

Edisto River Basin Council

Minutes (November 17th, 2021)

Members Present: Hank Stallworth, Danny Burbage, Laura Bagwell, Hugo Krispyn, David Bishop, Brandon Stutts, Will Williams, Jason Thompson, Eric Odom, Alta Mae Marvin, Jerry Waters, Mark Aakhus, Joel Duke & Kirk Bell

Members Present Online: Amanda Sievers, John Bass, JJ Jowers & Johnney Haralson

Members Absent: Trey McMillan, Jeremy Walther (Anthony Walther, alternate, present), Landrum Weathers (Charles Wingard, alternate, present), Alan Mehrzad & Alex Tolbert

Staff Present: John Boyer, Jeff Allen, Tom Walker, Scott Harder, Joe Gellici, Rob Devlin, Murray Dodd, Leigh Anne Monroe, Chikezie Isiguzo, Andy Wachob, Greg Cherry & Matt Petkewich

Total Attendance: 45

1. Call the Meeting to Order (Hank Stallworth, RBC Chair)

Hank called the meeting to order at 9:02 and a quorum was present.

a. Review of Meeting Objectives

- Hank discussed the meeting agenda in general noting the benefits of establishing more subcommittees, including developing a deeper knowledge and understanding common issues while engendering more conversation from all interest groups. He noted the importance of the agenda on decision making process for management strategy selection. He also invited the members of the RBC to consider and adopt the minutes and summary of previous meetings held on September 15th, 2021 and October 20th, 2021.
- b. Approval of Agenda: The Agenda was approved.
- c. Approval of September 15th Minutes and Summary: Jerry Waters made a motion to approve and was seconded.
- d. Approval of October 20th Minutes and Summary: Hugo Krispyn made a motion to approve David Bishop seconded.
- Hank noted that the Edisto RBC meetings had reached a phase when members will apply knowledge from previous learning sessions. He appreciated John Boyer for the process that has prepared the RBC members for the decision making and strategy selection phase.

2. Public Comment (John Boyer)

- No public comments received

3. Report out of DHEC Surface Water Regulation Stakeholder Workgroup Meeting – 9:20 AM

- Laura Bagwell representing the Edisto RBC
- Reported on the DHEC Surface water regulation stakeholder working group meeting held on October 21, 2021.
- The working group has about 39 members distributed among seven stakeholder groups: water supply; education; government; advocacy; economic development and industry; farming; and power.
- As a newly appointed representative, Laura focused on listening and gaining as much information as possible to understand the process.
- The meeting received presentations on projections and forecasts; Current approach of DHEC to permitting and registrations; Reviewing the goals of permits and registrations systems; and Unintended consequences of regulations.
- The workgroup discussed a feasibility process and then consequences of a do-nothing scenario
- In workgroup meeting Jeff Allen initiated a discussion on overallocation and how DHEC addresses it.
- Also, there were discussions about the duration of permits.
- The fact that the workgroup is not focusing on drought mitigation because there is a different set of requirements and regulation at state level focusing on that
- Representative of Duke Energy noted that for impounded systems and FERC reservoirs there was no evidence of surface water problem
- Rob assured that DHEC does not intend to get in the business of interfering with FERC regulation.
- Important to consider DHEC's permitting timeframe and whether cities can incorporate and honor the permitting timeframe in their planning horizons.
- The third meeting of the stakeholders' group which was scheduled for November 18th, 2021, was cancelled so that DHEC can do an outreach to other prospective stakeholders and groups.
- The workgroup will reconvene on December 9th, 2021.
- The stakeholder workgroup has real focus on three things: Regulation and management of surface water in South Carolina to maximize the resource availability; To promote the sustainable use of the resource; and to serve as a regulatory framework to support the process for basin planning.
- Presentations and synopsis on the various meetings and stakeholder input are available for reading at the DHEC's website

4. Process Metrics Survey (John Boyer)

- Reminded the house of previously established 12 process metrics.
- Need to assess the progress on the process metrics; to assess how well RBC meetings adhere to timelines; information used and generated during the planning process is shared openly, publicly, and is easily accessible; meeting agendas are focused and promote efficient and productive meetings; meetings are set up to encourage open and respectful discussion on controversial issues, allowing for multiple options for resolution; information is presented in an unbiased manner;
- Invited the members' input as to how well we are meeting these process metrics.
- John Boyer to send a Google survey for this purpose.
- Members should be open and comment freely or ask questions about those process metrics.
- Charles – It is important to get the feedback because this is the first RBC to go live and there are others to be inaugurated around the state. The feedback from Edisto RBC will provide guidance to other RBCs – make your feedback as good, clear, and concise as possible because the feedback is important.
- John Boyer - A final question in the survey will ask for comments on the planning framework – if there are reasons to further adjust or tweak the planning framework.

5. Discussion Regarding Formation of Additional Subcommittees.

- John Boyer noted that Hank, RBC Chairman, brought up the idea of forming additional subcommittees and the Planning Team proposes two additional subcommittees.
- First of the proposed subcommittees is a Groundwater subcommittee - Purpose will be to review and interpret the model results as they are developed; help identify what these future conditions and triggers might be for groundwater; help propose and select groundwater management strategies for evaluation; serve as a liaison to the full Edisto RBC.
 - Those interested to serve in the subcommittee include Brandon, Joel, Laura, Alan and Hank.
 - Work with Hank to figure out the right time and how to convene the subcommittee.
- Second subcommittee – River Basin Plan subcommittee - is to Review initial Draft of Plan Sections.
 - Representations for each water interest group is ideal.
 - Work with CDM Smith to prepare draft sections of the plan.
 - Tentative 2022 plan presented: Chapter 1 – Introduction (January); Chapter 2 – Description of Basin and Chapter 3 – Water Resources of the Basin (February); Chapter 4 – Current and Projected Water Demand and

Chapter 5 – Comparison of Current Water Availability and Demand
(March)

- The subcommittee to review initial drafts before transmission to the RBC
 - Question: Jerry – How many more subcommittees are proposed?
 - John Boyer – the 2 being proposed in the meeting in addition to the existing surface water subcommittee.
 - Potential future subcommittees: to review policy and regulatory questions.
 - Those interested in the River Basin Plan Subcommittee: Hugo, Danny, Jerry, Jason & Alta Mae.
 - Start date for this subcommittee may be January or February 2022.
6. Discussion and Consideration of Decision-making Process for Management Strategy Selection (John Boyer) - 9:50 AM
- It is CDM Smith’s responsibility to help evaluate the management strategies.
 - However, for efficiency RBC members are invited to consider strategies, and the preferred strategies will guide further evaluation, consider feasibility, present to RBC members for vote.
 - John reminded the RBC members that the first guiding principles has to do with supply and demand strategies.
 - Noted that the strategy should be based on sound science, be cost effective, and flexible.
 - River Basin plans should consider the conjunctive use of surface and groundwater as a potential water management strategy; water conservation; and promote the efficient use of existing water supplies.
 - Two steps for evaluating strategies – Step 1: Effectiveness (evaluated by use of models where possible), and Step 2: Cost and Benefit analysis, Reliability, permitting/regulatory (including inter-basin impacts), environmental impact, socioeconomic impacts
 - Others not mentioned in the plan the RBC may want to consider, water quality impacts and considerations.

 - Issues with the Edisto basin already identified include shortages, reaches of interest, groundwater areas of concern. And strategies consistent with RBC vision and goal proposed
 - Consensus not needed to evaluate the effectiveness of a strategy but majority support desired (Particularly important to avoid waste of time such as the 30 hours required to run the groundwater model).
 - If results assessed as effective, move to step 2 and CDM Smith provides technical analysis and support to guide decision making from feasible options.
 - RBC votes on feasible strategy. Adopt strategy only if there is consensus or majority support.
 - John suggested an option not discussed in the Planning Framework but implemented in Georgia and other places: The option is to consider a scoring-based process to guide RBC vote on adopting a strategy in step 2.

- Questions:
 - Jason – Are we coming up with management strategies that everybody must do or a suite of potential mitigations that stakeholders may choose from?
 - Response: John – This is voluntary, does not have regulatory force. But the process of consensus is expected to influence desire to implement.
 - Hugo – In the evaluate feasibility box, several meetings ago and in several times, we had conversations about are we limited in considering things that are only within the regulations or not or are we looking at the possibility of recommending regulatory change. How does that discussion square with evaluate feasibility in terms of whether it is consistent with existing regulations?
 - Response: John – We have the flexibility of selecting strategies that may not be consistent with regulation, but we think are effective or feasible enough with other categories that we want to move it forward for vote and inclusion in the plan even though it may not be consistent with current regulation. However, we must present an explanation qualifying the need for regulatory change to allow for the strategy’s implementation.
 - Charles: Allowing a simple majority to make decisions may not be healthy for the sustainability of the stakeholders in the Edisto RBC. It is better to use the consensus mechanism. You really need to find a way to get a consensus.
 - Response: John Boyer: Great point, we must spend the time to debate and tweak till we achieve a consensus. However, the bylaws allow for majority vote only if it is clear we are not going to achieve a consensus. It is reasonable to adjust a strategy to achieve a consensus, but we must recognize that it may not always be possible to achieve.
 - Jerry: I am a little concerned about the consensus. I agree that we will love to have everybody on board but if there is one outlying person out of 24, we should revert to majority.
 - Response: Charles - From what I learned in the PPAC, consensus is not unanimous, consensus is not 100% agreement. Consensus means what can I live with, as a stakeholder group and ultimately as a River Basin Council. Every stakeholder will compromise and accommodate; Therefore, all should come with an open mind.
 - Hugo: Does that mean we are going to like caucus interest groups, where does that lead?

- Response: John Boyer – When you say there’s consensus, let’s say everybody voted for a strategy, there may be a handful of members or interest groups that may not be completely behind what we are voting on, but those members or interest groups can live with the outcome.

7. Discussion on Low Flow Strategy and other Surface Water Strategies (John Boyer) – 10:05 AM

- Reviewed surface water modelling results.
 - Shortages, low flows, flow-ecological health relationships and comparison of Minimum Instream Flows (MIF)
 - Current Use scenario: Shortages – several Ag water user shortages; however, limitations in the model suggest that most of the shortages are not true shortages. Low Flows – Flows at the Givhans Ferry drop below the MIF 6.7% of the time and the 7Q10 2.2% of the time.
 - 2070 Business as usual scenario: - Shortages – observed shortages identical to Current Use Scenario. Low Flows – Flows at Givhans Ferry drop below the MIF 10.9% of the time and the 7Q10 6.1% of the time
 - Question: Hugo – Given the Frequency of Days below MIF is there full allocation under 25% of the time of MIF or 25 days of MIF.
 - Response: John Boyer – 25% of the time.
 - Question: What amount is the full allocation scenario model based on?
 - Response: John Boyer – we run the model at the permitted and registered amount. Based on what is in the registration and the permit.
- Discussed and confirmed issues to confirm the RBC members position
 - John Boyer underpinned the discussion with the goal of the RBC – Develop water use strategies, policies, and legislative recommendations for the Edisto RBC in order to: ensure water resources are maintained to support current and future human and ecosystem needs; and improve the resiliency of the water resources and help minimize disruptions in the basin.
 - Surface water issues to address:
 - Surface water shortages for Aiken and CWS in the 2060 High Demand Scenario.
 - Low flows during drought – For all Scenarios, flow at Givhans Ferry and other locations drops below MIF (20%, 30%, and 40% of Mean Daily Flow)
 - Other issues:
 - Jason: clarified - Low flows during drought – For all Scenarios, flow at Givhans Ferry and all strategic nodes below MIF (20%, 30%, and 40% of Mean Daily Flow)
 - Hugo Why do we have low flows during drought, shouldn’t it just be low flows?

- Response: John updated the issue to read - Low flows – For all Scenarios, flow at Givhans Ferry and all strategic nodes below MIF (20%, 30%, and 40% of Mean Daily Flow)
- Question: What scenario do you focus on to identify water management strategies? Does MIF affect Edisto?
- Response: John Boyer - For identifying water management strategies, we are focusing on all the scenarios except for the full allocation. However, it is only in high demand that we see low flows that drop below MIF in all scenarios including the unimpaired scenario.
- The MIF does not apply to any water user in the Edisto.
- Does the RBC agree that we should be considering low flows as an issue because of the number of incidences?
- Jason – the only reason all the maps used for the models look halfway acceptable under all scenarios is because the metric is zero flow, that’s the shortage. And as much as we can agree on a surface condition that’s the metric we are stuck with. The question then is are we okay with zero metric? It affects discussion on low flow and management strategies and how we decide when the basin is strained or not.
- David: Just for clarification when you showed the boxes in the map where there were shortages was based on 20, 30, 40 not on zero, right?
- Response: John – the map referred to did not have anything to do with MIF, it simply shows when they were not able to meet demand and there was shortage.
- Laura: As part of our further evaluation of Jason’s suggested scenario or surface water condition, have we seen, or can we see the so-called box maps for what it would mean if we implemented Jason’s suggested surface water condition?
- Response: John Boyer – If you want to see Jason’s strategy to help avoid dropping below the surface condition what he proposed at Givhans Ferry would be a low flow curtailment and in that regards everybody that is a water user upstream was asked to reduce quantity of water used.
- Surface Water Conditions Management Water Strategies (John Boyer)
 - By surface water conditions we mean setting a certain minimum flow that we don’t want to ever go below at certain points in the basin.
 - Jason’s suggestion runs at the bottom of the basin.

- We can identify incremental points we don't want to drop below. Does anyone want to consider surface conditions elsewhere other than what we have already got on the table?
- David – to me it would make sense to use the 20/30/40 mean or median and what that means from an ecological standpoint, because playing around using zero base is a problem. Does that change anything? But it might make sense to recognize the differences from a biological standpoint and do something different somewhere else.
- Hugo – If you are going to say that there is a MIF which exists in the current enabling legislation, I believe in the regulation as well. There is no mainstream flow however it may be defined at this point. I think the baseline that we are trying to achieve through our strategies is maintaining and administering flow otherwise it is meaningless. I don't understand why the surface condition will apply at each withdrawal point, the same as it does for calculating safe yield? MIF is going to be different quantity at different places in the system, so I think that we ought to be protecting MIF with our creation of strategies and so forth, however we end up defining what MIF may end up being.
- Charles: I don't know how we can have a standard low flow number different than what DHEC issues permit on?
- Response: John Boyer – The MIF does not apply to anyone in the Edisto basin. We are using it as a kind of surrogate.
- It is important for the Edisto EBC to decide if we should abide by the MIF even though it does not have a direct application in this basin, or do we abide by the results of the Nature Conservancy Clemson Study or do we want to use both or neither?
- The answer to the question above will help in deciding the target.
- Hank: Our responsibility as a group is to protect the existing users in the river and uses of the river, protect the ecology of the river towards the future uses and growth. And the way I understand the law right now any new Ag use will require permit because we have reached the maximum limit for Ag.
- Any new industry will require a permit. It is relevant to consider the numbers used in making decision of granting permits. We may not have done our work properly if we do not consider that some new industry might want to come in.

- Anthony: Where did you get the high demand numbers?
 - Response: John Boyer – for each Ag user, high demand is same as current use. The only exception is the addition of Ag water for unspecified yet to be build farms as certain points in the basin. For other types of users, we use DNR water projections
- Review in-place and planned strategies
 - Aiken, Charleston Water System, Orangeburg, other Municipal water systems, and agricultural BMPs were discussed.
 - Other discussion focused on dams from a regulatory and cost perspective and potential funding opportunities.
 - Dominion’s Cope Station is another planned water management strategy.
- Identify additional strategies to address issue
 - Proposed low flow management strategy at Givhans Ferry review.
 - Demand side water management strategy possibilities presented and discussed were water loss control programs, low flow fixture appliances, pricing structures, ag water audits and irrigation efficiency measures, and soil moisture sensor/smart irrigation practices. John will run some scenarios to demonstrate demand side strategies listed and discussed in the meeting and the potential impact at 50% and 100% implementation.
 - Supply side water management strategy possibilities presented and discussed were new impoundments, ponds, reservoirs, tanks, dredging, aquifer storage and recovery, conjunctive use, water reuse systems, and interbasin transfers.
- Select strategies for screening and/or model evaluation
 - Based on RBC discussion, CDM Smith will investigate the effectiveness of already in-place strategies and various demand-side strategies using the SWAM model, prior to the December RBC meeting. Supply-side strategies will be identified by the RBC at a subsequent meeting, and those, along with a proposed Low Flow strategy will then be evaluated using the model.
- For December meeting – Report on strategy effectiveness.

8. Upcoming RBC Schedule (John Boyer)

- Next meeting December 15
- Informational Topic
 - Groundwater scenarios results – comparison and discussion
 - Results of Surface water management strategy effectiveness
- RBC Discussion
 - Begin to consider trigger levels and/or desired future conditions for groundwater
 - Consider and discuss effectiveness of surface water management strategies and select strategies for feasibility study

Meeting Conclusion (John Boyer)

Meeting concluded at 1:00 pm

Minutes: Chikezie Isiguzo and Tom Walker

Approved: 12/15/21