Joint Upper Savannah and Lower Savannah - Salkehatchie River Basin Council Meeting

February 14, 2024 Meeting Minutes

Upper Savannah Members Present: Jeff Phillips, Scott Willett, Jon Batson, Mack Beaty, Mark Warner, Harry Shelley, Reagan Osbon, Tonya Bonitatibus, Jill Miller, John Hains, Alan Stuart, Chuck Connolly, Tonya Winbush, Cole Rogers, Cheryl Daniels, Melisa Ramey, Daniel Milam, & Dan Murph

Lower Savannah – Salkehatchie Members Present: Lynn McEwen, John Carman, Austin Connolly, Brandon Stutts, Tommy Paradise, Brian Chemsak, Bill Wabbersen, Ken Caldwell, Kari Foy, Leslie Dickerson, Brad Young, Dean Moss, Courtney Kimmel, Sara O'Connor, Heyward Horton, Jeff Hynds, Pete Nardi, Taylor Brewer, & Reid Pollard

Upper Savannah Members Absent: Katie Hottel (Erika Hollis, alternate, present), Charles Turner, Carl Price, Billy Owens (Don Todd, alternate, present), Will Williams, & Tim Hall

Lower Savannah – Salkehatchie Members Absent: Danny Black (Kathy Rhoad, alternate, present), Will Williams, Samuel Grubbs, Lawrence Hayden, Brad O'Neal, & Joseph Oswald

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

Total Present: 67

1. Call the Meeting to Order (Jill Miller, US RBC Chair) 10:00–10:10
    a. Review of Meeting Objectives
        - Ask questions!
        - Meeting called to order
    b. Approval of Agenda
        - Agenda approved
        - 1st Ken Caldwell and 2nd Jeff Phillips
    c. Approval of LSS January 4th Minutes and Summary
        - Minutes and Summary approved
        - 1st Dean Moss and 2nd Kari Foy
    d. Approval of US January 10th Minutes and Summary
        - Minutes and Summary approved
        - 1st Leslie Dickerson and 2nd Jeff Phillips
    e. Housekeeping Items

2. Public Comment (John Boyer) 10:10–10:15
    a. Public Comment Period
        - Password not working on Zoom
        - New Zoom security measures
        - Tom responded to e-mails requesting Zoom password
    b. Agency Comment Period
        - none

3. RBC Introductions (John Boyer and Ashley Reid) 10:15–10:30
    - Broken up by interest group
4. Savannah Reservoirs Operations (Stan Simpson, Water Manager, USACE) 10:30–11:15
    - Stan's background
    - Multipurpose projects
    - Savannah River Basin
        - Hartwell, Russell, Thurmond dams
    - Congressional Authorization for Hartwell, Russell, and Thurmond dams
    - Comparison of Hartwell, Russell, and Thurmond dams
    - Partners
        - Help run environmental impact studies
    - Stream gage networks
        - Use radar from the Weather Service now
    - Savannah River Reservoir pool schematic
        - Not a lot of storage
    - Pool comparison
        - Acre foot definition- volume.
        - Q: Acre foot is?
        - A: Acre of water one foot deep
    - Pool balancing procedure
        - Not independent, want to impact people the same way
        - Pass water through turbines
    - Reservoir systems operations
        - Water control manual
        - SEPA markets water
    - Typical operating range
        - Normal: 3800-30000 cfs
        - Flood operations for the higher end of the range
        - Drought management for lower end
        - Q: Industry built up to 3600 cfs? Data for downstream users?
        - A: Not amount per say but a stage. Keep the river at a certain stage for their intakes. We said we won't go below that lower flow target.
        - Q: Does anyone check that it still works or is it status quo?
        - A: Kind of status quo but when we get to drought we do reach out to see if anyone is having issues. People checking to see if they are having problems. Deviation requests to release more possibly.
        - Q: Cost benefit analysis studies and variations are those looked at or referenced?
        - A: If we did a study we would look at benefits for lowering it.
        - Expensive to change intakes
        - Power demands vary per season
        - Self-restricting

        - Q: Where does recreation fit into the process?
        - A: All project purposes are looked at stage of river/stage of lakes and assign a $ value on it and it may not match up with every sector. Doesn't match up with home values usually.
- Drought plan history
    - Q: How does the influx of population and industry in SC and GA affect the drought plan since 2011?
    - A: It worries me and is a dynamic factor that might suggest change studies are needed and those are expensive to drive changes.
    - Q: Do you have any effect on ships moving into Savannah?
    - A: No impact really. The 3600 has very little impact.
- 2012/14 drought plan
- Drought trigger action level
    - Use guide curves
- Balancing project purposes
    - Priorities change over time
    - Q: Saltwater coming in?
    - A: There is a slight difference.
    - Q: Re-dredging moved it further up?
    - A: Yes
    - Q: Wildlife refuge impacts?
    - A: When we did the re-deepening we did modeling to see impacts. What if scenarios and some areas get impacted more. Salinity is one of those issues – all of those things – are impacted to some degree.
- Flood management
    - Q: Do you have a chart for flood stages over time?
    - A: I may have some of that (slide) Thurmond project drought slide.
- Drought records
- Weekly declaration
- 10-week projection
- Hartwell Gate operations
    - Gate tests
    - Required to move the gates
- Environmental concerns
- Emergency action plan
    - Q: North Augusta goes under 30,000?
    - A: Yes (Operational Procedures for Emergencies)
- Gate regulation schedule
- Shortnose sturgeon
- Controlled flood pulse vs flood control
- USACE modeling tools
    - HEC-ResSim
- Water management webpage: water.sas.usace.army.mil

- Q: Talk about relationship with Duke Energy and their reservoirs?
- A: When Duke built theirs in the 1960's we created a storage balance agreement. 70% - 70%, 30% - 30%, etc. Some safety issues with nuclear station we can't get down below a certain level. Added a drought mitigation rule get with Duke's hydrologists. We keep in touch to stay in balance. Duke has a drought plan different from ours.
- Q: Drawing down Hartwell tens of feet. How far can Keowee be drawn down?
- A: Around 6 foot range but now 10 foot with intakes. During droughts it looks bad.
- Q: SAS model for reservoirs? Are they related with the excel SWAM model?
- A: Computer models we run are HEC RES SIM and run them weekly and create flood inundation maps - we're required to create products for ourselves.
- Q: Comprehensive plan? It isn't finished and needs funding – spawn season only for lakes. Downstream is flashy and they can't spawn.
- A: High inflows we pass along to keep lake levels flat. Comp study focused on environmental issues (habitat for example). Pre-dam flows is what they were looking for which just can't be done. We are in the middle of a Lake Hartwell reallocation study looking at users.
- Q: Is there floodplain management – continued development to reduce Corps for high flows?
- A: If there is a need or desire for high flows we would have to coordinate with communities downstream.
- Q: Pushed limits on max flows you could release with development couldn't do that in the future?
- A: Probably so – target is 30,000 to be cautious with houses and industries to prevent flooding.

Break *11:15–11:30*

5. Shoreline Management Program (Mellissa Wolf, Lakes Branch Chief, USACE) 11:30–12:00
    - Shoreline management program statistics
        - Land acquisition policies
    - Nationwide shoreline guidance
    - Richard B. Russell Shoreline statement
        - Allows pedestrian access to public land
    - Shoreline allocations or zoning
        - Limited development areas, protected shoreline areas, public recreation areas, prohibited access areas
    - Shoreline allocations
    - Public law protection
    - Shoreline management facilities
    - Shoreline management plan updates
        - Periodically, at least every 5 years

        - Only 82 of 420 Corps projects have shoreline management plans
    - Common misconceptions
        - Talk to shoreline management staff at that project to be sure
    - Questions
        - Q: How do marinas fit into this?
        - A: Separate, they're zone red, fall under a master plan, operated under a lease.
        - Q: Are lease arrangements public?
        - A: No, but with redactions, some might be releasable under FOIA.
        - Q: Does the Corps commit to shoreline activities with the level of the lake?
        - A: Lakes are subject to nature. Corps makes people aware of plans.
        - Q: Sediment is not significant concern but Is dredging a concern for docks?
        - A: Dredging is done, there is a general permit that allows dredging and they would need to talk to shoreline ranger.
        - Q: Does Corps work with local jurisdictions about shoreline management or should people go to Corps?
        - A: People need to come to Corps

Lunch *12:00–12:30*

6. Planning Branch Topics (Brian Choate, USACE)
    a. Lake Hartwell Supply Reallocation
        - Since 2014
        - Reallocating existing authorized water storage in Lake Hartwell to water supply for 4 water supply storage reallocation requests
        - Timeline
        - Existing storage contracts
        - Problems: increased water demands, limited cost-efficient water sources, limited existing and potential drought-resilient water sources
        - Opportunities: reallocate existing storage in Lake Hartwell to water supply storage for use by requestors
        - Objectives: identify the most effective/ efficient water supply source to meet water demands for next 50 years
        - Constraints: avoid serious effects on authorized project purposes, substantial changes, negative environmental effects, over-allocation
        - Alternatives
        - Hartwell storage breakdown
        - Lake Hartwell conservation pool storage is the most cost-effective and efficient water supply source
        - Return flow credit
        - 2023 tentatively selected plan: conservation pool with return flow credits

- Path forward and finish dates

b. Savannah Harbor Expansion Program
    - SHEP bottom line
        - Benefit/cost ratio: 7.7:1, good ROI
    - SHEP mitigation features
        - Mitigation is 50% of costs vs similar projects 10%
    - SHEP progress
    - CSS Georgia- done 8/17
    - Freshwater wetlands acquisition- done
    - DMCA 14A dike raising- done
    - Sediment basin tidegate and embankment removal- done
    - Entrance channel dredging- done
    - Raw water storage impoundment- done
    - Dissolved oxygen injection system- done
        - DO system concerns
    - Flow rerouting- done
    - Inner harbor dredging- done
    - Cultural discoveries
    - Marsh restoration- done
    - Next steps
        - Sediment basin rock weir and fill
        - Dike raising after dredging
        - Fish passage
        - Post-construction
    - Questions:
        - Q: Total budget?
        - A: Double authorized amount, around $2 billion. Justification from Congress was pretty easy with the CBA of 7.7:1 return.
        - Q: Estimate on when additional dredging will be required?
        - A: No, the State Ports are talking about raising the bridge which is just talk as of now. Want to avoid Tide factors for shipping.
        - Q: Relationship between Thurmond Dam and dissolved oxygen?
        - A: Yes, it is related but we aren't going to change our releases. Part of improving environmental things in the plan.
        - Q: Power requirements for the DO systems?
        - A: I don't know but it costs a lot.
        - Q: Where does revenue from shipping go – how does it get allocated?
        - A: I can possibly get that info – split – some goes to treasury and state and GA ports. $291 million not just revenue from that but also further economic impacts (jobs, etc).

c. Savannah River Below Augusta Ecosystem Restoration Project
    - Study area
    - Study scope

- Problem statement
    - Looking at deauthorizing navigational channels
    - Q: If you never dredge it do you expect transportation?
    - A: Exactly
    - C: No economic incentive to do it
    - C: Some of this work was to compete with railroad monopolies.
    - C: You can still get up the river but we haven't dredged it.
- Decreased quantity of aquatic habitat
- Decreased water quality and sediment dynamics
    - C: Most of the alligators are in these two areas – Little Hell landing the fishing is good in the cuts. Fish and gators live in the cuts. It'll be a cold river – the warmer temperature and stagnant flow is better for them as opposed to high flows and cold water in the river – this hurts.
    - C: Sometimes good for fish but is a kill zone/dead zone also in other times of the year.
- Opportunities
- Objectives
- Environmental benefits evaluations
- Constraints
- Inventory and forecast
- Ranking of cutoff bends
- Benefit criteria
    - River miles restored
    - Adjacent wetlands/ distributaries
    - Sturgeon habitat
    - Water fund priority
- Negative criteria
    - Percentage of siltation
    - Wetland habitat disturbed
    - Threat of urbanization
        - Q: If a sharp bend is restored and the river cuts through, will there be an attempt to restore it, or will we let nature take its course?
        - A: Wouldn't construct anything that wouldn't sustain itself
- Ranking criteria
- No net loss of wetlands
    - Wetland enhancement acres must be 4x greater than wetland-impacted acres for no net negative impacts
- Cutoff bends selected
- Selected locations and landmarks
- Management measures considered and eliminated
- Structural management measures applied
- Mitigation impacts to navigation

- Planning guidance criteria
- Moody Cut alternatives proposed
    - partial cut closures
    - full cut closure
    - flat ditch
    - Miller's Old Lake
- Next steps
- Questions
    - Q: What was the impetus of the study?
    - A: Harbor settlement, SHEP $12.5 million dedicated. Savannah River Restoration Board.
    - Q: Rough magnitude of the cost?
    - A: $70 million, it ebbs and flows like dredges we have available – dealing with smaller group.
    - Q: Is there a higher river flow required to keep those restoration projects open?
    - A: No, constrained not to change flows.
    - Q: What are the greatest weaknesses of the restoration plan, and what measures would you consider this effort to be a failure?
    - A: Failure if we constructed one of these cuts and it failed, we are not going to sign off on anything unless we are 99.9% certain of success. Not going to spend citizen money if it's not going to work. Issues with construction materials so that it lasts 50 years. Several agencies, NIMS pushing back, and NMF wanted 1 cut to see how sturgeon react, can't monitor and then come back as it is problematic for timelines and administration changes.
    - Q: Ecosystem responses aren't part of success?
    - A: If we constructed it, yes, we want to meet our objectives – depends on who you ask if it was successful.
    - Q: Objectives increase things up to 50%, what kind of range improvement percentage would be likely?
    - A: No, haven't done it before. Some thought higher or lower.
    - C: Arbitrary # when we came up with objectives – not complete replumbing of the river. 50% arbitrary. Choose bends that would give the biggest bang for the buck and regulate flow.
    - Q: US Army management or subject matter expertise?
    - A: Depends on who you ask. Some say neither. Centers of expertise in the Corps send the best minds. Focus on this stuff, they have the knowledge. Depends on the person in charge and administration and funding.
- Can bring Corps back to talk about different things or go into more detail

12:30–1:15

7. Summary of US and LSS RBC's Vision, Goals, and Activities 1:15–1:30
    a. Upper Savannah (Ashley Reid)
        - Vision statement: A resilient USRB that collaboratively, sustainably, and equitably manages and balances human and ecological needs
        - Goals
        - Info- received more info since they are 3 meetings ahead
        - Field trips- Jocassee Hydro Facility and Duke World of Energy and Simpson Station
    b. Lower Savannah-Salkehatchie (John Boyer)
        - Vision statement: Shared water resources are managed to sustainably meet the needs of all stakeholders in the LSS basins now and into the future
        - Goals
        - Identified issues and concerns
        - Info
        - Planning field trip to a farm in April or May

8. Discuss Interbasin River Council Charter (Ashley Reid and John Boyer) 1:30–1:45
    - IRC- group consisting of members from 2 or more RBCs with no more than 5 members from each RBC formed to facilitate collaboration between 2 or more basins
    - Meet 2x a year or more frequently
    - Broad and Santee RBCs will probably form IRC but Santee hasn't met yet
    - IRC charter
        - C: Coordinate with GA and its planning groups is important.
        - A: Good point and we'll try and get that going.
        - Objective: resolve conflicts between basins
        - Other potential objectives
        - US doesn't have to deal with groundwater
    - Structure
        - Chair and vice chairs from different RBCs
    - Coordination between GA and SC is very important
9. Select Interbasin River Council Members (Ashley Reid and John Boyer) 1:45–1:55
    - US: Jeff Phillips, Tonya Bonitatibus, Reagan Osbon, Harry Shelley, & Tonya Winbush
    - LS: Ken Caldwell, John Carman, Sarah O'Connor, & Reid Pollard
    - 1st meeting in phase 2
10. Upcoming SWAM Training and RBC Meetings (John Boyer) 1:55–2:00
    - USRBC- SWAM training 2/28 at Starr and Iva Water Sewer District Office
    - LSSRBC- SWAM training 2/29 at James E Webb Center
    - Can go to the other session if needed
    - LSSRBC- 3/7. Elect chair and vice chair- let Tom or John know. Chair

and vice chair have to be from different interest groups.

- USRBC- 3/13.

Meeting adjourned at 1:59 PM

Minutes: Taylor Le Moal and Tom Walker

Approved: 3/7/2024

RBC Chat:

11:18:53 From Thomas Walker to Everyone:

15 min break

12:02:05 From Thomas Walker to Everyone:

30 min lunch break

13:21:14 to Thomas Walker(direct message):

Question to the speaker: If one of those sharp bends is restored and the river subsequently cuts through in the normal natural manner that streams do this, will there be an attempt to 'restore' the bend or will we finally let 'nature' take its course?

13:21:44 From Thomas Walker (direct message):

thanks i'll ask in a minute

13:27:54 to Thomas Walker(direct message):

OK, they didn't get that far.
When he has arrived at an appropriate place in the presentation, I'd like him to explain to everyone what he thinks the greatest weaknesses are for this overall restoration plan?
By what measures would they consider this effort to be a failure?

13:28:26 From Thomas Walker (direct message):

will do

13:36:10 to Thomas Walker(direct message):

So the success measures do not consider the actual ecosystem responses?

13:51:15 From Sara O to Everyone:

Can we see the crowd?

13:59:11 From Thomas Walker to Everyone:

meeting adjourned