Pee Dee River Basin Council

**December 13th, 2022, Meeting Minutes**

**RBC Members Present:** Hughes Page, John Crutchfield, Megan Hyman, Walt Beard, Jeff Steinmetz, Frances McClary, Buddy Richardson, Cara Schildtknecht, Michael Bankert, Cliff Chamblee, Doug Newton, Bob Perry, Cynthia Walters, Bill Wiegand, Jeff Parkey, Tim Brown, Lindsay Privette, Jason Gamble, Eric Krueger, and Brandon Durant

**RBC Members Absent:** John Rivers (Gil Rogers, alternate, present), Michael Hemingway (Brenda Echandy, alternate, present), Everett Allen, and Cricket Adams

**Planning Team Present**: JD Solomon, Matt Lindberg, Brooke Czwartacki, Scott Harder, Tom Walker, and Leigh Ann Monroe

**Total Present: 37**

1. Call the Meeting to Order (JD Solomon, Facilitator) 9:00–9:05

   Reminder that if you have an alternate to let people know, we have a few alternates here

   - Gil Rodgers alternate for John Rivers, Brenda Echandy alternate for Michael Hemingway, and Mr. Tim Brown with Grand Strand WSA (Tim is a new member)
   - Health and Safety reminder – watch for hazards
   - Review of Meeting Objectives- any changes? None
   - Approval of Agenda- Any changes? None
   - Approval of November 15th Minutes and Summary
     - John Crutchfield, 1st and Brandon Durant, 2nd – unanimous approval
   - Housekeeping Items

2. Public Comment (JD Solomon) 9:05–9:10
   - Public Comment Period
     - None
   - Agency Comment Period
     - None

*3.* Methods for Evaluating Water Availability (Scott Harder, SCDNR) 9:10–9:45
   - Hope everyone has taken time to review the methods
   - Looking at supply and demand and where the gaps are to address them
   - Using Lynches river as an example for the presentation of water use scenario
     - Q: does the low flow change for each basin? You can define these concepts at any point in the model, but it does follow the state-wide definition
   - Not legally binding as it is a management goal
   - Illustrating a 50 year water demand projection scenario
   - Overview of performance measures to assess management strategies
   - Reminder: this is a planning exercise not rules or laws
   - Overview of 20/30/40 rule
     - Q: We would potentially see a graph like this from 2020 on? This helps us determine and project forward using this historical data – it is up to the RBC to decide what metrics to use

- Overview of strategic nodes
- Overview of surface water demand scenarios focus on water demand side
    - Current use
    - Permitted and registered use
    - Moderate
    - High
    - Q: Will model account for discharges? Model will account for discharges
- SWAM model helps to evaluate surface water management strategies
- Q: 2001 there were 175 days where flow in river was under 20% what were the negative impacts of that? We can look into that and get back to you
- Q: Regarding reaches of interest, we will have strategic nodes and we will see what is going on at nodes, how are we going to detect where the pinch point is in the node? You would have to try to narrow it down saying okay where I am more concerned about. So, you would have to have some personal knowledge of the area – the way it is set up not sure how you would pick the point of where the issue is exactly. Limited in some ways
- Q: What exactly is a node? A connecting point in the model
- Q: What is actual minimum? What is setting the flow, so you know what minimum is? Historical record
- Q: Would we have guidance on how to tighten up time period for minimum instream flow? It depends on how long the period of record, which is why we like when we have more period of record
- Q: What is 7q10? It is the lowest 7 days over a 10 year period, we don't run this
- Q: How do you model in or account for salt water intrusion? We are not modeling that close to the coast - doesn't this boundary change over time ? Yes, it does
- Q: Does groundwater model saltwater intrusion? I think we can link the model to other models to get at this, but that is not the focus of this
- We do monitor the aquifers and we are not seeing a lot of changes
- Q: Who is the state groundwater geologist ? No title for that – can talk to DNR about that
- Q: Is it fair to say we do not compare to Floridan aquifer? Yes, it is like Swiss cheese a lot of variation and because of continued groundwater development in Savannah the gradients constantly changes – would not expect to see this same phenomenon here
- Trying to close the gap by doing this method for analysis

*Break* 9:45–10:00

4. Overview of the Pee Dee Basin Surface Water Model (John Boyer, CDM Smith) 10:00–10:35
    - Talking specifically about the surface water model, as we present information each month. Stop us and ask questions and we will also provide a training session
    - Think of this model as a checkbook – balancing the budget
    - Q: Does this work on a mac? Some of the objects in a model will not work for mac users
    - We do not do water quality monitoring with this model
    - Going to look at where we have water shortages
    - Review of data that goes into model

- Q: How often are gauges checked and is sedimentation checked? Quarterly there are rigorous standard operating procedures (SOPs)
- Where there is tidal influence, we exclude from model
- Mostly look at discharges related with withdrawals, for Ag users we assume there is no return water – we assume Ag and golf course do not overwater and all water is absorbed by plants
- Hardly any general permits in the model but there is an assumed level of NPDES permit discharges
- Q: On tributaries you included you mention you include tribs with Ag uses, was that the primary way you chose which tributaries to include? We chose any tributary with any water withdrawal or major discharge or large enough for withdrawal or discharge
- Overview of SWAM calculations
- Q: Do you feel like all of these nodes are fairly well calibrated or is there a difference among the nodes and how do you account for that? Good question I would have to go back to the model report that explains daily and monthly comparison to show how simulated flow match actual flows, we can look this up and report back
- Q: how do these compare with tidal boundary ? The ones closest to tidal are not influenced by it, is there one further down closer to Horry county, no we tried to remove any influenced by tidal influence
- You do not have to have a gauge at a strategic node, the RBC can put a node anywhere
- Q: I understand why tidal area is excluded, but is it considered in the basin planning? We know the biggest growth is in the tidal area and there will be more water demand. Unfortunately, we are not able to model that using this approach, but there may be some ways we can develop relationships
- Comment: Might want to put a node, below Lynches and main stem Pee dee somewhere around Johnsonville
- Comment: Gauges along Waccamaw River do have sensor for conductivity that can help understand salt water
- We plan to come back with two runs current and full permitted scenario in January to present results at current presented strategic node
    - Add one of the nodes down around Johnsville, we can always come back and add more so be thinking about that
- One other question, does this group prefer to have handouts of results? Yes
- Reaches of interest : no shortage but some region you are interested in maybe it is a scenic area – not associated with withdrawal shortage but other reasons like rec flow that might make it of interest
- Training will be offered in January before we start presenting results, so it makes more sense to you
    - Maybe middle Jan (13, 17 or 20$^{th}$)- training will likely be here at Pee Dee REC (10am-2pm) provide lunch. We will ask you RSVP and we will have laptops so look for email early Jan.
- In an effort to work with NC we are trying to get this work done there but it's a work in progress, we hope to have some of those ready by January but waiting for some to get back to us
- Q: You refer to reservoirs, do they use all of them? Duke energy uses for cooling then returns the majority of water; one is a water supply system which is distributed to customers

*Break* 10:35–10:50

5. Review Water Demand Projections (Alex Pellett, SCDNR) 10:50–11:25
    - I think I addressed all of the comments from last meeting, what I found is more updated data
    - Think about population as we go through this – we have areas that population is increasing and some that are decreasing so we want to know what RBC members know locally
    - What's driving faster decline rates in rural counties? Possibly due to using a brief time span that includes a pandemic
    - There are some errors that need to be addressed (Ag, Water supply, and Manufacturing)
    - One of my assumptions is that as manufacturers grow production then they will increase water use but is that realistic or will the manufacturers water use go down due to better water conservation so applying the former is very conservative
    - Ag. Not much for surface water side
    - Comment: Might be valuable to have a presentation on the economics of Ag. Production
6. Review of Charter, Performance Metrics, and Synthesis Document 11:25–12:00 (JD Solomon)
    - Review of mission, vision, and goals
    - Review of previous meeting summaries, 5 step process, table of contents, deliverables from planning framework, bylaws, performance measures
    - Any other items to clarify: model training might be Jan 18th – keep this date open
    - No meetings on calendar yet for 2023 so once we check reservations, we will send out the dates
    - Comment: Communications, if we are sharing stuff with people who should we be telling about that? We recommend you use the FAQ part of the site to help guide communication – if you need a slide deck, we can make that available we can give you the tools to communicate to people

*Lunch* 12:00

The meeting concluded at 12:18 PM.

Minutes by: Kaleigh Sims and Tom Walker
Approved: 1/24/23