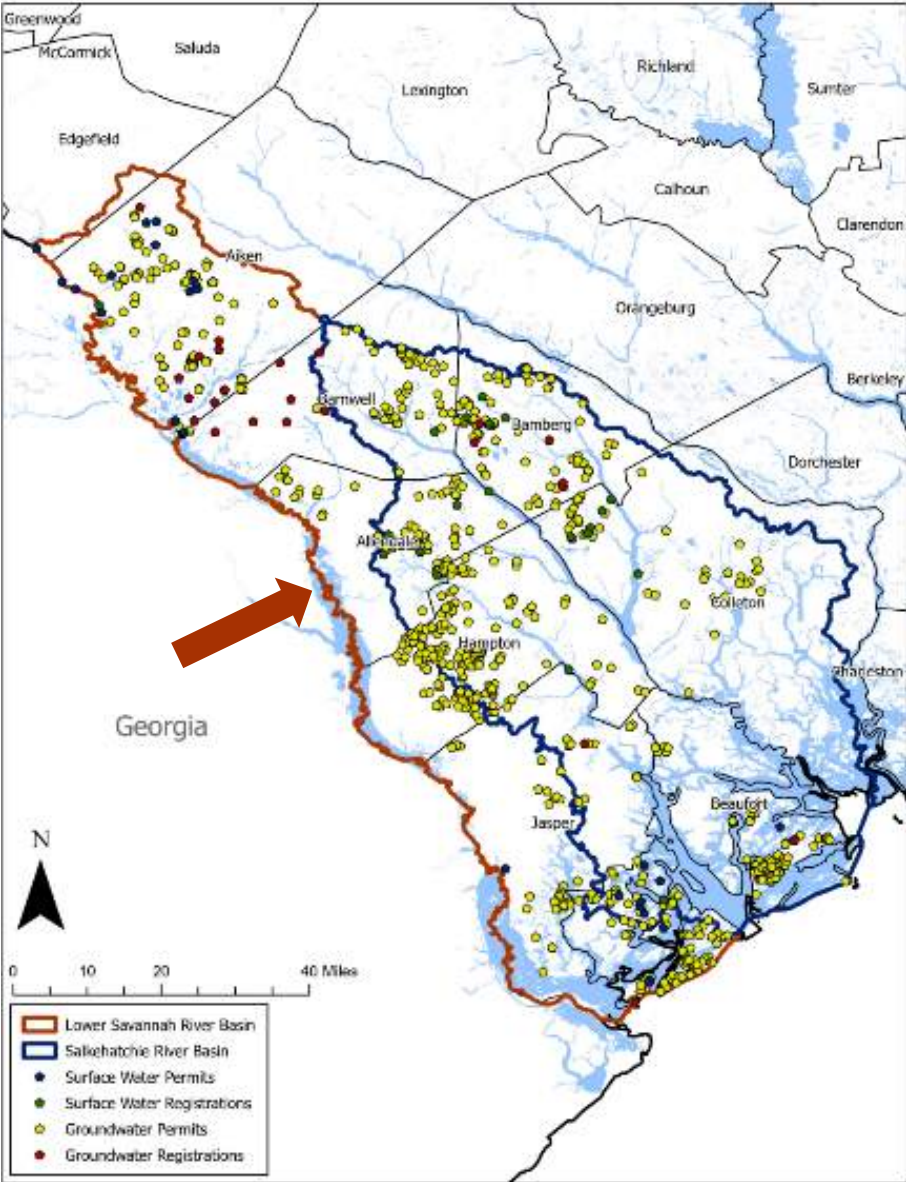
Scale Example 1:
An Olympic-sized swimming pool holds 0.66 million gallons. **Public Supply demand** in the basin would fill 121 pools in one day

Scale Example 2:
If the average flow rate of a garden hose is 15 gallons per minute, **aquaculture** of 0.4 MGD is approximately the flow rate of 19 garden hoses in one day.



 Key Finding

14 Percent of the Permitted and Registered surface water is currently being used in the Lower Savannah

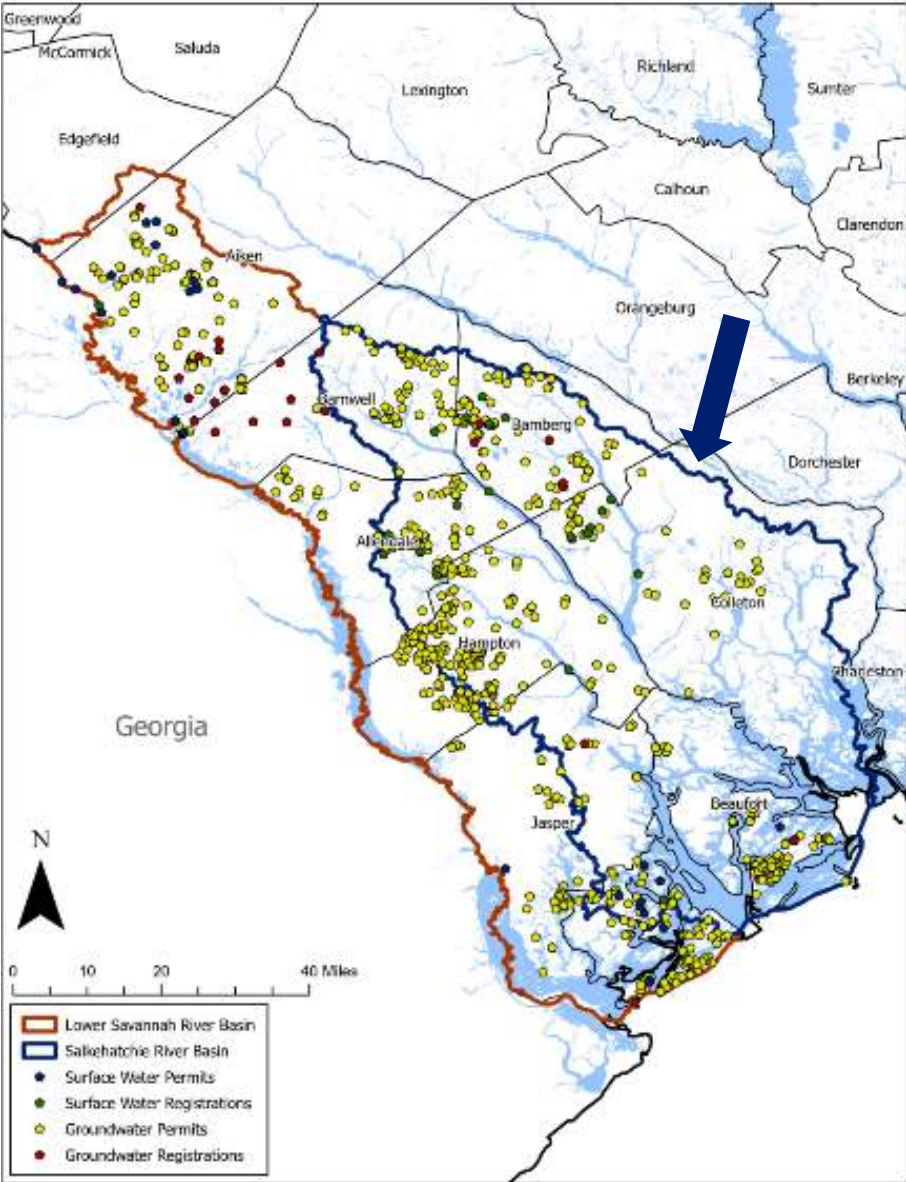


	Surface Water (MGD)
Currently Used	204
Permitted and Registered Amount	1,507*
Percent of Total Permitted and Registered Amount Currently in Use	14%

** The Permitted and Registered amount of water does not reflect how much water is available at a given time.*

 Key Finding

36 Percent of the Permitted and Registered surface water is currently being used in the Salkehatchie



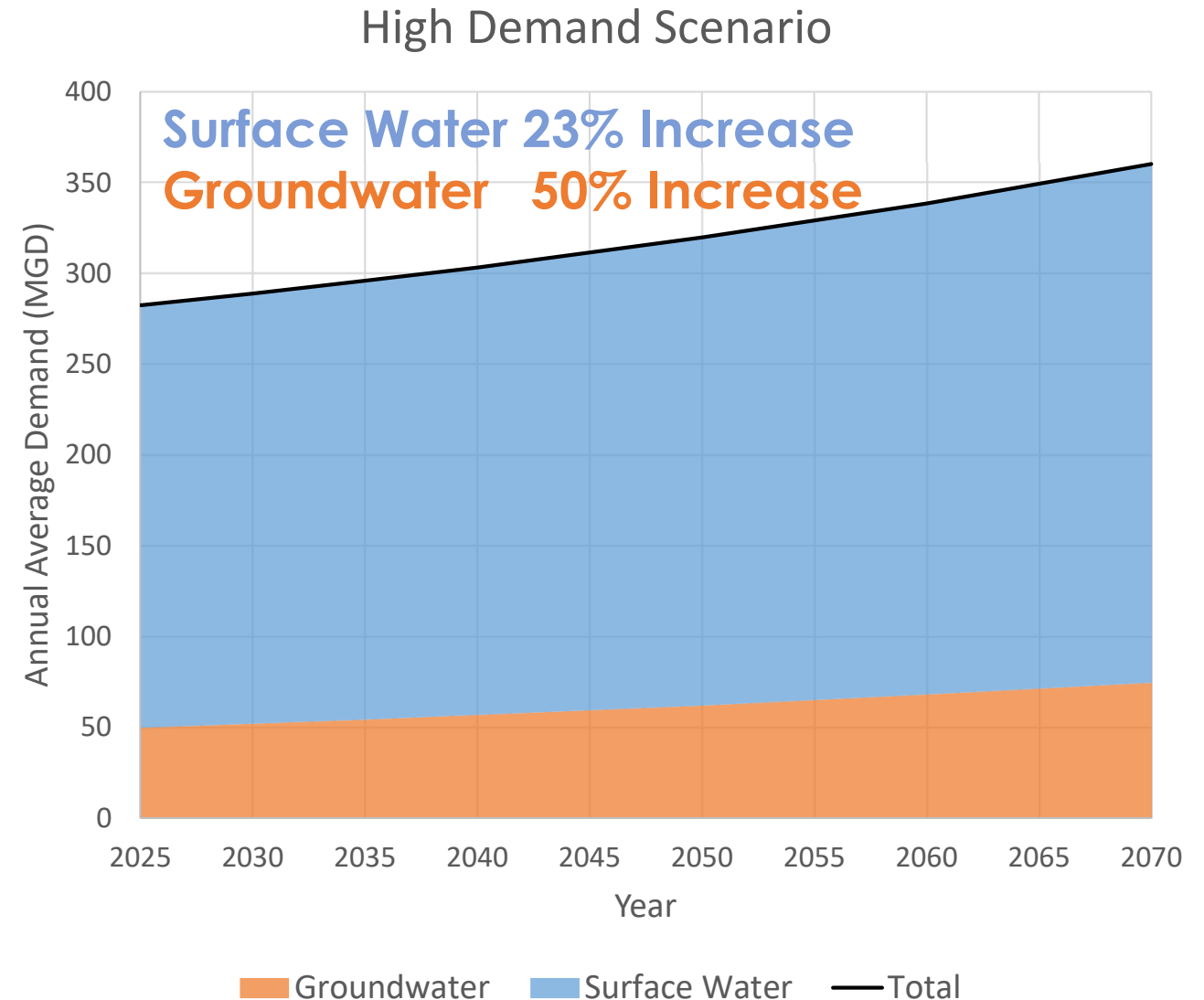
	Surface Water (MGD)
Currently Used	43
Permitted and Registered Amount	119*
Percent of Total Permitted and Registered Amount Currently in Use	36%

** The Permitted and Registered amount of water does not reflect how much water is available at a given time.*

Future Water Demand Scenarios for the Lower Savannah

High Demand Scenario
demands increase 77.8 MGD
from 2025 to 2070

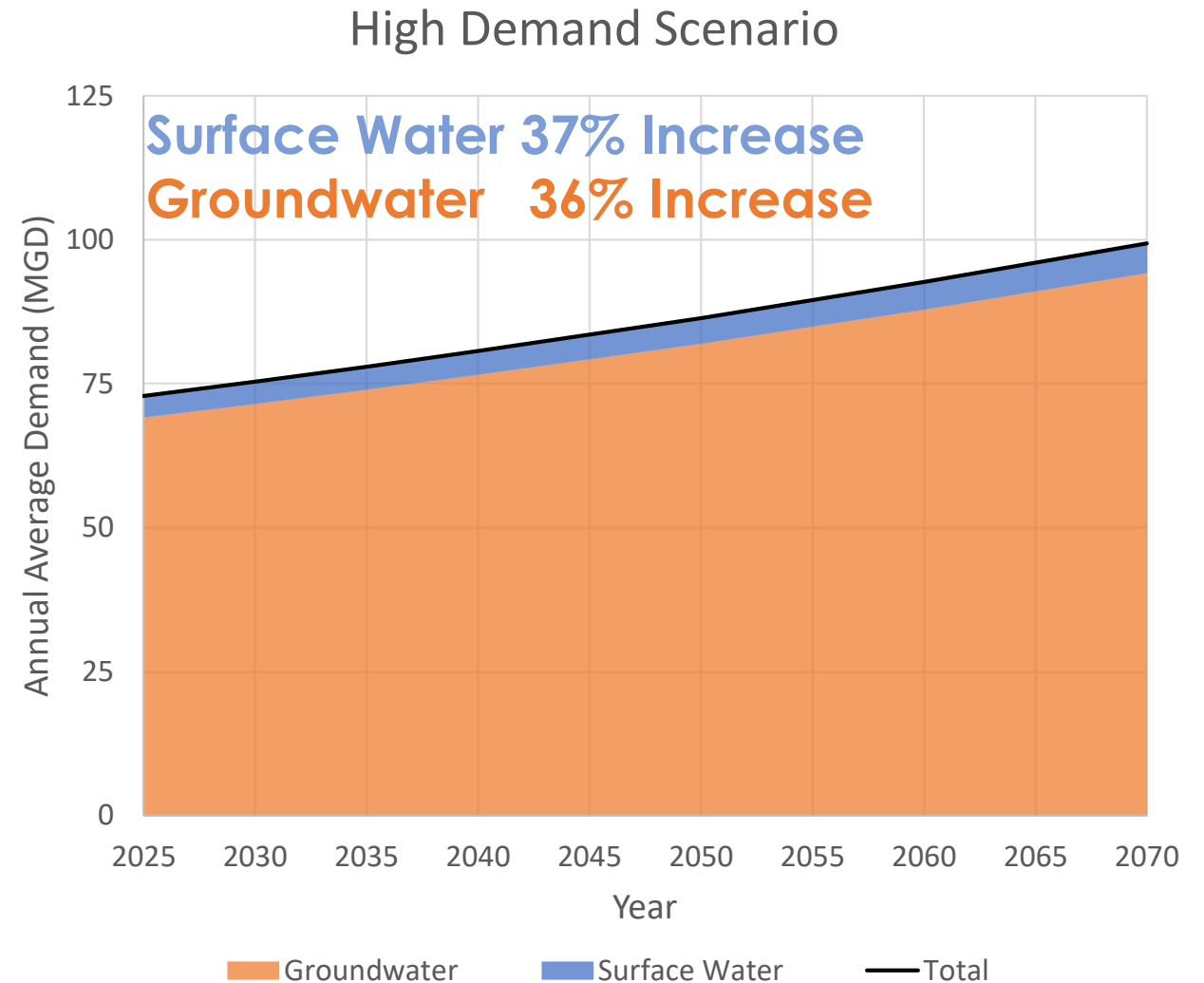
2070 surface water demands
for this scenario are 24% of
currently Permitted and
Registered amounts



Future Water Demand Scenarios for the Salkehatchie

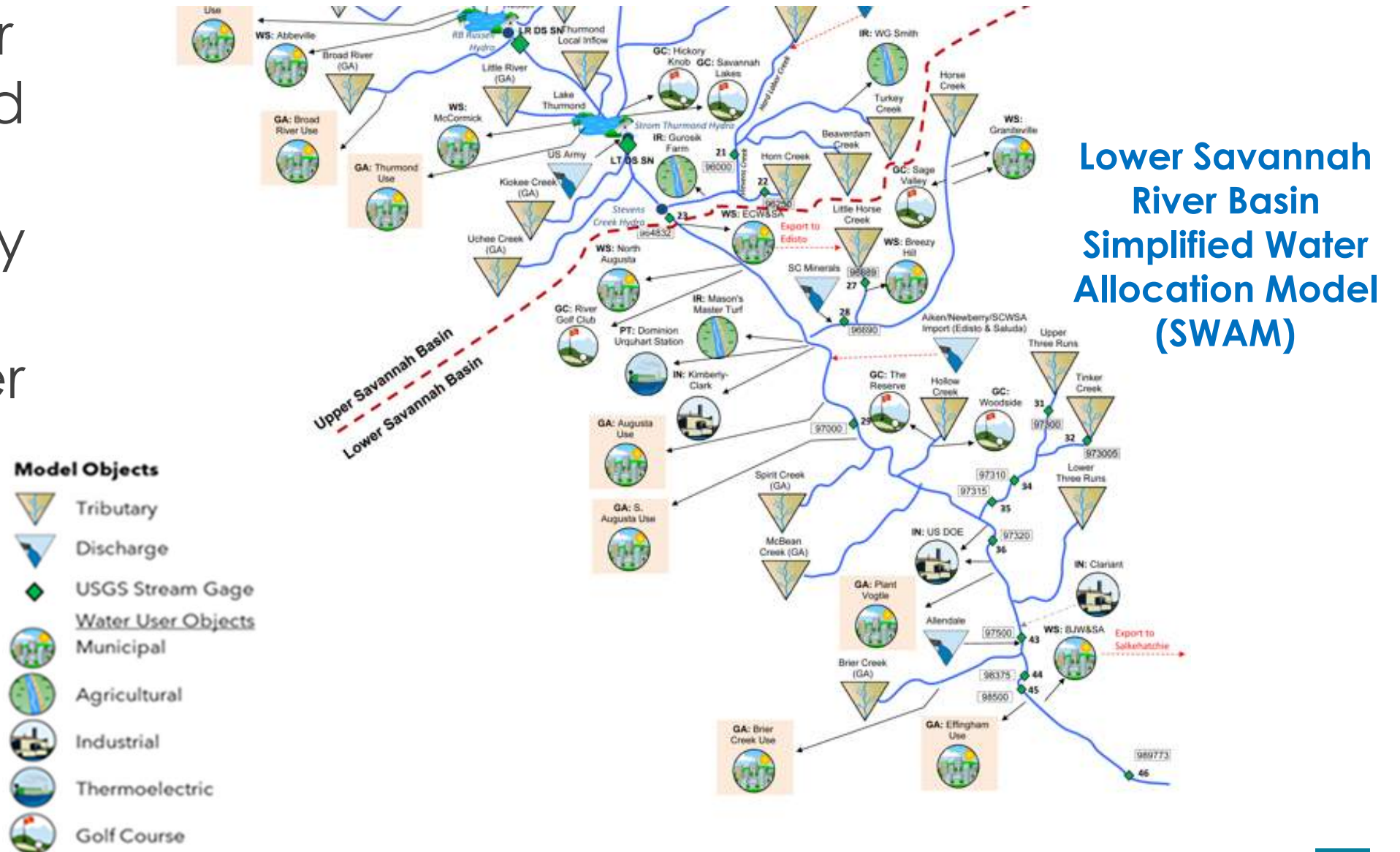
High Demand Scenario
demands increase 26.5 MGD
from 2025 to 2070

2070 surface water demands
for this scenario are 84% of
currently Permitted and
Registered amounts



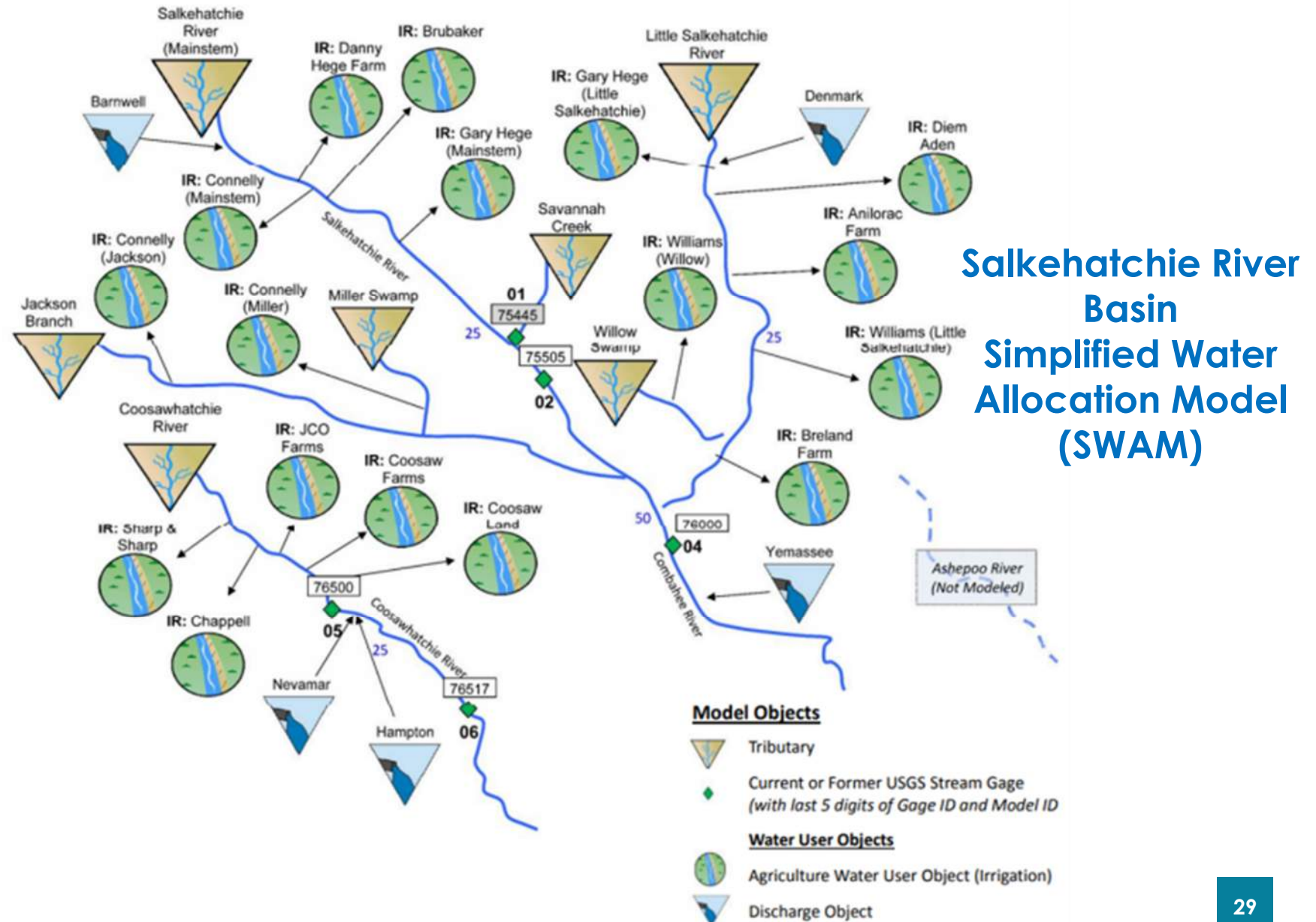
Current and Future Water Availability Assessment

A surface water model was used to compare available supply to current and projected water demands



Current and Future Water Availability Assessment

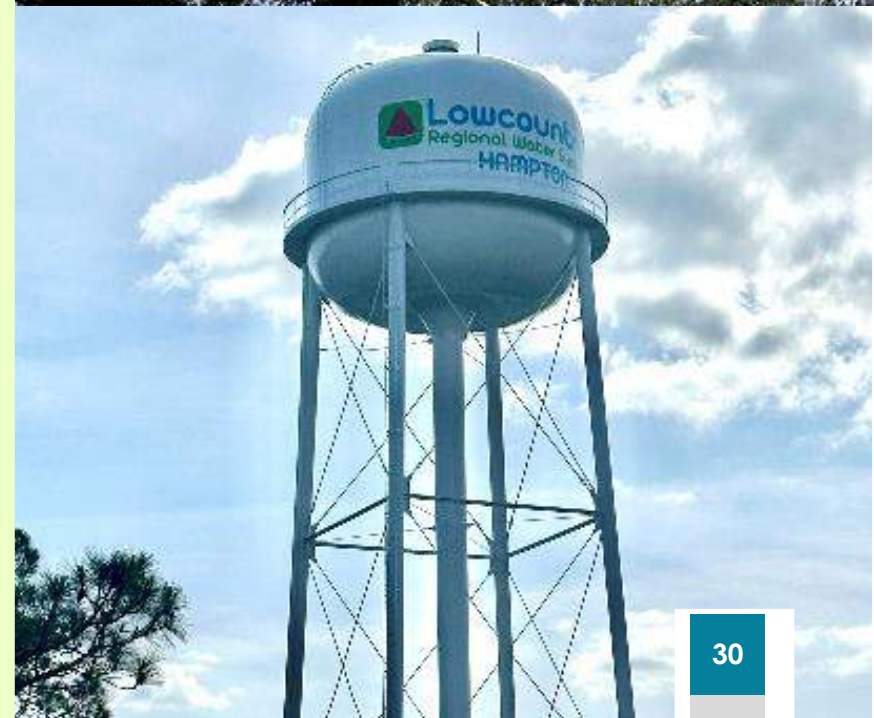
A surface water model was used to compare available supply to current and projected water demands





Surface Water Key Findings

- **Surface water resources of the Lower Savannah-Salkehatchie River basin are generally sufficient to meet current needs.**
- **Modeling suggests very low probability of shortages under moderate or high economic growth assumptions through 2070 in the Lower Savannah.**
- **Modeling suggests multiple agricultural users will experience shortages under moderate and high economic growth assumptions through 2070 in the Salkehatchie. Shortages may be alleviated by offstream impoundments not modeled.**
- **There may not always be enough water in every stream reach to satisfy all demands if all users withdrew their full permitted or registered amount 100 percent of the time.**



Extended Drought Scenario Analysis

- **Objective:** Given the uncertainty about future climate conditions and to further evaluate water supply resiliency in the basin, the RBC examined the potential impacts of future droughts that might be more severe than historical droughts using the 2070 High Demand Scenario water demands.
- Three extended drought scenarios tested:
 - **Scenario 1:** A repeating 5-year drought constructed by splicing together the five driest water years on record (2001, 2008, 1981, 1988, 2017)
 - **Scenario 2:** A repeating single-year drought corresponding to the second driest water year on record (2008)
 - **Scenario 3:** A repeating synthetic drought year constructed by splicing together the 12 driest calendar months on record



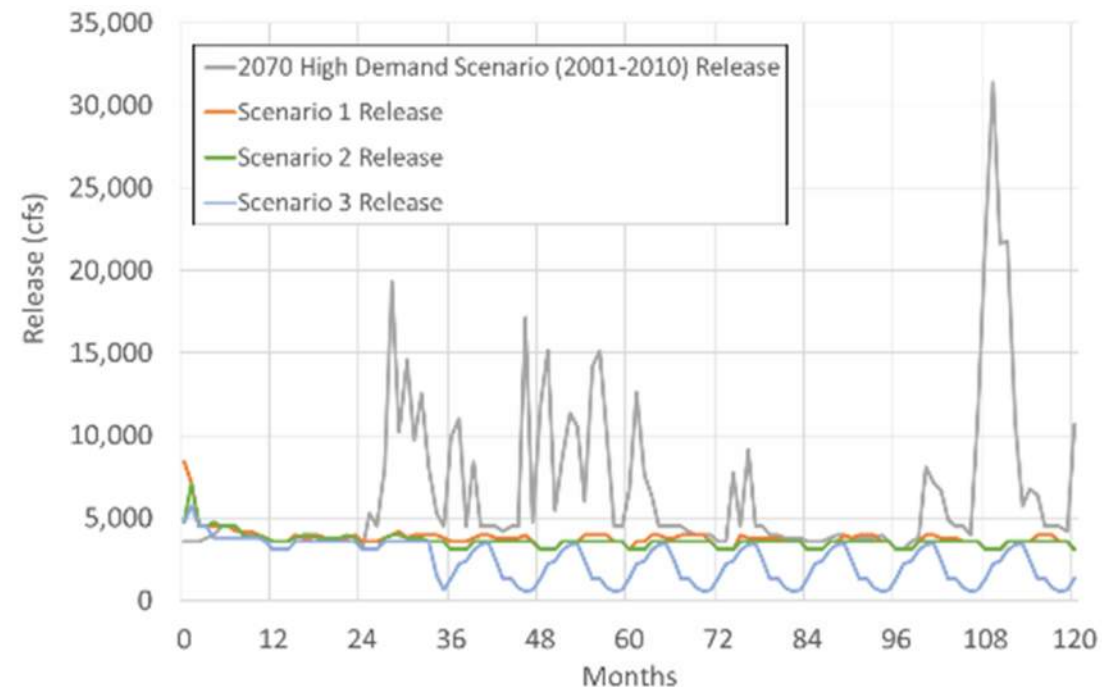
Extended Drought Scenario Analysis

Key Finding

The reduction in water availability in, and releases from, Lake Thurmond (in the Upper Savannah basin) under these extended drought scenarios **would impact the flow entering the Lower Savannah River.**

Note: Lake Thurmond is in the Upper Savannah Basin but is located immediately upstream of the Upper Savannah-Lower Savannah basin boundary

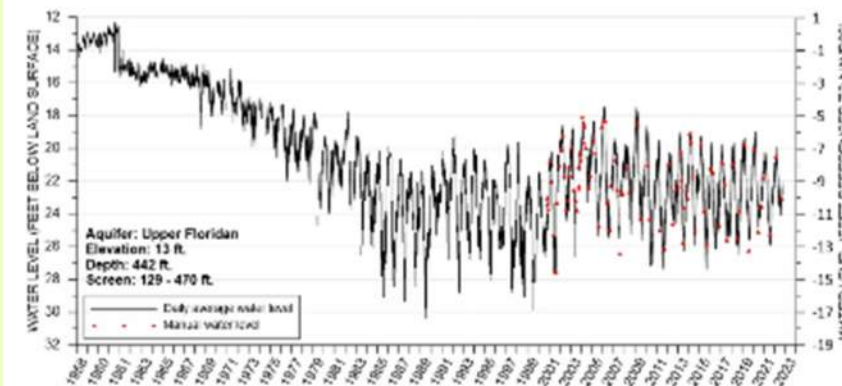
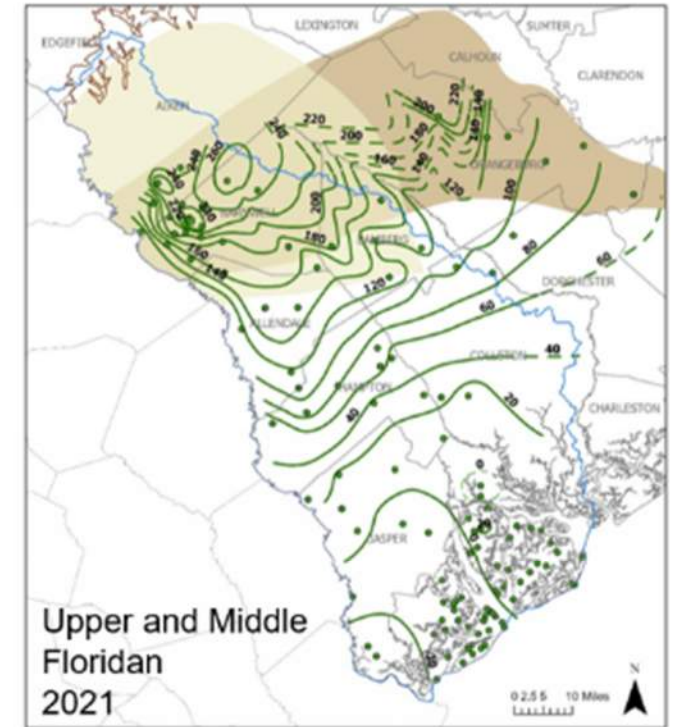
Lake Thurmond Storage





Groundwater Key Findings

- Groundwater levels are relatively stable basin-wide across all aquifers.
- Additional monitoring wells are needed to understand how future pumping may impact aquifer levels in the middle of the basin.
- Long-term pumping of the Upper Floridan aquifer has allowed saltwater to intrude into the aquifer beneath Hilton Head Island. Pumping reductions at Savannah, Georgia and Hilton Head have slowed that movement.
- Growth in Beaufort and Jasper Counties should be supported with more surface water use in addition to increased groundwater use from deeper aquifers.



Surface Water Management Strategies

Portfolio of Demand Side Strategies



Municipal Strategies (Examples)

- Public education about water conservation
- Conservation pricing structures
- Leak detection and water loss control programs
- Water waste ordinance
- Advanced metering infrastructure
- Use of Recycled Water

Agricultural Strategies (Examples)

- Water audits and nozzle retrofits
- Irrigation scheduling
- Soil management
- Crop variety, type, and conversion
- Irrigation equipment changes
- Future Technologies
- Wetting Agents (for turf grass)

Industrial Strategies (Examples)

- Water Audits
- Rebates on energy-efficient appliances
- Water recycling and reuse
- Water-saving equipment and efficient water systems
- Water-saving fixtures and toilets
- Educating employees about water conservation

Some of these strategies are already in practice throughout the basin.

LSS RBC Recommendations

Example Technical and Program Recommendations

SCDES should continue working with the USGS to develop a **groundwater model covering the basin** and use the model to better understand the **capacity of each aquifer and its ability to sustain future demands**

The state should request for and cost-share in the completion of **Phase 2 of the USACE Comprehensive Study and Drought Plan Update**.

Future surface water modeling should **incorporate scenarios that further examine future uncertainties**, such as changes in rainfall and hydrology, alternative population growth scenarios, and potential impacts of future development on runoff



LSS RBC Recommendations

Example River Basin Planning Process Recommendations

The RBC will support and promote **outreach and education to increase awareness** with the general public around watershed-based planning

SCDES should organize an **annual state-wide meeting of RBCs and State agencies**.

The South Carolina Legislature should continue to **fund state water planning activities**, including river basin planning



LSS RBC Recommendations

Example Policy, Legislative, and Regulatory Recommendations

The South Carolina Surface Water Withdrawal, Permitting, Use, and Reporting Act should allow for **reasonable use criteria to be applied to all surface water withdrawals**, like those that currently exist for groundwater withdrawals.

The Governor of South Carolina should communicate with the Governor of Georgia to **establish a coordinated, state-level planning and water management process** for the Savannah River Basin and their shared groundwater aquifers.

Current laws that allow for regulation of water use should be **improved so that they are effective and enforceable**. The current water law grandfathers most water users, limiting the ability for effective water management.



Implementation Plan

The RBC-developed implementation plan includes specific short-term (5-year) and long-term strategies and actions to address the following 7 objectives:

1. Improve water use efficiency to conserve water resources
2. Engage Georgia in Water Planning
3. Communicate, coordinate, and promote findings and recommendations from the River Basin Plan
4. Promote engagement in water planning process
5. Enhance understanding of groundwater resources
6. Improve technical understanding of water resource management issues
7. Improve drought management



Call to Action

Implementation of the identified strategies and actions requires support from all who have a vested interest in water resources, including:

- **Water Users** – Public Water Suppliers, Power Companies, Industry, Agriculture, Golf Courses, Fishing and Recreational Users, and You!
- **State and Federal Agencies** – SCDES, SCDNR, USGS, SCOR, USACE, GAEPD, etc.
- **Conservation Groups** – The Nature Conservancy, Savannah River Keeper, and others.





Submitting Comments on the Draft River Basin Plan

The Draft Lower Savannah-Salkehatchie River Basin Plan, Executive Summary, and a 2-Page Summary Sheet are available at the SCDES Water Planning web page

QR Code Link



Comments can be e-mailed to Dr. Tom Walker at:
scwatermodels@clemson.edu

Or mailed to:
 SC Water Resources Center
 Office 105-E
 509 Westinghouse Road
 Pendleton, SC 29670
 Attn: Dr. Tom Walker

Comments must be received by: August 22, 2025

The screenshot shows the SC.GOV website with the SC Department of Environmental Services logo. The main heading is "Draft Lower Savannah-Salkehatchie River Basin Plan". Below this is a breadcrumb trail: Home > Programs > Bureau of Water > Hydrology > Water Planning > River Basin Planning > Lower Savannah-Salkehatchie Basin Planning > Draft Lower Savannah-Salkehatchie River Basin Plan.

Draft Lower Savannah-Salkehatchie River Basin Plan
Document Links

- [Draft Lower Savannah-Salkehatchie River Basin Plan – Full Report](#)
- [Draft Lower Savannah-Salkehatchie River Basin Plan – Executive Summary](#)
- [Draft Lower Savannah-Salkehatchie River Basin Plan – Summary Sheet](#)

Public Meeting Information
Date and Time:
 July 22, 2025, 9:30 PM – 8:00 PM

Location:
 Lake Warren State Park – Hampton Hall Building
 1079 Lake Warren Road
 Hampton, SC 29924
[Directions via Google Maps](#)
[Meeting Agenda](#)
[Public Meeting Livestream](#)

On the right side of the page is a large image of a river flowing through a forested area. Below the image is a blue banner with the text: "LOWER SAVANNAH-SALKEHATCHIE RIVER BASIN PLAN 2025 DRAFT".

Slide 41

A0

Need to update QR code and comment receival date

Author, 2025-05-28T19:57:06.168

A0 0

Also need to update the screenshot - not sure where it is for the LSS

Author, 2025-05-28T19:59:04.320



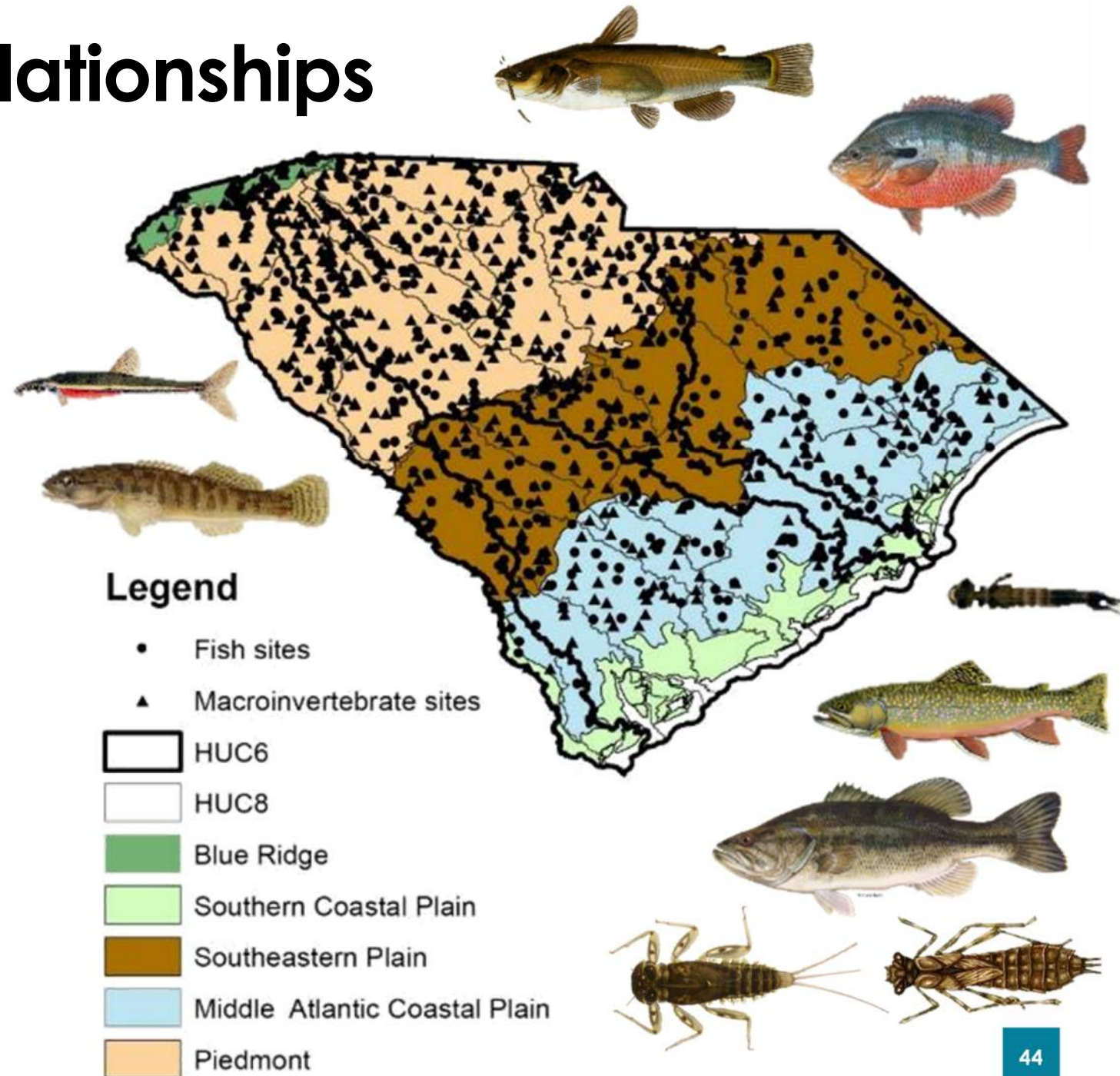
Public Comments and Q&A with the RBC



Extra Slides

Streamflow-Ecology Relationships

Objective: Identify relationships between river flow and aquatic habitat suitability to better inform water flow standards throughout the state and serve as a tool supporting informed decision making in the river basin planning process.



Streamflow-Ecology Relationships

Key Finding

Sufficient data was available to perform the analysis at **one location on Horse Creek near Clearwater** in the Lower Savannah River basin. At this location:

- Simulated flow metrics for the Moderate and High Demand 2070 Scenarios result in **low risk for ecological integrity and tolerance.**
- In general, the P&R future management scenario suggests a **moderate ecological risk to fish species.**



** The analysis did not consider potential negative impacts that that increased development could have on flow regimes and the ecological integrity of streams and rivers in the basin.*