**Location:**
March 28, 2023
9:00 AM – 1:00 PM
Pee Dee REC
Hybrid Meeting

**Action Items:**

1. **CDM Smith to conduct additional surface water modeling analysis: worst drought of record or several droughts back-to-back, modify the Lake Robinson operational rule in the model, include 7Q10 at the strategic nodes, and Lumber River.**
2. **Calls to be made to 6 users modeled to have shortages.**
3. **Flow-ecology relationship analysis to continue and will be presented to the RBC at the April meeting.**

**Major Decisions:**

1. **Unanimous – The Pee Dee RBC voted to adopt the RBC bylaws as written in the Planning Framework. (July 2022)**
2. **Unanimous – The Pee Dee RBC voted to adopt the proposed Process Metrics as presented. (August 2022)**
3. **Unanimous – The Pee Dee RBC voted to adopt the Mission, Vision, and Goals of the Pee Dee RBC. (August 2022)**
4. **The Pee Dee RBC elected the Chair: Buddy Richardson and Vice Chair: Cara Schildtknecht (November 2022)**

**Meeting:**

- Review of Meeting Objectives
- Approval of Agenda
- Public and Agency Comment Periods
- Review Water Demand Projections
- Review and Discuss Initial Results of the Pee Dee Basin Surface Water Model
- Discuss Flow-Ecological Relationships for the Pee Dee Basin
- Learn about Agribusiness and Precision Agriculture
- Meeting Conclusion

**Meeting Summary** (March 28th)

JD Solomon, Pee Dee River Basin Council Facilitator, called the March 28th meeting of the Pee Dee RBC to order at 9:02 AM. The tenth meeting of the Pee Dee RBC was held in-person and

virtually via the Zoom virtual meeting platform (hybrid). Including the Pee Dee RBC members and planning team, there were 46 people present at this RBC meeting in-person and online.

The meeting began with JD Solomon reviewing the agenda items for the meeting. The Pee Dee RBC approved the RBC meeting agenda and minutes and summary documents from the February 28th meeting. A public comment period was held with no comments. An agency public comment period was held with no comments received.

The first item on the agenda was a quick update from Alex Pellett regarding the water demand projections. Alex presented updated projections for the golf, mining, thermoelectric, agriculture, manufacturing, and water supply water use sectors in high demand and moderate demand scenarios.

John Boyer presented the next agenda item which focused on the Pee Dee SWAM initial results. The presentation was focused on demand projections for 2070 which is the end of the 50 year planning horizon. The two focus areas were: moderate and high water demand projection scenarios. Moderate demand analysis showed a 47% increase from current use to 2070 projected use. High demand analysis showed a 90% increase from current use to 2070 projected use. Planning scenario model results indicated simulated shortages for 7 users under the moderate and high demand scenarios. One of the users, Sonoco, does not anticipate an actual shortage. The other 6 users projected to have shortages will be contacted to determine if they anticipate shortages in the future. Performance measures were presented in the UIF, current use, permitted and registered, moderate, and high demand scenarios and differences between current and moderate demand and current and high demand simulated flows were discussed. John discussed reservoir storage and then closed the presentation with a review of the material presented. Questions asked to the RBC were if they wanted to see: adding strategic nodes, simulated flow conditions as they relate to MIFs, additional scenarios, the establishment of a surface water condition, and/or the establishment of reaches of interest. Next steps included: continued review of modeling scenario results, Lumber River inflows for moderate and high demand projections, operating rule adjustment for Lake Robinson, and application of the flow-ecology metrics.

Luke Bower, Joe Mruzek, and Eric Krueger were next on the agenda and presented additional information regarding flow-ecological relationships. Luke introduced the bio-assessment approach which uses aquatic organisms to learn about the health of a river or river system. Bio-assessment goes through 4 stages: identify which environmental attribute you want to evaluate (flow alteration), hypothesize relationships between organisms and environmental attributes (# of fish species and the relationship to low flow duration), identify key relationships between organisms and environment, and use those results to inform management decisions. Luke

presented the ELOHA framework which focused on building a hydrologic foundation of streamflow and biological data, classifying natural river types, determining flow-ecology relationships associated within each river type, and recommending water flow standards to achieve river condition goals. Joe presented information on the stream classes that exist in the Pee Dee river basin: perennial runoff, stable baseflow, and perennial flashy and went through examples of how flow-ecology results would be applied for the Pee Dee planning process. Eric Krueger formally asked the RBC for approval to move forward on the flow-ecology relationship analysis. The metrics as performance measures were: mean daily flow, base flow, duration of low flow, frequency of low flow, and timing of low flow. The Pee Dee RBC approved the continuation of the flow-ecology analysis.

The final presentations came from Nathan Smith and Kendall Kirk which focused on agribusiness and precision agriculture. Nathan presented summary information for South Carolina agriculture. In 2017, the Agriculture Census counted 24,600 farms on 4.8 million acres of land in South Carolina which produces (examples): <u>commodities</u> – poultry, beef, dairy, swine, horses, aquaculture, goats, bees, and specialty animals, <u>fruit and vegetable production</u> – leafy greens, tomatoes, watermelon, and peaches, and <u>field crops</u> – corn, cotton, soybeans, peanuts, tobacco, and wheat, and ornamental horticulture, floriculture, nursery, and turf grass. Nathan then focused his presentation on the Pee Dee region at the county level: planted acres of various crops, head of cattle, hogs, and poultry sales. The Pee Dee River Basin 2017 market value of products was over $1.7 billion. Other highlights from the presentation included crop cost and returns for farmers, crop yields, and major row crop water use.

Kendall presented some of his irrigation research and extension work at the Edisto REC. His presentation focused on various tools developed to assist farmers: center pivot mapping software, drip fertigation calculator, center pivot fertigation calculator, watermark soil moisture calculator, center pivot irrigation testing extension program and other Edisto REC water/irrigation work. Kendall primarily focused on the Center Pivot Irrigation Testing (CPIT) program which is a service for center pivot efficiency assessments and the related short-term pilot program and long-term extension service and precision agriculture work at CU-CAT.

The meeting concluded as JD Solomon reminded the RBC of the next meeting of the Pee Dee RBC scheduled for April 25, 2023 at the Clemson Pee Dee REC.

The RBC meeting was adjourned.

The meeting concluded at 12:55 PM.

Summary: Tom Walker
Approved: 4/25/23