

Lower Savannah-Salkehatchie River Basin Council

**November 7, 2024, Meeting Minutes**

**RBC Members Present:** Ken Caldwell, Dean Moss, Courtney Kimmel, Jeff Hynds, John Carman, Bill Wabbersen, Joey Oswald, Kari Foy, Brandon Stutts, Brian Chemsak, Reid Pollard, Brad Young, Lynn McEwen, Sara O’Connor, Taylor Brewer, Tommy Paradise, Leslie Dickerson, & Larry Hayden

**RBC Members Absent:** Danny Black (Kathy Rhoad, alternate, present), Pete Nardi (Sarah Hickman, alternate, present), Austin Connelly, Sam Grubbs, Heyward Horton, Brad O’Neal, & Will Williams

**Planning Team Present:** John Boyer, Kirk Westphal, Joe Koon, Scott Harder, Tom Walker, Brooke Czwartacki, Hannah Hartley, Alex Pellett, Alexis Modzelesky, Andy Wachob, & Jeff Allen

**Total Present: 37**

1. Call the Meeting to Order (Kari Foy, RBC Chair) 10:00–10:10
  - a. Review of Meeting Objectives
  - b. Approval of Agenda
    - i. Agenda approved
    - ii. Dean Moss – 1<sup>st</sup> and Ken Caldwell – 2<sup>nd</sup>
  - c. Approval of September 5<sup>th</sup> Minutes and Summary
    - i. Minutes and summary approved
    - ii. Bill Wabbersen – 1<sup>st</sup> and Dean Moss – 2<sup>nd</sup>
  - d. Newsworthy Items [**Discussion Item**]
    - i. SCDNR acquires 10570 acres in Lowcountry to protect critical habitat/  
public recreation
      1. Completely undeveloped
      2. Ongoing project for 5 years
    - ii. Sentinel sites
      1. Designated landscape around a military installation
      2. Created by DOD, USDA, Department of Interior, FEMA
      3. Ensure compatible land development for military
    - iii. AC not working
  
2. Public Comment (John Boyer) 10:10–10:15
  - a. Public and Agency Comment Period
    - i. none
  
3. Governor’s Executive Order 2024-22 and WaterSC Overview (Joe Koon, SCDES) 10:15–10:25
  - a. Executive Order 2024-22

- i. WaterSC kicked off 10/30
- ii. 1<sup>st</sup> order of business: Write a stakeholder engagement plan
- iii. 2<sup>nd</sup> order of business: engage with a standing surface water study committee and bring any recommendations for necessary changes by 1/2025
- iv. 3<sup>rd</sup> order of business: advise DES on the production of the state water plan
- v. Monthly meeting with sector forums
- vi. Q: How does this group interact with the group that put together this process at DNR and the work that all of the basin committees are doing?  
A: That working group takes the place of the PPAC to develop the framework. Forum and listening groups communicate with RBCs and state water planning effort. Then collate that info and include recommendations from the various basin plans into the state work
- vii. Q: do these zones align with the drought or river basin zones? A: No new zones created in WaterSC.
  - 1. Q: Are the listening groups going to be at one site or statewide?  
A: The location of listening groups hasn't been fleshed out yet
  - 2. Sectors are well defined in the executive order, pretty aligned with RBC stakeholder groups. Up to individuals in the working groups and facilitators within DES to decide how to meet in between each meeting
- b. Tentative RBC planning process schedule for completion
  - i. 2024
    - 1. December: groundwater demands and water management strategies
  - ii. 2025
    - 1. January: finish strategies and begin developing recommendations
    - 2. February: continue developing recommendations
    - 3. March: finish recommendations and begin implementation plan
    - 4. April: finish implementation plan
    - 5. May: draft executive summary and plan review
    - 6. June: final draft plan and 1<sup>st</sup> public meeting
    - 7. July: address draft plan comments
    - 8. August: finalize plan and 2<sup>nd</sup> public meeting
  - iii. US, Saluda, and Broad spent 3-4 months working on recommendations
  - iv. No additional field trips
    - 1. Suggestion is to schedule optional field trips between meetings
  - v. Q: How many RBCs are behind us? A: Just the Santee, they haven't started yet. They're going to start and finish within the next year. US is 3-4 months ahead, Saluda is 4-5 months ahead, Pee Dee is just wrapping up
  - vi. Meet on January 2<sup>nd</sup>?
    - 1. Maybe move it back a week?
    - 2. Does the 9<sup>th</sup> sound better? Yes
    - 3. Plan is for January 9<sup>th</sup>
  - vii. WaterSC has a website

4. September Meeting Review (John Boyer) 10:25–10:35
- a. Send in water basin related photos for RBP
  - b. SC hydrogeologic framework
  - c. Reported SC groundwater withdrawals in 2023
  - d. Cones of depression in SC
  - e. Saltwater intrusion
  - f. Coastal GA regional water plan
  - g. SC capacity use areas
  - h. Aspects of water use addressed in groundwater management plan
    - i. Groundwater management strategies
    - ii. Assessments, evaluations, and renewals
  - i. Next meeting looking at demand projections
5. Finish Development of Drought Response Strategies and Recommendations [**Discussion Item**] (John Boyer) 10:35–11:00
- a. All but 2 US states were in moderate or higher drought, never happened before
  - b. Planning framework outline for chapter 8: Drought Response
    - i. Summarize existing drought plans and drought advisory groups
    - ii. Summarize any drought response initiative developed by the RBC
    - iii. List recommendations on drought management or drought management strategies
    - iv. Include a communication plan to inform stakeholder and the public on current drought conditions and activities regarding drought response
  - c. Communication plan
    - i. US agreed on recommending an approach that would eliminate DMAs
    - ii. Discussion at our meeting
      - 1. If RBCs continue as planning bodies, it may make sense to adopt the same RBC's recommendations
      - 2. Make sure each RBC has representation on the DRC
      - 3. Didn't settle on anything
    - iii. Q: What would it take to harmonize the geographic footprint of the 2? A: It would take a change in the Drought Response Act to say there's no more DMAs
    - iv. Q: is it worth considering harmonizing the 2? A: US thought it was, Saluda did not, never came up in other RBCs
    - v. C: It might be more challenging to get quorum if there's 8 basins instead of 4
    - vi. C: River basins don't respect county lines at all
    - vii. Elliot is at NOAA now

- viii. C: It would be challenging for messaging if by river basin because people know what county they're in
- ix. Good to have RBC representation
- x. Q: Do RBCs continue under the WaterSC framework? A: I have not heard that RBCs would be going away. Plan is for them to continue. WaterSC is replacing PPAC
- xi. Recommendation that the DMAs and DRCs need to have RBC representation from each one of the RBCs
- d. Drought response recommendations
  - i. RBC recommends that water utilities review their drought management plan and response ordinance every 5 years and review and update every 10 years or more frequently if conditions change
    - 1. Adopted by LSS
  - ii. RBC recommends that state funding be made available to water utilities to support the review and update of drought management plans
    - 1. Proposed by LSS and subject to final review and approval
  - iii. RBC recommends that water utilities coordinate their drought response messaging
    - 1. Rejected by LSS
  - iv. RBC encourages water utilities in the basin to consider drought surcharges on water use during severe and/or extreme drought phases
    - 1. LSS has not yet decided
    - 2. Q: Is there any utility that we know of in our basin that doesn't do that? A: No
    - 3. Differs based on private or public utility
    - 4. Had a discussion in the Saluda RBC because Greenville Water is going through the process of updating their drought plan and they added their surcharge. Need to have a meaningful surcharge
    - 5. C: could add the word meaningful
    - 6. Surcharges more common for surface water utilities compared to groundwater utilities
    - 7. Recommendation adopted as is
  - v. When droughts occur, the RBC encourages water users and those with water interests to submit their drought impact observations through the Condition Monitoring Observer Reports (CMOR)
    - 1. SC reports more than NC, good to have info to make decisions at the national level
    - 2. Q: Saluda added words to the bottom? A: added wording saying that the climate office should add more educational outreach to make more people aware of the tool
    - 3. C: I've heard of CMOR
    - 4. Adopted Saluda version

- vi. Other recommendations?
  - 1. Q: If these drought situations seem to be getting more common/ extreme, should there be a recommendation that we make to water utilities that alternative sources need to be explored and developed and the state should support that? A: could be discussed as part of water management strategies but could be meaningful here
    - a. Q: Could it be part of updating the plan recommendation?
    - b. Q: Why would it just apply to water utilities? A: Applies to all water sources
    - c. C: management strategy is to do that automatically
    - d. Adaptive management- developing strategies to address current conditions and looking 50 years into the future based on current/ historical climate patterns

*Break*

*11:00–11:10*

- 6. Introduction to Water Management Strategies (John Boyer) 11:10–12:00
  - a. Just because you didn't have any surface water shortages doesn't mean you shouldn't identify any water management strategies
  - b. Planning framework definitions
    - i. Surface water management strategy- a water management strategy proposed to eliminate/ reduce a surface water shortage or generally increase surface water
    - ii. Groundwater management strategy- a water management strategy proposed to address a groundwater area of concern or groundwater shortage
      - 1. One area is cone of depression in Hilton Head
      - 2. Using historical metrics, look at trends, then use county-based data to see where those increases are predicted to increase by sector, then identify areas where groundwater use has occurred. Not a model
    - iii. Groundwater area of concern- area in the coastal plan, designated by an RBC where groundwater withdrawals from a specified aquifer are causing or are expected to cause unacceptable impacts to the resources or to the public health and wellbeing
  - c. Water management strategies
    - i. Demand side and supply side
    - ii. Need a portfolio of strategies
    - iii. Demand side
      - 1. Municipal conservation- water loss control programs, low flow fixtures, pricing structures, public education

2. Ag/ irrigation conservation- water audits and center pivot sprinkler retrofits, dammer dikers, cover cropping, soil moisture sensors, crop selection, irrigation scheduling, drip/ trickle irrigation
    - a. Memo that explains these got sent out
  3. Industrial conservation- water reuse and recycling, water efficient processes, water loss control, low flow fixtures, toilers, and appliances
  4. Thermolectric- reclaimed water, switch to combined cycle natural gas, energy saving appliances
- iv. Supply side
1. New or increased storage- new impoundments/ ponds/ reservoirs/ tanks, dredging, reservoir expansion, aquifer storage and recovery
  2. Water reclamation- water reuse systems, direct potable reuse, stormwater capture and treatment
  3. Conjunctive use- using groundwater to augment surface water during low flow periods
  4. Conveyance- regional water systems, utility interconnections, interbasin transfers
- v. Water management strategies examples from SC, NC, and GA
1. Cary, NC
    - a. Implemented 3-tiered water rate structure, landscape and irrigation codes, toilet flapper rebates, residential water audits, points program, monthly water budgets, public education, reclaimed water program
    - b. Per capita water demand reduced from 114 gpcd in 2001 to 81 gpcd in 2016
  2. Greenville, SC
    - a. Water demand decreased by 28% over 20 years
  3. Metro North GA water planning district
    - a. Implemented conservation pricing structures, toilet rebate program, landscape irrigation program, leak detection and water loss control programs, car wash recycling ordinances, public education
    - b. 24% reduction in per capita demand
  4. How many gallons of drinking water are estimated to be lost each year in the US due to faulty, aging, and leaking pipes?
    - a. 1.7 trillion gallons
- vi. Water efficiency and water loss programs
1. GA Water Stewardship Act of 2010
    - a. Includes completion of an annual water loss audit, water loss control program, individual goals to set measures of water supply efficiency, demonstration of progress towards improving water supply efficiency

- b. Applies to public water systems serving populations over 3300
- 2. Graphic
  - a. Real losses- leakage on mains, leakage on service lines, leakage and overflows at storage
- 3. Real losses
  - a. Also physical losses- water that enters the distribution system but never reaches a user
  - b. Examples: leakage on transmission and distribution mains, storage tank overflows, service line leakage up to customer meter
  - c. Reducing real losses extends the water resource
- 4. GA histograms of real losses as a percent of total water supplied
  - a. Some losing up to 60-70%
  - b. Maybe more rigorous water loss control plan needed here and more info needed
    - i. C: Sanitary Survey next week
    - ii. Q: When was the last time you did a water audit?
    - iii. A: We look at water losses more generally
    - iv. C: Put data into Sanitary Survey and don't consider it much further
    - v. C: AMR and AMI leak detection used at HHI
    - vi. C: We looked at it, cost prohibitive
    - vii. C: In my experience, it is a big problem and utilities don't have revenue, staff, etc to address – economics problem
- 5. GA annual real losses as a percent of total water supplied line graph
- 6. Catawba- Wateree Water Management Group multi-phased approached to water loss
  - a. Annual water balance-> loss profiling and uncertainty-> cost-benefit and targets-> intervention
  - b. 10-year program
  - c. Calculated that they lost 23 million dollars in water throughout the whole basin
    - i. C: It's going to get a lot worse in the future because Charlotte wants to double its withdrawals out of the Catawba and surrounding counties don't have the money to fight it
      - 1. Mooresville wants to do the same thing
- vii. Existing water management strategies in the Edisto Basin
  - 1. City of Aiken
    - a. Masons Branch Reservoir
      - i. 1254 acre-ft storage
      - ii. Releases only during extreme drought to augment flow in Shaw Creek, above the City's intake

- iii. Provides approx. 30-day supply during average use
  - 2. City of Orangeburg
    - a. 2 ASR wells
    - b. Interconnection with Lake Marion Regional Water System
  - 3. Dominion Energy Cope Station: conjunctive use of surface and groundwater
    - a. Moving from 100% groundwater to a combo of surface and groundwater by 2028
    - b. Eventually will withdraw ~90% surface water and ~10% groundwater when river conditions allow
    - c. During low flow conditions, all water use at the station will be groundwater
    - d. Q: is that water returned or is it all evaporated? A: a lot is returned
  - 4. Walther Farms
    - a. Supply side- installed groundwater well to provide up to 20% of peak demand
    - b. Demand side- water audit/ sprinkler head retrofits, eliminate end spray guns, cover cropping, dammer dikers
    - c. Q: Other farmers who have done these retrofits are saving 10-15% of water? A: at least that much
- viii. Existing water management strategies in the LSS basins
  - 1. Coosaw Farms
    - a. Supply side- conjunctive use of groundwater and surface water, capture excess runoff, filter stations for reuse of water
    - b. Demand side- moisture sensors for using water efficiently, microemitters to apply water where it's needed
  - 2. Hilton Head's PSD's Vision for a "one water" future
    - a. Membrane treatment enabling direct and indirect potable reuse
    - b. WateReuseSC and SCDES working together to expand reuse as a part of our statewide toolbox
    - c. Turning stormwater into more of a dedicated source for aquifer recharge
    - d. Q: How common is what Joey has? A: variable rate irrigation technology has been out for several years and there are lots of producers that do it in conjunction with rainfall data. 60-70% of growers have a similar system
    - e. Q: Did you look at cost benefit analysis? A: Yes, don't know when it will pay for itself. Improving yield, potentially reducing energy costs

*Lunch*

*12:00–12:25*

- 7. Group Breakout Session to Discuss Water Management Strategies [Discussion Item]
  - 12:25–1:50
    - a. Group breakout exercise



- i. What existing water management strategies are already used in the LSS basins?
  - ii. How effective are the existing strategies?
  - iii. Do you think strategies that are already in place can be expanded or improved?
  - iv. What types of strategies are likely to be relevant in the LSS basins to reduce or eliminate projected shortages, increase available supply, minimize low flows, and help improve the flow regimes for aquatic organisms and recreation?
  - v. Groups assigned
- b. Group 3
  - i. Q1
    - 1. Supply side: Reuse, reclaimed effluent for irrigation, stormwater collection in ponds then used for golf course irrigation, conjunctive use (golf), public supply: interconnections (not too common but growing trend), regionalization
    - 2. Demand side: golf course- wetting agents, moisture sensors, irrigation systems upgrades (to be more efficient), PWS-AMI/AMR, SCADA, public education, tiered rate structure during drought
  - ii. Q2: Reclaimed water is effective, regionalization is effective in terms of technical and financial capacity
  - iii. Q3: Where there are new construction/ golf courses, reclaimed water would be useful, support and promote industrial growth
- c. Group 2
  - i. Q1:
    - 1. Supply side: interbasin transfer (LS to S), ASR, ag retention (impoundments), USACE flow strategy and minimum releases
    - 2. Demand side: building code requirements (utilities that get water from BJWSA), pricing structures (increasing block rates), education, general conservation strategies
  - ii. Q2: effectiveness is often location specific and depends on financial capacity
  - iii. Q3: all can be expanded. Prioritizing. Hold to and enforce existing standards, state funding is needed to expand strategies (ex: replace aging infrastructure)
  - iv. Q4: Ag is out in front. Municipal side- encourage reuse, fix existing systems
- d. Group 4
  - i. Q1:
    - 1. Supply side: satellite leak detection, land management (to improve water quality)
    - 2. Demand side: education- outreach and communication
  - ii. Q2: Outreach is not effective (relative to other issues, e.g. electric/energy), need more incentive for conservation
  - iii. Q3: GW barrier wall to prevent further saltwater migration/intrusion

- iv. Q4: consumption (reduce consumption), text messages to more quickly to stop leaks or make consumers aware of drought, more state funding for water projects, lobbying for federal dollars.
- e. Group 1 (online)
  - i. Sent out a memo
  - ii. irrigation management, stormwater utility fees, flow meters, more impoundments, interbasin transfer, interconnections, triggers in drought management plan should align, more monitoring in the basin, redundancy measures, education, tiered price structures, recharging groundwater

8. Upcoming Schedule and Discussion Topics

1:50–2:00

- a. Water management strategies
  - i. Currently have a list of what's useful, going to compile notes
  - ii. Next meeting, identify strategies by sector, prioritize strategies
  - iii. Adaptive management
- b. Maybe think about policy, regulatory, and legislative recommendations
- c. Start to send out draft chapters
- d. 12/5 next meeting
- e. Department of Energy put out a request for qualification for companies to build 200 megawatts of clean power on Savannah River site for data centers. Sent article
  - i. RFQ closed, now evaluating a number of responses that utilize different technologies
  - ii. May not all use water, could use solar
  - iii. Q: is there a WaterSC member that represents data centers?
  - iv. How do we plan for potential heavy water use by data centers? Haven't looked at them explicitly, worth looking into
  - v. Should we be talking about it as a basin council? Think we owe it to each other to tell if something's coming down the pipe. A lot is confidential
  - vi. Maybe put it in recommendation chapter instead of strategies
  - vii. We don't know if they're going to be pulling water or even if they're coming at all

Meeting adjourned: 1:54 PM

Minutes: Taylor Le Moal and Tom Walker

Approved: 12/5/24

RBC Chat:

10:01:22 From Thomas Walker to Everyone:

one sec audio issue

10:37:37 From larhayden to Everyone:

yes

10:37:55 From Taylor Hudson Brewer - Beaufort County to Everyone:



10:53:49 From Thomas Walker to Everyone:

break until 11:05

11:04:43 From larhayden to Everyone:

Thomas. Could you send me a link for this meeting to my USDA account?

11:07:22 From Thomas Walker to Everyone:

just sent it

11:20:30 From Taylor Hudson Brewer - Beaufort County to Everyone:

B

11:49:51 From Thomas Walker to Everyone:

pause for lunch until 12:15. breakouts will run from 12:15 - 1:00

11:50:02 From Thomas Walker to Everyone:

i'll open the breakouts at 12:15

12:15:09 From Thomas Walker to Everyone:

opening the breakout room

12:19:13 From Thomas Walker to Everyone:

RBC members and agency staff should all have a prompt to move into the breakout room. Please move into the breakout to participate

13:53:51 From Thomas Walker to Everyone:

meeting adjourned