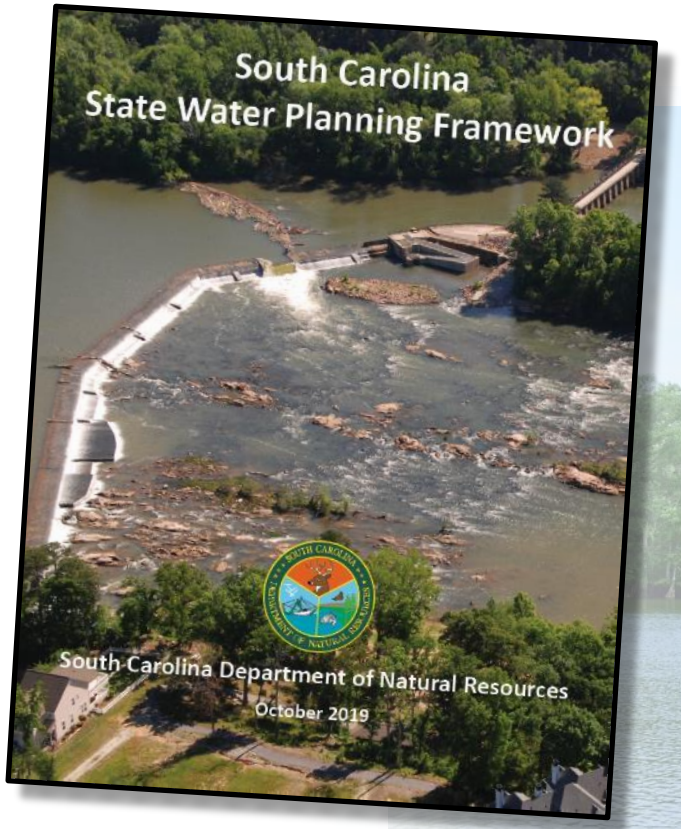
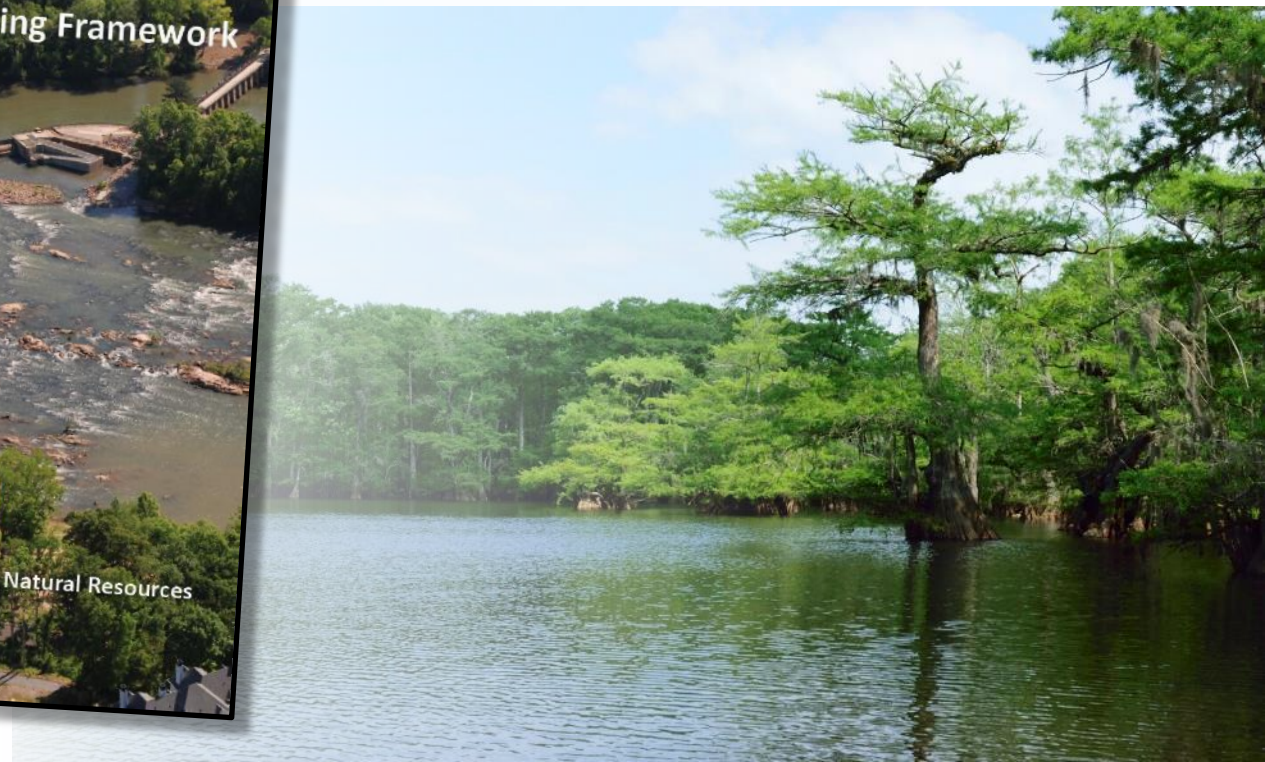
Update on Pee Dee Plan Development

Pee Dee River Basin Council

September 26, 2023





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Chapter Content

1

- Background
- Planning Process
- Mission Statement, Vision, and Goals
- Public Participation
- Previous Water Planning Efforts

Chapter Content

2

- Physical Environment
- Climate
- Natural Resources
- Agricultural Resources
- Socioeconomic Environment

Review Expectations

- RBC review period is 3 weeks
- Chapter subcommittees and SCDNR has already provided feedback
- Review by RBC members should identify:
  - Missing information or concepts
  - Information or statements that would make RBC approval difficult
- Two ways to provide feedback
  - Use Adobe PDF mark-up tools and email chapter back
  - Type comments into an email

Chapter Content

- Surface Water Management Strategies
- Groundwater Management Strategies

For each strategy:

- Description
- Technical evaluation
- Feasibility
- Cost-benefit

Summary of Surface Water Management Strategies

Demand Strategies	Example Practices
Municipal Conservation	• Water loss control programs • Low flow fixtures, toilets and appliances • Pricing structures (ex. increasing block rates) • Xeriscaping
Ag/Irrigation Conservation	• Water audits and center pivot sprinkler retrofits • Dammer dikers ← Vendor-specific technology • Cover cropping, conservation tillage, mulch • Soil Moisture sensors/smart irrigation • Crop selection ← Crop selection is market-driven • Irrigation scheduling ← Needs to be done right to be effective • Drip/Trickle irrigation (for select crops)

Summary of Surface Water Management Strategies

Demand Strategies	Example Practices
Industrial Conservation	• Water reuse and recycling • Water efficient processes • Water loss control • Low flow fixtures, toilets, and appliances
Thermoelectric Conservation	• Reclaimed water • Switch to combined-cycle natural gas • Energy saving appliances (which reduces thermoelectric generation needs)

Industry is conserving, but how can we improve?

Solar power could offset need for more thermoelectric generation. But what are the net effects of clearing areas for solar farms?

Summary of Surface Water Management Strategies

Supply Strategies	Example Practices
New or Increased Storage	• New impoundments, ponds, reservoirs, tanks • Dredging (pond deepening) • Reservoir expansion (raising dam height) • Aquifer storage and recovery
Water Reclamation	• Water reuse systems (non-potable) • Direct potable reuse • Stormwater capture and treatment
Conjunctive Use	• Using groundwater to augment surface water during low flow periods

What are the treatment requirements and is it feasible?

Is this economically feasible? Can surface water be used to intentionally recharge the aquifer?

Summary of Surface Water Management Strategies

Supply Strategies	Example Practices
Conveyance	• Regional water systems • Utility interconnections • Interbasin transfers
Desalination	• Treatment of brackish groundwater • Desalination of seawater

Potential Policy Recommendations that were Discussed in August

- A South Carolina / North Carolina water management group could be beneficial
- Additional monitoring and analysis of water issues in high-growth, coastal zones
- Regional planning and cooperation could help spread the workload for capacity-limited local governments
- Should drought management plans be required or encouraged for agriculture and industry?
- Update current municipal drought management plans

Thank you.

Questions?

Brown AND Caldwell