

Lower Savannah-Salkehatchie River Basin Council

February 6, 2025 Meeting Minutes

RBC Members Present: Kari Foy, Dean Moss, Brian Chemsak, Tommy Paradise, John Carman, Brad Young, Pete Nardi, Lynn McEwen, Will Williams, Reid Pollard, Brandon Stutts, Taylor Brewer, Jeff Hynds, & Larry Hayden

RBC Members Absent: Bill Wabbersen, Leslie Dickerson (Tonya Bonitatibus, alternate, present), Danny Black, Ken Caldwell, Austin Connelly, Sam Grubbs, Heyward Horton, Courtney Kimmel, Sara O'Connor, Brad O'Neal, & Joseph Oswald

Planning Team Present: Tom Walker, John Boyer, Leigh Anne Monroe, Hannah Hartley, Kirk Westphal, Jeff Allen, Joe Koon, Brooke Czwartacki, Scott Harder, & Andy Wachob

Total Present: 30

1. Call the Meeting to Order (Kari Foy, RBC Chair) 10:00–10:10
 - a. Review of Meeting Objectives
 - i. Restrooms
 - b. Approval of Agenda
 - i. Agenda approved
 - ii. Dean Moss – 1st and John Carman – 2nd
 - c. Approval of January 9th Minutes and Summary
 - i. Minutes and summary approved
 - ii. John Carman – 1st and Reid Pollard – 2nd
 - d. Newsworthy Items [**Discussion Item**]
 - i. Surface Water Study Committee Employees
 1. SC Senators and Representatives
 - ii. 1/23 surface water study committee meeting summary
 1. Sen Climer and Rep Hixon approved as co-chairs
 2. Joint resolution adopted by Committee. If approved by GA will
 - a. Extend deadline for Study Committee's work to 3/2/26
 - b. Expand scope of Study Committee to mirror WaterSC
 3. Requested WaterSC to provide a quarterly report to Study Committee
 4. Myra Reece provided update on WaterSC
 - iii. Drought tabletop exercise
 1. 3/5/25 Emergency Operations Center
 2. Encouraging at least 1 person from each RBC to attend

- iv. DNR website
 - 1. Email subscriptions
 - 2. Weekly summary of week ahead
 - v. Savannah Lock and Dam
 - 1. Federal government has approved a plan and directed Army Corps of Engineers to restore and maintain the lock and dam
 - 2. Q: have they said anything about fish passes? A: don't know how it currently operates for fish
 - 3. Q: how much river distance is there from the lock and dam to the fall line? A: probably 2 miles
 - 4. C: understanding that the Corps would still need to accommodate a fish passage while Congress passed the Act
2. Public and Agency Comment Period (John Boyer) 10:10–10:15
- a. C: Hannah now in Scott's section (Hydrology)
3. January Meeting Review (John Boyer) 10:15–10:20
- a. Projections vs forecasts
 - i. DNR has made demand projections, not trying to forecast
 - b. Groundwater projections
 - i. Big discrepancy between high growth vs high demand scenario
 - c. LSS reported groundwater withdrawal
 - i. Historical use by sector
 - d. Groundwater use by aquifer
 - i. Upper Floridan
 - e. Groundwater projections- Public Water Supply
 - i. Beaufort County
 - ii. Hampton County
 - 1. Upper and Middle Floridan Aquifer
 - iii. Aiken County
 - 1. Crouch Branch and McQueen Branch Aquifers
 - f. Observations
 - i. Aquifer levels are generally stable across most aquifers
 - 1. Declines associated with past drought conditions and in/out basin demand
 - ii. Large water users in LSS are public water supply in Beaufort and Aiken counties
 - iii. Agricultural irrigation is expected to increase in counties located mid basin
4. Discussion, Selection, and Prioritization of Water Management Strategies (John Boyer) 10:20–11:45
- [Discussion Item]**
- a. Planning framework definitions

- i. Surface water management strategies- proposed to eliminate/ reduce a surface water shortage or generally increase surface water
 - ii. Groundwater management strategies- proposed to address a groundwater area of concern or groundwater shortage
 - iii. Groundwater area of concern- area where groundwater withdrawals from a specified aquifer are causing or are expected to cause unacceptable impacts to the resource or to the public health and well being
 - 1. Maybe HHI?
 - a. C: should acknowledge potential concerns, especially saltwater intrusion
 - 2. C: Edisto
 - a. C: if we had a model, that could be a scenario
 - 3. Q: should we have growth as a general area of concern?
 - 4. Q: should we caveat largest public users as largest that is permitted and monitored? A: Ag has same requirements as any other groundwater withdrawal permit
 - 5. C: was wondering if there was any connection between septic tank inundation and groundwater but there wasn't any discussion about it
 - 6. C: potential for some kind of subsidence in at least Upper Floridan where Hyundai plant is being built in GA. A: could be a recommendation
- b. Group reports
 - i. Q1: Existing strategies in the basins
 - 1. Supply/ demand side
 - ii. Q2: Effectiveness of existing strategies
 - 1. HHI reclaimed water
 - 2. Regionalization
 - 3. More incentives needed
 - iii. Q3: can existing strategies be expanded
 - 1. Reclaimed water
 - 2. Prioritizing strategies
 - 3. State funding
 - 4. Groundwater barrier wall
 - iv. Q4: what strategies are relevant in LSS
 - v. Important considerations
 - 1. Water users have different financial and technical resources
 - 2. Not every strategy is applicable to every water user
 - 3. Important to efficiently use water
 - 4. Some strategies can be part of an adaptive management plan
 - vi. What are some potential uncertainties
 - 1. Growth
- c. Strategy discussion
 - i. Supply-side strategies already in use
 - 1. Water reuse

2. Onsite retention
 3. Conjunctive use
 4. Interconnections and regionalization
 5. Interbasin transfers
 6. Aquifer storage and recovery
 - a. Q: How applicable is ASR across entire river basin? A: very dependent on aquifer condition. Orangeburg does ASR, mixed results, Beaufort/ Jasper has 3 ASRs. Don't know unless you try
 7. Planning framework suggests RBCs prioritize strategies
 8. Q: what about saltwater treatment and taking ocean water? A: can note
 9. Not all RBCs have prioritized, don't have a problem right now
 10. Which strategies would be the most useful to adapt to changing conditions?
 - a. Water use and retention
 - b. Interconnections can be built, don't have to be used
 - c. Membrane treatment
 - d. Permitting should be discussed
 - e. Connectivity and regionalization
 - f. Don't know how many existing interconnections there are in the basins
- ii. Demand-side strategies
1. Irrigation (ag and golf courses)
 - a. Have to talk to ag folks
 - b. Water audits and nozzle retrofits
 - i. Encouraged. Low cost
 - c. Wetting agents
 - d. Q: tomato farmers use drip systems now. Is drip system worth discussion? A: believe drip irrigation is discussed in chapter 6. Broad Basin toured Cooley Farms which has same system
 - e. Beaufort County offers stormwater utility fee credit that reuse water for irrigation
 - i. Could make suggestion to offer incentives
 2. Municipal
 - a. Typical list
 - b. Conservation pricing structures/ Drought surcharges
 - i. In chapter 8
 - ii. Add inclining block rate
 1. Q: are they applied uniformly across all users or typically assigned to residential only? A: residential and commercial. American Waterworks Association best practice

2. Q: do you think it changes the behavior of your customers? A: they still irrigate like crazy
 - iii. Support
- c. Public education of water conservation
 - i. Other RBCs have prioritized it highly
 - ii. C: word difference between efficiency and conservation
- d. Landscape irrigation programs
 - i. C: it's a tool but not for everyone
 - ii. Beaufort Jasper already has a program
 - iii. C: smaller systems have certain strategies that are more personal than large systems
 - iv. Some support, not pushing that hard
- e. Leak detection and water loss control programs and AMI/AMR
 - i. AMI is the 2-way communication tower, AMR is anything that eliminates a person having to get out of the truck and read the meter
 - ii. More utilities are moving towards that
 - iii. High priority
 - iv. Added district metering (mass balance)
- f. Car wash recycling ordinances
 - i. Only have one car wash
 - ii. Crossed out
- g. Water waste ordinance
 - i. Responses to situations
 - ii. Implementation of ordinance is a political act
- h. Toilet rebate program
 - i. Thing of the past
 - ii. Crossed out
- i. Residential water audits
 - i. Ag irrigation audits are useful
 - ii. Q: does this mean asking homeowners to do a residential audit? A: might have someone from the educational outreach program that would come to a home and identify leaks or give tips
 - iii. Q: who's going to do that? A: Rural Water Association, utilities do it informally. Utilities do it if a problem, not just because
 - iv. More common in water-stressed areas, less common in SC
 - v. Crossed off
- j. Building code requirements
 - i. Built into standard codes
 - ii. Beaufort Jasper charges a capacity fee

- iii. Complicated business practice
- iv. Should be ordinances that require certain considerations in terms of stuff you install and how you design it
- v. Crossed off
- k. Other ideas
 - i. Moratorium on instillation of new irrigation systems for residential turf and ornamental landscape
 - 1. Not removing existing, just not allowing new
 - 2. Part of English heritage
 - 3. Every piece of turf on HHI has been trucked in
 - 4. Q: how much more can your service area grow? A: not too much, could have redevelopment
 - 5. Q: Why couldn't you take it away if it's a metered connection? A: a lot of the irrigation runs off the household meter
 - 6. Q: Could there be an excess water fee for new construction that installs irrigation? A: some state laws about what you are allowed to build into capacity
 - ii. House Bill 3656: well drilling. So long as the property owner meets requirements, no county municipality or water authority shall deny or prohibit the installation of a private irrigation water well, regardless of whether the property is connected to or served by a public water system. The irrigation water well shall not be interconnected to plumbing that is connected to any public water system or will be used for irrigation or other non-potable purposes
 - 1. Overreach of law
 - 2. Water utilities have opposed it
 - 3. Narrow problem but bill is broad
 - iii. Overarching announcement of how our state is growing
 - 1. Recognize new population growth
 - 2. Introductory chapter of State Water Plan as one of the drivers for the need for water planning
 - 3. Q: irrigation demand is a real problem. Would it make sense to highlight it as a

problem even if we don't have a specific solution? A: can work into chapter 7

3. Industrial and energy

- a. Q: does water audits mean a water balance? DOE requires us to conduct a water balance every year. Does help identify problem areas. Also putting in flow meters A: added water balances and adding meters
- b. Could add a small gas turbine for peak usage
- c. C: Rainwater capture- have a lot of roof area and could capture that water and use it for irrigation. A: added to water recycling and reuse
- d. Q: is there room for improvement by adding better meters or doing a different process? A: more doing a deeper dive into the reporting. Consumptive use vs regular use
- e. C: Have pressure transducers all throughout the system. A: added pressure transducers to ID leaks
- f. Not prioritized
- g. Q: are block rates applied to industries as well? A: don't have any except for golf and food and beverage. Nationally, yes

5. Introduction to Draft Chapters (John Boyer)

11:45–12:00

- a. Chapter 2- Basin description
 - i. Geography, climate, geology, natural resources, wildlife, natural and cultural preserves, maps, ag resources and livestock
- b. Chapter 8- drought response
 - i. 1st 3-4 pages very similar for all RBPs, talking about State Drought Response Act
 - ii. Drought response recommendations
 - iii. Communication plan
- c. May need a PDF file instead of Word file, hard to use Word on a Mac
- d. Send comments by 21st
- e. Chapter 4 is almost ready, Chapter 3 close to being done, Chapter 5 waiting for a part from Clemson
- f. Encouraged to read it and send comments
- g. Keep a comment log

Lunch

12:00–12:25

6. Discussion and Development of River Basin Plan Recommendations (John Boyer)

[Discussion Item]

12:25–

1:50

- a. RB planning process recommendations may include
 - i. Changes to RBC membership, bylaws, meeting schedules, or procedures

- ii. Ideas to improve communication among RBCs and other groups
- iii. Funding needs and sources of funding
- iv. Improvements to public outreach process
- v. Implementing RBP and continued RBC activities and actions
- vi. Can make recommendations about WaterSC or other groups
- b. RBC recommendations
 - i. Sent out chapter 9s from other RBCs
 - ii. Good to see commonalities
- c. Planning process recommendations
 - i. C: Broad's recommendations state DNR, but we have to change it to DES
 - ii. SCDES should organize an annual statewide meeting of RBCs and State agencies
 - 1. C: was useful when we met with US, so can imagine it would be equally useful
 - iii. SC Legislature should continue to fund state water planning activities, including river basin planning
 - 1. Q: is there continuity with all of this? Will it continue with each legislature and governor?
 - 2. C: DES should send out a memo quarterly to all the RBCs to tell where they are in the plan. If state agencies don't keep in contact and implement the plan, the whole thing is going to fade away. Need feedback. A: part of implementation plan. Falls on RBCs to drive implementation strategies. You have to push for your own funding
 - 3. C: need to make sure legislature understands what we're doing. Edisto said, "RBC members should communicate with legislative delegations throughout the river basin planning process to promote their familiarity with the process and its goals and to generate buy-in on its recommendations."
 - 4. C: different RBC members have different people behind them
 - 5. Have slide deck and present it to local bodies. Slide deck is how we implement our communication plan/ public outreach
 - 6. One RBC has it in their implementation plan to develop a communication and public engagement plan
 - iv. RBC members should communicate with legislative delegations throughout the river basin planning process to promote their familiarity with the process and its goals and to generate buy-in on its recommendations.
 - v. RBC will support and promote outreach and education to increase awareness with the general public
 - vi. SCDES should develop a strategy for maintaining membership and sustaining RBCs
 - 1. US focused on getting elected officials and local government representatives. Local government not well represented
 - 2. C: should reach out to members to make sure they're able to stay on. A: ag irrigation starts out strong but attendance is lowered

because limited time. Ag doesn't have people who can backfill for them

3. RBCs should be more formal and legislatively recognized. Should be a formal leadership process. Chair and vice chair are likely the ones that are responsible for making sure everyone is communicated with on a regular basis. Are we going to have state agency staff that sits with us?
 4. Could make recommendation that DES creates an RBC coordinator position
 5. 2004 water plan mention river basin planning. GA regional councils are governor appointed. Takes a long time to backfill positions with governor appointees
 6. When water planning was with DNR and under the authority of the Water Resources Coordination Act, DNR was given authority to put boards together, such as PPAC. RBCs came out of PPAC. Nothing legislatively mandated about an RBC
 7. If we're going to continue and be successful, it's got to be formalized a little more
 8. Added SC should designate staff to continue to coordinate and support ongoing RBC activities
- vii. Request that WaterSC consider recommendations from the RBCs
1. We're partnered with them but not strongly
 2. DES will write state water plan and then they will review it.
 3. 1st 4-5 chapters is pulling info from all of the RBPs. Still TBD what role WaterSC has in reviewing and approving the plan and what sections they will have more/ less input
- viii. Recommendation about reviewing membership
1. Making sure all interest groups are represented
 2. Added SCDES, RBC planning teams and RBCs would conduct regular (every 6 months) reviews of RBC membership to make sure all interest categories are represented and attendance across all interest categories meets the requirements of the RBC bylaws
 3. How do we sustain?
 4. Removed every 6 months
- ix. Relationship with GA
1. Q: Does relationship with GA need to be dealt with in this part of the recommendation process or somewhere else? A: put it under planning process
 2. If we want to plan with GA, it should be in this section
 3. Added the RBC, with the support of SCDES, should communicate with the state of GADEP to coordinate and communicate with the Coastal GA Regional Council
 4. Q: is there any discussion with the US and SUO councils? A: no direct discussion, did give presentations and provided info to US about their plan. No joint meetings

5. Q: is this a place to mention the IBCs? A: yes, haven't done it yet and should have by now. Should get 2 RBCs and look at recommendations closely and make sure they're similar. Try to do in the next month
- d. Technical and program recommendations
 - i. May include
 1. Need for more data
 2. Model improvement
 3. Additional models to address specific issues
 4. Improved data
 5. Recommendations for technical studies
 6. Need for additional technical training
 7. Improved instream flow requirement info
 - ii. Request to DES related to groundwater capacity
 1. How DES views the capacity situation by aquifer.
 - a. Water budget by aquifer
 2. Need to have reliable and fully developed model then used that model to develop a budget model
 3. C: Edisto is more closely related to us than other basins
 4. Added RBC recommends that SCDES works with USGS to develop a groundwater model covering LSS area and use that model to help understand the capacity of the aquifers within the region
 5. Lots of assumptions that would have to go into making an estimation of the volume of water available within an aquifer. Have to think about the porosity of the aquifer, thickness, depth. Not going to be homogenous across the entire aquifer because there's heterogeneity in the porosity due to the presence of confining layers or areas of lower permeability. Info could be misconstrued
 6. C: Could recommend that the RBC requests acknowledgement from DES, that while demand projections exist, solid info about potential capacities does not. A: would be nice to know how much water is in there but too much uncertainty
 7. C: we should push for the model
 8. C: Lack of understanding comes from a lack of a model
 9. C: Coastal Plain model is currently being revised because there is uncertainty
 10. Once full coastal plain model is calibrated, they can develop the inset models. Plan is to start with Pee Dee then do LSS
 11. C: not sure how funding stream works
 12. Contract with USGS includes 3 inset models which would be Pee Dee, LSS and Santee
 - iii. Biotic integrity
 1. Estimate the index of biotic integrity or similar exploring measure for the Salkehatchie River within 5 years of plan approval as a baseline for the space which has fewer environmental impact

- than other basins. If the scoring for this river is poor, determine the root cause and use this info to assess another stream reaches
2. Conditions of waterways is very important, hard to track down statistics
 3. Try to measure one waterway first, is an inroad to how we could get determinations
 4. 5 years makes it actionable
 5. If Salkehatchie scores low, that's a problem. We should look and see what's going on around it
 6. Index measures biotic integrity, structure, composition and function of a biological community. Assesses how well the community can resist and recover from disturbances. comprehensive
 7. Difficult to do, so currently not done
 8. Flow ecology presenter- too many streams for people to monitor so use aquatic organisms to monitor river health
 9. Lack of data is an issue
 10. Monitor 1 waterway over 5 years as a test to see if we can get a measure of the environment
 11. 1st phase is water quantity, up to RBC to decide for future planning if they want to tackle water quality issues
 12. C: Salkehatchie is a low flow river with a lot of wetlands, different than any other area in the state. Rural. Extra precautions should be taken by DES when considering any withdrawals. A: falls under regulatory/ legislative policy category
 13. Salkehatchie- 45-50% of the time, flows dropped below minimum stream flows because of strange flow regime
 14. Yellow bucket
 15. Reached out to Brandon Peoples
- iv. RBC will support continued effort to maintain and expand streamflow gages
 1. Salkehatchie- challenge to put in gages to be able to measure flow because its more spread out and wetlands
 - v. Future SWAM modelling should incorporate scenarios that further examine future uncertainties
 1. Q: are impoundments ignored in the model? Think adding those would be helpful. A: many small impoundments that aren't in the model. Could be, but not sure how helpful it would be because of uncertainty
 - vi. Future planning efforts should include evaluation of surface water quality and trends, including nutrient loading and sedimentation
 1. Nearly all RBCs said there's some aspect of quality they wanted to work into their deliberations
 2. Encourage you to say here's what we want to focus on
 3. C: nutrients would be important, not sedimentation. A: sedimentation could be an issue for impoundments

4. Amount of water is less important than the quality of that water
 5. Some people think that RBCs should focus on quantity related issues because quality related issues are covered by DES
 6. C: if we want to do quantity really well, we should focus on quantity
 7. C: don't see where it hurts to leave in sedimentation
 8. C: should subhead some of these as being quality related
 9. Address the prioritization in the implementation plan, put quality as low priority
 10. C: Brooke had recommendations of data gaps; she can help write it A: Brooke pointed out some areas where she didn't have a lot of info. Brooke did make the suggestion to add monitoring wells
 11. C: where we're lacking data is in the middle of the basin and in the deeper aquifers
 12. Mr. Oswald shared contact info with Brooke and said they could get measurements to investigate his wells
 13. Added funding to be provided to SCDES to add monitoring wells in the central part of the basin in deeper aquifers
- vii. Parking lot of potential LSSRBC policy recommendations
1. Recommendation focusing on collaborative basin planning with GA
 2. Whether water law and their implementing regulations should distinguish between registration and permits
 3. Is there value in making a distinction between the size of agricultural operations for planning and permitting?

7. Upcoming Schedule and Discussion Topics

1:50–2:00

- a. Tentative RBC planning process schedule
 - i. 3/6: finish recommendations and begin implementation plans
 - ii. 4/3: finish implementation plan
 - iii. 4/22: SRS site tour
 1. Submit info a week before
 - iv. 5/1: draft executive summary and plan review
 - v. June: final draft plan and first public meeting
 - vi. July: address draft plan comments
 - vii. August: finalize plans and second public meeting
 - viii. Q: specific plans for summer dates? A: 1st Thursday of the month. Can poll members to see if 1st Thursday will result in low turnout and can change if need be. June/ July meetings could be virtual
- b. Brooke can provide some areas for monitoring. Continuously monitoring wells
 - i. More specificity we can add to our recommendation/ implementation plan, the better
- c. July 3rd would likely have low turnout
- d. Q: will both public meetings be in the same place or will we move them around?
A: move them around. Some talk of doing just one public meeting, but we have scope and budget to do 2

- e. Will talk about the public meeting presentation in May. Look for volunteers to present
- f. Q: what type of venue works best? A: where we had the original public meetings. Wildlife Center in Walterboro. Not greatly attended in the other basins, so don't need a huge space. Open to suggestions
- g. If you have pictures from the basin that show anything related to water, please share so they can be included in the executive summary.

Meeting adjourned: 2:00 PM

Minutes: Taylor Le Moal and Tom Walker

Approved: 3/6/25

RBC Chat:

10:00:31 From Thomas Walker to Everyone:

waiting on a quorum to get started

10:19:51 From brooke czwartacki to Everyone:

Hi all, I am here and happy to chime in! I was just unable to travel today

10:29:46 From Taylor's iPhone to Everyone:

Was there any discussion about groundwater and septic inundation specifically on St Helena?

10:30:29 From brooke czwartacki to Everyone:

Replying to "Was there any discussion about groundwater and sep...":
there was not

10:30:34 From Thomas Walker to Everyone:

not that i can recall, i can let you unmute to discuss momentarily if you like

10:31:21 From Taylor's iPhone to Everyone:

Replying to "Was there any discussion about groundwater and sep...":

Ok thanks Brooke!

10:57:26 From Taylor's iPhone to Everyone:

Beaufort County offers stormwater utility fee credits for golf courses that reuse water for irrigation.

11:11:15 From Jeff to Everyone:

I saw them enforced when I lived in NC as well

11:54:06 From Thomas Walker to Everyone:

break until 12:15ish for lunch

13:16:41 From larhayden to Everyone:

Recommendation: Estimate the Index of Biotic Integrity (or similar scoring measure) for the Salkahatchie River within 5 years of plan approval as a baseline for this basin which has fewer environmental impact than other basins. If the scoring for this river is poor, determine the root cause and use this information to assess other stream reaches

13:17:42 From Thomas Walker to Everyone:

will read it in a moment larry

13:23:44 From larhayden to Everyone:

my internet is spotty.

13:24:04 From Thomas Walker to Everyone:

no problem, thank you for the recommendation

13:50:18 From Jeff to Everyone:

If they are not already, SRS could provide data from the many monitoring weels we have onsite

13:51:04 From Thomas Walker to Everyone:

thanks jeff

13:51:20 From brooke czwartacki to Everyone:

my call dropped! very poor timing!

13:52:04 From Thomas Walker to Everyone:

Replying to "my call dropped! very poor timing!":

jeff hynds volunteered SRS well data if you dont have it already

14:00:23 From Thomas Walker to Everyone:

adjourned