Broad River Basin Council

January 12, 2023, Meeting Minutes

RBC Members Present: Justin McGrady, Steve Hilbert, Jason Wright, Ken Tuck, Daniel Hanks, Bryant Fleming, Amy Bresnahan, Angus Lafaye, Karen Kustafik, Jeff Walker, Mark Boland, Bill Stangler, Jim Cook, John Alexander, Jeff Lineberger, Erika Hollis, & James Kilgo

RBC Members Absent: Brison Taylor, Mike Daniel, Paul Pruitt, Chip Few, Kristen Austin, & Frank Eskridge (John Riggs, alternate, present)

Planning Team Present: John Boyer, Scott Harder, Tom Walker, Jeff Allen, Joe Koon, Leigh Ann Monroe, Andy Wachob, Kirk Westphal, Kaleigh Sims, & Pam Miller

Total Present: 40

1. Call the Meeting to Order (Ken Tuck, RBC Chair)

9:00-9:10

- Review of Meeting Objectives
- Approval of Agenda
 - Motion to approve Bill Stangler 1st and Steve Hilbert 2nd Agenda approved
- Approval of December 8th Minutes and Summary
 - Motion to approve Angus Lafaye 1st and Karen Kustafik 2nd
 Minutes and Summary approved from December 8th meeting
- Housekeeping Items (Future meeting location discussion)
 - Next month we will be in Spartanburg, then we will be back here, still trying to find mid-point to see how it works
- 2. Public Comment (John Boyer)

9:10-9:15

- Public Comment Period
 - None
- Agency Comment Period
 - None
- 3. December RBC Meeting Review (John Boyer)

9:15-9:25

- Review of December meeting and original demand scenario presented by Alex, Alex made corrections and it changed things slightly so we are in the process of updating model runs
- Questions?
- Providing Overview of how it impacted the high demand scenario,
 Spartanburg now on the list going to meet with SJWD and Greer to go over how they operate their reservoirs
 - Drought of record is typically from 2008 but running scenarios from all the way back in the 1930s
- Overview of comparison to minimum instream flow at various nodes
- Overview of water conservation strategies
- 4. Flow-ecology Risk in the Broad Basin (Dr. Luke Bower, USGS, 9:25–10:00 Joe Murzek, Clemson, and Dr. Brandon Peoples, Clemson)
 - In stream flow is critical for aquatic communities
 - Positive trend inflow and diversity metrics
 - Providing information as a discussion point, not telling

you what to do with this information

- Overview of fish in upper Broad River Basin and relation to flow changes
- Reminder these are not recommendations we are just presenting the data and models for the RBC to use
- Once the river gets too big it becomes harder to sample for the same fish in the same way – hard to be confident we got all the fish species that live there
- Question: How does the health of fish diversity compare here to other places?
 - Not really able to answer that based on my research
- Question: Curious when there is reduction in diversity or damage to species. Do we know how long reduced flow has to exist for this to occur and rate at which species can recover?
 - Depends on how long and harsh the reduction is, a lot of these species are resilient and can handle drought, but it just depends on duration and extend of low flow
- Question: Do y'all ever need help with sampling from volunteers? Yeah, we could have people out we can put you in contact with the folks that do it
- Do any of these metrics look at seasonality of flow reduction?
 - Yeah, this is incorporated
- These are relationships with flow over the last 30 years these relationships can change as we get higher and lower flows
- Keep in mind we will talk about recommendations in a few meetings
- 5. Full Allocation Scenario Safe Yield of Spartanburg Water System Reservoirs 10:00-10:15 (John Boyer)
 - Safe yield scenario was calculated current use and full allocation

Real quick James mentioned forestry and water > SCRWA – looking at ways to do big projects around this and we created a leadership advisory board team, plan to hold annual consortium event with all sectors at the table. Get the state of forestry work and how it impacts the water community. Platform to bring folks together and implement more projects statewide, want to extend invite to this group

Break 10:15–10:30

- 6. Modeling Drought Management Plan Strategies (John Boyer)
 - Overview of users with management plans
 - Overview of drought ordinance
 - Model shows which users are triggered by drought based on scenario
 - Overview of high demand scenario shortages with and without drought management plan
 - If you are working on a new drought plan and want to share with us so we can update model then please send it
 - Question: Maybe no changes because of design of drought management strategy and maybe it is not effective? Any thought to standardization?
 - They are working on some new inputs to models so there will hopefully be some suggestion to improve drought plans – many are dated
 - Something for our group to consider is a recommendation for utilities to update plans
 - Comment: Shortages for Greer and SJWD are partly a byproduct of upstream reservoir operations, so we plan to reach out to them to chat about this
- 7. Timing of High Demand Scenario Shortages and Discussion of Demand-Side 11:15–12:00 Water Management Strategies to Evaluate (John Boyer)
 - So far looking at year 2070, goal of exercise today is to look back when did these shortages appear
 - Talk about adaptive management strategy
 - Overview of years where shortages first appear at each area
 - Question: Spartanburg has highest shortage in 2070, is that correct? Yes
 - John will have to look at results to explain why Spartanburg safe yield is higher than shortage in 2070
 - Overview of guiding principle #4, RB plans should utilize effect

- supply and demand strategies
- We would like to add where interconnections are and how much can one utility provide to another
- Any words in plan about incentives or support for conservation strategies for farmers?
 - There has been talk of groups like Clemson extension providing water audits if they get funding as well as private firms – these are mainly audits to let farmers know what could help improve efficiency
- We try to pull tables from other sources related to Ag to put all of this stuff together
- You can review the draft Edisto plan on the DNR website
- Do you think there is room to lower demand over time on water supply side?
 - Several studies done on how per capita demand going down due to more efficient process from appliances but the biggest one is lawn irrigation
- How did you get to 15% reduction? Was that based on something else?
 - For Ag it was based on some data from audits, for other water suppliers it was more of a shot in the dark but based on conversative strategies
 - We would like for you all to start to recommend conservation strategies – think of reasonable strategies that reduce demand
- Right now we will look at all strategies, then second step we will look at cost benefit of strategies
- From new construction standards the only thing I see is low flow efficient toilets, but seems to me that letting the water run for a while to get hot might waste more water
 - Yes, they make things to help with this
- My question is 15% enough?
 - Seems reasonable to run things based on this
- Our own demographic of industry has changed over the years that do not demand as much water
- Want to come up with strategies that help water supply shortage as well as ecological impacts
 - Meter technology and early leak detection tech
 - Maybe something that makes water conservation at home competitive in a good way "social pressure"
 - Some utilities are set up to reduce cost as you use more

water, maybe recommend to switch that and have it cost more if you use more from an industry – you can build a rate structure to accomplish this

- Maybe make app that can help homeowner manage their own water use
- Think of what strategies we might need to implement to reach our reductions we want to set
- 8. Upcoming Meeting Schedule, Topics, and Review of Meeting (Ken Tuck and John Boyer)

12:00-12:15

- John providing overview of topics that will be covered in following meetings
- February meeting will meet at SCC -Tyger river campus
- March back in Columbia
- April at Tyger River campus

The meeting concluded at: 11:54 AM

Minutes by: Kaleigh Sims and Tom Walker

Approved: 2/9/23