

**Minutes of the Edisto RBC Meeting
Wednesday, February 17, 2021**

Meeting was held virtually via the Zoom application

Members Present: Mark Aakhus, Laura Bagwell, John Bass, Kirk Bell, David Bishop, Danny Burbage, Joel Duke, J.J. Jowers, Hugo Krispyn, Alta Mae Marvin, Trey McMillian, Michael Mosley, Eric Odom, Mike Shugart, Hank Stallworth, Jason Thompson, Alex Tolbert, Jeremy Walther, Jerry Waters, & Landrum Weathers.

Members Absent: Richard Hall, Johnny Haralson (Becky Davis, alternate, present)

Planning Team Present: Jeffery Allen (Clemson), John Boyer (CDM Smith), Alex Butler (SCDHEC), Rob Devlin (SCDHEC), Joe Gellici (SCDNR), Vincent Leon Guerrero (Clemson), Scott Harder (SCDNR), Chikezie Isiguzo (Clemson), Andrew Wachob (SCDNR), Thomas Walker (Clemson), & Andrew Waters (Clemson)

1. Call to Order, Approval of Agenda, and Approval of January 27th minutes.

John Boyer called the meeting to order at 9 a.m. He announced the meeting would be recorded and recognized Tom Walker for his assistance in running the meeting.

John reviewed the agenda that had been previously submitted to the council.

The submitted agenda was approved unanimously (Appendix A).

The minutes from the previous meeting were also approved unanimously (Appendix B).

John reminded RBC members to let Tom Walker know in advance if they will not be able to attend the meetings; members who cannot attend are responsible for notifying their alternate. If neither a member or alternate are present, and did not contact Tom in advance, the absence is not excused. John reminded members that alternates have full voting and other rights as members; please remind your alternate of this protocol.

John reminded RBC members if they would like to make a presentation at the meeting to notify John or Tom as soon as possible and they will work to schedule a time at an upcoming meeting.

2. Public Comment

John invited members of the public to submit comments. There were no comments submitted from the public.

3. Safe Yield Calculations and Q&A (Alex Butler)

Alex Butler gave a presentation on safe yield calculations. He reported safe yield is almost fully allocated in the Edisto Basin due to several new registrations. The regulations say that if the submittal is within the safe yield, they are deemed eligible. Previously there was no mechanism for calculating the appropriateness of the safe yield registration within the overall safe yield. DHEC is now reconsidering the registration process due to increased volumes being registered. This has resulted in registrations issued below original registration requests based on calculations of overall safe yield and estimated impacts on downstream users under normal flow conditions. Grandfathered permits are not being revised but do play a significant role in estimates for new registrations.

From the Cope Station permit upstream, safe yield is fully allocated. There are 13 million gallons/month left to be registered in the entire basin based on safe yield. Registrations can still be approved, but they are based on how the registrant plans to use the water and the safe yield in that vicinity.

Alex reported that if an agricultural user wanted to get water in the basin above Cope, they would have to go through the permitting process, NOT the registration process.

Jason Thompson noted there is inconsistency between the laws which is permitting actors within the basin to manipulate the registration process.

Clay Duffie said the critical question is whether the farming community is amenable to a change in the law revolving around reasonable use rather than availability. John Boyer noted the concept of reasonable use is the standard in other states. Clay said the term “reasonable use” is applied in groundwater policy but not surface water policy.

Several members pointed out the RBC can make legislative recommendations but must operate within current regulations and law.

Alex Butler said DHEC is updating the registration form to get a better understanding of how the registrant intends to use the water. Still, they don't have the ability to use that information as part of their registration evaluation process. (Further Chat discussion: Appendix C)

4. Edisto River Basin Council and Water Availability and Q&A (Jason Thompson)

Jason Thompson gave a presentation on Water Availability. He asked that as much as possible folks clear their minds of previous discussions and focus on data presented.

Jason's presentation focused on 1.) River Flows and Trends; 2.) Availability and Allocation; 3.) Recommendations Based on Data Presented. He reported the information is mostly available to the public.

To begin the presentation he reviewed the Mission, Visions, and Goals. He noted the vision agreed on was centered around “sustainable management.” He noted the Edisto RBC will set precedent for other basin plans. Our focus is on our basin, however. Problems are not due to any one stakeholder group, so proposed solutions should focus on a collaborative environment in the RBC.

He continued to review a variety of Basin data on flow and availability. Please refer to his presentation for these details and Jason’s conclusions based on the data he presented.

Summary:

- Using median statistics is more predictive of the Edisto Basin and the users that rely on it.
- In allocations discussions based on mean availability, full allocation may actually be “over allocation.”
- As long as discussions on ecosystem impacts are based on mean availability, environmental impacts from withdrawals are likely exaggerated.
- All definitions and discussions around allocation and ecosystem impacts should use median in order to reflect true availability.
- Based on statistical modelling, if full allocation was handed out for the Edisto Basin, low flow conditions would be perpetual.
- Main branch low flows have been decreasing across the basin due to a variety of factors.
- Decreased flows are indicative of water availability across the basin.
- RBC should consider recommendations based on median rather than mean statistics.
- To accurately quantify low flow events, basin scenarios, strategies and plans need to take into account conditions based on medians.

Discussion:

(Further Chat Discussion, Appendix D)

Scott Harder: Moving to median measure is a step in the right direction. The MIF is based on a decades-old study. If you change to Median you are disconnecting from the original scientific basis. The bias between median and average is actually worse in other basins in the state. We need to account for what a move to median in Edisto would mean for other basins.

Jason: Minimum instream flows are not a consideration for current registrants and permits. We need a proposal that is amenable to all stakeholders. He feels median is the best option for all stakeholders.

David Bishop: Use of median would result in less water allocated. Could you take more water at the bottom end of the river?

Jason: Change to median would result in changes but data suggests there is no way to address all stakeholder concerns. Shift to median is based on available solutions and can be explained effectively to all stakeholders.

Jeremy Walther: Should we construct dams to capture high flow conditions.

Jason: Aside from permitting challenges for new dams, dams aren't always a solution when taking into account water quality and other environmental issues.

Mike Mosley: How would these recommendations be received by DHEC?

Alex Butler: From a regulatory standpoint, it would take a regulation change to safe yield to go to median measure. Also for MIF regulations.

Jason: There's no reason why our River Basin Plan can't use median as a metric, aside from regulatory issues.

David Bishop: It may be necessary to develop a plan that 1.) works within existing laws and regulations, 2.) Recommendations based on proposed changes.

Jason: Plan that looks at MIF reasonably ensures our plan will not be altered by others.

Hugo: We should focus on the best plan we can make because we will have limited opportunities to recommend legislative changes.

Jason: Our plan should be talking about recommendations based on best available information. We shouldn't focus on limitations of existing regulations. Our plan should be above traditional arguments of politics.

Landrum Weathers: Do we think really large registrations are unreasonable? Would a reasonable use guideline for new registrations be a recommendation the RBC could make to DHEC?

Jason: We shouldn't ignore those registrations but see them for what they are in allocation recommendations.

Alex Butler: We are in the process of revising the registration form. However, he can't base registration decisions based on optionally supplied information.

Hugo Krispyn: Registrants we are discussing are agricultural regulations. The problem registrations were probably designed to point out the difference between registrants and permittees. We have to acknowledge the agricultural sector is where the issue lies.

John Boyer called discussion to an end at 11:32 and called for a 10 minute break.

5. Review Updated Surface Water Scenario Results and Discussion

John Boyer gave a presentation on the updated surface water scenario result. This information was sent to RBC members last week, so he only gave a broad overview:

- Scenarios were updated to better reflect current information.
- Two changes were made to model output:
 - A 5th percentile low flow performance metric was added.
 - Low flow percentile plots for all strategic nodes were generated.
- An unimpaired flow scenario was run.
- All scenarios were run with no surface water conditions. Result focused on shortages for current users.

6. Meeting Conclusion

Next meeting is tentatively scheduled for March 24. This date may change based on Groundwater model availability and an update on the Environmental Flows Study. We will tentatively keep March 24 on the calendar pending updates on the availability of this information.

John thanked the group for their discussion at today's meeting. Should we meet to continue discussion and develop recommendations? This would probably be a special meeting dedicated to this issue. Several members suggested we are not ready to formulate recommendations at this point. Others recommended soliciting PPAC members for recommendations on this issue. By consensus this suggestion was tabled until later on in the planning process.

The planning committee will report back to the RBC on the date of the next meeting.

Meeting was adjourned at 12:06.

Minutes by: Andrew Waters and Tom Walker

Approved: 5/26/2021

Appendices:

Appendix A: Agenda Approval (Chat box)

09:03:10 From thompsonjm@charlestoncpw.com to Everyone : Yes
09:03:13 From Mark Aakhus to Everyone : Yes
09:03:14 From David Bishop to Everyone : Yes
09:03:14 From Laura Bagwell to Everyone : Yes
09:03:15 From Hugo Krispyn to Everyone : yes
09:03:16 From Eric Odom to Everyone : Yes
09:03:16 From Alta Mae to Everyone : yes
09:03:19 From Becky Davis to Everyone : yes
09:03:20 From Michael Mosley to Everyone : yes
09:03:20 From Hank Stallworth to Everyone : Yes
09:03:21 From Jeremy Walther to Everyone : yes
09:03:23 From robertmcmillan to Everyone : yes
09:03:29 From Alex's iPad to Everyone : yes
09:03:30 From Landrum's iPad (3) to Everyone : yes

Appendix B: Minutes and Summary Approval (Chat box)

09:03:47 From Mark Aakhus to Everyone : Yes
09:03:52 From thompsonjm@charlestoncpw.com to Everyone : yes
09:03:52 From Hugo Krispyn to Everyone : yes
09:03:52 From robertmcmillan to Everyone : yes
09:03:52 From Eric Odom to Everyone : Yes
09:03:53 From Laura Bagwell to Everyone : Yes
09:03:53 From Becky Davis to Everyone : Yes
09:03:53 From David Bishop to Everyone : yes
09:03:54 From Alex's iPad to Everyone : yes
09:03:55 From Alta Mae to Everyone : yes
09:03:55 From Michael Mosley to Everyone : yes
09:03:57 From Landrum's iPad (3) to Everyone : yes
09:03:58 From Hank Stallworth to Everyone : Yes
09:03:58 From jowersj to Everyone : yes
09:04:00 From Jeremy Walther to Everyone : yes

Appendix C: Safe Yield Discussion Chat

09:21:33 From Jeremy Walther to Everyone : Lois Anne and Sedso are the two new registrations that were applied for solely to change the language of the law. They have no intention to install an intake or use any of this water. This should not be considered or discussed by the RBC.
09:22:10 From Michael Mosley to Everyone : What do you mean Pinch Point?
09:23:26 From R. Karthi Karthikeyan (Clemson U) to Everyone : Alex, % exceedances are calculated based on Flow Duration Curves over the years?

09:24:05 From Landrum Weathers to Everyone : How did the registers know exactly how much to ask for/request?

09:24:19 From R. Karthi Karthikeyan (Clemson U) to Everyone : Thank you Alex and John.

09:26:24 From Eric Odom to Everyone : How much does this leave for minimum instream flow under this scenario?

09:27:02 From Landrum Weathers to Everyone : Most reasonable request would be based on the need and economics of a business. Not exactly the balance of what is in the river.

09:27:13 From Michael Mosley to Everyone : Are water returns factored into safe yield calculations?

09:27:22 From Jeremy Walther to Everyone : I believe Lois Anne farms has approx. 500 acres, their registration is capable of irrigating around 30,000 acres. Why is this being factored into the discussion?

09:28:19 From Jeremy Walther to Everyone : Can you unmute me for a moment?

09:32:46 From jowersj to Everyone : If I understand correctly, this has no relationship to the amount of the water actually in the river at any given time.

09:33:22 From Jeremy Walther to Everyone : Could we request that Lois Anne and Sedso farms present to the RBC on their intentions, when they intend to install their intakes, and how they intend to use this amount of water?

09:33:37 From Hank Stallworth to Everyone : As long as the law sets up agriculture to have no constraints whatsoever, I don't know how we can address water use in the Basin under any other set of rules. We can recommend changes to the law, but I believe we are bound by existing law.

09:36:12 From Hugo Krispyn to Everyone : Does "reasonable use" come into the Permit process?

09:36:38 From Laura Bagwell to Everyone : I think we get in trouble if we start second guessing the intent and ability of registrants to use their registered volumes.

09:38:13 From Jeremy Walther to Everyone : Laura, please do your own research on the GIS maps of the land they own and the simple math will tell you if they pumped this amount of water they would be in a lake of water. I'm just using logic.

09:39:09 From Hank Stallworth to Everyone : Sorry if I wasn't clear. As I understand it, the law provides no constraints. I wasn't

09:40:13 From Hank Stallworth to Everyone : wasn't saying that farmers don't have constraints, they clearly do. They're just no legal constraints as I see it.

09:40:30 From Jeremy Walther to Everyone : Alex, if these two new registrations aren't put in within a year are they taken away from them?

09:40:37 From jowersj to Everyone : Lack of reasonable use and reasonable allocation limits are the purpose for being here. Currently we have neither.

09:43:11 From Alex Butler SCDHEC to Everyone : The registrations can be rescinded if the intake is not constructed in a year. Nothing prevents them from resubmitting immediately.

09:44:02 From Jeremy Walther to Everyone : They can be or will be rescinded at the one year mark?

09:44:46 From Alex Butler SCDHEC to Everyone : the word in the regulation is "May"

09:48:26 From Landrum Weathers to Everyone : I am just disappointed that a member of my(agriculture) industry would ask for an unreasonable registration for the purpose of "locking

up” water from any other potential agriculture registration on the entire south fork for, in my opinion, a motive that is not to irrigate crops, livestock or anything of the sort.

Appendix D: Jason Thompson Presentation Chat

10:46:50 From Eric Odom to Everyone : Well Said Jason

10:48:30 From Hank Stallworth to Everyone : I’ve been doing this water business for over 40 years. I just want to say that was a really great presentation. I am so impressed by what Jason put together and will have to re-watch to get it all. Thanks

10:48:32 From Charles’s iPhone to Everyone : Thanks Jason,

10:49:07 From Sahoo to Everyone : This is a great presentation!

10:49:10 From Becky Davis to Everyone : Great job Jason - very clear.

10:49:18 From Ed Bruce to Everyone : Agree!!!

10:49:36 From Hugo Krispyn to Everyone : Clearly, lots of work went into that. Thanks!!

10:51:11 From R. Karthi Karthikeyan (Clemson U) to Everyone : Excellent presentation, lot of thorough analysis. Highly informative!

10:51:23 From Jeremy Walther to Everyone : Thank you for putting this together Jason, do you feel we should encourage constructing dams within the basin to capture some of these high flow times?

10:52:17 From Michael Mosley to Everyone : I would like to hear Alex Butler weigh in on how these recommendations would be received by SCDHEC water permitting department

10:54:23 From Eric Odom to Everyone : Less allocation makes since when the resource is already over allocated.

10:58:33 From R. Karthi Karthikeyan (Clemson U) to Everyone : Jason, great presentation. Are there any plans in place to address high flow conditions to avoid any flooding or erosion downstream?

10:59:51 From Michael Mosley to Everyone : Do we think recommendation from one RBC would be enough to prompt the changes to regulation and/or statute?

11:01:04 From jowersj to Everyone : To Mr. Stallworth's earlier point, as long as grandfathered permittees and registrants remain exempt from MIF, meaningful solutions are limited.

11:01:09 From David Bishop to Everyone : I think it would be appropriate for the RBC to develop a plan that has 2 parts: 1) working within the existing laws and regs and 2) What our recommendations would be if we could change what wanted. This could be a shift to mean or use of biological standards or whatever.

11:01:24 From Sahoo to Everyone : Any thoughts on applying the trend analysis on median? Any thoughts on running the trend analysis on two time series, one prior to the water plant, 1990s, I think, and one after that and see if the correlation between the upper basin and the lower basin holds same?

11:07:43 From Sahoo to Everyone : Thanks for the clarity! I agree!

11:10:39 From R. Karthi Karthikeyan (Clemson U) to Everyone : Jason, great presentation. Are there any plans in place to address high flow conditions to avoid any flooding or erosion downstream?

11:11:21 From Charles’s iPhone to Everyone : I agree with everything Jason just said!.

11:11:30 From Jeremy Walther to Everyone : then why would we not try to capture that amount through impoundments to use at a later date?

11:12:41 From R. Karthi Karthikeyan (Clemson U) to Everyone : Thank you Jason. Thanks John for the clarification. It helps.

11:14:43 From Jeremy Walther to Everyone : Maybe a grant program to incentivize ag producers to build impoundments on their property to store the water when we are at flood flows.

11:14:54 From Eric Krueger to Everyone : Very difficult for impoundments to have any impact on flooding in the coastal plain. We explored this fine-scale in the Waccamaw -- you'd need a 16,000 acre reservoir at an average of 10 foot depth (held empty until a flood came) to cut 1.5 foot of water level off the 200-year event

11:15:45 From Eric Krueger to Everyone : Doesn't mean they aren't useful for other things; just can't really impact coastal plain flooding short of a Lake Marion scale effort.

11:18:10 From Jeremy Walther to Everyone : Eric, we should consider a Lake Marion scale project as well. The fresh water that is flowing into the ocean during these high flow events could feed our water needs within the basin for the duration of low flow times and allow our basin to continue to grow without jeopardizing the flow during low flow times.

11:20:07 From Jeremy Walther to Everyone : Very well said Landrum, I agree with your comments.

11:20:44 From Eric Krueger to Everyone : True, if you could build such a reservoir and maintain it purely for the capture and distribution of water -- no lakefront homes, recreation, etc. Once these stakes become established, the ability to store or move the water gets reduced to a miniscule value. This is played out on virtually all southeastern reservoirs.

11:21:24 From Hugo Krispyn to Everyone : I think there is a lot of value in the Edisto remaining free flowing.

11:23:28 From Jeremy Walther to Everyone : Thank you Alex for working towards this goal, it's a step in the right direction.

11:30:14 From Charles's iPhone to Everyone : I agree with Landrum, make the reasonable use registration simple, current registration data is practically unusable certainly unrealistic

11:34:46 From Landrum Weathers to Everyone : Hugo I agree but you hinted at what was done was to point out the differences in registrations and permits. My entire discussion with the group and Alex was to try and find a solution to eliminate this very thing from happening again.

11:39:18 From Hugo Krispyn to Everyone : I understand...

11:50:03 From Jeffery Allen (SC) to Everyone : Another challenge to establishing a Lake Marion scale reservoir - Marion covers 1,100,000 acres. That takes significant acreage out of the land base for the Edisto Basin.